

ARCHAEOLOGICAL
ORIENTATIONS



ELEMENTS OF ARCHITECTURE

ASSEMBLING ARCHAEOLOGY, ATMOSPHERE AND
THE PERFORMANCE OF BUILDING SPACES

EDITED BY MIKKEL BILLE AND
TIM FLOHR SØRENSEN



Elements of Architecture

Elements of Architecture explores new ways of engaging architecture in archaeology. It conceives of architecture both as the physical evidence of past societies and as existing beyond the physical environment. The book engages with the meeting point between these two perspectives, for although archaeologists must deal with the presence and absence of physicality as a discipline that studies humans through things, to understand humans they must also address the performances, as well as temporal and affective impacts, of these material remains. The contributions in this volume investigate the way time, performance and movement, both physically and emotionally, are central aspects of understanding architectural assemblages. It is a book about the constellations of people, places and things that emerge and dissolve as affective, mobile, performative and temporal engagements.

This volume juxtaposes archaeological research with perspectives from anthropology, architecture, cultural geography and philosophy in order to explore the kaleidoscopic intersections of elements coming together in architecture. Documenting the ephemeral, relational and emotional meeting points with a category of material objects that have defined much research into what it means to be human, *Elements of Architecture* elucidates and expands upon a crucial body of evidence that allows us to explore the lives and interactions of past societies.

Mikkel Bille is Associate Professor at the Institute of People and Technology, Roskilde University, where his research centres on the role of things and technologies from the recent past in contemporary society.

Tim Flohr Sørensen is Assistant Professor at the Department of Archaeology, University of Copenhagen, where his research is focused on archaeological theory and themes in prehistoric and contemporary archaeology.

Archaeological Orientations

Series editors:

*Gavin Lucas, University of Iceland, Reykjavík and
Christopher Witmore, Texas Tech University, USA.*

An interdisciplinary series that engages our on-going, yet ever-changing, fascination with the archaeological, *Archaeological Orientations* investigates the myriad ways material pasts are entangled with communities, animals, ecologies and technologies, past, present or future. From urgent contemporary concerns, including politics, violence, sustainability, ecology and technology, to long-standing topics of interest, including time, space, materiality, memory and agency, archaeological orientations promotes bold thinking and the taking of risks in pressing trans-disciplinary matters of concern.

Providing the comprehensive coverage expected of a companion or handbook, *Archaeological Orientations* aims to generate passionate, lively and engaged conversation around topics of common interest without laying claim to new thematic territories. *Archaeological Orientations* asks contributors and readers alike to take two steps back, to cautiously and carefully consider issues from unforeseen, even surprising, angles. *Archaeological Orientations* embraces theoretical provocation, cross-disciplinary debate and open discussion.

Other titles:

Reclaiming Archaeology: Beyond the Tropes of Modernity
Edited by Alfredo González-Ruibal

Ruin Memories: Materialities, Aesthetics and the Archaeology of the Recent Past
Edited by Bjørnar Olsen and Þóra Pétursdóttir

Coming soon:

Art/Archaeology
Edited by Mike Pearson, Ian Russell and Michael Shanks

Elements of Architecture

Assembling archaeology, atmosphere and
the performance of building spaces

*Edited by Mikkel Bille and
Tim Flohr Sørensen*

First published 2016
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2016 Mikkel Bille and Tim Flohr Sørensen selection and editorial matter;
individual chapters, the contributors

The right of the editors to be identified as the authors of the editorial material,
and of the contributors for their individual chapters, has been asserted in accordance
with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or
reproduced or utilised in any form or by any electronic, mechanical,
or other means, now known or hereafter invented, including photocopying
and recording, or in any information storage or retrieval system,
without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks,
and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

A catalog record for this title has been requested

ISBN: 978-1-138-77541-1 (hbk)

ISBN: 978-1-315-64117-1 (ebk)

Typeset in Bembo and Stone Sans
by Florence Production Ltd, Stoodleigh, Devon, UK

Contents

<i>List of figures</i>	<i>ix</i>
<i>List of contributors</i>	<i>xii</i>
<i>Acknowledgements</i>	<i>xvii</i>
1 Into the fog of architecture	1
<i>Mikkel Bille and Tim Flohr Sørensen</i>	
2 On behalf of form: the view from archaeology and architecture	30
<i>Graham Harman</i>	
PART 1	
Form and temporality	47
3 On shaping buildings	49
<i>Mikkel Bille and Tim Flohr Sørensen</i>	
4 Immanent architecture	53
<i>Lesley K. McFadyen</i>	
5 Big affects: size, sex and Stalinist ‘architectural power’ in post-socialist Warsaw	63
<i>Michał Murawski</i>	
6 Architecture in ruins: Palladio, Piranesi and Kahn	84
<i>Jonathan Hill</i>	
7 Building lives	105
<i>Gavin Lucas</i>	
8 Archaeologies of an informal city: temporal dimensions of contemporary Andean urbanism	121
<i>Alison Kohn and Shannon Lee Dawdy</i>	

Contents

- 9 Brussels' conflicting constructs (photo essay) 141
Mark Minkjan and Ingel Vaikla

PART 2

Atmospheres 157

- 10 A sense of place 159
Mikkel Bille and Tim Flohr Sørensen
- 11 Lighting up the atmosphere 163
Tim Ingold
- 12 Traffic architecture: hidden affections 177
Jürgen Hasse
- 13 Affective architecture in Ardnamurchan: assemblages at three scales 195
Oliver J. T. Harris
- 14 A sense of architecture in the past: exploring the sensory experience
of architecture in archaeology 213
Serena Love

PART 3

Performance and process 231

- 15 Architecture in motion 233
Mikkel Bille and Tim Flohr Sørensen
- 16 Politics of architectural imaging: four ways of assembling a city 238
Albena Yaneva
- 17 Homeless, home-making, and archaeology: "To be at home wherever
I find myself" 256
Larry J. Zimmerman
- 18 Into architecture: house-building and acentred personhood in
Maputo, Mozambique 273
Morten Nielsen
- 19 Sedimentation and sentiment: destabilizing architecture at the
post-industrial Mexican periphery 287
Jason Ramsey

20	Performance architecture: absence, place and action <i>Nick Kaye</i>	302
21	Reframing the ziggurat: looking at (and from) ancient Mesopotamian temple towers <i>Augusta McMahon</i>	321
PART 4		
	Disintegration and unfinishedness	341
22	Architecture becoming new spaces <i>Mikkel Bille and Tim Flohr Sørensen</i>	343
23	Incipient ruination: materiality, destructive agencies and repair <i>Tim Edensor</i>	348
24	For love of ruins <i>Þóra Pétursdóttir</i>	365
25	Unfinishing buildings <i>Michael A. Ulfstjerne</i>	387
26	The disconnected experience of some designed places <i>Jørgen Ole Bærenholdt</i>	406
27	Failure? An archaeology of the architecture of nuclear waste containment <i>Rosemary A. Joyce</i>	424
	<i>Index</i>	439

This page intentionally left blank

Figures

1.1	Blur building	2
1.2	Neolithic Shaqarat Mazyad, Jordan	7
1.3	Temporarily moored mobility, Østre Højby, Zealand, Denmark	9
1.4	Shed stranded in the forest, Jämshög, Blekinge, Sweden	18
1.5	Unfinished office complex, Ordos, Inner Mongolia, China	19
1.6	Unité d'Habitation, Marseilles, France	20
4.1	Ascott-under-Wychwood, Oxfordshire: composite plan of several lower and upper barrow features	54
4.2	Ascott-under-Wychwood, Oxfordshire: longitudinal section showing several lower and upper features of the axial divide of the barrow	54
4.3	Beckhampton Road, Wiltshire: composite plan showing several 'pre-barrow' and barrow features	56
5.1	The Palace of Culture and Science represented in numbers	64
5.2	Stalinist architectural ideologue Edmund Goldzamt's diagram of the 'new Warsaw scale'	68
5.3	<i>The Radiating Palace: Nine Rays of Light in the Sky</i> by Henryk Stażewski (1894–1988)	72
5.4	Work of artist Zofia Kulik: <i>Self-portrait with the Palace</i> (1990) and <i>Guardians of the Spire</i> (1990)	74
5.5	Michał Kadlec is shown the stage mechanism underneath the Congress Hall by PKiN press officer Ewelina Dudziak-Stalęga	78
6.1	Hadrian's Tomb, Giovanni Battista Piranesi, <i>Antichità romane</i> , 1756–1757, vol. 4	86
6.2	Plan of Rome based on <i>Forma Urbis Romae</i> , c. 203–211 AD, Giovanni Battista Piranesi, <i>Antichità romane</i> , 1756–1757, vol. 1	88
6.3	<i>Ichnographia</i> , Louis Kahn's own copy, Giovanni Battista Piranesi, <i>Il Campo Marzio dell' Antica Roma</i> , 1762	89
6.4	Ground floor plan. Louis I. Kahn, Fleisher House, Elkins Park, Pennsylvania, 1959	96
6.5	Model. Louis I. Kahn, Fleisher House, Elkins Park, Pennsylvania, 1959	97
6.6	Perspective sketch of the Meeting House, 1962. Louis I. Kahn, Salk Institute for Biological Studies, La Jolla, California	98
6.7	Entry court. Louis I. Kahn, Salk Institute for Biological Studies, La Jolla, California, 1965	100
7.1	Photograph of the historic turf farm of Grenjastaðir in the north of Iceland, undergoing repair in 2006	109

Figures

7.2	Plan of Skálholt, probably drawn in the mid eighteenth century	110
7.3	Room 1680 under excavation in 2006, facing east	111
7.4	Phase plans for building 1680	112
7.5	The different layers and tempos of building 1680	113
7.6	The oven installation in the north-east part of building 1680 in phase VII with a close-up of one of the ovens	117
7.7	Metabolic pathway of combustion for building 1680	118
8.1	La Paz viewed from above	123
8.2	New Andean architecture	124
8.3	The festival of Alasitas	126
8.4	Incremental house construction	128
8.5	Alto Santa Ana	129
8.6	Alto Santa Ana c. 1970	130
8.7	Rural Altiplano house	131
8.8	Different stages of construction	132
8.9	Changing patios	134
8.10	The new extravagance	135
12.1	Erasmus Bridge in Rotterdam (Netherlands) by Architekten Van Berkel & Bos	185
12.2	Elevated highway in Hagen (Ruhr district, Germany)	185
12.3	Gas station in Fulda (Germany) by Lothar Götz	189
13.1	Swordle Corrach under excavation in 2011	197
13.2	The surviving fireplace in house 4, one part of the assemblage that continues to be territorialised	198
13.3	Architectural elements from Cladh Aindreis	200
13.4	The wall of house 4 at Swordle Corrach, showing the use of both ‘natural’ bedrock and ‘cultural’ building materials in the emergence of this assemblage	202
13.5	The landscape of Swordle Bay	206
14.1	Mixing mud to make mudbricks	216
14.2	Image of Susan’s roadside sign, advertising the straw bale workshop	218
14.3	Partially rendered tyre wall	221
14.4	Glass bottle wall	222
16.1	Image of the Birmingham New Street station, concept design of the station envelope	240
16.2	Birmingham New Street, the image of the station envelope on the construction site	247
16.3	Four layers of movement: sky, public flow, train tracks, information flow	250
16.4	The architects on the construction site, July 2012	252
17.1	IUPUI Cultural Heritage Research Center. A made-up bed with mattress, pillows, blankets, and rug, looking east, with Interstate Highways beyond the fence	257
17.2	IUPUI Cultural Heritage Research Center: the Davidson Street Bridges, looking north	270
19.1	Churchucmil’s site core: the hollowed-out mills, the actively used church, and the defunct landowner’s residence	288
19.2	The old Catholic church, housing the Virgin and the new, developer-built church	289
19.3	Virgin surrounded by signs of her ongoing efficacy	293
19.4	<i>Monte de Zion</i> before a service and one of the painted banners on its walls	295

20.1	<i>A Non-Site, Franklin, New Jersey</i> (1968)	307
20.2	<i>Klein Bottle Playground</i> , 2000	313
20.3	<i>Roof like a liquid flung over a plaza</i> , at the Cannon Centre for the Performing Arts, Memphis 2004	315
20.4	<i>Courtyard in the Wind</i> , Munich 2000	316
20.5	Eduardo Souto de Moura, <i>Sensing Spaces</i> installation	318
21.1	Schematic reconstruction of the third millennium BC ziggurat at Ur, South Iraq	322
21.2	Map of Mesopotamia with ziggurat locations	323
21.3	Ur ziggurat complex, late third millennium BC	325
21.4	Nippur ziggurat complex, third–first millennia BC	326
21.5	(A) A third millennium BC cylinder seal from Kish; (B) Mid-second millennium BC cylinder seal from Ashur; (C) Neo-Assyrian relief from Nineveh	328
21.6	City of Ur, ziggurat and excavated neighbourhoods, early second millennium BC	331
21.7	(A) Vertical isovists of Ur ziggurat; (B) Horizontal isovists of Ur ziggurat	333
23.1	Mingling concrete, metal and seaweed, Derelict naval base, Hvítanes, Hvalfjörður, Iceland	352
23.2	Sapling breaks up wall, quarry building Tillicoultry, Scotland	354
23.3	Abandoned rubber factory, Bryn Wawr, South Wales	356
23.4	Distressed wall, industrial estate, Manchester	362
24.1	Eyri herring station, Iceland: the women’s lodging house to the left	366
24.2	Visitors in Eyri	369
24.3	Ingólfur herring factory, Eyri	371
24.4	The timber stairway in the women’s lodging house, Eyri	374
24.5	Bunk beds and decorated bedside in the women’s lodging house, Eyri	376
24.6	Entangled things, untamed materiality, Eyri	378
25.1	Concept drawing the larger Jiang Yuan Culture and Creativity Zone	388
25.2	The ORDOS 100 plot on site, 2012	393
25.3	The Art Hotel, 2013	394
26.1	The North Cape Hall in midnight sun	409
26.2	View of North Cape Cliff from Knivskjellodden	411
26.3	Hurtigrutens Hus, Stokmarknes	414
26.4	The <i>Finnmarken</i> ship	415

Contributors

Jørgen Ole Bærenholdt is Professor of Human Geography at Roskilde University, where he was Head of the Department of Environmental, Social and Spatial Change from 2011 to 2015. He has also been associated with the University of Tromsø for more than two decades while conducting research in the North Atlantic region, including the UNESCO MOST Circumpolar Coping Processes Project. His research interests are in mobility ('governmobility'), tourism, cultural heritage, spatial designs and regional development. His English-language books include *The Reflexive North* (edited with Aarsæther 2001), *Performing Tourist Places* (with Haldrup, Larsen and Urry 2004), *Space Odysseys* (edited with K. Simonsen 2004), *Coping with Distances* (habil. dissertation 2007), *Mobility and Place* (edited with Granås 2008) and *Design Research* (edited with J. Simonsen, Büscher and Scheuer 2010).

Mikkel Bille holds a MA and PhD in Social Anthropology, material culture studies, from University College London (2009), and has a background in Near Eastern Archaeology (University of Copenhagen). He is now Associate Professor at Roskilde University, Denmark. His current research focuses on the social use of lighting technologies and notions of atmosphere. He has co-edited *An Anthropology of Absence* (2010, Springer Press), *Politics of Worship in Contemporary Middle East* (2013, Brill Publishers), co-authored, in Danish, *Materialitet*, (2012, Forlaget Samfundslitteratur), as well as several articles in international journals including *Journal of Material Culture*, *International Journal of Heritage Studies*, *World Archaeology*, *Anthropological Theory*, and co-edited a special issue of *Emotion, Space and Society* on Staging Atmospheres.

Shannon Lee Dawdy is an anthropologist whose fieldwork integrates archaeological, archival, and ethnographic methods with a regional focus on the U.S. and Gulf of Mexico. She is the author of *Building the Devil's Empire: French Colonial New Orleans* (University of Chicago Press, 2008) and *Patina: A Profane Archaeology* (University of Chicago Press, 2016). The latter considers the role of 'old things' in social life, exploring the intersection of temporality, materiality and narrative. She currently holds the position of Associate Professor in the Department of Anthropology at the University of Chicago.

Tim Edensor teaches cultural geography at Manchester Metropolitan University. He is the author of *Tourists at the Taj* (198), *National Identity, Popular Culture and Everyday Life* (2002) and *Industrial Ruins: Space, Aesthetics and Materiality*, as well as the editor of *Geographies of Rhythm* (2010). He is editor of *Tourist Studies*. Tim Edensor has written extensively on national identity, tourism, industrial ruins, urban materiality, walking and driving. He is currently writing a book on Light and Dark Space.

Graham Harman is Distinguished University Professor at the American University in Cairo. He is the author of numerous books, most recently *Bells and Whistles: More Speculative Realism* (2013) and *Bruno Latour: Reassembling the Political* (2014).

Oliver J. T. Harris is Lecturer in Archaeology at the University of Leicester. His research focuses on questions of the body, affect and assemblage in archaeology especially (though not exclusively) in relation to Neolithic Britain. He is the author (with John Robb and others) of *The Body in History: Europe from the Palaeolithic to the Future*, Cambridge University Press, and has published his research in journals including *American Anthropologist*, *Archaeological Dialogues* and *World Archaeology*. He is the co-director of the Ardnamurchan Transitions Project which examines the long-term occupation of this Scottish peninsula from the Neolithic to the present day.

Jürgen Hasse held a professorship at the Institute of Human Geography in the University of Frankfurt/Main from 1993 until 2015. His main fields of research are spatial socialisation and phenomenological urban research. He is author of numerous books and other publications, most recently *Atmosphären der Stadt* (2012), *Was Räume mit uns machen und wir mit ihnen* (2014), *Der Leib der Stadt* (2015).

Jonathan Hill is an architect and architectural historian. He is Professor of Architecture and Visual Theory at the Bartlett School of Architecture, UCL, where he directs the MPhil/PhD Architectural Design programme. Jonathan is the author of *The Illegal Architect* (1998), *Actions of Architecture* (2003), *Immaterial Architecture* (2006), *Weather Architecture* (2012) and *A Landscape of Architecture, History and Fiction* (2015), editor of *Occupying Architecture* (1998) and *Architecture—the Subject is Matter* (2001), and co-editor of *Critical Architecture* (2007).

Tim Ingold is Chair of Social Anthropology at the University of Aberdeen. He has carried out fieldwork among Saami and Finnish people in Lapland, and has written on environment, technology and social organisation in the circumpolar North, on animals in human society, and on human ecology and evolutionary theory. His more recent work explores environmental perception and skilled practice. Ingold's current interests lie on the interface between anthropology, archaeology, art and architecture. His recent books include *The Perception of the Environment* (2000), *Lines* (2007), *Being Alive* (2011), *Making* (2013) and *The Life of Lines* (2015).

Rosemary A. Joyce is Professor of Anthropology at the University of California, Berkeley, and was engaged in archaeological fieldwork in Honduras from 1977 to 2009. She received her PhD from the University of Illinois-Urbana in 1985. At Harvard University from 1985 to 1994 she served as Assistant Director and Curator at the Peabody Museum and Assistant and Associate Professor of Anthropology. She moved to Berkeley in 1994 as Associate Professor of Anthropology and was Director of the Phoebe Apperson Hearst Museum of Anthropology from 1994 to 1999. She is the author of *Gender and Power in Prehispanic Mesoamerica*, *The Languages of Archaeology*, and *Ancient Bodies, Ancient Lives*, and co-author of *Embodied Lives and Material Relations*.

Nick Kaye is Professor of Performance Studies at the University of Exeter, UK, where he is also a Deputy Vice Chancellor. His books include: *Postmodernism and Performance* (1994), *Art into Theatre: Performance Interviews and Documents* (1996), *Site-Specific Art: Performance, Place and Documentation* (2000), *Staging the Post-Avant-Garde: Italian Performance After 1970* (with Gabriella Giannachi 2002), *Multi-media: video – installation – performance* (2007), *Performing Presence: Between*

Contributors

the Live and the Simulated (with Gabriella Giannachi, MUP, 2011) and *Archaeologies of Presence* (with Gabriella Giannachi and Michael Shanks, Routledge, 2012).

Alison Kohn (PhD, University of Chicago 2010), Executive Director of Prefossil (a non-profit advocating for urban sustainable preservation), has conducted ethnographic research on informal urbanism in La Paz, Bolivia for the past 15 years. Kohn also conducted and directed archaeological fieldwork focusing on Iron Age and Roman Southern France for ten years between 1998 and 2009. In addition to her work on vernacular architecture, incremental building, informal urbanism, and urban planning, major theoretical approaches have been focused on the production of space, colonialism, postcolonialism, material culture, political aesthetics and indigeneity. She is presently writing a book entitled *Boomtown Vernacular: Indigenous Aesthetic Politics and Emergent Architectures in La Paz/El Alto, Bolivia*.

Serena Love is a lecturer in archaeology in the School of Social Science, University of Queensland. Her research centres on mudbrick architecture in the Eastern Mediterranean, focusing on sites from the Neolithic through the Bronze Age in Turkey, Israel and Egypt. She uses geoarchaeology to investigate the social aspects of architecture and is interested in the experience of dwelling in the past.

Gavin Lucas is Professor of Archaeology at the University of Iceland. His main research interests lie in archaeological method and theory and the archaeology of the modern world. His most recent book was *Understanding the Archaeological Record* (CUP, 2012) and he is co-editor of the Archaeological Orientations series for Routledge. Recent fieldwork in Iceland includes excavations at a postmedieval episcopal manor as well as an abandoned industrial fishing village, the latter as part of a larger collaborative project investigating modern ruins.

Lesley K. McFadyen is Lecturer in Archaeology at Birkbeck, University of London. Her main interests include the relationship between archaeology and architecture, and experiences of building and construction in the past. She is currently interested in redefining design practice and creativity in prehistory, and participates in design studio teaching in Departments of Architecture. Themes that she explores are thinking-through-drawing, drawing lines and time, and drawing the materiality of time in materials. She is working on a book-length project *Between Material Culture, Architecture and Landscape – Archaeology, Architecture and Scale* for Oxford University Press.

Augusta McMahon is Senior Lecturer at the University of Cambridge, Department of Archaeology. Her PhD is in Mesopotamian Archaeology from the University of Chicago. She has excavated widely in Iraq, Syria, Turkey and Yemen and has been Field Director of the Tell Brak Project in Syria since 2006. Her research focuses on late prehistoric and historic Mesopotamia, particularly issues of early urbanism and urban sustainability, social stress and warfare, political economy, and settlement archaeology. She is also interested in empirical and phenomenological approaches within sensory archaeology, particularly exploration of the past lived experience of monumental architecture.

Mark Minkjan is an urban geographer and architecture critic. He is Editor in Chief at Failed Architecture and partner in Non-fiction, an office for cultural innovation based in Amsterdam. For urban think-tank CITIES, Mark has edited and contributed to two books: *Farming the City* and *We Own the City*. He writes about urban issues for various media, trying to persuade readers

to look at architecture not as a merely aesthetic undertaking, but as an outcome of the many tangible and intangible forces that shape the built environment.

Michał Murawski is an anthropologist of cities and architecture. His research revolves around an interest in how cities grapple with socialist-era legacies in their built environments and everyday lives. Murawski completed his PhD at Cambridge University in 2013, and is currently a Mellon Postdoctoral Fellow at the School of Slavonic and Eastern European Studies, University College London. His current research projects focus on Stalinist legacies in the architecture, city planning and municipal governance of Putin-era Moscow.

Morten Nielsen is associate professor at Aarhus University and the coordinator of the interdisciplinary research network Urban Orders (URO). His first major fieldwork project was in Recife, Brazil (2000–2001) among community leaders in poor urban neighbourhoods. Since 2004 he has been working in Mozambique doing ethnographic research in peri-urban areas of Maputo as well as in rural areas of Cabo del Gado, the northernmost region. Based on his fieldwork in Brazil and Mozambique, he has published on issues such as urban aesthetics, time and temporality, materiality, relational ontologies and political cosmologies. In 2013 he commenced a new research project on land rights and ‘collapsed futures’ in the Scottish highlands and islands. He is currently completing a book manuscript with Morten A. Pedersen and Mikkel Bunkenborg, University of Copenhagen, based on a comparative ethnographic research project on Chinese infrastructural interventions in Mozambique and Mongolia. His monograph *Bricks of Time: Inverse Governmentality Through Informal House-building Projects in Maputo, Mozambique* is forthcoming with Berghahn.

Bóra Pétursdóttir holds a PhD in Archaeology and is currently postdoctoral research fellow at the Department of Archaeology and Social Anthropology, The Arctic University of Norway, Tromsø. Her main research interests lie in contemporary archaeologies and archaeological theory and practice. Together with Bjørnar Olsen she edited the volume *Ruin Memories: Materialities, Aesthetics and the Archaeology of the Recent Past* (2014).

Jason Ramsey recently earned his PhD in Anthropology at the University of Chicago and is a Visiting Professor of Anthropology at University of the Fraser Valley. His main research interests involve cultural imaginaries of ‘ruin’ and political economies of patrimony in Latin America. His dissertation, entitled *Spaces of Possession: Ruin and Redemption at the Mexican Periphery* examines the ambiguities of abandonment and ethics of heritage development at former hacienda estates in Yucatán, Mexico.

Tim Flohr Sørensen is an assistant professor at the Saxo Institute, University of Copenhagen. He is an archaeologist, and has done research on topics related to death and decay, movement, affect and materiality at cemeteries from prehistoric and contemporary Denmark. He received his PhD degree from Aarhus University in 2010, and held a postdoctoral position at the University of Cambridge from 2010–2012. He was an assistant professor at Aarhus University from 2012–2014 before moving to the University of Copenhagen. He has co-edited *An Anthropology of Absence* (2010, Springer Press) and co-authored *Materialitet*, (2012, Forlaget Samfundslitteratur), as well as articles in international journals including *Archaeological Dialogues*, *Journal of Material Culture*, *Journal of Social Archaeology*, and he has co-edited a special issue of *Emotion, Space and Society* on ‘Staging Atmospheres’. He is also the co-editor of a forthcoming volume on *Materialities of Passing* (Ashgate).

Michael A. Ulfstjerne has a background in anthropology and received his PhD from the Department of Cross Cultural and Regional Studies, Copenhagen University. Throughout 2008–9 he carried out fieldwork on Chinese creative industries, exploring local perceptions of originality and imitation, and more broadly how the commercialisation of the cultural sphere affects the practices of contemporary Chinese artists. In his dissertation – *Unreal Estate: the Social Life of Temporary Wealth in China* – he traces a municipality in China’s northern frontiers from boom to bust, focusing on such topics as complicity, debt, the material debris of bubble phenomena, and the potential gains of exploring surfaces in anthropology.

Ingel Vaikla is a photographer and filmmaker. In her work she mostly questions the relation between architecture and its users, and the representation of architecture in camera based mediums. Ingel was part of the team representing Estonia at the 2012 Venice Architecture Biennale with a contribution titled ‘How Long is the Life of a Building?’. She writes for design and architecture magazine *Idee* and organises film screenings for the International Interior Architecture Symposium SISU.

Albena Yaneva is Professor of Architectural Theory and Director of the Manchester Architecture Research Centre (MARC) at the University of Manchester, United Kingdom. She is the author of several books: *The Making of a Building* (Oxford: Peter Lang, 2009), *Made by the OMA: An Ethnography of Design* (Rotterdam: 010 Publishers, 2009) and *Mapping Controversies in Architecture* (Ashgate 2012), and editor (with Alejandro Zaera-Polo) of *What is Cosmopolitical Design?* (Ashgate 2015). Yaneva is the recipient of the RIBA President’s award for outstanding research (2010). Her research is intrinsically transdisciplinary and crosses the boundaries of science studies, cognitive anthropology, architectural theory and political philosophy.

Larry J. Zimmerman is Professor of Anthropology and Museum Studies at Indiana University–Purdue University Indianapolis. He is also Public Scholar of Native American Representation at the Eiteljorg Museum of American Indians and Western Art. His research interests focus on the archaeology of North American, contemporary issues of American Indians, Indigenous archaeology and issues in cultural heritage.

Acknowledgements

We are deeply indebted to Gavin Lucas and Christopher Witmore for providing us with the opportunity to publish this volume. To us, the *Archaeological Orientations* series offers the potential for seeking new avenues in archaeology, exploring what the archaeological gaze can offer to a theme such as architecture approached by so many other disciplines from different perspectives. During our work with the volume, Gavin and Chris have been immensely helpful, rightfully critical and encouraging. Their insights and thorough critique of the contributions have helped form this book through and through. Tim Edensor, Jonas Larsen, Kirsten Simonsen, Jørgen Ole Bærenholdt and David Goehring have been particularly helpful in commenting on earlier drafts of the introduction, and they have engaged in productive discussions about architecture, pasts and people. We are grateful to the contributors, who took up the challenge and time to contribute, and for challenging our initial conceptions of the relationships between humans, places and architectural form. Finally, we would like to extend our gratitude to Lola Harre at Routledge, who has been crucial in securing a smooth editorial process.

Mikkel Bille and Tim Flohr Sørensen
Copenhagen, Denmark, May 2015

This page intentionally left blank

Into the fog of architecture

Mikkel Bille and Tim Flohr Sørensen

Introduction

At the 2002 national Expo in Switzerland an extraordinary architectural structure rose from Lake Neuchatel at the site of Yverdon-les-Bains. The architects Elizabeth Diller and Ricardo Scofidio had developed *Blur*: a pavilion 100 metres wide, 60 metres deep and 20 metres high, with two long ramps leading up to a platform, where the visitor could walk around. The pavilion was, however, not a completely ordinary architectural building. There were no walls. Instead, a computer guided water pumping system sprayed tiny water particles into the air through nozzles in a steel scaffolding system, while taking the weather condition into account, thereby creating an artificial fog.

The architects' aim was to de-emphasise the solidity and stability of architectural form by claiming that '*Blur* is not a building, *Blur* is pure atmosphere, water particles suspended in mid-air. The fog is a dynamic, constant battle between artificial and real weather forces' (Diller and Scofidio 2002: 325). While the pavilion of course did consist of solid material forms, such as steel, something else was also at stake. Its form was a continuous coming together of the technological challenges to construct such amorphous architectural structure, the weather conditions, and the visitors' ability to engage in the sensuous experience of decreased visibility, breathing in the water particles, feeling it on their skin, listening to the sounds, and sensing the humidity. It was an architectural construction without a solid boundary. It was characterised by unfinishedness by constantly morphing. *Blur* was also temporal in another sense, since it was part of the Expo, thus not intended to be a permanent structure. It was a remarkable architectural phenomenon: a fog of architecture (Figure 1.1).

Now, imagine that *Blur* had actually been allowed to remain in place and eventually wither away, like much architecture in the archaeological record, and that a group of future archaeologists would come by centuries or millennia from 2002: What would they make of this building? Ordinarily, archaeological practice tends to focus on documenting solid materials left on the ground or their negative imprints: remains of walls and foundations outlining a building. From this evidence a building is then 'reconstructed' in more or less accurate manner. This documentation then sheds light on the size of the building, its layout and rooms, which offers a contextual framework for understanding the objects located within and around the building. But in the case of *Blur*, the few postholes that would remain from the large amount of steel



Figure 1.1 Blur building

Source: Norbert Aepli, Wikicommons

sustaining the structure will tell you very little about the shape of the architecture – *Blur* cannot be reduced to the steel frame. Rather, *Blur* consisted in the water being pumped out, and in the way attention was directed to the weather conditions to shape an artificial fog. Even if one could argue that the visitors' feet still rested on something solid, it was more than merely a material encounter: it was an atmospheric encounter in both an existential (as in sensation of place) and an environmental (as in meteorological) sense of the term.

The pavilion had a brief life, and it was in essence a temporary space created for the purpose of the Expo. It was intended to be an atmospheric space that conjoined the affective human being with the elements of water and wind offering *direction* but little *orientation*. It was highly temporal by changing shape relentlessly, and it was performative by resting on people's interaction for its true realisation. Furthermore, a central part of the media attention that *Blur* received rested on the process, rather than merely the product. In the time leading up to the Expo, public attention largely focused on the financial problems and technological difficulties accompanying its construction (Diller and Scofidio 2002).

Blur is a remarkable and highly unusual building. We use it as an opening example in a book on architecture set in an archaeology series to highlight our aims: it is of course – as so many other books in archaeology – about the materiality of architecture and built space. Yet, many approaches to architecture tend to depart solely from or focus exclusively on the functionality and aesthetics of the tangible: the physical architectural components of walls, fenestrations, foundations and so forth. This tendency characterises archaeological studies of architecture in particular. For some archaeologists, the tangible aspects may seem to be the 'natural', or only, way to set off towards an archaeological understanding of architecture in order to figure out the 'social', the 'economic', the 'symbolic', or the 'technical logics' of built space. How were the pyramids built? Who built them? For what purpose? Questions like these have virtually

always played a prominent role in archaeology, and rightfully still do so. This book, however, seeks to complement such questions with a line of inquiry that pursues architecture as a process and as a sensory and affective experience, *enabling* rather than merely *reflecting* ideas, hopes, practices, politics, economy and social life. Through such performative processes, different aspects of architecture and human lives come together and unfold in sometimes strange atmospheric assemblages such as *Blur*.

Some readers may recall Martin Heidegger's famous contention that 'humans must ever learn to dwell' (1971: 161). The quote points to how the nature of 'dwelling' relies on a relentless attunement of one's state of mind towards one's situatedness in the world. Attunement is shaped through an entanglement of shifting moods, meanings, things, weather, as well as a plethora of other sensuous encounters. These entanglements frequently unfold at the very margins of our consciousness, often lacking ontological clarity (Heidegger 1962: §29; see also Harris and Sørensen 2010). We believe that there is still a pressing need, also beyond archaeological approaches to architecture, for complementing the presentist bias on the tangible with attention to intangible and ontologically vague phenomena tincturing people's lives (Bille et al. 2015; also Bille 2015b; Sørensen 2016). Beyond the steel framework of a building, we need to enter into the fog of architecture and adopt the ontologically indistinct as the starting point for tracing the connections shaping the tangible and the intangible aspects of human lives. In other words, the aim of most of the contributions in this book, and particularly in this introduction, is to highlight the potentials as well as the challenges of taking the intangible, the absent and the processual as a point of departure. The contributions do this in very different, sometimes contradictory, ways, and to varying degrees, allowing us to confront architecture as assembled and emergent, by being more than the individual parts. At the same time – and as a consequence – architecture also hinges on processes of fragmentation and disintegration with a very material expression. In short, the contributions in this book explore in different ways how architecture emerges and disintegrates through tangible as well as intangible elements and processes.

Outlining the elements of architecture

Architecture is the assemblage of elements. The aim of our introduction is to lay down some of the strengths and challenges in such an approach to architecture as an assemblage of elements. As we elaborate below and this chapter attests to, it is the assembling of people, places, things, anticipations, time, sensation, seasons, weather, memory and meaning, which is always in some sense temporary and clouded. This ontological vagueness compels us to explore how, why and when all the different elements come together, or when they fail to emerge? What effects do the elements have, and what happens to them in the process of assembling or dissolving? This collection of chapters offers avenues for how the study of architecture may seek new orientations. The contributions to this volume thus explore elements of architecture through a variety of themes that we have identified as 'form and temporality' (Part 1), 'atmospheres' (Part 2), 'performance and process' (Part 3), and 'disintegration and unfinishedness' (Part 4). These themes will be addressed in the shorter prefaces to each of the four parts of the book. The individual chapters are also contextualised in these prefaces, rather than all explored at length here in this main introduction. Graham Harman's contribution and object-oriented approach is discussed here as his chapter explores many of the overall concerns in this book, such as form and materiality.

The contributions are very diverse in nature, offering a broad variety of approaches to architecture, its emergence, its unfolding and dissolution. At times, these are even conflicting analytical and theoretical premises behind the various investigations of architecture. The diversity of approaches to architecture represented in this volume is a quality that we have wished to

sustain, in the spirit of the Archaeological Orientations series, rather than promoting one homogeneous take on architecture.

To this end, we see a lot of potential for a dialogue between archaeology and other disciplines, which is illustrated by around half of the contributions coming from outside archaeology. First and foremost, this exchange between disciplines has to do with a productive juxtaposition of different temporal and spatial scales. In the contributions to this volume, a number of non-archaeological scholars zoom in on architectural processes that occur within a brief time span, while archaeological contributions explore longer term dynamics. Some contributions, both archaeological or those deriving from other disciplines, examine large spatial complexes, while others focus on intimate spaces. The combination of these perspectives indicates that architecture always works by amassing disparate scales that escape compartmentalisation into discrete functions (for a discussion of scales, see Harris; McMahon; Murawski, this volume). Particularly the contributions from disciplines other than archaeology highlight the power of momentary and intimate connections between architecture and performances of personhood, politics or aesthetics (Bærenholdt; Kaye; Minkjan and Vaikla; Murawski; Nielsen; Ulfstjerne; Yaneva, this volume). Other chapters are distinctly archaeological, exploring not only how the discipline can approach architecture in the past, but also how an archaeological approach can contribute to a broader interdisciplinary appreciation of the built environment in the present (Kohn and Dawdy; Love; Pétursdóttir; Zimmerman, this volume) or even the future (Joyce, this volume). Whether adopting or referring to an archaeological perspective or not, all chapters thus add insights and raise new questions to expand our understanding of architecture in the past, present and future.

In the following, we first identify some of the strengths in archaeological studies of architecture, but also point out some of the disciplinary challenges that compel us to pursue other avenues for studying the built environment in archaeology. We move on to discussing how we see the notion of ‘elements’ as offering precisely such purchase. We then connect elements with historic and recent advances in assemblage theory, before finally turning to discuss issues of dissolution and ‘dis-assemblage’.

The making of architecture in archaeology

Architecture has constituted one of the cornerstones of archaeology since the early days of the discipline (Delougaz *et al.* 1967; Glassie 1975; Parker Pearson and Richards 1994). It has been commended as ‘arguably the single most important artefact for reconstructing past societies’ (Samson 1990a: 2). Archaeological approaches to architecture are tremendously diverse. They range from exploring the techniques of building, offering knowledge often used in contemporary restoration work, to architecture as symbolic spaces, representing social order and cosmology (e.g. Borić 2008; Bradley 1998; Kent 1993; Moore 1996; Parker Pearson and Richards 1994; Steadman 1996; Tilley 2004). One tradition particularly inspiring many archaeologists reaches back decades and focuses on architecture, homes, monuments and landscape by addressing how the built environment offers a means of orienting oneself as human in relation to landscape and nature (e.g. Bradley 1993; Hodder 1990; Richards 1996; Tilley 1994). In the 1980s and 1990s there was a particular emphasis on crossing regional and temporal distinctions that led to a variety of fruitful theoretical and methodological discussions (e.g. Blanton 1994; Kent 1993; Parker Pearson and Richards 1994; Samson 1990b). Since then, a number of anthologies and special issues have addressed new theoretical perspectives on themes in the archaeology of architecture, although attention has waned (e.g. Beck 2007; Foster and Parker 2012; Hofmann and Smyth 2013; Müller 2015; see also World Archaeology 2009, vol. 41, issue 3 on the archaeology of buildings).

In approaching architecture, the issue of time is central to many of the above-mentioned studies and to contributions to this volume (in particular chapters in Parts 1 and 3). The diachronic perspective, focusing on changes over time, inherent to archaeological methodology, helps in shaping archaeologists' way of thinking about architecture, and in extension human life-worlds. In the early days of the discipline this was often addressed as an evolutionary progression from cave dwellings and those tents and 'primitive huts' that seem to connect seamlessly with nature, to more and more distance and seeming opposition to nature as dwellings became a human project and projection (Buchli 2013: ch. 1). Considering architecture as a protective shell against the 'the wild' has thus constituted a strong subtext in the archaeological attitude to architecture (e.g. Goring-Morris and Belfer-Cohen 2008: 277; Watkins 1990: 344). Such work resonates with approaches to architecture in other disciplines. Architectural historian Leonardo Benevolo for instance states in his seminal work on the city and urban architecture that dwellings in the Palaeolithic assumed the role merely of sheltering the fragile human existence against the formidable and hostile environment, while dwellings in the Neolithic became an expanded cultural project (Benevolo 1980: 7–10).

The vast temporal scales lend themselves to comparative studies of the diversity of ways in which human beings adapt, mould and engage with the environment they inhabit. Beyond the long-term perspective on architecture offered by archaeological methods, there is also a very meticulous attention to detail in archaeology. Recent studies, for instance, using a micro-morphological approach to layers in plaster floors or walls, shed light on the material practices and rhythms of inhabiting and maintaining spaces in the past (e.g. Boivin 2000; Müller 2015). Combining and juxtaposing scales offers archaeology a particular potential for studying architecture. It may address both the macro-scale of seeing changes over centuries, even millennia, and an avenue to a view of past lives in the micro-scale (Harris; Lucas, this volume).

Architecture beyond typology

One way of methodologically organising the vast amount of archaeological data across extensive temporal frameworks is through a 'typology'. This refers to the time-consuming practice of classifying archaeological finds into 'types'. It implies that physical remains, in this case of buildings, are sorted into categories that may either rest on *morphology* (such as rectangular, circular, 'D-shaped', and so on), or on perceived *function* (e.g. monument, palace, household, fortification, shrine, and so forth). Typology based on morphology is frequently associated with evolutionary approaches to design, implying that a given form evolves through time. This means that differences in material form can be used to trace diachronic relationships between objects. Typology then becomes a standard device in archaeology for dating finds in a relative chronology. For instance this is seen in South Scandinavian prehistory in the evolution of the 'two-aisled' long house into the 'three-aisled long house' (e.g. Nielsen 1997; Tesch 1991) or the cross-regional development from 'circular structures' to 'rectangular houses' (e.g. Bradley 2012; Flannery 2002). In the archaeological record in the early Neolithic Middle East, also known as the Pre Pottery Neolithic era, there is an evident shift from round to square architecture and subsequent division of spaces that has offered interpretations as to how social organisation and development of private spheres are reflected in architecture (e.g. Byrd 1994; Rollefson 1997; Saidel 1993; Schirmer 1990). The different typologies of architecture become synonymous with different functional and social domains that are often extrapolated to reflect different segments of society, different identities or different social institutions.

Also, one subset of issues arising in archaeological research is the common tendency to look at architecture in a functionalistic, compartmentalised fashion, separating buildings and

constructions into rough categories of ‘domestic’, ‘palatial’, ‘sacred’ and ‘mortuary’ architecture (e.g. Damgaard 2013; Driessen 1989; Fogelin 2004; Goring-Morris and Belfer-Cohen 2013; Irvine *et al.* 2012; Jamieson 2002). The typologies of such discrete and separable domains may indeed exist within various societies or form community spaces with different frames of reference. The labour that the typologies do is to fixate a perceived architectural form, turning it into a finite object of comparison with another architectural form, that may in turn suggest differences between regions or change over time. Studies of the origins and social effect of evolving private space and villages are illustrative of this tendency (e.g. Bandy and Fox 2010; Düring 2001; Flannery 1972; Steadman 2000; Watkins 1990).

Despite the insights offered in such studies, we also contend that architecture is rarely – if ever – a socially and functionally compartmentalised occurrence. A focus on the continuous practices and heterogeneous performances of tangible and intangible elements of architecture goes to show precisely this point (Kaye, this volume; also Kolarevic and Malkawi 2005). Built spaces offer a number of factors for their realisation, cutting across aspects of utilitarian, social, symbolic and economic interests. For example, temples of New Kingdom Egypt may have been devoted to the worship of a particular deity, but to sustain their economic upkeep they also included extensive storage facilities and residential areas for temple priests (Kemp 2005). In compartmentalising or conceptualising architecture through fixed or narrow typologies, one may end up ignoring the multitude of uses and perceptions of building and buildings occurring simultaneously (Banning 2003; Kamp 1993).

Figuring architecture

Through its very methodology – documentation, drawing plans and making typologies – archaeology stabilizes architecture as a bounded and tangible object. Yet as Victor Buchli notes:

Once the complex sensual experience of space can be reduced to line, the universal forms of spatiality, and architectural experience can be stabilized. The stable line of print culture produces the means of comparability and, with that, the means by which universality of form and function can be surmised.

(Buchli 2013: 54)

In archaeological excavation reports, articles and books, including this one, architecture is most often presented in a graphic or cartographic perspective in terms of photographs, lines and birds-eye drawings. In the ground plan, what is highlighted is the edges of solid, bounded materials at the expense of the mud, plaster and mortar holding the building together (see Figure 1.2). These relatively unbounded materials are documented elsewhere in different form, such as in mortar samples and laboratory analysis. Even when absent, such as when parts of a plaster floor has vanished, the documentation of its absence in fact accentuates the plaster rather than the presence of a formless or nameless matter. Nonetheless, it is the ground plan that becomes exemplary of a specific architecture, not the mortar or more experience-oriented aspects of being present in a plastered room. As Lesley McFadyen (this volume) notes, this ‘totalising perspective of archaeological drawings is illusory’. Furthermore, even when evidence of a section of a wall is scarce and only preserved partially, walls may still be mapped in the plan by inference, for instance as a stippled line, thus fashioning a building out of what may never have existed in that way.

The indicative plan drawing may in a sense come to stand in as the only evidence of the actual building since archaeological excavation by definition is destructive. Archaeological

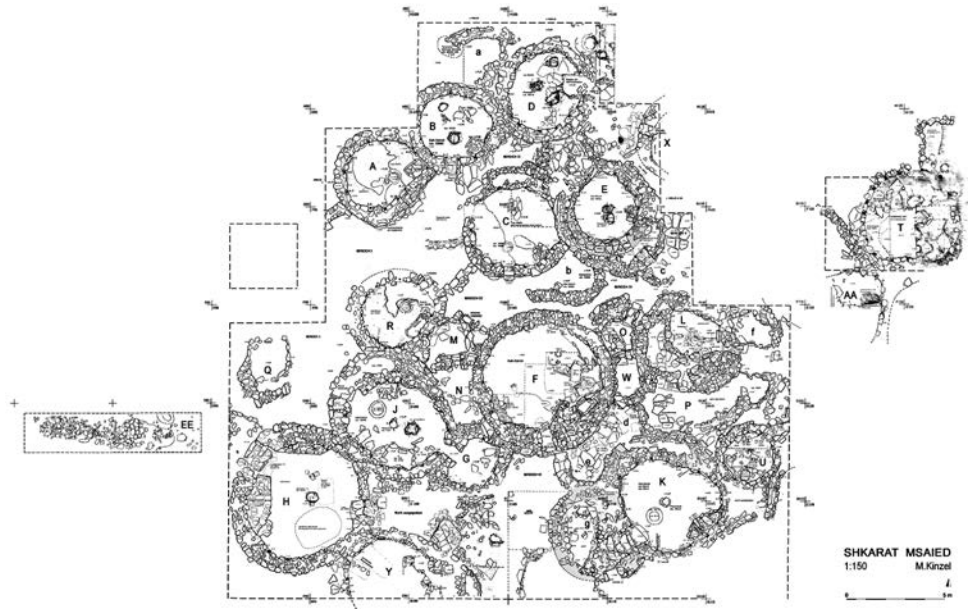


Figure 1.2 Neolithic Shaqarat Mazyad, Jordan

Source: After Kinzel, 2013, p. 323, plate 2.6

architecture in this way *becomes* the plan drawing and documentation. Searching for ways to prevent destruction by excavation has turned the focus towards remote sensing techniques. Yet they similarly produce images of architecture resting on the lines of a birds-eye view. However, as Albena Yaneva (this volume) points out, architectural images make people think architecturally, even if her point is directed towards the future, rather than the past. This gap between past, present and future somehow resembles the proliferation of architectural photography, where buildings are often represented devoid of people, and without the messiness of everyday life, weather or wear. Instead, architecture is frequently portrayed as autonomous and pristine, as an abstract order ‘out of time’ as Jeremy Till phrases it (2009: 77). ‘Architecture’, in this sense, is an *ontological* achievement, and may even be an ontological ‘dumping’, as it involves the enactment and reduction of an experience into a tangible thing (see also Fariás 2010: 15).

The production of this ontology is thus also a question of how architecture is configured in the disciplinary methodologies for representing and documenting observations. While anthropology, for instance, works largely by way of narrative, archaeology works through records, and disseminates architecture through drawings and plans (a difference that is represented in a number of the contributions to this book). One could thus argue that it is precisely through recording, documentation and archaeological plans that architecture emerges as a bounded object. The archaeological gaze hence tends to turn ‘building’ from verb to noun, and in doing so transforms it from active process to passive object (Ingold 2013: 47). As Tim Ingold notes, ‘Movement is stilled, and where people had once laboured with tools and materials, there now stands a monument to human endeavour, solid and complete’ (Ingold 2010: 161). Ingold further argues that:

buildings are never really finished. . . . The work of building goes on, in the day-to-day activities of repair and maintenance, and in the face of the inundations of animals, plants and fungi, and the corrosive effects of wind, rain and sunshine.

(Ingold 2010: 161–162)

This is of course not a surprise to archaeology, when considering studies of formation processes, where ‘cultural’ and ‘natural’ dynamics contribute to the ongoing metamorphosis of any locale, building or object (Schiffer 1987). Here, ‘completion is, at best, a legal fiction’ (Ingold 2013: 48).

The ontological fixation of architecture may run the danger of overlooking the ephemeral, unbounded and vague spaces and materials that emerge even within the seemingly most fixed and monumental of buildings (Hill 2006; McMahon, this volume; Murawski, this volume). Within archaeology, McFadyen in particular (e.g. McFadyen 2008, 2010, 2013) has contributed significantly to understanding past architecture by exploring new avenues for researching the complex interplay of preserved architectonic remains and the ephemeral spaces of past occupations. In her work, she identifies a number of challenges to archaeological studies of architecture, among these transient and temporary modes of dwelling. She promotes the study of process and material as just as important as form and type (although see Harman, this volume, for a different approach to the form vs matter discussion). McFadyen’s work confronts dominant approaches to architecture that have often been captured in archaeology as the solid, built environment. The problem McFadyen identifies in the archaeology of architecture, and we may add in other disciplines as well, is the tendency to assume that architectural form reproduces itself and that buildings – as a consequence – can be represented as fixed and durable. Instead, McFadyen encourages the study of architectural practice rather than form, which means that we should begin with the building material and not the final object, because the relationship between material and form are emergent (McFadyen 2013: 140; see also Kohn and Dawdy; Lucas; Nielsen, this volume).

Several examples from archaeology and social science remind us that this tendency to see architecture as permanent and solid is indeed in need of critical rethinking. Think only of the impermanent architectures of contemporary circular economies and recycled building principles (Bishop and Williams 2012; Cairns and Jacobs 2014; Ziehl *et al.* 2012), the temporary structure of nomadic dwellings (Cribb 1991; Prussin 1995), temporary spaces and stages constructed for festivals and other cultural events (Oswalt *et al.* 2013), the alleged spatial and cultural uprootedness of late modern urbanism (Augé 1995; Boomkens 1999; Cresswell 2011), the relatively ephemeral shelters built by or for homeless people (Heben 2014; Wasserman and Clair 2009; Zimmerman 2013; this volume), the camps made by or for refugees or people in a state of diaspora (Turner 2005), or the very ruination that characterises many if not most archaeological and historic buildings (Lucas 2013; this volume; Olsen and Pétursdóttir 2014; Pétursdóttir this volume). Such themes highlight the importance of attending to the temporal character of architecture and the performativity of moving buildings and people (see Figure 1.3).

Reflecting architectures

The reason for the prominence of architecture in archaeology (and anthropology), beyond the very abundance and potency of the monumental, is that it can be used to highlight how aspects of the built environment may be read as indicative of more deep-seated cultural attitudes to space. In the words of Amos Rapoport, ‘house form is not simply the result of physical forces



Figure 1.3 Temporarily moored mobility, Østre Højby, Zealand, Denmark

Source: Tim Flohr Sørensen

or any single causal factor, but is the consequence of a whole range of socio-cultural factors seen in their broadest terms' (Rapoport 1969: 47; see also Carsten and Hugh-Jones 1995). This attitude to the built environment has in part served to exceed simplistic understandings of dwelling as a basic necessity to shelter oneself against the climate (Rapoport 1969: 18). For Rapoport, architecture's form is not determined by mechanic functional needs, but hinges on a unity of physical requirements and sociocultural factors, such as perceptions of threat, economy, religion and social meaning. Such approaches have furthermore stimulated studies of architecture that are inspired by Bourdieu's theory of practice (1977), where structural relations in the social context are extrapolated from the built environment (e.g. Austin and Thomas 1990; Johansen *et al.* 2004; Whitridge 2004; Yates 1989).

However, more recently, Albena Yaneva (2013: 25–37) has critically pointed out that what the approaches outlined above seek to do is to *explain* an architectural form by referring to its social arrangements or conditions. Such an approach implies searching for cause and effect, or conversely, that social forms are in an instrumental relationship with architecture. This may be illustrated by Michel Foucault's (1977) seminal reading of Jeremy Bentham's panoptic prison of the eighteenth century, where the architectural design makes the prisoner aware that s/he may be under surveillance at all times. This leads to a strong sense of self-discipline and the internalisation of power relations. Architectural form is thus seen as instrumental in creating a particular kind of subjectivity. The search for a causal relationship between architecture and social practice, however, separates the social and architecture, where 'meaning is at a cosmic distance from materiality' (Yaneva 2013: 37). This approach has also been (indirectly) critiqued by Victor Buchli, for belying 'the continuity of cosmologies and structures believed to be

“inscribed” within the material world waiting to be “detected” or “recovered”’ (2000: 6). Buchli’s own work shows how architecture both ‘represents’ social conditions, while also giving life to contradictions and disjunctions (see also van der Hoorn 2009). Even more critical, Yaneva argues that studies in search of cause and effect, ‘still ignore the multiple dimensions of materiality, the pitfalls of design and construction, the technological challenges of building processes’ (2013: 37). In other words, the problem is that one particular category (e.g. the material) is used to explain another category (e.g. the social) by neutralising or instrumentalising that which in essence is dynamic and an unpredictable process of construction: aspects of multiplicity, the material agency of disintegration, and the unfinished nature of architecture (see in particular Part 4).

At this point it is perhaps banal to state that architecture is never finished. It may be, of course, that particular people may have finished their relationship with it, leaving it to the repairman, the janitor, the inhabitant, and ultimately the archaeologist. Yet at best, this only aims to instantiate a new version or aspect of the ‘finished’ building. Importantly, this does not mean that we, as authors, view all periods of repair, use or decay as equally transformative or meaningful (see also Ramsey, this volume). Clearly some periods are more relevant for understanding the past or specific events than others. This also emphasises the question Harman raises elsewhere whether the world is in one flux or many (Harman 2011: 8–9). But objects exist, also beyond their relationship to humans, which may sometimes be forgotten in the current emphasis on becoming and flow. Harman (this volume) identifies a schism between on the one hand form and matter, and, on the other hand, form and function. The first is related to archaeology, while the latter more often comes out of architectural debates. Harman contends that there is a ‘deeper sense of form’ by which he refers ‘to the form of a thing that remains deeper than all visibility or relation’. In this sense, he pursues an object-oriented view of built form as autonomous, rather than depending on human engagement: the wind still blows and the tree still falls even if no social scientist is around to observe it.

In this, a striking tension comes out in this book. While Harman argues for a view of architecture as autonomous, many other contributions present understandings of architecture that hinge on the senses and the composition of matter and experience. From both perspectives, however, architecture is both a process and always in process. It begins even before the first sod is cut (Yaneva 2009). We thus, in one perspective, have to ‘regard built forms, as long as they are inhabited, as never completed or finalized, nor are the relationships humans have with them (Lawrence-Zúñiga 2001: 174). And at the same time, architecture does not cease to exist as humans end their relationship with it (see the notion of the ‘ruining ruin’ in Pétursdóttir, this volume; also Edensor, this volume; Zimmerman, this volume). Architectural space is in this way ‘a three-dimensional built object that results both from a process of physical construction with material means and from a process of social appropriation and constant recreation by society’ (Amerlinck 2001: 2). In essence then, architecture is not seen ‘simply as an accomplishment (or artefact) of human doing, but as an ongoing process of holding together’ (Jacobs and Merriman 2011: 211–212; see also Yaneva, this volume).

Elements

Throughout the volume it becomes clear that ‘architecture’ as a phenomenon is more than a physical, static fact. It is equally oriented towards processes of building. Building includes anticipation and memory, mobility, and the outcome of successes and failures of understanding the material, social and economic life that it is meant to mitigate (Nielsen, this volume). Architecture, in this sense, is a performative, sensuous and emotional engagement with the presences and absences of physicality (Kaye; Love, this volume); it is about the processes of

setting up a built structure and inhabiting it, addressing in essence how different *elements* come to shape architecture and built spaces.

The title of the book, *Elements of Architecture*, highlights the impossibility of ever grasping the totality of architecture – its process, performance and (in)tangible multiplicity. In one sense of the word, particularly in archaeology, ‘elements’ are understood as the material *fragments* that make up a whole; the door frame, stone walls, plaster floor and all the objects that make up the totality of material infrastructure. These fragments allow for ways to understand the past, even if implying a fragmentary or composite understanding of that past. In another sense of the word, elements evoke the *elemental* – fire, water, air, soil, wind, weather, waves, light, sound, smell, and so on. These make up the fluid, fragile and intangible surroundings and compositions of human life by imbuing the material fragments with a particular kind of presence. And third, we may play with the word, and consider elements as something *elementary*: that is, being situated within built spaces, or what may be considered the elementary form of ‘being’ that Heidegger refers to as the continuous effort to dwell.

We are by no means the first ones to notice the place of sensation or the elements as central to architecture (e.g. Hamilakis 2014; Helliwell 1996; Hill 2006; Karandinou 2013; McFadyen 2013; Skeates 2010; Tarlow 2000; Till 2009; Tilley 2008 to mention but a few). Even the title of this volume refers to the Henry Wotton classic from 1624 that influenced British architecture in the seventeenth and eighteenth centuries. While a diplomat to Venice, Wotton travelled Italy, exploring buildings with the aim of offering a more qualified architectural critique to the British gentry. Greatly inspired by architects such as Vitruvius, Batista Alberti and Palladio (see Hill, this volume), Wotton sought to describe the art of architecture as an operation revolving around ‘Commoditie, Firmeness, and Delight’. We translate this as ‘function, solidity and beauty’. Wotton considered these the ‘three capital conditions’ of good building (Wotton 1624: 115), drawing directly on Vitruvius (Roth and Clark 2014: 21). Despite the emphasis on physical building elements in Wotton’s book, there is also a strong sense of the critical and intellectual engagement with architecture. Wotton states that ‘I shoulde thinke it almost harder to be a good *Censurer*, then a good *Architect*; Because the *working* part may be helped with *Deliberation*, but the *Judgment* must flow from an *extemporall habite*’ (Wotton 1624: 115; emphases in original). In this, Wotton contrasts the architect’s knowledge of mechanical operations in building through practical experience with the layman connoisseur’s – and his own – appreciation of architecture. In effect, the elements constructed in physical components and those nested in ‘extemporall habite’, or immediate disposition, become divorced for Wotton. Or, as Anne Myers puts it: ‘the “elements” assembled in his treatise were never assembled in timber or stone’ (Myers 2013: 56–57).

Wotton’s division of ‘elements’ into two general, juxtaposed and dissociated domains is not particularly helpful, we argue; neither as it stands in Wotton, nor as it is reproduced in later critiques of his work. And just the same, we believe that archaeological studies of architecture can also benefit from questioning the separation of tangible and intangible elements of architecture. On the one hand, archaeologists must deal with the presence and absence of the material remains as part of their analysis. On the other hand, as a discipline studying *humans* through things (Olsen *et al.* 2012), it also has to deal with the performative, temporal and atmospheric impacts of these material remains (e.g. Pearson and Shanks 2001; Lucas 2015, this volume; Sørensen 2015a). Archaeological approaches to the built environment and building thus need to embrace a notion of architecture as composed of a variety of tangible and intangible factors, including mechanisms that merge the solid artefactual evidence and social practices of building, rebuilding and unbuilding. Some archaeologists have indeed explored the interplay of the physical and the solid. These endeavours try to understand how architecture,

environmental factors, moving bodies, and social relations and events come together, for instance at Stonehenge (Bender 1998: ch. 2; Bradley 1998; Parker Pearson 2012). However, for archaeologists the starting point seems always to be the material structures, rather than the assemblage of elements (see Ingold, this volume).

To be clear, the elements cannot stand alone – or perhaps even be separated – if one is to examine architecture. We thus seek to devise a strategy for an archaeological understanding of how architecture emerges without foregrounding the tangible elements or fragments; in a sense, the aim is to offer a more balanced, some might say ‘symmetrical’, account of architecture. The contributors to the volume all advance different aspects of the elements of architecture, some closer to each other than others, by exploring specific aspects of architectural becoming. This offers approaches for understanding the assembly of the building blocks of architecture, its situatedness and feel of presence.

In other words, architecture, we argue, is what emerges when the elements are assembled; that is, the continuity of building blocks, presences and the performances of dwelling and meaning-making. Thus, while contributions in this book may attend only to particular aspects of these three, the ideal is to pursue an understanding of architecture by exploring how the elements infold and unfold with each other to the very point of indistinction. The process of infolding and unfolding highlights precisely how these elements are distinct but interlinked aspects of architecture. It would indeed seem odd to try to understand the role of an object in people’s lives without attending to the socio-material context, to light, smell and sound, along with the meanings and motivations of the people who shaped or engaged with them. In other words, we may analytically wish to separate the elements, but they are inherently entangled from an emic perspective. Or, in the words of architect Lars Spuybroek (2008: 26):

Concluding that buildings are made up of parts, of elements, doesn’t mean that architecture should be based on elementarism; on the contrary, an architecture of continuity fuses the hard with the soft, tectonics with textile, abstraction with empathy, and matter with expressivity.

Architectural atmospheres

As illustrated above, looking into the history of archaeology, architectural studies have largely taken up a concern with fixed physicality; the walls, the posts, the doorsills, the roofs and the material textures. For archaeologists this physicality continues to offer central evidence for understanding past societies. People, past and present, dwell *in* buildings. Yet, they also dwell *with*, and as *part of* buildings (Ingold 2000). By looking at architecture not so much as a static material framework, but rather as an active operation between human and non-human elements, it becomes possible to appreciate some of the qualities of architecture that cannot be excavated. Engaging with architecture is a physical experience as well as an affective performance of sensing and making sense of space (Rasmussen 1964). From this perspective, it is not so much the physicality that matters, although this is the main access archaeologists have to the past. Rather, it may be more significant to note the way that architectural form – often unexpectedly – may encapsulate or actively shape the logics of movement and what the building *should* feel like through its material composition merging with environment, seasons and weather (see particularly Part 2).

Such focus particularly calls for a phenomenological approach. Phenomenology, in various guises, has been key inspiration to many archaeological studies of architecture, since it allows capturing or opening up of ways of understanding the past and contemporary engagements with

its remnants (Harris 2010; Harris and Sørensen 2010; Thomas 2006; Tilley 1994). In a more radical approach gaining increasing influence, German philosopher Hermann Schmitz, a leader in the New Phenomenology (*Neue Phänomenologie*), has stated in somewhat convoluted terms that the first object of perception is the so-called surfaceless space (*flächenlose Räume*). He describes surfaceless space as the weather, the light that blinds, the sounds that make your heart shiver, the experiencing 'felt body' (*Leib*) that are all part of the atmosphere (Schmitz 2014: 13–29; see Hasse, this volume). Importantly, the felt-body is not 'bodily sensation' as this would imply a distinction between body and mind:

Crucially, the felt body itself is a surfaceless space, or more precisely an assemblage of many such spaces: corporeal 'islands' such as the stomach region or the soles of feet are felt as diffuse but still separately identifiable spatial realms.

(Schmitz 2011: 245)

In other words, the lived experience of one's feet is not felt as distinct from the legs, and works by extension as connecting a felt body and world. The world in this perspective, does not appear as a neutral realm of separate entities, but as an atmospheric field of situations, potentialities or quasi-things (*Halbdinge*) such as feelings, voices or other corporeal forces (Schmitz 2014: 39), merging with material objects and structures. We take this to imply that any spatial perception begins with a sense of presence or an attunement to a *place*, rather than stemming from a material orientation towards walls, ceiling, floor, furniture and so forth. As a consequence, architecture is first and foremost an intangible phenomenon in people's lives. It cannot be reduced to or dominated by its material composition. Architecture may appear as the most stable, but that is to forefront its material qualities in a short timescale. This leaves aside the way it gathers the world: the past and the process of making, the future and the ideals and ideas that came into being before and during its construction, and the sensuous encounters that define its immediacy.

Schmitz's 'New Phenomenology' has inspired scholars such as German philosopher Gernot Böhme, and by extension geographers such as Jürgen Hasse (this volume), to argue that affect, atmosphere and the emotive agency of space need further elaboration and recognition as an aspect of architecture (Bille 2015a; Bille *et al.* 2015; Böhme 1995; Edensor 2012; Hasse 2012; Sørensen 2015; also Anderson 2009; Anderson and Holden 2008). The archaeological focus on the materiality of spaces and places is thus also an exploration of a distinct character – an 'atmosphere', that is not reducible to subjective moods or the materials perceived by a walking, talking sentient human being (Böhme 1995). Atmosphere, according to Böhme, is the co-presence of subject and object (2001: 56), and thus does not somehow reside in the one or the other, but is what emerges in their co-presence. As Tim Ingold rightly points out (this volume), it makes little sense to talk about a distinction between architecture and atmosphere. Architecture is atmospheric. Focusing exclusively on one element, such as particular archaeological fragments (postholes, mudbricks, doorframes, window sills), disregards central aspects of architecture. It is, Ingold states, like trying to understand music by looking at the individual instrument without paying attention to the sound of the instrument, to the sound it creates in concert with other instruments, to the skills of the musicians or the affects and effects it has on the listener and performer.

For scholars such as Christian Norberg-Schultz, this atmosphere comes to define the spirit of the place, the *genius loci*. According to Norberg-Schultz, architecture 'means to visualize the *genius loci*, and the task of the architect is to create meaningful places, whereby he helps man

to dwell' (1980: 5). For Norberg-Schulz, hence, spirit is embedded in place, and the task of architecture is to make this spirit palpable. This however rests on a notion of a static, transcendental a-historical essence of places that many of the contributions to this volume challenge (Bærenholdt; Edensor; Pétursdóttir, this volume). Instead, they suggest that place and architecture are emergent and contingent (see also Till 2009), captured most succinctly in the notion of atmosphere (see Ingold; Hasse, this volume). Atmospheres involve, but are not reducible to, the 'excess' that emerges from a person being in place (Böhme 1993, 1998, 2006). The person may be emotionally seized by the people, sensations and things in his/her surrounding, or may indeed partly tone those surroundings with the mood and actions s/he brings, or may be altogether unaware of its presence.

Atmospheres are the ontologically vague experience of being situated (Böhme *passim*; also Bille *et al.* 2015; Fischer 2007; Rauh 2012). We may not grasp the totality, but only get a snapshot of the body–mind–environment constellation through the atmosphere that lingers like a haze or fog in human emplacement in the world (Pink and Leder Mackley 2014). Tonino Griffero writes that, 'atmospheres appear and disappear, but we cannot sensibly ask ourselves where they have gone and how they have existed in the meantime' (Griffero 2014: 119). For an archaeologist this nature could seem to suggest that it is essentially beyond the reach of archaeology. However, several distinctions have been made to overcome such perspective. These include seeing ambiance as the materially oriented focus, *Stimmung* or mood as the subjective focus and atmosphere as the co-presence, emerging in a culturally informed context. For Böhme it is a difference captured by a distinction between the *atmosphere* and the *atmospheric* where, 'atmospheric phenomena are distinguished from the atmosphere by the substantial absence of subjective moments' (Böhme 2001: 60, our translation).

Tim Flohr Sørensen (2015) has made a similar critique of what he has called 'the clause of subjectivity', arguing that an archaeological analysis of atmosphere is by no means impossible. It needs, however, to proceed by working out operational definitions of atmosphere, rather than depending exclusively on subjective experience (compare with Böhme 2013). Through such critique or by trying to work consistently with a distinction between the atmosphere and the atmospheric, archaeology may also find itself opening up to such more existential aspects of architectural and spatial encounters. This ambition also implies seeing atmosphere in the context of cultural values, anticipations and expectations to what kind of atmospheres are desired in certain contexts (see Love, this volume). In other words, how do the elements of which the atmosphere is shaped come to matter in social life?

In his analysis of urban atmospheres, sociologist Jean-Paul Thibaud (2015) suggests a redirection of the focus on the ontology of objects to an attention towards the ontology of the elements. He argues that the 'elements' are the media through which we perceive, by mediating fragments into a whole. Elements are thus not the object of perception, but the condition for perception. This redirection, he argues, may better address the gradual transformations and sensory engagements with the material environment, and thus equip us with the capacity to explore the culturally productive exchange between architecture, the senses, performance, temporality and atmosphere. A similar call has been made by Kim Dovey, arguing that assemblage theory, to which we will turn shortly, offers the potential to give 'priority to experience and sensation without reduction to essence', being 'empirical without the reductionism of empirical science' (Dovey 2013: 132). We do not, however, think that an approach to architecture as assemblage needs to be pitted squarely against essentialism and empiricism. Instead we see the opportunity to expand on archaeology's methodological strength in its capacity to study empirical detail and the long-term perspective.

Assembling the world

As we hope to have illustrated above, the relevance and tremendous usefulness of previous approaches to architecture in archaeology is not waning. Yet, we do believe that since the heydays of the archaeology of space and place in the 1990s, a number of recent developments in other disciplines, and within archaeology itself, can inspire archaeologists further to explore new dimensions of architecture. This includes the recent interest in social sciences and philosophy in humans as affective beings that continuously engage, plan and perform with, and in, the material environment (Bennett 2010; Law and Singleton 2005; Massumi 1998; Mol 2002; Navaro-Yashin 2012; Thrift 2008; Yaneva 2009). At the time of writing, the notion of 'assemblage' has swept through the social sciences and humanities, drawing particularly on Gilles Deleuze and Manuel DeLanda. This particular formulation of assemblage as a mode of approaching the material and social has been slower at proliferating in archaeology than certain other disciplines. Qualities of assemblage thinking have issued forth in symmetrical archaeology (e.g. Olsen 2010, 2012; Olsen *et al.* 2012; Shanks 2007; Webmoor and Witmore 2008; Witmore 2007), where it has offered a means of breaching the alleged modernist compartmentalisation of subject and object, and nature and culture/society (see also Harrison 2011; Lucas 2012).

In all this commotion with Deleuzian assemblages, it is easy to forget that the notion of assemblage actually has a longer history within archaeology (Lucas 2012: 193–214). Assemblage in archaeology has been theorised as 'an associated set of contemporary artefact-types' (Clarke 1978: 245), and as 'a group of artifacts recurring together at a particular time and place, and representing the sum of human activities' (Renfrew and Bahn 2012: 576). Hence, conventionally in archaeology assemblage denotes a 'collection' of artefacts. The word is interchangeably used to define a category of objects, such as a stone or plant assemblage found at a site (Hodder 2004: 88), or a group of objects found in close relationship with one another as 'aggregates of associated artifacts' (Binford 1983: 84). It may also be connected to Vere Gordon Childe's seminal definition of culture as 'a complex of associated traits' (Childe 1929: vi; see also Lucas 2012: 194). Regardless of definition, the archaeological assemblage conventionally rests on a particular temporal definition of contemporaneity – an interpretation of timescales where things fit together, or are structured, in time, rather than looking at the ways in which such structure came into being (Ingold 2010; Lucas 2015). In other words, historic archaeological definitions of assemblage have largely worked by determining and fixating associated artefacts, sometimes with the aim of defining archaeological 'cultures' or even ethnic groups (e.g. Clarke 1978. ch. 6; see also Lucas 2012: 194).

At times, the notion of assemblage even amounts to the once mobile objects found in a 'context' delineated as a spatially extended unit, more or less defined by immobile walls or structures. In his contribution to the report on the excavation of the Early Bronze Age cemetery at Barns Farm, Scotland, Ian Shepherd (1982) offers an interesting deliberation of the various factors coming together at the cemetery. Shepherd argues that dead bodies and grave goods are but some of the phenomena present at a cemetery, and that other 'factors' also need to be included in the understanding of a cemetery, namely 'grief, symbolism and belief' (Shepherd 1982: 131). Shepherd does not theorise these factors explicitly as what may be termed an 'assemblage' or aspects of an assemblage by non-archaeological theorists. However, he does offer an approach to the cemetery and to the funerals taking place there as constituted by archaeological factors beyond the physical evidence. In effect, Shepherd proposes that the cemetery at Barns Farms was a collective composed of living and dead people, practice, grief and grave goods. Despite this extension of the archaeological notions of assemblage, Shepherd nevertheless seems to stick

to a notion of assemblage as a coherent whole coming together through the totality of material and immaterial components.

Restless assemblages

Further dimensions to the notion of assemblage have been pursued in recent archaeological approaches to assemblages, emphasising the assemblage as the continuity between objects (whether human or non-human) or as a form of ecology or terrain. A number of archaeologists (in particular Harrison 2011; 2012: ch. 2; Lucas 2012; Normark 2010; Olsen *et al.* 2012; Witmore 2014; also Bille 2012) have been inspired by a relational notion of assemblages, propagated in philosophy especially, as described below. This approach seeks to decentre any *a priori* binary positioning of human and non-humans, matter and form, stability and movement, and so forth. Such an approach offers the potential for an understanding of the world that avoids – at least ideally – hierarchical, linear and monolithic conceptualisations of society, nature, subject and object.

The notion of assemblage in recent archaeology draws largely on the legacy of philosophers Gilles Deleuze and Félix Guattari (2002), often via Manuel DeLanda (2006). Originally, Deleuze and Guattari used the term *agencement* rather than ‘assemblage’ in the French original of *A Thousand Plateaus* (1980), which means ‘arrangement’, ‘fitting’ or ‘fixing’, while *assemblage* denotes something blended or collated (Phillips 2006: 108; see also Dovey 2013). The difference between the two terms accentuates the multiplicity of elements as opposed to the seamless unity of components or a sum of parts (Deleuze and Guattari 2002: 9). By underscoring multiplicity, Deleuze and Guattari stipulate that the world is incessantly in a process of coming into being in restless assemblages, issuing forth through various qualities that temporarily tincture one another:

A functionalist conception . . . only considers the function a quality fulfils in a specific assemblage, or in passing from one assemblage to another. The quality must be considered from the standpoint of the becoming that grasps it, instead of becoming being considered from the standpoint of intrinsic qualities having the value of archetypes or phylogenetic memories.

(Deleuze and Guattari 2002: 337)

Manuel DeLanda (2006) has drawn on Deleuze and Guattari to argue that an ‘assemblage’ is formed through connections between persons, organisations and nation-states under specific historical processes by shaping a whole from heterogeneous parts (see also Latour 2005). DeLanda argues that the assemblage is not a seamless whole, as its ‘properties emerge from the interactions between parts’ (DeLanda 2006: 6) through which it becomes possible to define the ‘mechanisms of emergence’ (DeLanda 2006: 9). Assemblages, thus, do not form totalities, but are rather *emergent*, potentially disassembling, becomings. They are emergent in that they unfold as more than their individual parts, since each part not only refers to each other in ‘relations of interiority’ or ‘properties’, but may be detached, or multiple attached in ‘relations of exteriority’ or ‘capacities’, where their relations may be different (DeLanda 2006: 10–18; see also Edensor, this volume). Graham Harman clarifies this line of thinking in DeLanda: ‘along with being an assemblage, an entity is also an *emergence*. . . . For an entity *emerges*; it is something more than all clusters and aggregates, and is no bundle of properties glued together through the habit of customary conjunction’ (Harman 2010: 184–185; emphases in original). Harman states that he uses the terms ‘entity’ and ‘object’ for ‘emergent assemblages’, and ‘object’ implies something beyond any conventional definition of object as artefact. This object-oriented philosophy, as

Harman (this volume) discusses in relation to recent archaeological writings, offers archaeology precisely the opportunity to understand its objects as more than singular and detached phenomena, as has also been argued by proponents of symmetrical archaeology.

The focus on assemblages posits multiplicity as the starting point for investigating the processes of becoming. Architecture in this perspective, like the city (Fariás and Bender 2010; Graham and Marvin 2001), is not a bounded object (Latour and Yaneva 2008). As frequently proposed through the perspectives of Actor–Network Theory, an object constitutes itself in relations between technologies, humans and other actants (Brain 1994; Fariás 2010; Yaneva 2009). In Graham Harman's account of Latour's work: 'an object is not a substance, but a *performance*' (Harman 2009: 44, emphasis in original). Accordingly, as summarised by Buchli, 'it would seem that every material entity is not really one entity. It is an essential multiplicity of entities' (Buchli 2013: 11).

So, if architectural assemblages are never singular, fixed and stable, how do we understand people, who engage with them *as if* they were? Architecture, assemblage theory informs us, is fluid, yet the archaeological record also shows how it may over time sustain its form and identity. Grounding these theoretical discussions in detailed methodological studies, Gavin Lucas (2012) explores the relationship between two prominent uses of assemblage in archaeology: the depositional assemblage and the typological assemblage. In doing this he seeks to understand them in terms of 'assembling processes' (Lucas 2012: 196). So rather than approaching the deposit or the type as a-temporal units, Lucas argues that they need to be understood as the 'product of serial practice', or as 'acts of assembling: containment and enchainment' (Lucas 2012: 198). This draws attention to processes of becoming and to practices that have duration, yet without confining these to causality. Lucas thus highlights a particular quality of an archaeological approach to assemblages, namely the capacity to make empirically grounded observations of formation processes that stretch over long periods of time, while at the same time being able to identify particular events and acts.

Altogether, objects, including architecture, are communities, emerging through assembling and disassembling process. These processes have been explored extensively in the strand of symmetrical archaeology, building on perspectives from DeLanda, Harman and Latour (e.g. Olsen 2003; Olsen 2012; Olsen *et al.* 2012; Webmoor and Witmore 2008; Witmore 2007, 2012, 2014; also Harrison 2011; Lucas 2012). Beyond symmetrical archaeology, other archaeologists have also explored the emergent, unstable and fragile nature of assemblages. Such work can be seen in extension of Lucas' observation that 'Assemblages are almost always ephemeral, and most of the elements which combine in them depart and recombine elsewhere' (Lucas 2012: 204; see also Bille 2012; Harrison 2012).

These perspectives on elements and assemblages tie human experience and knowledge more closely together in a web where architecture is more than tangibility, merging instead with anticipation, sensation, time and impermanence. This assemblage captures architecture as a phenomenon that can be understood as objects and practices emerging and dissolving. Yet it also raises the crucial question of how we are to approach architecture as simultaneous amalgamation and fragmentation, becoming and dissolution, sensation, performance, place and temporality (see Figure 1.4).

One such instance can be seen in nomadic architecture. On the one hand one can see tents and camps as a constant assembling and disassembling of architecture. Yet, Labelle Prussin also warns:

Contrary to general thinking, the nomad's home is not temporary. The space it contains is permanent, even though, as a moving volume, it is not fixed permanently in space.



Figure 1.4 Shed stranded in the forest, Jämshög, Blekinge, Sweden

Source: Tim Flohr Sørensen

Its ‘permanence’ is in the minds and behavior of those who build it, from the repetitive reassemblage and reconstruction of the architectural elements into an almost identical assemblage at each new point in space.

(Prussin 1995: 40; 42)

In light of this, it may seem like an antiquated idea to resurrect the archaeological version of assemblage. On the other hand, what the archaeological approach also offers, with its diachronic methodology, is to propose a grounded analysis of how assemblages come to life, dis-assemble, and make up new life worlds. Here lies the possibility of going into the micro-processes of understanding the ways in which such assemblages disintegrate when things move.

Architectural reorientations

Archaeology has traditionally focused on functional aspects of architecture, yet largely omitted the study of how dysfunctionality and unintended effects (architectonic or social) works at the confluence of people and the built environment. As the recent media attention on largely unpopulated mega-cities in China attests to, failed architecture is both a discordance between imaginations for the future, a lack of knowledge of materials, or intentional want of less permanent quality (Ulfstjerne and Woodworth 2016; Ulfstjerne this volume; see Figure 1.5). Architecture is continuously ‘presencing’ aesthetic, temporal and emotional values, including incompetence, flawed skills and poor choice of materials or aesthetic expression. This presencing also entails a highly political scene of evaluating architecture, its temporality and potentials (Kohn and Dawdy,



Figure 1.5 Unfinished office complex, Ordos, Inner Mongolia, China

Source: Michael A. Ulfstjerne

Bærenholdt, this volume). Examples such as those from China illustrate how permanence may not even be prioritised (Cairns and Jacobs 2014; Graham and Thrift 2007).

In her compelling book on ‘indispensable eyesores’, Mélanie van der Hoorn (2009) explores how (the lack of) value, materiality and time are central features in the ways people deal with buildings, their function, aesthetic and life history. She potently demonstrates how taste, time and dilapidation impact on architecture. Also in the case of *Blur*, we are confronted with an architecture that is contingent on a number of unpredictable conditions, such as weather and people’s reception of the building. As Ingold also shows, builders and inhabitants constantly operate on buildings to ‘improvise solutions to problems that could not have been anticipated, and to wrestle with materials that are not necessarily disposed to fall, let alone to remain, in the shapes required of them’ (Ingold 2013: 48).

A well-known example of the complexity of materials, design, aesthetics, inhabitation, time and values may be found in Marseille in southern France, in the housing complex *Unité d’Habitation* (see Figure 1.6). *Unité d’Habitation* is the Swiss architect, Le Corbusier’s (1887–1965) proposal for an architecture for the future (Le Corbusier 1986: 4). *Unité d’Habitation* has been dubbed a vertical garden city, consisting of a single housing complex with 337 apartments in a park landscape, allowing a maximum of light to enter the apartments. The building was erected between 1947 and 1952 in light of an acute and massive housing shortage in the years following the Second World War (Nasiali 2012: 1022; Newsome 2009: 84). Beyond housing shortage it was also the result of a new development in modernist architecture, namely the so-called brutalism, flourishing between the 1950s and 1970s. The name of the style denotes the building material, from the French *béton brut* (‘raw concrete’), since undressed concrete is the main building material.



Figure 1.6 Unité d’Habitation, Marseilles, France

Source: imageBROKER/Alamy

Despite all good intentions, *Unité d'Habitation* was exposed to severe problems during the 1970s. The first inhabitants of *Unité d'Habitation* in the 1950s had moved into the building in the wake of its highly celebrated position as a prestigious piece of modern architecture. Through the years, however, the population shifted towards a more heterogeneous composition, and with more mixed uses of the house. A larger portion of the new inhabitants largely failed to use the shops and institutions in the building. The building's self-supporting revenue thus ceased, resulting in poor maintenance (Monnier 2002: 66–67). It meant that even the most basic maintenance was neglected and that the electricity supply was unstable. The house gradually began to deteriorate as parts of the concrete façade began to crumble, exposing iron components, concrete reinforcement and window frames that started to corrode with the saline winds of the Mediterranean speeding their deterioration. The lacking maintenance began to leave its mark on the way people used the house and gradually affected their attitude towards it. Graffiti and vandalism became prevalent on the abandoned shopping decks and the social composition of the population changed markedly.

For a number of years *Unité d'Habitation* stood as a partially deteriorated house with a similar socially fragile population. Media began to report that *Unité d'Habitation* had become the object of a *topophobia*; a detested place. The inhabitants were not happy to live there, they turned against the building and its social conditions, and its architecture became the focus of abhorrence (as reported elsewhere in French housing estates at the time, see Bonetti 1985; Cupers 2014). In the local slang, *Unité d'Habitation* was no longer referred to as *Cité Radieuse*, 'The Radiant City', but now as *La Maison du Fada*: 'the house of the tasteless' or 'the house of the mad' (see Bar-Nadav 2008: 133).

What is so striking about this development are the inconsistencies between the planning of the house and the cultural habits of its inhabitants. The economy of *Unité d'Habitation* was so tightly planned that it was simply not possible to keep up regular maintenance if the inhabitants were not using its own shops. And since inhabitants did not give up their previous shopping habits, the entire foundation for a self-supporting and healthy economy was undermined, followed by a remarkable material deterioration. To reiterate Yaneva's point above, the house neither *reflected* the social life of the inhabitants, nor did it *determine* it. Gradually the house came to present a failure instead of the intended socially integrating 'living machine' (Le Corbusier 1986: 4).

In the example of *Unité d'Habitation*, we may locate dysfunction and the unintended at the intersection of the social intentions of the architect, his architecture, and the social lives and practices of the inhabitants of his architecture (Panerai *et al.* 2004: ch. 5). One of the more wide-reaching consequences of this discrepancy has been the popular notion of brutalist architecture as a key reference to 'bad architecture'; an architecture that is not created for humans, but for the architects' or planners' idealised drawing board principle of the good life. Brutalist architecture is often referred to as 'concrete architecture', which literally speaking is correct, but is most often pronounced with an outright contempt for the architectonic style (Monnier 2002). Concrete is believed to be the opposite of humanity and of empathic architecture, by dwarfing and alienating its human residents.

To many critics of brutalism, concrete architecture and social housing, this development from celebration to aversion is synonymous with the failure of Le Corbusier's vision. However, *Unité d'Habitation* also exemplifies how aesthetics and values are ceaselessly prone to reorientation as the building has in recent years, after costly renovation, once again become circumscribed by veneration and esteem. In its revived state it is currently being subject to an application for status as World Heritage. *Unité d'Habitation* thus remains anything but a static building block, with a predictable life cycle. It constantly comes into being as an assemblage of its use, valorisation, materiality and weather conditions. It resembles how Jane Bennett describes assemblages:

Assemblages are ad hoc groupings of diverse elements, of vibrant materials of all sorts. Assemblages are living, throbbing confederations that are able to function despite the persistent presence of energies that confound them from within. They have uneven topographies, because some of the points at which the various affects and bodies cross paths are more heavily trafficked than others, and so power is not distributed equally across its surface. Assemblages are not governed by any central head: no one materiality or type of material has sufficient competence to determine consistently the trajectory or impact of the group.

(Bennett 2010: 23–24)

While *Unité d'Habitation* illustrates how social life influences the function of architecture, there are similarly many cases where the very materiality of a building has had unintended and unpredictable consequences. One could argue that all architecture is marked by the impossibility of controlling its materiality. This could be cases where the materials used were of poor quality or not sufficiently robust to tackle the environment in which they are in use, or cases where the material may affect the surroundings (see Sick Building Syndrome in Love, this volume).

The impossibility of full controlling matter highlights a surprising affinity between *Unité d'Habitation* and *Blur*. Preparing for the opening of *Blur* – a building that was intended to stage ‘the constant battle between artificial and real weather forces’ (Diller and Scofidio 2002: 325) – it became clear that the building was susceptible to heavy winds sweeping down from the nearby hills of Lake Neuchatel, displacing and dissolving the artificial cloud making up *Blur*. Also, during test phases the nozzles creating the fog had been arranged incorrectly, not working as intended, and the building expenses had exceeded the budget, threatening the realisation and reception of the project (Diller and Scofidio 2002: 290–291). Like *Unité d'Habitation*, *Blur* is a fragile construct, not simply as a result of its material properties, but also of a host of other tangible and intangible factors. Contingent on shifting notions of aesthetics, uncontrollable environmental conditions and unintended human and non-human occupation, such examples show the need to focus on the way architecture not only mitigates, orders or reflects social life worlds, but also the processes and disassembling of controversies erupting when it does not. While there are a tremendous amount of insights gained from looking at the cases where architecture is functioning or reified as an object, we thus also argue that there is a need – in archaeology in particular – to broaden the notion of architecture, contending that it emerges as a movement between human and non-human bodies.

Perspectives

Finally, we here wish to end at the important question raised by Alfredo González-Ruibal in the first volume of the series on *Archiological Orientations*: ‘should archaeologists restrict themselves to the abandoned? This is perhaps the strongest metaphor of archaeology: a discipline that studies what is dead’ (González-Ruibal 2013: 21). In this, González-Ruibal pursues avenues for archaeologies dealing with the present. With this book we wish to explore the emergence of architecture in the past as well as the present through the persistent assemblage of elements. This implies that space is not simply the product of bricks and mortar in a given configuration. It equally entails mobile entities coming together through repair, or the process of building and thinking about buildings, as well as the affective presence it instantiates. Whether we term such assemblages architectural or spatial figurations, the result is that human bodies and things are part of a mutual task of shaping meaning through temporality, affect, practice and aesthetics. This generates the four contentions that we believe summarise the contributors to this volume:

motion implies temporality (Part 1), from atmosphere emerges affect (Part 2), practice hinges on performance and process (Part 3), and aesthetics leads to perceptions of failure and dysfunction (Part 4).

The first step in this project is, however, to juxtapose many of the points argued in this introduction, as well as points made by a number of the contributors to the volume, with a radically different view pursued by Graham Harman in his contribution. He contends that the archaeological concern with *matter* can be complemented by an approach to the ‘concealed depth’ of *form*. In this, he seeks to ‘promote the idea of things as withdrawing from their relations rather than being constituted by them’. This is not the same as reversing an anthropocentric view or that humans are ‘worthless’, but it is a critique of an ontology that allows a ‘relatively minor species’ to automatically assume centre stage (see also Sørensen 2013). So, despite being causally dependent on humans, buildings ‘are not just props in a solely human drama’. The question is how such a stance on architecture affects archaeological methodology, and more broadly the social sciences. It is clear from Harman’s work (this volume and elsewhere) that architecture cannot be *reduced* – it does not remain static, but moves on its own (compare with the notion of the event in Deleuze 2006).

And here it is perhaps both rhetorically and thematically wise to return to Diller and Scofidio’s *Blur* one last time. The building was indeed a spectacle when seen from afar – at places a solid mass impenetrable to the eye, yet also amorphous and dynamic, with unclear boundaries. The central point of the architecture, or rather ‘the pure atmosphere’, was not simply the view from afar, but in particular the encounter and reconfiguration of the senses that the architecture enforced. So while a reified version of the architecture should not be abandoned as analytical object, we should also not simply take the phenomenological position focusing on the body. Rather, we should look at the way the *elements*, both tangible and intangible, become assembled in the process of building, using, maintaining, repairing and dismantling. From this we may explore the meanings and symbols it enables. Only in this way may we, particularly in archaeology, free architecture from being ontologically dumped, and instead become assembled through elements.

References

- Amerlinck, M.-J. 2001. ‘The Meaning and Scope of Architectural Anthropology’ in *Architectural Anthropology*. Edited by M.-J. Amerlinck, pp. 1–26. Westport, CT: Bergin & Garvey.
- Anderson, B. 2009. ‘Affective Atmospheres’. *Emotion, Space and Society*, 2(2): 77–81.
- Anderson, B., and A. Holden. 2008. ‘Affective Urbanism and the Event of Hope’. *Space and Culture*, 11(2): 142–159.
- Augé, M. 1995. *Non-Places: An Introduction to an Anthropology of Supermodernity*. London: Verso.
- Austin, D., and J. Thomas. 1990. ‘The “Proper Study” of Medieval Archaeology: A Case Study’ in *From the Baltic to the Black Sea: Studies in Medieval Archaeology*. Edited by D. Austin and L. Alcock, pp. 43–78. London: Routledge.
- Bandy, M. S., and J. R. Fox. Editors. 2010. *Becoming Villagers: Comparing Early Village Societies*. Tucson, AZ: University of Arizona Press.
- Banning, E. B. 2003. ‘Housing Neolithic Farmers’. *Near Eastern Archaeology*, 66(1–2): 4–21.
- Bar-Nadav, H. 2008. ‘Fields, Ribbons, Folds: Somatic Landscapes for Zaha Hadid, and: Abandoned Dome, and: Unité d’Habitation, and: The Art of Pleasure, and: Skinless Love’. *Prairie Schooner*, 82(2): 130–135.
- Beck, R. A. Editor. 2007. *The Durable House: House Society Models in Archaeology*. Carbondale, Ill: Center for Archaeological Investigations, Southern Illinois University.
- Bender, B. 1998. *Stonehenge: Making Space*. Oxford: Berg.
- Benevolo, L. 1980. *The History of the City*. London: Scolar Press.
- Bennett, J. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.
- Bienkowski, P., and B. Chlebik. 1991. ‘Changing Places: Architecture and Spatial Organization of the Bedul in Petra’. *Levant*, XXIII: 147–180.

- Bille, M. 2012. 'Assembling Heritage: Investigating the UNESCO Proclamation of Bedouin Intangible Heritage in Jordan'. *International Journal of Heritage Studies*, 18(2): 107–123.
- . 2015a. 'Lighting up Cosy Atmospheres in Denmark'. *Emotion, Space and Society*, 15: 56–63.
- . 2015b. 'Hazy Worlds: Atmospheric ontologies in Denmark'. *Anthropological Theory*, 15(3): 257–274.
- Bille, M., P. Bjerregaard, and T. F. Sørensen. 2015. 'Staging Atmospheres: Materiality, Culture, and the Texture of the In-between'. *Emotion, Space and Society*, 15: 31–38.
- Binford, L. R. 1983. *In Pursuit of the Past*. London: Thames & Hudson.
- Bishop, P., and L. Williams. 2012. *The Temporary City*. London: Routledge.
- Blanton, R. E. 1994. *Houses and Households: A Comparative Study*. New York: Plenum.
- Böhme, G. 1993. 'Atmosphere as the Fundamental Concept of a New Aesthetics'. *Thesis Eleven*, 36: 113–126.
- . 1995. *Atmosphäre: Essays zur neuen Ästhetik*. Frankfurt am Main: Suhrkamp.
- . 1998. *Anmutungen: Über das Atmosphärische*. Ostfildern Von Stuttgart: Edition Tertium.
- . 2001. *Aisthetik. Vorlesungen über Ästhetik als allgemeine Wahrnehmungslehre*. München: Wilhelm Fink Verlag.
- . 2006. *Architektur und Atmosphäre*. München: Wilhelm Fink Verlag.
- . 2013. 'The art of the stage set as a paradigm for an aesthetics of atmosphere'. *Ambiances*: <http://ambiances.revues.org/315>. Accessed 2 January 2014.
- Boivin, N. 2000. 'Life Rhythms and Floor Sequences: Excavating Time in Rural Rajasthan and Neolithic Catalhoyuk'. *World Archaeology*, 31(3): 367–388.
- Bonetti, M. 1985. 'The French Policy for the Rehabilitation of Large Housing Estates' in *Post-War Public Housing in Trouble*. Edited by N. L. Prak and H. Priemus, pp. 61–71. Delft: Delft University Press.
- Boomkens, R. 1999. 'The "Middle Landscape" and the Myth of Mobility: Coming Home in Commuter Country' in *The Urban Condition: Space, Community, and Self in the Contemporary Metropolis*. Edited by D. de Meyer, K. Versluys, K. Borret, B. Eeckhout, S. Jacobs and B. Keunen, pp. 214–227. Rotterdam: 010 Publishers.
- Borić, D. 2008. 'First Households and "House Societies" in European Prehistory' in *Prehistoric Europe*. Edited by A. Jones, pp. 143–161. Oxford: Blackwell.
- Bourdieu, P. 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bradley, R. 1993. *Altering the Earth: The Origins of Monuments in Britain and Continental Europe*. Edinburgh: Society of the Antiquaries of Scotland.
- . 1998. *The Significance of Monuments: On the Shaping of Human Experience in Neolithic and Bronze Age Europe*. London: Routledge.
- . 2012. *The Idea of Order: The Circular Archetype in Prehistoric Europe*. Oxford: Oxford University Press.
- Brain, D. 1994. 'Cultural Production as "Society in the Making": Architecture as an Exemplar of the Social Construction of Cultural Artifacts' in *The Sociology of Culture*. Edited by D. Crane, pp. 191–220. Oxford: Blackwell.
- Buchli, V. 2000. *An Archaeology of Socialism*. Oxford: Berg.
- . 2013. *An Anthropology of Architecture*. London: Bloomsbury.
- Byrd, B. F. 1994. 'Public and Private, Domestic and Corporate: The Emergence of the Southwest Asian Village'. *American Antiquity*, 59(4): 639–666.
- Cairns, S., and J. M. Jacobs. 2014. *Buildings Must Die: A Perverse View of Architecture*. Cambridge, MA: MIT Press.
- Carsten, J., and S. Hugh-Jones. Editors. 1995. *About the House: Lévi-Strauss and Beyond*. Cambridge: Cambridge University Press.
- Childe, V. G. 1929. *The Danube in Prehistory*. Oxford: Oxford University Press.
- Clarke, D. L. 1978. *Analytical Archaeology*, 2nd edn. London: Methuen.
- Cresswell, T. 2011. 'Mobilities I: Catching up'. *Progress in Human Geography*, 35(4): 550–558.
- Cribb, R. 1991. *Nomads in Archaeology*. Cambridge: Cambridge University Press.
- Cupers, K. 2014. *The Social Project: Housing Postwar France*. Minneapolis, MN: University of Minnesota Press.
- Damgaard, K. 2013. 'Access Granted: The Phenomenology of Approach in Early Islamic Palatial Architecture'. *International Journal of Islamic Architecture*, 2(2): 273–306.
- DeLanda, M. 2006. *A New Philosophy of Society: Assemblage Theory and Social Complexity*. London: Continuum.
- Deleuze, G. 2006. *The Fold*. London: Continuum.
- Deleuze, G., and F. Guattari. 1980. *Mille plateaux*. Paris: Éditions de minuit.

- . 2002. *A Thousand Plateaus: Capitalism and Schizophrenia*. London: Continuum Books. First published 1987.
- Delougaz, P., H. D. Hill, and S. Lloyd. 1967. *Private Houses and Graves in the Diyala Region*. Chicago, IL: Chicago University Press.
- Diller, E., and R. Scofidio. 2002. *Blur: The Making of Nothing*. New York: Harry N. Abrams.
- Dovey, K. 2013. 'Assembling Architecture' in *Deleuze and Architecture*. Edited by H. Frichot and S. Loo, pp. 131–148. Edinburgh: Edinburgh University Press.
- Driessen, J. 1989. 'The Proliferation of Minoan Palatial Architectural Style: (I) Crete'. *Acta Archaeologica Lovaniensia*, 28–29: 3–23.
- Düring, B. S. 2001. 'Social Dimensions in the Architecture of Neolithic Çatal Höyük'. *Anatolian Studies*, 51: 1–18.
- Edensor, T. 2012. 'Illuminated Atmospheres: Anticipating and Reproducing the Flow of Affective Experience in Blackpool'. *Environment and Planning D: Society and Space*, 30(6): 1103–1122.
- Fariás, I. 2010. 'Introduction: Decentering the Object of Urban Studies' in *Urban Assemblages: How Actor-Network Theory Changes Urban Studies*. Edited by I. Fariás and T. Bender, pp. 1–24. London: Routledge.
- Fariás, I., and T. Bender. Editors. 2010. *Urban Assemblages: How Actor-Network Theory Changes Urban Studies*. London: Routledge.
- Fischer, O. W. 2007. 'Atmospheres – Architectural Spaces between Critical Reading and Immersive Presence'. *Field*, 1(1): 24–41.
- Flannery, K. 1972. 'The Origin of the Village as a Settlement Type in Mesoamerica and the Near East: A Comparative Study' in *Man, Settlement and Urbanism*. Edited by P. J. Ucko, R. Tringham and G. W. Dimpleby, pp. 23–53. London: Duckworth.
- . 2002. 'The Origins of the Village Revisited: From Nuclear to Extended Households'. *American Antiquity*, 67(3): 417–433.
- Fogelin, L. 2004. 'Sacred Architecture, Sacred Landscape: Early Buddhism in Coastal Andhra Pradesh' in *Archaeology as History: South Asia*. Edited by H. P. Ray and C. M. Sinopoli, pp. 376–391. New Delhi: Indian Council for Historical Research.
- Foster, C. P., and B. J. Parker. Editors. 2012. *New Perspectives on Household Archaeology*. Winona Lake, IN: Eisenbrauns.
- Foucault, M. 1977. *Discipline and Punish: The Birth of the Prison*. London: Allen Lane.
- Glassie, H. 1975. *Folk Housing in Middle Virginia: A Structural Analysis of Historic Artifacts*. Knoxville, TN: University of Tennessee Press.
- González-Ruibal, A. 2013. 'Reclaiming Archaeology' in *Reclaiming Archaeology: Beyond the Tropes of Modernity*. Edited by A. González-Ruibal, pp. 1–29. London: Routledge.
- Goring-Morris, N., and A. Belfer-Cohen. 2008. 'A Roof Over One's Head: Developments in Near Eastern Residential Architecture Across the Epipalaeolithic–Neolithic Transition' in *The Neolithic Demographic Transition and its Consequences*. Edited by J.-P. Bocquet-Appel and O. Bar-Yosef, pp. 239–286. New York: Springer.
- . 2013. 'Houses and Households: a Near Eastern Perspective' in *Tracking the Neolithic House in Europe*. Edited by D. Hofmann and J. Smyth, pp. 19–44. New York: Springer.
- Graham, S., and S. Marvin. 2001. *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. London: Routledge.
- Graham, S., and N. Thrift. 2007. 'Out of Order: Understanding Repair and Maintenance'. *Theory, Culture and Society*, 24(3): 1–25.
- Griffero, T. 2014. *Atmospheres: Aesthetics of Emotional Spaces*. Oxford: Ashgate.
- Hamilakis, Y. 2014. *Archaeology and the Senses: Human Experience, Memory and Affect*. Cambridge: Cambridge University Press.
- Harman, G. 2009. *Prince of Networks: Bruno Latour and Metaphysics*. Melbourne: re.press.
- . 2010. *Towards Speculative Realism: Essays and Lectures*. Winchester: Zero Books.
- . 2011. *The Quadruple Object*. Winchester: Zero Books.
- Harris, O. J. T. 2010. 'Emotional and Mnemonic Geographies at Hambledon Hill: Texturing Neolithic Places with Bodies and Bones'. *Cambridge Archaeological Journal*, 20(3): 357–371.
- Harris, O. J. T., and T. F. Sørensen. 2010. 'Rethinking Emotion and Material Culture'. *Archaeological Dialogues*, 17(2): 145–163.
- Harrison, R. 2011. 'Surface Assemblages: Towards an Archaeology in and of the Present'. *Archaeological Dialogues*, 18(2): 141–161.
- . 2012. *Heritage: Critical Approaches*. London: Routledge.

- Hasse, J. 2012. *Atmosphären der Stadt. Aufgespürte Räume*. Berlin: jovis Verlag.
- Heben, A. 2014. *Tent City Urbanism: From Self-Organized Camps to Tiny House Villages*. Eugene, OR: The Village Collaborative.
- Heidegger, M. 1962. *Being and Time*. New York: Harper & Row.
- Heidegger, M. 1971. 'Building Dwelling Thinking' in *Poetry, Language, Thought*. Edited by A. Hofstadter, pp. 145–161. New York: Harper & Row.
- Helliwell, C. 1996. 'Space and Sociality in the Dayak Longhouse' in *Things as They Are: New Directions in Phenomenological Anthropology*. Edited by M. Jackson, pp. 128–148. Bloomington, IN: Indiana University Press.
- Hill, J. 2006. *Immaterial Architecture*. Oxon: Routledge.
- Hodder, I. 1990. *The Domestication of Europe: Structure and Contingency in Neolithic Societies*. Oxford: Blackwell.
- . 2004. *The Archaeological Process: An Introduction*. Oxford: Blackwell.
- Hofmann, D., and J. Smyth. Editors. 2013. *Tracking the Neolithic House in Europe: Sedentism, Architecture and Practice*. New York: Springer.
- Ingold, T. 2010. 'No More Ancient; No More Human: The Future Past of Archaeology and Anthropology' in *Archaeology and Anthropology: Understanding Similarity, Exploring Difference*. Edited by D. Garrow and T. Yarrow, pp. 160–170. Oxford: Oxbow.
- . 2013. *Making: Anthropology, Archaeology, Art and Architecture*. London: Routledge.
- Irvine, R. D. G., N. Hanks, and C. Weddle. 2012. 'Sacred Architecture: Archaeological and Anthropological Perspectives' in *Archaeology and Anthropology: Past, Present and Future*. Edited by D. Shankland, pp. 91–117. Oxford: Berg.
- Jacobs, J. M., and P. Merriman. 2011. 'Practising Architectures'. *Social and Cultural Geography*, 12(3): 211–222.
- Jamieson, R. W. 2002. *Domestic Architecture and Power: The Historical Archaeology of Colonial Ecuador*. New York: Kluwer Academic.
- Johansen, K. L., S. T. Laursen, and M. K. Holst. 2004. 'Spatial patterns of social organization in the Early Bronze Age of South Scandinavia'. *Journal of Anthropological Archaeology*, 23(1): 33–55.
- Kamp, K. A. 1993. 'Towards an Archaeology of Architecture: Clues from a Modern Syrian Village'. *Journal of Anthropological Research*, 49(4): 293–317.
- Karandinou, A. 2013. *No Matter: Theories and Practices of the Ephemeral in Architecture*. Oxford: Ashgate.
- Kemp, B. 2005. *Ancient Egypt: Anatomy of a Civilisation*, 2nd edition. London: Routledge.
- Kent, S. Editor. 1993. *Domestic Architecture and the Use of Space: An Interdisciplinary Cross-Cultural Study*. Cambridge: Cambridge University Press.
- Kinzel, M. 2013. *Am Beginn des Hausbaus: Studien zur PPNB-Architektur von Shkārāt Msaied und Ba'ja in der Petra-Region, SüdJordanien [Studies in Early Near Eastern Production, Subsistence, and Environment]*, Vol. 17. Berlin: Ex oriente. 570 pp.
- Kolarevic, B., and A. M. Malkawi. Editors. 2005. *Performative Architecture: Beyond instrumentality*. New York: Spon Press.
- Latour, B. 2005. *Reassembling the Social: An Introduction to Actor–Network Theory*. Oxford: Oxford University Press.
- Latour, B., and A. Yaneva. 2008. "'Give me a gun and I will make all buildings move": An ANT's view of architecture' in *Explorations in Architecture: Teaching, Design, Research*. Edited by R. Geiser, pp. 80–89. Basel: Birkhäuser.
- Law, J., and V. Singleton. 2005. Object Lessons. *Organization*, 12(3): 331–355.
- Lawrence-Zúñiga, D. 2001. 'From Bourgeois to Modern: Transforming Houses and Family Life in Rural Portugal' in *Architectural Anthropology*. Edited by M.-J. Amerlinck, pp. 171–200. Westport, CT: Bergin & Garvey.
- Le Corbusier. 1986. *Towards a New Architecture*. New York: Dover Publications. First published 1931.
- Lucas, G. 2012. *Understanding the Archaeological Record*. Cambridge: Cambridge University Press.
- . 2013. 'Ruins' in *The Oxford Handbook of the Archaeology of the Contemporary World*. Edited by P. Graves-Brown, R. Harrison and A. Piccini, pp. 192–203. Oxford: Oxford University Press.
- . 2015. 'Archaeology and Contemporaneity'. *Journal of Contemporary Archaeology*, 22(1): 1–15.
- McFadyen, L. 2008. 'Temporary spaces in the Mesolithic and Neolithic' in *Prehistoric Britain*. Edited by J. Pollard, pp. 121–134. Oxford: Blackwell Publishing.
- . 2010. 'Spaces that Were Not Densely Occupied – Questioning "Ephemeral" Evidence' in *Archaeology and Anthropology: Understanding similarity, exploring difference*. Edited by D. Garrow and T. Yarrow, pp. 40–52. Oxford: Oxbow.

- . 2013. 'Designing with Living: A Contextual Archaeology of Dependent Architecture' in *Archaeology After Interpretation: Returning Materials to Archaeological Theory*. Edited by B. Alberti, A. M. Jones and J. Pollard, pp. 135–150. Walnut Creek, CA: Left Coast Press.
- Massumi, B. 1998. Sensing the virtual, building the insensible. *Architectural Design*, 68(5–6): 16–24.
- Mol, A. 2002. *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- Monnier, G. 2002. *Le Corbusier, les unités d'habitation en France*. Paris: Belin-Herschel.
- Moore, J. D. 1996. *Architecture and Power in the Ancient Andes: The Archaeology of Public Buildings*. Cambridge: Cambridge University Press.
- Müller, M. Editor. 2015. *Household Studies in Complex Societies: (Micro) Archaeological and Textual Approaches*. Chicago, IL: The Oriental Institute of the University of Chicago.
- Myers, A. M. 2013. *Literature and Architecture in Early Modern England*. Baltimore, MD: Johns Hopkins University Press.
- Nasiali, M. 2012. 'Ordering the Disorderly Slum: "Standardizing" Quality of Life in Marseille Tenements and Bidonvilles'. *Journal of Urban History*, 38(6): 1021–1035.
- Navaro-Yashin, Y. 2012. *The Make-Believe Space: Affective Geography in a Postwar Polity*. Durham, NC: Duke University Press.
- Newsome, W. B. 2009. *French Urban Planning, 1940–1968: The Construction and Deconstruction of an Authoritarian System*. New York: Peter Lang.
- Nielsen, P. O. 1997. 'De ældste langhuse. Fra toskibede til treskibede langhuse i Norden'. *Bebyggelseshistorisk Tidsskrift*, 33: 9–30.
- Norberg-Schulz, C. 1980. *Genius Loci: Towards a Phenomenology of Architecture*. New York: Rizzoli.
- Normark, J. 2010. 'Face/Off: A Neomaterialistic Study of the Face' in *Making Sense of Things: Archaeologies of Sensory Perception*. Edited by F. Fahlander and A. Kjellström, pp. 69–82. Stockholm: Stockholm University.
- Olsen, B. 2003. 'Material Culture after Text: Re-Membering Things'. *Norwegian Archaeological Review*, 36(2): 87–104.
- . 2010. *In Defense of Things: Archaeology and the Ontology of Objects*. Lanham, MD: Altamira Press.
- . 2012. 'Symmetrical Archaeology' in *Archaeological Theory Today*, 2nd edition. Edited by I. Hodder, pp. 208–228. Cambridge: Polity Press.
- Olsen, B., and T. Pétursdóttir. Editors. 2014. *Ruin Memories: Materialities, Aesthetics and the Archaeology of the Recent Past*. Archaeological Orientations. London: Routledge.
- Olsen, B., M. Shanks, T. Webmoor, and C. Witmore, L. 2012. *Archaeology: The Discipline of Things*. Berkeley, CA: University of California Press.
- Oswalt, P., K. Overmeyer, and P. Misselwitz. 2013. *Urban Catalyst: The Power of Temporary Use*. Berlin: DOM Publishers.
- Panerai, P., J. Castex, J.-C. Depaule, and I. Samuel. 2004. *Urban Forms: The Death and Life of the Urban Block*. Oxford: Architectural Press.
- Parker Pearson, M. 2012. 'Stonehenge and the Beginning of the British Neolithic' in *Image, Memory And Monumentality: Archaeological Engagements with the Material World*. Edited by A. M. Jones, M. J. Allen, J. Pollard and J. Gardiner, pp. 18–28. Oxford: Oxbow.
- Parker Pearson, M., and C. Richards. Editors. 1994. *Architecture and Order: Approaches to Social Space*. London: Routledge.
- Pearson, M., and M. Shanks. 2001. *Theatre/Archaeology*. London: Routledge.
- Phillips, J. 2006. 'Agencement/Assemblage'. *Theory, Culture and Society*, 23(2–3): 108–109.
- Pink, S., and K. Leder Mackley. 2014. 'Moving, Making and Atmosphere: Routines of Home as Sites for Mundane Improvisation'. *Mobilities*: 1–17.
- Prussin, L. 1995. *African Nomadic Architecture: Space, Place and Gender*. Washington, DC: Smithsonian Institution Press.
- Rapoport, A. 1969. *House Form and Culture*. Milwaukee, WI: University of Wisconsin.
- Rasmussen, S. E. 1964. *Experiencing Architecture*, 2nd edition. Cambridge, MA: MIT Press.
- Rauh, A. 2012. *Die besondere Atmosphäre: Ästhetische Feldforschungen*. Bielefeld: Transcript.
- Renfrew, C., and P. Bahn. 2012. *Archaeology: Theories, Methods, and Practice*, 6th edition. London: Thames and Hudson.
- Richards, C. 1996. 'Monuments as Landscape: Creating the Centre of the World in Late Neolithic Orkney'. *World Archaeology*, 28(2): 190–208.
- Rollefson, G. O. 1997. 'Changes in Architecture and Social Organization at Neolithic 'Ain Ghazal' in The Prehistory of Jordan. II. Perspectives from 1997. Edited by Hans Georg K. Gebel, Z. Kafafi and G. O. Rollefson, pp. 287–307. Berlin: Ex Oriente.

- Roth, L. M., and A. C. R. Clark. 2014. *Understanding Architecture: Its Elements, History, and Meaning*. Philadelphia, PA: Westview Press.
- Saidel, B. A. 1993. 'Round House or Square? Architectural Form and Socioeconomic Organization in the PPNB'. *Journal of Mediterranean Archaeology*, 6(1): 65–108.
- Samson, R. 1990a. 'Introduction' in *The Social Archaeology of Houses*. Edited by R. Samson, pp. 19–48. Edinburgh: Edinburgh University Press.
- . (ed.). 1990b. *The Social Archaeology of Houses*. Edinburgh: Edinburgh University Press.
- Schiffer, M. B. 1987. *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press.
- Schirmer, W. 1990. 'Some Aspects of Building at the "Aceramic-Neolithic" Settlement of Cayonu Tepesi'. *World Archaeology*, 21(3): 363–387.
- Schmitz, H. 2011. 'Emotions Outside the Box – the New Phenomenology of Feeling and Corporeality'. *Phenomenology and the Cognitive Sciences*, 10(2): 247–259.
- . 2014. *Atmosphären*. Freiburg: Karl Alber.
- Shanks, M. 2007. 'Symmetrical Archaeology'. *World Archaeology*, 39(4): 589–596.
- Shepherd, I. A. G. 1982. 'Comparative Background: The Assemblage'. *Proceeding of the Prehistoric Society*, 112: 129–132.
- Skeates, R. 2010. *An Archaeology of the Senses: Prehistoric Malta*. Oxford: Oxford University Press.
- Sørensen, T. F. 2013. 'We Have Never Been Latourian: Archaeological Ethics and the Posthuman Condition'. *Nonwegian Archaeological Review*, 46(1): 1–18.
- . 2015. 'More Than a Feeling: Towards an Archaeology of Atmosphere'. *Emotion, Space and Society*, 15: 64–73.
- . 2016 in press. 'In Praise of Vagueness: Uncertainty, Ambiguity and Archaeological Methodology'. *Journal of Archaeological Method and Theory*.
- Spuybroek, L. 2008. *The Architecture of Continuity: Essays and Conversations*. Rotterdam: V2_Publishing.
- Steadman, S. R. 1996. 'Recent Research in the Archaeology of Architecture: Beyond the Foundations'. *Journal of Archaeological Research*, 4(1): 51–93.
- . 2000. 'Spatial Patterning and Social Complexity on Prehistoric Anatolian Tell Sites: Models for Mounds'. *Journal of Anthropological Archaeology*, 19(2): 164–199.
- Tarlow, S. 2000. 'Landscapes of Memory: the Nineteenth-Century Garden Cemetery'. *European Journal of Archaeology*, 3(2): 217–239.
- Tesch, S. 1991. 'Tradition and Change during the Bronze Age and Iron Age: Houses as Archaeological Sources for the Study of Changes in the Cultural Landscape'. *Ecological Bulletins*, 41: 326–336.
- Thibaud, J.-P. 2015. 'The Backstage of Urban Ambiances'. *Emotion, Space and Society*, 15: 39–46.
- Thomas, J. 2006. 'Phenomenology and Material Culture' in *Handbook of Material Culture*. Edited by C. Tilley, W. Keane, S. Küchler, M. Rowlands and P. Spyer, pp. 43–59. London: Sage.
- Thrift, N. 2008. *Non-representational Theory: Space, Politics, Affect*. London: Routledge.
- Till, J. 2009. *Architecture Depends*. Cambridge, MA: MIT Press.
- Tilley, C. 1994. *A Phenomenology of Landscape: Places, Paths and Monuments*. Oxford: Berg.
- . 2004. 'Round Barrows and Dykes as Landscape Metaphors'. *Cambridge Archaeological Journal*, 14(2): 185–203.
- . 2008. *Body and Image: Explorations in Landscape Phenomenology 2*. Walnut Creek, CA: Left Coast Press.
- Turner, S. 2005. 'Suspended Spaces – Contesting Sovereignties in a Refugee Camp' in *Sovereign Bodies: Citizens, Migrants, and States in the Postcolonial World*. Edited by T. Hansen and F. Stepputat, pp. 312–332. Princeton, NJ: Princeton University Press.
- Ulfstjerne, M. A., and M. Woodworth. 2016 in press. 'Taking Part: The Social Experience of Informal Finance in Ordos, Inner Mongolia'. *The Journal of Asian Studies*.
- van der Hoorn, M. 2009. *Indispensable Eyesores: an Anthropology of Undesired Buildings*. Oxford: Berghahn.
- Wasserman, J. A., and J. M. Clair. 2009. *At Home on the Street: People, Poverty, and a Hidden Culture of Homelessness*. Boulder, CO: Lynne Rienner Publishers.
- Watkins, T. 1990. 'The Origins of House and Home?' *World Archaeology*, 21(3): 336–347.
- Webmoor, T., and C. L. Witmore. 2008. 'Things Are Us! A Commentary on Human/Things Relations under the Banner of a "Social Archaeology"'. *Nonwegian Archaeological Review*, 41(1): 53–70.
- Whitridge, P. 2004. 'Landscapes, Houses, Bodies, Things: "Place" and the Archaeology of Inuit Imaginaries'. *Journal of Archaeological Method and Theory*, 11(2): 213–250

- Witmore, C., L. 2007. 'Symmetrical Archaeology: Excerpts of a Manifesto'. *World Archaeology*, 39(4): 546–562.
- . 2012. 'The Realities of the Past: Archaeology, Object-Orientations, Pragmatology' in *Modern Materials: Proceedings from the Contemporary and Historical Archaeology in Theory Conference 2009*. Edited by B. R. Fortenberry and L. McAtackney, pp. 25–36. Oxford: Archaeopress.
- . 2014. 'Archaeology and the New Materialisms'. *Journal of Contemporary Archaeology*, 1(2): 203–224.
- World Archaeology. 2009. Special issue: 'The Archaeology of Buildings'. *World Archeology*, 41(3). tandfonline.com.
- Wotton, H. 1624. *The Elements of Architecture*. London: John Bill.
- Yaneva, A. 2009. *The Making of a Building: a Pragmatist Approach to Architecture*. Bern: Peter Lang.
- . 2013. *Mapping Controversies in Architecture*. Surrey: Ashgate.
- Yates, T. 1989. 'Habitus and Social Space: Some Suggestions about Meaning in the Saami (Lapp) Tent ca. 1700–1900' in *The Meanings of Things: Material Culture and Symbolic Expression*. Edited by I. Hodder, pp. 249–262. London: Unwin Hyman.
- Ziehl, M., S. Osswald, O. Hasemann, and D. Schnier. Editors. 2012. *Second Hand Spaces: Recycling Sites Undergoing Urban Transformation*. Berlin: jovis Verlag.
- Zimmerman, L. 2013. 'Homelessness' in *The Oxford Handbook of the Archaeology of the Contemporary World*. Edited by P. Graves-Brown, R. Harrison and A. Piccini, pp. 336–350. Oxford: Oxford University Press.

On behalf of form

The view from archaeology and architecture

Graham Harman

The key principle of object-oriented philosophy is that real objects have an autonomous reality, withdrawn from their relations (see Harman 2011a, 2011b for introductions to object oriented philosophy; see also Bryant 2011). This does not mean that nothing relates to anything else, since in that case we would have neither causality nor proximity, and would have a hard time explaining how anything happens at all. What the withdrawal of objects really means is that no real object is exhausted by its current relations, or even by all of its possible relations. The object is a determinate though elusive surplus that can never fully be mined. Insofar as objects escape the grasp of any privileged human subject, it is often assumed that object-oriented philosophy is a form of “materialism.” But given that each withdrawn object has a specific individual structure, objects are best viewed not as matter, but as hidden and definite *forms*. This preoccupation with objects and forms cuts against the grain of most recent avant-garde theorizing in the arts, humanities, and social sciences. Usually objects are either dissolved downward into material components and sub-individual, blob-like masses (“undermining”), or they are dissolved upward into holistic networks of relations, events, and practices (“overmining”), or both of these at once (“duomining”). Form, for its part, has been so marginalized by the repeated waves of materialist theories that it is usually mentioned only in the context of *mathematical formalization* (for recent examples see Badiou 2006; Meillassoux 2008), precisely the opposite of what object-oriented philosophy means by form: a surplus beyond any access, mathematical or otherwise.

Elsewhere I have discussed the varying strategies that theorists in various disciplines have used to get rid of objects (see Harman 2013a). In the present article I will turn from objects to forms, conceived in non-relational fashion. The word “form” often appears as half of some theoretical opposition, such as form vs. matter, form vs. function, or form vs. content. The last of these (form vs. content) is of the greatest interest for the past century of philosophy, media theory, and art criticism. I have discussed it recently in connection with the thought of Martin Heidegger, Marshall McLuhan, and Clement Greenberg, all of whom treat the explicit content of human awareness as superficial by contrast with a more dominant hidden background (see Harman 2013b). Here I will focus instead on form vs. matter and form vs. function, which speak more directly to the concerns of archaeology and architecture.

Form vs. matter is the division most relevant to archaeology, even if the term “form” does not occur as frequently as “matter.” Material things are obviously of greater prominence in

archaeology than in most disciplines, and some orientations (“symmetrical archaeology” comes to mind) deliberately assert the importance of material entities against other, more human-centered concerns (see Olsen 2012; Olsen and Witmore 2015). In this connection I will first consider Bjørnar Olsen’s defense of the autonomy of things, which shows his position to be close to my own, despite Olsen’s greater fondness for the word “matter.” The same holds for Christopher Witmore, whose standpoint also resembles my own except for his more positive view of the recent “New Materialisms” and Levi Bryant’s 2012-era turn from realism to materialism (see Witmore 2014). Though I am sympathetic to Olsen and Witmore’s disciplinary reasons for speaking well of materialism, and with the theoretical position they articulate on its basis, I will also suggest that this term may do more harm than good (see also Harman 2010; 2014b). Next I will discuss Ian Hodder’s concept of “entanglement” as deployed against Bruno Latour’s version of actor–network theory (Hodder 2014a). Though both authors seem to adopt a relational standpoint at odds with my own, what is really at stake in their interesting disagreement is whether relations are symmetrical in the sense of being *reversible*, with Hodder answering firmly in the negative against Latour’s commitment to reversibility. We can then turn to form vs. function, the opposition most familiar to architecture. Here I will consider the work of the prominent formalist architect Peter Eisenman by examining the formalist program of his important 1963 doctoral dissertation. In order to discover the limits of both Eisenman and his critics, I will also consider the views of parametricist architect Patrik Schumacher, who argues that Eisenman is wrong to privilege form over function rather than offering a balance between the two. But in fact, I will suggest that neither Eisenman nor Schumacher has a sufficiently robust concept of form. Finally, since it is often assumed that a focus on objects entails contempt for human beings, it needs to be asked whether the presence of humans in any situation automatically subverts the autonomous reality of things.

The ensuing pages may be easier to follow if I announce my conclusions at the beginning: (1) With Olsen and Witmore and against their critics, I will champion *symmetry* across all disciplines: whatever the obvious distinction between humans and non-humans may be, it cannot be built into the foundations of ontology in such a way that our relatively minor species balloons into 50 percent of the universe. But to some extent against Olsen and Witmore, I will also speak in favor of formalism rather than materialism. (2) With Hodder and against Latour, I will defend the notion that relations are not always reversible, but often contain a dominant term. At the same time, against both Hodder and Latour, I will promote the idea of things as withdrawing from their relations rather than being constituted by them. (3) With Eisenman and against Schumacher, I will contend that form in architecture is more important than function. But against both, I will call for a deeper sense of form than either the geometrical basis or outward look of a building. (4) Finally, I will argue with the philosopher Manuel DeLanda and against the art theorist Michael Fried that the mind-independent autonomy of objects and the causal independence of objects from humans are two different things. This difference will lead us directly to the idea of “anthropocene” objects.

Materialism and formalism

In the Introduction to his 2010 book *In Defense of Things*, the Norwegian archaeologist Bjørnar Olsen warns against purported object-oriented turns that somehow end up retaining the dominance of human beings:

During the last two decades we have witnessed a new interest in things, materiality and landscape in a number of disciplines. However, for some reason, this interest has largely

left void the intrinsic *material* significance of things and the qualities they express beyond human cognition, representation, and embodiment . . . [There is] an implicit assumption that cultures, “already different,” approach the world in unique ways, causing a variety of material expressions and meanings. Thus, despite much talk about somatic experiencing and bodily practices things and landscapes seem to have little to offer to this experience beyond being plastic, open ended, and receptive.

(Olsen 2010: 3)

The cautionary note is important. Not every theory that claims to do justice to non-human objects delivers on this promise. Olsen is warning us not just to treat things as waxy receptacles for human culture and meaning, but to take them seriously in their own right. He chooses the term “material” to refer to things in their inherent constitution, beyond any aggressive human molding they might undergo. Whether Olsen himself goes far enough along this path remains an open question. We can certainly agree with his basic philosophical position, which would seem merely commonsensical if not that most of the humanities and social sciences have spent several decades ridiculing it: “This book is grounded in a realist attitude in the sense that I do believe the material world exists and that things constitute a fundamental and persistent foundation for our existence” (ibid.: 4). His diagnosis of recent anti-realist trends in intellectual life rings true: “Symptomatic of [the] anthropocentric attitude, if also somewhat semantically misleading, are the antiessentialist buzzwords of invention and construction. Traditions and cultures are *invented*, nations *imagined*, and knowledge *constructed*” (ibid.: 5). Olsen takes the rare but important step of judiciously challenging the supposed materialist positions of Marx and Foucault, both regarded as intellectual saints in broad segments of academia. With respect to purely social constructionism, “Marxism represents an exception, but even here, things, albeit important, are largely reduced to a confined structural feature and the means of social production within the total social formation” (ibid.: 5). Beyond this, there is the well-known fact that any talk of the properties of nonhuman things in Marxist circles quickly leads to charges of “objectification, reification, and instrumental reason” (ibid.: 12, punctuation modified) As for Foucault, who is generally no sooner mentioned than flattered, Olsen also offers refreshingly restrained praise:

[The] somatic turn, also as inspired by (and reflected in) the works of de Certeau, Foucault, and others, clearly paved the way for less logocentric approaches in social studies . . . However, despite its indisputable material potential, there is usually something crucial missing in most of these accounts of the competent body found in disciplines such as philosophy, literary studies, sociology, and anthropology: the *things* that the body relates to and blends in with—in short, the material components of the world it is *being in* . . . One often gets the impression that in these disciplines, the human body is the only flesh of the world, and that this lived-in body roams the ground rather unconstrained by other types of beings.

(Olsen 2010: 7)

From such passages we can already sense Olsen’s rare skill in identifying false object-oriented theories that seem to offer entryways into realism or materialism, but that ultimately turn out to be nothing but alibis for retaining a human-centered standpoint. Marxist theories tend to treat non-human entities as empty markers in a fetishizing class struggle, while Foucault’s supposed attention to “materiality” really just points to the historic malleability of human subjects. Olsen is right to demand more than this. The turn to “embodiment” in recent theory is a typical example of what often happens along supposed materialist paths. When Elaine Scarry talks about

bodily memory enabling us to ride a bicycle even after a ten-year hiatus (Scarry 1985: 109), Olsen wittily notes that “something rather essential, however, is missing from this story: *the bike*. The other half is entombed in the celebration of the clever body, and we are once more left with the sound of one hand clapping” (ibid.: 8). Even in archaeology, which in principle ought to be the most object-oriented of all humanistic fields, Olsen detects an excessive focus on entities that establish personal identity (“ornaments, dresses, tattooing”) or that represent human beings directly (“figurines, masks, anthropomorphic rock art”). He calls instead for a turn to “being as a materially entangled being” (ibid.: 9). Here is our first glimpse of entanglement, the key term of Hodder to which the next section will return. Channeling the spirit of Latour (1993), Olsen expands on this point: “if there is one historical trajectory running all the way down from Olduvai Gorge to Postmodernia, it must be one of increased mixing: that more and more tasks are *delegated* to nonhuman actors, and more and more actions are mediated by things” (ibid.: 10).

Of more immediate interest is that Olsen links entanglement with the concept of *materiality*. As he tells us in his Introduction, as cited above:

During the last two decades we have witnessed a new interest in things, materiality, and landscape in a number of disciplines. However, for some reason, this interest has largely left void the intrinsic *material* significance and the qualities they possess beyond human cognition, representation, and embodiment.

(Olsen 2010: 3)

He complains in the same vein that “archaeology and material culture studies, despite their self-proclaimed success, have to such an extent moved away from the *material* qualities of things and subsumed themselves to hegemonic antimaterial and social-constructivist theories” (ibid.: 3; italics added). Though “material” might seem like a good name for that which escapes the modern dominance of the human sphere, my claim is that it does the opposite. Consider Latour’s oddly neglected anti-materialist article “Can We Get Our Materialism Back, Please?” (2007). In a nutshell, Latour’s objection to materialism is that it replaces things with abstract oversimplifications of what those things are, thereby suppressing their inherent dose of mystery. As he puts it:

This is why the materialism of the recent past now looks so idealistic: it takes the idea of what things in themselves should be—that is, primary qualities—and then never stops gawking at the miracle that makes them “resemble” their geometrical reproduction in drawings.

(Latour 2007: 139)

He expands on this point two pages later: “What is so promising about extricating material materialism from its idealist counterpart . . . is that it accounts for the surprise and opacity that are so typical of techniques-as-things and that techniques-as-objects, drawn in the *res extensa* mode, completely hide” (ibid.: 141).

Latour wishes to put an end to mainstream materialism by replacing its claim to *know* the true primary qualities of things by identifying them with “surprise” and “opacity.” Though Latour’s critics have sometimes called him a “sophist,” it would be hard to find a more *Socratic* procedure than this turn from false knowledge-claims to the *love* of wisdom (*philosophia*) rather than wisdom itself (*sophia*). Nonetheless, it may also be questioned whether Latour always stays true to this admirable principle. As I have argued elsewhere (Harman 2009), Latour has an

excessively relational conception of entities that ultimately replaces the surprise and opacity of things with the “materialist” claim (in Latour’s own pejorative sense) that a thing is nothing more than whatever it modifies, transforms, perturbs, or creates. This is why he calls objects “actors,” since he holds that they are nothing more than how they act on other things (Latour 1999: 122). By relationizing objects in this way, by discounting all hope that they may have some surplus beyond their current expression, Latour follows in the footsteps of some of his favorite thinkers: the semiotician Algirdas Greimas, and the philosophers William James and Alfred North Whitehead. At most, Latour replaces the untenable full-blown idealism of things that exist only for humans with a less anthropocentric version of the same prejudice, in which things exist only for other things and never in their own right.

We can now see that, despite Olsen’s positive use of words such as “materiality,” he is a more consistent anti-materialist (in Latour’s sense of the term) than Latour himself. While relational ontology covertly replaces all surprise in beings with a supposed *knowledge* that everything is really just relational, Olsen will have no part of this: “something rather crucial about things’ being is lost if the principles of semiotics (and relational theories at large) are ‘ruthlessly applied’ to them [as John Law demands]” (Olsen 2010: 155, referring to Law 1999). As Olsen puts it in a final eloquent summary:

Even when removed from their original contextual setting and dislocated, things retain some of their integrity. A Neolithic pot used for storing food, left behind in an abandoned settlement from where it is recovered six thousand years later, retains some of its uniqueness and autonomy . . . [The] different properties [of different things] are constitutive and imperative for their incorporation into collectives and networks. Thus, rather than thinking of them as produced in relations, we may think of them *as what makes relations possible*.
(Olsen 2010: 156–157, original emphasis)

This is nicely stated. If Latour is right that materialism means the replacement of the thing’s surprise and opacity by an abstract and transparent *model* of the thing, then anti-materialism is the only way to defend surprise and opacity.

Witmore joins Olsen in defending the autonomy of things. In his 2014 article “Archaeology and the New Materialisms,” there are many statements that object-oriented philosophers would have been happy to make themselves. He rightly complains that something important is lost “when turf embankments, glass bottles or plaster surfaces are treated as mere vehicles to something else, to those societies that supposedly left such bottles behind” (Witmore 2014: 203). Stated differently, “nothing should be excluded because of an arbitrary divide between made and unmade objects, artifacts and ecofacts or externs, kinetic and inert, humans and non-humans” (ibid.: 206). Witmore’s uncompromising flat ontology earns gently raised eyebrows from his colleagues Hodder, Matt Edgeworth, and Marisa Lazzari—not to mention a surprisingly testy rebuke from Tim Ingold (see Hodder 2014b; Edgeworth 2014; Ingold 2014; Lazzari 2014). All these respondents are leery of what they see as Witmore’s attempt to dehumanize archaeology. But for reasons to be given in the final section of this article, they are conflating two different aspects of the human relation to objects, which I will call human as observer and human as ingredient. What is crucial is to recognize that things do not have the sole purpose of shaping, resisting, or symbolizing human activity. And this is where I find Witmore’s alliance with New Materialism to be somewhat dangerous, since the major New Materialists (Karen Barad and Rosi Braidotti come to mind) do not allow either humans or things a reality exceeding their mutual interplay (see Barad 2007; Braidotti 2013). While this may help free us from modern philosophy’s notion of a worldless human subject, it merely reinforces the equally burdensome

model of the “world” as doing nothing more than resisting or entertaining us, as being exhaustively present in the combined spheres of scientific theory and practical use. I have the same objection to Isabelle Stengers’ term “ecology of practices,” which Witmore again views more favorably than I do. My worry here is that, like all pragmatist standpoints, the philosophy of Stengers poses as neutral on whether humans have a privileged ontological role, though “ecology of practices” always turns out to mean “ecology of *human* practices” (Stengers 2010; for a critique see Harman 2014c). Another frequent aspect of New Materialists is their suspicion of discrete individual entities and preference for some sort of pre-individual becoming, an idea most often motivated by the thought of Gilles Deleuze. For instance, Jane Bennett recommends that we “understand ‘objects’ to be those swirls of matter, energy, and incipience that hold themselves together long enough to vie with the strivings of other objects, including the indeterminate momentum of the throbbing whole” (Bennett 2012: 227).

This treatment of discrete objects is derivative of prior wholes and prior continua of becoming amounts to an ontological commitment, and such commitments are found among archaeologists no less than among philosophers. For example, Edgeworth cites Ingold in rejecting the relevance of object-oriented ontology to architecture:

[A]rchaeology is more grounded in Tim Ingold’s flowing materials than Graham Harman’s unified and autonomous objects. What is missing from Witmore’s largely static assemblages of things is not just the sparking, creative presence of ideas intermeshed with materials, but time itself.

(Edgeworth 2014: 226)

Yet there is nothing remotely “static” or timeless about Witmore’s position or my own. The problem with such models of constant flow is that by viewing time as a ceaseless dynamism, all times are rendered equally dramatic, equally laden with transformation. But not all instants are of equal importance in the life of things, any more than in the life of humans. When Niles Eldredge and Stephen Jay Gould reinterpreted evolution as a matter of punctuated equilibria rather than constant but gradual change, this was no “static” theory of evolution, but one better equipped than its predecessors to pick out periods of *crucial* change. To speak of “flows” rather than objects is actually a way of disempowering change by making it a matter of relatively arbitrary “cuts” in the flow rather than genuine articulations by reality itself. I mention all of this largely in an effort to persuade Witmore that the New Materialists, in their lingering anthropocentrism and their commitment to a Bergson-Deleuzian model of time, are more natural allies for Edgeworth and Ingold than for his own position.

In any case, anti-materialism needs a more positive name, and given that form is the traditional opposite of matter I can think of no better name than *formalism*. It is true that the word “formalism” is usually employed for the opposite purpose: in architecture and the arts it usually refers to that which is visibly accessible; in recent philosophy, as in the works of Alain Badiou, it refers to that which can be adequately formalized in mathematical terms (see especially Badiou 2006). In both of these cases it is precisely the opposite of the surprise and opacity we demand from objects. Yet the “form” to which I am referring is not the visible or accidental form that a thing takes on solely in relation to humans or to some other thing. Instead, I refer to the form of a thing that remains deeper than all visibility or relation: similar to what the medievals called “substantial form,” or *forma substantialis*. But now we should ask how the surprising and opaque forms of things can have anything at all to do with entanglement, since their autonomous depth beneath all contact would seem to leave them utterly unentangled with anything else.

Irreversible entanglements

The Winter 2014 issue of *New Literary History* contained provocative articles by Latour and Hodder, to which I was invited to compose a response (the three articles were Latour 2014; Hodder 2014a; and Harman 2014a). Like most respondents on such occasions, I tried to identify both positive and negative features in the standpoints of both articles. In Hodder's case, I liked both the non-relational and asymmetrical aspects of his approach. As for non-relationality, Hodder expressed some misgivings about Latour's heavily relationist approach, in which actors essentially dissolve into their relations with other actors. As for asymmetry, Hodder was not taking aim at symmetrical archaeology, but at Latour's inclination to regard relationships as inherently equal and reversible, though we know that many "mutual" dependencies find one *relatum* far more dependent and powerless than the other. What I disliked in Hodder's approach, though this is also found in Latour's recent book *An Inquiry Into Modes of Existence* (2013),¹ is the notion that humans are so radically different in kind from all other entities that "humans" and "things" make up the two chief terms in a global taxonomy of beings. In one sense this reinforces the worst tendency of contemporary materialism, which is the assumption that merely putting "humans" and "world" in constant interplay (as Barad and Braidotti do) is enough to overcome the anthropocentrism of the world—though this is hard to do when our frail and lonely species is inflated into a full half of the cosmos. But in another sense, Hodder sidesteps the worst tendency of such materialism by considering thing–thing relations and not just abandoning them to the natural sciences, as is usually done in the humanities and social sciences.

Since Hodder's views on materialism and relationality seem to have changed somewhat over the years, let's consider his recent position as expounded in the 2012 book *Entangled*, whose title points to what interests us most about this author. Let's focus on Chapter 5 of that work, which bears a title convenient for our purposes ("Entanglement," plain and simple) and also engages in debate with Latour. Against the mainstream social constructionist focus on human–human relationships, and against the new "materialism" that prefers to focus on the human–thing coupling, Hodder wants us to consider all four permutations of these two terms. He is intrigued by:

how humans depend on things (HT), how things depend on other things (TT), [and] how things depend on humans (TH). If we add the obvious point that humans depend on humans (HH), then entanglement, at one level, is simply the addition of these four sets of dependences and dependencies. Entanglement = (HT) + (TT) + (TH) + (HH).

(Hodder 2012: 88)

Despite the lingering modernist prejudice here that humans and things represent two great ontological kinds, with humans standing alone on one side and all reptiles, machines, rocks, chemicals, stars, and plants on the other, we can greatly appreciate the fact that Hodder is unlike most philosophers in saying anything about (TT) relationships at all. Hodder is also right to stress Latour's relative weakness in accounting for thing–thing relationships with no humans present (though Latour is stronger on this point than most philosophers!). As Hodder reminds us:

Latour agreed [in his 1996 response to Pierre Lemonnier] that pure, asocial material constraints [do] not exist in his perspective. Because Latour is intent on moving beyond subject/object dualisms and dialectical relations, he often appears to show little interest in objects and object relations themselves and the non-human ecologies in which they interact.

(Hodder 2012: 93)

On the whole this is a fair complaint, though we should also note those moments when Latour *does* show an awareness of (TT) interactions. Consider the following marvelous passage:

For a long time it has been agreed that the relationship between one text and another is always a matter for interpretation. Why not accept that this is also true between so-called texts and so-called objects, and even between so-called objects themselves?

(Latour 1988: 166)

A bit later Latour tells us that his actor–network principles hold for absolutely any relation: “a problem in geometry, a genealogy, an underground network, a fight between husband and wife, or the varnish painted on a canoe” (ibid.: 185). Nonetheless, by contrast with relations involving at least one human participant, instances of varnish–canoe and other object–object relations in Latour’s writings are as rare as Hodder suggests.

Nor is Latour his only target, since he is equally critical of Marilyn Strathern on this point: “The focus [in Strathern] is on relationships between people, how things connect opposed categories and allow the hybridity and transformation. There is a lack of symmetry in the treatment of things. Strathern eschews the thing-in-itself” (Hodder 2012: 90). Hodder joins Olsen in skepticism towards actor–network theory’s model of a “‘semiotics of materiality’ [that] takes the semiotic focus on relationality and applies it to all materials, producing a relational materiality” (ibid.: 91). Some of these actor–network semioticians take things so far that for them “there is some doubt whether physical processes could ever be separated out within the human–nonhuman hybrids” (ibid.: 95). In other words, despite all the actor–network talk about nonhuman actors, Hodder’s (TT) relations are treated by Latour as impossible unless an H is there to mediate the pair of Ts. In light of this criticism, it may seem paradoxical that Hodder also blames Latour for going too far in *weakening* the nature/culture opposition. Yet Hodder does not do so in the name of restoring the Cartesian dualism of matter and thought. Instead, he is simply following up on his insight that relations are often less symmetrical than Latour imagines, and that entities associated with the old “nature” pole often have the upper hand on humans. As Hodder puts it:

In my view [Latour] goes too far [with nature/culture symmetry]. When the ice melted at the end of the Pleistocene it had a widespread effect on human society. There was some relationship with the emergence of settled villages and the domestication of plants and animals. Even if this effect was varied in different parts of the globe, and even if we do not understand the effects adequately, this climate change, unlike our own, was independent of humans.

(Hodder 2012: 93)

In this respect, humans are dominated by the (sometimes literally) glacial pace of the environment with which they are entangled. At the same time, many of the things in our midst are notably “high-maintenance” in character. And here, “the dependence of things on humans means that humans are always busy along the strings or cables of entanglement mending things, putting fingers in dykes, fixing holes in buckets, and so on” (ibid.: 98).

There is one important point at which Hodder’s reading of Latour strikes me as incorrect, concerning Latour’s supposed abandonment of nature–culture symmetry. Hodder speaks as follows:

For Latour in such analyses [as that of a speed bump that acts in the manner of a human policeman], there is no separation between thing and society. In 2005 he abandoned the

principle of symmetry because “the last thing I wanted to do was give nature and society a new lease on life through ‘symmetry.’” As a result, in Latour’s analyses things are always already caught up in networks of humans and non-humans and the object nature of things separate from society is not a key part of the analysis.

(Hodder 2012: 94; citing Latour 2005: 76)

As I see it, there are three problems with this interpretation of what happened with Latour in 2005. First, the principle of symmetry has never been what allowed Latour to speak about “the object nature of things separate from society,” but is one of the factors *preventing* this from happening. Contra Hodder, Latour’s abandonment of symmetry in 2005 is an explicit effort to fight contemporary “materialisms” that try to overcome the human/world dualism simply by gluing both pieces together. Such gluing was never the point of Latour’s flat ontology, whose inner tendency was to put humans on the same footing with all the trillions of other entities, though in practice this happened only in a few cases such as the aforementioned varnish–canoe example. Second, the proclaimed abandonment of symmetry in 2005 was never actually carried out. The evidence for this can be seen in the rigidly symmetrical quasi-subject/quasi-object duality in Latour’s recent *An Inquiry into Modes of Existence* (2013), a duality that gives rise to an almost Kantian symmetry of four groups of three modes apiece (the fifth group of three is really just a group of two: networks [NET] and prepositions [PRE], with double-click [DC] not belonging among the modes at all). Third and most importantly, Hodder is not quite right to say that Latour’s problem is the inability to talk about natural entities apart from society. In fact, we should accept Latour’s intention (even if not always carried out) to eliminate the *taxonomical* dualism between nature and culture. The real problem is in knowing how we can speak of the non-relational elements *both* of what used to be called nature *and* what used to be called culture. For despite Latour’s own conflation of the two issues, it is not the case that nature means the same as “things in their own right” and culture means “things in relation to us.” While it is *causally* true that human culture emerges only when humans relate to one another, it does not follow that human culture is purely relational: after all, there is an internal consistency to human culture that eludes direct human awareness. The Swiss canton system and the unspoken codes of hip-hop culture have a reality irreducible to what anyone thinks they *know* about these things. Nor does it follow that nature is purely “in-itself,” since objects in nature also manifest themselves in relation to us and each other. The real issue here is not whether Latour abandons *symmetry*, but whether he provides the resources to escape *relationality*, irrespective of whether it be the relationality of humans or nonhumans.

This brings us to perhaps the most important difference between Hodder and Latour. The riskiest “symmetry” in Latour’s writings is not so much that between humans and nonhumans, as it is that between the relata existing in relation with each other. Much of the reason for Latour’s relative optimism about life, his relative lack of interest in standard Leftist critiques of oppression and exploitation, can be found in his refreshing view that relations are reversible and centers of power are weaker than we often imagine. For instance, Latour does not seem to think that something called “capitalism” even exists: though even if it did, he would be confident that it is less powerful than it looks, that it can be reversed with an often minimal rearrangement of forces. Hodder’s chief insight is precisely the opposite: the fact that relations often take the character of *entanglement*. This means that we are at the mercy of those entities stronger than we are thanks to our dependence on them, but also at the mercy of those entities weaker than we are that need constant maintenance. Entanglement means “being caught in all the forms of human–thing dependences” (Hodder 2012: 94). But unlike the extreme holism of most relational theories, Hodder is well aware that not all relations are entanglements:

Practices that produce carbon emissions affect us all today, but my fixing of a tap in a house on one side of London may well be unrelated to the stumbling over the piano keys of a student playing the Moonlight Sonata on the other side.

(Hodder 2012: 105–106)

As an important overseer of archaeological digs, Hodder knows that relations between things do not come as automatically built-in features of any situation, but must be detected or demonstrated through hard work. Speaking of his ongoing presence in Turkey, Hodder tells us:

[A]t Çatalhöyük it remains to be demonstrated whether any links can be found between pottery production and burial practices. We need to search for any empirical evidence of associations or oppositions that might suggest some linkage between the entanglements surrounding burial and those surrounding pottery.

(Hodder 2012: 106)

No holist would need to search for empirical evidence of relations in this painstaking way, because holists start off by *assuming* that everything is connected to everything else. The difference between entanglement and “related notions such as networks, systems, structures, societies, cultures” concerns “the term ‘depend’ in the relationships between humans and things” (ibid.: 112). And not only are we dependent on the things around us right now, our biographies as individuals and even as a species are *path-dependent*. “The lock-in effect from remote events occurs, from an economist’s point of view, largely because of the costs of switching from one alternative to another increase over time. The costs of exit from a particular strategy increase over time” (ibid.: 105). And if we come to view the symmetry of all relata as untenable, we move toward Hodder’s deeply political notion that “entanglements have core areas and peripheries that change according to perspective, power, and historical context” (ibid.: 109).

One key problem with relational ontologies is that they have difficulty accounting for the difference between trivial incidents such as coffee mugs resting on tables and important ones such as the 1979 Camp David Summit. One of the virtues of Alain Badiou is to have drawn our attention once more to the fact that *events* are relatively rare amidst the pseudo-turbulent sea of trivial changes and modifications in which we are always immersed (Badiou 2006). Alongside Eldredge and Gould, one of the virtues of Lynn Margulis in biology was to challenge the gradualist evolutionary dogma of neo-Darwinism with the notion of sudden pivotal changes made through *symbiosis* (Margulis 1998). Ultimately, entanglement can be viewed as a form of symbiosis, and symbiosis (unlike most relations) is sticky indeed. We can no more detach ourselves from tools than we can separate the originally independent organelles of the cells in our bodies; nor is it easier to separate ourselves from the internal combustion engine than it is to separate salt from seawater. As opposed to the purportedly dynamic holisms so in fashion today that put the source of change in some underlying primal flux of becoming, Hodder holds that “the source of transformation in human society is not in the material facts of existence but in the dependencies between humans and things” (ibid.: 97).

To summarize, Hodder’s discussion of entanglement is a useful corrective to the rampant relationism of actor–network theory and its allied trends. Hodder not only makes room for a discussion of thing–thing (TT) relations without human mediators (something rather hard to pull off in philosophy since Kant), he also reminds us that many or most relations are not balanced and symmetrical but involve a dependence verging on irreversibility. Hodder is thus very convincing on the subject of entanglement, meaning two entities entwined together. But does

this not put him squarely at odds with the non-relational autonomy of things defended so compellingly by Olsen? To answer this question we will need to turn from entanglement to formalism, which (the reader will recall) we defined not in the usual way as visible, accidental, relational form, but as non-relational and essential form.

Form and relation

Since the early 1990s, architecture has been in non-stop celebration of the relational features of its buildings. David Ruy is perhaps the most eloquent critic of this situation:

Nature, seen through the ecological telescope, is a grand network of relations where the appearances of objects (rock, tree, frog, cloud, human, etc.) are superficial, and the network of relations is understood to be the deeper reality. The grand finale of architecture's movement from object to field may very well be the collapse of the architectural object into a field of relations that then dissolves into a general ecological field of relations that constitutes the world.

(Ruy 2012: 39)

One of the foremost champions of the relational approach, Patrik Schumacher of Zaha Hadid Associates, goes so far as to admit that architecture is now so enthralled by the parametrically defined relations between all elements of a building, that he is not even sure how to place doors and windows in a non-arbitrary way amidst the flowing curves and gentle gradients of his and Hadid's parametric style (Schumacher 2011).

But Schumacher interests us now for a different reason. In the earlier discussion of symmetrical archaeology I lobbied for use of the term *form* rather than today's ubiquitous *matter*. In architecture, however, the usual nemesis of form is not matter but *function*. As concerns this eternal form/function conflict in his profession, Schumacher has clear opinions that can help orient us:

Architectural discourse is organized around the lead-distinction of *form* versus *function*. Architecture, like all design disciplines, hinges upon this distinction. That architecture always has to address both terms of this distinction has been asserted over and over again by many architects and architectural theorists. Whenever one term of the distinction seems to be in danger of being neglected, vehement reminders are issued . . . There are countless instances of this theoretical steering effort against the twin evils of a one-sided Formalism and one-sided Functionalism. The perennial Formalism–Functionalism controversy is itself the clearest evidence for the thesis proposed here that the distinction between form and function is the lead-distinction of architecture/design.

(Schumacher 2011: 207)

Today's functionalists are most commonly found among those who think that engineering problems lead directly to formal solutions, though Schumacher finds this wildly implausible. Meanwhile, the architect most associated with formalism today is Peter Eisenman, who in Schumacher's view follows an opposite "fallacy [that is] productive for the creative productivity of individual contributors but suicidal for the discipline if this attitude should succeed in being generalized" (ibid.: 213). Even more bluntly, this time naming names: "Eisenman is wrong. There can be no full-blown theory of architecture that refuses to address the question of how the promoted forms promote functions" (ibid.: 204). Schumacher presents his work as striking

a middle path that balances formal and functional concerns. The problem is that after describing form and function as perennial foes competing for architectural dominance, Schumacher defines them in ways that render their difference ultimately negligible. For if the “function” side of architecture is obviously relational in character, the same turns out to be true of “form,” which Schumacher identifies as the outwardly visible look or style of a building. This is precisely what we hoped to avoid when we redefined form in a way that Olsen might be willing to endorse. For object-oriented philosophy, form is the strictly unknowable, or that which can only be experienced in indirect fashion. But what about Eisenman’s own conception of form?

To be more specific, our question is whether Eisenman’s version of form is sufficiently autonomous. He certainly speaks of autonomy often enough, but by this he means the autonomy of architecture as a *profession* that has evolved over time, which is not the same thing as a full-blown endorsement of non-relational autonomy for the forms of architecture themselves. By “non-relational form” we do not simply mean a form insubordinate to functional purposes, but a form that consists in some deeper principle than visible outward look. Luckily, Eisenman has gone on record on the topic of form from the beginning of his career, his 1963 Cambridge dissertation (Eisenman 2006), which begins by proclaiming “the formal essence of any architecture” (ibid.: 19; italics modified). While the dissertation is as conceptually rich as might be expected of a key text by Eisenman, we must limit ourselves to a skeletal summary of those points that concern us most.

Rather than sticking with Schumacher’s form/function dualism, Eisenman considers a range of factors including not just form and function, but intent, structure, and technics as well (ibid.: 25). After linking Auguste Choisy with the priority of technics, Louis Sullivan with function, and Mies van der Rohe with intent, Eisenman goes on to insist that “a hierarchy of elements is needed” (ibid.: 26). With a surprising yet somehow convincing sense of his own importance, the young Eisenman hires himself for the job: “This major task must now be attempted” (ibid.: 33). Architecture, he tells us, is a way of giving form to the four other aspects. But whereas some early twentieth century designers might be accused of pursuing “form for form’s sake” (ibid.: 33), Eisenman considers form to be a “means of comprehensibility” (ibid.: 33). This is not to say that he considers it a means of *visibility*, as Schumacher will claim against him a half-century later. In the dissertation, Eisenman already announces that he will argue *against* the notion of form conceived in visual terms (ibid.: 57). What concept of form will he offer in place of visibility? We have already heard one alternative: “comprehensibility.” This might amount to a claim that while the sense of sight is insufficient to grasp form, the rational mind is capable of doing so. This hint at Platonism seems to be verified when Eisenman distinguishes between generic and specific form (ibid.: 33), which he eventually parses by saying that generic form is symbolic whereas specific form is utilitarian (ibid.: 42–43). He goes on to describe generic form explicitly as “Platonic,” while claiming that it must take precedence over the specific form of any particular building (ibid.: 34). This part of Eisenman’s argument has a refreshing back-to-basics air about it. Rather than dazzling us with architectural jargon, Eisenman approaches us like a teacher approaching a promising novice: the two basic forms are linear (e.g., the double cube and the cylinder) and centroidal (e.g., the cube and the sphere). With understated wit, he tells us that “it is not a question of liking or disliking a cube” (ibid.: 37), but simply of understanding the innate capabilities of each form. Though it is easy to see why any specific form would rely on the deeper properties of its underlying generic form, it is still hard to see why the mind should be regarded as superior to the senses in grasping the forms of things. We argued earlier that form in the strict sense must be viewed in *non-relational* terms, and unfortunately the mind is an engine of relation no less than the senses. Only rationalist prejudice can hide this fact from us.

Yet even if we refuse the mind as the source of a privileged access to form, Eisenman presents a second option. Namely, we are asked to view form in something like *kinetic* terms, since architecture is only experienced sequentially and never all at once. Perhaps our movement through a building takes the form of a corkscrew or cascading motion (ibid.: 54–55). Elsewhere Eisenman speaks of three types of movement: spirals, pinwheels, and echelons (ibid.: 103). Indeed, he holds that the experience of architecture is a “sum of many experiences in sequence,” since a building enforces a certain “pattern of movement” on the individual (ibid.: 71). Yet Eisenman explicitly links movement with the concept: since it is not an instantaneous experience that can be expressed in a single perception, all that weaves the building together is a concept unfolded over time as we conduct a tour of inspection. Concept, kinesis, and time are one.

Yet even more basic for Eisenman than these three factors is “volumetric ordering,” which he regards as “fundamental to architecture” (ibid.: 97). What does he tell us about this volumetric ordering, aside from identifying it with “the *conceptual* essence of a building”? (ibid.: 85). If we were already uncomfortable with the idea that concepts grasp form where perceptions fail, if this already sounded suspiciously like the modern rationalist view that the mind has direct access to reality, there is more to come. For even if Eisenman is clear that form does not depend on function, insofar as numerous possible forms can achieve any desired result (ibid.: 91), he is nonetheless adamant that form is *relational*. As he puts it: “formal elements belong to a nexus of relationships” (ibid.: 89). He strikes a further relational note when he adds that he opposes “the Beaux-Arts sense of form as an object-in-itself” (ibid.: 93), which is not where we expected him to arrive when he began by speaking in praise of generic Platonic forms.

What have we learned of Eisenman’s ostensible formalism? It is certainly not a formalism of hidden substantial forms that Olsen seeks despite his evident dislike of the word “substance.” Instead, it is formalism by virtue of favoring concepts over sensations, motion over stasis, and relations over the thing-in-itself. While this is certainly an interesting combination of elements, there are numerous reasons why it is not the formalism we seek, especially in light of its praise of relational systems. Just as we suspected when reviewing Schumacher’s objections to Eisenman’s formalism, that formalism is no less relational than the functionalism it disdains. A new formalist architecture in the sense of “surprise” and “opacity” (Olsen) would have to make room for perceptions and stasis no less than concepts and kinesis.

Anthropocene objects

The guiding thread of this article is the idea that to define things in relational terms does insufficient justice to their surplus or concealed depth, to their inherent “opacity” and “surprise.” Along the way, we have rejected a number of theoretical options: materialism, Marxism, Foucauldianism, actor–network theory, and the conceptual/kinetic approach to architectural form. What we are left with is non-relational objects that harbor an inner depth, and that can only be approached indirectly, since every direct approach translates an object into some caricature of itself.

We have not yet spoken of Hodder’s “entanglement” as a possible contribution to a theory of hidden forms. At first this may sound impossible: after all, what could be more relational than the entanglement between humans and things, humans and humans, or things and things? But there are relations and then there are relations. We saw in Hodder the tendency to recognize that not all relations are entanglements, that some things are unconnected rather than entangled, and that entanglement leads to a dependency that sometimes turns into full-blown, path-dependent, irreversible symbiosis. We seem to be looking for entanglement without relation, and this sounds at first hearing like a contradiction in terms.

Here we turn at last to art criticism, where the non-relationality of art was dealt with both powerfully and unconvincingly in 1967, in Michael Fried's famous critique of minimalism (see Fried 1998). Like his one-time mentor Clement Greenberg, Fried insists on the autonomy of the artwork as something irreducible to the social or biographical conditions of its production. Another way of saying it is that what he dislikes about minimalism is the *literal* objecthood of its cubes, rods, and ascetic wall-mounted grids. For Fried the artwork is no artwork, indeed not even an object, if it contains no autonomous surplus that cannot be fully paraphrased in visual or conceptual terms. Fried goes on to identify this literalism with *theatricality*, since a literal object lacking any depth has no remaining strategy but to pander to its viewer and stir up a human response. Yet this second point is where Fried goes wrong, since literalism and theatricality have nothing to do with each other, and the latter must be promoted even as the former is discarded.

To avoid literalism, we must prevent the observing or thinking human from reducing the object to some inadequate model attained by the senses or the mind that misses the object itself. As a realist (though not a materialist) I am happy to endorse this principle against the often sanctimonious reduction of art and literature to its socio-political context. The artwork must be more than its environmental effects, and more than whatever anyone might say or feel about it. Anti-literalism is a special form of anti-relationism that Olsen and Witmore would reject as quickly as I do.

But it does not follow that all humans must be absent from the scene, as if theatricality endangered art as much as literalism does. Consider the case of human society as outlined by Manuel DeLanda in *A New Philosophy of Society* (2006). As a realist, DeLanda asks what human society is in its own right, apart from all human reflections on it. Some readers may object that DeLanda seeks a human society without humans: a clear contradiction in terms. But as DeLanda notes on the first page of his book, there is really no contradiction here. We need to distinguish between humans as *observers* of society and humans as *ingredients* of society. It is obvious that human society needs humans as ingredients, since this society simply could not endure the extermination of all humans. In this sense society without humans makes no more sense than golf without humans. Yet it does not follow from this that human society is only what humans see or conceive it to be, as if human society needed a lucid human observer (DeLanda 2006: 1). Society continues to function even when it consists only of people locked in an unreflective, pre-sociological stupor.

The same holds for the arts. To wish for an architecture deeper than conceptual or perceptual access is not to wish for a post-apocalyptic architecture that no one observes because everyone has been killed. To use Fried's terminology, art requires theater precisely because it must avoid literalism; in Hodder's terminology, life is entangled precisely because it is neither symmetrical nor reversible. While I hold with Greenberg and Fried that an artwork is deeper than any human glance at it, I cannot agree with their implication (or that of Tristan Garcia (2014)) that the artwork is not a physical thing that remains an artwork even when all humans have vanished. The proper question for Speculative Realist aesthetics is not "what would an art without humans look like?" but "how does art remain deeper than human access to it even though art is always entangled with humans?" Instead, the artwork is a symbiosis between the work itself and the entangled, theatrical, human participant—a symbiosis whose depths remain as unknowable to humans as to the piece of canvas or marble with which they engage. Likewise, the proper comment to the symmetrical archaeologist is not "why do you hate humans so much?" but "thank you for reminding us that things are not just props in a solely human drama."

The point of realism is not to remove all trace of human contact from the world, but to acknowledge the real surplus in humans and things *even when they are in direct contact*. In this

sense, entanglement is not tantamount to relationism: the fact that humans are now entangled with refrigerators does not mean, contra the New Materialists, that humans and refrigerators exist only in their mutual relation. In philosophy, Pascal, Kierkegaard, and Badiou have all called attention to the importance of the *wager* for any adequate conception of truth: a truth is only a truth when people bet their lives on it. In similar fashion, Hodder sees the importance of entanglement as a path-dependent wager already made on metallic tools, interstate highways, fossil fuels, nation-states, glass, domesticated animals, nuclear weapons, plastic bags, and Western philosophy.

This may be a good time to steal a metaphor from another discipline, one that might prove useful for us. When recent philosophers debate whether human beings deserve special ontological status, those who oppose accuse the others of being *anthropocentric*. In turn, these anthropocentrists accuse their accusers of wrongly treating humans and non-humans the same, and thus becoming *anthropomorphic*. The two groups then go on to trade charges of which is the worse sin: anthropocentrism, or anthropomorphism. Yet a more interesting adjective has already come to us from climate science: *anthropocene*. It should be clear that the proposed Anthropocene era of geology is not anthropocentric, since humans are not in a privileged position of understanding or control with respect to the climate. We are not literal observers. At the same time, this era is not anthropomorphic in the sense of non-human entities having all the power, since the climate now seems to be something partly wrought by human hands. We are now theatrical ingredients of the climate.

The climate needed millions of years in the company of humans to become anthropocene. Other fields of reality have always been that way. Artworks have a reality autonomous from human observers despite being causally dependent on such observers. The same holds for human society, which needs humans to survive even as its laws of development conceal themselves from humans. Archaeology and architecture are largely anthropocene as well, since these disciplines study or produce artifacts that exist primarily in symbiosis with humans, though (contra the New Materialists) without existing solely in such symbiosis. Just as no architect has ever aspired to an architecture without humans, no archaeologist of things dreams of eliminating those pesky humans and talking only about arrowheads-in-themselves. This includes Symmetrical Archaeology, with which I feel a close intellectual kinship. For I too have encountered the strange claim that if object-oriented philosophy wishes to remove humans from the throne of the universe, then it must view humans as “worthless,” and must regard ethics and politics as unimportant. I have generally found this to be a case of projection by those who truly think that *objects* are nothing, and human politics everything.

Note

- 1 The reference is to Latour’s broad division between “quasi-subjects” and “quasi-objects,” which contradicts his earlier efforts to flatten any ontological distinction between humans, animals, stars, barbed-wire fences, bacteria, electric emotors, and cartoon characters. In Latour’s new system, humans are apparently now a full 50 percent of the cosmos as in most post-Cartesian philosophy, not just one entity among others as in his earlier works.

References

- Badiou, Alain. *Being and Event*, trans. O. Feltham. (London: Continuum, 2006.)
- Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. (Durham, NC: Duke University Press, 2007.)
- Bennett, Jane. “Systems and Things: A Response to Graham Harman and Timothy Morton,” *New Literary History*, 43 (2), Spring 2012, pp. 225–233.

- Braidotti, Rosi. *The Posthuman*. (Cambridge, UK: Polity Press, 2013.)
- Bryant, Levi R., *The Democracy of Objects*. (Open Humanities Press, 2011.)
- Bryant, Levi R., Nick Srnicek and Graham Harman (eds) *The Speculative Turn: Continental Materialism and Realism*. (Melbourne: re.press, 2011.)
- DeLanda, Manuel. *A New Philosophy of Society: Assemblage Theory and Social Complexity*. (London: Continuum, 2006.)
- Edgeworth, Matt. "Material and Cognitive Dimensions of Archaeological Evidence," *Journal of Contemporary Archaeology*, 1 (2), 2014, pp. 225–227.
- Eisenman, Peter. *The Formal Basis of Modern Architecture: Dissertation 1963, Facsimile*. (Zürich: Lars Müller Publishers, 2006.)
- Fried, Michael. "Art and Objecthood," in M. Fried, *Art and Objecthood: Essays and Reviews*. (Chicago, IL: University of Chicago Press, 1998.) pp. 148–172.
- Garcia, Tristan. *Form and Object: A Treatise on Things*, trans. M.A. Ohm and J. Cogburn. (Edinburgh: Edinburgh University Press, 2014.)
- Harman, Graham. *Prince of Networks: Bruno Latour and Metaphysics*. (Melbourne: re.press, 2009.)
- Harman, Graham. "I Am Also of the Opinion that Materialism Must be Destroyed," *Environment and Planning D: Society and Space*, 28 (5), 2010, pp. 772–790.
- Harman, Graham. *The Quadruple Object*. (Winchester, UK: Zero Books, 2011a.)
- Harman, Graham. "On the Undermining of Objects: Grant, Bruno, and Radical Philosophy," in L. Bryant, N. Srnicek and G. Harman (eds), *The Speculative Turn: Continental Materialism and Realism*. (Melbourne: re.press, 2011b.) pp. 21–40.
- Harman, Graham. "Undermining, Overmining, and Duomining: A Critique," in J. Sutela (ed.), *ADD Metaphysics*. (Aalto, Finland: Aalto University Design Research Laboratory, 2013a.) pp. 40–51.
- Harman, Graham. "The Revenge of the Surface: Heidegger, McLuhan, Greenberg," trans. G. Harman, *Paletten* 291/292, 2013b, pp. 66–73.
- Harman, Graham. "Entanglement and Relation: A Response to Bruno Latour and Ian Hodder," *New Literary History*, 45 (1), Winter 2014a, pp. 37–49.
- Harman, Graham. "Materialism is Not the Solution: On Matter, Form, and Mimesis," *Nordic Journal of Aesthetics*, 47, 2014b, pp. 94–110.
- Harman, Graham. "Stengers on Emergence," *BioSocieties*, 9 (1), 2014c, pp. 99–104.
- Hodder, Ian. *Entangled: An Archaeology of the Relationships Between Humans and Things*. (Oxford: John Wiley & Sons, 2012.)
- Hodder, Ian. "The Entanglements of Humans and Things: A Long-Term View," *New Literary History*, 45 (1), Winter 2014a, pp. 19–36.
- Hodder, Ian. "The Asymmetries of Symmetrical Archaeology," *Journal of Contemporary Archaeology*, 1 (2), 2014b, pp. 228–230.
- Ingold, Tim. "Is There Life Amidst the Ruins?," *Journal of Contemporary Archaeology*, 1 (2), 2014, pp. 231–235.
- Latour, Bruno. *The Pasteurization of France*, trans. A. Sheridan & J. Law. (Cambridge, MA: Harvard University Press, 1988.)
- Latour, Bruno. *We Have Never Been Modern*, trans. C. Porter. (Cambridge, MA: Harvard University Press, 1993.)
- Latour, Bruno. *Pandora's Hope: Essays on the Reality of Science Studies*. (Cambridge, MA: Harvard University Press, 1999.)
- Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network-Theory*. (Oxford: Oxford University Press, 2005.)
- Latour, Bruno. "Can We Get Our Materialism Back, Please?," *Isis*, 98, 2007, pp. 138–142.
- Latour, Bruno. *An Inquiry Into Modes of Existence: An Anthropology of the Moderns*, trans. C. Porter. (Cambridge, MA: Harvard University Press, 2013.)
- Latour, Bruno. "Agency at the Time of the Anthropocene," *New Literary History*, 45 (1), Winter 2014, pp. 1–18.
- Law, John. "Complexity, Naming and Topology," in J. Law and J. Hassard (eds), *Actor Network Theory and After*. (Oxford: Blackwell, 1999.) pp. 1–14.
- Lazzari, Marisa, "Old and New Materialisms," *Journal of Contemporary Archaeology*, 1 (2), 2014, pp. 236–238.
- Margulis, Lynn. *Symbiotic Planet: A New Look at Evolution*. (New York: Basic Books, 1998.)
- Meillassoux, Quentin. *After Finitude: Essay on the Necessity of Contingency*, trans. R. Brassier. (London: Continuum, 2008.)

- Olsen, Bjørnar. *In Defense of Things: Archaeology and the Ontology of Objects*. (Lanham, MD: Alta Mira Press, 2010.)
- Olsen, Bjørnar. "Symmetrical Archaeology," in I. Hodder (ed.), *Archaeological Theory Today*, 2nd edition. (Cambridge, UK: Polity Press, 2012.) pp. 208–228.
- Olsen, Bjørnar and Christopher Witmore. "Archaeology, Symmetry, and the Ontology of Things: A Response to Critics," *Archaeological Dialogues*, 22 (2), 2015, pp. 187–197.
- Ruy, David. "Returning to (Strange) Objects," *tarp Architecture Manual*, Spring 2012, pp. 38–42.
- Scarry, Elaine. *The Body in Pain: The Making and Unmaking of the World*. (Oxford: Oxford University Press, 1985.)
- Schumacher, Patrik. *The Autopoiesis of Architecture: A New Framework for Architecture*, Vol. 1. (London: John Wiley & Sons, 2011.)
- Stengers, Isabelle. *Cosmopolitics*, 2 vols., trans R. Bononno. (Minneapolis, MN: University of Minnesota Press, 2010.)
- Witmore, Christopher, "Archaeology and the New Materialisms," *Journal of Contemporary Archaeology*, 1 (2), 2014, pp. 203–224.

Part 1

Form and temporality

This page intentionally left blank

On shaping buildings

Mikkel Bille and Tim Flohr Sørensen

Introduction

Building in the twenty-first century is characterised by a number of challenges framed by economic, environmental and social circumstances. Architecture today needs to be financially and environmentally sustainable, and strategies of so-called up-cycling and cradle-to-cradle are employed as ways to decrease ecological damage (see Love, this volume). As cities expand on a global scale and their spaces become inhabited and used in a multitude of ways (Kohn and Dawdy, this volume), there are ever-present expectations of the flexibility and adaptability of architecture, and at the same time a demand for sustainable architecture and planning for the future. Temporality and ‘temporary spaces’ have become a central theme in contemporary architecture; for instance in the requirements of the metropolis as a creative space that harbours momentary cultural events, refugees camps or buildings occupied by squatters, where people may be staying fleetingly or for a longer – yet often unknown – period of time (e.g. Mehrotra and Vera 2013; Ramadan 2013; Vasudevan 2015; Ziehl *et al.* 2012).

The increased focus on temporality and flexible form requires architecture to be malleable and reversible, and the planning must take into account the sustainability of obsolescence and anticipate the afterlife of buildings (Cairns and Jacobs 2014). At the other end of the scale, repositories for spent nuclear fuel are currently being constructed in Finland with the aim of lasting for no less than one hundred thousand years and are in fact planned to be entirely forgotten (Russell 2012; see also Joyce this volume). The notion of ‘temporary spaces’ is endemically vague, and in many ways offers a challenge or provocation to architectural ways of thinking about spatial robustness, order and permanence (Haydn and Temel 2006; Pløger 2008: 56). ‘Temporary spaces’ confirms that architecture is about form and formation of spaces. But it also shows that there is a temporality to this form. A stall at a marketplace is temporary, maybe being set up early in the morning and disassembled late in the afternoon. A megalithic monument from the Neolithic is also in a certain sense temporary. Built perhaps late in the fourth millennium BC and used for some centuries as a burial place, and then quarried in the late nineteenth or early twentieth century AD. Planning and time are seemingly the essence of how spaces of both of these timescales are built. Integral to this endeavour is a concern with the material dimensions of architecture; a concern that is by no means novel to contemporary architecture, but is also evident in the archaeological record globally. Human manipulation –

and non-human agents – add layers to architecture, peel layers off or corrupt the order and stratigraphy of architecture over time. All of these effects and conditions need to be understood as implications of dwelling and the materiality of built form that both facilitate and challenge spaces of inhabitation. In a sense, thus, as also outlined in the introduction, there are two central ways of conceiving architecture: either as form or as process. However, it would be ill-advised to see form and process as separated or opposing aspects of architecture. Form changes, even if slowly, and process is inherently temporal in its passing and planning of form. Temporality should here be understood both in terms of the pasts and presents that architecture materialises, but also as the duration of the less fixed forms, such as the temporary spaces and uses of space as illustrated above.

This section explores how the past, present and future is entangled in giving architecture form. The contributions to this section reveal different perspectives on the intersecting, non-linear and sometimes contradictory temporal processes unfolding in the building and re-building of architecture. Focusing on time is also a way of focusing on the ephemeral and processual qualities of form. Much research has dealt with conserving the identity of a geographical point in space as a necessary condition for human life, the *stabilitas loci* (Norberg-Schulz 1980: 18). But not all architecture is made of solid walls, nor does fixed architecture imply permanent inhabitation (Marcoux 2001). Nomadic architecture for instance consists of a minimum amount of material culture that is continuously reconstructed and moved. Yet it may be argued that the nomad's home is not temporary, but simply moving (Prussin 1995: 42). Architect Kari Jormakka also argues that the idea of fixating the spirit of the place, *genius loci* in the vocabulary of Christian Norberg-Schulz (1980), ignores how there is a spirit in movement, a *genius locomotionis*. He argues that 'architecture as the art of space is indissociable from actions and there is no architectural space without motion' (Jormakka 2004: 192). Motion in essence is about temporality by negotiating form.

We believe that archaeology has something particularly valuable to contribute to this observation. As a discipline, archaeology is preoccupied with detailed analyses of the material dimensions of how buildings (and other artefacts) come into being, but sometimes, it seems, even more so on how they dilapidate and contribute to the formation of what we refer to as the archaeological 'record' (Lucas 2012; Schiffer 1987).

Precisely the elements of form and time are central to the contribution by Lesley McFadyen. She explores alternatives to the sometimes static view of form as something stable and shaped – a mudbrick, a wooden pillar, a wall and so on. McFadyen shows in her contribution, there is also a tremendous amount of materials used in architecture that are immanent and malleable – turf for instance, does not maintain its form – and due to the compression over time it does not appear easily in the archaeological section drawings. To McFadyen this malleability has meant that there has been an archaeological bias towards building materials with form compared with those without form, such as turf, scree or lumps of clay. Even if some materials are forced into form, they may not endure. The instability can then actually be seen as the potency of the formless materials that makes up many buildings from the past: the lack of stabile, final or transcendent form is what makes them responsive to other materials and to a sealable matrix, in McFadyen's study. Materials without form thus instigate different kinds of participation in assembling architecture.

Also, concerned with form, but at a different scale, Michał Murawski explores the massive Palace of Culture and Science in Warsaw, Poland. Turning to a building of enormous proportions, Murawski pursues a scalar approach to architecture, appreciating the immensity of certain forms of architecture that are '*absolutely out-of-scale*', as he argues. Showing how the Palace of Culture and Science has a potency owing to its sheer size, Murawski relates how some citizens of Warsaw claim to have had 'exhausting' involuntary erotic experiences as the result

of the building's phallic force of extreme proportions. A focus on large proportions offers a critique of assemblage theory for omitting the relevance of scale to the understanding of architecture, and challenging the 'tendency to focus on the small over the large, to elevate the micro and elide the macro'.

Adding to such perspectives on the form, scale and temporality of architecture, Jonathan Hill pursues how the notion and reception of ruins has changed in architectural theory and history. He traces aesthetic and architectural developments through architectural icons Andrea Palladio, Giovanni Battista Piranesi and Louis Kahn. He argues that it is misconceived to distinguish monuments, invested with symbolic power, from ruins, with their allegoric potentials. Such a distinction neglects how both aspects may be present simultaneously in a building, issuing forth with potent effects. Hill argues that the eighteenth century notion of the 'monumental ruin' challenges precisely the idea that time and dilapidation mark the change from architecture to ruin. Through Kahn, Hill pursues the notion of 'wrapping ruins around buildings' to argue that 'wrapping a ruin around a building is equivalent to wrapping absence around presence, the past around the present, and death around life'. In this way, the ruin is not necessarily the after-effect of the monument, but can constitute an entangled part of a building or an urban layout, combining 'ruination and construction, broken remains and entire forms'.

In much the same vein, Gavin Lucas argues for the relevance of furthering the concept of 'contemporaneity' in archaeology, exploring how forms emerge as the coming together of elements with multiple simultaneous temporalities. He examines a seventeenth–eighteenth century building at Skálholt in southwest Iceland, showing how elements come together to an assemblage of architecture, exploring what different forms of matter and temporalities do to this becoming. The notion of *persistence* is central for Lucas 'as the imbrication or overlapping of different architectural elements'. In effect this allows us to appreciate how buildings are animate forms that not only change over the long term, reflected in sequential archaeological phases, but also need to be understood through the rate of change of the various elements, 'each with its own rhythms, tempos, speed'. By approaching buildings temporally in archaeology, Lucas seeks to conjoin 'the idea of time as *change* with the idea of time as *movement*'. This offers the opportunity to complement periodisation with a metabolic feel of dynamism.

These imbrications of disparate temporal processes are also found in Alison Kohn and Shannon Lee Dawdy's study of 'informal cities' of La Paz, Bolivia. In rapidly evolving cities temporary settlement may become permanent as rural populations move into cities. Often people are not able to find available houses or apartments, inhabiting instead 'informal cities' that emerge and in some cases expand speedily around whatever space is available. Unlike their reputation as hostile, poverty-stricken, disaster zones and the product of modern society, these informal or vernacular cities are full of meaning, history and future potentialities. Informal cities, Kohn and Dawdy argue, are places where temporality unfolds in different ways from in planned cities. Also, they assume different scales when miniature versions of planned material infrastructure are enrolled in ritual and the social lives of the inhabitants. The informal cities are essentially ongoing construction work throughout the lives of their builders, owners and inhabitants, drawing on the future and the past in the everyday lives (see also Nielsen, this volume).

The section ends with a photographic essay by Mark Minkjan and Ingel Vaikla. They focus on the relationship between parts and wholes in the material composition of Brussels. The city's shifting make-up and the heterogeneous relationship between the urban plan and its individual parts makes it a conflictual place. It issues forth as an assemblage characterised by clashes between old and new architecture: 'a patchwork of mega modernisation projects that imposed uncompromising changes on a city that had grown more or less organically until the mid-nineteenth century'. This tension forms an ambiguity and multiplicity that is also captured in the many

names of the city from the French *Bruxelles*, to the English *Brussels*, plural of the Dutch *Brussel*. Minkjan and Vaikla suggest that this should be seen as a ‘captivating confusion’, marked by ‘Architectural styles, infrastructural incisions, construction sites and urban decay [that] emerge where they are least expected, creating eclectic environments and rich scenes’. In the end this challenges the notion of Bruxelles as ‘a city’ in the singular, and Minkjan and Vaikla explore through words and images the potential multiplicity and fuzziness of the city.

We have thus in this section moved from the malleability of form over time towards the interwovenness of multiple temporalities invested in such forms. Particularly the contribution of Kohn and Dawdy and Minkjan and Vaikla show how temporality and form by no means are apolitical. Rather, there is a politics of form and recognition at play when building.

References

- Cairns, S., and J. M. Jacobs. 2014. *Buildings Must Die: A Perverse View of Architecture*. Cambridge, MA: MIT Press.
- Haydn, F., and R. Temel. Editors. 2006. *Temporary Urban Spaces: Concepts for the Use of City Spaces*. Basel: Birkhäuser.
- Jormakka, K. 2004. *Genius Locomotionis*. Vienna: Edition Selene.
- Lucas, G. 2012. *Understanding the Archaeological Record*. Cambridge: Cambridge University Press.
- Marcoux, J. S. 2001. ‘The Refurbishment of Memory’ in *Home Possessions*. Edited by D. Miller, pp. 69–86. Oxford: Berg.
- Mehrotra, R., and F. Vera. 2013. ‘Reversibility’. 720, 4: 3–33.
- Norberg-Schulz, C. 1980. *Genius Loci: Towards a Phenomenology of Architecture*. New York: Rizzoli.
- Pløger, J. 2008. ‘Midlertidige Byrum’ in *Det fremmede i det kendte. Byens Rum 1*. Edited by H. Juul, pp. 52–61. Copenhagen: Arkitektforeningen.
- Prussin, L. 1995. *African Nomadic Architecture: Space, Place and Gender*. Washington, DC: Smithsonian Institution Press.
- Ramadan, A. 2013. ‘Spatialising the refugee camp’. *Transactions of the Institute of British Geographers*, 38(1): 65–77.
- Russell, I. 2012. ‘Towards an Ethics of Oblivion and Forgetting: The Parallax View’. *Heritage and Society*, 5(2): 249–272.
- Schiffer, M. B. 1987. *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press.
- Vasudevan, A. 2015. ‘The Makeshift City: Towards a Global Geography of Squatting’. *Progress in Human Geography*, 39(3): 338–359.
- Ziehl, M., S. Osswald, O. Hasemann, and D. Schnier. Editors. 2012. *Second Hand Spaces: Recycling Sites Undergoing Urban Transformation*. Berlin: jovis Verlag.

Immanent architecture

Lesley K. McFadyen

Introduction

My argument is that prehistoric monuments are better understood through the details of their making rather than as an explanation of form – architecture as practice and not as object (Hill 2003). The main reason being that in the Neolithic long barrows were not seen as ‘all at once’ totalities (i.e. the totalising perspective of archaeological plan drawings is illusory). Early work has been an attempt to persuade fellow archaeologists that a more effective account of long barrows comes from an exploration of the range of materials that were involved in the process of construction (including organic materials such as turf). Furthermore, an understanding of building practice requires an examination of the ways in which materials were positioned in relation to each other (i.e. whether these were laid flat and in courses so that other materials could lean against them, or propped up until other materials were brought in to hold them in place). Finally, there are kinds of participation between people, and between people and things, that are required by materials during the process of making (i.e. autonomous and slow or dependent and quick) (see McFadyen 2006 and 2007; Bailey and McFadyen 2010).

This chapter is another foray into thinking through practice, its speed, and how it engages with another sort of material in long barrow sites – materials without form (such as lumps of chalk or rubble). By looking again at the characteristics of building practice, this work hopes to dissipate the dogma of final (or stable) form in the study of architecture in archaeology. However, rather than continuing an argument entirely against form, it builds a distinction between stable form; as opposed to form that is immanent, malleable and temporally negotiated. It takes the line that materials and forms shift through time; that they are immanent in unfolding practices (not given or transcendent); that the materials themselves allowed for specific kinds of shape-shifting; and that often form follows from materials rather than vice versa. Ultimately, this is a study about the enigma of an architecture that you cannot get back into, how it emerges through the process of construction, and the affects of that practice on those that participate in building work.

Organic materials as autonomous

There is the assumption that stone was always used as a primary and structural material within long barrows, that stone is a material that is inherently to do with form (see Figure 4.1).

To see this at work you have only to look at the plan drawings produced in any number of publications, and note the dominant material that is depicted (i.e. stone) and the hierarchy of elements due to the dogma of final form (i.e. an inner axial divide and outer façade boundary are displayed over other features). And yet when I have looked at the section drawings of barrows, or the context sheets and photographs of features labelled as ‘pre-barrow’, I have discovered that turf was often used in construction before stone, and that this material was a stable element in the build (see Figure 4.2).

At Hazleton North and Ascott-under-Wychwood (Saville 1990, section 1, Figure 42; Benson and Whittle 2007: 93, 132 and 353), turf blocks had been used, and these had been laid flat lengthways and then stacked in courses on top of each other. These earthen materials were used in such a way as to make a structure – an area of the axial divide. There was no interlacing of blocks, and so a halt in the build would not have resulted in the collapse of anything – there was no momentum in the operation that required immediate or continuous work. With stacked turf, there was time with this type of build for a process to be thought through, and it could have involved many or few builders since the architectural features were structural and stable – it was slow architecture (McFadyen 2006 and 2007).

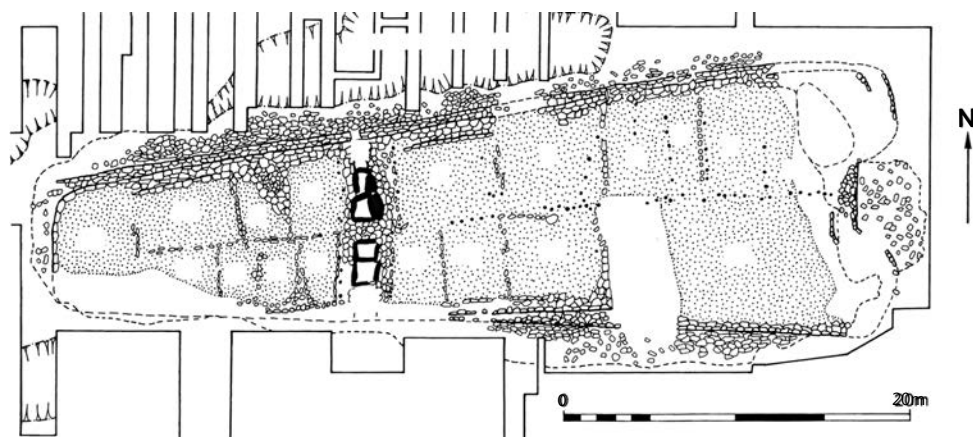


Figure 4.1 Ascott-under-Wychwood, Oxfordshire: composite plan of several lower and upper barrow features

Source: Edited from Benson and Whittle 2007

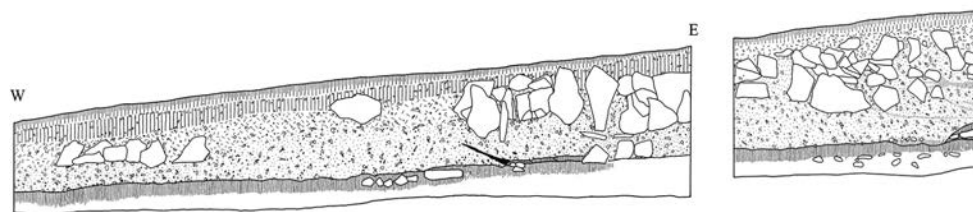


Figure 4.2 Ascott-under-Wychwood, Oxfordshire: longitudinal section showing several lower and upper features of the axial divide of the barrow

Source: Edited from Benson and Whittle 2007

Inorganic materials as dependent

In many instances where stone was used in construction (in particular at Ascott-under-Wychwood), it was in the upper part of the build and these were large thin stones that were held up vertically and on edge. These are stones that are outlined in the plan drawings as the structure of an inner axial divide, but they could not have acted as a physical template in designing the build because they came late in practice, and because they were not stable elements but instead precariously propped. By setting stones on edge, an unstable material was created, and a need was generated for future work; otherwise the building project would have collapsed. The stone required further materials dumped quickly on either side of it such as tips of soil (Benson and Whittle 2007: 97) or limestone rubble (*ibid*: 100, 135, 136 and 353). This building technique altered the qualities of stone from stable element to dependent material, and this had a direct effect on the builders and their experience and participation in the building process – it was quick architecture.

In these areas of the build there was no evidence for any kind of scaffolding. Instead, the builders had to use their bodies like props or scaffolds while other collaborators added tips of soil or limestone rubble. Builders' bodies would have been covered in soil and rubble until the moment when the assembled materials started to stabilise and their bodies could be withdrawn from the matrix; this practice created demanding and direct articulations of how things and people were caught up with each other.

By attempting to understand the ways in which materials were connected, and the kinds of conditions this created for the ways in which construction was carried out and experienced by Neolithic people, I began the process of creating a different kind of architectural history and started to think about the kinds of humanity that these encounters created. How should we understand bodies building in these areas of construction? For example, turf was used in such a way that it could allow people to develop relations of group cooperation in the process of construction (see Holst and Rasmussen 2012: 269). Blocks of turf were laid down next to each other, one after the other; and then on top of each other, course by course. Turf blocks are solid materials, and laid in a consecutive manner (butting against each other, rather than overlapping) they make a stable element. One person could have carried out this work, because they could take time; or a group could have undertaken the task as part of a sequential routine. A key condition to these construction sites was that stable materials and building techniques did not constitute the majority of the build, and so a routine of this kind could not become established. As archaeologists, we therefore have to consider the kinds of body dynamics and politics involved in a more dependent building practice (Till 2009). For the very reason that, for a short period of time, some of the participants became a part of the build while others carried on barrow-building on top of them. What kinds of negotiations between people would have been worked through in order to create such dependent assemblages? What would change in our understanding of the Neolithic if disruptive issues were more frequently highlighted, and if participation was more unequal than equal (after Till 2005)? I came to the conclusion that practice, and the effects of that practice, were perhaps more concrete than the architectural object.

Materials without form

I have argued that turf was a stable element within long barrow construction, and that it has been overlooked within other archaeological accounts because it did not maintain its form (i.e. over time the turves were compressed by the weight of the overburden). Turf stacks do not look remarkable in section drawings – the blocks have been affected by post-depositional factors – the profile is flattened. This is a material that had form in the past, but it does not

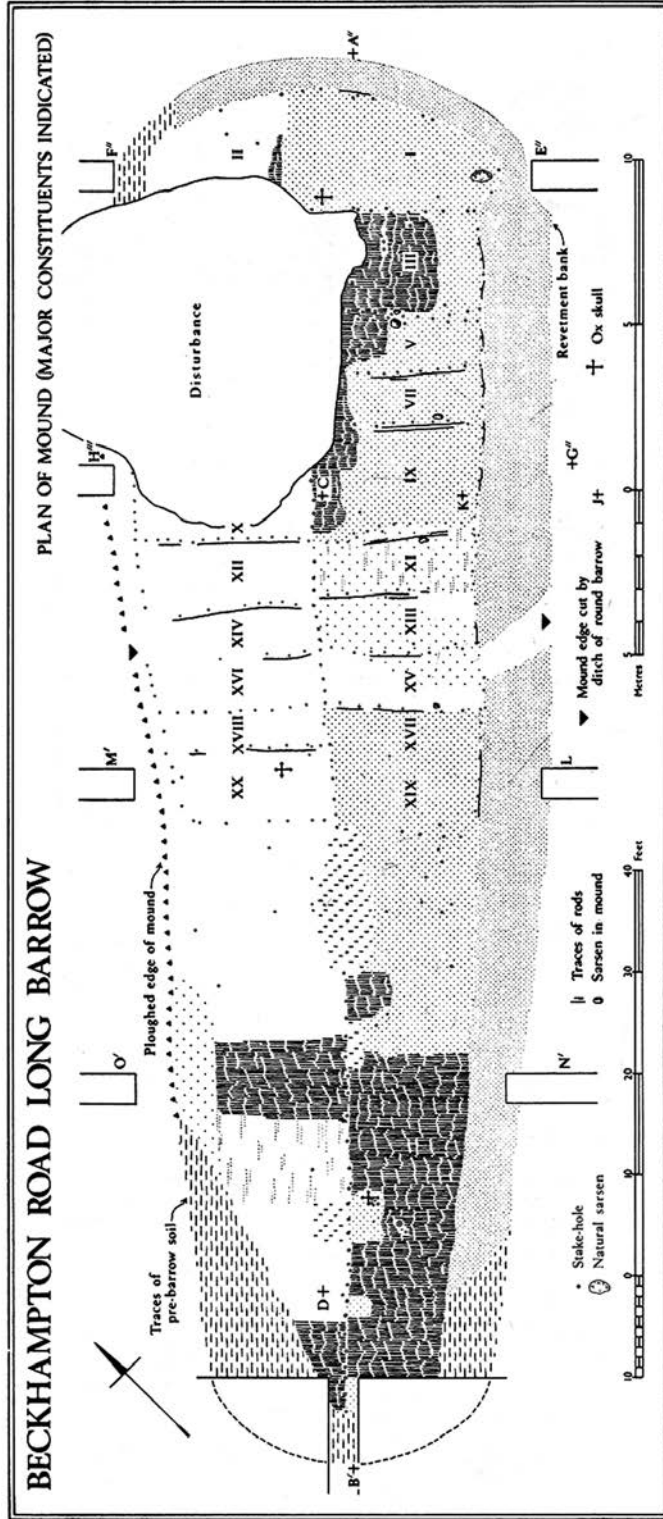


Figure 4.3 Beckhampton Road, Wiltshire: composite plan showing several 'pre-barrow' and barrow features

Source: Edited from Ashbee *et al.* 1979

have a distinct form in the archaeological drawing. Contrary to this, I have argued that stone has been given too much prominence in archaeological drawings, especially as it was often used in an unstable and dependent manner in the Neolithic. This is a material that did not necessarily have form in the past but is consistently given credence in archaeology. There is another category of material that did not have a primary shape and that remained without form. This category would include the tips of soil or limestone rubble that I discussed above in dependent assemblages but also materials such as scree and lumps of chalk in earthen long barrows. These materials hold a problematic position in archaeological drawings, in that they are not drawn at all or other materials or drawing conventions are used to give them limits or form.

Joshua Pollard has written that two cattle skulls, or hides on posts, were used to mark out the axial divide of the Beckhampton Road earthen long barrow. He then went on to describe an axial divide defined by posts that was surrounded on either side by stacks of turf (see Pollard 1993 and 2005). However, both cattle skulls had been incorporated into areas of scree (or coombe rock), and it was the scree that was then enclosed by stacks of turf (Ashbee *et al.* 1979: 245) (Figure 4.3). I have described turf as a stable element within a build – turves were cut into blocks and then laid flat in courses. Scree has a more ambiguous form. As a material, due to the weathered chalky silt and clay matrix, it was sticky and would have held together (more so than crumbly chalk). At Beckhampton Road it was not worked any further into shape but instead always used as it was. It was quarried and then dumped on top of and surrounding the hides on poles, and then stacks of turf were added. The turf stacks did not so much hold the assemblage in place, as scree was a fairly adherent material, but instead the cut and stacked turves had a form. The qualities of these different materials, and the dynamics that they were caught up in, only become problematic when we turn to the plan drawing as blocks of turf are used to give definition to an area of architecture in a way that formless scree cannot. It is perhaps for this reason that turf is remarked on in the plan drawing of the earthen long barrow while the scree remains in the background as an inactive fill. However, one of the most important qualities of the scree is its lack of form – it lends itself to other materials and it could be dumped quickly against the posts with the hides. On these terms, where practice rather than form is being considered, scree is an active and responsive material while turf is inert and autonomous.

Again, I want to think about the kinds of conditions this created for the ways in which construction work was carried out and experienced by Neolithic people. Several of the builders would have been part of the building matrix while others were dumping the scree against the posts. Their bodies would have been covered in the chalky silts and clay until the moment when the assembled materials started to stabilise and their bodies could be withdrawn. I have written before of these circumstances, that people and cattle were connected in a different way within these assemblages. While holding the skulls and hides in place, people's arms would have been outstretched and skin would have met hide. Parts of the human body wore parts of cattle skin. While people were involved in construction, boundaries between bodies and materials were blurred. There were different kinds of participation in architectural practice. There were different, and unequal, ways in which people worked together, particularly for those whose bodies it was that were a part of the assembled build for a period of time. Is it enough, in our consideration of acts of construction in prehistory, to consider this as teamwork (Evans 1988) or to talk only of a communal effort (Barrett 1994)? Crucially, at Beckhampton Road and Ascott-under-Wychwood, different kinds of participation were instigated by the use of materials without form and their association with dependent items.

It is interesting that so many materials without form were used at the site of Beckhampton Road. There were many wooden partitions within the build, but not at the margins of the mound (i.e. not in the area that archaeologists traditionally recognise as that of the façade boundary

element). For example, chalk rubble was used at least on the eastern and southern limits (with the other areas of the site subject to plough damage). It is argued that chalk was battered against the rest of the assemblage in order to hold it in place (Ashbee *et al.* 1979). In the plan drawing of the long barrow, the outer limits of the chalk rubble have been given a dotted line detail in order to suggest that it had been used to create a façade (Ashbee *et al.* 1979). But did the chalk rubble have or hold a distinct form? Why else might lumps of chalk have been used in construction? Chalk is a messy material, it is active in that it will respond to the shape and weight of other things if people are there to move it into place and put themselves into the fray. Perhaps the value of these materials emerged through interactions in building – with practice, and the effects of that practice, more concrete than the architectural object. But again, it would seem that it is at these points that disruptive issues were involved in building, and participation in architecture was more unequal than equal (after Till 2005). Rather than the seamless finished form of a long barrow, and a contour created through battered down material, chalk had made a mess of those that had been moving it into place.

What remains within?

Prehistoric monuments need to be understood through the emergent qualities of materials, and autonomous elements or dependent assemblages create moments for consideration or the impetus for future work – slow and quick architecture. Crucially, added to this mix are materials without form that conceivably lent themselves most of all to situations where participation in architecture was unequal. Unequal does not necessarily denote a negative experience but instead the possibility for a more intense work experience. However, whether it is the use of stable, dependent or formless materials, these were all a part of an architecture that you could not get back inside.

The most prominent feature of a long barrow is the barrow itself and yet it is only the archaeologist that can get back inside it. Is this not perhaps why so many materials with immanent and fluid form were used in their making? For when the assembled materials had started to stabilise, the builder's body would be withdrawn from the assemblage and the material matrix would seal shut behind them. It is simply that in the history of ideas of archaeology, where architecture has been defined by stable (final) form, the materials that constitute long barrows have been understood in terms of how they are outlined (the external shape they made), rather than the qualities of the materials themselves. And then function followed form and subsequent research interest became – what did bounded elements contain? In archaeology, mounds are seen as impressive in form through their scale, but disappointing in terms of the materials that they are composed of. The discovery of evidence for the dead meant that mounds could be explained as markers for the dead, and the qualities of the mounds themselves remained unwritten.

These indicia attest the high antiquity of the long barrows; and though we clearly perceive a singularity of outline in the construction of them, as well as a singularity in the mode of burial, we must confess ourselves at a loss to determine, or even to conjecture, for what particular purpose these immense mounds were originally raised.

(Colt Hoare 1812: 21)

From Colt Hoare (1812) and Thurnam (1896) onwards, the descriptive text and externalised imagery in archaeological accounts evoked an architecture that was passive but large; an external form constituted through dimensions of size, length, breadth and elevation. This has perpetuated an implicit understanding that long barrows, as mounds, are markers for the dead and that any further meaning to this 'architecture' resides inside them in what they hold.

Archaeological interpretation of a monument and its contents – the form outlined by materials and the dead held within – has never really left behind this legacy even when acts of construction and the concept of assemblage are considered. For example, Chris Fowler (2004), in his consideration of sites on the Isle of Man, has argued that construction produced a place that gathered up diverse features of the physical world. However, this seems very similar to the way in which archaeologists explain the architecture of causewayed enclosures (see Whittle *et al.* 1999) – a very different kind of architecture – as a category of site that enclosed a large area for further activity and maintained points of entry. What kind of a *place* does a long barrow make? Most of the construction is impermeable, and so it makes little sense to focus on the permeable parts of the structural evidence (cists/chambers, passageways and forecourts). In Fowler's theory of assemblage, he has identified groupings of material culture as content within the parts of the structural evidence that he could allocate as containers – the structural and material culture details are not integrated. Alasdair Whittle argues that assemblage was a 'cumulative process in long barrows, standing for the building and continuity of social group or community' (in Benson and Whittle 2007: 359). However, this can only be the case if you have the cause and effects of final form in mind (rather than the ways in which different kinds of building technique positioned those that were involved in construction), and a final temporal framework in mind that concludes after successive deposits of the dead. Are the dimensional qualities of static form (i.e. the length of a mound), and the fixed temporal frames of reference that are evoked by the deposition of the dead (i.e. ancestral and generational), all that are to mark out long barrows from round barrows? There is evidence for the recutting of the materials that were involved in many round barrow sites but not in those of long barrows (see Mizoguchi 1993).

Furthermore, there are very many long barrow sites where there is no evidence for a cist or a chamber – there is no evidence for burial (Ashbee *et al.* 1979). The site of Beckhampton Road is a case in point. Both Hazleton North and Ascott-under-Wychwood have small pairs of lateral chambers/cists with passageways that at first glance may seem to have been about access to interior structures. However, in both cases the human bone was deposited during the process of long barrow construction, consecutively from the inner to the outer areas, and there was no evidence for further intervention or for the later reworking of the deposits – these areas were blocked (Saville 1990, and particularly Whittle in Benson and Whittle 2007: 358). So cists or chambers in many of the long barrows of southern Britain were minor in size in comparison with the rest of the barrow architecture, and recent analysis of the human bone is demonstrating that fewer individuals were deposited, and that the bone was not reworked or moved around (see Galer in Benson and Whittle 2007). And then there are many long barrow sites with no evidence for mortuary structures at all. Perhaps, we need to step away from the idea of a monument as a container for its contents, when lack of access seems to be the dominant practice that was being played out in the past. What could have remained within, but that could not be re-encountered? Surely in part it must have had something to do with the unequal kinds of participation that I have outlined – the knowledge of and the lingering effects of those practices? One of the most efficient materials to instigate those kinds of scenario would have been through the negotiation of materials without form.

Unequal relations

Shanks and Tilley's (1982) study of long barrows is the most marked in arguing for an imbalance in power relations in the Neolithic. Their key point is that an expression of collective identity actually came about through asymmetrical social relations. The claim is based on pattern within the deposition of human remains. Human bone is understood as a material symbol, and

patterning within the remains is taken as evidence for control over body resources (Shanks and Tilley 1982: 135). In a secondhand way, their study reveals that deposits of human bone are within pits (Fussell's Lodge) and chambers (Luckington and Lanhill). The spatial bar charts that they use are interesting; it is the quantities of human bone that have dimension and make space in a physical way. Pattern within the human bone deposits has form, whereas the structural elements are referred to as limits in dashed mark lines in a much more conceptual way (see Shanks and Tilley 1982: 139, Figure 3 of Fussell's Lodge). These graphics have the effect of making deposition more than 'content', but unfortunately they do not make any of the other materials matter in the same way. They write: 'there is good reason to believe that in the regions we have considered the human body itself provided the dominant symbolic focus in interaction' (Shanks and Tilley 1982: 152).

Surely this must have extended to human bodies involved in the building process? In particular, to those that found themselves physically among materials as construction progressed. Do these practices not provide a dominant focus in interaction? Is this not where we see the value of materials without form?

Unfortunately, in the history of ideas of archaeology, due to the dogma of a final, stable and atemporal form, the architectural or physical dimension generated through the practice of deposition was lost as the permeable and boundary elements of the structural were focused on once more. In the archaeological accounts that followed on from Shanks and Tilley's study (1982), asymmetrical social relations were documented in the restricted access to chambers and from the space syntax of forecourt façades (Thomas and Whittle 1986 and Barrett 1994). And when archaeologists did contend that practices of building were the significant subject matter of monumentality, and not the size and shape constituted in form, the work centred on cause-wayed enclosures and henges (Evans 1988 and Barrett 1994) – not long barrows.

Immanent architecture

So what is it about the architecture of a long barrow site that exists or operates within? Especially if architecture is not to be viewed as something external or foundational in terms of a final or stable form. What is it, if it is not integral either in terms of material culture as content? I have come to realise that form is significant, but it involves making materials with immanent and fluid form matter. I argue that the value of materials such as scree or rubble or lumps of chalk is that they allow us to think about building in a new way. Architecture is understood as practice, but in terms of very particular relations that involve unequal participation. The use of these materials creates conditions where certain bodies are a part of the assembled build for a period of time. Certain bodies become a dominant focus in interaction for a period of time. However, that period of time is short in duration for, when the assembled materials start to stabilise, the builder's body is withdrawn from the assemblage and the material matrix seals shut behind them. There is also a temporality involved in the mediation between form and matter – matter is forced into forms that do not endure.

Materials with immanent form required several of the builders to put themselves into the assemblage – they created a particular kind of interaction. Materials with this fluid form have to be considered through practice and its speed. The intensity of that practice would have lingered through its affect, and knowledge gained therein, rather than its duration. And perhaps most crucially of all, it was a kind of interaction that could not be repeated. The material traces of these encounters could be seen on the body of the builder and remembered as something that operated within the long barrow. On these terms, the one thing that materials with immanent

form were not was disappointing. The main quality of these materials is their lack of stable, final or transcendent form – the reified version in archaeology – for this makes them responsive to other materials and to a sealable matrix.

Thinking through architecture and participation has led me back to Shanks and Tilley's (1982) study of unequal relations in the Neolithic. In their study, human bone remains, the dead as a cultural product, provided a dominant *symbolic* focus and these were material symbols that were reworked. In my study, I have described the bodies of those caught up in building as a dominant focus but not a symbolical one. At a basic level, this is because I was dealing with building and not mortuary practice, but also because these were practices that could not be repeated and so it was difficult and perhaps pointless to make a case for ritual practice. The key point is that it is materials without form that instigate different kinds of participation, and so materials without form matter. It is the formless quality of the materials that brings about the quick and intense building practice, while also guaranteeing that it is a practice of short duration. The lack of shape to these materials means that it is possible to make an assemblage of things that seals shut on stabilisation and that cannot be accessed. Materials allow for specific kinds of shape-shifting forms.

Long barrows are and were not the same as causewayed enclosures. Causewayed enclosures can be about an inside, or understood as architecture from the inside. I do not want to be part of a legacy of viewing long barrows from the outside, from the external detail of a static form, but they are not about things or places that remain inside. Long barrows are inaccessible, and therefore different to causewayed enclosures, both cannot have emerged through communal practice. Thinking of architecture as practice must not become a generic exercise in archaeology – it is only an effective mode of argumentation if it engages with the detail of the evidence.

Long barrows involved different kinds of participation, the material traces of some of those encounters could be seen on the body of the builder and remembered as something that operated within the long barrow. The practices that were involved were of short duration, and the physical inaccessibility of the architecture and its lack of stable form meant that inequality could not be repeatedly played out through an engagement with an architectural object. Perhaps, the characteristics of building practice are not to be understood in terms of a centrally controlled formal design approach or a group practice that operated autonomously, or even a middle course between the two (Holst and Rasmussen 2012: 269), but in the way they created a notion of trust that was temporally and materially contingent. Trust that was not necessarily between builders, but a trust in what the materials that builders were caught up in using would do. Long barrows are immanent architecture if you consider the way notions of time and expectation are integral to architecture (see also Bille and Flohr Sørensen rationale for this volume).

Acknowledgements

I would like to thank Mark Knight and Thomas Yarrow for reading draft versions of this text and for their critical comments. I also thank Tim Flohr Sørensen and Mikkel Bille for their encouragement and trust, and their critical comments. I also benefitted from reading and thinking about the review of the series editor.

I gratefully acknowledge the following for permission to reproduce material in this paper: Don Benson and Alasdair Whittle for Ascott-under-Wychwood (plan and section); the Prehistoric Society for Beckhampton Road (plan).

References

- Ashbee, P., Smith, I. and Evans, J. (1979) 'Excavations of three long barrows near Avebury, Wiltshire'. *Proceedings of the Prehistoric Society* 45, 207–300.
- Bailey, D. and McFadyen, L. (2010) 'Built Objects'. In Beaudry, M. C. and D. Hicks (eds) *The Oxford Handbook of Material Culture Studies*. Oxford: Oxford University Press, 562–587.
- Barrett, J. C. (1994) *Fragments from Antiquity: an Archaeology of Social Life in Britain 2900–1200BC*. Oxford: Blackwell.
- Benson, D. and Whittle, A. (eds) (2007) *Building Memories: the Neolithic Cotswold Long Barrow at Ascott-under-Wychwood, Oxfordshire*. Oxford: Oxbow Books.
- Colt Hoare, R. (1812) *The Ancient History of South Wiltshire*. London: William Miller.
- Evans, C. (1988) 'Acts of enclosure: a consideration of concentrically-organised causewayed enclosures'. In J. Barrett and I. Kinnes (eds) *The Archaeology of Context in the Neolithic and Bronze Age: Recent Trends*, 85–96. Sheffield: Department of Archaeology and Prehistory.
- Fowler, C. (2004) 'In touch with the past? Monuments, bodies, and the sacred in the Manx Neolithic and beyond'. In V. Cummings and C. Fowler (eds) *The Neolithic of the Irish Sea: Materiality and Traditions of Practice*, 91–102. Oxford: Oxbow.
- Galer, D. (2007) 'The Human Remains'. In D. Benson and A. Whittle (eds) *Building Memories: the Neolithic Cotswold Long Barrow at Ascott-under-Wychwood, Oxfordshire*, 189–220. Oxford: Oxbow Books.
- Hill, J. (2003) *Actions of Architecture: Architects and Creative Users*. London: Routledge.
- Holst, M. K. and Rasmussen, M. (2012) 'Combined Efforts: The cooperation and coordination of barrow-building in the Bronze Age'. In N. Johannsen, M. Jessen and H. J. Jensen (eds) *Excavating the Mind: Cross-sections through Culture, Cognition and Materiality*, 255–279. Aarhus: Aarhus University Press.
- McFadyen, L. (2006) 'Building technologies, quick and slow architectures and early Neolithic long barrow sites in southern Britain'. *Archaeological Review from Cambridge* 21(1), 117–134.
- McFadyen, L. (2007) 'Neolithic architecture and participation – practices of making in early Neolithic Britain'. In J. Last (ed.) *Beyond the Grave: New Perspectives on Barrows*, 22–29. Oxford: Oxbow Books.
- Mizoguchi, K. (1993) 'Time in the reproduction of mortuary practices'. *World Archaeology* 25, 223–253.
- Pollard, J. (1993) *Traditions of Deposition in Neolithic Wessex*. PhD, University of Wales College Cardiff.
- Pollard, J. (2005) 'Memory, monuments and middens in the Neolithic landscape'. In G. Brown, D. Field and D. McOmish (eds) *The Avebury Landscape: Aspects of the Field Archaeology of the Marlborough Downs*, 103–14. Oxford: Oxbow Books.
- Saville, A. (1990) Hazleton North, Gloucestershire, 1979–82: the excavation of a Neolithic long cairn of the Cotswold-Severn group. English Heritage Archaeological Report 13. London: English Heritage.
- Shanks, M. and Tilley, C. (1982) 'Ideology, symbolic power and ritual communication: a reinterpretation of Neolithic mortuary practices'. In I. Hodder (ed.) *Symbolic and Structural Archaeology*, 129–154. Cambridge: Cambridge University Press.
- Thomas, J. and Whittle, A. (1986) 'Anatomy of a tomb – West Kennet revisited'. *Oxford Journal of Archaeology* 5(2): 129–156.
- Thurnam, J. (1896) 'On ancient British barrows, especially those of Wiltshire and the adjoining counties. (Part I. Long Barrows)'. *Archaeologia* XLII: 161–243.
- Till, J. (2005) 'The negotiation of hope'. In P. Blundell Jones, D. Petrescu and J. Till (eds) *Architecture and Participation*, 23–42. London and New York: Spon Press.
- Till, J. (2009) *Architecture Depends*. Cambridge, MA: MIT Press.
- Whittle, A. (2007) 'Communitality of the body: inhabitation, assembly, tranformation and commemoration'. In D. Benson and A. Whittle (eds) *Building Memories: the Neolithic Cotswold Long Barrow at Ascott-under-Wychwood, Oxfordshire*, 358–360. Oxford: Oxbow Books.
- Whittle, A., Pollard, J. and Grigson, C. (1999) *The Harmony of Symbols: the Windmill Hill Causewayed Enclosure, Wiltshire*. Oxford: Oxbow Books.

Big affects

Size, sex and Stalinist 'architectural power' in post-socialist Warsaw

Michał Murawski

Introduction: absolutely large

Despite a slew of proposals to build a forest of skyscrapers and a tightly packed, money-making city centre in its immediate vicinity, the Palace of Culture and Science – a 231 m (758 ft) Stalinist skyscraper 'gifted' by the Soviet Union to Poland in 1955 – is still the tallest building in Warsaw today. Together with Plac Defilad (Parade Square), the 25 hectare empty space that surrounds it, the Palace takes up an enormous chunk of a once densely populated district of central Warsaw. The Palace continues to exert a powerful impact on Warsaw's architecture, on its political, commercial and cultural lives and on the bodies and minds of its citizens. Referring to Warsaw's perceived 'obsession' with the Palace, and to its post-1989 decision-makers' apparent inability to mount a challenge to the building's dominance, the locals joke that the city suffers from a 'Palace of Culture complex'. Following the Polish press's pre- and post-1989 tendency to ram home that which is remarkable about the Palace by reciting strings of impressive numbers (Figure 5.1) – I borrow the opening lines of the first Palace-focused post-1989 piece of reportage, Mariusz Szczygieł's 'Stone Flower' (1991):

The Palace of Culture occupies 3.3 hectares of space, its height is 230.68 metres. Its 42 floors are served by 33 elevators, travelling at speeds between 1 and 6 metres per second. The Palace contains 3,288 rooms, among them fifteen large halls devoted to hosting exhibitions and conferences. The biggest of these, the Congress Hall, has 2,915 spaces for spectators, simultaneous translation facilities in eight languages, fifty-two seats on the praesidium, a 36-metre wide stage, fourteen cloakrooms able to accommodate a total of 56 people. Between 1955 and the end of 1990, 147 million people¹ have taken part in 221,000 events within the Palace. Thirty-three million tourists have viewed the panorama of Warsaw from the thirtieth-floor viewing terrace. Every day, around thirty thousand people pass through the Palace.

This fascination with the Palace's vast dimensions is alive and well today, because the 'mathematical sublime', which is a feature of Varsovians' comprehension of and interaction with

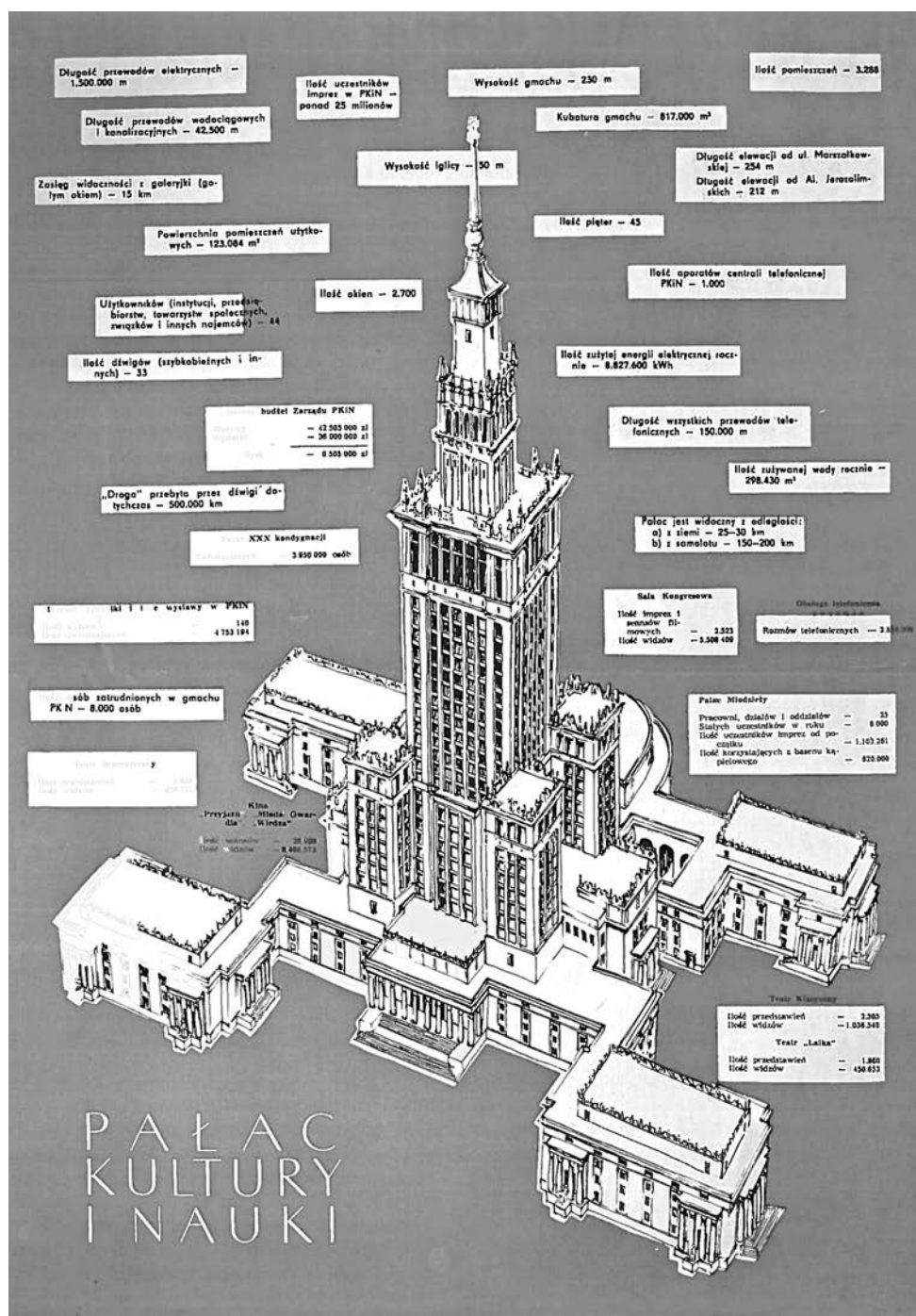


Figure 5.1 The Palace of Culture and Science represented in numbers

Source: *Stolica* magazine, 1961

the Palace retains its force to this day. Despite more than twenty years of discussion devoted to the idea of demolishing the Palace or filling the openness around it with a forest of even taller skyscrapers, the Palace remains that ‘in comparison with which all else is small’ (Kant 2007: 80). The Palace is still the tallest building in Warsaw (indeed, in Poland); Parade Square is still the biggest urban square in Europe; and in 2000 the Palace added a new distinction to its roster of ‘absolute greatness’ (Kant 2007: 78), when, at the behest of then-Mayor Paweł Piskorski, it became the world’s tallest clock tower.²

This chapter explores the relationship between the Palace’s size and its tremendous ‘potency’ to exert an impact on the sensibilities, sensoria and social lives of Warsaw’s inhabitants. In other words, I am concerned here with the relationship between architecture, scale and affect, concentrating in particular on the sexualised and gendered dimensions of this relationship. Crucially, however, although the Palace’s size is a crucial factor in enabling it to bring together – to *assemble* – a vast array of things, functions and processes under one roof, I am not sure whether the language of ‘assemblage’ offers the best avenue through which to think about the Palace’s affective capacity. Elsewhere (Murawski 2015), I have explored the limitations of the anti-reductionist ‘flattening’ (in other words, ‘non-scalar’) and ‘complexifying’ morphological imaginaries – among them that of assemblage – that have gained ground among scholars in anthropology, archaeology and adjacent disciplines in recent decades.³ The purpose of the present chapter is to extend this critique towards an explicit examination of the question of scale, or of what might be called social theory’s ‘ideologies of scale’ (Tsing 2000, Neveling and Wegrin 2009). My aim is to draw attention to assemblagism’s – I think, inherent – tendency to focus on the small over the large, to elevate the micro and to elide the macro, by deploying historical and ethnographic data to show that the Palace of Culture’s affective power is to a large part an effect of its enormous dimensions.

This chapter digs up a number of ‘native concepts’ (understood ethnohistorically, in the sense that they exerted a constitutive influence on the design of the Palace): Stalin-era articulations of theories about ‘architectural power’, the ‘planned sublime’ and the ‘ensemble’. The hope is that these ‘found concepts’, connected by provenance to the Palace itself, might help to dissociate the consideration of architectural affect from its assemblagist associations. This task is tied in with another point, pertaining to the causality of affect, that I touch on below. The Palace’s capacity to exert and trigger ‘big affects’ does not operate – I argue here – as a circumstantial, ‘emergent’ outcome of the ‘contingent coming together of a heterogeneous set of elements’ (Bennett 2010: 34). As the parameters of the Palace’s social life in today’s Warsaw show, there is a directly traceable (if sometimes surprising in its manifestations) – no less ‘effective’ than ‘emergent’, to hijack affect theorist Jane Bennett’s dichotomy – causal relationship between the Palace’s ‘architectural power’ as conceived and designed by the ideologues and architects of Stalinism, and as practised and lived by the inhabitants of the post-socialist city. In the words of anthropologist Caroline Humphrey, the ‘built construction seems capable . . . of acting as if like a prism: gathering meanings and scattering them again, yet not randomly. As a prism has a given number of faces, the light it scatters has direction’ (2005: 55).

Assemblagist microphilia

Definitionally, the assemblagist attitude entails a wholesale rejection of scale as a category of differentiation, a recognition that ‘all actors are isomorphic and none is by nature bigger or smaller than any other’ (Callon and Latour 1981: 281). This scalar relativism finds particularly vivid expression in Bruno Latour’s book (or ‘sociological web opera’) about Paris, a systematic attempt to demonstrate on an urban terrain how ‘micro’ and ‘macro’ are never given but always ‘folded-in’ to one another; to draw attention to the awesome ‘Lilliputian action’ of ‘humble

objects' ('public toilet to rubbish bin, tree protector to street name, phone booth to illuminated signpost' (Latour 2006: 64)), while dismissing the 'partial totalizations' and oligopticons proffered by Eiffel Towers, police control rooms and other city-wide 'panoramas' or 'big pictures'. It is my argument, however, that this sort of programmatic suspension of magnitudinal certainty inhabits a tendency to morph (despite its stated intentions) into a 'microphilia', determined to elevate the agentic effectivity of seemingly small or inconsequential entities, while eliding the significance of massive and/or dominant ones. I couldn't put it better myself than do Callon and Latour in one of the earliest texts from the ANT canon (1981: 296):

A tiny actor becomes a macro-actor, just like in the French nursery rhyme: 'The cat knocks over the pot, the pot knocks over the table, the table knocks over the room, the room knocks over the house, the house knocks over the street, the street knocks over Paris: Paris, Paris, Paris has fallen!'

This sort of microphilia (as well as its attendant macrophobia) has both 'abstract' as well as 'concrete' manifestations. On the first point, I follow urban geographer Neil Brenner's critical observation that assemblagist theories of urbanism 'black-box' what he calls '*the context of context*', namely 'the broader geopolitical and geoeconomic dimensions of contemporary urbanization processes' (2013: 375). One recent, self-avowedly assemblagist ethnography of post-socialist urbanism, Stephen Collier's (2011) study of the biopolitical effects of (and resistances to) neoliberalism in the provincial southern Russian city of Belaya Kalitva, provide clear examples of this kind of 'abstract' microphilia in action. Collier explicitly sets out to avoid 'reducing' neoliberalism to what he calls (invoking Bruno Latour and Michel Callon (1981) against Loic Wacquant) a 'big Leviathan' (2012), or a simple case of 'regressive redistributive effects and increasing social inequality' (Collier 2011: 10 citing Harvey 2005). Instead, Collier defines the aim of his study as a description of what happened to the infrastructures and norms for the 'government of living beings' in a provincial Russian town after the fall of the Soviet Union. But this tale of biopolitics in transition makes no mention at all of the male mortality crisis that claimed from three to ten million excess deaths in the former Soviet Union between 1989 and 2002, and that sociologists have spatially and temporally correlated with the impact of 'shock therapy' mass privatisation programmes (Stuckler *et al.* 2009).

I'd like to draw attention to another anthropological iteration of abstract microphilia or macrophobia, possessed of a particular vividness – and pertinence to my argument here – by its veiled invocation of the metaphorical idiom of the 'elephant-in-the-room', an expression of a dominating truth so overpoweringly huge, that it goes unnoticed or is purposefully ignored by the participants in a given social context. Its authors, Joanna Cook, James Laidlaw and Jonathan Mair, begin their argument by taking issue with a Buddhist parable: a coterie of blind men are tested by their king, who positions them strategically around an elephant. Each blind man grasps and feels a different part of the beast, and none is able to accurately determine its identity. Their disparate viewpoints lead the men into a quarrel:

Those who had felt its head replied that an elephant is like a pot. Those who had held its ear said it resembled a winnowing basket. Those who had held only the trunk likened it to a plough, and so on.

(Cook *et al.* 2010: 47)

The suggestion here is that the notion of the 'macro' is necessarily underpinned by the same assumptions as the parable of the total elephant:

that there is a hidden truth, available only to those who achieve a holistic, global view by transcending the particular; that this truth will explain and tie together all the partial perspectives of those who only know one point of view; and that what is seen from those different vantage points, though apparently diverse, is all really part of the same coherent, integrated phenomenon.

(Ibid.)

The authors seek to undermine the holist premise that 'local' socialities need always to be located within causal frameworks and scalar hierarchies predicated on the existence of a determining 'wider system' or 'higher level'. They 'aspire' to reject 'overarching', 'social explanations' in favour of Actor Network Theory-inspired 'flat descriptions' (ibid: 55). 'If there is no elephant, then there is no need for us to try and imagine one' (ibid: 69).

Cook, Laidlaw and Mair place a great deal of emphasis on clarifying that the methodological principles of flatness, partiality and humility need not, indeed should not, carry with them an ontological claim. There is a 'distinction between aiming at a flat description, so that the processes through which contours are created and maintained might be captured analytically, and assuming that the world actually is flat, or that all networks are equally and homogeneously dense' (ibid.: 57). I would like to claim, however, that Cook, Laidlaw and Mair are a little too quick to posit a distinction between methodology and ontology. My contention is that a macrophobic 'methodological asceticism' (this phrase is Matei Candea's, 2007: 181) does tend to gravitate towards a particular vision of the world (or *weltanschauung*) and towards certain scalar and aesthetic preferences: its ontologies are, by and large, partially connected, small and humble, 'always-incomplete, contested and overlapping' (ibid.: 58). This is not necessarily a problem; unless, of course, there does happen to be an elephant in the room – whether in the form of an abstract determinant 'above' or 'below' the social, or a massive, concrete thing filling up the field of vision.

My argument, then, is that abstract and concrete microphilias and macrophobias have a tendency to cluster together. As Latour's celebration of humble objects' and their 'Liliputian action' suggests – microphilia's elisions operate not only on the level of the abstract *macro*, but also in the very tangible domain of the concrete *big*. Let me call on an example from another recent, self-consciously assemblagist ethnography of post-socialist urbanism, Gisa Weszkalnys' Berlin Alexanderplatz (2010), a detailed and sensitive account of the 'fluid', 'ambiguous', 'elusive' life of the GDR's showpiece urban space after German reunification. But, in her keenness to assemble 'Alexanderplatz multiple' (Weszkalnys 2010: 6 after Mol 2002) and to avoid having her account led astray by the 'concrete plane [of Alexanderplatz] and the sturdy buildings around it' (Weszkalnys 2010: 167), Weszkalnys omits to devote any significant attention to the eminently permanent and upright 368-metre Berlin TV tower, whose looming bulk towers over the square (Murawski 2011b).

In the paragraphs below, I marshal ethnohistorical and ethnographic data to show how and why a macrophobic or scalar relativist methodology and world-view (or 'ideology of scale') would fail to do justice to a description of the relations between Warsaw and the Palace of Culture; and, correspondingly, that the *macrophiliac* attitude that I adopt (an attitude, that mirrors the ideological intentionality embedded within the Palace itself) is capable of accounting for the Palace's own intense affective existence. The relation between Warsaw and the Palace connects two differently sized entities, in which one thing (the Palace, the part) is absolutely gigantic and taller than anything else around it, but is nevertheless smaller than its partner 'on the other side' of the relation (the city, the whole). Nevertheless, as is hopefully clear from the materials presented in this chapter, the sheer intensity of the Palace's interconnectedness with Warsaw and the indefatigable, intensely felt superlativeness of its physical bulk upsets the 'normal' scalar

understanding according to which cities are ‘larger’ than individual buildings. There is some quite volatile scale-shifting going on here, but one thing that does remain stable is that the Palace – in line with its designers’ intentions – is *absolutely* out-of-scale. In multiple domains of sociality, the Palace occupies a much greater ‘proportion’ of its host city than individual buildings ordinarily do.

Vertical frenzy

The memoirs of Józef Sigalin, Warsaw’s Chief Architect during the Stalinist 1950s, contain a rather eccentric account of how the Palace’s vertical dimensions came to be determined ‘by over a dozen of the most distinguished Polish architects’ in the company of the Soviet team – led by Lev Rudnev and Igor Rozhin – responsible for the Palace’s design (Sigalin 1986b: 429, Figure 5.2).

We gathered on the Praga bank [of the Vistula river, facing the city centre]. . . . Radio contact was established with the pilot of a *kukuruzhnik* [a Soviet biplane], flying on the axis of the future Palace along Marszałkowska Street. A balloon was hung from the tail of the plane. We started at 100 metres. Then 110, 120. The Soviet architects, Rudnev in particular, said: ‘Enough, this will be good for Warsaw’s skyline, between 100 and 120 metres.’ We, however – not only as architects having in our sights future Warsaw high-rises, but also as Varsovians fantasising about the future greatness of our city – *were seized*

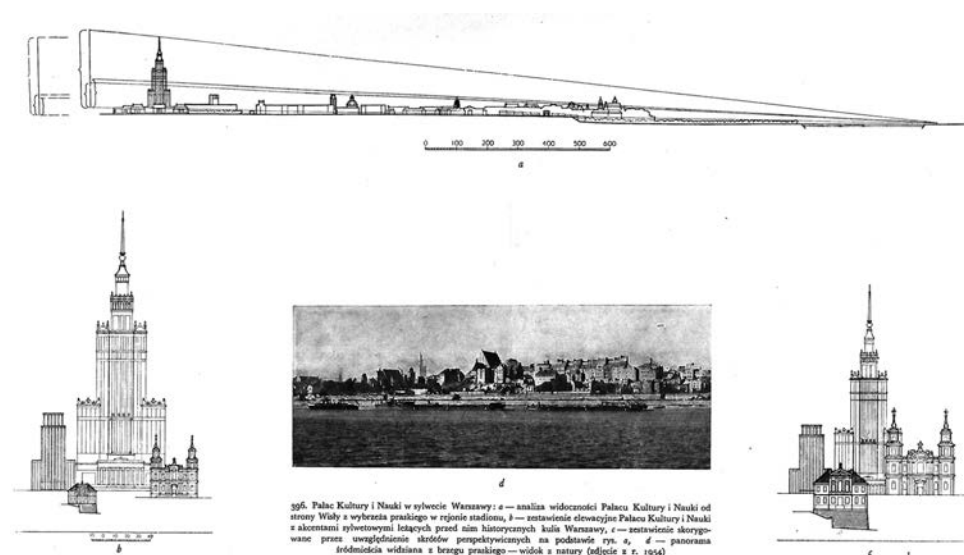


Figure 5.2 Stalinist architectural ideologue Edmund Goldzamt’s diagram of the ‘new Warsaw scale’ includes an analysis of PKiN’s visibility from the Praga bank of the river; and its scale is juxtaposed (from two different perspectives) with that of Hotel Warszawa (Prudential), the Świętokrzyski (Holy Cross) Church on Krakowskie Przedmieście and the Ostrogski Palace on Tamka

Source: Goldzamt 1956

by an inexplicable vertical frenzy. After each approach of the plane, our disposition screamed, 'Higher!' We stopped – unanimously – at a height of 150–160 metres. Why here? Perhaps, more or less consciously, we wanted to create *a greater scale for the new Warsaw* than that, which had been marked by the Prudential Tower or the Cedegren Building.⁴ This is how the decision was taken. *We* made the Palace the height that it is. A 'compromise', in its own special way: the side towers, 60 metres, like the Warszawa Hotel/Prudential Tower, the main tower – the body of the high-rise – 120 metres, together with the narrower tower above, about 160 metres; Adding in the 70 metre spire, the total height adds up to about 220 metres [emphasis added].

The dozen architects' 'vertical frenzy' on the riverbank was not an isolated incident, however. It was merely the expression of a will-to-enormity that pervaded Warsaw during the first half of the 1950s. In May 1952, the Central Committee of the Polish United Workers' Party had decreed that the 'all the remaining elements [of Warsaw's central region] should be harmoniously subordinated to the design of the Palace of Culture and Science' (Sigalin 1986a: 11). The designers of what was referred to as the 'Palace ensemble' (the building's immediate surroundings) were under instruction to produce an 'asset underlining the monumentality of the *dominanta*' (Jerzy Gieysztor, cited in Sigalin 1986a: 66) and to do all they could to ensure that the remaining elements of the Palace ensemble did not 'depreciate the scale and *absolute enormity* of the Palace of Culture and Science' (ibid., emphasis added). But the mania for bigness was not confined to official postulates nor to architects' riverside effervescences. According to anti-regime diarist Leopold Tyrmand, the effusive crowds cramming into a popular exhibition of competition designs for the Parade Square ensemble, held in February 1954 at Warsaw's newly reconstructed National Theatre (1999: 205):

attest to people's insatiable hunger for a new Varsovian Athens, the masses of the city pine after greatness. The communists want to give greatness a size, mass, physical scale, which, unfortunately, will never turn into quality, pedigree, praise of a higher value than the triumph of statistics. Warsaw, muffled by a monopolised press, doesn't know how to defend itself.

And reactions to the Palace, cited in the popular press at the time of its construction and immediately following its opening, are replete with invocations of the awesome effect that the Palace's enormity had on some of its first visitors. Polish anthropologist Zbigniew Benedyktowicz has pointed out the universality of references to the Palace's gigantic scale in contemporary descriptions of the building, 'its height, heavenliness, its soaring movement. The height of the Palace fascinates, attracts, magnetises' (1991: 21). The first visitors to the Palace reported becoming 'dizzy from an excess of sensations' (Ciszewski 1955 cited in Ibid.: 26), 'overwhelmed by the enormity of the Palace's uses' (Kožniewski 1955 cited in Benedyktowicz 1991: 27). 'I stand filled with helpless admiration, faced by this mass of rooms', recounted a journalist from the *Życie Warszawy* daily. 'I have the feeling that never in my life will I be able to explore the entire Palace' (ibid.).

Harnessing affect: architectural power

Stalinist architects, planners and visionaries were not interested in building overpoweringly enormous 'central ensembles' purely for the sake of appearance, or as a mere demonstration of political overlordship. In fact, the Stalinist city core was to play an active part in the transformation of social structure, and in the awakening of socialist consciousness. In the description

of Edmund Goldzamt, the leading architectural ideologue of 1950s Poland, the Stalinist city core was tasked with nothing less than the ‘revolutionary transformation of the city’ (cited in Sigalin 1986a: 11) and the ‘transformation of the infrastructure of social ties’ (Goldzamt 1956: 18) within. For Goldzamt, ‘the dominating role of the central ensemble is the effect of the concentration therein of *architectural power*’ (Goldzamt 1956: 21).

Goldzamt’s invocation of ‘architectural power’ should be seen in the context of a marked tendency of the time to evoke the social role of buildings in terms of an abstract force or potency that could be designed to reside within architecture, or to ‘radiate’ from it. The Palace’s transformative impact on the city was spoken about in these terms from the time of its inception: when the Polish Prime Minister Józef Cyrankiewicz cut the ribbon outside the main entrance to the Palace on 21 July 1955 (in the presence of President Bolesław Bierut and Soviet ambassador Panteleimon Ponomarenko), he announced, ‘From today, the opening day of the Palace, it will not be merely an image melted into the figure of Warsaw. From today, it will be a building radiating its social and cultural content over Warsaw’ (Sadowski 2009: 203).

The ambition to harness the power of the ‘extraordinary’, the unexpected and intense lay at the very core of the Stalinist model for transformative acculturation through architecture.⁵ In Boris Groys’ description, Stalinism’s ‘perfect building’ was to ‘serve the needs of the people and at the same time generate a sense of celebration and the extraordinary’ (2003: 114), while literary historian Leonid Heller argues that post-war ‘Zhadnovite’ Stalinism saw a marked ‘elaboration of the sublime’ in Soviet cultural life, which – while it corresponded in many ways to the ‘classical’ definitions of Burke, Kant and Schiller – differed from them in one crucial respect. Although in rhetoric and affect, the Stalinist sublime pertained to the terrifying, the enormous and the fantastic, it was – at the same time – ‘bound by strict limits’ (1997: 70). The Stalinist sublime was *and* wasn’t ‘limitless, inexpressible, double, intense, dynamic, frightening’ (1997: 70), because it had an inherent purpose: the otherworldly realm that it was the task of socialist realism to evoke was clearly defined as the ‘sublime goal’ of earthly communism. The Soviet sublime, in other words, was teleological and functional. Late Stalinist socialist realism was typified, in Heller’s expression, by the ‘planned cultivation of the sublime’ (ibid.).⁶ The sublime was the ‘dominant aesthetic’ (Clark 2011: 25, 276–307) of Stalinism, but the distinguishing characteristic of the Stalinist sublime was that it could be designed-in (to buildings, paintings, texts), in order to contribute to the creation of a new (political–economic) ‘reality’. Socialist realism, in other words, as the aesthetic implementer of a not-quite-yet this-worldly communist future, was elaborated in the form of a political sublime, or rather, as a political–economic sublime.

Architectural power after socialism: red rays of death?

The Palace’s architectural power has anything but diminished since the collapse of the Polish People’s Republic in 1989. The building’s opponents and supporters frequently refer to the various kinds of ‘energy’ emitted by the building (‘red rays of death’, as one of my informants in Warsaw put it). In the words of journalist Agata Passent, ‘Every inhabitant of the city is struck by the Palace’s rays, whether positively or negatively’ (Kamiński 2004). The Palace’s ongoing presence in multiple domains of Warsaw’s social life constitutes a remarkable fulfilment of the ambitions articulated by Stalinist architects and their political patrons. Besides its enormous dimensions and spectacular appearance, the Palace plays host to a variety of edifying cultural and educational institutions, including four theatres, a 3,000 seat Congress Hall, the headquarters of the Polish Academy of Sciences, two universities, Museums of Technology and Evolution, an art gallery and an enormous Palace of Youth (which features a marble-clad, Speerian swimming

pool, among myriad other facilities), several cinemas (now combined into the *Kinoteka* multiplex), various nightclubs and restaurants (now in private hands), the city's primary radio and television broadcasting mast and a popular viewing terrace on the thirtieth floor. Since 1989, the building's tenant profile has widened to include municipal institutions (the meeting chamber of the Warsaw City Council, the city's Architecture Bureau and numerous others) and the headquarters of various private companies. The Palace exerts a prominent impact on Warsaw's popular and high culture, on its 'iconosphere' and on various other facets of the city's everyday life. Ninety-nine per cent of Varsovians have been inside the Palace; 61 per cent of them consider it to be the city's primary symbol; 45 per cent have a view onto the building from their windows.⁷

The electric energy radiating from the Palace (Goldzamt's 'distributor of architectural power') seeps pervasively into Warsaw's urban life. But this radiation exceeds the metaphor it gives rise to: an untypical potency is sometimes ascribed to the actual electromagnetic rays emanating from the Palace's spire: the staff managing the enormous car park on the eastern side of Parade Square told me that they frequently face complaints from drivers, who claim that their cars were stolen because the powerful rays from the Palace spire messed with the signal from their remote car locks; one man whom I met at an anniversary event in the Palace's youth wing told me how once he had to push his car 200 metres away from the Palace before he was able to open the door! Meanwhile, many Palace-based office workers would bemoan the health risks associated with spending every day within the belly of such a powerful source of 'radiation' (employees of the Palace administration, however, whose job it was to rent, promote and upkeep the building for the municipal coffers, would always be quick to rubbish such claims). One member of the Architecture Bureau's administration staff, for example, would make a point of alerting me to the urgency of the intangible hazards wafting through the Palace air: 'I've been coming here every day for twenty years', she would repeat, 'and my health sure isn't the same now as it was when I started out!' She promised to make a photocopy for me of an official report that proved beyond doubt the reasonableness of her worries. The document I eventually received, however, did include mention of radiation threats, but only with regard to the Palace's level of possible exposure in the event of a major accident at the nuclear reactor installed in the Institute of Atomic Energy in the Warsaw suburb of Otwock, 28 kilometres to the south (see Figure 5.3).

Hanna Szczubelek, who has been employed by the Palace of Culture's administration body as its chronicler since 1960, keeps a folder of 'untypical correspondence', in which she archives letters addressed to the Palace, considered eccentric and not compatible with the competencies of any section of the Palace's administration. The folder's first ethnographer, Zbigniew Benedyktowicz, who analysed its contents at the end of the 1980s, identified the folder as a 'votive corpus' (Benedyktowicz 1991), a phenomenon of the totalitarian centralisation of power. Despite the fall of the Polish People's Republic in 1989, however, the letters have kept coming, with no less regularity or intensity than before. Many of them pertain to otherworldly, eschatological, religious and cosmological themes (as they also did before 1989), others appeal to the Palace's assistance in the resolution of disputes or grievances. One letter, which I will cite in full, was written by a resident of one of the tall 1960s residential towers on the so-called 'Eastern Wall' of Ulica Marszałkowska, which faces the Palace's main entrance on Parade Square.

Dear Director of the Palace of Culture!

I live on the Eastern Wall, opposite the Palace. Every day in the night I have strong erotic experiences as a result of radiation from the television aerial on the Palace spire.



Figure 5.3 The Radiating Palace: Nine Rays of Light in the Sky by Henryk Stażewski (1894–1988), curated by the Museum of Modern Art in the Świętokrzyski Park in November 2009. In the words of one of the curators, this project ‘marked the territory’ for the new building and institution in the vicinity of the Palace. But ‘it was done slightly off centre, we didn’t want these rays marking the centrality of the Palace, this symbolism’

Source: Photograph by Jan Smaga, courtesy of the Museum of Modern Art, Warsaw

This is extremely exhausting for me, so this is why I ask the technical department to conceal this aerial. I cannot change my flat and I am sure you will admit yourselves that orgasms experienced without willing them are not so good.

I think that the directorate of the Palace will deal with this issue because otherwise I will be forced to take action in person.

Hanna Szczubelek recounts how she was assigned to deal with the (so-called) ‘orgasm lady’ by the Palace’s then Director: a plan was formulated for Szczubelek to lead the complainant to a terrace directly below the spire on the forty-second floor – from this vantage point, she pointed out a spot from which it was claimed some television equipment had been removed – apparently, this story was accepted without hesitation, and the letter-writer ceased to pursue her complaint.

Aside from the sensational manner in which this story chimes with the phallic connotations evoked by the Palace, the story of the ‘orgasm lady’ is interesting on two further levels: first, it is worth noting that the letter was sent on 12 June 1989: a date that falls almost exactly between the two rounds of Poland’s first free parliamentary elections (4 and 18 June), the landmark event of Poland’s political transition from communism to democracy. The link between dramatic political upheaval and sexual or affective excess has been made for somewhat different contexts by several authors: Pierre Klossowski observed that the French Revolution saw the Marquis de Sade elected to the French National Convention (Waite 1996), while maverick Freudian Wilhelm Reich praised the ‘genital character’ of the early years of the Russian Revolution (Reich 1972[1929], Todorov 1995). Closer to home, Szczubelek told me about the several pregnancies that resulted from Polish soldiers’ intimacies with the Palace’s lift operators, when the former were stationed on the thirtieth floor viewing terrace after the declaration of martial law by General Jaruzelski in December 1981. Indeed, a group of chance Warsaw interlocutors to whom I recounted the orgasm story recalled that the heady atmosphere accompanying the state socialist *ancien regime*’s dying summer days (which they remembered well) contributed to the circulation of a sort of sexual energy through town; they were led to speculate that the Palace of Culture – in all its phallic centrality – may have been a natural place for some of this sexual energy to be discharged, ‘like a lightning bolt’.⁸

The ‘phallic’ dimension of skyscrapers is something often alluded to in popular discourse (this was certainly the case in Warsaw) but little explored in the literature.⁹ Among the intriguing findings revealed by an online-based, quantitative survey I carried out towards the end of my fieldwork period in Warsaw (see Murawski 2013) were those testifying to the disparity in perceptions of and attitudes towards the Palace between female and male respondents: 73 per cent of women, but only 57 per cent of men described themselves as ‘positively disposed’ towards the Palace (64 per cent overall). More strikingly, just 21 per cent of the female but over half (51 per cent) of the male respondents thought that ‘Warsaw needs to have a skyscraper taller than the Palace of Culture’; and almost three times more men (23 per cent) than women (8 per cent) expressed their desire for the Palace to be demolished! During a public meeting in the autumn of 2010 at which I presented my preliminary survey results, audience members were unanimous in their psychosexual aetiology of these figures: Warsaw’s men are more aggressively disposed towards the Palace than its women, because its vast dimensions – and perhaps, its architectural power – leave them feeling belittled and intimidated. Let me elaborate a little now on an episode that illustrated with some cogency the connection between the Palace’s vast dimensions and impressive stature, its affective capacity, its apparent sexual potency, and the fate of two successive political-economic regimes: that which conceived and built the Palace, and that which inherited and desires to ‘overcome’ it (see Figure 5.4).



Figure 5.4 As the Polish People's Republic fell, an engagement with the phallic centrality of the Palace came to figure prominently in the work of artist Zofia Kulik. See for example *Self-portrait with the Palace* (1990, above) and *Guardians of the Spire* (1990, on p. 75).

Source: Images courtesy of Zofia Kulik



Figure 5.4 Continued

The phallus of culture: 'legislative viagra' versus the 'dwarflike imagination'

Towards the end of my fieldwork in Warsaw in the summer of 2010, I organised a public meeting at which I asked invited panellists (most of them architects, planners, municipal politicians, investors and curators) to 'embody' the single causal factor that they felt was responsible for causing Warsaw's inability to overcome its 'Palace complex'. The conversation was focused in particular on the reasons for the failure of the various plans to construct a new 'city centre' for Warsaw on Parade Square. The most revelatory section of the meeting came during a heated exchange between three men: Warsaw Mayor's boisterous press officer Tomasz Andryszczyk (the only member of the reigning administration who accepted the invitation to take part), rightwing architect Czesław Bielecki, (the designer of scuppered plans for a demascatory Museum of Communism to be built in front of the Palace's main entrance; and, it was to turn out, the main opposition candidate for Mayor of Warsaw in elections held three months later), and the ex-Chief Architect Michał Borowski.

Bielecki threw down the gauntlet right at the start of his presentation: 'Today, I have become the embodiment of the lady currently occupying the position of Mayor of Warsaw, Hanna Gronkiewicz-Waltz.' Listing the administration's record of being unable to see through investments begun under their predecessors, Bielecki concluded his energetic presentation by proclaiming: 'There is no legislative viagra for the impotence of executive power.' The city's press officer responded to Bielecki's provocation by arguing that Gronkiewicz-Waltz's period in office saw the first moves away from the level of mere talking to that of 'empirical action': the final designs for the city's new Museum of Modern Art had been presented on the Palace of Culture's thirtieth floor viewing terrace several days before the meeting,¹⁰ and diggers had recently moved into Parade Square to begin work on the second line of Warsaw's metro system. Andryszczyk deftly countered Bielecki's viagra remark by observing that 'impotence is a male problem', arguing that the current Mayor is forced to battle the effects of the inadequacy of previous (exclusively male) leaders of the city's administration. Andryszczyk's remarks were fiercely contested in turn by former Warsaw Chief Architect Michał Borowski,¹¹ who reminded the press officer that all of the currently active major investments (including the Museum) were hatched and pushed through during the administration (2002–2006) of Borowski's boss, Mayor (later Polish President), the late Lech Kaczyński. 'Everything', shouted Borowski, 'was initiated as a result of decisions taken in 2004–2005. I will not have this referred to as "impotence"!'

All these emasculatory insinuations being made, it was only a matter of time before the phallic stature and causal potency of the Palace itself was alluded to. A young architect, Ola Wasilkowska, interested in applying theories of emergence and complexity to the built environment and in particular to the relationship between the Palace, the Parade Square and the city,¹² suggested that the whole discussion, pining after 'grand visions', 'willpower' and potency and 'stuck within the paradigm of the strong hand', reflects the authoritarian character of the Palace itself. 'Do we really still desire power to be phallic, to be imposed top-down?' asked Wasilkowska, before suggesting that power should be delegated to the citizens, and attempting to bypass the meeting's panel-moderator-audience hierarchy by 'distributing' her microphone to the audience's free reign. In a similar vein, one audience member (an urban sociologist) even suggested that our timekeeping mechanisms were part of the same problem: 'This discussion has been dominated by this terrible, phallic trumpet. You could have thought of milder methods of control.'

As the meeting progressed, the Palace itself came to be invoked as a complex-inducing causal factor. Planner and ex-Mayor of the Warsaw Central District Jan Rutkiewicz (in office between 1990 and 1994), for example, returned to clarify that his named factor – the 'dwarflike

imagination of decision-makers', had not been intended purely as a comment on the human failings of two-decades-worth of politicians and bureaucrats – the human inadequacies he referred to emerged in relation to the enormous bulk of the Palace itself. The decision-makers were and are dwarves, according to Rutkiewicz, because they are unable to bring themselves to deal with the Palace's crushing vastness. The primary reasons for the Palace's obduracy, suggested Rutkiewicz, are spatial, not historical or symbolic: its own geometry and layout 'demands that it is treated like a Palace'. Building around the Palace can only take place 'on the axes defined by the Palace itself', and all local plans hitherto have been unable to transcend the tendency to surround the Palace with 'forecourts' and 'side-wings' totally subordinate to the spatial logic it lays out.

What was being invoked throughout the discussion, in other words, was the relationship between the Palace's bulk (semiotic, social as well as material) and the impotence of the city's postsocialist decision-makers, 'helpless' in the words of architectural historian Małgorzata Omilanowska, 'in the face of this legacy of totalitarianism' that exerts its debilitating impact on the city 'like the magic power of a giant' (Omilanowska 2010: 135–136). It is not hard to detect, however, that it is not only the physical Palace that is being invoked here, but also its status as the most powerful material legacy of state socialism, a system whose own decision-making potency was compared favourably by many of my informants with the squabbling, pettiness and corruption of today's 'immature' capitalist democracy.

Conclusion: the post-socialist sublime

I would like to give the last word in this chapter to some 'Palace fanatics', enthusiasts, who – in some cases – devoted substantial portions of their lives to Palace lore and memorabilia. While in Warsaw, I tried to develop some comprehension of what it is that motivated their obsession with what is, after all, just a building. Tomasz Dzierga is a traffic policeman from Siemianowice Śląskie, part of the industrial Katowice conurbation in the south-western Polish region of Silesia. Though not a resident of Warsaw, he is a frequent visitor to the capital – visits that tend to be motivated by the incentive to return to his favourite building. While there, Tomasz tries to gain entry to previously unexplored nooks and crannies and to collect various Palace-related souvenirs; ideally rare and unusual ones, not those available for purchase from one of the building's privately run gift shops. Since 2005, Dzierga has been running a website (www.pkin.org), on which he has catalogued his enormous collection, encompassing (as of January 2013) nearly three thousand gadgets, books, newspapers, videos and photographs of the Palace of Culture.

The kernel of Dzierga's captivation with the Palace is tragic. As he freely admits, he cannot totally separate it from his feelings for a girl, his first love, whom he met on the viewing terrace in 2003, during his first ever visit to the capital, and who died young several years later, just as Tomasz's collection was beginning to expand (the viewing terrace is widely associated with tragic love through the legend of a young couple, who jumped to their deaths from the thirtieth floor in 1965¹³). Dzierga is keen to emphasise that his passion has taken on entirely new dimensions since this time. Sometimes, thinking about the Palace – whether about the various great events that have occurred here, or about his own experiences – Tomasz gets goosebumps. Despite this layered relationship to the building, when I asked Tomasz to try to define what it is that directs his fascination about the Palace now, he had no difficulty answering:

As soon as I got out of the Central Station for the first time, the enormity of this building. It just blasted me . . . Of course, feelings play their role here. . . . But even now, when I came out of the station. It's huge. It's enormous. . . . Marriott and Intercontinental, they're

just little boxes. It's not some glass, a strong wind blows and that's that. Even the bricks themselves make an impression.

A related sentiment was expressed by another Palace-collector and webmaster (over one thousand items), Michał Kadlec of Pałac Kultury Collection (pkc.2ap.pl) (Figure 5.5). A native of the northern city of Toruń in his early twenties and an aspiring writer of crime literature, Michał's enthrallment has a more banal origin, deriving as it does from his enjoyment of the Palace-focused third season of *Ekstradycja*, the most popular police series of late 1990s Poland (see Murawski 2015). Asked whether the Palace's interior or exterior aspect appeals to him more, Kadlec replied that although the Palace's interiors are charming, they're too 'kitschy' and 'changeable'. What he really likes is the gigantic, pompous body of the Palace, decorated with its over-sized crenellations and enormous columnnades. When I pressed Kadlec to formulate a concise definition of what it is about the Palace that appeals to him most, he explained, 'You know, I like . . . big things. And the Palace of Culture is a sort of indicator of might. It's not only its height, it's also its girth, its broadness. It really is something of a moloch!'

It is illustrative that these 'fanatics' (and others) rarely made reference to the 'beauty' or 'attractiveness' of the Palace. Similarly, those of my interlocutors who felt positively disposed



Figure 5.5 Michał Kadlec is shown the stage mechanism underneath the Congress Hall by PKiN press officer Ewelina Dudziak-Stalęga. Filming the encounter (and the ethnographer) is Tomasz Wolski, director of the documentary film *Pałac* (Wolski 2012)

Source: Photograph by the author

towards the Palace seldom described it in terms of its refined or pleasing aesthetic characteristics. Where appeals to beauty were made, these tended to emerge as ripostes to the Palace's detractors, who, for their part, were much quicker to highlight the ugliness, or even the grotesqueness or hideousness of the building. This didn't surprise me; although I am clearly a Palace partisan, I would be very reluctant to describe the Palace as beautiful; it is too dumpy, too heavy, too vulgar and tied up with unpleasant associations. It is interesting to see how this awkward positioning of the Palace to categories of taste is borne out by the survey statistics (see Murawski 2013). Only 27 per cent of respondents declared a positive aesthetic appreciation, against another 27 per cent who found the building ugly; by far the greatest proportion, 45 per cent, were uncertain as to how the Palace fitted into their spectrum of taste. I remind the reader how much these numbers contrast with the overwhelming majority of respondents who declared their overall positive disposition towards the Palace (65 per cent for, 20 per cent ambiguous or indifferent, 15 per cent negative). Even among those who professed overall affection for the Palace, only a little over a third (36 per cent) were happy to attest to its beauty. By contrast, the Palace's detractors had no such qualms: a crushing 93 per cent hit the ugly button. People, it would seem, do not find it easy to find the Palace beautiful. But this does not stop them from admiring it, from being fascinated by it, or for attesting to its genius (66 per cent agreed that the Palace was an 'extraordinary' building).

The philosophy of aesthetics, of course, has a name for this interface between the beautiful and the fantastic. It is clear that the Palace's 'planned sublime' was designed to last, and it has indeed managed to outlive de-Stalinisation in 1956 and the political-economic transformation of 1989. This longevity is amply confirmed by my interlocutors and survey respondents. The post-socialist Palace is not primarily a building to be appreciated for its refinement or beauty, but for its awe-inspiring, reason-defying dimensions and characteristics. The point I am trying to bolster here is that, contrary to the fluid understanding of scale – or even microphilia – promoted by the assemblagists, in Warsaw 'everything' does not 'resize everything else' (Corsín Jiménez 2004: 16).

During the 1980s and early 1990s, Polish popular and literary culture became replete with visions that deployed the physical degeneration of the Palace – its destruction, degradation or shrinking – as an allegory of the end of socialism itself. One of the opening lines in Tadeusz Konwicki's *A Minor Apocalypse* describes the Palace, once a 'monument to arrogance, a statue to slavery, a stone layer cake of abomination' transformed into merely 'a large upended barracks, corroded by fungus and mildew, an old toilet forgotten at some central European crossroad' (Konwicki 1983: 4). Meanwhile, the closing scene from Sylwester Chęciński's 1991 film *Rozmowy Kontrolowane*, set during the Martial Law winter of 1981, features the main protagonist, an accidental anti-regime conspirator, fleeing from pursuit by the Citizens' Militia into the Palace of Culture, at the same moment holding a New Year's Eve banquet for SB (Służba Bezpieczeństwa, Security Service) top brass. Hiding in a toilet cubicle, the escapee pulls the flush to escape the suspicions of prying toilet users. Immediately, the entire Palace crumbles and topples over, an unambiguous allegory for the fragility of the repressive, conflicted and unsustainable system the building represented. The culprit climbs out of the rubble, helplessly muttering, 'we'll rebuild it . . .'. In spite of this vision and multiple others (many of these dating from the late socialist era) that have portrayed the Palace's supposed 'transcendence as just as tacky and frayed as the entire reality of the PRL' (Benedyktowicz 1991: 32), the Palace has in fact transcended the collapse of its guarantor-regime, continues to thrive, and – crucially – has not only retained but consolidated its supremacy over Warsaw's landscape, iconosphere and everyday life. I think that the peculiar adventures of the 'radiating Palace' – which culminated during the historic summer of 1989 – were premonitions of the electrifying, at once energising

and debilitating, impact that the Palace would continue to exert on the reality of twenty-first century Warsaw.

Notes

- 1 Jonathan Bach (2010) cites an equivalent set of statistics with reference to the Palast der Republik in East Berlin.
- 2 Capitalism also provides ground for the proliferation of architectural superlatives. The notion of the 'statistical sublime' has been applied to contemporary skyscraper architecture by theorists Reinhold Martin (2001, 2003, 2011) and Gwendolyn Wright (2008). However, whereas Martin (2011) describes how this numerical narrative is 'largely unconscious' in the capitalist instance, the case of the Palace ties it to the 'planned cultivation' of the sublime characteristic of Stalinist socialist realism.
- 3 I will not engage in detail here with the extensive literature promoting or evaluating the utility of applying 'assemblage' to urban studies or to investigations of architecture (see, for example, Ballantyne 2007, Farias and Bender 2010, Brenner *et al.* 2011, McFarlane 2011).
- 4 The eighteen-storey art-deco (66 metre) Prudential Insurance Building (1931–1934) was the tallest building in Warsaw and second highest in Europe before 1939. Partially destroyed, it was re-opened in 1954 as Hotel Warszawa, featuring some new Stalinist ornamentation courtesy of its original architect, Marcin Weinfeld. The first Warsaw high-rise, the neo-medieval 52-metre Cedergren/PAST telephone exchange building, was opened in 1908. It was the scene of heavy fighting during the Warsaw Uprising, but stands in modified form today.
- 5 It is significant to note that this model – with all of its emphasis on electromagnetic power and radiation – was directly taken over in content if not in style from the modernist avant-garde of the 1920s and 1930s. In the words of architect Moisei Ginzburg, 'in the habits and attitudes of the mass population, low voltage activity and a weak consciousness would be focused through the circuits of these "social condensers" into high voltage catalysts of change' (cited in Clark 1995: 211).
- 6 The Stalinist sublime – in contrast to Derrida's description of the sublime as contingently framed by the *parergon* – was thus firmly bounded and harnessable for a political purpose. In this sense, the Stalinist notion of the sublime couldn't be further removed from its postmodern reformulations by writers such as Jean-Francois Lyotard (1994), Jacques Derrida (1987) and Hayden White (1982), who recruited the sublime as a weapon in the struggle against the metaphysics of presence or the 'war on totality'. Žižek (1989), Murphy (1998), O'Gorman (2006, 2008) and Groys (2008) also make important contributions to the debate about the political harnessability of the sublime.
- 7 These figures come from an online, 70-question survey of 5,281 respondents that I carried out (with the assistance of the Museum of Modern Art and Collegium Civitas) in October 2010. Please see Murawski (2013) for a discussion of the methodological and epistemological questions I encountered while carrying out this questionnaire and applying its data in my ethnographic descriptions.
- 8 According to Vladislav Todorov (1995: 44), Reich's politicisation of sexuality was Leninist, and he dreamed of a 'new centralised political government of the world's sexual energy'. See also Hatherley (2008: 70–96) on the 'sexual economy of Marxist Modernism'.
- 9 For analyses of skyscrapers through a gender lens, see Dolores Hayden's text on 'skyscraper seduction/rape' (1977), Leslie Weisman on 'architectural machismo' (1994), Woods (2006) on photography, gender and New York skyscrapers, Schleier (2009) on skyscrapers and film and Betsky (1995) on skyscrapers and the construction of sexuality. For more on the relationship between gender and monumental and/or socialist architecture, see Zaborowska (2001), Buchli (2000), Humphrey (2005) and Reid (1998).
- 10 Although they were abandoned in May 2012, as a result of an acrimonious feud between city officials and the Museum's Swiss architect.
- 11 Not only was Michał Borowski sacked by Gronkiewicz-Waltz, but his entire position was abolished at the time of his dismissal in January 2007.
- 12 See Wasilkowska *et al.* (2009).
- 13 Starting in 1958 and until a protective metal mesh was installed on the terrace in 1974, the Palace chronicle and other sources record eight people as having killed themselves by jumping from the terrace (Szczubelek 1955–2012, Passent 2004, Zieliński 2012). A number of long-standing Palace employees told me that they remember seeing human figures flying past their windows before hitting the ground with an awful thud. It is worth noting that several epidemiological studies of links between prominent buildings and suicides have been carried out (Beautrais 2007, Chen *et al.* 2009).

References

- Bach, Jonathan. 2010. 'Three Modes of Inheritance: Material Legacies of Germany's Symbolic Center'. Unpublished Manuscript.
- Ballantyne, Andrew. 2007. *Deleuze and Guattari for Architects*. London; New York: Routledge.
- Beautrais, Annette L. 2007. 'Suicide by Jumping: A Review of Research and Prevention Strategies'. *Crisis: International Journal of Suicide- and Crisis-Studies* 28: 58–63.
- Benedyktowicz, Zbigniew. 1991. 'Widmo Środka Świata: Przyczynek Do Antropologii Współczesności'. *Konteksty: Polska Sztuka Ludowa* 45 (1): 16–32.
- Bennett, Jane. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.
- Betsky, Aaron. 1995. *Building Sex: Men, Women, and the Construction of Sexuality*. New York: William Morrow.
- Brenner, Neil. 2013. 'Theses on Urbanization'. *Public Culture* 25 (169): 85–114.
- Brenner, Neil, David J. Madden, and David Wachsmuth. 2011. 'Assemblage Urbanism and the Challenges of Critical Urban Theory'. *City* 15 (2): 225–240.
- Buchli, Victor. 2000. *An Archaeology of Socialism*. Oxford: Berg.
- Callon, Michel, and Bruno Latour. 1981. 'Unscrewing the Big Leviathan: How Actors Macro-Structure Reality and How Sociologists Help Them to Do So'. In *Advances in Social Theory and Methodology: Toward an Integration of Micro- and Macro-Sociologies*, edited by K Knorr-Cetina and Aaron Victor Cicourel. Boston, MA: Routledge & Kegan Paul, pp. 277–303.
- Candea, Matei. 2007. 'Arbitrary Locations: In Defence of the Bounded Field-Site'. *Journal of the Royal Anthropological Institute* 13 (1): 167–184.
- Chen, Y.-Y., D. Gunnell, and T.-H Lu. 2009. 'Descriptive Epidemiological Study of Sites of Suicide Jumps in Taipei, Taiwan'. *Injury Prevention: Journal of the International Society for Child and Adolescent Injury Prevention* 15 (1): 41–44.
- Ciszewski, Jerzy. 1955. 'Z Tarasu Widokowego Pałacu Kultury i Nauki'. *Express Wieczorny*, July 29.
- Clark, Katerina. 1995. *Petersburg, Crucible of Cultural Revolution*. Cambridge, MA: Harvard University Press.
- Clark, Katerina. 2011. *Moscow, the Fourth Rome: Stalinism, Cosmopolitanism, and the Evolution of Soviet Culture, 1931 – 1941*. Cambridge, MA: Harvard University Press.
- Collier, Stephen J. 2011. *Post-Soviet Social: Neoliberalism, Social Modernity, Biopolitics*. Princeton, NJ: Princeton University Press.
- . 2012. 'Neoliberalism as Big Leviathan, or ...? A Response to Wacquant and Hilgers'. *Social Anthropology* 20 (2): 186–195.
- Cook, Joanna, James Laidlaw, and Jonathan Mair. 2010. 'What If There Is No Elephant? Towards a Conception of an Un-Sited Field'. In *Multi-Sited Ethnography: Theory, Praxis and Locality in Contemporary Research*, edited by Mark-Anthony Falzon. Farnham, England; Burlington, VT: Ashgate, pp. 47–72.
- Corsín Jiménez, Alberto. 2004. 'The Form of the Relation, or Anthropology's Enchantment with the Algebraic Imagination'. Unpublished manuscript. University of Manchester.
- Derrida, Jacques. 1987. *The Truth in Painting*. Chicago, IL: University of Chicago Press.
- Farias, Ignacio, and Thomas Bender. 2010. *Urban Assemblages: How Actor-Network Theory Changes Urban Studies*. London; New York: Routledge.
- Goldzamt, Edmund. 1956. *Architektura Zespołów Śródmiejskich i Problemy Dziedzictwa*. Warszawa: Państwowe Wydawn. Naukowe.
- Groys, Boris. 2003. 'The Art of Totality'. In *The Landscape of Stalinism: The Art and Ideology of Soviet Space*, edited by E. A. (Evgeniĭ Aleksandrovich) Dobrenko and Eric Naiman. Seattle, WA: University of Washington Press, pp. 96–122.
- . 2008. *Art Power*. Cambridge, MA: MIT Press.
- Harvey, David. 2005. *A Brief History of Neoliberalism*. Oxford: Oxford University Press.
- Hatherley, Owen. 2008. *Militant Modernism*. Winchester, UK; Washington, D.C.: O Books.
- Hayden, Dolores. 1977. 'Skyscraper Seduction, Skyscraper Rape'. *Heresies* 2 (May): 108–115.
- Heller, Leonid. 1997. 'A World of Prettiness: Socialist Realism and Its Aesthetic Categories.' In *Socialist Realism without Shores*, edited by Thomas Lahusen and Evgeniĭ Aleksandrovich Dobrenko. Post-Contemporary Interventions. Durham, NC: Duke University Press, pp. 51–76.
- Humphrey, Caroline. 2005. 'Ideology in Infrastructure: Architecture and Soviet Imagination'. *Journal of the Royal Anthropological Institute* 11 (1): 39–58.
- Kamiński, Łukasz. 2004. 'Pałac Namiętności, Czyli Flagowy Budynek Miasta'. *Gazeta Stołeczna*, May 17.
- Kant, Immanuel. 2007. *Critique of Judgement*. Oxford: Oxford University Press.

- Konwicki, Tadeusz. 1983. *A Minor Apocalypse*. New York: Farrar, Straus, Giroux.
- Koźniewski, Kazimierz. 1955. 'Symbol Naszego Czasu'. *Życie Warszawy*, 2 May.
- Latour, Bruno. 2006. *Paris: Invisible City*. Paris: La Découverte.
- Lyotard, Jean-François. 1994. *Lessons on the Analytic of the Sublime*. Stanford, CA: Stanford University Press.
- McFarlane, Colin. 2011. 'The City as Assemblage: Dwelling and Urban Space'. *Environment and Planning D: Society and Space* 29 (4): 649–71.
- Martin, Reinhold. 2001. 'Atrocities. Or Curtain Wall as Mass Medium'. *Perspecta* 32: 67–75.
- . 2003. *The Organizational Complex: Architecture, Media, and Corporate Space*. Cambridge, MA: MIT Press.
- . 2011. 'Financial Imaginaries: Toward a Philosophy of the City'. *Grey Room* 42 (January): 60–79.
- Mol, Annemarie. 2002. *The Body Multiple: Ontology in Medical Practice*. Durham, NC; London: Duke University Press.
- Murawski, Michał. 2011a. 'From Iconicity to Domination: The Palace of Culture and Science in Contemporary Warsaw'. *Informationen Zur Modernen Stadtgeschichte* 2: 56–69.
- . 2011b. 'Review of Berlin, Alexanderplatz: Transforming Place in a Unified Germany – By Gisa Weszkalnys'. *Journal of the Royal Anthropological Institute* 17 (4): 895–896.
- . 2013. 'Palaceology, or Palace-as-Methodology: Ethnographic Conceptualism, Total Urbanism and a Stalinist Skyscraper in Warsaw'. *Laboratorium: Russian Review of Social Science*.
- . 2015. *Kompleks Pałacu Kultury: Życie Społeczne Stalinowskiego Wieżowca W Post-Socjalistycznej Warszawie*. Warszawa: Muzeum Warszawy.
- Murphy, William P. 1998. 'The Sublime Dance of Mende Politics: An African Aesthetic of Charismatic Power'. *American Ethnologist* 25 (4): 563–582.
- Neveling, Patrick, and Carsten Wergin. 2009. 'Projects of Scale-Making: New Perspectives for the Anthropology of Tourism'. *Etno Etnográfica* 13 (2): 315–342.
- O'Gorman, Ned. 2006. 'The Political Sublime: An Oxymoron'. *Millennium – Journal of International Studies* 34 (3): 889–915.
- . 2008. 'Eisenhower and the American Sublime'. *Quarterly Journal of Speech* 94 (1): 44–72.
- Omilanowska, Małgorzata. 2010. 'Post-Totalitarian and Post-Colonial Experiences: The Palace of Culture and Science and Defilad Square in Central Warsaw'. In *The Post Socialist City: Continuity and Change in Urban Space and Imagery*, edited by Alfrun Kliems and Dmitrieva, Marina. Berlin: Jovis Verlag, pp. 120–140.
- Passent, Agata. 2004. *Pałac wiecznie żywy/Long live the Palace!* Warszawa: Spis Tresci.
- Reich, Wilhelm. 1972. *Dialectical Materialism and Psychoanalysis*. Socialist Reproduction.
- Reid, Susan E. 1998. 'All Stalin's Women: Gender and Power in Soviet Art of the 1930s'. *Slavic Review* 57 (1): 133–173.
- Sadowski, Jakub. 2009. *Między Pałacem Rad i Pałacem Kultury: studium kultury totalitarnej*. Krakow: Wydawn. Egis.
- Schleier, Merrill. 2009. *Skyscraper Cinema: Architecture and Gender in American Film*. Minneapolis, MN: University of Minnesota Press.
- Sigalin, Józef. 1986a. *Warszawa 1944–1980: z archiwum architekta*. Vol. 3. Warszawa: Państw. Instytut Wydawniczy.
- . 1986b. *Warszawa 1944–1980: z archiwum architekta*. Vol. 2. Warszawa: Państw. Instytut Wydawniczy.
- Stuckler, David, Lawrence King, and Martin McKee. 2009. 'Mass Privatisation and the Post-Communist Mortality Crisis: A Cross-National Analysis'. *Lancet* 373 (9661): 399–407.
- Szczubełek, Hanna. 1955. 'Kronika Pałacu Kultury i Nauki'. Zarząd Pałacu Kultury i Nauki.
- Szczygieł, Mariusz. 1991. 'Kamienny Kwiat'. *Gazeta Wyborcza*, December 24, 299 edition.
- Todorov, Vladislav. 1995. *Red Square, Black Square: Organon for Revolutionary Imagination*. Albany, NY: State University of New York Press.
- Tsing, Anna. 2000. 'The Global Situation'. *Cultural Anthropology* 15 (3): 327–360.
- Tyrmand, Leopold. 1999. *Dziennik 1954*. Warszawa: Prószyński i S-ka.
- Waite, Geoff. 1996. *Nietzsche's Corpse*. Durham, NC: Duke University Press.
- Wasilkowska, Aleksandra, Andrzej Nowak, and Jakub Chmielewski. 2009. *Warszawa Jako Struktura Emergentna/Warsaw as Emergent Structure*. Warszawa: Fundacja Bec Zmiana.
- Weisman, Leslie. 1994. *Discrimination by Design: A Feminist Critique of the Man-Made Environment*. Urbana, IL: University of Illinois Press.
- Weszkalnys, Gisa. 2010. *Berlin, Alexanderplatz: Transforming Place in a Unified Germany*. New York: Berghahn Books.

- White, Hayden. 1982. 'The Politics of Historical Interpretation: Discipline and De-Sublimation'. *Critical Inquiry* 9 (1): 113–37.
- Wolski, Tomasz. 2012. *Palac*. Documentary.
- Woods, Mary N. 2006. 'Women on Top: Gender and Photographing New York City Skyscrapers'. *The Journal of Architecture* 11 (5): 577–584.
- Wright, Gwendolyn. 2008. *USA: Modern Architectures in History*. London: Reaktion Books.
- Zaborowska, Magdalena J. 2001. 'The Height of (Architectural) Seduction: Reading the 'Changes' through Stalin's Palace in Warsaw, Poland'. *Journal of Architectural Education* 54 (4): 205–17.
- Zielinski, Jarosław. 2012. *Palac Kultury i Nauki*. Łódź: Księży Młyn.
- Žižek, Slavoj. 1989. *The Sublime Object of Ideology*. London; New York: Verso.

Architecture in ruins

Palladio, Piranesi and Kahn

Jonathan Hill

A monument to a ruin

A ruin is typically understood to be an edifice that is no longer in use, which assumes that the monument and the ruin are separated by time. Instead, this chapter considers an alternative understanding of these relations. Rather than beginning as a monument and progressing into ruin, architecture conceived, designed and occupied as a monumental ruin is one of the most innovative and enduring themes in architectural practice and discourse, which the eighteenth century instigated and the mid twentieth century revived, stimulating questions of personal and national identity, architecture and nature, permanence and impermanence, and the past and the future.

Reconstructing Rome

Andrea Palladio visited Rome five times between 1541 and 1554, the year in which he published *L'antichità di Roma* (The Antiquities of Rome), the first compact and reliable guide to the ancient sites, which remained the standard reference for two centuries. Studying the ruins was tortuous because many were either overgrown with vegetation or had been appropriated for other uses and absorbed by later structures, while the Forum was known as the *campo vaccino* because it was a cow pasture.

Palladio (in Hart and Hicks, 2006: 3) celebrates 'the huge pleasure and the wonder that can come from a detailed understanding of the great things in so noble and celebrated a city as that of Rome' but regrets 'the wars, fires and structural collapses that have occurred over the many years in that city and which have ruined, gutted and buried a large part of these remains'. In a similar manner, in the opening dedication to *I quattro libri dell' architettura* (The Four Books on Architecture), 1570, he praises 'the fragments of many ancient buildings, which, having remained upright until our own age as astonishing testimony of the cruelty of the barbarians, provide, even as stupendous ruins, clear and powerful proof of the . . . greatness of the Romans', adding that the ruins were 'much worthier of study than I had at first thought' (1997: dedication, p. 3; bk. 1, foreword, p. 5).

Ancient Roman sites that juxtaposed diverse and contrasting forms, including Hadrian's Villa, Tivoli, second century AD, were of little interest to Palladio and hardly appear in his books.

Instead, he selected for publication those structures that suited his design preference. Contrasting the asymmetrical baths of the Republic and early Empire to later ones, James S. Ackerman (1966: 171) concludes: 'The Imperial baths came closest to Palladio's ideal' because they 'began to be built around a grandiose sequence of axial spaces'. Rather than appreciate the 'stupendous ruins' for themselves, and depict them as such, Palladio chose to draw reconstructions of the original buildings as he understood and imagined them so that they would offer lessons for contemporary architecture. Confirming that such an attitude to ruins was then typical, Raphael, in his letter to Pope Leo X, c. 1519 (in Hart and Hicks, 2006: 181), argues that 'by preserving the example of the ancients, may your Holiness seek to equal and better them'.

The ruins of the eighteenth century

As a metaphor for time, the fascination for ruins was known in ancient Rome and appreciated in the Renaissance in terms of the humanist conception of cyclical historical development in which art matures, ages and dies, like a human body. While ruins were contemplated rather than constructed in ancient Rome, David Watkin (1999: 5) suggests that Hadrian's Villa can be considered an exception to this rule. The first Renaissance building known to have been constructed as a ruin was the Barchetto, c. 1530, which Girolamo Genga created as a retreat for the Duke of Urbino in his park at Pesaro.

But the ruin meant more in the eighteenth century than in the sixteenth century. The concern for ruination came to fruition due to empiricism's detailed observation of life and death in plants and creatures, the attention to subjective experience and fractured identity in an increasingly secular, 'modern' society, the heightened historical awareness in the Enlightenment's concern for origins and archaeology, and the value given to nature, time and the imagination in the picturesque and romanticism.

The eighteenth century adopted the ruin as its emblem – a hybrid of architecture and landscape, nature and culture – which was understood to represent growth as well as decay, potential as well as loss, the future as well as the past. The ruin of a building was linked to the ruin of a person or a nation, as well as their potential for renewal. Emphasising a symbiotic, temporal dialogue between a structure and its immediate and wider contexts, the concern for the ruin stimulated an architectural environmentalism that profoundly influenced subsequent centuries.

Relating the present to a particular past, imagined or real, the ruin can evoke a lost idyll that will never be repeated, transfer gravitas from one era to another, or imply that the successes of the present will surpass those of the past. In revealing not only what is lost but also what is incomplete, the ruin can also indicate that the present situation is not inevitable, and imply an alternative future.

Speaking ruins

Styling himself *architetto veneziano* even in Rome, Giovanni Battista Piranesi first visited the city in 1740, aged 20, as a draughtsman accompanying the Venetian Ambassador's delegation to the new pope, Benedict XIV. Soon making his intentions clear, he incised the graffiti 'Piranesi 1741' into Hadrian's Villa. According to Palladio, the ruins' primary purpose was to facilitate drawn and built reconstructions, but Piranesi appreciated the ruins as ruins. Palladio interpreted the ancient structures in a manner that suited his own architectural concerns, but Piranesi went further in arguing for an appreciation of the ruins as a stimulus to design. His first publication, *Prima parte di architetture e prospettive* (First Part of Architectures and Perspectives), 1743, consists

not of reconstructions of ancient monuments but works of the imagination inspired by ancient ruins, in which he remarks: ‘these speaking ruins have filled my spirit with images that accurate drawings, even such as those of the immortal Palladio, could never have succeeded in conveying, though I always kept them before my eyes’ (in Pinto, 2012: 99).

The concern for empirical evidence stimulated archaeological investigations, and questioned the Renaissance’s reverence for classical, literary sources. But in studying ancient sites as well as ancient texts, Piranesi combined archaeological rigour with humanist scholarship (Kantor-Kazovsky, 2006: 20–21, 70–71, 78). Consistent with his later publications, he conceived the four volumes of *Antichità romane*, 1756–1757, as a more systematic archaeological record than before, as well as a stimulus to the contemporary architectural imagination, encapsulating his concern for tradition and innovation in the phrase ‘*una nuova architettura antica*’ (in Pinto, 2012: 8). Unable to prevent further decay, Piranesi aimed to preserve the ruins in images (see Figure 6.1). But the structures he depicted were often distorted from reality, fuelling speculations on ancient Rome and stimulating viewers to recreate for themselves his dramatically ruined forms.

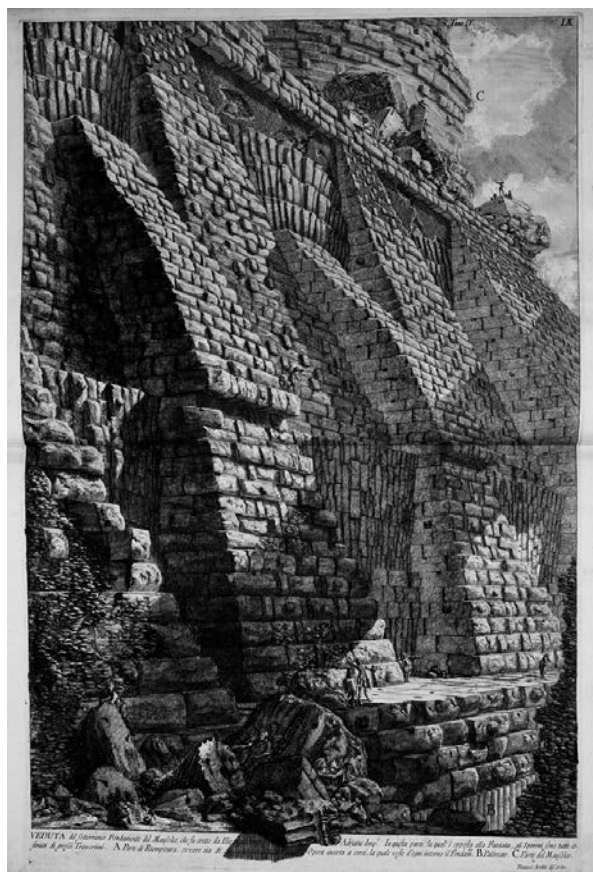


Figure 6.1 Hadrian’s Tomb, Giovanni Battista Piranesi, *Antichità romane*, 1756–1757, vol. 4.

Source: Courtesy of UCL Library Special Collections

Ruins in construction

Reviving Vitruvius' (1960: 38–39) affirmation of the primitive hut in the first century BC, Enlightenment architects identified the principles of natural reason in the columns and lintels of ancient Greek architecture, such as in Marc-Antoine Laugier's *Essai sur l'architecture*, 1753 (1977: 128–129). Opposed to such a formulaic language, Piranesi's study of ancient sites allowed him to recognise the diversity and invention of ancient Roman architecture. Recalling Leon Battista Alberti in *De re aedificatoria* (Ten Books on Architecture), c. 1450, he emphasised the influence of Etruscan stone architecture on ancient Rome. Alberti (1988: 158–159, 192) appreciated 'a certain rugged air of antique severity' and his contemporaries set semi-circular arches in massive rusticated stone walls.

Ignoring familiar ancient Roman building materials such as brick and concrete, Piranesi depicted ruins of solid stone. Exposing what was once concealed within a structure to indicate its construction, ruination was a means to excavate and reveal temporal layers, not simply destroy them. Piranesi concluded that a monumental ruin exemplified the majesty and emotive power of architecture more eloquently even than a complete building, because it indicated not only the destructive force of nature but also heroic resistance to decay and the continuing relevance of ancient forms, which he depicted as broken and denied of absolute authority, and thus a greater stimulus to the imagination.

Ruination is evident in the method as well as the subject of Piranesi's etchings. First, a metal plate is covered with an acid-resistant wax. The artist scratches lines into the wax to complete a drawing, before the plate is dipped in acid, which cuts into the exposed metal surfaces. After the remaining wax is cleaned away, the plate is next covered with ink and then wiped clear so that only the incisions contain ink. A high-pressure printing press transfers the inked lines to paper. Each plate can only be used a limited number of times until it starts to wear and fade and the printed lines become crude. As this process was well known in the eighteenth century, the conjunction of subject and method in Piranesi's etchings was understood and appreciated.

Planning Rome

Ancient Roman ruins appear in many of Piranesi's etchings, but none was more thoughtfully considered than the *Forma Urbis Romae*, c. 203–211 AD. A plan of ancient Rome with the outlines of streets, squares and buildings incised into a grid of 150 marble slabs at 1:240 scale, it was originally displayed on a wall of the Forum Pacis, held in place by iron clamps. The surviving fragments were rediscovered in 1562 and Giovanni Battista Nolli was commissioned to display them on the walls of the Capitoline Museum's main stairway in 1741. As the remains of a once entire artefact, the *Forma Urbis* is analogous to a single ruin, while as a collection of excavated ruins it is comparable to the scattered remains of the ancient city. In its exhibited state, it is a juxtaposition of gaps as well as a juxtaposition of fragments. The viewer is tempted to interpret the fragments and, guessing what is missing, reconstruct or make anew the gaps, the relationship of one element to another, and the whole plan. Eyes roam backwards and forwards, and up and down, between the fragments and the gaps in a manner analogous to the way a body occupies a building or city, forming an understanding through movement.

Depicted in *Antichità romane* (see Figure 6.2), the *Forma Urbis* influenced Piranesi's *Il Campo Marzio dell' Antica Roma*, 1762, an erudite, bilingual publication in Italian and Latin dedicated to one ancient site. Located outside the original city boundary, the Campus Martius was named after Mars, the god of war, and as Palladio (in Hart and Hicks, 2006: 68) remarks: 'Here they used to have musters and other military events.' Although subject to flooding, the flat plain was

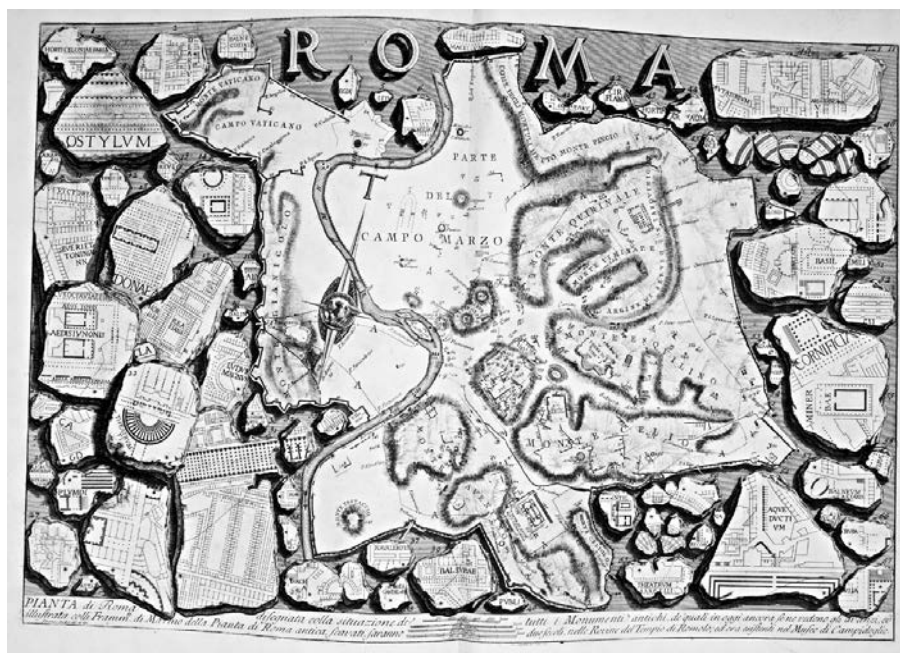


Figure 6.2 Plan of Rome based on *Forma Urbis Romae*, c. 203–211 AD, Giovanni Battista Piranesi, *Antichità romane*, 1756–1757, vol. 1.

Source: Courtesy of UCL Library Special Collections

deemed suitable for large, public buildings. The Tiber meanders diagonally across the *Ichnographia*, Piranesi's master plan of the site.

Palladio ignored Hadrian's Villa, but Piranesi applied it to the ancient city. Depicting a city of massive, juxtaposed, geometric forms, the *Ichnographia* is an imaginary reconstruction of past Rome (see Figure 6.3), a critique of present Rome and a proposition for future Rome. Piranesi collaborated on a reduced version of Nolli's epic *Nuova pianta de Roma*, 1748, and benefitted from the research. But Pier Vittorio Aureli (2011: 138) suggests that a specific target of his criticism was the Rome depicted in Nolli's plan, in which irregular, urban blocks are confined within a pattern of streets and squares and absorbed into the city as a whole. Another image, the *Scenographia*, is an aerial view with the ancient ruins entangled by vegetation, but with all later buildings ignored.

Assembled on six panels that together measure $1.35 \times 1.17\text{m}$, the *Ichnographia* appears as if it too has been excavated and exhibited, presenting the illusion of an incised plan held in place by metal clamps on an imaginary wall, with shadows indicating the marble's broken edges. Continuing the illusion, a part of the *Ichnographia* based on the *Forma Urbis* is not distinguished from another that is conjectural. However, the *Ichnographia*'s status as a new work is evident in Piranesi's dedication to the architect Robert Adam (in Fleming, 1962: 166) who, after their first meeting in 1755, remarked that Piranesi was able 'to breathe the Antient air'. Acknowledging the support and appreciation he had received from British architects and patrons, Piranesi (in Wilton-Ely, 1978: 7) remarked in 1778 that if he had lived outside Italy he would have chosen London.

It is likely that Piranesi's model was the *Forma Urbis* as it appeared in 1741 as much as the ancient city it depicts. The juxtapositions within and between the surviving fragments inspired

him, as did their means of display. The fracture and excavation of the ancient plan ensured that the once complete forms incised into its surface were broken instead. The *Ichnographia* depicts entire forms but each has a distinct composition and scale, and an ambiguous, fractured juxtaposition with its neighbours. Piranesi suggests that the whole is a ruin even if the forms are complete, and implies a design strategy that combines ruination and construction, broken remains and entire forms.



Figure 6.3 *Ichnographia*, Louis Kahn's own copy, Giovanni Battista Piranesi, *Il Campo Marzio dell' Antica Roma*, 1762

Source: Courtesy of Louis I. Kahn Collection, University of Pennsylvania and the Pennsylvania Historical and Museum Commission

I always knew Rome was your dish

In spring 1928, Louis Kahn sailed to Europe for the first time, travelling in style on the recently launched ocean liner *S.S. Île de France*, a fitting start to a year long Grand Tour. Having grown up in a poor Jewish family who had emigrated from the western fringe of imperial Russia when he was a young child, his journey was hard earned, made possible by the savings he had accumulated after graduation at the University of Pennsylvania, then the most highly regarded Beaux-Arts architectural school in the US. Repeating the focus of eighteenth-century Grand Tours, he made many more sketches in Italy than during his equivalent time in northern Europe. Kahn's travels offered him knowledge and status, as was the case for earlier architects and patrons, even those far wealthier. But he returned home on 'a humble tramp steamer' to work in the office of Paul Philippe Cret, a graduate of the École des Beaux-Arts, Paris, and Kahn's design critic in his senior student year (Lewis, 2012: 72).

Kahn (1991a: 93) later described his first visit to Europe as a pivotal influence on his career. But he only returned there for a second time over 20 years later. In late 1950, Kahn began a three-month residency at the American Academy in Rome, which was modelled on the French Academy in Rome. Placed prominently above the entrance to the McKim, Mead and White building, a portrait of the Roman god Janus looked two ways – to the past and the future – representing the American Academy's purpose to conceive new visions from studies of classical antiquity. A 1920 photograph shows Piranesi's extensive plan of Hadrian's Villa, 1781, dominating one of the studios.

The American Academy was the pinnacle of achievement when the Beaux-Arts dominated architectural education in the US, but its status was undermined as modernism spread through American schools. By 1950, it was directed by Laurance Roberts and all the artists-in-residence were modernists. But in the aftermath of wartime bombing and with the new threat of nuclear devastation, modernism's confidence in technological progress and dismissive reaction to social norms and cultural memories was itself anachronistic. The consequence was to place a concern for history at the heart of architecture once again.

In December 1950, newly arrived in Rome, Kahn (in Johnson, 1996: 72) wrote to his practice colleagues in Philadelphia: 'I firmly realize that the architecture of Italy will remain as the inspirational source of the works of the future', adding 'Our stuff looks tinny compared to it'. George Howe, who was instrumental in getting Kahn his position at the American Academy, wrote to him in the following month (in Goldhagen, 2001: 54): 'I always knew Rome was your dish. Yes, brick and stone are wonderful. We have spoken often of the pitiful ruin America will present when the archaeologists dig it up 5000 years from now.'

Kahn travelled through Italy and visited Greece and Egypt, making more sketches in just three months than he had produced in a year in 1928–1929. Rather than the watercolour or graphite sketches of before, his pastel drawings were appropriate to a new, greater emphasis on mass, form, colour and shadow. Recognising that many of Kahn's sketches fuse a building and a setting, Kazi Khaleed Ashraf (2007: 55) concludes that he emphasised 'the rootedness of architecture', which Kahn (1986a: 121) confirmed: 'I draw a building from the bottom up because that's the way it's constructed. It depends on gravity . . . If you do that, then you draw like an architect.' Carefully chosen, he only drew ancient buildings, apart from a brief visit to the construction site of Le Corbusier's Unité d'Habitation in Marseilles, the work of another architect inspired by the architecture of classical antiquity. In 1966 Kahn (2003a: 218) remarked: 'I have every feeling that Corbusier really wanted to build a new Parthenon.'

As Kahn did not drive, he either had to travel by train or find a willing driver. One companion was Frank E. Brown, the American Academy's resident archaeologist and a fellow faculty member at Yale, who a contemporary, Jon Michael Schwarting (in McCarter, 2005: 57),

described as ‘the last living ancient Roman, so at home in the ancient ruins that he seems no longer a part of the modern world’. According to Vincent Scully (1993: 9), ‘Brown led us all to Rome and made us see that it wasn’t just an architecture of engineers . . . but also an architecture of poetry, of light and water.’ Brown’s descriptions of Roman buildings are equally applicable to the designs that Kahn produced after his second visit to Rome. With regard to the Forum of Trajan, second century AD, which was of particular interest to Kahn, Brown (1961: 34) writes: ‘The basilica was . . . an augustly luminous volume, doubly wrapped by shadowed galleries, behind which, at the ends, wide apses opened, repeating the hemicycles of the forum.’ Brown’s description refers to the complete building, which Kahn would have known through drawn reconstructions. But, crucially, he experienced not Roman buildings decorated in marble and mosaics, but Roman ruins reduced to broken forms seen in sunlight and shadow. Just as two foreigners, Palladio and Piranesi, a Vicentine and a Venetian, were respectively the greatest Roman architects of the sixteenth and eighteenth centuries, an American became the greatest Roman architect of the twentieth century.

The problem of a new monumentality

Rather than appreciate monumentality for the first time in ancient ruins, Kahn sought them out because it was an emerging theme of mid twentieth-century architecture. The attention to monumentality was a reaction to modernism’s failure to gain widespread respect and articulate societal values, as well as a need to represent democracy in the face of totalitarian regimes that had adeptly exploited monumentality, whether defeated Fascist ones or a recent ally, the Soviet Union. But the monumental architecture of a liberal society clearly needed to be different from that of a repressive one.

In 1943, Sigfried Giedion, Fernand Léger and José Luis Sert were each approached to write for an American Abstract Artists’ (AAA) publication and decided to prepare a joint essay. Identifying ‘Nine Points on Monumentality’ (1958: 51, 48) they describe monuments as expressions of societal values and acknowledge the failure of modernism in this regard: ‘Monumental architecture will be something more than strictly functional. It will have regained its lyrical value.’ Without mentioning the ruin, they conclude that monumental buildings ‘are intended to outlive the period which originated them, and constitute a heritage for future generations. As such, they form a link between the past and the future.’ A year later, Paul Zucker organised the symposium ‘New Architecture and City Planning’ at Columbia University, which also appeared as an edited book. In his introduction, Zucker (1944b: 9) repeats the charge that functionalism lacks ‘emotional impact’ but does not mention monumentality. Containing just five contributions out of a total of over 50, the section entitled ‘The Problem of a New Monumentality’ is only a small proportion of a substantial publication. A short paragraph introduces the section (Zucker, 1944a: 547): ‘For the last fifteen years, the aspects of Housing, Prefabrication, City Planning and other architectural questions have enjoyed wide discussion, yet the scarcely less important problem of Architectural Monumentality has not been generally recognized.’ When the AAA’s publication failed to appear in print, Giedion arranged for his essay, ‘The Need for a New Monumentality’, to open the section on monumentality, which also includes an essay by Kahn. Of the five contributors only George Nelson (1944: 574–575) acknowledges ‘a contradiction between the demand for monumentality and a general lack of faith in the institutions normally glorified in monumental architecture’, and appreciates the argument ‘that monumental building is an anachronism in our time’. But, rejecting past models, he still concludes in favour of monumentality, arguing that ‘a renewed vision of society as an organism regulated by its members in their own interest’ would be ‘worthy of monumental expression’.

Giedion (1944: 550–555, 566) associates the monument with remembrance and posterity, but the monumentality he envisions is not meant to recall past models. Disparaging ‘the icy atmosphere, created by those architects and their patrons who, in order to compensate for their own lack of expressive force, misused eternal names by robbing history’, he concludes that ‘the great monumental heritages of mankind became veiled and even poisonous to everybody who touched them’. Dismissing ‘pseudo-monumentality’, he places a drawing by Jean-Nicolas-Louis Durand alongside a photograph of Nazi architecture. Giedion only associates austere classicism with authoritarian regimes even though it was also commissioned during President Franklin D. Roosevelt’s interwar New Deal, as in Cret’s Federal Reserve building, Washington DC. While a socio-political stance is implicit in his co-authored 1943 text, it is explicit in his longer, sole-authored 1944 essay. Praising ‘liberal economists, such as John Maynard Keynes’, he argues that state intervention could stimulate a resurgence of monumental architecture, according to his aesthetic preference of course.

Offering a contrasting interpretation, Kahn (1944: 577–578, 581, 587) emphasises that ‘Monumentality in architecture may be defined as a quality, a spiritual quality inherent in a structure which conveys the feeling of its eternity, that it cannot be added to or changed.’ He rejects the ‘faithful duplication’ of the monumental structures of ancient Greece and Rome, as well as gothic cathedrals: ‘But we dare not discard the lessons these buildings teach for they have the common characteristics of greatness upon which the buildings of our future must, in one sense or another, rely.’ Kahn describes ‘ribs, vaults, domes’ in combination with ‘lighter’, ‘synthetic’ materials, specifically steel, as ‘the modern way’. But after his time at the American Academy, he questioned this assertion, turning to the massive structures and materials of ancient Rome to emphasise their contemporary relevance.

Stimulated by Giedion’s lecture at the Royal Institute of British Architects (RIBA) in September 1946, *The Architectural Review* arranged a symposium entitled ‘In Search of a New Monumentality’, which was attended by Giedion, Walter Gropius and Henry-Russell Hitchcock among others, and published in 1948. Already in January 1947, the magazine’s editors (Hastings *et al.*, 1947: 36) had published an editorial in the celebratory fiftieth anniversary issue entitled ‘The Second Half Century’. Calling for a ‘new humanism’, this text, which implied a reassessment of modernism as well as the magazine itself, promoted ‘a new richness and differentiation of character, the pursuit of difference rather than sameness, the re-emergence of monumentality, the cultivation of idiosyncrasy and the development of those regional dissimilarities that people have always taken pride in’. Reflecting on the symposium, the editors (Hastings *et al.*, 1948: 117) continued in a similar vein, praising the successful ‘battle against period revivalism’ while acknowledging that ‘functionalism was not enough’, and concluding that modernism ‘has only achieved the first negative stage of the struggle for a contemporary architectural language. The second positive stage has still to be undertaken, the development on an idiom rich and flexible enough to express all the ideas that architecture – especially representational architecture – ought to be capable of expressing’.

Giedion repeats his earlier argument, with which the majority of the contributors concur, and only two offer alternative interpretations. According to Gregor Paulsson (in Hastings *et al.*, 1948: 123):

If we look more closely into the question of when the monumental quality was particularly sought for we find that it was in anti-democratic times . . . The word monumentality should therefore be eliminated from the architectural vocabulary as a characteristic desirable for buildings in a democratic society.

Giedion (1944: 562–563) had earlier equated fireworks and other spectacular transient events to an architecture that is both ephemeral and monumental. But Gropius (in Hastings *et al.*, 1948: 127) more forcefully argued for a new conception of monumentality that was still true to the Bauhaus' association of democratic society with flexible architecture. Accordingly he stated that monumentality 'will not come back as the "frozen music" of static symbols, but as a dignified inherent *quality* of our physical environment as a whole, a quality in a process of continuous transformation'. Over ten years later, reflecting on the two symposia, Giedion (1958: 22–23) acknowledged that it 'was certainly dangerous to revive a term that had become so debased', and concluded: 'the problem of monumentality still lies before us as the task of the immediate future'.

A monument and a ruin

A number of issues are notably absent from the two 1940s symposia on monumentality. There is no acknowledgement that monuments can be ineffective means of collective remembrance. Their original meanings are soon obscured, distorted or forgotten unless they are continuously recalled and reaffirmed through everyday or ritualistic behaviour, which are as necessary to perpetuating collective memory as any material object. Although the contributors accept the assumption that the monument is intended for future generations as well as the present one, only one (Goodwin, 1944: 592) briefly mentions a future ruin, and none of them considers the interdependence of the monument and the ruin in a present-day structure, maybe because, in most cases, they deny historical models that would have drawn them to this conclusion.

Alongside the creation of monumental buildings that recall and represent societal values, there is a process of forgetting in terms of the decay of meaning as well as the decay of material, which may result from natural processes or deliberate human actions. Countering the assumption that forgetting occurs slowly over time, which Aristotle proposed and humanism affirmed, Sigmund Freud (1955: 223) in his 1919 essay on the uncanny associates forgetting with repression, with what is 'Concealed, kept from sight, so that others do not get to know about it'. The most uncanny and threatening experience occurs when the repressively forgotten is unexpectedly remembered, rendering the homely unhomely. Quoting Freud's assertion that 'forgetting is often intentional and desired', Adrian Forty (1999: 5) writes: 'As Freud once remarked, the aim was to give patients the "*freedom* to decide one way or the other" (original emphasis), whether to remember or forget'. Noting that the ancient Greeks located 'the springs of Lethe (Forgetfulness) and of Mnemosyne (Memory) nearby' and made 'those who came to consult the oracle at Trophonios drink the waters of first one and then the other', Forty (1999: 16) concludes that 'architecture is and always has been above all an art of forgetting', as well as an art of remembering.

In 'On the Modern Cult of Monuments: Its Character and its Origin', 1903, Alois Riegl (1982: 22–24, 29, 38) distinguishes between 'intentional and unintentional monuments', which acquire relevance in a later era. Considering monumentality and ruination together, he identifies the 'historical value' of a monument, which refers to a specific time and physical condition, and its 'age value', which relates to a general appreciation of the passage of time and continuing decay. Riegl concluded that in his era monuments were appreciated for their age value as a means to come to terms with decay and death, while their historical value was largely ignored. In contrast, the contributors to the two 1940s symposia emphasised the historical value of their era and largely ignored age value. Their disinterest in ruination is revealing in that the monument tends towards historical value and the ruin tends towards age value. But the ruin is also adept in combining historical and age value, as continuing reverence for the monuments of ancient Rome indicates.

The contributors also failed to acknowledge earlier debates on the respective merits of the symbol and the allegory. Giedion (1944: 553) mentions ‘the impulse to create symbols in the form of monuments, which, according to the Latin meaning are “things that remind”’. But a more complete etymology of the term ‘monument’ refers to the Latin *monumentum*, which in turn derives from *monere*, meaning to remind, warn and advise. In contrast to Giedion’s narrow focus on the monument’s adulatory purpose, its actual function is more complex and questioning.

Unlike the static value of the symbol, which only concerns remembrance, allegory requires a person to remember and forget so that meanings are open to adaptation and reinvention. The contrasting virtues of the symbol and the allegory can be understood in terms of the eighteenth-century fascination for ruins. Though diminishing an object physically, ruination was understood to expand architecture’s metaphorical potential: ‘for imperfection and obscurity are their properties; and to carry the imagination to something greater than is seen, their effect’, concluded Thomas Whately in 1770 (1771: 131).

Identifying an alternative precedent in *The Origin of German Tragic Drama*, Walter Benjamin criticises the assumed superiority of the symbol, and its didacticism, and argues instead for a discursive and critical artistic practice that exploits the dialectical potential of allegory, in which meanings are not fixed but endlessly changing and open to appropriation and revision. Equating a history to a ruin, he remarks (1998: 178): ‘Allegories are, in the realm of thoughts, what ruins are in the realm of things.’

Most ruins are first monuments. A monument can also be a ruin, and vice versa. Monuments tend to be symbols, while ruins tend to be allegories. But these roles are not precisely defined and may change over time. The monument and the ruin can be creative, interdependent and simultaneous themes within a single building dialectic.

A monument to a nation

The postwar concern for monumentality varied according to national histories and needs. In the UK it came to represent the monolithic self-image of the new hospitals, schools and universities of the welfare state. While 15 years of British rationing only ended in 1954, American postwar prosperity was immediate. Before his second visit to Rome in 1950, Kahn’s practice focused on public and private housing, and Michael Bell (1998: 92) speculates whether he appreciated ‘the scalar shift in America’s postwar economy and sought a new architecture to compensate for its magnitude’? Did Kahn intend a deliberate analogy between modern, prosperous, ‘imperial’ America and ancient Rome, just as eighteenth-century Britain had proposed at the start of its imperial power? The examples that he revered, such as the Forum of Trajan and Baths of Caracalla date from imperial not republican Rome. But Kahn saw these structures in decay, suggesting the interdependence of the monument and ruin that came to define his postwar design development, which may have contained a warning to America’s imperial ambitions. In 1973, he made a rare political statement in reference to Joseph McCarthy, the Republican Senator for Wisconsin who instigated an anti-Communist crusade in the 1950s. Kahn (2003b: 279) concluded that American prosperity can cultivate a suspicious, divisive illiberalism

as ruinous as McCarthy, who spoiled our true consciousness, our sense of democracy. He tried to define it and called for sides to be held, to be counted, and therefore destroyed the beauty of what democracy could be. And we’re suffering to this day because of the attempt to isolate, you know, the qualities of democracy.

America’s emphasis on progress has sometimes led it to misunderstand the ruin, identifying it only with regressive nostalgia. But stimulated by the Grand Tour, Britain’s historical

understanding of the interdependence of the monument and ruin had helped it to associate the ruin with hope as well as loss, which acquired new resonance due to wartime bombing raids and a burgeoning romanticism that celebrated national identity. In 1944 Kenneth Clark, T. S. Eliot and Keynes (1945: 4) proposed that a ruined church and enveloping garden would be an evocative monument to wartime sacrifices. On 6 August 1945, the American Boeing B-29 Superfortress *Enola Gay* was the first plane to drop an atomic bomb, code-named 'Little Boy'. The devastation of Hiroshima left a flattened, rubble-strewn city, not sublime ruins for present and future generations, increasing the psychological need for monumental as well as ruined architectures.

Wrapping ruins around buildings

In 1961, discussing his unrealised design for the American Consulate in Luanda, Angola, 1959, Kahn (1991b: 123) emphasised the need to provide strong shadows, reduce glare and create a softer, reflected light: 'I thought of the beauty of ruins . . . the absence of frames . . . of things that nothing lives behind . . . and so I thought of wrapping ruins around buildings.' His response was to create a 'ruined', symmetrical façade with a 'keyhole' opening consisting of a semi-circular arch above a narrow, vertical slot, which simultaneously appeared in his unrealised design for the Fleisher House in Elkins Park, Pennsylvania, 1959. Enclosing a building with loggias is a familiar design strategy in a warm climate, but Kahn pointedly referred to 'wrapping' and 'ruins'. Given his association of monumentality with eternity in his 1944 essay, his new emphasis indicated a shift in understanding to focus on the ruin as well as the monument, and thus an awareness of time as well as the timeless.

Wrapping an object or a body may be a means of protection so that it can be transported safely, studied in seclusion, or selectively repaired, as in archaeology or surgery. Associated with the giving of gifts, wrapping is also a means of veiling, so that something becomes more mysterious, ambiguous and seductive, ensuring that the process of unwrapping is charged with discovery, excitement and potential disappointment. Kahn initially wrapped a ruin around a building to protect daily life from the glaring sun. But the climates of Luanda and Philadelphia are contrasting, and he continued to wrap ruins around buildings wherever he built.

Who owns the circle?

The Fleisher House is untypical of its time and place, rejecting the free-flowing modernism of American houses of that era, as well as the built-in furniture that was so indicative of a suburban lifestyle. A matrix of connected, cubic rooms of equal size arranged around a high central hall, it is the most Palladian of Kahn's house designs (see Figures 6.4 and 6.5). With regard to the design of another house also designed in 1959, Kahn (in Marcus and Whitaker, 2013: 57) exclaimed, somewhat disingenuously given his debt to Palladio: 'This is not the Villa Rotunda!' But in a section of his notebook, 1955–c.1962, titled 'The Palladian Plan', he (in De Long, 1991: 59) refers to a further house design of the mid 1950s, 'which is strictly Palladian in spirit, highly ordered for today's space needs'.

In the Fleisher House, a semi-circular opening sits above a vertical viewing slot on each elevation of each cubic room, which is 16 feet square in plan and 18 feet high. Of the 12 cubic rooms, seven are internal. The other five are garden, or 'ruin', rooms, ambiguous spaces both internal and external, with enclosing walls but no roofs and no glass in the openings. Mediating between the house and the garden, three garden rooms are to the rear and two flank the entrance court, defining the edges of the house in a modern reinterpretation of the side rooms and agricultural arcades with which Palladio would frame a central loggia. Acknowledging their

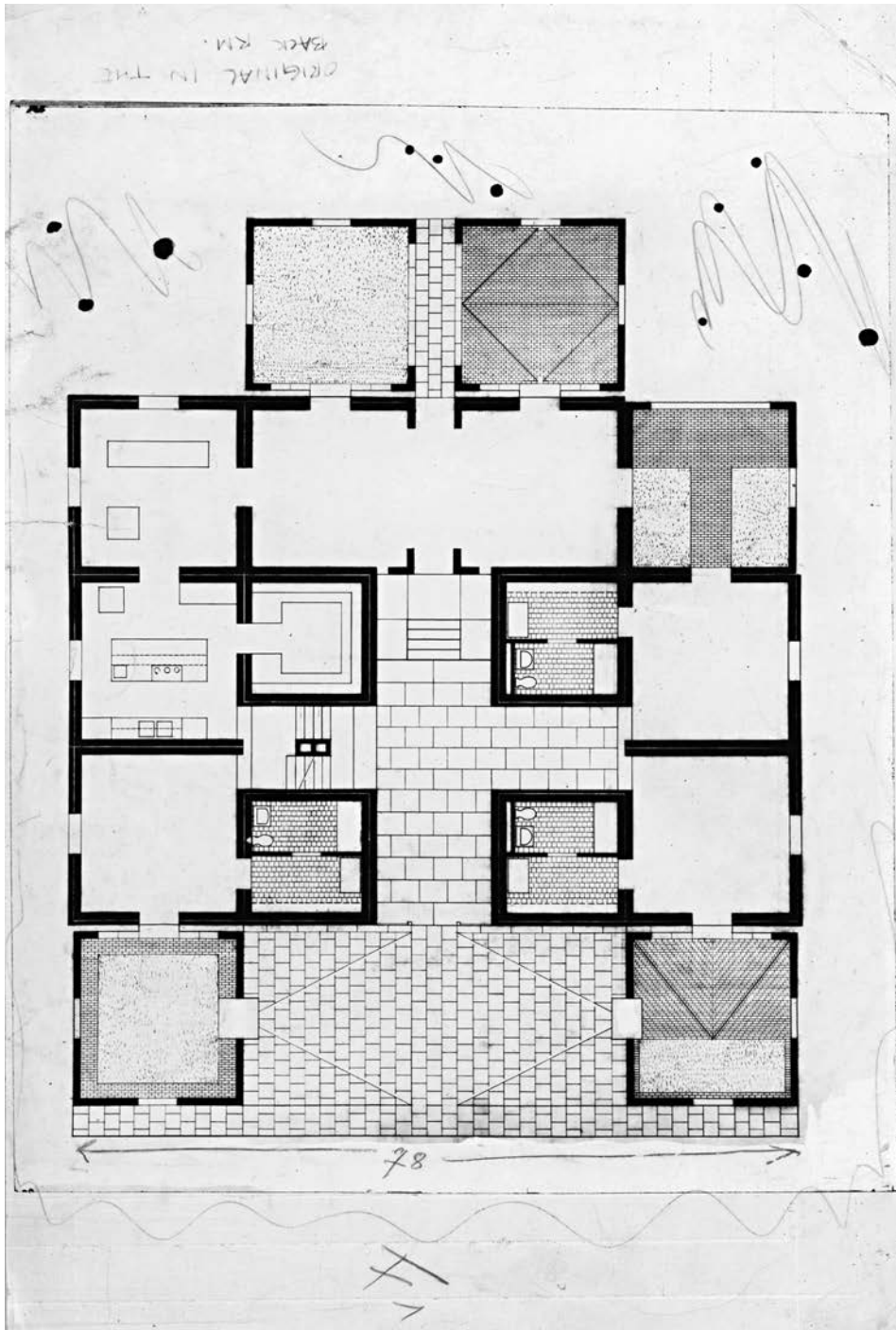


Figure 6.4 Ground floor plan. Louis I. Kahn, Fleisher House, Elkins Park, Pennsylvania, 1959

Source: Courtesy of Louis I. Kahn Collection, University of Pennsylvania and the Pennsylvania Historical and Museum Commission



Figure 6.5 Model. Louis I. Kahn, Fleisher House, Elkins Park, Pennsylvania, 1959

Source: Courtesy of Louis I. Kahn Collection, University of Pennsylvania and the Pennsylvania Historical and Museum Commission

intermediary status, the walls of the garden rooms are thinner than those of the fully enclosed, internal rooms. Further emphasising this status, four of the garden rooms are subtly separated from the rest of the house by a very narrow gap.

Each cubic room is reminiscent of an *aedicula*, a small ancient Rome shrine and the diminutive of the Latin term *aedes*, meaning a temple or house. The repetition of the simple module gives each room a degree of independence, while also emphasising its interdependence with the other rooms and role in the whole composition. In designing each room as an *aedicula*, Kahn conceived monumentality as not only synonymous with a grandiose programme but as a means to express the elements and cohesion of a society. Remarking (1991c: 257) that a 'house is not merely a house but house itself', he considered the house to be the smallest social institution, and an archetype of dwelling and society. Recalling Alberti and Palladio, who both drew an analogy between a house and a city, Kahn concluded (in Ronner and Jhaveri, 1987: 379) that 'Every building is a house, regardless of whether it is a Senate, or whether it is just a house'.

Kahn continued to design houses even though, by the mid 1950s, he was increasingly commissioned to design civic and public buildings. In January 1960, at the request of Jonas Salk, the inventor of the polio vaccine, Kahn visited the spectacular site proposed for the Salk Institute for Biological Studies, perched on cliffs above the Pacific Ocean at La Jolla, San Diego. In his initial designs, the Institute is focused around a deep ravine leading towards the Ocean. Parallel rows of laboratories are at the eastern end of the ravine adjacent to the access road, while the residences curve along the ravine's southern edge. In the most prominent position, the Meeting House is to the north of the ravine, closest to the cliff edge and overlooking the Ocean (see Figure 6.6). Surmounting a five-sided plinth, varied geometrical structures cluster around its central court. According to Robert McCarter (2005: 184, 188, 211), the plinth is



Figure 6.6 Perspective sketch of the Meeting House, 1962. Louis I. Kahn, Salk Institute for Biological Studies, La Jolla, California

Source: Courtesy of Louis I. Kahn Collection, University of Pennsylvania and the Pennsylvania Historical and Museum Commission

not derived from the site's contours but has 'an uncanny resemblance' to the one at the Athenian Acropolis, which Kahn had sketched in 1951, depicting the plinth as a formal and material continuation of the cliff. Aware that a medieval monastery was a site of scholarly debate, Salk proposed the friary of St Francis in Assisi as a design reference. There too the lesser monastery buildings surmount a rocky outcrop and appear to form a plinth to the basilica, which Kahn had sketched in 1929 (in Hochstim, 1991: 63, 86, 270–277).

Salk's intention to foster dialogue between the sciences and arts was exemplified in his proposal that the Institute should be a place where scientists could converse with Pablo Picasso (in Brownlee, 1991: 95). In Kahn's initial designs, the interdependence of social interaction and creative research is manifest in the Meeting House (in Brownlee, 1991: 95):

It was a place where one had his meal, because I don't know of any greater seminar than the dining room. There was a gymnasium. There was a place for the fellows who were not in science. There was a place for the director. There were rooms that had no names, like the entrance hall, which had no name. It was the biggest room, but it was not designated in any way.

The Meeting House emphasises his belief that a sequence of spaces may be appropriated for varied uses in the tradition of the Palladian villa. Kahn (in Wurman, 1986: 202) did not believe that form follows function, remarking: 'I make a space as an offering, and do not designate what it is to be used for. The use should be inspired.' In the first monograph on Kahn, published while he was preparing preliminary designs for the Salk Institute, Scully (1962: 36) describes the Meeting House as 'a palatial expansion of the Fleisher project'. Both projects affirm Kahn's statement (1991d: 291) 'that a plan is a society of rooms', although one is a Palladian matrix and the other is Piranesian assemblage.

Discussing the Salk Institute in 1969, Kahn (1986b: 91) referred to the 'archaic' beauty and 'unsure, scared proportions' of the ancient Greek architecture at Paestum, which 'represents the beginning of architecture . . . It was a beautiful time and we are still living in it'. Kahn also found inspiration in ancient Roman architecture, including Hadrian's Villa and the Emperor Diocletian's Palace at Split in modern Croatia, which appears in the margins of one of his drawings. Scully (1962: 37) recalls that during the Meeting House's design development, 'An early sketch had been traced by a draftsman, partly as a joke, from a plan of one of the units of Hadrian's Villa itself. "That's it," said Kahn.' Identifying direct references to ancient Roman structures in Kahn's later designs, Scully (1993: 10–11) cites the influence of Trajan's Forum on the Indian Institute of Management, Ahmedabad, 1962–1974, and that of the Thermopolium and Temple of Jupiter Optimus Maximus at Ostia on a building commissioned in 1962, which became the National Assembly complex after Bangladesh became an independent nation. Kahn (1998: 45) remarked: 'My design at Dacca is inspired, actually, by the Baths of Caracalla, but much extended.' But, sensitive to criticism, he (in Cook and Klotz, 1986: 195) also refuted suggestions that it was indebted to Hadrian's Villa, proclaiming 'But who owns the circle? It's ridiculous.'

Palladio and Piranesi surveyed archaeological sites, unlike Kahn. In conceiving archaeology as a creative stimulus to design, Palladio stimulated and Piranesi expanded the principle and practice of the archaeologist–architect that helped Kahn to appreciate and revive ancient forms. Like Palladio, Kahn's designs are creative reconstructions, but rather than being ruins reconstructed as buildings they are ruins reconstructed as ruins. As much as ancient Rome itself, Kahn's inspiration was ancient Rome as reimagined by Piranesi. While designing the Salk Institute, he first placed a copy of the *Ichnographia* on the wall in front of his desk. In the side towers that

cluster around the Meeting House's central court, ruins wrap buildings in a manner comparable to Piranesi's *Carceri*, 1750. But contrasting materials add subtle ambiguity to this relationship. Concrete cylindrical towers with keyhole openings wrap three floors of cubic glass-walled reading rooms and concrete cubic towers wrap three floors of cylindrical glass-walled dining rooms. Of all materials, glass is most indicative of a window and representative of the human gaze. In prioritising monumental unframed openings and concealing glass in the shadows, Kahn emphasised the ruin not the building.

It is ironic that Kahn's earliest designs for ruins wrapped around buildings were never constructed: the United States Consulate, Fleisher House and Meeting House. By 1962, Salk had concluded that three distinct and distant structures arranged around the ravine would isolate the scientists from each other and preferred a single site. The Salk Institute, as originally constructed, was approached through a rambling eucalyptus grove. Rising on to the travertine plinth, the view towards the Ocean is framed by the two flanking blocks, which have deep, shadowy recesses that emphasise Kahn's fascination for ruins. Throughout the design process, he made sketches inspired by the seventeenth-century painter Claude Lorrain in which an arching tree canopy frames an architectural scene, and he originally conceived the plinth as a garden. But after Luis Barragán (in Kahn, 1991e: 233) suggested instead 'a façade to the sky', he created an austere plaza. Although the Institute is sited a few hundred metres from the sea at the start of the ravine, the western edge of the plinth obscures the intervening slope and creates the impression that a steep drop leads directly to the sea beyond. As the central rill is aligned exactly east to west, the sun sets over the plinth and is reflected in the water, which tumbles over the edge, towards the Ocean (see Figure 6.7).



Figure 6.7 Entry court. Louis I. Kahn, Salk Institute for Biological Studies, La Jolla, California, 1965

Source: Courtesy of The Architectural Archives, University of Pennsylvania. Photograph, John Nicolais

Gloom and glare

Increasingly since the industrial revolution, the recurring cycles of production, obsolescence and waste that feed consumption in capitalist societies ensure that more ruins are being generated than ever before. While ancient ruins are admired, modern ruins are less appreciated. In part, this is because contemporary materials rarely match the stoic grandeur of earlier ruins, of which only the most substantial survive. But modern ruins are disturbing for other reasons too. Distinguishing between ruins of differing ages, Þóra Pétursdóttir and Bjørnar Olsen (2014: 3–8) remark that in an ancient ruin, decay occurred in the distant past, stimulating general thoughts of degradation and renewal in the present. In a modern ruin, active decay occurs before our eyes, stimulating particularly disturbing thoughts of our imminent degeneration and demise, while also reinforcing the necessity of creative action today.

Kahn's attitude to ruination was metaphorical more than literal. Following eighteenth-century precedent, he celebrated the forms of classical antiquity and questioned their absolute authority so that they were experienced in magisterial ruin. He predicted the ruin of a ruin in his remarks that a 'Good building would produce a marvellous ruin' (in Fisher and Fisher, 2003: 155), and 'A building that has become a ruin again is free of the bondage of use. But it is different from when it was being built because it now allows foliage to grow over it' (1991g: 206). However, unlike Piranesi and postwar British architects such as Alison and Peter Smithson (1963: 482–483) who appreciated the meaning of decay, he did not imagine his ruins as soon overgrown with vegetation and subject to the weather.

In 1962 Kahn (in Sauter, 2012: 181) commented that his design for the Salk Institute indicated 'a respect and understanding of the nature of nature' and remarked that 'I am becoming increasingly conscious of the architecture of water, the architecture of air, the architecture of light'. In these remarks, Florian Sauter (2012: 181–182) identifies two humanist Renaissance concepts: the geometric foundation of nature, *natura naturans*, and the experiential understanding of tangible objects and forces, *natura naturata*. But they do not encapsulate Kahn's appreciation of architecture and nature because of his debt to Johann Wolfgang von Goethe as well as Piranesi. Kahn (in Burton, 1983: 75–76) remarked that he was raised on Goethe due to his mother's cultural inheritance and fascination for German romantic literature. In 'On German Architecture', 1772, Goethe (1980: 104–109) states that art, as the expression of creative spirit, is another nature, which learns from nature but is distinct from it. Idealism's influence led German romanticism to emphasise the mind's ability to construct reality, placing less experience on the actual experience of natural forces than was the case in British romanticism. After a visit to Paestum in 1787, Goethe's appreciation of classicism became as romantic and nationalistic as his earlier promotion of gothic. Kahn's classicism was also romantic if not nationalistic, as he (1991f: 112) acknowledged in 1961: 'Feeling and dream has no measure, has no language, and everyone's dream is singular.'

For all his fascination for pure geometries, Kahn emphasised the dialectic between the generic and the specific that he expressed in terms of 'Form and Design', 1961, the essay that his office routinely sent to anyone interested in his theory of practice. In conclusion he (1991f: 120) writes:

From all I have said I do not mean to imply a system of thought and work leading to realization from Form to Design. Designs could just as well lead to realizations of Form. This interplay is the constant excitement of Architecture.

Asked by clients how he began to design their house, he replied (in Fisher and Fisher, 2003: 161): 'When I put down the places where the rooms were constructed I was thinking about

the light. I wasn't thinking of beams or studs. I was thinking about what there is about the structure that will give you light.' Remarking that 'Artificial light is only a single, tiny, static moment in light and is the light of night and can never equal the nuances of mood created by the time of the day and the wonder of the seasons', Kahn (1986b: 89) associated architectural forms with the patterns of natural light and shadow that they generated, and identified architecture with an era before industrialisation. Indicating a concern for chiaroscuro, and spaces veiled in shifting shadows, he continued: 'Even a space intended to be dark should have just enough light from some mysterious opening to tell us how dark it really is.'

Kahn's attention to light and shadow emphasises the temporal experience of architecture, in terms of not only days and seasons but also an archaic understanding of time before it was measured into hours and minutes. The retina has two types of light-receptor cells. The cones are mostly at the centre and function in the light. The rods are mostly at the periphery and function in the dark. Remarking that the cones and rods 'adapt at different rates: cone adaptation is completed in about seven minutes, while rod adaptation continues for an hour or more', Richard Gregory (1996: 85, 55–56) equates slow adjustment to the gloom to a journey back in time:

It might be said that whenever we look from the central fovea towards the periphery we travel back in evolutionary time – from the most highly organized structure in nature to a primitive eye barely capable of detecting movements of shadows.

Kahn's ruins are as archaic as the gloom. Rather than made *as new* they were made *as old*. A ruin is a metaphor for the passage of time, inevitable decay and potential renewal. Amidst the dark shadows of ruins wrapped around buildings, the glare of unframed openings stands out even brighter. Passing from gloom to glare to gloom, the eye repeatedly adapts as the visitor moves around the structure. Given that Kahn defined ruins as 'things that nothing lives behind', wrapping a ruin around a building is equivalent to wrapping absence around presence, the past around the present, and death around life. But given that he made 'a space as an offering' and thought that 'use should be inspired', Kahn's design strategy is equivalent to a gift – a monument to a ruin – that celebrates their interdependence and stimulus to the imagination.

References

- Ackerman, J. (1966) *Palladio*, Harmondsworth: Penguin.
- Alberti, L. B. (1988) *On the Art of Building in Ten Books*, trans. Rykwert, J., Leach, N. and Tavernor, R., Cambridge, MA, and London: MIT Press.
- Ashraf K. K. (November 2007) 'Taking Place: Landscape in the Architecture of Louis Kahn', *Journal of Architectural Education*, vol. 61, no. 2, pp. 48–58.
- Aureli, P. V. (2011) *The Possibility of An Absolute Architecture*, Cambridge MA and London: MIT Press.
- Bell, M. (1998) 'The Two Careers of Louis Kahn', in Kahn, L., *Conversations with Students*, New York: Princeton Architectural Press, pp. 79–93.
- Benjamin, W. (1998) *The Origins of German Tragic Drama*, trans. Osborne, J., London and New York: Verso.
- Brown, F. E. (1961) *Roman Architecture*, London and New York: George Braziller/Prentice Hall.
- Brownlee, D. B. (1991) 'The Houses of the Inspirations: Design for a Study', in Brownlee, D. B. and De Long, D. G. (eds), *Louis I. Kahn: In the Realm of Architecture*, New York: Rizzoli, pp. 94–111.
- Burton, J. (1983) 'Notes from Volume Zero: Louis Kahn and the Language of God', *Perspecta*, vol. 20, pp. 69–90.
- Clark, K., Eliot, T. S. and Keynes, J. M. (1945) 'Ruined City Churches', in Casson, H., Colvin, B. and Groag, J. (eds), *Bombed Churches as War Memorials*, Cheadle: Architectural Press, p. 4.
- Cook, J. W. and Klotz, H. (1986) 'Interview with Louis I. Kahn, 1973', in Wurman, R. S. (ed.), *What Will Be Has Always Been: The Words of Louis I. Kahn*, New York: Rizzoli pp. 184–210.

- De Long, D. G. (1991) 'The Mind Opens to Realizations: Conceiving a New Architecture, 1951–1961', in Brownlee, D. B. and De Long, D. G. (eds), *Louis I. Kahn: In the Realm of Architecture*, New York: Rizzoli, pp. 50–77.
- Fisher, N. and Fisher, D. (2003) 'Seven Years with Louis I. Kahn', in Saito, Y. (ed.), *Louis I. Kahn Houses: 1940–1974*, Tokyo: TOTO Publishing, pp. 149–161.
- Fleming, J. (1962) *Robert Adam and His Circle in Edinburgh and Rome*, London: John Murray.
- Forty, A. (1999) 'Introduction'. In Forty, A. and Küchler, S. (eds), *The Art of Forgetting*, Oxford and New York: Berg, pp. 1–18.
- Freud, S. (1955) 'The "Uncanny"', trans. Strachey, A., in Strachey, S. (ed.), *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, vol. 17, Toronto: Clarke Irwin, 1955, pp. 217–252.
- Giedion, S. (1944) 'The Need for a New Monumentality', in Zucker, P. (ed.), *New Architecture and City Planning: A Symposium*, New York: Philosophical Library, pp. 25–39.
- Giedion, S. (1958) 'Marginalia', in Giedion, S. (ed.), *Architecture, You, and Me: The Diary of a Development*, Cambridge, MA and London: Harvard University Press, pp. 22–24.
- Giedion, S., Léger, F. and Sert, J. L. (1958) 'Nine Points on Monumentality', in Giedion, S. (ed.), *Architecture, You, and Me: The Diary of a Development*, Cambridge, MA and London: Harvard University Press, pp. 48–51.
- Goethe, J. W. von (1980) 'On German Architecture, 1772', in *Goethe on Art*, trans. Gage, J., London: Scholar Press, pp. 104–109.
- Goldhagen, S. (2001) *Louis Kahn's Situated Modernism*, New Haven: Yale University Press.
- Goodwin, P. L. (1944) 'Monuments', in Zucker, P. (ed.), *New Architecture and City Planning: A Symposium*, New York: Philosophical Library, pp. 589–601.
- Gregory, R. (1996) *Eye and Brain: The Psychology of Seeing*, Oxford: OUP.
- Hart, V. and Hicks, P. (2006) *Palladio's Rome: A Translation of Andrea Palladio's Two Guidebooks to Rome*, New Haven, CT and London: Yale University Press.
- Hastings, H. de C., Lancaster, O., Pevsner, N. and Richards, J. M. (eds) (January 1947) 'The Second Half Century/The First Half Century', *The Architectural Review*, vol. 101, pp. 21–36.
- Hastings, H. de C., Lancaster, O., Pevsner, N. and Richards, J. M. (eds) (September 1948) 'In Search of a New Monumentality: A Symposium', *The Architectural Review*, vol. 104, no. 624, pp. 11–128.
- Hochstim, J. (1991) *The Paintings and Sketches of Louis I. Kahn*, New York: Rizzoli.
- Johnson, E. J. (1996) 'Sketching Abroad', in Johnson, E. J. and Lewis, M. J. (eds), *Drawn from the Source: The Travel Sketches of Louis Kahn*, Cambridge, MA and London: MIT Press, pp. 34–110.
- Kahn, L. I. (1944) 'Monumentality', in Zucker, P. (ed.), *New Architecture and City Planning: A Symposium*, New York: Philosophical Library, pp. 577–588.
- Kahn, L. I. (1986a) 'From a Conversation with Robert Wernischner', in Wurman, R. S. (ed.), *What will Be Has Always Been: The Words of Louis I. Kahn*, New York: Rizzoli, pp. 113–122.
- Kahn, L. I. (1986b) 'Wanting to Be: The Philadelphia School, 1969', in Wurman, R. S. (ed.), *What will Be Has Always Been: The Words of Louis I. Kahn*, New York: Rizzoli, pp. 89–92.
- Kahn, L. I. (1991a) 'New Frontiers in Architecture: CIAM in Otterlo 1959', in Latour, A. (ed.), *Louis I. Kahn: Writings, Lectures, Interviews*, New York: Rizzoli, pp. 81–88.
- Kahn, L. I. (1991b) 'A Discussion Recorded in Louis I. Kahn's Philadelphia Office in February, 1961', in Latour, A. (ed.), *Louis I. Kahn: Writings, Lectures, Interviews*, New York: Rizzoli, pp. 122–140.
- Kahn, L. I. (1991c) 'Architecture: Silence and Light, 1970', in Latour, A. (ed.), *Louis I. Kahn: Writings, Lectures, Interviews*, New York: Rizzoli, pp. 248–257.
- Kahn, L. I. (1991d) 'I Love Beginnings, 1972', in Latour, A. (ed.), *Louis I. Kahn: Writings, Lectures, Interviews*, New York: Rizzoli, pp. 285–293.
- Kahn, L. I. (1991e) 'Silence, 1968', in Latour, A. (ed.), *Louis I. Kahn: Writings, Lectures, Interviews*, New York: Rizzoli, pp. 232–233.
- Kahn, L. I. (1991f) 'Form and Design, 1961', in Latour, A. (ed.), *Louis I. Kahn: Writings, Lectures, Interviews*, New York: Rizzoli, pp. 112–120.
- Kahn, L. I. (1991g) 'Remarks, 1965', in Latour, A. (ed.), *Louis I. Kahn: Writings, Lectures, Interviews*, New York: Rizzoli, pp. 191–207.
- Kahn, L. I. (1998) *Conversations with Students*, New York: Princeton Architectural Press.
- Kahn, L. I. (2003a) 'Lecture to the Boston Society of Architects, 1966', in Twombly, R. (ed.), *Louis Kahn: Essential Texts*, New York: W. N. Norton, pp. 197–219.
- Kahn, L. I. (2003b) 'Lecture at Pratt Institute, 1973', in Twombly, R. (ed.), *Louis Kahn: Essential Texts*, New York: W. N. Norton, pp. 266–280.

- Kantor-Kazovsky, L. (2006) *Piranesi as Interpreter of Roman Architecture and the Origins of His Intellectual World*, Florence: Leo S. Olschki.
- Laugier, M-A. (1977) *An Essay on Architecture*, trans. Herrmann, W. and A., Los Angeles, CA: Hennessey & Ingalls.
- Lewis, M. J. (2012) 'Louis Kahn's Art and his Architectural Thought', in Kries, M., Eisenbrand, J. and von Moos, S. (eds), *Louis Kahn – The Power of Architecture*, Weil am Rhein: Vitra Design Museum, pp. 67–83.
- McCarter, R. (2005) *Louis I. Kahn*, London and New York: Phaidon.
- Marcus, G. and Whitaker, W. (2013) *The Houses of Louis Kahn*, New Haven, CT and London: Yale University Press.
- Nelson, G. (1944) 'Stylistic Trends in Contemporary Architecture', in Zucker, P. (ed.), *New Architecture and City Planning: A Symposium*, New York: Philosophical Library, pp. 569–576.
- Palladio, A. (1997) *The Four Books on Architecture*, trans. Tavernor, R. and Schofield, R., Cambridge, MA: MIT Press.
- Pétursdóttir, Þ., and Olsen, B. (2014) 'Introduction: An Archaeology of Ruins'. In Olsen, B., and Pétursdóttir, Þ. (eds), *Ruin Memories: Materialities, Aesthetics and the Archaeology of the Recent Past*, London and New York: Routledge, pp. 3–29.
- Pinto, J. A. (2012) *Speaking Ruins: Piranesi, Architects, and Antiquity in Eighteenth-Century Rome*, Ann Arbor, MI: University of Michigan Press.
- Riegl, A. (Fall 1982) 'On the Modern Cult of Monuments: Its Character and Its Origin', trans. Forster, K. W. and Ghirardo, D., *Oppositions*, no. 25, pp. 21–51.
- Ronner, H. and Jhaveri, S. (1987) *Louis I. Kahn: Complete Works, 1935–1974*, Basel and Boston, MA: Birkhäuser.
- Sauter, F. (2012). 'Mettre la nature en œuvre', in Kries, M., Eisenbrand, J. and von Moos, S. (eds), *Louis Kahn – The Power of Architecture*, Weil am Rhein: Vitra Design Museum, pp. 181–199.
- Scully, V. (1962) *Louis I. Kahn*, New York: George Braziller.
- Scully, V. (Winter 1993) 'Louis I. Kahn and the Ruins of Rome', *Engineering and Science*, vol. 56, no. 2, pp. 3–13.
- Smithson, A., and Smithson, P. (October 1963) 'Folly at Fonthill, Wilts.', *Architectural Design*, vol. 33, no. 10, pp. 482–483.
- Vitruvius (1960) *The Ten Books on Architecture*, trans. Morgan, M. H., New York: Dover.
- Watkin, D. (1999) 'Built Ruins: 'The Hermitage as a Retreat'', in Woodward, C. (ed.), *Vision of Ruin: Architectural Fantasies and Designs for Garden Follies*, London: Sir John Soane's Museum, pp. 5–14.
- Whately, T. (1771) *Observations on Modern Gardening, Illustrated by Descriptions*, London: T. Payne.
- Wilton-Ely, J. (1978) *Piranesi*, London: Arts Council of Great Britain.
- Wurman, R. S. (ed.) (1986) *What will Be Has Always Been: The Words of Louis I. Kahn*, New York: Rizzoli.
- Zucker, P. (ed.) (1944a) *New Architecture and City Planning: A Symposium*, New York: Philosophical Library.
- Zucker, P. (1944b) 'Planning in Three Dimensions', in Zucker, P. (ed.), *New Architecture and City Planning: A Symposium*, New York: Philosophical Library, pp. 3–10.

Building lives

Gavin Lucas

Archaeological modes of enquiry and architecture

Archaeology has always engaged with architecture and its interpretive approaches to buildings have followed a similar trajectory to the broader theoretical currents of the discipline – from typology to phenomenology (Buchli 2013). Buildings – and indeed the built environment generally, from a pottery kiln to whole landscapes dominate much of the material remains that archaeologists spend their time investigating. So much so in fact, that there is often a common and implicit distinction made between artefactual and structural material culture, or more generally between architecture and material culture. Buildings fall into a category all of their own. There are probably many reasons for this including deep-rooted, art historical divisions; in the classic divide between arts and handicrafts, architecture is grouped with painting and sculpture as an art and distinguished from the mass of everyday craft objects (e.g. see Newton 1851). But there is also the question of scale relative to the human body: material culture that can contain the human versus material culture that can be contained by the human, that is to say, manipulable or portable.

This latter is clearly influential for the practice of archaeology: by and large, we retrieve all portable or mobiliary finds, but buildings tend to be left *in situ* – whether for preservation and presentation purposes or not. Of course there are always exceptions to this, from the detached debris of buildings (such as bricks or tiles) to the lifting of whole structures, piece by piece. Walk into any major museum in Europe and you will probably find parts of temples and other buildings reconstructed from these pieces. But such exceptions only prove the rule and in fact are more a legacy of art history, treating buildings like painted vases or bronze statues.

In another sense though, architecture is caught up in a more specifically archaeological taxonomy where buildings occupy a somewhat ambivalent status between the two more field-based categories of stuff archaeologists deal with: deposits and finds. This division is less art historical and more geological/palaeontological in origin, based on the distinction of fossils and their encasing strata. As *finds*, buildings are regarded as artefactual, as material culture and analysed using much the same techniques. Art historical approaches overlap here. But as *deposits*, buildings are rooted to the site, they are entangled with and co-constitute its stratigraphy, acting as envelopes for finds. I find the ambivalence of buildings in this archaeological framework extremely productive as a basis from which to think about architecture, especially the relation between architecture and time.

This distinction between two ways of looking at architectural remains is most evident when archaeologists have applied their methods to standing buildings as opposed to buried foundations. In many ways, the analysis of standing buildings has been the speciality of architectural historians, but at the same time the field has remained an accepted area of research for many others including folklorists and archaeologists, reflecting its roots in antiquarianism to a much greater degree than the study of buried remains or documents, which swiftly became the prime preserve of archaeologists and historians respectively (Levine 1986). As a result, the archaeological study of standing buildings draws on a somewhat diverse set of methods, but what I find particularly interesting are the attempts to introduce stratigraphic analysis – specifically the Harris matrix system – into architectural analysis. Although an implicit stratigraphic approach has been taken to standing buildings since the nineteenth century by antiquarians such as Thomas Rickman (Rodwell 2005; Taylor 1972), it is only from the late 1980s that the Harris method was promoted as a practical and successful way to think about the chronology of standing buildings (Davies 1987; 1993; Harvey 1997; Simmons *et al.* 1993). Such approaches are often contrasted with the art historical approach that focuses more on the fabric (i.e. building materials) and construction technology of the building, an approach epitomized in Warwick Rodwell's work on churches (2005).

The two are not mutually exclusive by any means, but they do require very different ways of seeing. Moreover, while stratigraphic analysis has been quite well codified, largely through the adoption of the Harris matrix system, fabric and construction analysis tends to remain fairly uncoded, instead relying on a detailed knowledge of architectural styles and developments in building technology. At the same time, there is clearly an underlying principle to this art historical approach that differs from the stratigraphic approach. It all hinges on a different perspective on time. With stratigraphic analysis, the dominant temporal concept is *sequence*: looking for earlier/later relations, where the main question is – which came first? In fabric analysis and construction technology, the dominant temporal concept is *contemporaneity*. Here, understanding elements of the building fabric or its structural components is framed in terms of what was constructed at the same time, as belonging to a particular style or epoch, finding correlations; essentially, the question here is – what goes together?

Now of course in recognizing contemporaneous elements, one by default also identifies the non-contemporary; but sequence is a secondary process, created through a continual process of grouping contemporaneous elements, and then arranging these groups in their proper chronological order. Conversely, in working out a stratigraphic sequence, there will always be elements that are contemporary, but these are dealt with secondarily through the technique of correlation and phasing. The end results of both methods often look the same and that is why they can so effectively complement each other; but they use very different ways to achieve this end and very different time concepts. These contrasting methods are especially interesting because they do not just apply to the archaeology of standing buildings, but are also seen in landscape archaeology – and even in fact, on excavation.

In landscape archaeology, contemporaneity as a mode of enquiry also dominates the way landscape is analysed chronologically. This is most evident in the concept of landscape as palimpsest, where the aim is to look at the morphology of landscape features and their spatial relations – especially concerning alignment – as a means of pulling out contemporaneous features and separating them from the non-contemporary (Crawford 1953; Hoskins [1955] 1991). Indeed, it is no coincidence that landscape archaeology and standing building archaeology align closely to one another because of these methods (consider here, especially the work of Matthew Johnson 2007; 2010) – and also why landscape archaeology is also a more ecumenical field, sharing its subject matter with other disciplines such as landscape history and historical geography.

But even in excavation, this approach which foregrounds contemporaneity has a very strong foothold; the term horizontal stratigraphy has sometimes been used to describe such methods, but this is a rather misleading term as pointed out by Harris (1979). Like landscape archaeology, thinking about what features are contemporary on a site draws on the morphology and material similarities of deposits as well as their spatial symmetry, chiefly alignment. A line of postholes, right-angled ditches, graves with similar backfill composition – in the absence of close dating from finds or tight stratigraphic relations, symmetry and morphology are what we conventionally rely on (e.g. see Carver 2009: 281–287). Yet what is really striking is how *marginalized* these techniques are in excavation manuals – they are often presented as anomalies, exceptional cases, residual issues after the important work of stratigraphic analysis has been conducted. But for so many archaeological sites – especially in ploughzone areas – these are the norm, not the exception. In many cases of rural archaeology, stratigraphic analysis can be of minimal help in interpreting chronology. This is the power of codification and the way we are victims of our own disciplinary history: stratigraphy being presented as *the* most important principle in fieldwork. This is simply not true in practice.

It may be that techniques of morphological similarity (essentially typology) and spatial symmetry are much more fully developed and integrated into landscape archaeology and standing building analysis because of their non-linear mode of enquiry. Landscapes and standing buildings are living, contemporary things that require a broadly non-destructive manner of investigation – which means you can come back again and again to study them, and take a different approach each time (Johnson 2007). The study of buildings and landscapes foregrounds contemporaneity. Excavation on the other hand, being ‘destructive’, is therefore irreversible and hence linear; the very mode of enquiry inscribed into excavation practice encourages a sequential view of time. Whether this is a realistic characterization of the difference or not, the different temporal registers used by each method – contemporaneity and sequence respectively – do have larger significance (Lucas 2015) and generally, when it comes to *representing* the temporality of buildings, the sequential model is usually dominant even if contemporaneity is an important analytical concept.

Thus while the archaeological study of architecture may draw on different time concepts, its end point is often much more uniform: a simple, unilinear chronology of building phases – this part is original Anglo-Saxon, that was added in the twelfth century, this in the fifteenth century, while this whole section is a Victorian addition. Thus more often than not, buildings have been and are reduced to an epochal series of alterations, additions and repairs. A study that would foreground contemporaneity, on the other hand, would emphasize continuity as much as change; the fact that this part of the Anglo-Saxon fabric is *still here*, or that twelfth century arch has been *retained*. These are not just clues to a building’s *past*, but equally to its *persistence*. An important study in this vein is Currie’s analysis of taphonomic processes affecting the present day survival of standing buildings (Currie 1988), although this study mostly focuses on the interpretive implications of this survival, rather than the ontological nature of survival itself. I would suggest that survival or persistence has to be understood not simply in terms of endurance over a set time; this reduces it to a matter of relation to an abstract time scale, e.g. fabric lasting 300 years. Rather we need to define persistence as duration in relation to *other things*, not an abstract time scale (see Lucas 2015; also see Olivier 1999). This, after all, is what a section of Anglo-Saxon fabric contiguous with a Victorian rebuild really means. Persistence not simply as endurance but as contemporaneity.

At a crude level, contemporaneity means simply synchronism, e.g. these two parts of a building were constructed and in use over the same time period; however, most things that are contemporary are not perfectly synchronized but rather overlap – one part was made earlier

than another, one part was taken down earlier than another, even though they may coexist for a period of time. Imbricated (i.e. overlapping) persistence is much more common. The classic archaeological model of this is seriation which in fact uses contemporaneity to create sequence. Contemporaneity is thus primarily a temporal relation between two or more things, not between one thing and an abstract period of time, even though we still make use of abstract time measures to articulate this relation. As such, persistence and contemporaneity are about overlapping or imbricated durations between things (Lucas 2015). It is this revised notion of contemporaneity that I want to deploy in this paper, one that grapples with a more complex temporality that addresses both the idea of change implicit in stratigraphic/sequence driven models and the idea of contemporaneity as ‘togetherness’ implicit in art historical models. In order to explore these issues in more detail, I now want to work them through with an example from my research in Iceland. I will start with a fairly conventional, sequential narrative of a structure and then re-examine the building in terms of contemporaneity.

Room 1680

Room 1680 is one of several rooms or contiguous structures that form part of a large complex making up the core of an episcopal manor and seminary called Skálholt in the south-west of Iceland. Indeed, the word ‘room’ is somewhat misleading as the basic architectural form of the Icelandic vernacular farmhouse consists of a series of semi-autonomous structures, welded together by a skin of turf and undressed stone (Figure 7.1; Ágústsson 2000; Stefánsson 2013). Room 1680 is thus, in many ways, structurally independent from its adjacent rooms, its turf roof having been supported by two parallel rows of timber uprights set on stone pads, although the weight of the roof would also have been distributed onto its thick walls. The walls themselves were built from undressed stone with soil packing/infilling. Icelandic turf farms – of which Skálholt manor is essentially a magnified version – are thus basically modular, composed of multiple rooms or structures, each partially independent structurally. But as repairs are made or new units added, any one room comes to be increasingly dependent on its neighbours. There is a very organic feel to these structures. Moreover, over time there is place-persistence, which means that farm mounds form – rather like the prehistoric tells of south-eastern Europe and the Middle East, only made of turf rather than mud-brick.

The site of Skálholt was one of two episcopal sees in Iceland and, until the late eighteenth century, was one of the most important cultural and political centres in the country (Grímsdóttir 2006). The settlement dates back at least to the eleventh century according to written sources, although recent excavations on the site have not penetrated deeper than the seventeenth century. Since the twelfth century, Skálholt remained the residence of the incumbent bishop and since at least the sixteenth century, there was a seminary or Latin School at the settlement housing 20–40 students at any one time who lived there over the winter months. Besides the Bishop and his household, the students and teachers, there were also a large number of farm hands and servants who provided daily subsistence and services for this large estate, although much of the food and other goods would have also come from neighbouring farms in the possession of Skálholt. In total, the average population at Skálholt was, as far as is known, in excess of a hundred, which though small in a European context, was unusually large in comparison with most other places in Iceland. In terms of population density, it was the closest thing to a town on the island until Reykjavík claimed this title in the late eighteenth century.

As such a significant historical place, the site has attracted archaeological attention on a number of occasions (Eldjárn *et al.* 1988; Jónsson 1904; Ólafsson 2002), but in 2002 a major open area excavation of the farm mound commenced directed by the author and Mjöll Snæsdóttir



Figure 7.1 Photograph of the historic turf farm of Grenjastaðir in the north of Iceland, undergoing repair in 2006

Source: Photo by the author

through the Institute of Archaeology in Reykjavík, ending in 2007. These excavations focused on the core of the post-medieval settlement, which included the bishop's quarters and school as well as various service buildings such as kitchens and store rooms. Room 1680 was one such service room; described on eighteenth century plans as a meat store, it was located at the south-western corner of the main complex (see Figure 7.2).

This room dates back to at least the mid seventeenth century and was only abandoned at the end of the eighteenth century. Its history as related below thus spans about a hundred and fifty years (*c.* 1630–1785). It was well preserved, protected by lying at a much lower elevation than many of the other rooms on the site and sealed by thick, overlying midden deposits, dumped during the nineteenth century. The room was 12.3m long and 3.6m wide with its northern wall surviving to a depth of *c.* 1.5m, the southern one only 0.7m. It is likely the 'room' had an internal wooden partition dividing it into two halves – or rooms. The building, which was single storey (Figure 7.3), had two doors, one at the western end set in a wooden gable and leading to the outside and another at the eastern end, leading into a dry store room via a short passage.

Excavation of the room revealed a rich sequence of alterations to the room over the one and half centuries of use (Figure 7.4). Seven such phases were identified and below I will start by presenting them in a fairly standard manner.

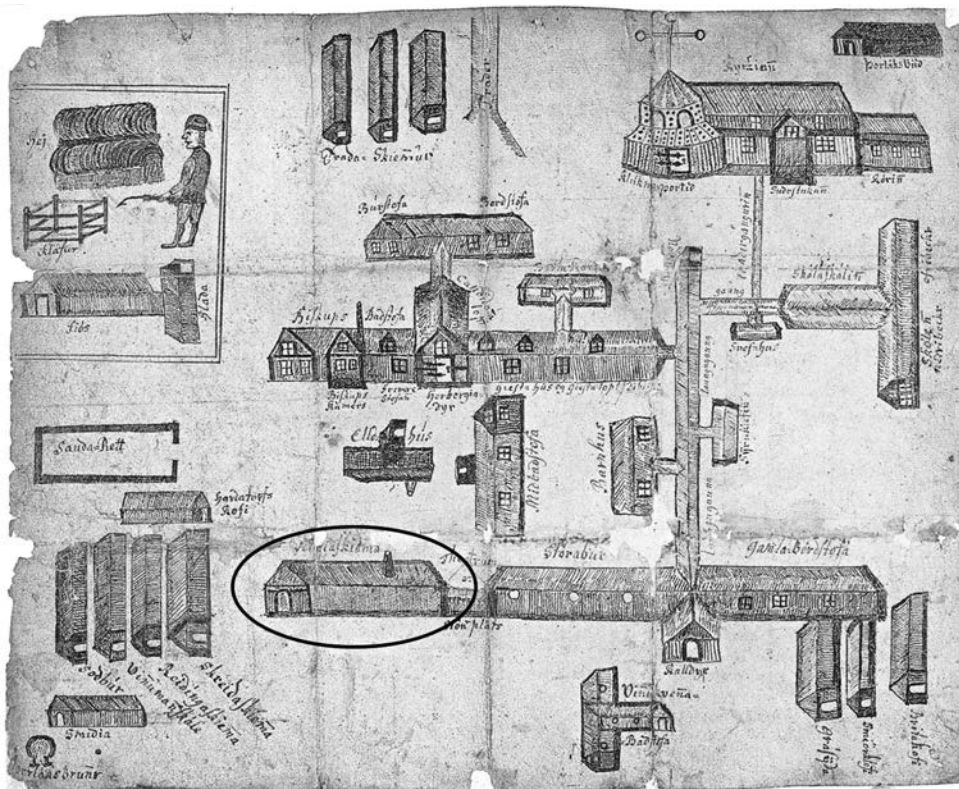


Figure 7.2 Plan of Skálholt, probably drawn in the mid eighteenth century. Building 1680 is circled in black

Source: National and University Library, Reykjavík, Iceland

- *Phase 1*: the structure was divided into two halves, marked by stone flags that probably acted as sill pads for a wooden partition screen; access between spaces was at the northern end. A stone-lined drain ran the whole length of the room along the northern side, snaking out through the western entrance. The western room had an oven set into the floor that was flagged, while the eastern room had a trampled ashen floor and another oven positioned in the northeast corner.
- *Phase 2*: the floor was maintained by the addition of extra flagstones and also more trampled ash deposits, but otherwise the two ovens remained operational as did the dividing screen. The drain however was remodelled, and now confined to the western room. It is possible some repairs were also made to a structural support in the north-western corner of the room as there are indications of re-consolidating the stone pad here.
- *Phase 3*: the floor was further maintained with a new deposit of trampled ash and flagstones, but otherwise the drain, ovens and partition remained in use. The only new additions were a second oven in the north-east corner and an area of stone paving, perhaps marking the location of a barrel or ladder to a loft.
- *Phase 4*: further floor maintenance activities of a similar nature to previous phases occurred, and some possible remodelling to the oven in the western room; the original oven in the eastern room probably went out of use leaving just one functioning oven here.

- *Phase 5:* the structure undergoes a major overhaul at this time; the western wooden gable was pulled down and a stone and earth wall erected in its place, though a doorway remained in more or less the same location. The whole floor was re-surfaced with a turf levelling layer laid across the room, but covered again by flagstones in the western room and trampled ash in the east. The partition was rebuilt in the same location and both ovens (western and eastern) rebuilt, but again, in similar locations. The drain may have been defunct at this stage. The roof must have also been repaired as the timber posts would have been reset when the floor was re-surfaced.
- *Phase 6:* the structural timbers supporting the roof were all reset at this time – the post pads on which they rested were all re-levelled and raised; this could indicate repairs to the roof or that the base of the posts had rotted and needed to be cut and raised higher (a common and well-known practice historically). Possibly the lack of a functioning drain may have made increased dampness in the floor. At the same time, fresh ash deposits were laid over the floor.
- *Phase 7:* new ovens were installed; in the western room, a new oven was built slightly further into the room while in the eastern room, two new fireplaces set in a low cobbled platform were constructed over the former one. The floor was also repaired in places.

At the end of this sequence, the room was probably deliberately torn down as wall and roof material covered the floor of the room. Thereafter, the ruin was used as a midden dumping ground into the nineteenth century.



Figure 7.3 Room 1680 under excavation in 2006, facing east

Source: Photo by the author

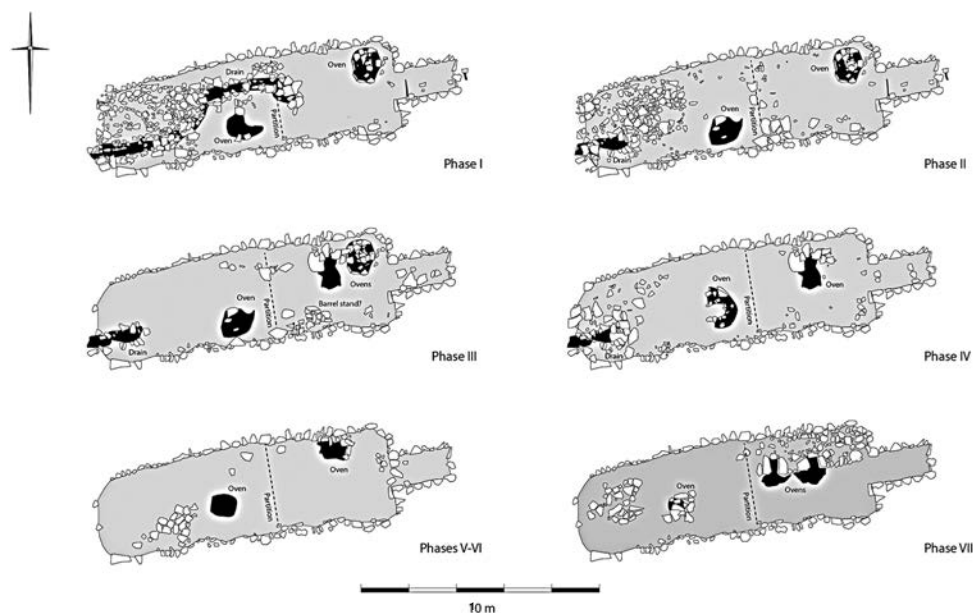


Figure 7.4 Phase plans for building 1680

Source: Drawing by the author

Work on the site archives is still ongoing as I write so the absolute dating of these phases remains open still, but as previously stated, this sequence probably covers no more than about one hundred and fifty years between the early seventeenth and late eighteenth century.

The architectural assemblage

The chronology of room 1680 described in the last section is in many ways a very conventional mode of discussing the temporality of buildings in archaeology. In this section, I want to build on this conventional narrative but draw out a very different portrayal of the room and its relation to time. Instead of foregrounding sequence, I want to foreground contemporaneity and especially the idea of persistence as the imbrication or overlapping of different architectural elements as discussed earlier in this chapter. Sequence will also be implicated in this alternative narrative, but it will be derivative or secondary. And rather than slicing time into a series of phases and subsuming the building to these units of time, I will reverse this relation and subsume time to units of the building. In this reversal, the building is put first, and creates and carves up its own time. Time is constituted through the building rather than vice versa.

This reversal can be easily understood by thinking of buildings as assemblages of different components, each of which has its own rate of change – a model I used some time ago in exploring the temporality of domestic clocks (Lucas 1995). A similar idea applied to buildings was proposed by the designer Stewart Brand, drawing on ideas of the architect Francis Duffy. Brand talks about buildings being composed of different, yet inter-connected layers that undergo repairs or changes at different rates because of the different life-spans of these elements (Figure 7.5, after Brand 1994: 13). Thus at the slowest tempo is the *site*, which is the geographical

setting, often defined by property boundaries that constrain the way a building can grow. Next is the *structure*, which refers to the foundations and load-bearing elements, which can last anywhere between 30 and 500 years, though 60 years is a far more common upper limit. Then there is the *skin* – exterior surfaces (e.g. stucco, cladding) which can change or need repair every 20 years. This is followed by *services* such as wiring, plumbing and ventilation systems, which typically need replacement every 7–15 years. *Space plans* refer to internal partitions and layouts that are unrelated to load-bearing features – depending on the type of building, these can change very rapidly (e.g. offices, shops) or slowly (e.g. homes). The final layer is *stuff*, which comprises all the mobile furnishings such as chairs and tables that often have a relatively high turnover but also are prone to periodic re-arrangement.

Obviously the tempos of these shearing layers, as Brand calls them because they act to pull the building apart, can vary for a variety of reasons, not least the type of building and its use, so his model is only meant as a broad generalization. But using this terminology to think about room 1680 provides a different way to describe the temporality of our room at Skálholt. Although I adopt Brand's terminology unmodified below, this is not to say this is the best or only way one can divide up architectural elements; indeed I suspect such divisions have to be somewhat more sensitive to the cultural and chronological variations of vernacular building. Nonetheless, they serve a heuristic purpose here, and serve it remarkably well, as one can see.

- *Site*: the location of room 1680 is fairly fixed, squeezed between a kitchen to the north, a dry store room to the east and a track to the south (see Figure 7.2 – although this map gives an impression of greater freedom of movement than is in fact the case). The persistence of a room in this location, like many other rooms on the site and on turf complexes in general, is partially about the limited possibilities for change. Because each modular unit or room tends to need repairs at different times, it is very rare to see major transformations to the layout of a complex. The elbow room is quite limited. Nonetheless, although room 1680 did not change location, there were some rooms that did change in Skálholt over the three centuries of excavated structures but it is quite clear that these changes are at the rate of centuries, not decades.
- *Structure*: apart from a very localized, ad hoc repair to a post in the north-west corner of the room (phase 2), major episodes of structural maintenance to the roof-bearing posts occurred in phases 5 and 6, also accompanied by rebuilding of the western gable end of the room. It suggests a life cycle of structural repairs every 70–80 years.

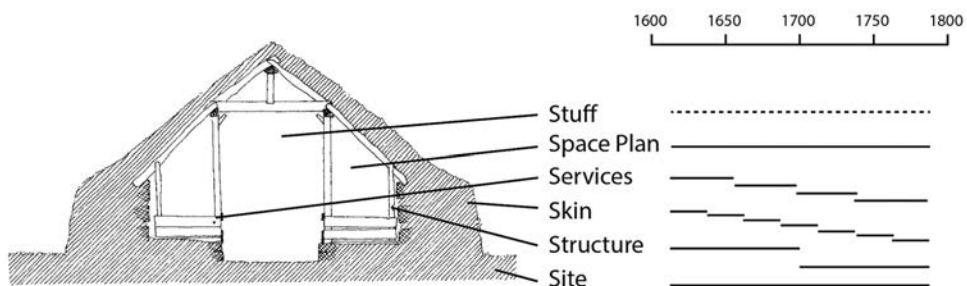


Figure 7.5 The different layers and tempos of building 1680

Source: Drawing by the author, adapted from Brand 1994

- *Skin*: it is almost impossible to detect evidence of maintenance activity on the outside of room 1680 – in part because the room was partially buried in the slope of the hill on which the settlement is located, but mainly because turf repair is very difficult to distinguish from general weathering and even collapse. It is likely the turf roof will have needed some maintenance over the one and half centuries of occupation, but there is little archaeological evidence of that. On the other hand, internal surfaces, especially the floor, revealed a very regular and continuous cycle of maintenance. Indeed, the floors provided the main criterion of phasing, with seven episodes, including one substantial one (phase 5). On average, this comes out to maintenance every 20 years.
- *Services*: Room 1680 obviously had no plumbing or wiring, but nonetheless there were installations that related to the usage of the room, specifically a drain for keeping the floors dry and a pair of ovens, one in each part of the room. The soil on the site is fairly clayey and holds rainwater quite well; the whole complex at Skálholt was serviced by a network of inter-connected, sub-floor drains, stone-lined and with stone capping. The drain in room 1680 was remodelled early on, and then may even have fallen into disuse after another short period of time. The ovens, although providing heat, were probably mainly used to process foodstuffs; they too seem to have been repaired or replaced fairly regularly, perhaps every 30–40 years.
- *Space plan*: the organization of space in room 1680 seems to have been very stable over the 150 years of use; essentially divided into two cells by a wooden partition screen with access at the north end, this arrangement was maintained throughout the whole period, and even re-created during the major alterations in phase 5.
- *Stuff*: there is, as is most commonly the case in archaeology, very little evidence of internal, movable furnishings in room 1680. A possible barrel was introduced in phase 3, but no further evidence exists. The best evidence we have for the mobile objects that circulated through and within room 1680 comes from discarded artefactual fragments or losses embedded in the floor layers. The temporality of these is too fine-grained for us to recover and by default, they can only be aggregated into the same 20 year spans as the floors that envelope them.

Discussion of room 1680 in these terms articulates architecture as a polychronic object, in the words of philosopher Michel Serres (Serres and Latour 1995: 60) – an assemblage that enfolds multiple temporalities, because it is itself a multiplicity of things, each with its own rhythms, tempos, speed. I think it is even plausible to talk about *biotemporalities* here, of organic life spans. But to talk in these terms means we also need to extend the way we think about the elements of this building. For the temporality that has been presented here is rather one-dimensional; it charts the different tempos or rates of change for each element, but what it does not do is reveal the dynamic properties of these elements *between* moments of change. It is a model of time that focuses on discontinuity. It is as if the building exists as a series of pauses, interrupted by moments of rupture. What about the temporality of the floor between re-surfacing events? Or of the ovens and drains between remodelling?

Looking through these layers or elements, other tempos are at work. The structure for example may only be repaired every 70–80 years, but in that time, the wood may be slowly (or in the case of phases 5–6, speedily) rotting. The floors need re-surfacing every 20 years or so because they are worn down through constant foot traffic. There is a dynamic of entropy at work here, of attrition that in large part determines the larger tempos of discontinuity. When a floor needs repairing relates to its resistance to entropy in terms of the forces applied against it. The floor, like the timber posts, has a certain life span given by its material properties, which can be lengthened or shortened depending on the forces acting upon it such as water or feet. These

forces or agents are the missing dynamic from this narrative; human bodies, micro-organisms, insects, water, wind, fire. How do we incorporate them into this layered model of the building?

In many ways they belong in the last layer of stuff; it is the hardest to identify archaeologically – or rather the hardest to *temporalize*, archaeologically, but it is nonetheless the material that drives the bio-rhythms of the building. Stuff essentially circulates. It moves around and in and out of the room. People come and go, water and air flows through, meat joints, iron and wooden utensils move back and forth. Stuff is what connects room 1680 to other rooms in the complex – and beyond. It is how room 1680 interacts with its environment, by exchanging substances, objects. It is how we might start to see room 1680 as a truly dynamic entity – as *animate*. And so in the next and final section, I want to explore the idea of bringing room 1680 to life.

Metabolic architectures

In a very critical review of contemporary architecture and architectural practice, the designer Stewart Brand, whose ideas I drew on in the last section, argued that architecture as a profession and discipline has been overly obsessed by how a building looks at the expense of how it works:

The transition from image architecture to process architecture is a leap from the certainties of controllable things in space to the self-organizing complexities of an endlessly raveling and unraveling skein of relationships over time. Buildings have lives of their own.

(Brand 1994: 71)

The performative role of architecture is something that has now been widely acknowledged and explored, as many of the contributions to this volume attest. But what happens if we take this metaphor of performativity as a form of animacy literally? The idea of buildings as animate, in the sense of being alive, is not an issue I want to pursue in any depth here because ultimately it will take my focus away from the main issue at hand – time. I have also explored this idea of animacy elsewhere in relation to Skálholt (Lucas 2013; also see Lucas, 2016). Rather I want to keep my attention on the dynamic aspect of animacy, and how that might be useful to think through the issue of time and architecture. Specifically, I want to think about buildings in terms of circulation and especially, metabolism.

The close connection between the social and biological sciences through the concepts of circulation and metabolism has a long history (e.g. Padovan 2000), but more recently these terms have been used to articulate relations between society and nature in terms of material flows analysis and political ecology (Fisher-Kowalski 1998) or cultural/urban geography (Foster 2000; Gandy 2004; Swyngedouw 1999; 2006), the latter of which often explicitly engage with actor–network theory (ANT) criticisms of the separation of nature and culture (e.g. Latour 1993). Indeed, one of the key aspects of Swyngedouw's work on urban ecologies is to use the concepts of metabolism and circulation to avoid this separation altogether. It is in this spirit that I adopt these concepts in my analysis of building 1680.

I should begin by making an important distinction between circulation and metabolism. Circulation refers generally to the movement of materials within a space, such as blood through our veins or people through a building. The emphasis lies in movement, and typically of a cyclical or repetitive nature. Metabolism however refers largely to the transformation of materials within a space, such as photosynthesis within plant cells or the cooking of food in a pot. Here the emphasis is on material transformation, though one which often utilizes substances that circulate. It involves breaking down substances to harvest energy (catabolism) and using stored energy to synthesize new materials (anabolism). If one thinks about building 1680 and my

earlier discussion of stuff, a lot of this material certainly is in motion (e.g. people, water and air), but not all of it is transformed in the process. Of course this depends on what constitutes transformation – people are undoubtedly changed by their interaction with this room, as is air and water, not least in terms of temperature shifts. However, in this context we need to reserve the idea of transformation in a more substantial sense, as a major re-configuration of material structure, such as a phase transition in the terminology of thermodynamics: water evaporation, fuel burning, food cooking, wood rotting – basic thermodynamic or entropic processes. These constitute true metabolic processes.

The challenge becomes how to use these concepts so that they can connect to the idea of a building as a polychronic ensemble, as discussed in the last section. What is at stake here is developing a sense of temporality for buildings in archaeology that conjoins the idea of time as *change* with the idea of time as *movement*. Even with a more complex, multi-temporal assemblage as was presented in the last section, time was still somewhat one-dimensional, with the temporality of room 1680 presented as a series of changes at different tempos. What I argued for was the need to add dynamism to this picture, a dynamism that motion can bring. This is where the concept of metabolism becomes critical: it combines both motion and change. To illustrate how this idea might work, I want to take up just one example of a metabolic process in room 1680, but one that is in many ways also a central one: the combustion of fuel.

One of the defining features of room 1680 are its ovens (Figure 7.6); they constitute its major organs in terms of metabolism, the creation of fire/heat and embody both catabolic and anabolic processes. Indeed, more generally the service layer of the building (see discussion above) is a key site for these metabolic processes. Based on *in situ* residues in the ovens, rake-outs adjacent to them and the floor material partially made up from the latter, peat and wood were the primary fuel used in these ovens. Introduced into the building as chopped or sawn sections of branches or cut loaves of peat, once ignited they broke down, releasing energy in the form of heat. This energy was then (probably) used to cook foodstuffs, their cellular structure and chemical composition altering in the process. Now if we just leave the discussion at this point, there is perhaps nothing remarkable in any of it. But if we think through the *consequences* of these processes for the building as a whole, it is a different matter. This is what I would like to draw our attention to.

Let us look back to the six building layers I discussed in the previous section. The question is how this process relates to our understanding of the temporality of these layers.

- *Site*: the location of room 1680 is almost, by definition, defined by processes operating at a larger scale and it is hard to see how the burning of fuel in the ovens affects the temporality of this layer at all unless it were to cause a fire which led to a major re-build, something which did happen on the site, but not at this location.
- *Structure*: structural maintenance to the roof-bearing posts are rare, and proximate causes would relate to the integrity of the timber. However, this integrity is itself connected to temperature and especially humidity in the room that control the abundance of fungi and moulds (e.g. Viitanen 1994; Viitanen and Burman 1995) and the presence of three ovens in use at the same time would have made this room potentially much warmer and drier than any other in the complex. Although direct analysis of moisture content and its impact on timbers is impossible in an archaeological context such as this, one can ask whether the number or size of heat sources might broadly correlate with the tempo of structural repairs across the settlement as a whole. This is a question for future testing.
- *Skin*: the frequent maintenance of floors in room 1680 no doubt related mainly to the degree of traffic through the room, especially of people. While the combustion of fuel will



Figure 7.6 The oven installation in the north-east part of building 1680 in phase VII (upper) with a close-up of one of the ovens (lower)

Source: Photos by the author

not necessarily influence this attrition, it is clear that the transformed by-products of combustion – peat ash and charcoal/wood ash – do get used as material in the floor re-surfacings. However, in relation to the previous point, use of ashes on floors was common practice historically in Iceland to absorb groundwater or dampness, acting as a de-humidifier (Milek 2012). As such, not only the heat from combustion but the fuel residue may have also aided in keeping structural timbers in good shape, especially as stone post pads on which the timbers rested became submerged under accumulated floor material.

- *Services*: it has already been mentioned that the ovens acted as the locales for fuel combustion and cooking, two dominant metabolic processes in room 1680. The rate at which these ovens needed repair or replacement will be partly related to the frequency of firings and thus the tempo of this metabolism itself.
- *Space plan*: the organization of space in building 1680 seems to have been more or less unchanged, and like the site itself, this organization was probably unrelated to the combustion of fuel; ovens were located in both rooms/cells throughout the whole period.
- *Stuff*: it is very likely that the combustion of fuel acted as a magnet for a lot of the stuff that ended up circulating in building 1680: the fuel itself as branches and peat loaves, utensils used in cooking, meat and other foodstuffs that were prepared in the ovens, as well as the people who performed the cooking and transport of all these materials. The people – like enzymes – acted as primary catalysts in this metabolic process. As with services, the tempo of the combustion process itself will be linked to the tempo at which stuff circulates – e.g. intensive use of the ovens will require more fuel, etc.

If one tries to draw together these points to create an image of this metabolic pathway for room 1680, an image such as Figure 7.7 emerges. What it reveals is not just the connections between different architectural elements but, more importantly, the fact that these connections have a temporal dimension. The rate of change one observes in elements such as the structural posts, are related to the tempo of the metabolic processes such as fuel combustion. If one were to

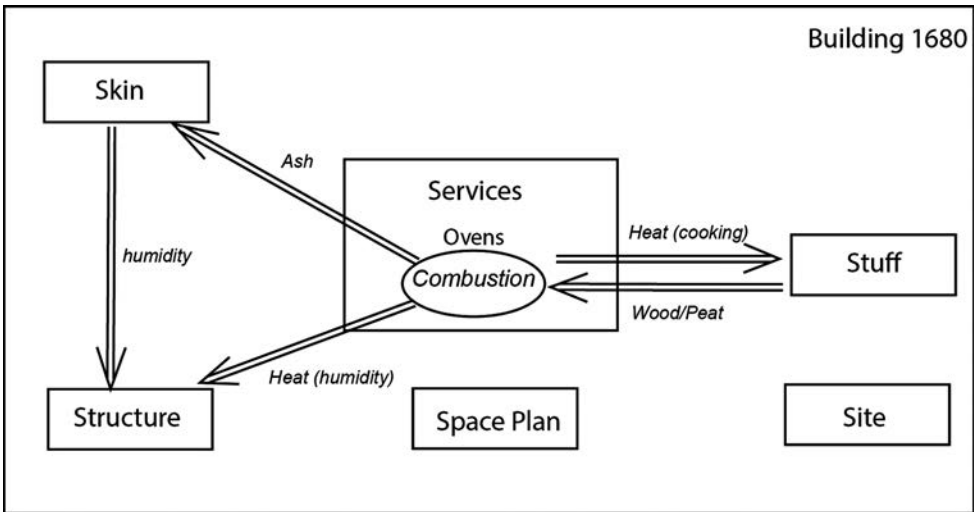


Figure 7.7 Metabolic pathway of combustion for building 1680

Source: Drawing by the author

map all recoverable metabolic pathways for room 1680 in this manner, I think a much richer sense of the temporality of the building can be achieved, one that combines both a sense of movement and change into a single model.

Summary

This paper started with a review of archaeological approaches to architecture, specifically methodological approaches rather than broader interpretive or theoretical frameworks. I suggested there are two dominant ways in which architectural remains are addressed: as deposits, i.e. stratigraphically, and as finds, i.e. typologically. The former is linked to a temporality of sequence/chronology, the latter to a temporality of contemporaneity/synchronism. Through my case study of building 1680 at Skálholt in Iceland, I argued for a model that tried to combine both these approaches, and drew on a multi-temporal or polychronic perspective that considered this building in terms of its architectural elements, each having its own tempo. However, even this resulted in a somewhat impoverished sense of time. In particular, while change was being accounted for in more complex ways, the picture still lacked a feeling of dynamism. Despite having multiple layers, this was still just a series of snapshots.

The missing piece of the picture is movement and it takes us back to the basic Aristotelian coupling of change and movement as co-constitutive of time. Although movement is a potentially wide concept with various applications in archaeology, I focused my attention in this study on movement as circulation and metabolism. By thinking about building 1680 in terms of metabolic processes, as an *animate* entity, I argued that intimate connections can be made between these and the idea of the building as a polychronic ensemble. In short, I attempted to demonstrate, albeit hypothetically, how change and motion can be brought together in archaeological studies of architecture. How metabolism affects periodization.

While it may seem at times as if this study was descending into a kind of architectural physics or kinetics, it is important to emphasize that such studies as this need to be filled out and worked upward. I am certainly not arguing for reducing all architectural change to processes such as burning fuel! Rather, other processes in room 1680 need to be added, and other rooms in the complex also need studying. In some ways, this is a never-ending network, but one that we will always need to cut at some point. An analysis of the whole settlement at Skálholt in these terms would, I believe, actually generate a very rich image of the temporality of the site and one where attempts at explaining change and continuity start from a much more grounded position. One way of looking at this, is a procedure for building an interpretation of the site and its temporality from the bottom-up. From this perspective, my study in this paper is merely the beginning of a much larger project.

References

- Ágústsson, H. 2000. *Íslensk byggingararfleið I*. Reykjavík: Húsafríðunarnefnd ríkisins.
- Brand, S. 1994. *How Buildings Learn*. Harmondsworth: Penguin.
- Buchli, V. 2013. *An Anthropology of Architecture*. London: Bloomsbury.
- Carver, M. 2009. *Archaeological Investigation*. London: Routledge.
- Crawford, O. G. S. 1953. *Archaeology in the Field*. London: Phoenix House Ltd.
- Currie, C. 1988. Time and Chance: Modelling the Attrition of Old Houses. *Vernacular Architecture* 19(1): 1–9.
- Davies, M. 1987. The Archaeology of Standing Structures. *Australian Historical Archaeology* 5: 54–64.
- Davies, M. 1993. The Application of the Harris Matrix to the Recording of Standing Structures. In Harris, E. C., Brown, M. R. and Brown, G. J. (eds). *Practices of Archaeological Stratigraphy*. pp. 167–180. London: Academic Press.

- Eldjárn, K., Christie, H. and Steffensen, J. 1988. *Skálholt. Fornleifarannsóknir 1954–1958*. Reykjavík: Lögberg.
- Fisher-Kowalski, M. 1998. Society's Metabolism: The Intellectual History of Material Flow Analysis I, 1860–1970. *Journal of Industrial Ecology* 2(1): 81–78.
- Foster, J. 2000. *Marx's Ecology: Materialism and Nature*. New York: Monthly Review Press.
- Gandy, M. 2004. Rethinking Urban Metabolism: Water, Space and the Modern City. *City* 8(3): 363–379.
- Grímsdóttir, G. 2006. Biskupsstóll í Skálholti, in G. Kristjánsson and Ó. Guðmundsson (eds) *Saga biskupsstólanna*, pp. 21–427. Bókaútgáfan Hólar.
- Harris, E. 1979. *Principles of Archaeological Stratigraphy*. London: Academic Press.
- Harvey, H. M. 1997. Structures as Stratified Remains: An 'Excavation' of the Structures of the King's Castle, Bermuda, *Bermuda Journal of Archaeology and Maritime History* 9: 1–64.
- Hoskins, W. G. 1991. *The Making of the English Landscape*. Harmondsworth: Penguin.
- Johnson, M. 2007. *The Ideas of Landscape*. Oxford: Blackwell Publishing.
- Johnson, M. 2010. *English Houses 1300–1800: Vernacular Architecture, Social Life*. London: Longman.
- Jónsson, B. 1904. Fornleifafundur í Skálholti 1902. *Árbók hins Íslenska Fornleifafélags* 1904: 20–21.
- Latour, B. 1993. *We Have Never Been Modern*. London: Harvester Wheatsheaf.
- Levine, P. 1986. *The Amateur and the Professional: Antiquarians, Historians and Archaeologists in Victorian England 1838–1886*. Cambridge: Cambridge University Press.
- Lucas, G. 1995. The Changing Face of Time: A Study of English Domestic Clocks from the Seventeenth to Nineteenth Centuries. *Journal of Design History* 8(1): 1–9.
- Lucas, G. 2013. Afterword: Archaeology and the Science of New Objects, in B. Alberti, A. Jones and J. Pollard (eds) *Archaeology After Interpretation: Returning Materials to Archaeological Theory*, pp. 369–380. Walnut Creek, CA: Left Coast Press.
- Lucas, G. 2015. Archaeology and Contemporaneity. *Archaeological Dialogues* 22(1).
- Lucas, G. 2016, in prep. Symbiotic Architectures, in S. Pilaar-Birch (ed.) *Multispecies Archaeology*. London: Routledge.
- Melek, K. 2012. Floor Formation Processes and the Interpretation of Site Activity Areas: An Ethno-archaeological Study of Turf Buildings at Thverá, Northeast Iceland. *Journal of Anthropological Archaeology* 31: 119–137.
- Newton, C. 1851. On the Study of Archaeology. *The Archaeological Journal*, 8: 1–26.
- Ólafsson, G. 2002. *Skálholt. Rannsóknir á bæjarstæði 1983–1988*. Reykjavík: Þjóðminjasafn Íslands.
- Olivier, L. 1999. The Hochdorf 'Princely' Grave and the Question of the Nature of Archaeological Funerary Assemblages, in T. Murray (ed.) *Time and Archaeology*, pp. 109–38. London: Routledge.
- Padovan, D. 2000. The Concept of Social Metabolism in Classical Sociology. *THEOMAI* 2. <http://revista-theomai.unq.edu.ar/numero2/artpadovan2.htm> (accessed 25 October 2015).
- Rodwell, W. 2005. *The Archaeology of Churches* (3rd edn). Tempus: Stroud.
- Serres, M. and Latour, B. 1995. *Conversations on Science, Culture, and Time*. Ann Arbor, MI: University of Michigan Press.
- Simmons, D. M., Stachiw, M. O. and Worrell, J. E. 1993. The Total Site Matrix: Strata and Structure at the Bixby Site. In E. C. Harris, M. R. Brown and G. J. Brown (eds) *Practices of Archaeological Stratigraphy*, pp. 181–197. London: Academic Press.
- Stefánsson, H. 2013. *Af Jörðu. Íslensk Torflús*. Reykjavík: Crymogea.
- Swyngedouw, E. 1999. Modernity and Hybridity: Nature, Regeneracionismo, and the Production of the Spanish Waterscape, 1890–1930. *Annals of the Association of American Geographers* 89(3): 443–465.
- Swyngedouw, E. 2006. Circulations and Metabolisms: (Hybrid) Natures and (Cyborg) Cities. *Science as Culture* 15(2): 105–121.
- Taylor, H. M. 1972. Structural Criticism: A Plea for More Systematic Study of Anglo-Saxon Buildings. *Anglo-Saxon England* 1: 259–273.
- Viitanen, H. 1994. Factors Affecting the Development of Biodeterioration in Wooden Constructions. *Materials and Structures* 27: 483–493.
- Viitanen, H. and Bjurman, J. 1995. Mould Growth on Wood at Fluctuating Humidity Conditions. *Material und Organismen* 29(1): 27–46.

Archaeologies of an informal city

Temporal dimensions of contemporary Andean urbanism

Alison Kohn and Shannon Lee Dawdy

Background: the informal, impermanent city

The term, “informal sector” was first coined by the anthropologist Keith Hart (1973) whose work focused on the economic activities of the non-wage earning urban poor in Accra, Ghana (Mehrotra 2012). “Informal” eventually came to be used across social scientific disciplines to describe the entire socio-political and physical dimensions of cities where life is unstable, the people are poor, and the city itself is patched together illegally by its own inhabitants (Hernandez and Kellet 2010: 1). By contrast, “formal” cities are considered to be physically coherent (i.e. planned), economically stable, and politically regulated by the municipality and the state (Perlman 2010). Formal cities are considered the spaces of forward-looking modernity, while informal urban spaces do not fit such imaginings.¹ In fact, as depicted in Mike Davis’s *Planet of Slums* (2006), they haunt us with a dystopian future.

And while informal cities are finally receiving serious anthropological attention (cf. Fischer *et al.* 2014; Hernandez and Kellet 2010; Holston 2009; Perlman 2010), the social scientific community on the whole presumes a situation in which the majority of the world’s population, dwelling in the autoconstructed urban environment, lives in a state of urban misery, their conditions indexing a crisis of epic proportions.

Brodwyn Fischer (2014: 14) explains that the reason for casual generalization in the face of largely unknown local histories is that informality serves an ideological purpose. She states that:

While poor informal cities are often described, discussed, debated, or deplored, the places themselves are not always the point of the conversation. Slums and shantytowns are magnetic because they disquiet outsiders and contrast so sharply with a normative vision of the modern cityscape. The settlements’ photogenic misery allows them to serve as potent symbols in polemical global debates about poverty, capitalism, race and state failure . . . The symbolic value of informal cities usually lies in their dysfunctionality and capacity for resistance. But poor informal cities largely survive because their inhabitants are so adept at making these places function, in ways that usually link their fates to established networks of power and profit.

Furthermore, this presumption that informal cities are disaster zones, hostile to our modern sensibilities is not new. In Latin America, this discourse has expanded steadily over the last century as each postcolonial nation moved into “international debates about poverty, sanitation, racial degeneracy and urbanism” (Fischer 2014: 14). Collusions with scientific racism and European obsessions with hygiene further contributed to the invention of informal city urbanism as a persistent, identifiable (and growing) social problem. The same problem, unvarying, atemporal.

But it is a mistake to presume that urban informality is a phenomenon of the contemporary world in crisis, without a past and without variation. We do not yet understand the distinct and contingent social, cultural, historical processes that underlie each situation in its distinct national context. And without this understanding, we misinterpret the temporality of these contexts. We wrongly take the informal as always an emergency, always and forever in the present tense (Fischer 2014). The informal is interpreted as having no history, no future, no permanence, no coherent meaning. From an anthropological standpoint, this lacuna in the research can be ameliorated through ethnographic investigations of local experience and approaches to materiality identified with the emergent field in the archaeology of the contemporary (Buchli and Lucas 2001; Graves-Brown 2000; Graves-Brown *et al.* 2013; Harrison and Schofield 2010; Holtorf and Piccini 2011; Nielsen 2011). Indeed, from an archaeological standpoint, it is almost shocking that we should think about informal cities as primarily a modern phenomenon. The archaeological record is replete with autoconstructed cityscapes, in that people often built and added to their own house structures, even if we do not imagine them as “informal.”²

Adopting the archaeological perspective (as opposed to the “anthropology of crisis” lens) can open up the dense opacity of stereotyped informal cities to view them as complex places that can be studied at a variety of spatio-temporal scales, as a kind of controlled excavation. The archaeology of the contemporary is an interdisciplinary approach that focuses ethnographic methods on material-human interactions, regardless of whether the human actors are able to articulate the doxa and praxis that guide this relationship. It also allows a multi-generational perspective that adds temporal dimension to the distorted, flat plane of the ethnographic present. Case studies of auto-constructed sites offer an incredibly rich ground on which to study the relationships between architecture, urbanism and social life. As Latour (2005: 88) notes: “[U]sually, the great advantage of visiting construction sites is that they offer an ideal vantage point to witness the connections between humans and non-humans.” Informal cities are essentially ongoing construction sites, with people building their own houses in stages, over the course of their lives and across generations. This chapter presents the results of ethnographic research carried out from 2001 to the present day, with a focus on the production of informal neighborhoods around the margins of La Paz, Bolivia.

Foreground: La Paz and temporality

The city of La Paz, founded by the Spanish in 1548, sits along a chasm-like valley that falls abruptly from the *Altiplano* (High Plateau) in the central western region of Bolivia. While Bolivia won its independence from Spain in 1825 and La Paz became the administrative capital in 1899, many of its social divisions remained unchanged as an American born European ethnic-class (the Creoles) took over the top of the socio-economic hierarchy. This Creole dominated oligarchy remained in power until the 1950s.

Until the National Revolution of 1952 the city of La Paz was composed of several large haciendas³ surrounding the central colonial core. After the National Revolution, land reforms

in both the countryside and the city resulted in the mass in-migration of rural Altiplano-based Aymara speaking people. The Urban Reform of 1954 resulted in the distribution of the hacienda lands around the city, which were sold cheaply to newly arriving migrants as well as renters from the lower-altitude, more established neighborhoods. Groups of settlers would buy, usually on credit, large pieces of ex-hacienda land. Dividing it into lots, they would sell it to other migrants and renters and then, over time, individually pay down the debt. The consolidation of these newly founded neighborhoods would come slowly over years, with locally elected representatives agitating for municipal services while families carried on both building their own houses as well as participating in the construction of public spaces such as roads, soccer fields, and churches.

The history of La Paz, as in many Spanish colonial cities, is one of Europeans trying to maintain boundaries, both physical and ideological, to separate the urban “civilized” from the “primitive” and rural Indian. But the boundaries never really held. There were always Indians in the city from the beginning. They built the commercial centers in the eighteenth century, managed most of the commerce, and constructed their own urban spaces around the edges of the Spanish city walls (Bustos 2002). These were the spaces of the *castas* or mixed breeds. We know very little about La Paz beyond the Spanish city center in the colonial period because there is barely any written record of it. The informal city housed the people without documentation, just as it does today.

With an irony granted by the passage of time, the “informal” city has come to overwhelm the now tiny “formal” city where the traditional elite and expatriates live (see Figure 8.1).



Figure 8.1 La Paz viewed from above

Source: Photo by Kohn, 2008

Moreover, even the locals recognize that what was only recently a poor, adobe-laden landscape without sanitation now houses some of the wealthiest people in all of Bolivia.

Since the mid 2000s, more extravagant architectural forms have emerged as part of the informal city. In the present day, these have become so spectacular and unique as to have inspired a literature that attempts to comprehend this new Andean aesthetic (see Figure 8.2), also referred to as “cosmopolitan indigeneity,” “*cholo* architecture,” and “Andean urbanism.” (cf. Albo 2006; Albro 2006; Cardenas 2010; Guss 2006; Lazar 2006)

This landscape is anything but temporary, meaningless, acultural, or apolitical. These buildings hold the past, the present, and the future. This present landscape “has always been *multi-temporal*” (Olivier 2013: 169). Archaeologists have recently been revisiting the question of temporality, not just to focus on the perennial disciplinary concern with chronology, scale, and time perspectivism, but rather to question the dominance of teleological and evolutionary models (such as the development of cities, or of a city); to understand cultural alternatives to ‘empty, homogenous time’; and to grapple with overlapping temporalities such as the ‘past in the past’ and the presentism of historical interpretation (Bradley 2002; Dawdy 2010; Harding 2005; Herzfeld 2009; Holdaway and Wandsnider 2008; Ingold 1993; Lucas 2005; Murray 1999; Olivier 2013). One of our aims here is to push this frontier right through the archaeology of the contemporary (which is itself not an unproblematic time frame) and emphasize the *futurity* of cityscapes.



Figure 8.2 New Andean architecture

Source: Photos by Kohn, 2013, 2010

While it is a commonplace to describe both old cities and multi-component archaeological sites as “palimpsests,” the danger of this metaphor is that it does not quite capture the living materiality of place. The connotation of erasure and partial destruction could easily assign the past a passive role or tempt us to think that we can “read” landscapes like a chalkboard.⁴ Most significantly, the palimpsest model is retrospective and fails to elicit the latent and expressed potentialities for the *future* that also contour the lived landscape. Walter Benjamin (1968) insisted that the past can dialectically erupt back into the present through everyday objects and have revolutionary effects, that it does not necessarily simply fade into the background. While being alert to this possibility, we would further suggest that a latent future is embedded in the human manipulation of the environment, a kind of imaginary bricklaying. In fact, the cityscape should itself be read as a map of possible futures and a citation of multiple pasts. Lefebvre’s (1991) famous distinction between conceived, perceived, and lived space looks a bit different when we allow that there are other ways to ‘conceive’ space than through planning and cartography and that ‘lived space’ can include imaginaries of rural and past lives worked into the contemporary cityscape. Conceptions may in fact be sketched three-dimensionally through the incomplete material of the built environment, particularly of the unmapped informal city.

Bringing our concerns with temporality to the preoccupied literature on informal cities, we argue that the opposition between the informal city as improvised-in-the-present and the planned city as formed out of a vision of the future is a false one. Informal cities are also shaped by an imagined future, though at the smaller scale of household architecture and family aspirations.

In order to support this argument, this chapter does three things. First it provides an ethnographic analysis of local representations of the autoconstructed landscape in order to show what it means to the people who live there. Second, it explains the origins and character of the incremental construction processes and life cycle on the basis of the rural context that arrived in the city with the migrants. Third, we discuss some patterns in the changing urban house-form since the 1950s. In doing so we attempt to clarify how houses and social practices dialectically mediate transformations to the city and social life. We conclude by returning to the recent architectural innovations in ‘*cholo* architecture’ to briefly discuss its emergent aesthetic, its temporalities, and future research regarding “Andean Urbanism.”

Alasitas: imagining the future in miniature

Every January 24th during the festival of *Alasitas*⁵ in the city of La Paz, Bolivia, vast colorful markets purvey a wide array of miniature objects; most of the miniatures are highly realistic in form, easily recognizable representations of the actual material culture that makes up the city of La Paz.

There are the tiny replicas of the typical pots and pans used to prepare food in the street markets, even entire miniature shops with all their characteristic products closely resembling those lining the streets of the city, down to the name brands on the goods for sale. One might come across miniscule buses and cars of the styles seen moving *Paceños*, people of La Paz,⁶ from place to place. There are diplomas and certificates for all of the most popular local careers, complete with names of local universities, and suitcases filled with coveted and difficult to obtain passports and visas. Expensive *cholata*⁷ clothing such as *polleras*⁸ and bowler hats⁹ can be found, as well as all kinds of furniture, again, notably, of the styles typical in the local furniture markets. And finally there is of course simply miniature currency (mostly American dollars and Euros)! The term “*Alasitas*” translates from the Aymara as “buy from me,” and it refers both to the holiday as well as to the miniature objects themselves, so you can purchase *alitas* at the *Alasitas* Fair. The festival of *Alasitas* invites *Paceños* to participate in a twofold ritualized act of imagining:

the objects of their aspiration as well as the act of attaining these objects (see Figure 8.3). Once purchased, the miniatures are ritually blessed by a *yatiri*, a priest, or both so that the desired objects or objectives represented may be realized in the coming year. One intends, through the act of purchasing and blessing miniature replicas of one's desires, to increase the chances of actually fulfilling desires in the near future.

Houses, alongside money and cars, are among the most common and popular miniatures; and in this context of fantasy, where less than a dollar can buy the house of one's dreams, one might assume that the most elaborate and expensive types of houses would be the most favored. But in fact, the wide range of architectural options available in miniature is quite similar to that seen in the real landscape of the city itself, from the small adobe dwellings of the sprawling peripheral migrant neighborhoods to the large American-style mansions found in the gated communities of the elite southern zones of the city. And, according to local vendors, the most commonly purchased models tend to be fairly modest. Indeed, people often buy only a simple plot of land with piles of bricks and dirt for future building – a house only in sheer potential. Many even choose to buy the tools for building rather than any kind of house or property at all. There are aisles of kiosks filled with tiny wheelbarrows, construction tools, bags of cement, and piles of bricks. When asked why people would opt to buy tools rather than a complete house, an adobe shack rather than a mansion, merchants and customers explain that people typically purchase what they need for the coming year: where they are in their real-life construction projects determines what they will buy. If they already have tools, they will buy materials; and if they already have tools and materials, then they will likely buy a finished house. The temporality of Alasitas is thus a one-year future, a materialized near-term intention or aspiration. These



Figure 8.3 The festival of Alasitas

Source: Photo by Kohn 2013

miniatures are not unlike the maquettes used by architects to plan formal architecture, in another way underscoring the exaggerated dichotomy drawn between formal and informal design.

Alasitas is taken very seriously in La Paz. The miniature objects, once blessed, can be endowed with real power and are thus not treated as mere amusement or whimsical wishing, but rather, seen as investments in one's actual life. The measured and realistic desires expressed in the purchases means that the chosen objects tell stories about *paceños* – about how they perceive their socio-economic class, what they imagine their lives will be, their progress in this trajectory, and where they would see themselves going if they could be better versions of themselves. *Paceños* make their choices in a measured manner: they may hope for something better than what they already have, but only within the range of what they envision as a realistic trajectory for their lives, which itself indexes a self-reflective notion of their *place* in Bolivian society.

Therefore, the highly systematic approach to acquiring a house in miniature directly reflects central aspects of the nature and meaning of actual house-building in La Paz. For example, with so many tools, one would think the whole population of the city knew how to build. And actually, this would not be far from the truth. The range of house forms at *Alasitas* highlights the fact that house-building in the city of La Paz is an incremental affair, long drawn-out over time. Looking at the array of partially built *alitas* houses for sale, the seemingly neglected and perpetually unfinished landscape of the city takes on new meaning. La Paz's self-constructed landscape of houses, streets, and markets of the non-elite neighborhoods, consists mainly of unpainted, unadorned, and fragmentary residences with their metal skeletons peeking out at every corner, rebar awaiting new floors. Doors float above the ground where they will someday be met by staircases, and piles of *ladrillos* (fired brick) sit outside at the ready, awaiting the moment when construction will continue. But La Paz's houses are not neglected. Quite the contrary: they are fervently cultivated both in imagination and reality; they are dotingly cared for and adorned with architectural contributions from all the members of the household. Much like the masses of rural-to-urban migrants continually arriving in the city, these houses are on a journey. The autoconstructed landscape in La Paz is future oriented, *Paceños* are always imagining the next construction project that will advance the house and, in turn, the lives of the people living inside. Thus the ongoing auto-construction is both a goal and a means in each household's long-term aspirations. In this way, "[t]he present . . . becomes a function of an imagined future moment which is extended backwards in time to ground the current act" (Nielsen 2011: 398). As such, the autoconstructed architecture of the city generates a very organized spatio-temporal logic, individually facilitating a single household's journey while *en masse* impressing itself onto and giving shape to socio-spatial processes of urban expansion in the city of La Paz.

Over the last 50 years the city of La Paz has undergone an extensive expansion. The main features of this urban shift have been the *autoconstruction* of migrant neighborhoods, migrants establishing themselves in urban trades, and migrant aspirations to a distinctive notion of social mobility that itself is a distinguishable product of this recent process of urban growth. Houses and house construction serve as both a means and a critical end-goal in the journey of migration. An apparently finished house provides a sense of legal stability¹⁰ and is a symbolic marker of success; but a house-in-process represents a household in progress, pursuing trajectories in the city that include education, economic success, social and cultural transformation, and political positioning. Recent *Paceño* history is largely about building (see Figure 8.4), and so building is a means as well as a measure of where one is in the city's social hierarchy, an indication of one's distance to life in the countryside, and a marker of one's location on the spatio-temporal trajectory aimed at "becoming urban." Therefore *Paceños'* understanding of their life cycles in La Paz, of their location in the local social hierarchy, is profoundly indexed, reproduced, and transformed through their participation in the production of this built environment.

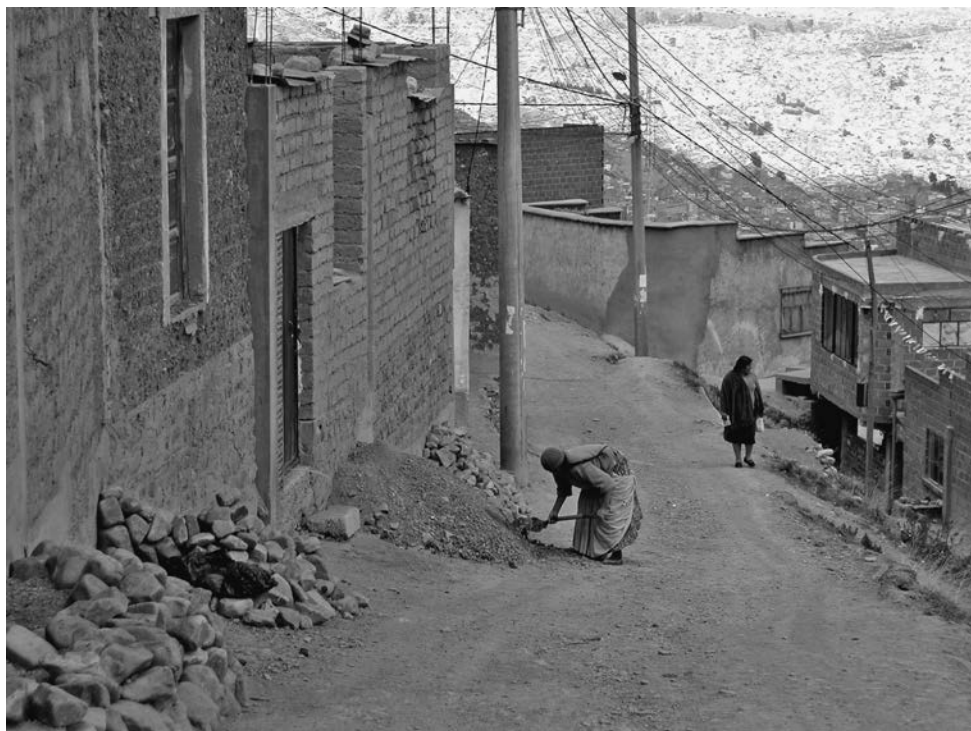


Figure 8.4 Incremental house construction

Source: Photo by Kohn, 2005

The *things* that people choose to buy at *Alasitas*, houses most especially, reveal the powerful interaction between the actual socio-physical landscape of La Paz and people's perception of their place within it. *Alasitas* is a serious business and for *Paceños*, the autoconstructed city is a critical space of transformation – material, social, economic, political, and cultural. The festival makes concrete and obvious the fact that the *image* of the present everyday landscape looms large in defining possible social locations and trajectories; and participating in the further elaboration of this portion of the city's image is the means for moving on these trajectories, for arriving at these imagined futures. It is through the construction of this dynamic new landscape, designed and built by the inhabitants themselves, that *Paceños* both new (first generation rural to urban migrants) and more entrenched (such as second or third generation migrants) create, modify, and extend their economic, political, and social positions. And by these very facts, these transformations of the urban landscape matter not only at the scale of neighborhoods and houses; they also play a major role in re-weaving the socio-spatial tapestry of the city as a whole into a far more complex image than that of only 40 years ago.

Changing house-form: 1950s to the present

The neighborhood where the research referenced in this chapter was conducted, Alto Santa Ana, is located on the vertical north-western canyon periphery, locally referred to as the *laderas* (see Figure 8.5).¹¹ It was first occupied in the 1960s and 1970s. Up until the late 1990s, the

houses looked much like their rural counterparts. However, the late 1990s brought a building boom¹² that radically transformed the city.

Building a house is an integral part of the rural Altiplano life cycle, both at the time of the Revolution in 1952 and continuing today. The post revolutionary migrant neighborhoods of La Paz were built based on this rural construction logic. While houses in the *laderas* were certainly simple in form, each containing little more than one or two adobe rooms (see Figure 8.6), they were in fact systematic material correlates of an old and entrenched spatiotemporal logic of house and household production based on rural traditions. These construction practices take into account not only the culturally specific daily practices that the house is meant to accommodate, but also long-term plans for the economic and social well-being of generations to come.

Andean rural Altiplano houses¹³ tend to be in a compound form, in that they consist of a series of independent buildings arrayed around a central patio. These multi-building structures are usually enclosed by walls that have one or two entrances opening directly onto a central patio. Until recently, all of the buildings have generally been made of adobe walls with stone foundations (though stone walls are also found), but today it is more common for one or more buildings to be constructed of fired brick (*ladrillo*) due to the extension of urban practices into the rural hinterlands. By and large, there are three types of rooms around the patio: *cuartos* (sleeping rooms), storage rooms, and one or more kitchens. In some communities, there are also animal pens that open directly onto the patio, while in others animal pens are kept outside the human occupied compound (see Figure 8.7).

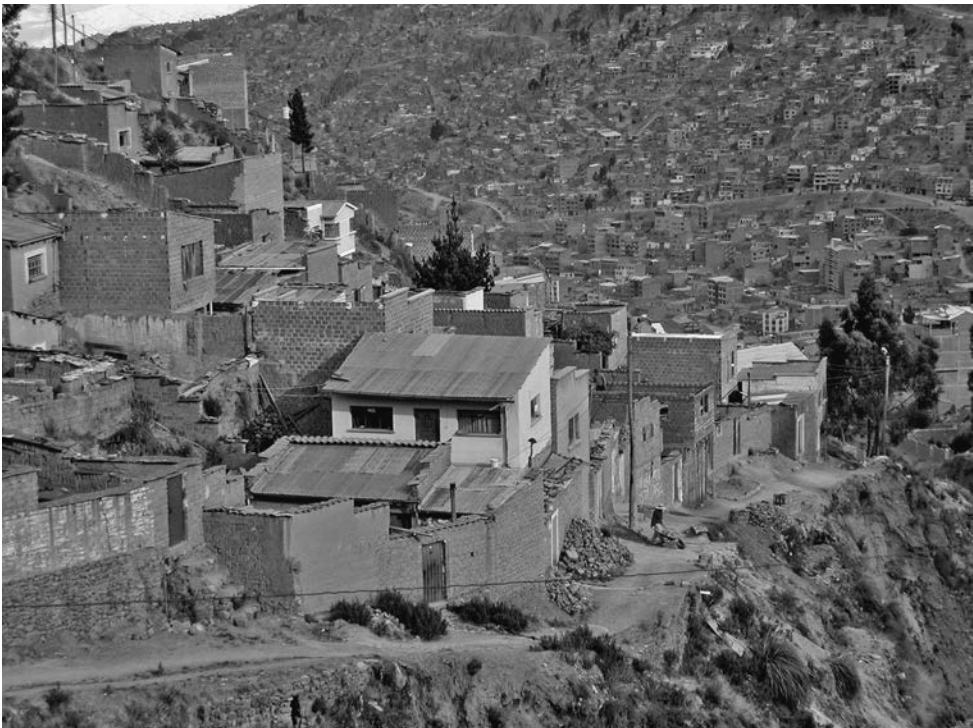


Figure 8.5 Alto Santa Ana

Source: Photo by Kohn, 2007

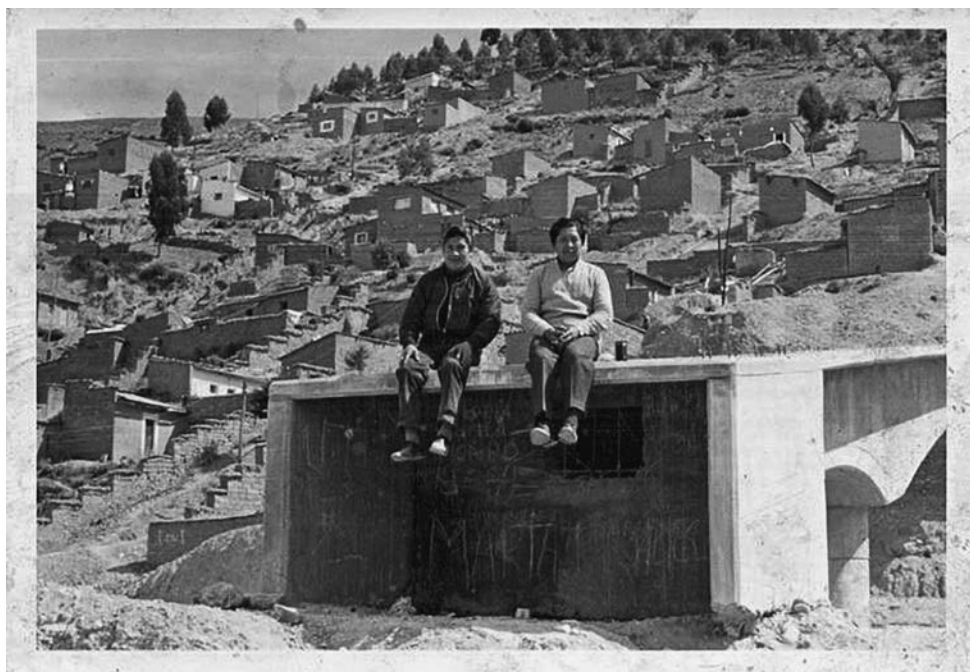


Figure 8.6 Alto Santa Ana c. 1970

Source: Photo provided by neighborhood resident

The word *cuarto* in the Andes does not directly translate to the English dormitory or bedroom. The concept of the *cuarto* is more inclusive, referring to a shared family space, a home, a house even, that always includes a place to sleep. The different functions of the *cuarto* depend on the moment in the life cycle as well as the economic level of the household rather than the room type itself. The *cuarto* is generally where people sleep, but it can be multifunctional, that is, used for work, cooking, storage, and/or socializing. The group of people who make use of a *cuarto* can include a couple, some children, a nuclear family, or even an entire extended family. In sum, this space can accommodate various activities beyond sleeping, depending on a series of other factors.

House compounds tend to have at least one separate building that is the kitchen, but there may be more than one in cases where the children of the founding *pareja* (couple) form a new nuclear family within the same house. In most cases, a subordinate *pareja* will simply keep their hearth inside their *cuarto* rather than build a separate kitchen until their own children are fairly grown. The main kitchen (the kitchen of the founding *pareja*) is the heart of the house. It is much more than what the functional definition implies. This is the central location for household social gathering, and the matriarch of the family will spend a great deal of her time here preparing food and generally directing the household (Canessa 2012; Weismantel 1989). The kitchen is what physically defines a household over and above any other house feature. A couple is only considered independent when it has its own kitchen.

The *patio* also plays a central role in the social life of the house (Johnsson 1986). It is a shared open space literally in the center of the compound, where households carry out much of their



Figure 8.7 Rural Altiplano house

Source: Photo by Kohn, 2004

daily domestic labor, including the spinning of wool, food preparation, and washing. The patio is warm like the kitchen, but only when the sun is shining. Indeed, the sun makes the difference between a bitterly cold, miserable day and a very pleasant warm day on the Altiplano. The outdoors is very much a part of the house; all the rooms open onto the *patio* and the *cuartos* tend to be absent of activity during the day. And, of course, one must move across the *patio* to reach any other location in the house, making it the inevitable meeting place for all compound/household members.

This house form is flexible in that it can be easily added to and transformed as the household's needs change. As children grow up, *cuarto* composition shifts, new *cuartos* are built, and old ones may be torn down or turned into storage. The house is very much an active process, but one that always consists of the central physical elements outlined here: *cuartos*, kitchens, storage, and *patio*.

Changing house-forms in the city: some major patterns

House building on the edges of the city does not represent a radical break with rural origins. In the urban context, migrants begin by building as if they were in their original towns, but the house is modified and elaborated over time. The practice of building becomes bound up with urban politics, class/ethnic distinctions, and the economic demands of the city; but even with all this change, the long-term logic of domestic building practice continues in the city.

Five major structural transformations to the rural Aymara migrant house in the city¹⁴

Early houses in Alto Santa Ana began with a typical rural Altitplano form commonly referred to in the city as *media aguas* (half waters). You can see these house forms in La Paz today, either lingering in their form from years ago or, more commonly, elaborated and changed during later building phases (see Figure 8.8). Moreover, this house form is still the one most commonly built by present-day migrants upon their arrival in the city, particularly in the ever-expanding satellite of El Alto. The *media aguas* form, with its basic kitchen/hearth-*cuatro-patio* structure, constitutes a kind of grammar from which the urban house begins and is elaborated over time.

In Alto Santa Ana, elaboration can involve up to three generations in a house compound, normally two of established households with hearths, and possibly a third generation represented by children under the age of 18. Major structural shifts in house form tend to happen when a house falls under the control of a new generation. In Alto Santa Ana, a pattern of generational structural changes was notable across the entire neighborhood. And this pattern is also seen in the stages of house construction at Alasitas. There is an order and a path to the way people see themselves moving forward into their urban future.

But while there is certainly a pattern to the ways that people transform their houses over time, in everyday practice people do not necessarily use these spaces as they are intended, leading to sometimes awkward, shifting forms and changing social arrangements. That is, the futurity,



Figure 8.8 Different stages of construction

Source: Photo by Kohn, 2007

the imagined transformation of rural life into urban life as seen through house construction, is riddled with failures when confronted with the practices of daily life. Once an aspirational space exists, inherited social roles and embodied knowledges can come into conflict with the new spatial arrangements, so much so as to force changes to either the space or the practice, or indeed both. The critical thing to understand is that these houses are meant to usher in certain kinds of futures by creating spaces that produce such “urban,” “modern” people. In actual practice however, these spatial imaginaries confront real bodies and traditions that can reject them as they have been imagined. In this intersection, new practices and new architectural forms emerge.¹⁵

Although we will show here how patterns of house form transformation suggest an imagined future, in practice they inevitably draw on various pasts. We are able to make these observations because the object of this field research has been change itself. As Latour notes (2005), one way to make objects “talk” is to study them in the making and to follow their associations in practice. This research has been focused on incremental construction over 15 years. By studying construction phases, plans for building, and finally buildings in practice across time, we are able to see how building intentions bear out when confronted with occupant behavior.

1 *Increased segmentation of space and specialization of room function:* While the rural house consisted of a few basic types of multifunctional rooms around a patio, people in the city gradually create more specialized spaces such as living rooms, dining rooms, bathrooms, offices, and special private spaces for children. These spatial differentiations reflect both a separation of existing functions as well as the addition of altogether new functions. Representative of the former, we find the addition of individual bedrooms, whereas distinctive among the latter, urban dwellers are increasingly concerned with giving their children specialized spaces for homework (offices) or for entertaining friends from school (living rooms).

Such specialization of space indexes a desired future for the next generation; the spaces themselves are meant to *produce* educated, urban professionals as they are imagined, people who will have degrees and work in offices, as opposed to performing outdoor labor. In practice, children’s study spaces are often left unused or become repurposed¹⁶ according to everyday needs. Such rooms may morph into workshops, spare kitchens or storage spaces for example. There are clear disjunctions between what is considered ideal or appropriate for urban life, and how already existing practices from the past and economic realities of the present invade and ground such ideas, sometimes changing the house form and/or use.

2 *Internal orientation of house form:* In the original schema of the house form imported from the *campo* (countryside), all rooms opened only onto the central patio, whereas in the later phases of migrant construction, rooms often open onto each other, an internalized structure referred to locally as *vivienda* (dwelling) style or *departamento* (apartment). This internal space is meant for the individual nuclear families to share among themselves. While the patio remains a central feature of any house, one no longer has to cross it to move from room to room and activities are less oriented around it. Instead, it becomes externalized, specialized, and often even located on the roof or as an appendage (see Figure 8.9).

This internalization of space sometimes forces shifts in practices including where people congregate and eat, creating new needs for makeshift solutions to emerge. For example, a household may end up eating apart in separate bedrooms, or together in a preferred bedroom – specifically the ones with more seating and a good television set. Based on the ethnographer’s years of participant observation, the dining room tends to be the most failed space in new houses. Where extended families might have eaten together or washed laundry together on the centralized patio or in the kitchen, they will eschew a dining room. It is a matter of discomfort.



Figure 8.9 Changing patios

Source: Photos by Kohn, 2013

And so the result is a scattering of people both spatially and temporally. An individuating of previously communal practices takes shape.

3 Upward orientation of house furniture and features: While in the antecedent rural practices many household activities were carried out sitting on stools low to the ground or on textiles on the floor, in the city practices move upwards, away from the ground, over time. This ascendant movement is materially facilitated by the addition of furniture such as dining tables and chairs, couches, and countertops. The kitchen in particular has changed significantly from a good-sized, often square-shaped room that facilitates socializing, with architectural features located close to the ground, to a workspace with countertops that requires a standing position and may not fit more than one or two people at a time.

The kitchen has become a confusing space. It cannot accommodate the way food has been prepared in the past. Food preparation involves sitting down while cutting and peeling in the hands. In the observed cases of new standing kitchens, the cutting and peeling process is now taken out of the kitchen so that women may sit somewhere comfortably while they peel and prepare food for cooking. Afterwards, the food is brought back to the kitchen to be cooked over standing stoves. Finally, the cooked food is brought out of the kitchen to be eaten either separately or together in a *cuarto* or on a patio depending on new preferences. But the process of cooking has been broken up and forced out of the kitchen. This leads to a whole series of changes in social interaction that had been previously part of the cooking process.

4 Incorporation of family economy into house architecture: In the migrant neighborhoods most people aspire to a kind of urban dwelling that builds economic survival into the architecture. This is not a common feature in rural architecture, since a large part of the rural economy is located in agricultural fields. In the city, parents have come to see this kind of investment in household business as both commercially savvy in the present and as the central purpose of the house in the future – an inherited form of income for their children. The main income generating features in urban houses are *tiendas* (corner stores), *locales* (salons or party rooms), rental apartment units or individual rooms, and *talleres* (workshops). These economic investments in

architecture become truly grandiose in the commercial centers of La Paz and El Alto, where newly wealthy families construct *edificios* (high-rises) with shopping malls and offices on the bottom floors and apartments above.

While building economic survival into the house itself is not a rural practice, it certainly is an ancient urban indigenous one. The indigenous parts of La Paz were the most commercial parts of the city, and this continues today through house construction. It is also important to consider the centrality of land inheritance to the rural economy. Parents are expected to provide land at least for their male children to support the next generation. In many ways, the house is a translation of this sense of economic responsibility to one's children and future grandchildren.

5 *New aesthetic distinctions*: Over the past ten years, migrant houses have come to be constructed almost exclusively with *ladrillo* (fired brick) rather than the formerly ubiquitous adobe. In fact, almost all of the building materials and adornments that go into domestic architecture have changed significantly in recent years. This is a result of the growth and elaboration of the construction industry and its complicated relationship with the autoconstructed neighborhoods. Apart from the specialized materials used in buildings designed and constructed by professional architects and contractors, the construction industry also now produces prefabricated materials specifically for self-constructed homes, based on the migrants' own preferences and processes. In addition, work in the construction industry is not only a common source of income for migrant men but also a source of expertise that is then applied to their most significant life project: their own home. The construction industry and the autoconstruction of neighborhoods have been dialectically informing and elaborating each other over time.

Most recently, a massive increase in wealth¹⁷ among the urban indigenous has been brought to bear on house projects and the construction industry. This "Andean Architecture" has become a curious spectacle often seen in the international news (the BBC, CNN, the *New York Times* and many others). It is an architecture that captures the imagination as it incorporates new flashy materials and furnishings from China while elaborating creative local motifs that combine futuristic shapes (they are often compared to robots) and ancient symbols (largely from the ancient Altiplano city of Tiwanku) into a new kind of architectural extravagance. Now, there is a whole new aesthetic arena through which individuals' and families' status are measured. They are meant to inspire shock and awe, but also to decolonize the city, to finally claim the urban itself as indigenous space. Today's La Paz illustrates not only that the formal/informal binary is



Figure 8.10 The new extravagance

Source: Photo by Kohn, 2014

unworkable, but that the indigenous and the modern do not mark opposite ends of a spectrum. They emphatically coexist in emergent forms.

Conclusion: building in time

We have argued that, in La Paz/El Alto, urban planning happens largely at the level of the autoconstructed house as it does in so many other so-called “informal” cities. Houses are imagined and planned as a central means to becoming urban, to becoming modern, to becoming successful—socially, economically, politically, and even culturally. The presentist preconceptions that travel with literatures on “informal” cities do not do justice to their multitemporal conceived and lived realities. In La Paz/El Alto, houses are built incrementally in the present but there is an idea of the future that guides each construction phase. Still, even while we argue for the futurity of this urbanization process, no level of urban planning—of designing space for an imagined future—goes unchecked by practice, by pre-existing ways of being and relating to others. Multiple temporalities become visible at the intersections of spatial imaginings and lived experiences. When we follow the creation of buildings into the world of spatial practice this temporal complexity becomes apparent, even to the outside observer.

Informal cities do not just happen. They are cultivated. For people building their own houses across their lives and across generations, housing compounds mediate and reflect their rural past, their present urban tactics, and their future aspirations. The intentionality of future planning at the household scale is made clear in the Alasitas tradition where miniature house forms and building materials do what cartography and zoning does at the larger, formal level. Alasitas is both a planning tool and a conscious discourse on urban practice.

The future is also sketched out in the full-size incompleteness of many household compounds, with *cuartos* and special-purpose rooms awaiting completion. Other temporalities co-habitat in these spaces. The rural Altiplano house provides the basic form, with all its habitual resonances with production activities, gendered spaces, and the household economy. A deep Aymara past is very much present in Alto Santa Ana. The idea that urbanization and the exigencies of informal cities represent an abject rupture with the past can be easily overstated.

The house is also an intergenerational project, central to the production and maintenance of the household. Renovations mark the most important steps in the life cycle—adolescence, marriage, birth, death. A rite of passage that the rural migrant family as a unit undergoes is to become *citizens*, in the old sense of denizens of a city, practitioners of urban life. In La Paz, becoming “urban” is above all experienced through the house project. In fact, urbanization as a socio-material process is *imagined* as a trajectory of stages mobilized through the house project.

While one part of our effort here has been devoted to the project of breaking up the stereotype of the illegible, informal city by revealing the specificity of social-material relations in La Paz, our other ambition has been to push the generalizable idea that cityscapes, including auto-constructed neighborhoods, are multi-temporal. They cite the past while imagining possible futures.

Acknowledgements

Kohn’s ethnographic research has been financially supported by the Wenner-Gren Foundation, Fulbright Hays and Fulbright IIE programs, travel grants from the University of Chicago Latin American Studies Department, the Tinker Foundation, a FLAS Title IV grant, and a Janco Travel Grant. Research assistants Marta Carrasco, Monica Limachi Mamani, and David Jesus Prado were invaluable, as were the families in Alto Santa Ana, whose kindness and generosity

made this research possible. Dawdy would like to acknowledge the intellectual contributions of graduate students in the seminars “Time and Temporality” and “Archaeology of the Contemporary,” as well as the support of the Department of Anthropology, University of Chicago.

Notes

- 1 To be sure, informal cities may have centralized planning offices with varying degrees of involvement in neighborhood and house construction. The point we wish to emphasize is that even in the absence of centralized planning at this smaller, local scale of building, houses are imagined and planned with future generations in mind. They draw heavily on their past, but they are creative, incorporating ideas of the future into the urban landscape under construction. Autoconstruction tends to be considered as a distinct absence of planning. We argue that this is a false dichotomy. Planning is critical to every scale of construction. Centralized planning intersects in a variety of ways with these more local planning processes. But *how* this is so needs to be analyzed on a case by case basis. At present local “informal” planning is left as a kind of black box when it is glossed over as atemporal, acultural, and chaotic. For more on this see Kohn’s dissertation, 2010.
- 2 See, for example, Sheehan’s (2010) discussion of the way Cairo grew from the sixth century BC beginnings, or contributions to two recent volumes comparing ancient cities from China to Africa and medieval Europe: Clark (2013) and Smith (2010). In a well-known article, Joyce Marcus (1983) described a loose typology of Mesoamerican cities that ranged broadly in their degree of formal and informal (or what she calls “natural”) elements. Many exhibit the familiar pattern of a small, planned central ceremonial and administrative “inner city” surrounded by an organic, accretionary “outer city.” Some settlements, such as the Maya city of Dzibilchaltun and Monte Alban she says grew “haphazardly.”
- 3 Haciendas were estates held by a small landholding elite where a *patrón* would allow workers to use a portion of the land in exchange for goods and labor. This was a colonial system that endured until 1953.
- 4 Hoskins (1955) famously developed the palimpsest model of landscape. For critical assessments, see Chouquer 2000, Watteaux 2009.
- 5 Understood in La Paz to be a quintessentially local holiday, today *Alasitas* or the “festival of miniatures” has infiltrated almost all celebratory occasions throughout Bolivia, such that one can now find miniatures that magically fulfill individual desires many times during the year.
- 6 While we use the word “Paceño,” we do not suggest that all people from La Paz behave similarly at *Alasitas*. In fact, throughout this chapter we focus on a particular group of *Paceños* that can be described as rural to urban migrants, largely Aymara speaking, who make up a majority of the population of the city, but certainly not its entirety. The traditional elite (*mestizo-criollo*), while not excluded from *Alasitas*, are not as well represented at this fair, which is considered an urban Aymara festival.
- 7 *Cholita* is the local term for a woman dressed in indigenous attire.
- 8 *Pollera* is the term for the skirts worn as part of indigenous attire.
- 9 Bowler hats, while originally imported from England, have been adopted as part of women’s indigenous attire in La Paz.
- 10 Locally, houses are considered on a spectrum of more or less finished depending on a series of material markers. For example, a house is more finished when the exterior brick is covered over with paint, tile, glass, or other “decorative” materials. Another marker of being finished is a stylized, often pointed roof. Normally, vertical rebar can be seen sticking out at the top floors of houses because future building phases are expected. A pointed roof states that there will be no more building phases.
- 11 “Laderas” refers to the “edges” of the canyon bowl in which La Paz is located, but the term refers to more than spatial marginality in La Paz. It also refers to the historically social, economic, and cultural marginality of the people living there.
- 12 The 1990s building boom was due to a combination of things. For example there was a surge in rural to urban migration due to massive layoffs in the mining sector in the 1980s, as well as extended droughts on the High Plateau. In the city, the construction industry had expanded and building materials were now being mass-produced, making construction much cheaper and easier than before.
- 13 In discussing the most common features of rural Altiplano houses it is not implied that there is an archetypal “Andean” or “*Lo Andino*” that is timeless and invariable. Rather, this description represents the most common rural house form that was imported into La Paz after the 1952 Revolution. The

data is based on descriptions from early inhabitants of Alto Santa Ana as well as comparative ethnography performed in the countryside and previous research (cf. Albo *et al.* 1981; Arnold 1998; Barstow 1979; Bolton and Mayer 1972; Buechler and Buecher 1971; Carter and Mamani 1989; Collins 1986; Harris 1978; Johnsson 1986; LaBarre 1948; Lambert 1977; Mayer 1977; Orlove and Custred 1980; Weismantel 1989).

- 14 Space does not permit the inclusion of individual migrant houses and histories (see Kohn 2010 for such detail). The transformational patterns explained here are based on over two hundred interviews, 20 detailed house histories, ethnohistorical and participant observation and principle data collection from 2001 to 2007, as well as less formal data collected up to the present day (2014).
- 15 We can interpret this scale of planning and spatial practice much like other studies have done regarding large scale urban planning. The most well-known case where a planned city is studied from the intentions of the planners through to the practices of the inhabitants is that of Brasilia with Holston's work (1989). In that case, the city was in some sense retrofitted by inhabitants to support their existing cultural practices and social organization.
- 16 Claims about changing domestic practices are based on Kohn's participant observation across the years of research.
- 17 The sources of this extraordinary new wealth are the subject of hotly contested discourse in Bolivia at present. Most would agree that it comes from a combination of the first indigenous president (elected 2005 and re-elected twice since) Evo Morales's changes to various foreign policies. For example, Morales abolished the North American cocaine eradication programs, he (partially) nationalized the natural gas industry increasing the country's wealth significantly, and he maintained and even expanded certain neoliberal policies that began in the 1990s, such as extensive tax-free imports from China. The direct result of such changes is that the commercial sectors that were already dominated by the indigenous migrant population have amassed great wealth in less than two decades.

References

- Albo, X. 2006. El Alto, La Voragine de Una Ciudad Unica. *Journal of Latin American Anthropology* 11(2): 329–350.
- Albo, X., T. Greaves, and G. Sandoval. 1981. *Chukiyawu. La Cara Aymara de La Paz. 1. El Paso a La Ciudad*. La Paz: Centro de Investigacion y Promocion de Campasinado.
- Albro, R. 2006. Bolivia's "Evo Phenomenon": From Identity to What?. *Journal of Latin American Anthropology* 11(2): 408–428.
- Arnold, D. 1998. *Hacia un Orden Andino de las Cosas*. La Paz, Bolivia: Hisbol/ILCA.
- Barstow, J. 1979. *An Aymara Class Structure, Town and Community in Carabuco*. Dissertation, Chicago, IL: University of Chicago.
- Benjamin, W. 1968. Theses on the Philosophy of History. In *Illuminations*. H. Arendt, ed., pp. 253–264. New York: Schocken Books.
- Bolton, R. and E. Mayer eds. 1972. *Andean Kinship and Marriage*. Washington DC: American Anthropology Society.
- Bradley, R. 2002. *The Past in Prehistoric Societies*. London: Routledge.
- Buchli, V., and G. Lucas, eds. 2001. *Archaeologies of the Contemporary Past*. London: Routledge.
- Buechler, H. and J.-M. Buechler. 1971. *The Bolivian Aymara*. New York: Holt, Rinehart & Winston.
- Bustos, A. C. 2002. *La Paz*. La Paz, Bolivia: Facultad de Arquitectura, Urbanismo y Artes, Universidad Mayor de San Andres.
- Canessa, A. 2012. *Intimate Indigeneities: Race, Sex, and History in the Small Spaces of Andean Life*. Durham, NC: Duke University Press.
- Cardenas, R. 2010. *Arquitecturas Emergentes en El Alto*. La Paz, Bolivia: PIEB.
- Carter, W., and M. Mamani. 1989. *Irpa Chico: Individuo y Comunidad en la Cultura Aymara*. La Paz: Libreria Editorial "Juventud."
- Chouquer, G. 2000. *L'étude des paysages: essai sur leur forme et leur histoire*. Paris: Errance.
- Clark, P., ed. 2013. *The Oxford Handbook of Cities in World History*. Oxford: Oxford University Press.
- Collins, J. 1986. The Household and Relations of Production in Southern Peru. *Comparative Studies in Society and History* 28(4): 651–671.
- Davis, M. 2006 *Planet of Slums*. London: Verso.
- Dawdy, S. 2010. Clockpunk Anthropology and the Ruins of Modernity. *Current Anthropology* 51(6): 761–793.

- Fischer, B. 2014. A Century in the Present Tense: Crisis, Politics, and the Intellectual History of Brazil's Informal Cities. In *Cities from Scratch: Poverty and Informality in Urban Latin America*. B. Fischer, J. Auyero, eds, pp. 10–68. Durham, NC: Duke University Press.
- Fischer, B., B. McCann, and J. Auyero, eds. 2014. *Cities From Scratch: Poverty and Informality in Latin America*. Durham, NC: Duke University Press.
- Graves-Brown, P. M., ed. 2000. *Matter, Materiality and Modern Culture*. London: Routledge.
- Graves-Brown, P. M., R. Harrison, and A. Piccini, eds. 2013. *The Oxford Handbook of the Archaeology of the Contemporary World*. Oxford: Oxford University Press.
- Guss, D. 2006. Introduction: Indigenous Peoples and New Urbanisms. *Journal of Latin American Anthropology* 11(2): 259–266.
- Harding, J. 2005. Rethinking the Great Divide: Long-Term Structural History and the Temporality of Event 2005. *Norwegian Archaeological Review* 38(2): 88–101.
- Harris, O. 1978. Complementarity and Conflict: An Andean View of Women and Men. In *Sex and Age as Principles of Social Differentiation*. J. S. L. Fontaine, ed., pp. 21–41. London: Academic Press.
- Harrison, R., and J. Schofield, ed. 2010. *After Modernity: Archaeological Approaches to the Contemporary Past*. Oxford: Oxford University Press.
- Hart, K. 1973. Informal Income Opportunities and Urban Employment in Ghana. *The Journal of Modern African Studies*, 11(1): 61–89.
- Hernandez, F., and P. Kellet. 2010. Introduction: Reimagining the Informal in Latin America. In *Rethinking the Informal City: Critical Perspectives from Latin America*. P. K. Felipe Hernandez, and L. K. Allen, eds, pp. 1–19. New York: Berghahn Books.
- Herzfeld, M. 2009. Rhythm, Tempo, and Historical Time: Experiencing Temporality in the Neoliberal Age. *Public Archaeology: Archaeological Ethnographies* 8(2–3): 108–123.
- Holdaway, S., and L. Wandsnider. 2008. *Time in Archaeology: Time, Perspectivism Revisited*. Salt Lake City, UT: University of Utah Press.
- Holston, J. 1989. *The Modernist City: An Anthropological Critique of Brasilia*. Chicago, IL: University of Chicago Press.
- Holston, J. 2009. *Insurgent Citizenship: Disjunctions of Democracy and Modernity in Brazil*. Princeton, NJ: Princeton University Press.
- Holtorf, C., and A. Piccini, eds. 2011. *Contemporary Archaeologies: Excavating Now*. Frankfurt: Peter Lang.
- Hoskins, W. G. 1955. *The Making of the English Landscape*. London: Hodder & Stoughton.
- Ingold, T. 1993. Conceptions of Time and Ancient Society. *World Archaeology* 25(2): 152–174.
- Johnsson, M. 1986. *Food and Culture among Bolivian Aymara: Symbolic Expressions and Social Relations*. Stockholm: Almqvist & Wiksell International.
- Kohn, A. 2010. *The Production of Urban Vernacular Space in a Postcolonial Context: City Building and Social Transformation from the Margins of La Paz, Bolivia*. Chicago, IL: Department of Anthropology, University of Chicago.
- LaBarre, W. 1948. *The Aymara Indians of the Lake Titicaca Plateau, Bolivia*. New York: American Anthropological Association.
- Lambert, B. 1977. Bilaterality in the Andes. In *Andean Kinship and Marriage*. R. Bolton and E. Mayer, eds, pp. 1–28. Washington DC: American Anthropological Association.
- Latour, B. 2005. *Reassembling the Social: An Introduction to Actor Network Theory*. Oxford: Oxford University Press.
- Lazar, S. 2006. El Alto, Ciudad Rebelde: Organisational Bases for Revolt. *Bulletin of Latin American Research* 25(2): 183–199.
- Lefebvre, H. 1991. *The Production of Space*. D. Nicholson-Smith, transl. Oxford: Blackwell.
- Lucas, G. 2005. *The Archaeology of Time*. London: Routledge.
- Marcus, J. 1983. On the Nature of the Mesoamerican City. In *Prehistoric Settlement Patterns: Essays in Honor of Gordon R. Willey*. E. Z. Vogt and R. M. Leventhal, eds, pp. 195–242. Albuquerque, NM: University of New Mexico Press.
- Mayer, E. 1977. Beyond the Nuclear Family. In *Andean Kinship and Marriage*. R. Bolton and E. Mayer, eds, pp. 60–80. Washington DC: American Anthropological Association.
- Mehrotra, R. 2012. Foreword. In *Rethinking the Informal City*. 2nd edn. F. Hernandez, Kellet P., Allen, L., eds, pp. xi–xiv. Remapping Cultural History, vol. 11. New York: Berghahn Books.
- Murray, T. 1999. *Time and Archaeology*. London: Routledge.
- Nielsen, M. 2011. Futures within: Reversible Time and House-building in Maputo, Mozambique. *Anthropological Theory* 11(4): 397–423.

- Olivier, L. 2013. Time. In *The Oxford Handbook of the Archaeology of the Contemporary World*. P. Graves-Brown, R. Harrison, and A. Piccini, eds. Oxford: Oxford University Press.
- Orlove, B., and Custred, G. 1980. The Alternative Model of Agrarian Society in the Andes: Households, Networks, and Corporate Groups. In *Land and Power in Latin America*. B. Orlove and G. Custred, eds, pp. 31–54. New York: Holmes & Meier Publishers.
- Perlman, J. 2010. *Favela: Four Decades of Living on the Edge in Rio de Janeiro*. Oxford: Oxford University Press.
- Sheehan, P. 2010. *Babylon of Egypt: The Archaeology of Old Cairo and the Origins of the City*. Cairo: The American University in Cairo Press.
- Smith, M., ed. 2010. *The Social Construction of Ancient Cities*. Washington, DC: Smithsonian Books.
- Watteaux, M. 2009. Settlement and Landscape in English Historical Studies: A French View. *Medieval Settlement Research* 24: 20–30.
- Weismantel, M. 1989. Making Breakfast and Raising Babies: The Zumbagua Household as Constituted process. In *The Household Economy: Reconsidering the Domestic Mode of Production*. R. Wilk, ed., pp. 55–72. Boulder, CO: Westview Press.

Brussels' conflicting constructs

Mark Minkjan and Ingel Vaikla



















The urban condition is characterised by the constant pressure of forces – economic, political, social and cultural – that continuously shape and reshape cities. Urban design and architecture are the most tangible expressions of specific circumstances in a specific location in a specific time. To concretise this abstracted notion of what urban dynamics bring about we take a look at Brussels, which is an epitome of how a place can be affected by its volatile context. Various, constantly changing notions of urban planning have been mercilessly imposed on it over just about 150 years. The result is an eclectic, incoherent and fragmented cityscape that is captivating precisely because of this obscurity. We will explore this by first sketching the dynamics of the appreciation of architecture and the urge for the new, and how buildings and typologies over time can be labelled ‘modern’, ‘outdated’ and ‘historical’, according to the taste of the day. Next, this proposition will be probed by looking at the urban evolution of Brussels and how planning waves influenced the city’s contemporary makeup and its image. Finally, we will reflect on Brussels’ ambiguous physical identity and its qualities.

As circumstances change, the status or state of the built environment changes as well. This can be in a positive way, when buildings evoke pride or nostalgia about a specific history, or when they become exemplars of a cherished typology. In many cases, however, architecture goes through phases of decay, oblivion, stigmatisation or contempt, because it is out of sync with its current context in terms of values and expectations, which are a result of constantly changing societal conditions. This is most common in Western societies, which are driven by notions of progress and a preoccupation with the new – whether in terms of material, layout, economic functions, political representation or beliefs about a functional urban society. This entails constant processes of creative destruction, which makes it difficult for large proportions of cities to overcome decline.

The appreciation of architecture is in many cases cyclical, which can cause problems. There is a thin line between a building or a typology being regarded as outdated, and of

cultural–historical value. Often, a building does not get the chance to get beyond the tipping point from ‘outdated’ to ‘heritage’ phase and is sacrificed to make way for developments that are more financially interesting and aesthetically ‘fitting’ according to dominant taste. And of course, history repeats itself. Sometimes, entire areas become the victim of modernisation and are replaced by new developments. These new projects can be radical alterations to the appearance and the spatial and socio-economic fabric of a city, which themselves – especially when they have been ruthlessly deployed – will at some time be accused of the *urbicide* (Berman, 1982) they committed decades before, or are simply regarded no longer functional or relevant.

Urban oddities

Changing circumstances can make architecture stand out as an anachronism or a remnant of times gone by because it has become outdated – whether in concept, design, materiality or cultural and political connotations. The results are irregularities in the city, often superficially addressed in terms of beauty or despised, but in fact being much more than that. These oddities represent a time-specific context characterised by related values, beliefs, rationales and aesthetics. They form layered historical traces that inform us about the life of a building, a neighbourhood, a city, a nation and the world.

These physical and spatial anomalies (i.e. deviations from the conventional) can be more striking and captivating than the ‘fitting’ or the ‘pretty’, as the latter often consist of the expected and the easily digestible. The ageing, desynchronisation and sacrificing of architecture creates layering, distortion and idiosyncrasy in the urban fabric, which – however frequently referred to as messy, ugly or dysfunctional – can have strong poetic and revealing qualities. It contributes to an unclear image of a city, which can stir an interest in the historical formation and dynamics of the city, as well as deeper emotions, thoughts and spontaneous urges. This stimulating nature asks people to interact with their surroundings, contrary to cities in which urban planning has ‘neutralized’ space, thereby ‘subduing individuals’ and making it hard for them to establish a connection of value with their environs (Sennett, 1991). We would like to argue that Brussels is a city that invites you to engage with it, to get to know it intimately and to try to figure out its obscure character.

Blurry Brussels

Some cities are home to more anomalies than others. In order to illustrate the effect of changing contexts on architectural objects and assemblages, we investigate the city of Brussels. This is a deliberate choice, since Brussels is a complex and fragmented spatio-political configuration that has seen a number of significant spatial changes since the mid-nineteenth century, resulting in new architecture clashing with the older built environment, older architecture turning into peculiarity in its changing context and a city with an increasingly ambiguous identity.

Brussels is a patchwork of mega modernisation projects that imposed uncompromising changes on a city that had grown more or less organically until the mid-nineteenth century. After national independence in 1830, Brussels had to become the symbol of the nation, a showpiece of Belgium’s sovereignty. But since that moment, the city has been subject to more huge spatial disruption in order to realise modern infrastructures, housing, and commercial and administrative functions, all aiming to update it according to prevalent ambitions and urban concepts. To complicate the city’s makeup and identity further, the nation’s federalisation – into three linguistic communities (French and Dutch, and a smaller German portion) and three economic regions (Flanders, Wallonia and Brussels) was an institutional restructuring process that also had severe spatial

consequences. During the latest wave of change, Brussels has become the *de facto* capital of Europe, which has blurred the city's physical and representational image even more.

Naturally, all cities are moulded through conflict, and it is the interaction between their different inhabitants, cultures, systems, social codes and built forms that shape them. However, in Brussels there does not always exist a conflict between the city's different functions and world. Instead, they are often separated, composing an incoherent whole. Be it the federalised national functions that reside in the capital, the Flemish, Walloon, Moroccan, Congolese or European-expatriate communities, the fact that the city-region of Brussels – an area smaller than Amsterdam, Stockholm or Glasgow – is divided into 19 municipalities (and thus has 19 mayors, councils, service managements, *et cetera*) or the various medieval to twenty-first-century urban fabrics: the relation between the city's components is often far from evident.

In many cities, urban spatio-temporal processes – i.e. the way cities have grown over time – can be read to a large extent from their physical image. Brussels' turbulent history since the Belgian state formation, however, has caused conflicting appearances and meanings. Compared to textbook examples of growth, decline and cultural history, Brussels' evolution is difficult to grasp, making it all the more of a captivating and challenging case to try and understand.

Brussels' urban evolution

In order to clarify the contextual shifts that sculpted Brussels as a city, it makes sense to sketch the most prominent historical events that shaped, (re)ordered and complicated Brussels' urban makeup. Although the cultural diversity and the institutional forces also contribute to the city's ambiguous image, we will primarily focus on the city's built appearance and look at how mostly political-economic interruptions have determined Brussels' troubled physical identity. Later, we will shortly reflect on how its cultural and functional diversity is nevertheless echoed by the city's appearance.

Like many other cities, Brussels underwent a massive 'sanitisation' scheme in the nineteenth century. Around three decades after its independence in 1830, many, including its mayor, argued that it was not the symbolic capital the young nation needed. Its core was plagued by deplorable living conditions in poor housing, the river Zenne was an open sewer and it was overcrowded with mostly lower class residents while the more affluent fled the city. Its status had to be improved, both physically and by attracting and retaining the well-to-do. What followed was large-scale expropriation and demolition of the inferior housing stock, the vaulting of the river Zenne and the construction of boulevards and classicist architecture with Paris as its shining example. Spatial restructuring also included the removal of entire working class populations, as happened in many cities in those days (Wagenaar, 1998). The prime (some say megalomaniac) results of this capital-building craze included the gargantuan Palace of Justice and other governmental buildings, the stock market (Beurs), wide boulevards and prominent squares.

A second wave of urban renewal started off just after the turn of the twentieth century, and mainly was about a connection between the northern and southern terminal stations of the city and a new central station to be built entirely underground. Since drilling a tunnel under the existing urban fabric was too difficult and too expensive, an open rail tunnel was dug, causing all the obstacles in its way to have to be demolished before 1930. On top of the tunnel, new roads were constructed. The project, however, was delayed by almost 50 years due to two World Wars and financial and political setbacks. A deep cut blocked all traffic between the well-off 'upper city' and the commercial centre of the southern 'lower city' for decades. Houses had been demolished to make way for the lanes covering the tunnel, only to be flanked by office and administration buildings later and leaving 8,800 residents with no alternative place to go

within the pentagonal city (Brussels' historical core). Interestingly, just as the Zenne vaulting, the north–south intervention went against the east–west orientation of Brussels, which once originated as a shipping hub between Cologne in the east and Bruges in the west. These interventions thus contravened the organically grown fabric of the city.

Brussels' ambition seemed to have no limits. With the 1958 World Expo as a catalyst, modernisation was still the guiding faith that ignited massive urban shifts. The city had to become a modern international capital. These transformation waves – just as the north–south project and the nineteenth century sanitisation – are not in the first place to serve the importance of Brussels as a city of people, but mostly the importance of Brussels as a function: the administrative centre for regional commuters to come to and leave from every day (De Schaepdrijver, 1993). The national political backdrop of the developments (next to the suburbanisation that caused an outflow in many Western cities in the first post-war decades) thus had an important influence on the development of Brussels. An ironic case is that of the State Administrative Centre ('Rijks Administratief Centrum'/'Centre Administratif de l'État'), whose fate depended largely on Belgium's complex state forming. It was to house 14,000 of the state's civil servants, both French- and Dutch-speaking, in one location as a symbol of national unity. Construction of it started in 1958 along Boulevard Pacheco on a large swath of land that had been cleared of a working class neighbourhood. However, the process was heavily delayed due to conflicts of interest and technical problems, leaving an enormous plot of land empty for decades. The centre – a functionalist set building – was finally completed in the late 1980s but due to the gradual federalisation of Belgium, a centralised governmental body was in fact already outdated. During the 1990s several departments started to leave the complex, and in 2003 it was decided to completely abandon the buildings after asbestos was discovered. After a long period of vacancy in which the helpless giant lay knocked out in the centre of the city, renovation of the towers finally started in the early 2010s.

Another uncompromising project was the 1958 Manhattan Plan; 15,000 people were forced out of their homes in Noordwijk, a working-class neighbourhood comparable to Brussels' now-popular Marolles. The area was razed in order to make way for office towers (connected by elevated walkways) and highways. Then the 1973 oil crisis hit and real estate markets changed, bringing the project to a halt, not even halfway finished. Some of the empty plots were filled in the next decades, but to date the area feels too vast and too desolate. In one of the latest realised projects, the 2009 Zenith Tower, none of the 30,000 square metres were rented out in the first two years after completion. Compared to the initial plans promising offices, housing, employment and economic activity, only about half of it has been realised to date.

The latest large urban shock was the settlement of the Eurocrats. Just west of the pentagonal centre, another neighbourhood – sporting art deco, neo-renaissance and beaux-arts architecture – had to be partially destroyed to make way for the European Quarter. The European Parliament building, the European Commission building and other large structures of peculiar scale and postmodern looks, as well as the numerous *brasseries*, restaurants, *traiteurs* and bars, today make the area feel like a separate world, both physically and socially.

Interestingly, Brussels' centralised planning waves of the past 150 years are characterised by changing beliefs and ideals about how to shape the city, all with one thing in common: everything should be tackled on a large scale. Ironically, most of these surges were stranded somewhere halfway, unfinished and suboptimal, only giving rise to further sanitisation and modernisation schemes. In the end, the total result is just about the exact opposite of what many of these modernising and structuring attempts tried to establish. The illusion of control over the evolution of the city through top-down planning is precisely what produced Brussels' raptured cityscape.

Captivating confusion

The developments briefly outlined above depict the city's largest urbanistic and architectural disruptions that contributed to an overall spatial obscurity. The interventions brought new urban worlds and reorganisation, as well as destruction and scar tissue. All the – mostly unfinished – visionary projects combined make a fascinating spatial cocktail with fragments of different times and ideologies next to, and on top of each other. Yes, it resulted in lifeless spaces, disconnected parts, car-centred infrastructure and disorienting streetscapes, but at the same time it produced endlessly fascinating sights, encounters and routings. When you expect Brussels to unfold in a certain way before your eyes as you turn a corner, it does the complete opposite. Architectural styles, infrastructural incisions, construction sites and urban decay emerge where they are least expected, creating eclectic environments and rich scenes.

Although unconventional and at times frustrating, Brussels' eclecticism is poetic and stimulating. It evokes emotions of nostalgia, disbelief, affection and repulsion. The city is a hodgepodge of picturesque seventeenth- to nineteenth-century smaller scale developments, late nineteenth-century grandeur, post-war modernist monstrosity, 1980s comic book post-modernism, 1990s bureaucratic glass and marble, and 2000s corporate blandscapes (expressionless real estate merely functioning as investment vehicle). An interesting effect of this heterogeneous melting pot is that modernist buildings can feel more like anachronisms than in other cities. In some locations there are 1950s to 1970s buildings that come across as historical, while in others they look like recent developments. Brussels is a spatial and architectural adventure that defies common urban logic.

Memory, heritage and branding

A city can be a memorial to its people. Over the centuries that they are constructed and formed, and without the people shaping and living in them being aware of it, they to some extent have the capacity to root their residents in space and time (Choay, 1992). It can be a piece of evidence that extends a community's presence in the past, fixes it in the present and prolongs it into the future (Bevan, 2007). But what if this formation occurs in radical shocks rather than incrementally, and if large parts of the urban constitution that people can relate to are erased? It can be argued that this affects the way people attach to their environment, their city, both individually and on the scale of a population. With Brussels' shattered and inharmonious urban makeup, it is perhaps less likely for a collective sense of place or urban pride to exist.

On the other hand, Brussels is a city with almost half of the residents being of non-Belgian origin, consisting of so many communities divided by language, culture or socio-economic background. Maybe the city's fragmented appearance is the perfect monument to its multi-faceted and fluctuating cultural character. Just think of the thousands of people flowing into the city every day to work at the administrative and corporate offices, or the more than 30,000 working for the European institutions in Brussels, not to mention the journalists, lawyers, consultants, NGOs and lobbyists that subsequently flock to the 'capital of Europe'. Trying to speak of collective memory for a city that is a fluid aggregation of functions and people might be unrealistic.

With such a fragile collective memory concerning urban space, what architecture is worthy of preservation? And what can be erased without notice? Brussels' troubled urban memory is also reflected in its attitude towards heritage. By comparison, the city of Amsterdam, which has fewer residents than Brussels, has about eight times as many buildings with a monument status. One can argue about the pros and cons of a monument status, but it is an indication that Brussels'

relation to its past is a troubled one. What if the city's modernist remnants from the 1960s and 1970s arrive at a moment at which their heritage status has to be determined? Will they be regarded of cultural–historical value to the city they shaped? Or will they be remembered as intruding elements, blamed for the deletion of entire neighbourhoods some five decades ago, and therefore receiving the same treatment, ending up being another part of the urban fabric that did not last?

Judging that Brussels has an identity crisis would not be outrageous. Being the capital of a country with a precarious national consciousness does not help either. The Brusselian cityscape is perhaps a perfect reflection of the city's incomprehensible identity.

Brussels is often portrayed as a city with an unfortunate character. Alternatively, however, this array of images, structures, logics and cultures can be seen as the city's unique quality. It is a blank canvas for associations and actions, contrary to the scripted experience that idealised, precisely branded tourist cities offer. This quality perhaps holds Brussels' authenticity, which at the same time cannot be easily translated into a place brand with characterising iconic urban images. Sure, the city has *Manneken Pis* and the *Atomium*, but these have little to do with its urban feel. However, Brussels' urban jumble can be seen as a unique selling point in the global competition for tourism and high-end industries, in which cities are increasingly fighting each other to be postcard-perfect (while all ending up promoting the same thing). Not having a clear image might prevent Brussels from becoming a superficial caricature of its own image, as is happening to many cities and their iconic districts. The Belgian capital is thrillingly authentic, in a playing field of cities that only confirm tourist guide depictions of easily consumable places and present a 'picturalization of space and time' (Boyer, 1996: 3). Probably a nightmare to its city marketers, but Brussels simply is not postcard-perfect, which is exactly what makes it stand out.

So what's the fuzz all about?

To some, Brussels' indistinct appearance may be a call for further sanitisation, rationalisation and smoothening, because they see smaller or larger parts of the city as inefficient, ugly or outdated. Instead, these characteristics could be considered a valuable asset. As Sven Sterken (2004: 94) expresses, 'Brussels may not exist as one city, but as several, parallel and simultaneous cities. The city's French and English names surely suggest this: "Bruxelles" and "Brussels", plural of the Dutch Brussel?' The city's ambiguity and fuzziness is thought-provoking and appeals to the imagination. Brussels tells (fragmented) stories about the array of ambitions, functions, cultures and disruptions that accumulated in the complex capital over time.

Contrasting historical ideological constructs about urban planning and what a city should look like have superseded one another in a relatively short span of time, making Brussels a physical construction that has become a conflicting assemblage, which also reflects its cultural and political patchwork. The changing conditions with which Brussels has continually had to deal have given it multiple meanings and possible readings, resulting in a sensational city that defies expectations and invites people to explore it and connect with it.

References

- Berman, M. (1982) *All that is Solid Melts into Air: The Experience of Modernity*. New York: Simon & Schuster.
Bevan, R. (2007) *The Destruction of Memory*. London: Reaktion Books.
Boyer, C. (1996) *The City of Collective Memory: Its Historical Imagery and Architectural Entertainments*. Cambridge, MA: MIT Press.

- Choay, F. (1992) *L'allégorie du patrimoine*. Paris: Seuil.
- De Schaepdrijver, S. (1993) 'De stenen spreken tot de geest. Stedebouwkundig ingrijpen in Brussel en de Belgische identiteit, 1850–1970'. *Leidschrift* (9) 2, pp. 93–104.
- Sennett, R. (1991) *The Conscience of the Eye: The Design and Social Life of Cities*. New York: Knopf.
- Sterken, S. (2004) 'Brussels, City in Plural: Some Thoughts Concerning the Image of the Belgian Capital'. In: *Catalogue Argos Festival 2004*, pp. 92–102.
- Wagenaar, M. (1998) *Stedebouw en burgerlijke vrijheid*. Bussum: THOTH.

This page intentionally left blank

Part 2

Atmospheres

This page intentionally left blank

A sense of place

Mikkel Bille and Tim Flohr Sørensen

Certain archaeological remains stimulate affective and emotional response for those engaging them whether archaeologists, local inhabitants or tourists. This affective reaction is not only related to the outcry and devastation that comes in the wake of deliberate destruction of archaeological sites and objects. It also affects the billions of tourists that visit archaeological sites all over the world and become enmeshed in notions of authenticity, knowledge-sharing, economy and nationalism. Such affective encounters are part of a larger ‘experience economy’ (Pine and Gilmore 1999; see also Jensen 1999; Schulze 1992) in which architectural form, both ancient and recent, are active components. As John Urry and Jonas Larsen argue (2011; drawing on Klingmann 2007), this has marked a shift where ‘it is no longer the formal design of a building that determines its quality, but rather its powers of affecting and engaging users, emotionally, bodily and mentally’ (2011: 122). Archaeological sites, particularly those that become tourist attractions, are in this way centrally entangled in the performance of ‘tourist gazing’, and what is most often a heterogeneous tourism space (Edensor 1998).

But what does it actually mean to be affectively ‘moved’ by a building or space? This section explores the ways in which less tangible phenomena such as light, sound and air, are part of the sensuous experience of buildings, and how manipulations of architectural form through the use of lighting technologies, heating and so forth influence the experience of built space.

As illustrated in the introduction, there has been a recent proliferation of studies that deal with people’s atmospheric encounters. Such studies may at one end of the scale be purely philosophical, trying to unravel the epistemological and ontological criteria to make sense of the experience. This may offer the potential for understanding affect in the archaeological record, including the problems of doing so, and how such an affective perspective may improve our understanding of architecture as an atmospheric encounter (Sørensen 2015). On the other end of the scale, atmosphere may also be seen as something purely materialistic, focusing on how light, smell, sound or temperature level may shape a sense of place. In this latter version, architects in particular, have become masters of thinking and using both tangible and intangible elements to frame an experience. Light, for instance, literally becomes a building material.

Albert Speer’s infamous *Lichtdom* – or Light Cathedral – created for the 1936, 1937 and 1938 Nazi party rallies in Nuremberg and for the 1936 Olympics in Berlin, is one such example of building with the intangible. It was ‘fusing one million people to a Gemeinschaft with almost no material structure’, as architect Kari Jormakka (2004: 125–126) describes it.

[One hundred and thirty] beams of light shot straight upwards into the night united into a glowing square to the height of about 5 miles, creating the experience of a vast pillared space. Adolf Hitler was very fond of it, saying that it reached an apex in the art of influencing people.

The case illustrates how even the most intangible phenomena, such as light, may have a profound influence on the way people perceive the world. Different terms may describe such architecture, for example 'ephemeral architecture', but the *Lichtdom* still rested on very solid forms of architectural structure by referring to the cathedral and the tower.

In essence, there may be cases where the orchestration of light in itself shapes an architectural, yet ephemeral, feature. Most, however, often such features emulate existing forms. What is more interesting is the way such intangible and ephemeral aspects actually come to shape architecture, not as something distinct from the architectural form, but integral to it (Bille and Sørensen in press). This integral nature is also part of what makes architecture an affective experience in that light is not something you see, but something you see in. The very notion of architecture in this view is, essentially, about sensuous, ephemeral matter, such as sound, light, smell, humidity, draught, temperature and so on.

On this background, Tim Ingold takes on a key argument from the introduction to this book namely that architecture is first and foremost its atmosphere supported by the solidity of form, yet not restricted to it. Affect, emotions, moods, rhythms, light, air and weather are in essence part of a building as much as, if not more than, the actual walls and ceilings (as also argued by Zumthor 2006). Ingold focuses on air and light, arguing that air, in particular is a forgotten element. This is a problem because air and light intrinsically allow us to connect two different versions of the term atmosphere: the meteorological and the affective one. But merging these two understandings through focusing on air, we may see how the world we inhabit is far from condensed into fixed form. It is, to Ingold, in a continuous flow and becoming, or what he terms a 'weather-world'. Similarly, to see the sky is not simply to see a luminous scattering of radiant energy as the sciences may construct it. Rather, drawing on Merleau-Ponty, Ingold argues it is a way of experiencing the sky from *within*. The cosmic version and the affective version become blended as a perceiving person is drawn into the sky and unified. In essence, then, Ingold critiques notions of architecture that do not rely on the entanglement of form, earth, sky, light air, weather and so on. Architecture is nothing if not atmospheric.

Atmosphere constitutes a particularly long-lived research topic in German academia (e.g. Böhme 1995; Tellenbach 1968; Wiese 1952). Geographer Jürgen Hasse complements this tradition by drawing attention to the vastness of this literature and to the affective aspects of the kind of architecture we may normally simply understand as infrastructure, but nonetheless is architectural through and through. The street, the bridge, the tunnel and the petrol station comes filled with affective properties, anticipations and meanings. Speaking from this research tradition, Hasse draws particularly on Hermann Schmitz to illustrate the way it makes little sense to talk about 'non-affective architecture'. It may not be moving an individual affectively at all times, but integral to the architecture is that the emotional aspects of the users, builders or even stylistic choices of the time are somehow processes in the built space, not as a surplus or excess, but as integral to it.

Taking a slightly different approach, Oliver Harris shows how assemblage theory is more than merely a methodology to describe *becomings*. It also offers the framework for exploring how affective potentials are part of the coming into being of the past, the landscape and the architecture. He examines the assemblage of three different scales of architecture in Swordle

Bay, Ardnamurchan, exploring the interactions between what Latour calls human and non-human agents. He does this by examining the way objects, people, animals, soils, plants and other materials merge and disintegrate in their becoming. By exploring three disparate scales of respectively a nineteenth century house, a Neolithic tomb, and the landscape itself, he shows how temporality, affect and material workings are central to an understanding of the continuous assemblage of architecture. Harris contends that architecture unfolds through the entanglements of multiple elements, even including the landscape as a form of architecture. The three scales also help to emphasise the impossibility of approaching architecture, particularly in archaeology, solely as a stable and fixed form. Different scales are at play in both stabilising and destabilising architecture, and as he correctly points out 'this does not mean that such stability is an illusion – just because something is fabricated does not mean it is false – but it does mean it is an outcome of ongoing assemblage rather than something inherent, fixed or essential'.

Further on, Serena Love also notes the link between architecture and emotions by pointing to Vitruvius' classical work. But what is more pertinent than making that claim, is also to understand how emotional responses are influenced by the very materiality of the built form. Plastic offers a different sensuous encounter from metal. And this is not simply about what *meanings* are attached to the materials, but also the kind of thermal insulation, sonic qualities, reflection and so on offered by particular materials. As anyone who has played a musical instrument will recall, the tiled toilet may offer one type of recording quality, the carpeted room another. The important distinction here is the difference between *what* emotions a room triggers and the fact *that* it triggers emotional responses. Drawing on ethnographic fieldwork on a natural building and recycling workshop in Australia, Love highlights that materials must be experienced to be understood. This points to how certain materials make a space 'feel good' (see also Pink *et al.* 2015), which may offer ways to reclassify materials from, for instance, garbage to a cherished building material. Focusing on the way materials shape the sense of place is also what Gernot Böhme has called 'ecstatic' – the ability of an object to stand out and impose itself onto its surroundings. In this perspective, an object is not something that merely occupies a given geographical space, with clear physical boundaries, but may indeed step beyond these boundaries. This may for instance be by casting a shadow onto other things that are then perceived differently or, as in the case of Love's materials, such as a straw bale as building material, not give off gas and lack toxic compounds. Love thus describes how architects and architectural trends increasingly turn towards the more sensuous aspects of how to make a place 'feel good'. This is in part in response to what has been called the Sick Building Syndrome, where materials quite literally make people who inhabit the houses become ill.

One may at this point speculate how in the archaeological world such ecstatic qualities of materials may have affected the inhabitant or users of buildings. Did the positioning of deceased relatives under the floor of Pre-Pottery Neolithic houses in the Near East (e.g. Croucher 2012; Guerrero *et al.* 2009) have another role than simply the performative and meaningful aspects of generational linkage and mourning strategy? Did it also make the room feel better (or worse)? Did different lighting technologies shorten the lifetime of a person, or make air ventilation more pertinent? Many such questions may be more relevant, or possible to answer for periods closer to the present, but nonetheless Love's study shows the importance of looking at the way spaces *feel*, and by implication, the theoretical potentials of understanding the ecstatic nature of things (Bille 2015; Böhme 1995).

References

- Bille, M. 2015. 'Hazy Worlds: Atmospheric Ontologies in Denmark'. *Anthropological Theory*, 15(3): 257–274.
- Bille, M., and T. F. Sørensen. in press. 'In Visible Presence: The role of light in shaping religious atmospheres' in *The Oxford Handbook of Light in Archaeology*. Edited by C. Papadopoulos and G. Earl. Oxford: Oxford University Press.
- Böhme, G. 1995. *Atmosphäre: Essays zur neuen Ästhetik*. Frankfurt am Main: Suhrkamp.
- Croucher, K. 2012. *Death and Dying in the Neolithic Near East*. Oxford: Oxford University Press.
- Edensor, T. 1998. *Tourists at the Taj: Performance and Meaning at a Symbolic Site*. London: Routledge.
- Guerrero, E., M. Molist, I. Kuijt, and J. Anfruns. 2009. 'Seated Memory: New Insights into Near Eastern Neolithic Mortuary Variability from Tell Halula, Syria'. *Current Anthropology*, 50(3): 379–391.
- Jensen, R. 1999. *The Dream Society: How the Coming Shift from Information to Imagination Will Transform Your Business*. New York: McGraw Hill Professional.
- Jormakka, K. 2004. *Genius Locomotionis*. Vienna: Edition Selene.
- Klingmann, A. 2007. *Brandscapes: Architecture in the Experience Economy*. Cambridge, MA: The MIT Press.
- Pine, B. J., and J. H. Gilmore. 1999. *The Experience Economy: Work is Theatre and Every Business a Stage*. Boston, MA: Harvard Business Press.
- Pink, S., K. Leder Mackley, and R. Morosanu. 2015. 'Researching in Atmospheres: Video and the "Feel" of the Mundane'. *Visual Communication*, 14(3): 351–369.
- Schulze, G. 1992. *Die Erlebnisgesellschaft, Kulturosoziologie der Gegenwart*, 2. Aufl. edition. Frankfurt/Main: Campus.
- Sørensen, T. F. 2015. 'More Than a Feeling: Towards an Archaeology of Atmosphere'. *Emotion, Space and Society*, 15: 64–73.
- Tellenbach, H. 1968. *Geschmack und Atmosphäre. Medien menschlichen Elementarkontaktes*. Salzburg: Otto Müller.
- Urry, J., and J. Larsen. 2011. *The Tourist Gaze 3.0*. London: SAGE.
- Wiese, L. v. 1952. 'Die soziale Atmosphäre'. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 5: 34–38.
- Zumthor, P. 2006. *Atmospheres: Architectural Environments, Surrounding Objects*. Basel: Birkhäuser.

Lighting up the atmosphere

Tim Ingold

Architectures of air and light

Can there be architecture without atmosphere? Can you imagine a building without the air that floods its volumes and circulates in its rooms, without the drafts that betray an open door or window, without the fire in the hearth and the smoke in the chimney, without the light that – at different times of day – illuminates certain surfaces while leaving others in shadow, and without the sounds of its inhabitants as they go about their business, of steps on floorboards, of the scraping of chairs, of the clatter of pans in the kitchen and the chatter of voices in the hall? Can you imagine a building that emits no scent, evokes no mood and harbours no feeling, that stands indifferent to the loves and lives, the births and deaths, the laughter and quarrels to which it bears witness? Strange as it may seem, the history of architecture has largely been written as if its atmospheric component could be disregarded, as though this component were no more than an effluvium that shrouds the essence of the building – an essence that would be better revealed were it filtered out. It betrays an attitude not unlike that of biologists who would wish that their perception of marine fauna were not obscured by the opacity of the sea. For them the sea gets in the way of their apprehension of life-forms. So too, it seems, for architectural historians the atmosphere gets in the way of their apprehension of the forms of buildings.

In this chapter I want to turn the tables on this established prejudice: to argue, in effect, that a building is in the first place its atmosphere, to which solid and immoveable elements add a structure of support, much as in the vertebrate world, the skeleton supports the body. In arguing thus, I aim to reverse an operation I call ‘inversion’ – an operation that inaugurated the modern era. It was inversion that converted the generative fluxes of life and materials that swirl in and around buildings, and that comprise the matrix in which they take shape, into the interior contents of an exterior form. By undoing the operation of inversion, I intend to restore architecture to the atmosphere, to demonstrate that a building is as much a thing of air, light, sound and mood as it is a construction wrought from solidary elements. Thus to the reviewer who remarked, of an earlier version of this chapter, that it is not really about architecture at all but about atmosphere, I respond that a living architecture is nothing if not atmospheric! It is not atmosphere that prevents us from seeing buildings for what they really are, but an exclusive focus on their structures of support, to the exclusion of the flows of energy and currents of life that keep them going. I make no apology, then, for focusing on what follows on the atmosphere. I do acknowledge,

however, that the concept of atmosphere remains a nebulous one and that it cries out for more precise definition.

I will attempt to achieve this through a focus on two phenomena of atmosphere in particular, namely *air* and *light*. One of the effects of inversion, as I shall show, is to convert living, breathing human beings into theatrical personae whose medium is the immaterial ether and whose environment is space. To put this into reverse, the first thing we must do is to refill the environment with air. This is to understand air, however, not just as matter in the gaseous state, as might be described by physics and chemistry, but as the condition of breathing. Air, in other words, is a way of saying 'I can breathe'. But if that is so, then light is a way of saying 'I can see'. The second thing we need to do, then, is to reintroduce light, alongside air, as an atmospheric phenomenon. As I shall show, this means thinking of light in a way very different from that to which we have become accustomed from the science of optics. We have to think of it as beams rather than rays, that sweep the eyes much as the air in its movements brushes the skin. Light, in this sense, is not so different from sound or smell, and indeed I could just as well have chosen to focus on these, or on any other of the countless dimensions of atmospheric experience that we might distinguish for purposes of analysis. I readily admit that my choice to focus here on air and light alone is simply a matter of expediency. In a single chapter, however, there is only so much you can do.

Meteorology and aesthetics

Atmosphere is a word that readily falls from the lips of meteorologists, on the one hand, and aestheticians, on the other. They seem, however, to mean very different things by it. For meteorologists, the atmosphere is the gaseous envelope that surrounds our planet. By this they do not mean the air we breathe, or whose unruly fluxes we experience as wind and weather. For no more than the planetary earth is the meteorological atmosphere part of the world we actually *inhabit*. To inhabitants, the world is given not as a solid globe but as a manifold of earth below and sky above, and it is on or in the ground, where earth and sky mix and mingle, that their lives are lived. The atmosphere of meteorological science, by contrast, belongs to a picture of the world that can only be obtained directly from a point of view located in outer space, as the first photographs of the earth taken from satellites revealed (Ingold 2011: 99–114). For earthbound souls, it is a picture that is given back to us, assembled not only from remote imagery but also from instrumental measurements such as of pressure, temperature, wind-speed and humidity. Where the inhabited world of earth and sky has its *weather*, the global atmosphere has its *climate*: the one is experienced, the other measured and recorded. Regarded as such, however, the atmosphere is wholly removed from the sphere of affect. It plays no part in the moods and motivations of inhabitants, whether human or non-human. It is not something that we or any other creatures *sense*.

For aestheticians, on the other hand, atmosphere is all about sensory experience: it is a space of affect – or in the words of one prominent exponent of atmospheric philosophy, Gernot Böhme, an 'indeterminate spatially extended quality of feeling' (Böhme 1993: 117–118). Yet so far as the philosophers are concerned, this atmosphere may as well be airless. You might say, as they do in Denmark, that candles placed here and there in a room, especially when lit, exude a quality of comfort or cosiness (*hygge*) which casts a magic calm on all who come within their ambience (Bille and Sørensen 2007: 275–276). Or you might speak of the atmosphere of suspense or expectancy cast by a dramatic performance on stage or screen. Geographers and architects have written extensively about the atmospheres of the spaces they either study or create (e.g. Anderson 2009, Ash 2013, Stewart 2011, Thibaud 2002). They are interested in the people

and things to be found there, in their relative dispositions and in the feelings they evoke. They might be interested in the visual, acoustic and haptic qualities of these spaces. But for the most part, they appear to have no interest in the weather. The air and its turbulence are not on their radar.

Thus while meteorology gives us a notion of atmosphere as a gas-filled domain evacuated of all traces of mood and affect, aesthetics gives us what looks like the complementary opposite, a system of affects that appears to exist in a vacuum. Both meteorologists and aestheticians, from their respective sides, are inclined to say that *their* particular meaning of atmosphere is primary, and that the other is merely metaphorical. Their complementarity, however, suggests that the two sides may have more in common than meets the eye. This commonality, I believe, lies in an operation whereby the world is turned in on itself, such that its lines and movements of growth become boundaries of containment. This is what I call inversion (Ingold 2011: 145).

Both the science of meteorology and the philosophy of aesthetics are products of the modern era, and it was above all the operation of inversion that marked its onset. Michel Serres, for example, compares the world that is given to us – in which, when standing, we cast shadows by sunlight and, when seated, stylus in hand, we write our lines – and this same world comprehended as a scene that, through an optical back-projection by way of the black hole of the eye's pupil, is cast as though fully formed, in appearance but not substance – that is as an *image* – in the interiority of the mind. Modernity begins, Serres writes,

when this real world space is taken as a scene, and this scene . . . turns inside out – like the finger of a glove or a simple optical diagram – and plunges into the utopia of a knowing, inner, intimate subject. This black hole absorbs the world.

(Serres 1995: 80)

The wandering shadow and the written line of the ever-composing, worldly being have here been surrendered to vectors of projection that serve to transmit the total composition from a now exteriorised world into the recesses of the mind.

Theatrical inversions

Historical geographer Kenneth Olwig traces this inversion to the theatrical conceits of the early seventeenth century, when the world began to be recreated on stage and viewed through a proscenium arch. This was literally a world brought indoors, and its meteorological effects had to be simulated by means of props and pyrotechnics. Referring to the masques of the pioneering scenographer and architect Inigo Jones, Olwig observes that whereas from classical Antiquity to the Elizabethan era, plays were performed in settings where the actor's shadow would be cast on the ground by the light of the sun, Jones's theatre established

an interiorized landscape in which the use of light and the structuring of space created an illusion of three dimensional space that shot from the black hole of the individual's pupil penetrating through to a point ending ultimately in ethereal cosmic infinity.

(Olwig 2011a: 526)

In effect the arena of theatre, inherited from classical times, was turned *outside in*. Moreover in this inversion, as Olwig shows, air became *ether*: a kind of dematerialised, *as if* air that filled the simulated *as if* space behind the proscenium, where it was breathed not by the actors themselves but by the characters they impersonated. Thus Olivier the man breathes the air, but

Hamlet the character breathes the ether. And while today, of course, the concept of ether is considered obsolete, we are still living with the inversion that gave rise to it. All that has happened is that instead of speaking of ether we now speak of *space*, which has come to mean virtually the same thing (Olwig 2011b: 306).

The effect of early modern theatricals, then, was to turn the celestial world of wind and weather into internally structured space. In the nascent endeavours of architectural design and city planning, however, again masterminded by the irrepressible Jones, this was accompanied by a second inversion, whereby the perspectival space of the interior was once more turned upon the outside (Olwig 2011b: 312–313). In this, the scenic façades of the theatrical set became the exterior facial façades of the theatre building itself and of other similarly ostentatious buildings in its vicinity, while the stage on which the actors played their parts became the now hard-surfaced or paved streets of the city. But critically, this double inversion did not restore the world to how it was before. When the stage and its scenery were taken outside, the stage was still a stage, and the scenery still scenery. On this stage, and before this scenery, urbanites were expected, like actors, to perform their roles. In its fullest extent, the entire world became a stage: on it, as the great philosopher Immanuel Kant was later to observe, ‘the play of our skills proceeds’ (Kant 1970: 257). For Kant, this stage comprises the surface of a solid sphere or globe.

Thus through the double inversion effected by Jones and his contemporaries, inhabitants whose abode had lain *in* a world of earth and sky were cast *out*, exiled to the outward surface of the planetary globe. They became exhabitants, living ‘all around on the outside’, to borrow from one recent characterisation of what is supposed to be the scientifically correct view of the matter (Vosniadou and Brewer 1992: 541). The British astrophysicist Arthur Stanley Eddington, writing in the 1930s, would describe this view as entailing ‘something like a turning inside out of our familiar picture of the world’ (Eddington 1935: 40). It is to replace the earth beneath our feet with Earth the planet, and, by the same token, to replace the air we breathe with the phantasmal ether. This, then, was the view of the world from which both the science of meteorology and the philosophy of aesthetics took their respective bearings. Below, I describe briefly how meteorology, having taken the concept of atmosphere under its wing, renounced the human lifeworld for a globally proportioned science of space. I shall reserve for the next section my discussion of the opposite trajectory, along which the appeal to atmosphere came to signify not the renunciation of the lifeworld but its staged re-enactment. That was the way of aesthetics.

The science of meteorology, of course, took its name from earlier speculation concerning the meaning of those diverse celestial portents, from comets and auroras to thunderstorms and whirlwinds, generically known as ‘meteors’. From the start such speculation was categorically distinguished from the ‘weather-wising’ of farmers and seafarers, preoccupied as they were with more mundane and pragmatic matters of timing in the conduct of everyday tasks. During the early modern period, weather-wising coexisted with a meteorological fascination with aerial prodigies that were read and interpreted as signs of ‘divine concern for the moral fate of mankind’ (Jankovic 2000: 37). But in the wake of the industrial revolution, not only was the wisdom of agrarian and seafaring traditions marginalised, but meteorology was also transformed into a laboratory science, conducted by means of instruments and standardised units of measure (Hill 2012: 150–151). And the key concept of this science was ‘atmosphere’.

Conceived as a laboratory writ large or – as happened with the space of the theatre – turned inside out, scientists were able to treat the atmosphere as a domain in which the vagaries of weather could be subjected to measurement and calculation, and understood in terms of known physical forces acting in accordance with the laws of nature. In effect, as environmental sociologist Bronislaw Szerszynski comments, in their measurements and calculations, scientific meteorologists ‘brought the weather indoors, in an attempt to tame its material and semiotic

unruliness, to subject it to a very particular kind of reading' – one that is 'narrowly technological' (Szerszynski 2010: 21). In this reading, not only was weather subsumed under climate, having been redefined for scientific purposes as its localised instantiations, but air also lost its standing as a constitutive element of the inhabited world of earth and sky – that is, as something that we humans and other beings *breathe*. It became mere matter in the gaseous state, filling the ethereal space of the doubly inverted Kantian cosmos.

Airless moods

At the very same time that meteorologists were assigning the atmosphere to the world of insentient nature, aestheticians – proceeding in the opposite direction – were placing it unequivocally on the side of human consciousness with its feelings, sensations and perceptions. Tonino Griffero sums up a massive corpus of ponderous philosophical writings on this theme with the assertion that 'atmospheres are feelings poured out into space' (Griffero 2014: 108). Thus did the two atmospheres, of meteorology and aesthetics, come to straddle the familiar divisions between nature and humanity, materiality and sensoriality, the cosmic and the affective.

In the latter sense, 'atmosphere' is roughly equivalent to what the philosopher and literary critic Walter Benjamin called 'aura' and the psychiatrist Ludwig Binswanger 'mood space' (Benjamin 2008: 22; Binswanger 1933; see also Griffero 2014: 75–8). Drawing on Binswanger's precedent, in a treatise on *Human Space* first published in 1963, philosopher Otto Friedrich Bollnow set out to show how mood space is ontologically prior to any distinction we might draw between perceiving subject and perceived object. 'Mood', Bollnow wrote, 'is not something subjective "in" an individual and not something objective that could be found "outside" in his surroundings, but it concerns the individual in his still undivided unity with his surroundings'. Every space, Bollnow surmises, has its own atmospheric character that impinges on us and takes hold of our feelings: there are spaces of anxiety that seem narrow and hemmed in, limiting our room for manoeuvre, and spaces of optimism in which, to the contrary, everything easily gives way as if you were flying through the air. These are spaces of volatility (Bollnow 2011: 217).

More recently, Gernot Böhme has drawn directly on Benjamin's concept of aura to expound an aesthetics centred explicitly on the concept of atmosphere. The aura of a thing – for example an artwork – is like a haze that flows forth from it, and that can be 'breathed' by those who come within range. To illustrate what he means, Böhme asks us to imagine a blue cup. Its blue colour is not something (as Kant would have had it) that adheres to the cup, or that is contained within in it, as a thing wrapped up in itself. Rather, the cup's blueness radiates out into the surroundings. Atmospheres, Böhme argues, are spaces tintured by the radiations or ecstasies of things as they pour themselves out into the affective environment (Böhme 1993: 121). Like Bollnow, Böhme grants that atmospheres are in some sense intermediate between environmental qualities and human states. They are nothing, he insists, 'without the sentient subject', and are 'perceived only in subjective experience', and yet 'the subject experiences atmospheres as something "out there", something which can come over us, into which we are drawn, which takes possession of us' (Böhme 2013: 3). They are not, then, free-floating, like a mist into which we might place both things and ourselves. On the contrary, it is from the coming together of persons and things that atmospheres arise: they are not objective yet they inhere in the qualities of things; they are not subjective yet they belong to sensing beings.

What is most striking about this conception of the atmospheric, however, is the virtual disappearance of weather. It is true that in his discussion of 'mood space', Bollnow refers in passing to the influence of weather conditions, noting in particular how they affect our

perception of the closeness or distance of things. Yet the weather is just one of many possible influences, and is not constitutive of mood space *as such* (Bollnow 2011: 218). As for Böhme, while he does at least acknowledge that the term ‘atmosphere’ originated with meteorology, referring to ‘the earth’s envelope of air which carries the weather’, this is but a pretext for setting the aerial dimension largely to one side. For as he goes on to note, the metaphorical extension of atmosphere from the earth’s air to moods that are ‘in the air’ has now become so routine, in all European languages, that the term’s original significance has been all but forgotten. And for his part, he seems content to follow suit (Böhme 2013: 2). While people must have air to breathe, this fact – for Böhme – seems entirely superfluous to the constitution of the atmosphere, which arises from their encounters with one another and with things. It is no wonder that Böhme finds the most precise and paradigmatic instances of atmosphere in the *stage-set*, adding that ‘the art of generating atmospheres mirrors the real theatricalisation of our life’ (Böhme 2013: 6). The connection between the atmosphere of aesthetics and the doubly inverted world of modernity, in which all things are staged – politics, sport, the city, commodities, personalities, the self – could hardly be more explicit!

Of course, Böhme has good reason to speak of feelings, perceptions and sensations. But how – outside of the artificially remodelled simulacrum of the stage set, or of such equivalents as the shop window, the showroom and the museum diorama (Griffero 2014: 143) – can any feelingful encounter take place between persons and things without there being air to breathe? The sphere of affect, it seems, has been entirely divorced from that of the meteorological. To reinstate the union requires nothing less than a second inversion that would *undo* rather than extend or externalise the operation of the first: an inversion that in turning the theatrical box inside out would restore the world’s inhabitants to the fullness of earth and sky. This would yield what Olwig calls an *aerography* that ‘allows people to cast their own shadows in the light of the sky’s sun, and that does not encompass them within a controlled ideal structured ethereal space’ (Olwig 2011a: 529). Perhaps, then, we could once again release the weather from its ‘technological incarceration’ within the cosmic laboratory to which scientific meteorology has given the name ‘atmosphere’ (Szerszynski 2010: 25). In the un-inverted world of real life, immersion in the weather-world is a condition for – and not a consequence of – our existence as sentient beings. In order to arrive at a concept of atmosphere that satisfies this condition, we need to find a sense of the term that is at once *both* affective and meteorological. And our first step in achieving this must be to reintroduce the element of air.

The air we breathe

This is not the air that physics or chemistry specifies by its molecular composition and that could exist perfectly well in the gaseous state without the presence of humans or any other beings to breathe it. It is rather the air that, when we breathe, carries our affective lives as they spill into the world around us, and the shortage of which we experience as suffocation. Indeed one might say that air is the underside of breathing, much as light – as I shall argue below – is the underside of seeing. This is to define both air and light as atmospheric phenomena. With air as I shall show in this section, and light as I shall show in the sections following, atmosphere is neither cosmic nor affective but the fusion of the two.

One way to think about this might be through the example of balloon flight. Here I follow geographer Derek McCormack, in a study that focuses on the ill-fated expedition of the Swedish explorer Salomon August Andrée and his compatriots, who attempted to fly a hydrogen-filled balloon to the North Pole. Noting the opposition between the two senses of atmosphere with which I began, belonging respectively to meteorological science and the philosophy of aesthetics,

McCormack sets out to show how we might be able to bring them together – that is to find a way of rethinking the atmosphere in a sense that is at once *both* affective *and* meteorological. Balloon flight, he suggests, offers a way to do this since it immediately reveals the atmosphere to be ‘a set of dynamic and kinetic affects’, in a world that is never still but continually overtaking itself (McCormack 2008: 414, 418). In the ‘atmosphere’ of scientific meteorology, it would be impossible to *fly* in a balloon. Sure, the science tells us that hot air rises, that hydrogen is lighter than other gases, and therefore that a balloon filled with heated hydrogen will have a strong inclination to lift. It will not tell us, however, what it feels like to fly. But conversely, aesthetics – while it might seek to characterise the ‘mood space’ of volatility – will not get a balloon off the ground. To simulate flight in the ethereal atmosphere of the theatrical stage set, you would have to hang the balloon from a scaffold.

In the real, inhabited world, the balloon affords an *experience* of flight – an experience in which sentient awareness can blend with the turbulence of the aerial medium in a way that is not possible at ground level. We need not go to such lengths, however, to realise that our affective lives are carried in the air, where they mix and mingle as much as they tangle in the paths we weave along the ground. Even indoors, we swim in the air, as do fish in water, responding at every moment to draughts set up in part through our own and others’ actions. One way to see this is to hang a regular party balloon from the ceiling of a room filled with animated conversation. To produce the sounds of speech, air must be contrived to flow through the vocal chords. These flows, created by party-goers in their talk, stir up the air in the room, and cause the balloon to dance. To be sure, the indoor atmosphere is created by the coming together of many people in a convivial space, but only because all partake of, and in turn lend momentum to, the circulatory currents of the medium.

In short, to transcend the opposition between the meteorological and the affective – to make the meteorological affective and affect meteorological – we need to refill the atmosphere with the element of air. And that is at once to acknowledge that the world we inhabit, far from having crystallised into fixed and final forms, is a world of becoming, of fluxes and flows: that is, a weather-world. ‘With our heads immersed in the thickness of the atmosphere or our lungs and limbs engaged with the surrounding winds’, writes environmental philosopher David Macauley, ‘we breathe, think and dream in the regions of the air’ (Macauley 2005: 307). We are indeed creatures of the sky as much as, if not more than, creatures of the earth, and the same is true of the buildings we inhabit (Frampton 1995: 7, Ingold 2013). Not only does the sky give us air to breathe; it also gives us light. Arching over us and supremely indifferent to our varying concerns, the sky is the most unifying of everyday experiences. Yet if we seek to describe it, nothing could be more elusive. It is, indeed, as ineffable as time. Ask me what the time is, Saint Augustine once remarked, and I can tell you; ask me what time is, and I am baffled. So too with weather and the sky: the one I can describe, the other is almost beyond comprehension. How, then, can we describe the indescribable?

Perceiving the sky

In the first volume of his *Modern Painters*, the Victorian connoisseur and critic John Ruskin castigated the ‘old masters’ for the way they would paint the cloud-flecked sky. They would render it, he said, as something you could look *at* but not *through*. It was as though the sky had torn itself from the clouds that had formed as variations within its element, and had receded into a blue homogeneity – a great and distant dome – under which the clouds were suspended like separate bodies. With these painters, Ruskin wrote, ‘you may indeed go a long way before you come to the sky, but you will strike hard up against it at last’ (Ruskin 2004: 12).

So accustomed are we to this painterly convention that we do not object, even though it is utterly confounded by the evidence of our senses. For what this evidence tells us is that the sky has no surface, that a vision once launched into it can plunge ever further without limit, and moreover that far from being of a homogeneous blue, it is a domain of infinite variation: ‘a deep, quivering, transparent body of penetrable air’ – that is how Ruskin describes it – ‘in which you trace or imagine short falling spots of deceiving light, and dim shades, faint veiled vestiges of dark vapour’ (Ruskin 2004: 11–12). Perhaps we could say that the sky is the atmospheric analogue of the crumpled earth whose folds, while they rise up from the ground, remain as much *of* the ground as creases of a sheet remain *of* the sheet. Clouds, likewise, are moisture-laden folds of the crumpled sky. They are *of* the sky, not disconnected objects that hang *in* it. For the sky no more parts with its clouds, receding into hemispheric uniformity, than does the ground from its hills and mountains, only to sink back into a level base.

Now according to the ecological approach to visual perception pioneered by the psychologist James Gibson, the ground is just such a base. On this base, Gibson argued, everything else is mounted like furniture on the floor of a room. And the sky? Gibson supposes that for someone standing on the ground, the sky would appear as a great hemisphere, meeting the ground at the circle of the horizon, in which objects such as clouds and celestial bodies are seen to float. I have enormous sympathy for Gibson’s approach, largely because of his determination to understand how we perceive the world we naturally inhabit rather than the artificial world of the research laboratory: a world, as he puts it, composed of ‘of the earth and the sky with objects *on* the earth and *in* the sky, of mountains and clouds, fires and sunsets, pebbles and stars’ (Gibson 1979: 66, original emphases). But just as I have trouble with his notion of the ground as an isotropic surface that has detached itself from all its features and upon which they appear to stand, so too, his idea of the sky as an empty hemispheric void, in which things such as clouds are seen to hang, seems to fly in the face of what we know from experience. Indeed there is an almost uncanny resemblance between the way Gibson thinks about the sky and the way the ‘old masters’ – at least in Ruskin’s interpretation – painted it.

Clearly, Gibson has a problem with the sky, and it is one that he recognises himself. It all goes back to one of the most fundamental tenets of his approach, namely, that of all the possible things that can be seen, light is *not* one of them (Gibson 1979: 54). What we see, Gibson argues, are things *specified* by the light, not light as such. For example, as you walk around a solid piece of furniture such as a table, the pattern of light reflected from its surfaces, as it reaches your moving eyes, undergoes continuous modulation. Underlying these modulations, however, are certain parametric constants; Gibson calls them ‘invariants’. His contention is that these invariants are sufficient to fully specify the form and texture of the object seen. In this, he is out to refute an alternative view, long ascendant in the psychology of perception, that light is *all* that we see – that perceivers have nothing more to go on than sensations arising from the stimulation of photoreceptors in the retina – and therefore that it is left to the mind to contribute conceptual form to the raw material of sensory input. To perceive a table, for instance, it is necessary to pull from memory an image of ‘tableness’, and to apply it to the visual stimulus which is not, in itself, sufficient to specify the piece that stands before us.

I have no wish to mount a defence of this latter position: it has, in my view, been amply discredited. My concern is rather to bring out an assumption, apparently shared by both sides of the argument, *about what light is*. It is at this point, therefore, that I turn from my first concern, with air, to my second, with light. The challenge is to find a way of thinking about light that neither pares it back to its physical preconditions nor has regard only for its affective consequences. In other words, how can we understand light in a way that unifies the cosmic and the affective: that is, as a phenomenon of atmosphere?

What is light?

Whether we argue (with classical optics) that light is *all* we see, or (with the ecological approach) that we *never* see light, only patterns in the light, our understanding of light remains the same: it is the physical cause, of which retinal stimulation is the effect. In Gibson's own words, it is 'photons or waves or radiant energy' (Gibson 1979: 55). As radiation, it is emitted from a source, as illumination, it lights up our world. Radiation, principally from the sun, becomes illumination by being scattered in all directions, by refraction through particles in the atmosphere (*sensu* meteorological science) and reflection from the mottled and textured surface of the earth. To the extent that the illumination converging on a point is structured, it carries information that specifies features of the environment. Unstructured light, however, specifies nothing: what we see, then, is emptiness.

This, according to Gibson, is precisely what happens when we gaze into the clear blue sky. On lifting one's gaze from the landscape, across the line of the horizon, to the sky, the structured light that specifies the opaque textures and surfaces of the terrain from which it is reflected gives way to the unstructured light that permeates the sky, leading to the perception of a translucent void (Gibson 1979: 48–52). We can now begin to see why the sky, for Gibson, appears so paradoxical. If you cannot see light but only what is specified by the light, and if the light of the sky on a clear day specifies absolutely nothing, then how can you see the sky? In reality, after all, the sky has no surface. It is not a magically radiant, blue-painted dome that encompasses our lives within some giant bubble. To the contrary, it is openness or transparency itself. Nothing is there. But how can we see the sky when there is nothing to see? Indeed Gibson answers his own question, of how one might perceive 'a luminous *field* such as the sky', with this most enigmatic of responses: 'To me it seems that I see the sky, not luminosity as such' (Gibson 1979: 54). The sky is luminous, but to perceive the sky is not to perceive its luminosity! What, we might wonder, is left of the sky once its luminosity has been subtracted? We may as well be out on a pitch dark night, and such, indeed, is the strange conclusion to which Gibson moves. The ambient light of the sky, he admits, is no different from ambient darkness: since it specifies nothing, there is nothing to be perceived. The illuminated sky of the day, like the blackness of the night, is emptiness itself (Gibson 1979: 52).

Now at much the same time that Gibson was wrestling with this problem, finding it hard if not impossible to distinguish between day and night, the philosopher Maurice Merleau-Ponty was also reflecting on the mystery of the sky. I do not believe that Gibson and Merleau-Ponty ever met, but had they done so, and had their conversation turned towards the sky, they would doubtless have agreed that skylight cannot, in itself, be an *object* of perception. To contemplate the blue of the sky, Merleau-Ponty would have remarked, is not to be set over against it as a cosmic subject to cosmic object, nor is it to grasp it cognitively by assimilating the raw material of sensory experience to some abstract idea of blueness (Merleau-Ponty 1962: 214). The sky is not an object of the physical universe, nor is it a concept in the mind of the observer. But their agreement would have stopped there. While Gibson would continue to insist on separating the sky from its luminosity, Merleau-Ponty would respond that they are one and the same. To see the sky, Merleau-Ponty would say, is precisely to experience its luminosity from *within*. 'I am the sky itself as it is drawn together and unified', he declares; 'my consciousness is saturated with this limitless blue' (1962: 214). The luminosity of the sky is thus not so much an illuminative scattering of radiant energy as an affectation of being. And it is precisely in this blending of the cosmic with the affective that the sky is constituted as a manifestation of atmosphere.

Starry night

To grasp the sky's luminosity, however, we will need a different understanding of light. Imagine that you are out with Gibson on a dark night. Up above, stars twinkle in a cloudless sky, while at ground level electric lamps shine through the windows of nearby houses. You see starlight and lamplight, or so you declare. Gibson, however, responds that you do not. 'A single point of light in an otherwise dark field', he says, 'is not "light"; it specifies either a very distant source of light or a very small source, a luminous object' (Gibson 1979: 54). But how can light not be 'light', you ask? To be sure, the stars are very distant, and the lamps very small. You know that because of what astronomers have told us about stars, and because of what everyday life has taught us about lamps. You know, too, that stars do not land on the ground, and that houses do not take off into the sky. For all these reasons, you are unlikely to confuse lamps with stars. Nevertheless, you might be forgiven for confusing both lamps and stars with light.

In the world according to Gibson, it transpires, the stars you witness in the heavens are but specks, 'specified' by the light you do not see. And the lamps you see in the houses are likewise mere bulbs that indicate – among other things – that people are at home to switch them on. In this world, stars hang in the sky but do not shine; lamps hang from ceilings but do not glow. The light is like a messenger that delivers stars and lamps to the doors of your perception, but magically vanishes at the moment you let them in. This conclusion, however, seems utterly at odds with your experience. 'The stars *are* their light', you protest, 'and to see them *is* to see their light'. The stars you see – and you are in absolutely no doubt about this – are not inert specks in the firmament. On the contrary, they *pulse*. That is to say, their light is not merely received as a messenger – a vector of projection – that yields them up as objects of your awareness. Rather, you feel it from within, as an affect. Immersed in the swirling expanse of the night sky, it is as though your mind and body were swept up in the flow, even as you remain rooted to one spot. This is why the stars can be at once infinitely distant and yet touch the soul.

It is not that vision puts the stars within reach so that we might snatch them from the sky like apples from a tree. Nor do we throw out a line to rope them in. Rather, as Merleau-Ponty puts it, vision 'is the means given me for being absent from myself'. To stand in place and open one's eyes upon the night sky is not to extend one's being along a continuum, from near at hand to far away, but to find it split between two poles, one emplaced with the body, the other at large in the heavens, mingling with the stars and flitting like an agile spirit from one to another as the focus of attention shifts. And yet these two poles are really one, for at the termination of their fission, continues Merleau-Ponty, 'I come back to myself' (1964: 186, see also Ingold 2000: 263). Thus fission ends in fusion. We discover, perhaps to our astonishment, that the twinkling stars are our own eyes: that we don't just see them but see *with* them. We are, indeed, star-struck.

Wherever sensing meets the sensible, Merleau-Ponty writes, or wherever our attention is let loose into the world, there is ignited a kind of spark (Merleau-Ponty 1964: 163–164). The night sky glitters with a thousand such sparks that will burn for as long as they glow in our own eyes. This light is not the radiant energy of the physical universe, whether conceived as waves or photons, nor is it some disturbance or agitation of a consciousness imprisoned in that cavernous endo-cranial space behind the eyeballs. It does not travel in straight lines that connect a point source with a recipient. It is no more emitted from a source than it enters the eye. Rather, like a spark, it bursts from the fusion of the two poles of vision, respectively corporeal and celestial, in directions orthogonal to the line of their connection. Every star, then, is not so much a hub from which rays of light fan out in all directions, as a pivot *around and between* which (and other stars) the light seems to swirl, in concert with the swivelling eyes. This swirling

corresponds with the temporal movement of our attentiveness. So long as attention is focused on a particular star, the light revolves tightly around it, but as attention wanders so does the light.

Sunny day

Of course there could be no experience of light without the incidence of radiant energy, or without the excitation of photoreceptors in the retina, but as an *affectation of being* – as the experience of inhabiting an illuminated world – light is reducible to neither. Nevertheless this experience is entirely real. We cannot afford to dismiss it as an illusion any more than we can write off the history of painting as an aberration caused by the overstimulation of excessively susceptible minds (Ingold 2000: 265). Nor, on the other hand, can we deny the reality of blindness for the visually impaired. Light is real for the sighted precisely because it is none other than the spark of vision itself – the birth of visual awareness as it opens up to the cosmos. Thus we stand forever at that sliding moment – rather like riding the crest of a wave – at which the world is on the point of revealing itself, such that the perpetual birth of our awareness is, concurrently, the perpetual birth of the world. It is as though, at every moment, our eyes were opening upon the world for the first time. And in this opening, the visual field – that is, the sky in its entirety – is merged with the field of our attention.

That is why the star, in our perception, sheds its light at once from the core of our being and from the furthest reaches of the cosmos. In the temporal unfolding of our visual awareness, as Merleau-Ponty argued, we are united with the cosmos in the very moment that we are divided from ourselves. Light itself could be regarded as the outcome of this fission/fusion reaction. It simultaneously beams and beckons. It is in just this sense of both beaming and beckoning, or of uniting the affective with the cosmic, that light may be regarded as a phenomenon of atmosphere. In this specific sense, it is neither physical nor psychic. It is atmospheric.

Following your contemplation of the night in the company of Gibson, and a well-earned rest, you rise to discover that the sun is already up, and is shining brightly in an azure sky. Should you attempt to look at it, or at a glossy surface that reflects it, you risk being dazzled or even blinded by its brilliance. Gibson, determined to show that light is the one thing we do not see, acknowledges that this presents something of a challenge to his thinking. The glare and shine of the sun – ‘are these not sensations of light as such?’ he asks, only to answer his own question in the negative. No: what we perceive is a state akin to pain, arising from excessive stimulation of the eyes. This is a fact about the body, not about the world (Gibson 1979: 55). The fact about the world is that the sun is a round object suspended in the sky. As such the sun is delivered to us by its light, but does not actually shine. We see the form and not the light. But once again, Gibson’s conclusion does not accord with your experience. For you, the sun doesn’t just hang in the sky. It, too, both beams and beckons.

To witness the sun is to see by its own light, or in the poetic language of Johann Wolfgang von Goethe, ‘if the eye were not sun-like, it could not see the sun’ (Goethe, in Luke 1964: 282). By ‘sun-like’, Goethe did not mean to imply a relation of formal resemblance, as if to highlight the spherical form common to both suns and eyeballs. His point was rather that the same sun that shines in the sky (the beacon) also shines from our eyes (the beam). It is what we see *with*. Seeing with sunbeams is like feeling the wind: it is an affective mingling of our own awareness with the turbulence and pulsations of the medium in which we are immersed. For the wind, too, twists and turns, forming swirls and eddies. It may come from this or that direction, but the direction is not a point of origin, nor do I register its arrival as a tap on the cheek. Rather, it brushes by my skin on its way to nowhere, and I feel it as I do my own body in its posture

and movement. I take it in and breathe it out again, creating an eddy in its flow. So it is, too, with beams of light.

For this reason, beams are to be distinguished categorically from rays. Rays are emitted from a source and are conventionally depicted as straight lines. But beams curl around and within things; they are never straight. Like the atmosphere to which they belong, beams inhabit the realms of the in-between. And like the wind, sunbeams get inside and saturate our consciousness to the extent that they are constitutive of our own capacity to see, just as the wind is constitutive of our capacity to feel. In this vein, Merleau-Ponty described the relation of sunlight to vision as a kind of symbiosis – a way ‘the outside has of invading us’, and our way ‘of meeting this invasion’ (Merleau-Ponty 1962: 317). Where Merleau-Ponty wrote of symbiosis, however, I prefer the term *correspondence*. To see the sun, as Goethe had insisted, the eyes must already respond to its light. But conversely, the sun can only shine in a world with eyes capable of so responding. Eyes and sun thus co-respond.

The fission/fusion reaction

In his *Bedeutungslehre* or ‘Theory of Meaning’ of 1940, the Estonian-born biologist and founder of biosemiotics, Jakob von Uexküll, argued on these grounds that Goethe’s insight was but half-formed. To complete it one should add the corollary: ‘If the sun were not eye-like, it could not shine in any sky’ (Uexküll 1982: 65). Von Uexküll’s contention was that the sky, and the sun as a celestial light that illuminates the sky, can only exist in the phenomenal world of creatures with eyes. To be sure, were the sun to be conceived in a strictly physical sense, as an astronomical body rent by nuclear reactions, then it could perhaps be said to exist even if there were no creatures to see it, or in its light. This, indeed, was Gibson’s ecological argument: namely, that light needs no eyes to exist; it only needs eyes to establish its *relevance* (Gibson 1966: 222). For von Uexküll, however, the sun in its shining was to be understood not as a physical entity but as a manifest presence in the world of phenomena. And in this sense, just as the eye, as Goethe had observed, can see only by virtue of its correspondence with the sun, so the sun we perceive in the sky, and that lights the world of our experience, can exist only through its essential correspondence with the eye.

With this, we can return to what I have called the *fission/fusion reaction* that drives all perception. Contrary to the Cartesian position – according to which the interior subject, at one with itself but divided from the cosmos, projects its meanings upon the data of sense – our conclusion, following Merleau-Ponty, is that the seer is inwardly at one with the cosmos but divided from himself. This conclusion can be readily verified by means of a simple experiment. Place one finger between your eyes and touch the hard surface of your forehead. Yes, you are definitely still there, and have not yet melted into the ether. But on second thoughts you are not so sure, for you are perplexed to find that in the visual field that finger strikes no surface but rather looms as a ghostly, intruding presence that casts its shadow in the void. How, you wonder, can you be here, in place and at home in your body, and at the same time inhabit an atmospheric world that returns the body to you as a spectre? In that existential doubt lies the engine of perception.

We have found that as the atmospheric product of a fission/fusion reaction, light obeys very different rules from those to which we are accustomed in the science of optics. For one thing, it does not travel in straight lines, as rays, but curls like the sparks of a fire or its wreaths of smoke. For another, it is neither emitted from a celestial source nor registered by receptors in the eye, but follows the temporal correspondence of the seer’s attention as it roams the heavens. It is like the wind. As wind inhabits the body of the walker as he breathes the air, so in fusion,

the star or the sun is *with* me, in my eyes. But in fission, I have escaped from myself and am abroad in the cosmos, in among the elements. I am *with* them – with the sun and the stars, with the sky itself – while my body has become a ghost. In the experience of light, the atmosphere ‘coils over’ – to adopt an evocative expression from Merleau-Ponty (1968: 140) – such that in my own vision the world sees itself through me, even as I breathe in and out.

All tangled up

I began by insisting that there can be no architecture without atmosphere. I have shown how both air and light, in so far as they unify the cosmic and the affective, can be understood as atmospheric phenomena. To conclude, let me close the circle by rendering the atmosphere back to architecture. In a recent study the Japanese architect Akihisa Hirata describes how an Alpine view of pleated mountains swathed in clouds, shot through with beams of sunlight, set him to think of an entangled order in which mountains and clouds draw one another into configurations that cause ever further tangles, yielding a scene of life imbued with unalterable complexity. This complex of earth and sky, of mountains and clouds, Hirata suggests, may nevertheless be encapsulated in an expression of astounding simplicity: ‘Architecture is the creation of tangles’ (Hirata 2011: 17). It is perhaps by thinking of architecture in terms of the entanglement of earth and sky, with their crumples, creases and folds, rather than in terms of solid forms erected on a stage-like infrastructure, that we can begin to see how it can be nothing if not atmospheric.

Just now, from my window, I see the smoke rising from a neighbour’s chimney. I call it ‘smoke’, though what I really see is luminous whitening that comes in wisps that coil and swirl as they meet and mingle with the wind. I see a composition of light and air; forms emerging and dissipating on the fly. Is my neighbour’s chimney, then, part of the assembled architecture of his house? We might presume so. But I wonder whether it might be preferable to think of buildings not as architectural creations in themselves, but as the instruments of creation, machines for the ongoing and never-ending formation of the dwelt-in world. Imagine a history of music that told only of the assembly of its instruments, but from which the music had escaped into the ether. Such, it seems, has been the fate of life in the history of architecture. We need to bring it back.

References

- Anderson, B. 2009. ‘Affective atmospheres’. *Emotion, Space and Society* 2(2): 77–81.
- Ash, J. 2013. ‘Rethinking affective atmospheres: technology, perturbation and space-times of the non-human’. *Geoforum* 49: 20–28.
- Benjamin, W. 2008. *The Work of Art in the Age of its Technological Reproducibility and Other Writing on Media*, eds M. W. Jennings, B. Doherty, T. Y. Levin, trans. E. F. N. Jephcott. Cambridge, MA: Harvard University Press.
- Bille, M. and T. F. Sørensen 2007. ‘An anthropology of luminosity: the agency of light’. *Journal of Material Culture* 12(3): 263–284.
- Binswanger, L. 1933. *Das Raumproblem in der Psychopathologie*. Berlin: Springer.
- Böhme, G. 1993. ‘Atmosphere as the fundamental concept of a new aesthetics’. *Thesis Eleven* 36: 113–126.
- Böhme, G. 2013. ‘The art of the stage set as a paradigm for an aesthetics of atmospheres’. *Ambiances: International Journal of Sensory Environment, Architecture and Urban Space*. <http://ambiances.revues.org/315>. Accessed 24 June 2013.
- Bollnow, O. F. 2011. *Human Space*, ed. J. Kohlmaier, trans. C. Shuttleworth. London: Hyphen Press.
- Eddington, A. S. 1935. *New Pathways in Science*. Cambridge, UK: Cambridge University Press.
- Frampton, K. 1995. *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*. Cambridge, MA: MIT Press.

- Gibson, J. J. 1966. *The Senses Considered as Perceptual Systems*. Boston, MA: Houghton Mifflin.
- Gibson, J. J. 1979. *The Ecological Approach to Visual Perception*. Boston, MA: Houghton Mifflin.
- Griffèro, T. 2014. *Atmospheres: Aesthetics of Emotional Spaces*, trans. S. de Sanctis. Farnham: Ashgate.
- Hill, J. 2012. *Weather Architecture*. Abingdon: Routledge.
- Hirata, A. 2011. *Tangling*. Tokyo: INAX Publishing.
- Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.
- Ingold, T. 2011. *Being Alive: Essays on Movement, Knowledge and Description*. Abingdon: Routledge.
- Ingold, T. 2013. 'The conical lodge at the centre of an earth-sky world'. In *About the Hearth: Perspectives on the Home, Hearth and Household in the Circumpolar North*, eds D. G. Anderson, R. P. Wishart and V. Vaté. New York: Berghahn, pp. 11–28.
- Jankovic, V. 2000. *Reading the Skies: A Cultural History of English Weather, 1650–1820*. Chicago, IL: University of Chicago Press.
- Kant, I. 1970. 'A translation of the introduction to Kant's *Physische Geographie*'. In *Kant's Concept of Geography and its Relation to Recent Geographical Thought*, by J. A. May. Toronto: University of Toronto Press, pp. 255–264.
- Luke, D. 1964. *Goethe*, ed. and trans. D. Luke. London: Penguin.
- Macauley, D. 2005. 'The flowering of environmental roots and the four elements in Presocratic philosophy: from Empedocles to Deleuze and Guattari'. *Worldviews: Environment, Culture, Religion* 9(3): 281–314.
- McCormack, D. 2008. 'Engineering affective atmospheres on the moving geographies of the 1897 Andrée expedition'. *Cultural Geographies* 15: 413–430.
- Merleau-Ponty, M. 1962. *Phenomenology of Perception*, trans. C. Smith. London: Routledge & Kegan Paul.
- Merleau-Ponty, M. 1964. 'Eye and mind', trans. C. Dallery. In *The Primacy of Perception, and Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics*, ed. J. M. Edie. Evanston, IL: Northwestern University Press, pp. 159–190.
- Merleau-Ponty, M. 1968. *The Visible and the Invisible*, ed. C. Lefort, trans. A. Lingis. Evanston, IL: Northwestern University Press.
- Olwig, K. 2011a. 'All that is landscape is melted into air: the "aerography" of ethereal space'. *Environment and Planning D: Society and Space* 29(3): 519–532.
- Olwig, K. 2011b. 'Performance, aetherial space and the practice of landscape/architecture: the case of the missing mask'. *Social and Cultural Geography* 12(3): 305–318.
- Ruskin, J. 2004. *John Ruskin: Selected Writings*, ed. D. Birch. Oxford: Oxford University Press.
- Serres, M. 1995. 'Gnomon: the beginnings of geometry in Greece'. In *A History of Scientific Thought: Elements of a History of Science*, ed. M. Serres. Oxford: Blackwell, pp. 73–123.
- Stewart, K. 2011. 'Atmospheric attunements'. *Environment and Planning D: Society and Space* 29: 445–453.
- Szerszynski, B. 2010. 'Reading and writing the weather: climate technics and the moment of responsibility'. *Theory, Culture and Society* 27(2–3): 9–30.
- Thibaud, J.-P. 2002. 'L'horizon des ambiances urbaines'. *Communications* 73: 185–201.
- Uexküll, J. von 1982. *The Theory of Meaning*, trans. B. Stone and H. Weiner from *Bedeutungslehre* (ed. T. von Uexküll). *Semiotica* 42(1): 25–82.
- Vosniadou, S. and W. F. Brewer 1992. 'Mental models of the earth: a study of conceptual change in childhood'. *Cognitive Psychology* 24: 535–585.

Traffic architecture

Hidden affections

Jürgen Hasse

It is the world's architects, particularly the most zealous among them, who are behind those impressive monuments of steel, glass and brick that ultimately emerge wherever new city halls, opera houses, train stations, museums and the like are planned. Architecture can be an emotionally charged topic, and the aesthetic eccentricity inherent to architectural milestone projects means they are rarely without controversy, even after such structures have become acknowledged landmarks. The public generally experiences architecture as a factor affecting the local surroundings. Constructions that are not lighthouse projects by globally operating architects, affect in their soberness and banality. Particularly functional architecture often lacks an aesthetic dimension, which would be mirrored in a positive attitude on behalf of its users or onlookers. Those works do not fill with enthusiasm, they tend to get lost by being overlooked. Nevertheless, their traces of encounter leave their mark on the unconscious. Similarly, objects of traffic architecture are rarely aesthetically inspiring or even exciting. Still, via their atmospheres they affect our emotions, even if only in a dull and superficial sense.

What are atmospheres?

An atmosphere is the respective mirror of what encompasses us. Therefore atmospheres are also ubiquitous phenomena. They give a feel of what cannot be easily explicated in words. Especially in cities, atmospheres are occasionally subject to rapid change; they are situated next to each other, lie on one another and adhere to places as well as to situations. Some examples of living with and experiencing traffic architecture will discuss aspects of perceiving atmospheres. It should be pointed out what holds true for any phenomenology of places and spaces: phenomenology can and will never document how a particular object is perceived and affectively experienced *in general*. Yet, it can depict in detail possible perspectives and relations in a well-founded manner.

What are atmospheres, what do they communicate and how do they exercise power? The term atmosphere in a scientific sense denotes a fragile climatological layer of gas that surrounds the earth. With regard to the discourse on atmospheres, Tim Ingold critically remarks that 'what is most striking about this conception of the atmospheric, however, is the complete exclusion of weather' (Ingold 2012: 79). The reason for this harsh argument ('complete exclusion') probably lies in the fact that Ingold has only acknowledged the English literature, whereas the discourse

on atmospheres is essentially rooted in German Philosophy. It seems that he has neither taken note of Hermann Schmitz, the founder of arguably the most differentiated phenomenology of atmospheres, nor other relevant theories from the humanities linked to psychiatric phenomenology, such as Hubert Tellenbach and Willy Hellpach (see also below). To be more precise: In his theory of emotions, Schmitz starts out from the bodily felt experience of weather: 'Emotions, like the weather, are experienced as something on the felt body, but not as something belonging to it' (Schmitz 1993: 50). Likewise, he explains the character of emotions on the basis of their '*Windnatur*' (Schmitz 1981: 274) and thereby directly links the experience of climate and weather to the emotional understanding of atmospheres. After all, the whole chapter 'Emotions in bodily felt space'¹ is based on an introductory but very elaborate discussion of 'Emotions and weather',² which also deals with the interaction of climate and weather in the subjective experience.

We also speak of an atmosphere, when a 'surrounding vital quality'³ (Dürckheim 2005: 39) is perceptible as an affective tone of a place. As we breathe the air, feel the temperature, humidity, and wind as powerful impressions, in similar ways, the atmospheres of a city and its built environment envelop us as somewhat cloudy. In that they communicate something about the distinct qualities of a place in a perceptible manner, they tune us to its rhythm. They let us comprehend without words how something is around us. Therefore atmospheres are also indicators of social situations. In such 'display' something is revealed that is not expressed in a visible, countable or a measurable shape, but is still influential and significant. What occurs in a city at certain times and at certain places is often atmospherically perceptible even before something precise can be said about it. Besides the term 'atmosphere' there are a couple of other names that refer to the same thing, such as vapour, climate, ambience, impression, 'beclouding', aura or mood. In a metaphorical sense, I have elsewhere addressed atmospheres as the 'skin of the city' (Hasse 2000: 118; 133). All these terms refer to something that is immediately present and to that which withdraws from asserting itself in the accustomed language.

We can find phenomenologically remarkable references on the nature of atmospheres in Willy Hellpach's *Senses and Soul*⁴ from the year 1946. For instance, Hellpach speaks of a 'weather image'⁵ (Hellpach 1946: 46) and 'sound image'⁶ (ibid.: 64) of a landscape. As in climatological weather, where many situations caused by the 'weather' merge into the weather, likewise many situations, facts and manifestations in city experiences also combine themselves into an atmospheric 'chord'⁷ (ibid.: 61). Contained in it are – apart from the weather and sound images – situation-specific movements, olfactory and shape images that are constantly in motion. One can no more dissolve a chord into individual sounds without destroying it, than one can make a shadow lighter in order to have a better view. That irreversible wholeness, which reverberates in the metaphor of the chord, is intrinsic to each atmosphere. A sentence from Georges Perec substantiates this: 'I love my city, but I would not be able to say precisely what I love about her' (Perec 1974: 80). Those spaces, to which one already has a relationship because one has learned to live with and in them, adhere the atmosphere to recurrent situations.

An atmosphere can transpose us to another world, if it has attuned the subjective state of being in its impressive power. Then, it does not only influence the experience of the actuality around us, but is also reflective of the way one feels in an atmospheric milieu of a space. With the term 'being-in'⁸ (Hellpach 1946: 64), the meaning of which is largely alien to us today, Willy Hellpach spoke of 'being-with' spatial environments. What he meant by it is similar to what Dürckheim expressed with the concept of 'lived space' and which was already not understood by Bollnow, because he was of the opinion that one can only experience a space (cf. Bollnow 1963). Bollnow's nonmetaphorical thinking fails to recognise the potential of the performative dynamics of personal and common situations, yet it is the 'lived' vitality of a city that brings the ever contemporary urbanity forth as a vital quality of space. Because Bollnow only validated

experience as having a theoretically and practically imagined relationship with space, he evaded the characteristic unit of event and action that exemplifies the 'lived space'. In this unit a certain milieu is constituted, that tunes the personal 'being-in' to a 'situational' space and can also simultaneously be understood as an active as well as a passive disposition. The Hellpachian 'being-in' on the one hand has the quality of an experience, but on the other hand it also refers to the 'going into' and 'merging' into something. Thus, both terms have a pathic and not a gnostic emphasis⁹ and represent a perceptive mode of existence in surroundings. In particular, the pathic dimension of the noticeability of atmospheres raises the question of their spatial character: where is the atmosphere while we perceive it? The answers that will be discussed briefly in the following will sometimes vary greatly from each other, depending on the epistemological perspective.

According to the constructivist view, which in present times almost dogmatically directs the thinking of the social sciences, an atmosphere would be a mental image that we project on to the perceived, to then only recognise it again by sensual perception. The 'place' of these mental representations would be inside the brain, in which the reconstruction of physiologically abstract and intrinsic-bodily construction processes would shed light on the course of neuronal processes. However, simple examples such as the following by Hellpach on sensual perception of the quality of air are already indicative of the limitations of such abstract and simplistic thinking:

Prior to heavy snowfalls the air often has a strange 'harshness' and thereby a 'leadens', namely, a 'heavy' oppressive character; after the snowfall it is perhaps much colder, yet it now has a 'stimulating' effect, 'like champagne', almost 'sparkling', invigorating.

(Hellpach 1946: 62)

It is evident that here the concern is not on projections, but on sensually interrogated, bodily felt impressions of climatological characteristics of air that transmit themselves synaesthetically into an emotional weather-experience. In experiencing urban atmospheres, it should principally not be overlooked that also (and often especially) images and ideas mediated by mass media are 'seen into' the atmosphere. Thus, especially in the domain of social atmospheres, (constructed) attributions of identity are related with such identifying features that constitute themselves currently and situationally (cf. Böhme 2001: 89).

In the phenomenological view, organic formation of ideas in the cerebrum (those extracted from every conscious experience) would not matter as much as the understanding of bodily felt atmospheric contacts. Gernot Böhme, who in his approach to atmospheres relies on Hermann Schmitz's ideas, speaks of atmospheres as 'in-between phenomena'¹⁰ (ibid.: 55) that cannot be fully attributed to the side of a subject, nor can be completely assigned to an object (cf. ibid.). Since the idea of the 'interspatial' nature of atmospheres, considering at least the potentially powerful communicative dynamics of atmospheres, appears too indifferent to me, I would like to describe the atmospheric space in a procedural sense as a 'switching space' that transmits the perceptibility of a space into the situative experiencing of being-with (the space). In this manner, atmospheres in an ephemeral sense are part of our surrounded actuality – as an expression of the objectively given, to which we can subjectively relate ourselves. Unlike Böhme, Hermann Schmitz understands atmospheres as spatially extended feelings that are neither to be found 'inside' subjects nor in the 'in-between' sphere, but that lie on the object-side, so that individuals can emotionally relate to them. Such relatedness-with includes the possibility of identification as well as dissociation. 'Thus, one has to distinguish between two meanings of "feeling": feeling as perceiving an emotion as an atmosphere and feeling as an emotional affectedness thereof' (Schmitz 1993: 47).¹¹

Going forward, I will use four examples to illustrate the many ways in which architecture is experienced emotionally in its utilisation and even 'functions' in a mythical sense via its

emotional effect. It may seem unusual not to discuss this topic on the basis of important archetypal cultural and political buildings, instead focusing on transportation architecture that in a narrower sense appears to serve only utilitarian purposes. But in fact it is precisely because on the surface transportation architecture structures have no apparent significance beyond their simple utilisation that they offer fertile ground for exploring hidden appeals to our emotions. The examples of streets, bridges and petrol stations are discussed as objects of civil engineering and building construction in relation to their atmospheric virulence. Those things that affect us more subconsciously in the utilisation of transportation architecture structures than as acknowledged objects of critical reflection deserve our attention, because as we will see the feelings we associate with a structure are indeed elements of its function. As such, the emotional influence potential of these structures represents far more than simply aesthetic side effects.

This will be exemplified by a type of building that classifies as commercial traffic infrastructure in the stricter sense, such as the (underground) parking garage; the petrol station (around 1900 functionally called ‘filling station’) serves the purpose of the so-called ‘stationary’ traffic. In the light of the rapid spread of the automobile, the number of petrol stations also increased quickly. In the 1950s there was already a growing awareness of the aesthetic importance of this building type, which is illustrated by the reflections of Vahlefeld and Jacques on the construction of petrol stations: ‘In this case other interests deserve consideration, which are of public importance and go far beyond those of the individual vehicle, petrol station or garage owner’ (Vahlefeld and Jacques 1956: 9). In contrast, architects and city planners in the 1930s considered the petrol station from a functionalist point of view, such as Alfred Gellhorn, who emphasised the guiding principle of ‘constructional honesty’ (Gellhorn 1931: 129) (in other words: *form follows function*). More than objects of civil engineering (such as the tunnel entrance), but far less than urban lighthouse projects (such as the central railway station at the end of the nineteenth century), the petrol station is emblematic as a type of threshold in the group of transportation buildings. On the one hand, it does not seem to require any architecture due to its function as a petrol pump by the roadside. On the other hand, by its sheer quantity in the image of the city landscape, the petrol station early on developed into an affectively loaded object, an expressive medium of the prevailing zeitgeist.

In our final example, i.e. tunnels, we deal with different preliminaries of spatial experience. We examine our experience as it is addressed by (transportation) architecture with special structural design properties. A tunnel’s cubage and the particularities of the materials used in its construction will be shown to be media of atmospherological emotional influence. This brings our focus to architectural communication media that touch us in a bodily felt sense and colour the relationship to the architectural setting specific to the particular situation.

Streets as affective spaces

Streets serve the traffic flow of cars and trams, traffic lights help prevent collisions on the street, tunnels allow us to pass through obstacles and bridges enable us to pass over them. Cities have dense transportation infrastructural layers and interfaces, and despite appearances transportation structures constitute more than simply functional purpose-built media. In another publication I take the example of the cultural history of the parking garage to show how transportation architecture structures communicate cultural relevancies at a deeper aesthetic level and atmospherically regulate society’s emotional relationship with mobility (cf. Hasse 2007). The functionality of other transportation structures is also not limited solely to the utilitarian. On the one hand they enable traffic flow and its direction, while on the other they communicate relevancies that are atmospherically perceptible in a municipal setting about which we generally do not consciously deliberate the associated symbolism.

Transportation structures cover a broad physiognomic and functional spectrum in building construction and civil engineering. The pathway is the historic template of the transport routes that have grown to develop their most dense network in the form of streets. The look of a city environment is also characterised by structures designed for railways (train stations, control centres, depots, etc.), air traffic (airport terminals, runways, hangars, etc.), underground railways (particularly underground railway stations), trams (platform facilities, depots, etc.) and so on. Car traffic also requires special structures in addition to parking garages to ensure the smooth flow of traffic (underground parking garages, park and ride garages, parking spaces, parking lanes on the side of the street, etc.).

We take it for granted today that streets serve primarily as spaces for automobiles, as do bridges, tunnels and other transportation infrastructures. While the architectural aesthetics of airports and train stations more often make them the focus of attention,¹² we generally only think about streets when they fail to meet the needs of traffic flow or parked vehicles, if they are the source of noise or if the state of their overall condition is bad enough to generate public debate. However, as aesthetic spaces of sensory perception they receive little attention either in the day-to-day world or in terms of architectural theory.

In contrast, the 'Großstadtliteratur' (urban literature) of the nineteenth and early twentieth centuries cites the street as an 'emotionally primed space' (Corbineau-Hoffmann 2011: 122), a spatial environment within the social world. The relatively rapid expansion of the automobile transformed the street into a previously unknown space for human experience. In its ambivalence, the street was discussed as a symbol of municipal vitality; a functioning infrastructure, a social and economic hub, a social events environment, a reflection of lifestyles and a setting for the acoustic, olfactory, tactile and visual diversity of social life.

Even the trade jargon of architects and city planners associated the vibrancy of the street with vitalistic metaphors. In describing main streets Theodor Fischer wrote, 'Like the arteries of the animal's blood circulation, such streets stand out from the multitude of less important ones' (Fischer 2001: 167). When Fischer referred to streets as spaces of 'unrest' and, as a consequence of the changes they underwent due to city development, as spaces of 'molting' (ibid.: 168), what resounds is not simply the image of a living city organism, but also of a complete synaesthetic and metaphorical concept. The space of the street was experienced in its aesthetic presence as something so overwhelming, emotionally captivating and encroaching that unadorned technical language was incapable of adequately expressing the emotional influence it prompted.

The atmospheric space of the street in the modern era still retained the image that characterised it during the Renaissance. Squares and streets are characterised as spaces 'full of talking people, whose political, economic and social interests are located "there"' (Müller 2010: 41). The street is the most eventful space in the city and *the* urban space par excellence, due to its performative dynamic, its turbulence and its unpredictability of events.

A city's larger streets were and continue to be vibrant spaces of atmospheric streams of emotional effects. Along a city's large boulevards in the nineteenth century there was still an 'incomparable feeling of arriving, the sudden opening of the senses, the encounter with an intensity, which was already awaited' (Hartung 1997: 18). The boulevard shaped 'urbanity as a cultural aspiration in the first place' (ibid.: 19), and it was the place that eliminated the 'demarcation of boundaries between culture and the bourgeois civilization, behind which the German *Bildungsbürgertum* (educated middle classes) took refuge' (ibid.: 37).

The infusion of vitality into the boulevards from the increasing automobile traffic transformed them into stages upon which cities were reconstituted in a set of dynamics new to the history of civilisation. In the late nineteenth century Britain's *Strand Magazine* described 'The Strand'

(an extension of London's Fleet Street) as an 'artery, which is traversed by the life stream of the Empire' (Thomas 1997: 408). If on The Strand, 'far from all the beauty and splendor . . . there was to find something like the quintessence of London' (ibid.: 410), then this impression spoke of the all-encompassing quality of experience to be found on the street and not of the sum of its functional characteristics.

Streets open the gateway to a chaotic, freely mobile life. But as 'traffic arteries' (in the sense of Theodor Fischer) they also regulate and channel life in a martial manner. In its multi-functionality, aesthetic heterogeneity and plurality, the street is an extremely contradictory place; of haste, of the regulation of all kinds of material and human flows, but also of movement and contemplation. Streets are spaces brimming with a multitude of emotional effects, especially those inner-city commercial streets imbued with urban vitality. Architect and city planner Camillo Sitte was acutely aware of the street's inherent characteristics as a venue of experience. He aimed to create atmospheric street spaces that accommodated life's needs outside the residence. Beyond their function as traffic flow channels, Sitte equally saw streets as 'harmonious' public spaces that needed to be designed to coincide with romanticised images of conviviality. His aesthetic principles subsequently included the planning of 'irregular' street routes generating an atmosphere that is 'picturesque' and 'natural' (Reiterer 2003: 13). Sitte's contemporary Otto Wagner rejected this position, asserting that it is artistically repugnant to 'intentionally create unmotivated crooked streets, irregular streets and square solutions, etc., in order to achieve allegedly picturesque street scenes' (ibid.: 91). Wagner's rejection of Sitte's endorsement of irregular street routes however reveals a fundamental misunderstanding of Sitte's position, which was not solely aimed at designing streets as transportation routes. Sitte's overriding concern with street construction was simply the expression of a general basic city planning concept. He emphasised that irregularities in the layout of old medieval cities were less a result of planning in the contemporary sense than of an appraisal of what was actually feasible on the ground at the time.¹³ This position seems to represent a critical, distanced posture toward the overall paradigms of the functionalistic city planning that Wagner favoured.

The utilitarian thinking that began to dominate modern urban design in the early twentieth century turned away from Sitte's concept of the 'sensory' city. In retrospect, Sitte is seen as an anachronistic romantic who endeavoured to create an inhabitable city where people could take root, a position that stood diametrically opposed to the integration machine model. British city planner Raymond Unwin still maintained positions similar to Sitte's as late as around 1910 (cp. Unwin 1922: 127). He also viewed the power of a situation's topicality as a source for the constitution of atmospheric effects that should provide city populations with a space in which they feel comfortable and at home. Unwin wrote:

We may well doubt whether new towns so built will ever acquire the same sort of picturesqueness which the old spontaneous and uncontrolled growth brought about, and yet may feel that our right course is not to try to imitate the old.

(Ibid.: 77)

Unwin also found a unique aesthetic value in 'irregularly' designed cities, maintaining that streets not only express the rhythm of a city, but that this rhythm also expresses the spirit of a particular time. The streets are the aesthetic reflection of historically ever more characteristic social lifestyles.

These were notably articulated in the emotionally influential characteristics of big city streets as commented upon by Le Corbusier. Impressed by New York's sea of bright lights, he 'could not pass by the luminous advertising on Broadway' (Le Corbusier quoted by Boyer 1998: 55) and felt himself drawn to 'something'. It was not the material nature of the lights and the

advertising slogans covering the houses themselves that affected him, but instead the illuminative twilight aesthetics of Broadway that were created, but not constituted, by those material things. He found Broadway to be an atmospherically suggestive arena of experience distinct from the rest of the city.

Despite the tangibly invasive impression-making power of that which can be experienced on a sensory basis in the street environment, its relation to the fundamental social structures it produces is at best densely concealed. Michael Müller therefore also views the tumultuous intrusiveness of public street life more in terms of a mirror of cultural and economic transformations than as a 'representational space of an autonomous and centered subject' (Müller 2010: 38). In the crowded and engaging vital qualities of the street, the logic of socialisation via the culture industry shines through at an aesthetically deeper layer where 'a cycle of manipulation and retroactive needs is unifying the system ever more tightly' (Horkheimer and Adorno 2002: 109). It is precisely the immediacy with which the dynamic vitality of turbulent streets emotionally grips passers-by that obscures the illusory nature of 'authentic' scenes. In this way the emotionally influential space of the street reflects city lifestyles at an aesthetically superficial level. At an aesthetically deeper level it is the medium of 'our consciousness' aestheticization' (Welsch 1993: 18) and thereby a space where the awareness of sensory deficits is diminished. While the manner in which we experience public spaces atmospherically depends not least on our openness for moods and our willingness to derive atmospheric expectations from multiple vibrant situations, these do not develop 'freely' in a wholly autonomous subject. They are also determined by the logic and dynamics of economic, cultural and political dispositions. Because the city street is a space for movement, a living space and an axis within the city's expanded living space (cf. Hasse 2008), it is particularly suited to be lured into environments encompassing the widest range of spheres of influence. The character of the city is condensed with all of its inherent contractions in innumerable variations of who is present and what is happening on its streets.

Bridges as ecstatic locations

Even though bridges are parts of streets in the broader sense, their transitional character means that the two are only comparable to a certain degree.¹⁴ Walking or driving across bridges raises our awareness of the surroundings in a manner different from that of walking or driving along streets; although the purpose of a bridge is to span obstacles and accelerate progress. It is not only the view of the local surroundings, but also the emotional relation to the bridged space that is altered by the height of the construction. Our concentration is relieved by the crossroad-free, mostly straightforward course of the road and thereby free to enter into an aesthetic relation with the bridged landscape within the space-time of separation and connection.

For Georg Simmel, the bridge is the symbol of the connected and separated nature of all things: 'we can only sense those things to be related which we have previously somehow isolated from one another; things must first be separated from one another in order to be together' (Simmel 1994: 4). We recognise the river as a flowing and aesthetic moment of the city at the point where its separating character loses its evidentiary identity for a few moments in the perspective of experience from one or the other riverbanks: 'Seen from the bridge, the river allows us a moment of self-forgetfulness, a becoming porous in our texture of everyday life and its temporary dissolution into wind and light reflexes' (Diefenbach 2002).

In its aesthetics, to which it owes the construction methods, forms and specific construction materials used to build it (wood, natural stone, steel or concrete), the bridge and its connective physiognomy represent a highly suitable medium for symbolisation. Bridges have always been

important places, and many peoples have attributed mystical qualities to bridges. In Christian mythology the bridge was the 'loci of the souls' probation on the way to the hereafter' (Kirschbaum 1972: 330) and was therefore associated with the iniquitous: the earthly world of the sinful was on this side, while hellfire and brimstone threatened on the other. In Germanic mythology the bridge marked a border¹⁵ with a meaning that was later revived in Christian allegories. Our thoughts in these secular times of high-tech transportation facilities are not occupied with dark allegorical tales of gloomy, mystical worlds or the fact that bridges extend in a perilously alarming fashion into our day-to-day world. But iconological depiction traditions and metaphors associated with bridges have persisted. Since myths live on forever and will continue now and in the future to make the breaches between what we desire and the facts on the ground more bearable, thereby deforming and 'inflecting' (Barthes 2013: 240) our relationships with the world, the bridge's hidden meanings endure. They also atmospherically colour our experience of these seemingly mundane places in an imperceptible way.

Bridges that are not coincidentally created by nature (a fallen tree over a stream, the ridge of a boulder, etc.) symbolise:

the extension of our volitional sphere over space. . . . The bridge becomes an aesthetic value insofar, as it accomplishes the connection between what is separated not only in reality and in order to fulfill practical goals, but in making it directly visible.

(Simmel 1994: 2)

The bridge in Mostar in Bosnia-Herzegovina linked the Christian and Islamic world there, so its destruction by Croatian mortars in the 1993 Bosnian War was also a 'symbolic act, which should deepen the division of the population' (Bühler 2004: 10). Bridges that also serve transportation infrastructural purposes are the source of associations with cultural relevancies extending beyond the mundane function of the structures themselves. The example of the bridge exemplifies a structural connection between meanings (e.g. in the form of metaphors) and feelings (in the form of a bodily felt condition during the time of the bridge crossing).

Caesar regarded it as a matter of the Roman peoples' dignity to cross the Rhine over a bridge rather than by ship. 'Albeit the construction of a bridge proved to be extremely difficult, due to the width, depth and the raging currents of the river Rhine, he [Caesar] deemed it necessary, or else the passage had to be omitted' (Woyte cited in Neuburger 1919: 471). Seeing as Roman bridge construction was extremely sophisticated,¹⁶ the bridges were also meant to atmospherically send a warning and admonishment in the form of a structure expressing Rome's technical supremacy and symbolising the political power of its strength.¹⁷

Aesthetically exceptional bridge constructions such as the Golden Gate Bridge in San Francisco or Tower Bridge in London often take on landmark status in their home cities because of their abundance of symbolic significance (cf. Bühler 2004: 15). The East Harbour Bridge (Osthafenbrücke, project name Mainbrücke Ost) was built in Frankfurt solely for the European Central Bank (cf. Schulze 2011: 43). This transversal bridge is also a symbolic testament to the importance of the Central Bank in international financial policy. Symbolism and landmark status often go hand in hand. One such example is Rotterdam's Erasmus Bridge (see Figure 12.1).

The bridge links the 'old' core of the city which was rebuilt after World War II to the postmodern inner city expansion of the Kop van Zuid district and symbolises the dawning of a new age for Rotterdam. However, the bridge is not only a symbol for departure and productive connection. The 'affect-logic' (cf. Ciompi 1991) of bridges unfolds similarly to other symbolically loaded objects in a *perceptible* interplay of a meaning with a corresponding feeling. Obviously, especially politically programmed meanings fade away over time. At that point, they give room

for practical meanings of utility and complementary feelings of comfort in experiencing a construction. However, there are and have always been political initiatives aiming to restore or reinvent forgotten meanings of an architecture in the context of lavish restoration and redevelopment measures. Where garishly oversized elevated highways transform the city into a functional space of automobility (see Figure 12.2), the bridge epitomises the ‘accident’ (Virilio) of municipal transport policy and the failure of the city to meet its social responsibilities. The neglect of elementary necessities of life by a prevalent rationality in city planning during the 1960s in most



Figure 12.1 Erasmus Bridge in Rotterdam (Netherlands) by Architekten Van Berkel & Bos

Source: Photo by Jürgen Hasse



Figure 12.2 Elevated highway in Hagen (Ruhr district, Germany)

Source: Photo by Jürgen Hasse

European countries is illustrated by an expansion of the public transport system into the bodily felt space of dwelling. Especially those bridges, which protrude from the image of the city because of their physiognomy, are illustrative of a transport policy that neither cared about the *genius loci*, nor about the power of affective relations with the physical living environment.

The logic of combining architectural gestures, symbols and emotions is much more apparent in architectural examples from totalitarian regimes than in the symbolism seen in the architecture of democratic societies, which is ideologically multilingual, heterogeneous, contradictory and often very subtle. The Reichsautobahn bridge constructions completed under Germany's Nazi regime served purposes of transportation infrastructure and ideological formation in equal measure. In particular, monumental constructions such as those from Friedrich Tamms¹⁸ were intended to illustrate the "historico-cultural greatness" of the monumental "Reichsautobahn" (Schütz and Gruber 1996: 94). One of Tamms' Autobahn bridge designs that was never built radiates the atmosphere of a diffuse power in the medium of the technically sublime, communicated in a bodily felt way through the material size and colossal form of the structure. The example shows how political ideologies can be transferred into a life-world context by architectonic means (building material, designs, cubature). Structures aside from bridges that were built in connection with the expansion of the Reichsautobahn were also intended to be 'insignia of the Reich' representing the state (Fischer 1941: 4). The planning for such structures therefore represented the construction of atmospheres both in the form of technical tasks and as a synaesthetic project. The design and aesthetic integration of the Autobahn into the landscape was intended to precipitate 'joy and inner approval' (Tamms 1938: 539). In the end it proved to be more a case of the allocation of special atmospheric qualities aimed at generating these aesthetics than the actual manifestation of the constructed roadways, which always represented the opposite of what they were intended to signify. 'Our German homeland is so beautiful and characteristic; it would be irresponsible, if we designed and built these streets as a hard intervention into nature' (Todt 1934: 138).

The connection between construction design and ideology that becomes evident in the symbolic programming of structures practised by totalitarian regimes nevertheless ultimately only draws attention to a basic pattern of culturally distinguishing significant structures, regardless of the type of prevailing government system. The affinity for infusing structures that are physiognomically large, architecturally extraordinary or notable for other reasons with political, economic, historic and other meanings is not monopolised by totalitarian regimes. It is instead the expression of the affective embedding of structures into the symbolic order of a particular society.

The tunnel – passageway space

Although tunnels are excluded from the human activity space of the (municipal) landscape, there is still oftentimes an eventful affect dynamic linked with their 'concealment'. The relevancies and emotions associated with an underground transport tunnel nevertheless depend on the level of their architectural eccentricity and the degree to which they are taken for granted. The experience and symbolic understanding of a tunnel are allotted not least on the basis of the state of its history in construction, cultural and technical terms. The 1994 completion of the Channel Tunnel between Folkstone in Great Britain and Coquelles in France only touched the British national identity as an island nation in a relatively superficial way, although the feeling of only being partially separated from continental Europe by the sea from that point on did produce a certain level of irritation. Earlier plans for building a tunnel underneath the English Channel caused far more controversy. There had been quite detailed plans, technical ideas and designs for such a tunnel since as early as 1798. Work began in 1881 in both England

and France using the *Beaumont* boring machine, but was discontinued in 1882 in compliance with an act of the British Parliament that cited the undertaking as a national security risk on the basis of somewhat irrational arguments (cf. Maidl *et al.* 1995: 14f.).

The first tunnel built underneath a river opened in 1843 to connect the London districts of Rotherhithe and Wapping and demonstrated that transportation architecture structures can trigger human emotions. This is particularly true when such structures and their implications upset the status quo of historically accepted values. The Church of England's curate of Rotherhithe issued a denunciation of the undertaking declaring it an impudent human intervention into nature (cf. N.N. 1987: 232).

Two further examples briefly illustrate the role of the affective perception of tunnels as an expression of specific historic conditions. The argumentative preparation for the construction of Berlin's Spree Tunnel which opened between the city districts of Stralau and Treptow in 1899 was dominated by strong emotions. The general opinion at the time was that in light of 'fast-moving means of transport' such as the underground railway, 'the continued blossoming of the cities' (*Gesellschaft für den Bau von Untergrundbahnen zu Berlin* 1899: 2) was especially dependent on the availability of suitable transportation routes. The tunnel, so important for the capital city of Berlin, was ultimately completed in 1899 and quickly attained the status of a tourist attraction (cf. *Ibid.*). The situation was similar with Hamburg's St Pauli Elbe Tunnel. Opened in 1911 for passenger and wagon transport, the plan for this structure was also emotionally charged. The sophisticated tiling on the tunnel walls which includes sand reliefs depicting local animal and marine life associated with the tunnel (mussels, fish, rats, etc.) will continue once their current restoration is completed to attest to the former cultural and historical importance of the St Pauli Elbe Tunnel. This tunnel was more than simply an underground transportation route. It was a cultural place, which if not imbued with qualities to dwell on, was certainly instilled with an atmospheric transit quality.

Following a brief etymological orientation I will address the underground space of the tunnel as a mundane structure designed for daily use. This will involve examining its tubular character to discuss the tunnel passage in regard to its atmospheric experience characteristics.

The word 'tunnel' originates from mining terminology (derived from 'shaft' and the German word 'Stollen'). It was commonly used in the eighteenth century for designating underground channels, as in 'the tunnel is also a shaft, which crops out at two points' (Grimm and Grimm, 1991: col. 1809). It was only in the nineteenth century that its meaning changed to signify an underground road (cf. *Ibid.*: col. 1808). Most tunnels are less aesthetic objects than functional transportation routes running underneath the city below rivers, main streets, buildings or raised terrain. As activity spaces without an 'exterior', tunnels are unusual structures. The only visible part of a tunnel is its interior architecture, which rarely features impressive aesthetic design elements.

Tunnels are designed to provide rapid 'passage'. The time we spend in tunnels is spent passing through them with no aesthetic enjoyment comparable to that of driving over a long bridge, which gives us views of the city and the landscape similar to those we experience when we fly. The aseptic, claustrophobic impression made by tunnels already qualifies them as emotionally threatening spaces. Below I have limited the topic to automobile tunnels, disregarding pedestrian tunnels and railway tunnels.

When the entrance to a tunnel is also announced in advance by road signs and the act of leaving the open road therefore does not come as a surprise, the moment of entry into the tunnel constitutes a momentary experience of sudden change. The weather is neutralised at the moment of entry and even the temperatures are determined by this covered, open-ended space, albeit differently in the summer from in the winter. Technical ventilation equipment generates the air for breathing and disposes of exhaust. Our sensory perception is suddenly restricted to

the artificially lit roadway. Daylight is replaced by clinical, artificial lighting for the duration of the stay 'inside' the tunnel. At night time the lighting inside and out is more similar, with the tunnel lighting reminiscent of night time street lighting. The empty, bare spatial atmosphere corresponds to the function of the tunnel – it is a transitory space – a 'non-place' in the sense of Marc Augé (cf. Augé 1992). There is no city landscape to observe, no view whatsoever aside from what lies ahead. There is only one direction and a pallid, monotonous view forward. The range of sensory stimulation that makes driving through a city landscape so 'sensational' both by day and by night is reduced to the uniformity of the anaesthetic tunnel space. The reduced palette of stimuli automatically focuses our perception in its entirety. The anaesthetics of the sterile space which feels as if there are virtually no sides nonetheless demand a hyperaesthesia of our senses. The traffic situation inside a tunnel is simplified and reduced to focusing on the straight drive ahead, but the enclosed atmosphere actually places even greater demand on our concentration. When we are inside tunnels so long that we cannot see the other end the feeling of encroachment is increased even more by the impression of endlessness and further magnified by associations with a feeling of 'no way out'. In particular, long tunnels with a distance of more than 10 miles and a low construction and safety level as they exist in Norway, become affectively intrusive as a claustrophobic space.

Tunnels require the trust and confidence of their users like almost no other transportation infrastructure. Even though driving across a bridge similarly depends on the stability of the structure, the feeling of dependence upon the related technology in a tunnel is maximised by the visible, tangible enclosure within an interior space. Less a thought than a notion of the vehicle's black box morphs into a feeling of uneasiness. Arriving safely at the other end of a tunnel depends as much on the proper function of our vehicle as on the safe road conduct of the other drivers. Our dependency on the statics and technology of the tunnel is intensified in its effect not least by our vague memories of mass media coverage of horrific, fatal tunnel accidents. The road feels as if it is inside a vault, and that drives home more an impression than a conscious acknowledgement of a feeling of helplessness. When we drive into a tunnel, we trust that we will emerge safely from the other end.

The saying 'light at the end of the tunnel' is a metaphor for this sense of unease. The process of driving out of the 'pit' opens up an extrasensory feeling of 'liberation' again into a new expanding (bodily felt) space. This metaphor retains its atmospheric meaning even in the darkness of the night, whereby the light represents less the brightness of daylight than the opening of the horizon and the sky, as well as the option to move freely within the space. This is why exiting a tunnel's restricted space emotionally resembles the sudden peculiarity of the moment we enter it. As soon as the feeling of encroachment dissipates in the space of the open road, our sense of uneasiness gives way to a relaxing feeling of relief.

The uncertainties, thematically blurred as they are, that are atmospherically associated with the overall situation of a tunnel are rooted in a limited space–time atmosphere of emotional tension. They express feelings of a latent fear of enclosure and reflect how we consciously block out all the factors we have to rely on in relation to a structure that we can only use confidently thanks to the unconscious force of habit.

A petrol station as an example of affective architecture

The architectural design of transportation structures pursues both utilitarian functionality and construction design styles expressing something in the narrower sense beyond their mere function that can be described as subliminal narrative commentary. A style aims to express something far exceeding a structure's function. Achim Hahn describes style by commenting that 'it

encompasses the human sphere, which expresses or gives concrete form to *how we perceive and experience our world* (Hahn 2008: 274, original emphasis). Accordingly, a particular (architectural) style does not express a ‘way of thinking’, but instead reflects the predominant perception structures of a particular time in history. This however raises the question of what a particular style *specifically* means in affective terms in its presumed institutionalisation of objects and structures. In other words, how does the form of a body affect the intuitive understanding of cultural messages firmly inscribed in architectural media via synaesthetic implications?

The curved (kidney) shapes that dominated design in general and were also popular in the language of architectural design in the 1950s are aesthetic forms that were experienced symbolically and affectively (see Figure 12.3). They even appeared in transportation architecture structures, as evidenced by a petrol station built in Fulda, Germany in 1951 that was designed by architect and Eiermann protégé Lothar Götz (cf. Vahlefeld and Jacques 1956: 211). If even transportation architecture structures seemingly designed solely to pursue functional purposes are also messengers of cultural values, then the question arises as to the sociopsychological synchronisation of style and aesthetic perception. The fact that Götz’s petrol station pursued the style of the 1950s is particularly evident in the curved form of its roof. As such it expresses a style that returned in the form of *general* design principles that were dominant at the time of construction. What we initially see in this is the power of 1950s style asserting itself as a general principle, i.e. as a *characteristic* design, an aesthetic framework to which the individual design will of every architect and builder is subject. No architect designing objects for daily use (in contrast to monumental ‘landmark structures’ that challenge the established, acknowledged rules of construction) is ever so ‘free’ that he or she can completely disregard the presiding style of the time. But as an aesthetic cluster of forms of expression in the society that produces it, each style also has a sociopsychological function.

What drives modern man so strongly to style is the unburdening and concealment of the personal, which is the essence of style . . . It is as if the ego could really no longer carry itself, or at least no longer wished to show itself and thus put on a . . . stylized costume. (Simmel 1991: 69)

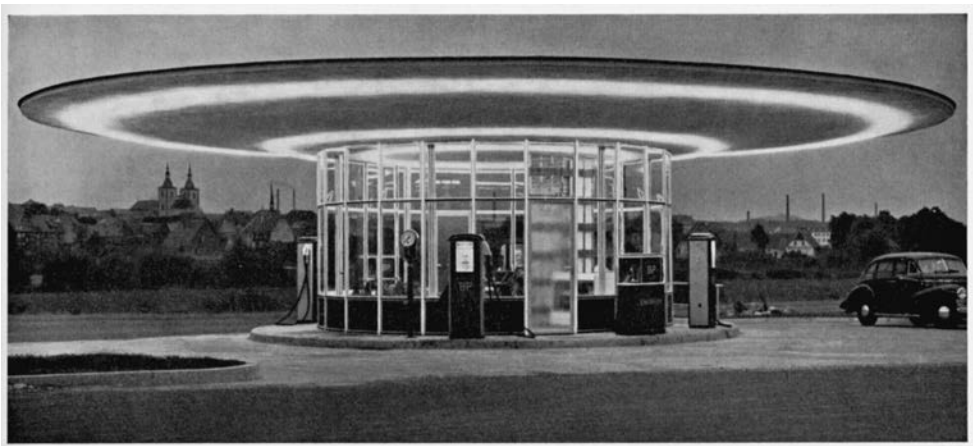


Figure 12.3 Gas station in Fulda (Germany) by Lothar Götz

Source: http://lothar-goetz-architekt.de/alles_andere/bauten/1951_fulda.html

Simmel's argument proclaims an attenuating need for orientation and security based in the propagation of possible choices in modern societies. This however does not explain why the style of the 1950s produced the characteristic forms we are familiar with as opposed to angular, pointy or jagged shapes. When it is a matter of a particular style to express something that is generally popular, then at its core it is expressing historically specific perception structures that correspond in affective terms with the current *zeitgeist*. As defined by Simmel, it is precisely the *zeitgeist*'s presence in the repetition of the general and the day-to-day that fulfils the task of providing orientation. In this way it substantiates the 'accuracy' of this orientation in the overall expression of those things that are *similar* in their aesthetic design as an adequate sign of the collective emotional state of a society.

The aesthetics of Götz's petrol station must as such be understood as a twofold messenger, i.e. meaning and emotion. The design language of the style transports this connection into the intuitive understanding of the object. Like all of the objects designed in the style of the 1950s, the petrol station in Fulda is distinguished by its characteristic lines. Theodor Lipps stressed that we enjoy seeing repeated forms in utilitarian aesthetics that we then therefore perceive to be beautiful (cf. Lipps 1903: 226). While the lines expressed in the forms are abstract, they still appeal to our perceptive and post-perceptive attention because we perceive them as *movements*. Whereas Lipps discussed this feeling of movement with the term 'empathy', Hermann Schmitz emphasises in his *System of Philosophy* and his concept of 'corporeal communication' (Schmitz 2011: 29f, 1989: ch. 2) that this moment of perception is less receptive than dialogical. According to this theory, it is not just human individuals that move with their senses and attention toward the things; the things can be tangibly experienced anyway in the changing modalities of their appearance. Their designs produce impressions which are experienced as gestures and/or suggestions. Hermann Schmitz understands such a 'suggestion' as an aesthetic stepping out of an object, which prompts the incorporation of a (potential) motion or *gestalt*. Synaesthesia play an important role in conveying such impressions (cf. Schmitz 1990: ch. 3.2). As with all objects with a characteristic 1950s style, we must also understand Götz's petrol station in its affective language from the basis of its specific design.

The style of the 1950s was not distinguished by *straight* ascending or descending lines. Instead, the prevailing style used rounded, curved and wavy lines. These forms are not perceived in the sense of intellectual understanding. Instead, the sensory experience of these forms in the constructed space 'activates' a comprehensive understanding in an intuitive sense (with virtually no epistemic underpinning). In the end it is therefore the feelings and the meanings attached to them that lie within the *specific* forms. The specific forms that dictated the design of objects and often of architectural structures in the 1950s were *wavy* lines. Lipps commented on wavy lines in objects saying, 'the common characteristic of all wave lines is the law of their creation, the mechanical law of undulation. I have this law in my "feeling". And therein I recognize the wave line as such' (Lipps 1903: 233). What Lipps means here is easier to understand if we understand this *feeling for wavy movement* as a product of corporeal communication owing its effect to a suggestion of movement emanating from the form of the object. The intuitive understanding of that which extends in the aesthetics of the petrol station far beyond its function as a transportation structure is rooted as such in an affective relationship to the object and what it symbolises.

The wavy lines conveying the rounded shape of the roof of Götz's petrol station are registered in a synaesthetic perception in which a *comprehensive* appearance is inseparably connected to an impression. According to Schmitz, wavy lines that are integral forms in the appearance of the object correspond with a bodily felt feeling of *expanse* rather than constriction or encroachment. Lipps spoke about *beautiful* forms that we find attractive: these forms are also never constrictive,

instead conveying a broadening feeling of relaxation out into the expanse. The wavy orientation of 1950s design language suggests itself wholly within the context of what Theodor Lipps said about the aesthetics of wavy lines some 50 years before the emergence of this style:

Thus, the wavy line is beautiful, because its progression, its quicker and slower bending, the tension and loosening which rests therein, is felt by me as a free activity and acting out of the contemplative self, deeply immersed into the wavy line.

(Ibid.: 248)

The spectrum of forms recurring in the design of objects and complex architectural structures throughout the 1950s is therefore integrated as a style into the collective emotional state of a society hoping for a better future following the cathartic end of World War II. This hope is reinforced above all by Germany's much heralded imminent 'economic miracle'. There is a growing collective mood favouring 'freely acting out' (ibid.: 237) and transitioning smoothly into a calmer, more secure time. The aesthetic forms of 1950s style *affectively* expressed this feeling in a synaesthetic sense. This decade was ultimately followed by the tumult of the unruly social movements that would culminate in 'freely acting out' in a far more substantial sense and lead to a liberation from anachronistic traditions and imposed norms of social interaction.

It is noteworthy of mention here that a style's sociopsychological function is not only expressed in objects we introduce into our private residential space. The zeitgeist is so powerful that in the *public* space in particular it also uses the most trivial objects and architectural structures to assert *who* and above all *how* the people are in that specific time. This can also be illustrated in other transportation architecture structures such as the construction of postmodern parking garages (cf. Hasse 2007).

Emotional effect and architecture

The architectural atmospheric characterisation of environments exceeds the dimension of the medium as it relates to the mere material nature of the construction materials. It would be too simplistic to grasp this additional aspect as nothing more than a type of surplus bonus (as Luhmann does). Experienced architects know all too well how they can use spatial arrangements to create an individual bodily felt space where the environment allows a highly specific reality to emerge. As demonstrated in the psychology of suggested movement, such affective arrangements pursue their own logic. The atmospheric expression of architecture is therefore not simply some kind of effect or superfluous architectural aspect. Instead, it is an integral element of the aim of architecture as a whole. This is evident for instance in the atmosphere of the natural light inside a gothic cathedral. In addition to facilitating functionality, architecture is a fitting medium for conveying relevancies because it roots them in feelings we can sense by means of corporeal communication in the gestures and designs of the structures.

The example of a petrol station is particularly suited for demonstrating that there is a difference between the more pragmatic form and function of the structure. While even the aesthetic design of large-scale transportation architecture structures is at best only discussed at a superficial level (cf. Gescheit and Wittmann 1931), at a deeper aesthetic level it nevertheless reflects something of the spirit of the particular time and subsequently also something of the emotional state of the people. In other words, beyond their mundane functions purely utilitarian structures also serve as media of the prevailing zeitgeist. In this regard they 'function' in a sociopsychological sense as affective socialisation media.

The fact that architectural structures are media of emotional influence is meanwhile fully accepted as a component of the knowledge base of professionals involved in the production of aesthetics. The example of the liturgy, far removed from the world of transportation structures, is a particularly prime example illustrating the huge influence constantly exerted by the clergy on the designs of the great church builders. And although churches from the Gothic era express this differently from post-World War II sacral architectural structures, they all necessarily require a specific atmosphere as a part of their function within the religion's system of symbols. In other words, they require affective programming. Another example is garden design, which uses a highly specialised knowledge base to infuse environments with special atmospheres (cf. Hirschfeld 1973). It is therefore obvious that the affective character of an architectural structure does not pursue some empty or coincidental aim, but rather seeks to achieve systemically programmed 'social effects' (Delitz 2009: 79), even if this ambition has its roots in an artistic freedom distinct from the utilitarian purpose. The degree of a structure's eccentricity is not the issue. Instead, what is important is that the structure is experienced by the felt body in an emotional way as something of symbolic significance. For this reason we should not even regard extremely understated architectural structures such as Inuit igloos as 'non-affective architecture' (ibid.: 82), but instead as the expression of an affective form corresponding with the social situation of the people who use and live in them.

Notes

- 1 Original: 'Gefühle im leiblichen Raum', ibid.: 268–276.
- 2 Original: 'Gefühle und Wetter', ibid.: 361–367.
- 3 Original: 'herumwirkliche Vitalqualität'.
- 4 Original: 'Sinne und Seele'.
- 5 Original: 'Witterungsbild'.
- 6 Original: 'Hörbild'.
- 7 Original: 'Akkord'.
- 8 Original: 'Ergehen'.
- 9 According to Erwin Straus, the gnostic moment emphasises 'only the what of the objectively given, and the pathic the how of the given' (Straus 1960: 151).
- 10 Original: 'Zwischenphänomene'.
- 11 On the differentiation between atmosphere and feeling (cf. Hasse 2014).
- 12 Although train stations, airports, bridges or underground railway stations are topics of public discussion, the focus is generally on current conflicts regarding their usage or planning. In the end massive volumes of literature address the technical properties (in a hierarchy based on superlatives) and architectural 'highlights', while analyses of the symbolic and emotional perception of the aesthetics of transportation structures are extremely rare; on the cultural history of the parking garage (cf. Hasse 2007), on the Reichsautobahn (cf. Schütz and Gruber 1996).
- 13 Sitte believed that the earlier city planners 'immediately appraised and arranged everything on the basis of its genuine effect in situ' (Porfyriou 2005: 250).
- 14 Aquaducts and other bridges not designated for road transport should be disregarded here.
- 15 The Germanic giantess Móðgudr keeps guard over the bridge Gjallarbrú to the hereafter. On the other side there is the netherworld 'Hel' (cf. Bellinger 1989: 169; 333).
- 16 One impressive example is Rome's 'Tiber Island' (cf. Neuburger 1919: 477).
- 17 Constructed in 1591, during its time the Rialto Bridge (Ponte di Rialto) in Venice radiated the prestige of a technical triumph along with an atmospheric gesture of the power of knowledge (cf. Murray and Stevens 1996: 16).
- 18 Friedrich Tamms was advisory architect in the Todt Organization. It ensured the realisation of bunker installations as well as projects of the arms industry and was organised by paramilitary.

References

- Augé, M. (1992). *Non-Lieux. Introduction à une anthropologie de la supermodernité*. Paris: Le Seuil.
- Barthes, R. (2013). *Mythologies*. New York: Hill & Wang.
- Bellinger, G. (1989). *Knaurs Lexikon der Mythologie*. München: Knaur.
- Böhme G. (2001). *Ästhetik. Vorlesungen über Ästhetik als allgemeine Wahrnehmungslehre*. München: Wilhelm Fink Verlag.
- Bollnow, O. F. (1963). *Mensch und Raum*. Stuttgart: Kohlhammer Verlag.
- Boyer, C. (1998). Times Square Dead or Alive? *Daidalos*, 68, 48–59.
- Bühler, D. (2004). *Brückenbau im 20. Jahrhundert. Gestaltung und Konstruktion*. München: Deutsche Verlags-Anstalt.
- Ciampi, L. (1991). Affects as central organising and integration factors: A new psychosocial/biological mode of the psyche. *British Journal of Psychiatry*, 159, 97–105.
- Corbineau-Hoffmann, A. (2011). Passanten, Passagen, Kunstkonzepte: Die Straßen großer Städte als affektive Räume. In G. Breuer (ed.), *Raum und Gefühl. Der Spatial Turn und die neue Emotionsforschung* (pp. 118–134). Bielefeld: Transcript.
- Delitz, H. (2009). *Architektursoziologie*. Bielefeld: Transcript.
- Diefenbach, R. (2002). Main-Cocktail. *Lyrikwelt*. Retrieved May 4, 2014, from www.lyrikwelt.de/gedichte/diefenbach3.htm
- Dürckheim, Graf K. von (2005). *Untersuchungen zum gelebten Raum. Natur – Raum – Gesellschaft*, vol. 4. Frankfurt am Main: Selbstverlag Institut für Didaktik der Geographie.
- Fischer, T. (2001). Über Stadtbaukunst. In P. Conradi (ed.), *Lesebuch für Architekten. Texte von der Renaissance bis zur Gegenwart* (pp. 164–173). Stuttgart/Leipzig: Hohenheim. (Original work published 1919.)
- Fischer, W. (1941). Bauen an der Reichsautobahn. Einige Gedanken, angeregt durch einen Wettbewerb. *Bauwelt*, 15, 1–8.
- Gellhorn, A. (1931). Gestaltung von Tankstellen. In H. Gescheit and K. Wittemann (eds), *Neuzeitlicher Verkehrsbau* (p. 129). Potsdam: Müller & Kiepenheuer.
- Gescheit, H. and Wittmann, K. (1931). *Neuzeitlicher Verkehrsbau*. Potsdam: Müller & Kiepenheuer.
- Gesellschaft für den Bau von Untergrundbahnen zu Berlin. (1899). Der Spreetunnel zwischen Stralau und Treptow. *Berliner U-Bahn-Archiv*. Retrieved 4 May 2014, from www.u-bahn-archiv.de/dokumente/1899_sreetunnel.html.
- Grimm, J. and Grimm, W. (1991). *Deutsches Wörterbuch* (Vol. 22). München: dtv.
- Hahn, A. (2008). *Architekturtheorie*. Konstanz: UVK.
- Hartung, K. (ed.). (1997). *Boulevards. Die Bühnen der Welt*. Berlin: Siedler.
- Hasse, J. (2000). *Die Wunden der Stadt. Für eine neue Ästhetik unserer Städte*. Wien: Passagen.
- Hasse, J. (2007). *Übersehene Räume. Zur Kulturgeschichte und Heterotopologie des Parkhauses*. Bielefeld: Transcript.
- Hasse, J. (2008). *Die Stadt als Wohnraum*. Freiburg/München: Alber.
- Hasse, J. (2014). Atmospheres as expressions of medial power: Understanding atmospheres in urban governance and under self-guidance. *Lebenswelt*, 4, 214–229.
- Hellpach, W. (1946). *Sinne und Seele. Zwölf Gänge in ihrem Grenzdickicht*. Stuttgart: Ferdinand Enke Verlag.
- Hirschfeld, C. C. L. (1973). *Theorie der Gartenkunst*. Hildesheim/New York: Olms. (Original work published 1779–1785.)
- Horkheimer, M. and Adorno, T. W. (2002). *Dialectic of Enlightenment. Philosophical Fragments* (E. Jephcott, Trans.). Stanford, CA: Stanford University Press. (Original work published 1947.)
- Ingold, T. (2012). The Atmosphere. *Chiasmi International*, 14, 75–87.
- Kirschbaum, E. (ed.). (1972). *Lexikon der christlichen Ikonographie* (Vol. 1). Freiburg: Herder.
- Lipps, T. (1903). *Ästhetik. Psychologie des Schönen und der Kunst* (Vol. 1). Leipzig/Hamburg: Voss.
- Maidl, B., Einck, H., and Maidl, U. (1995). *Der Eurotunnel. Geschichte, Planung, Bau und Betrieb*. Essen: Glückauf.
- Murray, P. and Stevens, M. (1996). *Living Bridges: The inhabited bridge, past, present and future*. München/New York: Prestel.
- Müller, M. (2010). *Kultur der Stadt. Essays für eine Politik der Architektur*. Bielefeld: Transcript.
- Neuburger, A. (1919). *Die Technik des Altertums*. Leipzig: Voigtländer.
- N.N. (1987). Röhre fürs Leben. *Spiegel*, 47. www.spiegel.de/spiegel/print/d-13526352.html (accessed 7 October 2013).

- Perec, G. (1974). *Träume von Räumen*. Translations from French by Eugen Helmlé. Frankfurt am Main: Fischer Taschenbuch Verlag.
- Porfyriou, H. (2005). Camilo Sitte und das Primat des Sichtbaren in der Moderne. In K. Semsroth, K. Jormakka, and B. Langer (eds), *Kunst des Städtebaus. Neue Perspektiven auf Camillo Sitte* (pp. 239–256). Wien: Böhlau.
- Reiterer, G. (2003). *AugenSinn. Zu Raum und Wahrnehmung in Camillo Sittes Städtebau*. Salzburg/München: Pustet.
- Schmitz, H. (1981). *System der Philosophie*, vol. 3: Der Raum, part 2: Der Gefühlsraum. Bonn: Bouvier.
- Schmitz, H. (1989). *System der Philosophie* (Vol. 3/5). Bonn: Bouvier.
- Schmitz, H. (1990). Der unerschöpfliche Gegenstand. Grundzüge der Philosophie. Bonn: Bouvier.
- Schmitz, H. (1993). Gefühle als Atmosphären und das affektive Betroffensein von ihnen. In H. Fink-Eitel and G. Lohmann (eds), *Zur Philosophie der Gefühle* (pp. 33–56). Frankfurt am Main: Suhrkamp.
- Schmitz, H. (2011). *Der Leib*. Berlin/Boston, MA: De Gruyter.
- Schulze, R. (2011, July 12). Zwanzig Wege nach Dribdebach. *Frankfurter Allgemeine Zeitung*, p. 43.
- Schütz, E. and Gruber, E. (1996). *Mythos Reichsautobahn. Bau und Inszenierung der »Straßen des Führers« 1933–1941*. Augsburg: Links.
- Simmel, G. (1991). The problem of style. *Theory, Culture and Society*, 8, 63–71. (Original work published 1908.)
- Simmel, G. (1994). Bridge and door. *Theory, Culture and Society*, 11, 5–11. (Original work published 1909).
- Straus, E. (1960). Die Formen des Räumlichen. Ihre Bedeutung für die Motorik und die Wahrnehmung. In *Id.*, *Psychologie der menschlichen Welt. Gesammelte Schriften* (pp. 141–178). Berlin: Springer Verlag. (Original work published 1930.)
- Tamms, F. (1938). Die Autobahn als Kulturdenkmal. *Die Straße*, 17, 538–541.
- Thomas, G. (1997). London: The Strand. Die Quintessenz Londons. In K. Hartung (ed.), *Boulevards. Die Bühnen der Welt* (pp. 398–419). Berlin: Siedler.
- Todt, F. (1934). Reichsautobahnen, ein Symbol. *Der Straßenbau*, 11, 135–138.
- Unwin, R. (1922). *Grundlagen des Städtebaues*. Berlin: Otto Baumgärtel.
- Vahlefeld, R. and Jacques, F. (1956). *Garagen- und Tankstellenbau. Anlage – Bau – Ausstattung*. Berlin: VEB Verlag Technik.
- Welsch, W. (1993). *Die Aktualität des Ästhetischen*. München: Fink.

Affective architecture in Ardnamurchan

Assemblages at three scales

Oliver J. T. Harris

Introduction

In Swordle Bay on the north coast of the Ardnamurchan peninsula in Scotland you can find all sorts of different kinds of architecture. There are farm houses and barns constructed in the recent past, holiday cottages old and new. Under the surface (both of the ground and of some of these more recent constructions) older forms of architecture, or at least their residues (*sensu* Lucas 2012), endure. There are prehistoric monuments and enclosures, barns and houses from the medieval and post-medieval periods, even the buried remnants of a piece of seafaring architecture, a boat, dating to Viking times. This is a landscape replete with architecture that has been built, used, reused, abandoned, destroyed, buried and excavated over nearly six millennia. Indeed as I will argue in this paper, we might be better off thinking of this not as a landscape *with* architecture, but rather of different scales of architecture the largest of which is synchronous with the landscape itself. Here dykes, walls and fences create spaces across fields shaped by sea, scythe and sheep over an even longer time period.

Ardnamurchan is the most westerly point of the British mainland and until recently had seen almost no archaeological research. Since 2006, however, the Ardnamurchan Transitions Project has been working on the peninsula, and in Swordle Bay in particular, to explore the changing patterns of human lifeways from the Early Neolithic to the present day.¹ As such, the project has excavated a range of sites including those alluded to above, mapped many others, and is in the process of building up a detailed, multi-scalar history for this location. In this paper I want to explore the architecture of Swordle Bay using ideas that have been important in my work and speak directly to the themes of this volume: assemblage and affect (e.g. Harris 2009, 2013, 2014a, 2014b, Harris and Sørensen 2010). The former of these provides a theoretical approach that allows us not only to escape from questions over traditional dichotomies of culture and nature, and people and things, it also creates a means for us to embrace authorship of the past in far more interesting ways. Fundamentally, taking an approach where architecture is viewed as an assemblage allows us to think about it as the ongoing outcome – or becoming – of multiple interacting elements, or as relational if you prefer. This can powerfully change how we approach

buildings, as Pwyll ap Stifin (2014) and Tim Edensor (2011) have shown in different contexts. Affect, in turn, allows us to consider the nature of these relations, the forces they carry with them, the way in which they press into each other, and the way in which they shape and are shaped by the interactions that include human beings (Deleuze 1988, Roberts 2012, Seigworth and Gregg 2010).

In relation to Swordle Bay I want to think about how different kinds of architecture were brought together through, and were productive of, differing kinds of assemblages at differing *temporal* scales. To do this I want to look at three examples. The first is a house occupied in the first half of the nineteenth century, which was then abandoned and later demolished, the second is a Neolithic chambered tomb with a much longer history, initially constructed between 3783 and 3656 cal BC. Through the main part of the article I will tack between these two case studies looking at three different issues. First I will examine how they came into being through the interaction of multiple elements. Second, I will consider the extent to which we can see either of them as being 'designed'. Third, I will explore the role of affect within the differing histories of these sites. Once I have examined these architectures operating at distinct temporal scales and in these different ways, I will then turn to a third example: the landscape of Swordle Bay itself. Treating landscape as architecture may seem counterintuitive. However, developing the point Lesley McFadyen (2008, cf. 2007a) has made, once we accept that architecture is not solely the product of the human mind imposed on the world, but rather the outcome of the entanglement of multiple elements, then the landscape too can be seen as a form of architecture. Indeed by pushing this definition to its limits we will see that this is where the very term architecture itself is revealed as an assemblage.

Assembling architecture on Ardnamurchan

As this volume shows, assemblages are becoming increasingly popular as means of thinking through ideas of how the world constantly comes into being – or how it becomes – both in archaeology (e.g. Conneller 2011, Creese 2013, Fowler 2013, Harris 2013, 2014a, 2014b, Harrison 2011, Jones 2012, Jones and Alberti 2014, Lucas 2012, Normark 2008, 2009, 2010; Olsen *et al.* 2012, Witmore 2014) and much more widely (e.g. Bennett 2010, DeLanda 2002, 2006, Dewsbury 2011, Edensor 2011, Marcus and Saka 2006, Ong and Collier 2005, Roberts 2012). The notion of assemblage primarily emerges from readings of the work of Gilles Deleuze, and particularly his writings in conjunction with Felix Guattari (e.g. 2004). For Deleuze and Guattari (2004, p. 555), assemblage is a term used to describe the coming together of different elements as they emerge in the world. Assemblages are the gathering together of 'diverse elements of vibrant materials of all sorts' (Bennett 2010, p. 23); they are combinations of multiple elements that are together more than simply the sum of their parts, and are able to act in particular ways in the world, to exercise certain capacities, to affect and to be affected (DeLanda 2006). An assemblage is a 'charged, ordered entity arising from complex histories of interaction' (Fowler 2013, p. 22). Materials within such an assemblage are not passive, awaiting human beings to come along and shape them, but active and vibrant, contributing to the development of assemblages in a variety of ways (Bennett 2010).

A critical element of assemblages as defined by Deleuze and Guattari is that they are tetravalent in form, that is they have four dimensions (Deleuze and Guattari 2004, p. 556, Dewsbury 2011). One axis defines how assemblages have both physical and expressive dimensions. This means they both have material associations and connections (dimension one), and ones through language, meaning, metaphor, gesture and so on (dimension two). The second axis recognises that assemblages are both always coming together (territorialising – dimension

three) and breaking apart (deterritorialising – dimension four) (DeLanda 2006, p. 12). How can this emphasis on the four elements of an assemblage help us think about the architecture of Swordle Bay?

House 4 at Swordle Corrach

Swordle Corrach is one of three post-medieval settlements known within our study area (Figure 13.1). Its occupation can be traced back to at least 1667 in historical documents (Tuffin 2011). The particular building I want to examine here was a house constructed fairly late in the history of the occupation of this settlement, probably in the 1830s, known to us as house 4. Measuring 12m by 5m it was a gable ended construction, with two fireplaces, one of which survived into the present, walls made from mortared limestone and most likely a turf roof (Casella *et al.* 2010, for information on Scottish rural settlement at this time see Atkinson *et al.* 2000; Hingley 1993; Naismith 1989). It is one of at least three very similar structures constructed at around the same time. The stone and the mortar were locally sourced; indeed a lime kiln is located less than one hundred meters away. The people living in here would have farmed nearby and owned a few animals, and exploited the sea for seaweed to make fertiliser (Tuffin 2011).

The assemblage was materially linked to places near and far, from quarrying limestone and making mortar only a few metres away, to iron pots and ceramics within the house that show longer distance connections across Scotland, as do the two sandstone slabs on either side of the fireplace (see Figure 13.2). Perhaps four or five people would have occupied this home, according to a historical report from 1851 (Tuffin 2011), forming an assemblage with the house itself that we might gloss as a family. This did not somehow pre-exist this architecture, however.



Figure 13.1 Swordle Corrach under excavation in 2011

Source: © Dan Addison and ATP



Figure 13.2 The surviving fireplace in house 4, one part of the assemblage that continues to be territorialised

Source: © ATP

The assemblage was formed by living together, by widows marrying new husbands and bringing them to live with them in their house (Tuffin 2011). The family emerged – or was territorialised – through the processes that involved living in, eating in, cleaning and sleeping in the house itself, in repairing and reworking its turf roof. They emerged both in and through materials and practices (cf. Brittain 2014, p. 264, Lucas 2012, p. 202). Unlike earlier forms of architecture present on the site this was not a space where people and animals lived together; the assemblage here was not territorialised with those animals within the house, except when they were about to be consumed. These distinctions point to the differing expressive elements emerging within the assemblages, the memories attached to this house for people who lived there, the very sense of family and connectedness that was created through the process of dwelling.

The people living in Swordle Corrach were behind with their rent, they would have been under pressure to produce more, to make more, to gather more from the sea to sell on. Not long after these houses were built, a report by Thomas Dickson informed the owner of the estate, James Riddell, of the degree of arrears faced by his tenants in Swordle Corrach, and the unlikelihood of any of them being able to repay their rents (Tuffin 2011). Just a few years later, probably in 1853, the houses, including house 4, had their occupants cleared from them, one moment in the wider assemblage we today call the Highland Clearances. This saw numerous tenant farmers cleared off the land across the Scottish Highlands to make room for sheep, and to a lesser extent deer, which were far more profitable (Richards 2007). Here the assemblage of Swordle Corrach saw a rapid deterritorialisation as people were cleared out. This was not the same as the coming and going of a single person, the death of just one former occupant. This architectural assemblage before and after the clearances, was utterly different, going

through what DeLanda (2002) refers to as a phase transition (cf. Harris 2014b), when an assemblage radically changes from one thing to another.

Unlike the other houses in the settlement emptied at this time, however, it is possible that house 4 was reoccupied. A small amount of Lino was recovered from the house, something not widely available until the latter half of the nineteenth century, and the fireplace we excavated was potentially a replacement, as the firegrate did not properly fit the space that it occupied. Was a new assemblage territorialised here for a while then, with new material and expressive dimensions? In any case when the house was finally abandoned the change was rapid, the newly installed fireplace left behind (Figure 13.2), along with valuable iron pots. When people left the other houses they had time to take these kinds of material things with them; more than just human beings were deterritorialised from the assemblage. This was not the case with house 4, perhaps at the insistence of the landowner (Tuffin 2011).

Cladh Aindreis chambered tomb

The second piece of architecture I want to discuss is the Neolithic chambered tomb of Cladh Aindreis (see Figure 13.3). In traditional terms we could argue that it was probably constructed in the thirty-eighth century cal BC, and then used for perhaps 200 years or so (for details of the radiocarbon dates see Harris *et al.* 2014, on cairns of this type see Noble 2006, Chapter 5). This distinction between construction and use is problematic, however, as we will see further below (cf. McFadyen 2007a). Instead let us consider the different materials that were territorialised into this architectural assemblage. The first to be included was a mixed deposit of charcoal and cremated human remains, deposited in a small hollow a couple of hundred metres inshore from the sea, close to a stream. Other materials gathered to the scene, notably limestone quarried from nearby bedrock. These enhanced the underlying topography of the ground ensuring no boundary existed between ‘cultural’ monument and ‘natural’ landscape. People and stones worked together, each dependent on the other in the construction of the monument (cf. McFadyen 2007a, 2007b, 2014, p. 139). As the stone mound rose other materials became entangled; specific stones were selected to form a long, box-like chamber on one side, perhaps binding expressive connections into the assemblage through their histories, shapes and textures (Cummings 2009, 2012). In here further parts of people were deposited. These were potentially not whole bodies, but rather bundles of bones, perhaps deposited in bags (Harris *et al.* 2010). If so it was bone that was incorporated into this assemblage, not flesh or other material elements of human bodies. Here too specific memories, links and feelings emerged in the assemblage, these expressive elements as critical as the material connections between earth, bone and stone. The site itself would have become a material reminder of absence, a force impressing the fact that certain people resided here in a different form. Within the Neolithic, further alterations took place a couple of centuries later, with a ditch being dug around the front of the monument, incorporating flint, quartz and pottery into its fill, and thus into the assemblage of the monument. A tail was added to the monument changing its shape and its broader relationship to the landscape around it. This heterogeneity is important here (Harris 2013, cf. Olsen *et al.* 2012, p. 165).

At Cladh Aindreis, one element of the assemblage, the particular interaction of depositing (and potentially removing) bones from the chambers, ended a few generations after the tomb had first emerged. We cannot be certain what happened to it at that stage, whether people were totally deterritorialised from the assemblage, or whether their engagements with it simply do not leave a trace for us to find. The stones continued to settle, some tumbling off the monument to lie around its edges, potential deposits in the chamber, like the bags that may

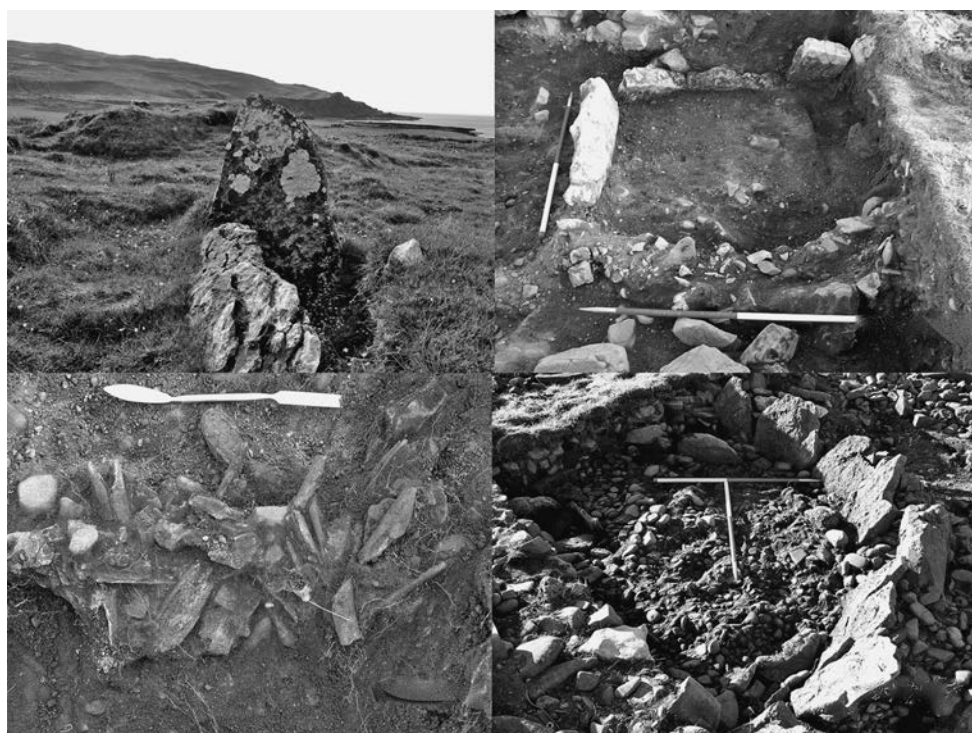


Figure 13.3 Architectural elements from Cladh Aindreis. Top left: The main stones of the visible chamber. Top right: The exposed chamber stones at the front of the monument after excavation in 2010. Bottom left: A bundle of human bones deposited within the chamber, probably in the late thirty-seventh or thirty-sixth century calibrated BC. Bottom right: One quarter of the Bronze Age kerbed cairn known as Ricky's Cairn.

Source: © ATP

have held some of the bones, rotted away and separated themselves. The tomb, as an architectural assemblage, endured of course, and in time it was incorporated into other assemblages with people and things in new ways. Perhaps 1000 years later people returned and blocked off the chambers adding earth and a capping of small stones to seal away the human remains inside in what we now call the Beaker period. Later between 1770 and 1620 cal BC a new monument, a Bronze Age kerbed cairn, known today as Ricky's Cairn, was constructed immediately adjacent to Cladh Aindreis (Harris *et al.* 2010, Harris *et al.* 2014). This monument territorialised new kinds of material. Different forms of stone were used to define its kerb, to clearly bound it off from the world around it. Human remains from at least two people and beads made of jet tied geographical connections near and far into a central cist (the jet most likely comes from North Yorkshire).

Architecture, assemblage and design

This is by no means the end of this assemblage, and we will return to the later history of Cladh Aindreis below. However, having described the emergence of these two assemblages, let us

consider a little further the processes by which both of our architectural sites came into the world, and whether or not we can best understand them as products of design. This critical issue has been raised in many recent discussions of Neolithic chambered tombs (e.g. McFadyen 2007a, 2007b). Are they products of deliberate design, or does their form emerge out of the process of construction? One of the critical advantages of turning to assemblages is that they allow us to deal with this question head on, and not just in the case of our chambered tomb. The typical notion of architecture, both in archaeology but also more widely, posits the idea that there is a pre-existing architect. This person is someone who has an idea in their mind that they then realise, often in the modern world first on paper, and then later in the actual building of the structure (Ingold 2013: Chapter 4). Whether a hut, a pyramid or a skyscraper, the free-floating mind behind the design seems everywhere. Yet this need not be the case. Such an approach presumes a hylomorphic approach to matter – that is that it is passive, and awaiting the enlivening touch of someone to bring it to life (Conneller 2011, Deleuze and Guattari 2004, p. 450–1, Ingold 2013, p. 50, Olsen 2010, Olsen *et al.* 2012, p. 160). This of course places people outside of the world, somehow apart from materials, which returns us to a world replete in Cartesian dualisms (Ingold 2013, p. 25) and presumes a ‘unilinear trajectory from design to end product’ (McFadyen 2008, p. 307). I should stress that I do not, for one moment, want to disengage human beings from the process of building, making and using architecture. They are absolutely part of this process, and it seems impossible that we would have the diversity of the range of structures we do without our own species playing a crucial role. However, there is a world of difference between privileging the human alone and denying them any role in the proceedings, and it is precisely this gap that can be explored through the notion of the assemblage.

Perhaps the best example of this comes in a story retold both in lectures and in print by the Deleuzian philosopher, Manuel DeLanda (e.g. 2007, p. 22). DeLanda turns to the work of Frei Otto, a German architect who was interested in lightweight structures and is most famous for his design of the tent-like structures of the 1972 Munich Olympic Arena. In the traditional model, we might imagine Otto picturing the roof in his mind, sketching it out, constructing it and then reflecting on his own genius. However, as DeLanda points out, the story is in fact very different. Otto was not the sole architect of this design, rather he worked in conjunction with a very humble material: soap film. Otto knew that soap film has the tendency to create shapes that minimise surface tension (this is why when you blow bubbles in the bath they form spheres). Using a model of small sticks, and pieces of string, Otto used soap film to calculate the shapes of least resistance (curves technically known as hyperbolic paraboloids) he needed for his tent roofs (DeLanda 2007, p. 22). A story like this does not deny the creativity and input of the (human) architect, but it allows for the active role, the form generating properties (morphogenesis) of other materials as well (cf. Ingold 2013, p. 54–55). In this case it was the territorialisation of an assemblage of soap film, string, stick and human that produced the design – and of course countless more people, materials and events were assembled into the process of the final construction itself.

Of our two examples of architecture I have discussed so far, house 4 at Swordle Corrach, relatively modern in date, is the one that a sceptic would insist must have been designed in the traditional sense. After all, it is one of (at least) three gable ended houses of the same size, constructed at the same time. Surely here we can see the designer’s hand at work, a product of the human mind made material? Of course human plans and ideas are involved in the process of producing this architecture as I acknowledged above; however, we also have to give room for the role of the materials, the stones, locally produced mortar and so on. Two particular examples stand out in relation to house 4 that reveal the active role of materials in co-designing



Figure 13.4 The wall of house 4 at Swordle Corrach, showing the use of both 'natural' bedrock and 'cultural' building materials in the emergence of this assemblage

Source: © ATP

the living space. First, when building the house, people had drawn on and used the bedrock to form foundations for the walls (see Figure 13.4). Second, just outside house 4 where more of the natural bedrock poked out, people had again worked with this material. By filling in a natural hollow between the rock and covering this with a wooden plank, a serviceable platform had been produced. In both these cases there was no sense of a 'design' by an architect, but rather these were the outcome of people and materials of different sorts (bedrock, smaller stones, wood) working together to configure (or actualise) the assemblage. There are many other examples of this interweaving of 'nature' and 'culture' in the construction of these and older houses on the site (cf. Casella *et al.* 2010).

So turning to assemblages opens up the possibility of different ways of thinking about design and architecture. We can rethink the reasons that meant that out of all the multiple possible ways in which materials could be combined together certain ones emerge and not others. Yet there is still more we can gain from this, not least in thinking about how the process of assembly and building is not something that comes to an end, but rather is an ongoing process. As Tim Ingold (2013) has pointed out, we traditionally separate the process of constructing architecture from the actions involved with using it. This implies that a building is finished and complete at some stage, at a mythical moment between the end of its construction and the beginning of its use life. Placing the emphasis on how buildings continue their becoming, however, as both Ingold's use of Deleuze and Guattari and my emphasis on assemblages insist, denies the possibility of this building/living dichotomy.

If we take any one moment in the history of Cladh Aindreis it might be easy in one sense, perhaps, to see its construction and 'final form' as the outcome of human agents' practices, of

their decisions, of their design. Considered from an assemblage perspective, however, we can see how this could only ever be part of the picture. The emergence of the monument was not a single moment; rather it was a continual becoming in the actions of people, in the arrangement of stones, the placing of bodies in the chambers, of their presence there on their return and in the emergent capacities of the materials. Critically with Cladh Aindreis we can trace these interactions both in its initial stages of building/use but also through the way its shape was altered with the construction of a tail and the digging of a ditch. We can also see how the assemblage becomes added to in the Bronze Age with blocking of the monument and the construction of the kerbed cairn. It is impossible, in actuality, to distinguish between the construction, use and alteration of the monument. These three processes are intertwined with one another, and at any moment one can examine different aspects of them. What this also helps to emphasise is that the stability of buildings, such as it is, is always both a product of scale (at both smaller spatial and larger temporal scales buildings are always changing) and a product of the efforts – the work – of all sorts of entities, including but not limited to people (cf. Fowler and Harris 2015). This does not mean that such stability is an illusion – just because something is fabricated does not mean it is false (Latour 1999, p. 115) – but it does mean it is an outcome of ongoing assemblage rather than something inherent, fixed or essential (Olsen *et al.* 2012, p. 188). Stones help prop up the chamber while micro-organisms eat away at the bones contained within; the tumble of stones down a slope from the kerbed cairn is as much a part of the history of the monument as its erection in the first place. There is no single designer, there is no final form.

Yet for all the power of such descriptions, they remain that, descriptions. Knowing that Cladh Aindreis emerges as a stabilised entity at certain moments and at particular scales through the work of people and things together, while at another level it is constantly changing, is important, but in itself insufficient. This helps us enormously with one set of questions, but leaves others, equally critical, unanswered. Why did people go back to Cladh Aindreis time and time again? What was it about this assemblage that pulled people back to it? Similarly why was house 4 reoccupied, and why was it eventually demolished? Can assemblages help us think through these questions about architecture? I suggest they can, but to demonstrate this we need to turn to a consideration of affect.

Affective assemblages

Affect is important to this account because it allows us to consider the nature and force of the relations between materials, people, places and so on, and how they endure through time (Deleuze 1988, Spinoza 1996). Affects are the means by which bodies (in the broadest sense) press into one another, they refer to the crucial capacity to affect and to be affected, they are the ways in which boundaries are drawn and crossed, emotions felt and expressed, the sense in which a room can have an atmosphere that you feel rather than read or know (Thrift 2008, especially Chapter 8).² Affects are the means by which assemblages are territorialised, thus the relationships between bricks and mortar are ones of affect, but so is the one that makes a house a home. Affect is ‘an entire, vital, and modulating field of myriad becomings across human and nonhuman’ (Seigworth and Gregg 2010, p. 6; see also Roberts 2012, p. 2517). Using affect allows us to place the mental and the material on an equal ontological footing. Emotions, whose importance is increasingly being recognised in archaeology (Harris 2009, 2010, Harris and Sørensen 2010, Tarlow 2000, 2012), are, in this sense, one set of affects as experienced by human beings (and potentially other animals). Through this recognition we can incorporate emotion into our accounts without having to either posit transcendental feelings, or by identifying an ontological class of experience available to human beings alone. Instead we can explore the

potential affects that are generated in particular sets of relationships, and how emotions can emerge through assemblages that include, but are in no way limited to, people.

The assemblage emergent through architecture is one example of what Tim Flohr Sørensen and I have elsewhere referred to as an affective field (Harris and Sørensen 2010, cf. Hamilakis 2013). Affective field, as a term, captures the way in which affects emerge as material bodies of all sorts affect each other. The ability of architecture to affect people, to cause them to behave in certain ways, to feel particular kinds of emotion is not an inherent property; instead it is an emergent capacity (cf. DeLanda 2006, p. 10). That is it is fundamentally relational, it works in the conjunction of people, place and materials. By incorporating affect into our understandings of architecture we can examine not only the physical connections humans were involved in (the way in which people propped up stones, built walls, selected materials and so on) but also the less material ways in which they are altered and transformed by their engagements. We can also, I suggest, think about history and persistence in new ways.

It is easiest perhaps to begin with affect in the small, intimate becoming of the assemblage of house 4 at Swordle Corrach. On the one hand here we can trace affects in the way in which stone and bedrock pressed into one another, in the way these provided shelter for human beings who in turn managed the mortar that kept the stones in place. Within the house affective fields were generated between people, hearths, flames, heat, warmth, food and pots, as substances and feelings flowed between people and the materials they were enmeshed with, and between differing material things as well; the fires heated the stones as much as they heated people. Recently Hamilakis (2013) has called on archaeology to attend to these affective assemblages, to the sensory world in which the past emerged. The close, confined spaces of house 4 can only be understood in the light of these kinds of consideration; it is here that the intimate affects of the world played out for a few decades in the nineteenth century.

Yet this rather cosy image is disrupted, of course, when we return to think about the Clearances. As we have seen, with rent in arrears people were forced from their homes in 1853. Yet house 4 was re-occupied. Here affect helps us think about the developing history, about power, resistance and the socio-political struggles of this period (cf. Hamilakis 2013). While the houses were still standing the assemblage continued to reach out to people, to offer to reterritorialise them as part of Swordle Corrach, to bring new items and materials into the house. This affective connection between this place in the landscape and the people around it – perhaps more than a desire for warmth, a desire for the affective qualities of *home* – meant the assemblage persisted despite the efforts of the landlords to destroy it. One more transformation affected this assemblage when the house, along with the others, was demolished. This took place not long after their abandonment, and was perhaps motivated by the fact of house 4's re-occupation. While the houses were still standing the potential that they might be lived in again, that the assemblages might be reterritorialised, continued to exist. Although the people were absent, that absence was an active, affective, presence in the landscape through the houses, through their capacities to generate shelter (cf. Fowles 2010 on the affective nature of absence). This affective element of the assemblage, of the possibilities for communities to return, in the end meant that the landowners required not just the houses to be abandoned but their actual material fabric to be pulled apart, for the assemblage to go through another phase transition, only a few decades after it had emerged for the first time. The landlord understood, if only implicitly, that communities have material elements too (Harris 2013, 2014a). The remnants of the structures survived underground, on the fading maps of the nineteenth century and in the dispersed historical records of the estate until reterritorialised by our excavations and research (cf. Deleuze and Guattari 2004, p. 193).

If affect can help us think about the myriad modulations that called people back to Swordle Corrach in the short term, can it also help us think about the long-term history of a site such

as Cladh Aindreis? In the first period of its construction/use the capacity of the stones to endure at a scale greater than the human life span called people back to the site, it affected them and demanded they attend to the assemblage of the monument, to add to it and engage with it, to feed it, to keep it alive. The stones, the bones, the people, the memories, the physical and the expressive elements of this assemblage created a space that reached out and pulled people in, at least for a little while. Here affect operates as memory materialised through engagement with the world, and far more than a simple mental function (Hamilakis 2013). Yet when it comes to the longer history of Cladh Aindreis discussions of memory, and even myth, are inadequate if we want to understand the persistence of an affective geography at this site (cf. Harris 2010). We have already seen the complex history of the architecture as it was built and altered in the Neolithic, and how people returned to it in the Bronze Age. Ricky's Cairn, the Bronze Age kerbed cairn, was constructed *2000 years* after the Neolithic monument was built. Here Cladh Aindreis itself was bound into an assemblage in a new way. Its history, its antiquity, and the affective power this generated were drawn upon in the construction of the new monument. No doubt the earlier structure would have had the potential to provide this sort of resource for some time, but this is the first moment it was materially drawn upon in this way, the first time a possibility that had previously only been virtual was actualised. Crucial to this reuse was the affective properties of the architecture, and the way they could be drawn out and employed in new affective fields as new forms of architecture emerged alongside them. Other places lacked this potential. Cladh Aindreis' existence, its affective power, was a crucial constituent in the construction of Ricky's Cairn, its material ability to endure in the world, to remain territorialised, played a vital role in this. We cannot seek to understand this reuse if we look at people alone in ideas of memory, or myth, or persistent place. It is the materials themselves, their affective powers, their history of becoming in the landscape that play a critical role here.

And these affective powers persisted for millennia. One thousand years or more after Ricky's Cairn was built, people returned once again, in what we now call the Iron Age, to dig another ditch around the front of the monument, perhaps linked to a structure of some kind, and light a hearth where they burned hazelnut shells. Past this moment, for another 2500 years, the way in which Cladh Aindreis endured in the landscape ensured that people returned to it regularly, continued to territorialise themselves, even if only briefly, in its assemblage. They connected it with other places by taking stones from it to form dykes, and potentially to fill in a nearby Viking boat burial (Harris *et al.* 2012), slowly deterritorialising elements from the cairn. It is certainly more than possible that the occupants of Swordle Corrach wandered over these stones and took some for building. These engagements over thousands of years with Cladh Aindreis – but not with Ricky's Cairn – in the end drew archaeologists to first survey and later excavate the site (Harris *et al.* 2010).

The continuity of engagement with Cladh Aindreis was part of its becoming that emerged through the way in which prominent piles of stones remain visible in the landscape, able to affect others and draw them to it, allowing the site to be reterritorialised into other assemblages: into maps, into lists of scheduled ancient monuments, into Christian understandings of the landscape (Cladh Aindreis means (St) Andrew's Stone in Gaelic) (cf. Fowler and Harris 2015). Our ability to understand the site as archaeologists however, also emerges from the chemical capacities of the earth, and the way these *affect* the preservation of the bones inside the chamber (very unusually for this part of the world). Thus the assemblage of bone and monument continued to be territorialised over thousands of years thanks to the specific make up of the soil; affects are more than just feelings. The visible presence of the Neolithic monument also led, in the end, to the (re)discovery and excavation of Ricky's Cairn, indeed to the discovery and excavation of all the sites we have dug in Swordle Bay. Thus once archaeologists had become

territorialised within the assemblage of Cladh Aindreis new capacities emerged, a new affective field generated new forms of relationships across the bay. In no sense can we attribute this to the agency of any original architect, or even collectively to the people who helped construct this monument 5700 years ago, or indeed to archaeologists in the present. The assemblage of the architecture itself, including people from time to time, is what has had these affects.

Landscape as architecture

The final scale of architectural assemblage I want to examine is the landscape of Swordle Bay itself (Figure 13.5). Now one should acknowledge immediately that I am stretching the concept of architecture considerably here to include landscape. I will return to this below, but for the moment the key point is the fact that both the architectural examples we have discussed above, and the landscape of which they form part, can certainly be understood as assemblages. That is they are a gathering together of a range of different elements including humans, materials, plants, animals and so on, without any sense of an architect or designer being implied. The landscape of Swordle Bay is clearly an assemblage that endures over a much greater time span than either of the other two examples we have looked at, formed over millions of years by processes including the eruptions of the nearby (now dormant) volcano, the weight of ice-sheets and other events on a geological timescale (Gillen 2013). Even if we only look at the relatively recent history of the landscape since the last ice age we can trace multiple distinct transformations. As the ice was deterritorialised from the landscape the sea level rose and rushed in to take its place. Slicing in and out this created a flat area of land on the foreshore, what we refer to today as a



Figure 13.5 The landscape of Swordle Bay

Source: © Dan Addison and ATP

marine-cut terrace. As the land slowly rose (recovering from the weight of the ice, or as the long lasting affects of ice coverage faded) the sea cut new terraces creating a layered effect on the landscape.

It was into this world that humans became part of the assemblage for the first time, drawn in by the capacities of the landscape to sustain life, the presence of plants, water, stones and shelter. The interweaving emergence of people and landscape from this point on cannot be separated. People, animals, trees, soils, plants and stones all interacted with each other, all emerged and became together (cf. Kohn 2007). The creating of (physical) fields through the erection of boundaries, the efforts of humans to enclose animals in these fields and the efforts of animals to graze therein, all played their role in continuing the process through which this landscape emerges – a process that had already been going on for millions of years and continues to the present day. People gathered stones in certain places to build cairns or houses, or to clear spaces for plants, and this allowed new elements to become part of the landscape. At the same time as plants grew and died so people grew and died with them. People no more wander above the world, above the landscape, than plants or animals do. They are not somehow separate from the ecology of this landscape assemblage. In the aftermath of the Highland Clearances there were fewer people but many more sheep in Swordle Bay, a trend that continues to this day. Machines for the first time became part of the assemblage here, connecting this landscape to wider concerns from industry to oil extraction. Some machines have become strongly territorialised in this assemblage; it is hard to see the landscape staying the same if people did not have access to the tractors that bundle the grass for hay, or the cars that allow them to come and go. Others less so. According to local oral histories (a powerful expressive element of a landscape assemblage cf. Casella *et al.* 2014), previous owners of one of the houses in the bay attempted to turn the land into an organic farm, and to use a marine cut terrace as a landing strip for a light aircraft. Although they have gone, along with their plane, elements of them remain materially territorialised in the landscape in the form of the library of German books in the house they used to own. Recently, further materials have become part of the landscape from a new glass fronted house overlooking the bay to an interpretation board close to Swordle Corrach describing the finds of a group of archaeologists. The latter is still present at the time of writing despite the repeated efforts of cows to deterritorialise it.

The affective relations between sea, land, stone, people, animals, plants, politics, economics, universities, charities and others have emerged together, pressed into each other, become through each other. Swordle Bay has had a profound affect on me, and I have affected it. My relationship with Swordle is different from that of the gamekeepers who live there, the sheep who graze there, the Neolithic people who died there, and the sea that shaped the terraces upon which I walk. All of these relations are ones of affect, however; they do not exist on some separate ontological plane where some are considered part of nature and some part of culture – they are all the outcome of the way in which the world goes along together, becoming and emerging as assemblages, and breaking apart and fading away.

Is this landscape really architectural though? One's first reaction is undoubtedly to feel uncomfortable about this. Surely this is stretching the term too far? What use does it have if we can include even landscapes within its boundaries? In the end it does not really concern me whether or not we use the term architecture to refer to landscapes – what does matter is that we treat both as forms of assemblage. Indeed we should be treating all scales of the world, from atoms up to galaxies in these terms. If we insist on retaining a gap between architecture and landscape we risk making this more than linguistic, of making it ontological, and of allowing the bifurcation of nature (Whitehead 1964) in by the back door where architecture is human, produced through anthropocentric ideas of design, and landscape is nonhuman, although

conceived of and experienced by people, and transformed by human actions upon it. When we take an approach rooted in assemblages, though, we can finally shift out of this perspective. By exploring the landscape of Swordle Bay in this manner, what we see are the local and specific ways that these assemblages come together, the histories of ice, sea, sheep and building that are different here from elsewhere. The detail of the landscape-as-architecture assemblage lies in the particularities and uncertainties of the other scales I have described, in the interaction of the houses and cairns, stones and people, animals and plants that I have discussed. The landscape scale emerges from the specificities and unstableness of assemblages that go all the way down.

We can treat landscape as a scale of architecture, or not, but both are undoubtedly assemblages. Just as some authors have sought to erase the boundaries between material culture and architecture (Love 2013, McFadyen 2006, 2014), so we can do the same between architecture and landscape, in *both* directions (cf. McFadyen 2008). What this reveals then is that the boundaries of the term architecture itself are not hard and fast. There is nothing essential, no essence, to architecture. Instead the term is itself an assemblage and it is brought into being by our use of it and the way we employ it, by the processes of building that it is caught up in. At its margins, at the edges where one field boundary becomes another, where the definable limits become blurred, the term itself deterritorialises.

Conclusion

Once we open ourselves up to approaching architecture as assemblages operating at multiple temporal and spatial scales, as an ongoing becoming that is always both being produced and decaying away through entropy, erosion and damage, new elements enter our account. Architecture and buildings are no longer statements about human design or our power over materials; buildings are no longer containers for action, or structures that condition experience (ap Stifin 2014). Instead they emerge as active partners in the ongoing creation of the world, tying in humans and non-humans, shaping and being shaped, physical and meaningful, coming together and moving apart. Taking a view of architecture as assemblage further means that the active agents in any given circumstance, the catalysts for historical actions, are not predetermined (ap Stifin 2014). No longer are we in an anthropocentric space alone. Instead, in this domain of more-than-human geographies (Whatmore 2006), we enter the world of post-humanism (Braidotti 2013). Not in the sense of some leaving behind of what was natural about human beings, but rather in the recognition that the bifurcation of humanity and the world (Whitehead 1964), and the idea of a humanist vision of a singular ontologically rarefied category of being, can no longer be sustained in the present *or the past* (see Robb and Harris 2013). We have always been cyborgs, as Olsen *et al.* (2012, p. 161) rightly argue. Assemblages mean recognising we cannot separate a priori people, architecture, animals, materials and so on; these things are always already entangled.

Archaeologists have been bemoaning the pernicious effects of dualisms for a very long time (e.g. Thomas 1996). One that continues to persist is the notion that behind the construction of any building lies a singular design. This constitutes a gulf between the mental and the material, between mind and body and in the end between culture and nature. As authors such as Deleuze and Guattari (2004) and through their reading of them, Ingold (2013) and DeLanda (2002), have shown, this idea fails to capture the capabilities of matter itself to contribute to design – it fails to engage with its morphogenetic capabilities. In this paper by drawing on these authors and others, I have advocated that by turning to the notion of assemblage we can offer a different approach. Instead of separating the construction of a building from its use and indeed its abandonment, we can instead think about how it is constantly brought into being through the

efforts of multiple constituent parts (each of which is of course also an assemblage at a different scale of analysis). These assemblages are maintained through the acts that renew them and bring them together, that battle against the inevitable changes that happen through time.

All of these relations are ones of affect, and this term captures the way that assemblages, and the different parts of assemblages, impress upon one another. The affective relations – the affective field – that these assemblages produce endures not only in their interactions with human beings, but through the very materials of which they are constituted and this allows them to persist for thousands of years after they appear to have vanished from use. By taking an approach rooted in affect and assemblage to examine three scales of architecture in Swordle Bay I have been able to think about the way in which materials, people, animals, soils, plants and more interact in their becoming. I have tried to capture some of the ways in which particular types of architecture helped to generate affective fields, some of which had powerful consequences in the short term, others of which endured for much longer, up to and including into the present. As an archaeologist I am interested in the architecture of past worlds in which people lived, and it is people who remain the primary focus of my interest. Yet to understand these worlds in all their glorious complexity we cannot turn this primary focus into an ontological privilege (Lucas 2012, p. 263), into a world divided between people and the rest. It is in reaching out to a more-than-human history, in exploring the becomings of materials, architecture and landscapes as well as people, that a less dualistic and more open past becomes possible.

Acknowledgements

I would like to thank Mikkel Bille and Tim Flohr Sørensen for their invitation to participate in this volume, it has been a great opportunity to think further about these ideas. The editors of both this volume and the wider series along with Pwyll ap Stifin and Hannah Cobb offered very insightful comments on an earlier draft, and Hannah pointed out to me the importance of the name of Cladh Aindreis in reterritorialising the monument in later assemblages. The work in Ardnamurchan is ongoing and the contribution from all the staff, volunteers and students who have worked on it has been enormous. Thanks to all those who have funded us over the years including the Leverhulme Trust, the British Academy, the McDonald Institute for Archaeological Research, the Prehistoric Society, the Russell Trust, the Royal Archaeological Institute and the CBA, and to Historic Scotland, the Ardnamurchan Estate and Claire Rudd for permission to excavate. In particular I must express my heartfelt gratitude to my three amazing co-directors, Hannah Cobb, Héléna Gray and Phil Richardson for their hard work, talent and unending intellectual generosity. Héléna in particular provided numerous answers to my questions about Swordle Corrach. Similar thanks to Richard Tuffin, our historian and surveyor extraordinaire, for giving permission for me to quote liberally from his unpublished research.

Notes

- 1 The Ardnamurchan Transitions Project is co-directed by the author, Hannah Cobb (University of Manchester), Héléna Gray (CFA-Archaeology) and Phil Richardson (Archaeology Scotland). The project has excavated sites from a range of periods including those discussed in this article alongside a Bronze Age enclosure, an Iron Age promontory site, a Viking boat burial, a second post-medieval settlement and more recent clearance cairns. The work is expected to continue for the next few years and full publication will follow the conclusion of the research. In the meanwhile details can be found on our website (www.ardnamurchantransitionsproject.com) including interim reports for all excavations.
- 2 An interesting question posed by one of the reviewers of the paper was the extent to which affect differs from agency. Affect goes beyond agency in a number of ways; first it sheds any sense in which

it might be solely the province of human beings. Second it captures the force or power of relationships in a way in which even Latourian discussions of agency fail to do. Third it allows us to reincorporate emotion into our accounts as embodied relational engagements with the world in a manner that agency does not attend to.

References

- ap Stifin, P. 2014. The post-9/11 voice: sound, materiality and relationality as memory. Unpublished PhD Thesis. University College London.
- Atkinson, J. A., Banks, I. and MacGregor, G., eds. 2000. *Townships to Farmsteads: Rural settlement studies in Scotland, England and Wales*. Oxford: BAR.
- Bennett, J. 2010. *Vibrant Matter: A political ecology of things*. London: Duke University Press.
- Braidotti, R. 2013. *The Posthuman*. London: Polity.
- Brittain, M. 2014. Assembling bodies, making worlds: an archaeological topology of place. In: Alberti, B., Jones, A. M. and Pollard, J. eds, *Archaeology after Interpretation: Returning materials to archaeological theory*. Walnut Creek, CA: Left Coast Press, 257–276.
- Casella, E. C., Gray, H. and Tuffin, R. 2010. *Coldstream Cottage: Season two 2010 data structure report*. Ardnamurchan Transitions Project Unpublished Report Number 16.
- Casella, E. C., Cobb, H., Harris, O. J. T., Gray, H., Richardson, P. and Tuffin, R. 2014. From knowing into telling: a dialogue in five parts. *Historical Archaeology* 48(1), 71–86.
- Conneller, C. 2011. *An Archaeology of Materials: Substantial transformations in early prehistoric Europe*. London: Routledge.
- Creese, J. L. 2013. Rethinking early village development in southern Ontario: toward a history of place-making. *Canadian Journal of Archaeology* 37, 185–218.
- Cummings, V. 2009. *A View from the West: The Neolithic of the Irish Sea zone*. Oxford: Oxbow.
- Cummings, V. 2012. What lies beneath: thinking about the qualities and essences of stone and wood in the chambered tomb architecture of Neolithic Britain and Ireland. *Journal of Social Archaeology* 12, 29–50.
- DeLanda, M. 2002. *Intensive Science and Virtual Philosophy*. London: Continuum.
- DeLanda, M. 2006. *A New Philosophy of Society: Assemblage theory and social complexity*. London: Continuum.
- DeLanda, M. 2007. Material elegance. *Architectural Design* 77(1), 18–23.
- Deleuze, G. 1988. *Spinoza: Practical philosophy*. San Francisco, CA: City Lights Books.
- Deleuze, G., and Guattari, F. 2004. *A Thousand Plateaus: Capitalism and schizophrenia*. London: Continuum.
- Dewsbury, J.-D. 2011. The Deleuze–Guattarian assemblage: plastic habits. *Area* 43(2), 148–153.
- Edensor, T. 2011. Entangled agencies, material networks and repair in a building assemblage: the mutable stone of St Ann’s Church, Manchester. *Transactions of the Institute of British Geographers* 36, 238–252.
- Fowler, C. 2013. *The Emergent Past: A relational realist archaeology of Early Bronze Age mortuary practices*. Oxford: Oxford University Press.
- Fowler, C. and Harris, O. J. T. 2015 Enduring relations: exploring a paradox of New Materialism. *Journal of Material Culture* 20(2), 127–148.
- Fowles, S. 2010. People without things. In: Bille, M., Hastrup, F. and Sørensen, T. F. eds, *An Anthropology of Absence: Materialisations of transcendence and loss*. New York: Springer, 23–41.
- Gillen, C. 2013. *The Geology and Landscapes of Scotland*, 2nd edn. Edinburgh: Dunedin Academic Press.
- Hamilakis, Y. 2013. *Archaeology and the Senses: Human experience, memory and affect*. Cambridge: Cambridge University Press.
- Harris, O. J. T. 2009. Making places matter in Early Neolithic Dorset. *Oxford Journal of Archaeology* 28(2), 111–123.
- Harris, O. J. T. 2010. Emotional and mnemonic geographies at Hambledon Hill: texturing Neolithic places with bodies and bones. *Cambridge Archaeological Journal* 20(3), 357–371.
- Harris, O. J. T. 2013. Relational communities in prehistoric Britain. In: Watts, C. ed., *Relational Archaeologies: Humans, animals, things*. London: Routledge, 173–189.
- Harris, O. J. T. 2014a. (Re)assembling communities. *Journal of Archaeological Method and Theory* 21, 76–97.
- Harris, O. J. T. 2014b. Revealing our vibrant past: science, materiality and the Neolithic. In: Whittle, A. and Bickle, P. eds, *Early Farmers: The view from archaeology and science*. Oxford: Proceedings of the British Academy, 327–345.
- Harris, O. J. T. and Sørensen, T. F. 2010. Rethinking emotion and material culture. *Archaeological Dialogues* 17(2), 145–163.

- Harris, O. J. T., Richardson, P., Cobb, H., Murtagh, P. and Pringle, I. 2010. *Cladh Aindreis chambered cairn, Swordle Bay, Ardnamurchan season five, 2010: archaeological excavations, data structure report*. Ardnamurchan Transitions Project Unpublished Report Number 14.
- Harris, O. J. T., Cobb, H., Gray, H. and Richardson, P. 2012. A Viking at rest: new discoveries on Ardnamurchan. *Journal of Medieval Archaeology* 56, 333–339.
- Harris, O. J. T., Cobb, H., Gray, H. and Richardson, P. 2014. New radiocarbon dates from Cladh Aindreis chambered tomb, Ardnamurchan. *Past: The Newsletter of the Prehistoric Society* 76, 5–6.
- Harrison, R. 2011. Surface assemblages: towards an archaeology in and of the present. *Archaeological Dialogues* 18, 141–161.
- Hingley, R., ed. 1993. *Medieval or Later Settlement in Rural Scotland: Management and preservation*. Edinburgh: Historic Scotland.
- Ingold, T. 2013. *Making: Anthropology, archaeology, art and architecture*. London: Routledge.
- Jones, A. M. 2012. *Prehistoric materialities: becoming material in prehistoric Britain and Ireland*. Oxford: Oxford University Press.
- Jones, A. M. and Alberti, B. 2014. Archaeology after interpretation. In: Alberti, B., Jones, A. M. and Pollard, J. eds, *Archaeology after Interpretation: Returning materials to archaeological theory*. Walnut Creek, CA: Left Coast Press, 15–35.
- Kohn, E. 2007. How dogs dream: Amazonian natures and the politics of transspecies engagement. *American Ethnologist* 34, 3–24.
- Latour, B. 1999. *Pandora's Hope: Essays on the reality of science studies*. Cambridge, MA: Harvard University Press.
- Love, S. 2013. Architecture as material culture: building form and materiality in the Pre-Pottery Neolithic of Anatolia and Levant. *Journal of Anthropological Archaeology* 32, 746–758.
- Lucas, G. 2012. *Understanding the Archaeological Record*. Cambridge: Cambridge University Press.
- Marcus, G. E. and Saka, E. 2006. Assemblage. *Theory, Culture and Society* 23, 101–109.
- McFadyen, L. 2006. Material culture as architecture: Neolithic long barrows in Southern Britain. *Journal of Iberian Archaeology* 8, 91–102.
- McFadyen, L. 2007a. Making architecture. In: Benson, D. and Whittle, A. eds., *Building Memories: The Neolithic Cotswold long barrow at Ascott-under-Wychwood, Oxfordshire*. Oxford: Oxbow, 348–354.
- McFadyen, L. 2007b. Neolithic architecture and participation: practices of making at long barrow sites in southern Britain. In: Last, J. ed., *Beyond the Grave: New perspectives in barrows*. Oxford: Oxbow, 22–29.
- McFadyen, L. 2008. Building and architecture as landscape practice. In: David, B. and Thomas, J. eds, *Handbook of Landscape Archaeology*. Walnut Creek, CA: Left Coast Press, 307–14.
- McFadyen, L. 2014. Designing with living: a contextual archaeology of dependent architecture. In: Alberti, B., Jones, A. M. and Pollard, J. eds, *Archaeology after interpretation: returning materials to archaeological theory*. Walnut Creek, CA: Left Coast Press, 135–150.
- Naismith, R.J. 1989. *Buildings of the Scottish Countryside*. London: Gollancz.
- Noble, G. 2006. *Neolithic Scotland: Timber, stone, earth and fire*. Edinburgh: Edinburgh University Press.
- Normark, J. 2008. The triadic causeways of Ichmul: virtual highways becoming actual roads. *Cambridge Archaeological Journal* 18, 215–238.
- Normark, J. 2009. The making of a home: assembling houses at Nohcacab, Mexico. *World Archaeology* 41, 430–444.
- Normark, J. 2010. Involutions of materiality: operationalising a neo-materialist perspective through the causeways at Ichmul and Yo'okop. *Journal of Archaeological Method and Theory* 17, 132–173.
- Olsen, B. 2010. *In Defense of Things: Archaeology and the ontology of objects*. Plymouth: Altamira Press.
- Olsen, B., Shanks, M., Webmoor, T. and Witmore, C. L. 2012. *Archaeology: The discipline of things*. Berkeley, CA: University of California Press.
- Ong, A. and Collier, S.J., eds. 2005. *Global Assemblages: Technology, politics, and ethics as anthropological problems*. Oxford: Blackwell.
- Richards, E. 2007. *Debating the Highland Clearances*. Edinburgh: Edinburgh University Press.
- Robb, J. E. and Harris, O. J. T. eds. 2013. *The Body in History: Europe from the Palaeolithic to the future*. Cambridge: Cambridge University Press.
- Roberts, T. 2012. From 'new materialism' to 'machinic assemblage': agency and affect in IKEA. *Environment and Planning A* 44, 2512–2529.
- Seigworth, G. J. and Gregg, M. 2010. An inventory of shimmers. In: Gregg, M. and Seigworth, G. J. eds, *The affect theory reader*. Durham, NC: Duke University Press, 1–25.
- Spinoza, B. 1996. *Ethics*. London: Penguin.

- Tarlow, S. 2000. Emotion in archaeology. *Current Anthropology* 41(5), 713–745.
- Tarlow, S. 2012. The archaeology of emotion and affect. *Annual Review of Anthropology* 431, 169–185.
- Thomas, J. 1996. *Time, Culture and Identity: An interpretive archaeology*. London: Routledge.
- Thrift, N. 2008. *Non-representational Theory: Space, politics, affect*. London: Routledge.
- Tuffin, R. 2011. *The History of Settlement on the Ardnamurchan Peninsula 1667–1856, including a History of Settlement at Swordlechorrach, Swordlemore and Swordlehuell*. Ardnamurchan Transitions Project, Unpublished Report.
- Whatmore, S. 2006. Materialist returns: practising cultural geography in and for a more-than-human world. *Cultural Geographies* 13, 600–609.
- Whitehead, A. N. 1964. *The Concept of Nature*. Cambridge: Cambridge University Press.
- Witmore, C. L. 2014. Archaeology and the new materialisms. *Journal of Contemporary Archaeology* 1(2), 203–246.

A sense of architecture in the past

Exploring the sensory experience of architecture in archaeology

Serena Love

Introduction

There is no question that architecture evokes, creates and demands emotional responses. As early as the first century BCE, Vitruvius wrote ‘architecture is the substance of delight’. Sensual qualities and emotional responses proliferate in the architectural discourse, taking seriously elements of temperature, light, materials, textures and sounds. The aim of this chapter is to explore the sensory experience of architecture from indirect somatic influence of building materials and to question the inherent sensory properties of building materials using three modern case studies of natural-built houses. Architecture is unavoidably sensual in nature; therefore a corporal narrative and sensory engagement are crucial for a holistic interpretation of the architectural experience (Rasmussen 1962). In anthropological studies of the senses, architecture is one medium, among many, to recognise and locate the sensory experience within a given culture (Howes 1991).

This chapter theoretically combines approaches from anthropology, architecture and archaeology to investigate a means of reconstructing the architectural experience in the past. How would the sensory experience of dwelling in a stone house differ from a house made from mud or wood? Answers to these questions may be difficult to recreate in the archaeological past so I conducted an ethnographic study of Australian owner-built natural homes, with a focus on houses constructed with straw bale, mud and recycled materials such as tyres and beverage containers. It is demonstrated how varying types of building materials contribute directly to this sensory experience and these case studies illustrate how variations in the sensory experience are elicited by different types of building materials. These results can then be used to inform the sensory experience of archaeological architecture, lending insights to the shifting character implicit in transitions from houses constructed of stone, wood or mud.

An ethnography of natural building materials asserts that the sensory contribution is inherent to the materials themselves and materials have ascribed meanings. When a space is entered, a sensory experience is triggered and a person *feels something*, although exactly what that ‘feeling’ will be culturally determined. Modern houses constructed with natural materials are often described as being healthier, creating a greater sense of well-being. Conversely, buildings made

from synthetic materials are said to cause 'sick building syndrome', where off-gassing releases toxic airborne particles, and are causally linked with illnesses and diseases (Jansz 2011; Kirch 2008). Natural built houses are often ascribed specific qualities by their owners, and by architects, who claim these houses grant them a sense of peace and tranquillity directly linked with the materials used in construction. The focus of the ethnographic investigation is to enquire about the sensory qualities of natural building materials, and how the thermal mass of earth, straw and tyre walls affects that sensory experience.

Anthropology, archaeology and architecture

An attempt is made to merge the three sensory perspectives posited by the disciplines of anthropology, archaeology and architecture to explore the sensory contribution of building materials and question to what extent material qualities can influence the experience of dwelling. This approach follows Ingold's (2012, p. 10) concept of *The 4 A's*, of anthropology, archaeology, art and architecture, where combining these disciplines can lead to an *architecture of inquiry* that addresses issues of material properties, form, textures, atmosphere and dynamics of activities. These questions are addressed using ethnographic research I conducted in eastern Australia as an active participant at different workshops that used straw bale, mud and tyres to construct an owner-built home.

Using a modified *The 3 A's*, anthropology, archaeology and architecture, perhaps pre-modern architecture can be better understood. Anthropology provides the qualitative data about the experience of different natural building materials. Architecture provides the quantitative data, such as thermal mass and insulation (r-values), as well as contributing a discourse on houses personified through their building materials. This combined data set can inform archaeological interpretations of sensual experiences in the past. A full acknowledgement that the senses are cultural constructions should not prevent the question from being asked about the sensory experiences in archaeology. This investigation is to explore the contribution of building materials in the experience of dwelling, without making universalist conclusions and being careful to historically situate embodied experiences (Tarlow 2000).

This research attempts to address how building materials affectively enliven architecture, which is further emphasised by the active attributes culturally assigned to raw materials, both in the present and in the past. For the past 25 years, archaeologists have engaged with social theory and recently have embraced a multi-sensory approach (Boivin and Owoc 2004; Day 2013; Jones and MacGregor 2002; Mills 2014; Pawlowska 2014; Skeates 2010; Tilley 2004) to combat the hegemony of vision, demonstrating how memories and experiences are anchored and entangled with objects and places. My objective is to laterally apply these ideas to explore the intangible, sensory aspect of architecture through its material qualities. Using examples from eastern Australia, I explore the social, non-visible sensory attributes of architecture to strengthen and enhance this general argument, using ethnographic analogy as possible interpretive scenarios for what may have been present in the past. In the next few sections, I use ethnographic examples to illustrate the intimate connection between people and their houses, while focusing primarily on the building materials.

Ethnography of modern practices

Between June and November 2013, I participated in several natural building workshops throughout Queensland and New South Wales, with a focus on earth, straw bale and recycled materials (i.e. tyres, bottles, cans). I realised that despite my research of mudbrick architecture

(Love 2012, 2013a), I did not know how to make a brick or build a house. I had written about the performance of building without ever having done it myself (Love 2013b). My own experience of materials was imperative to explore the senses in architecture but also to understand the process of building, observing social practices, interactions, labour, materials and human reactions. Ingold (2012) has said that to make is to know; to this I add that to make is to *feel*. Materials must be experienced in order to be understood.

The focus of this research was the Australian owner-builder community in an attempt to re-establish the disconnected relationship between the producer and consumer, which is rarely the same person in our modern society. Owner-builders often reject the pre-made, pre-fabricated ‘cookie-cutter’ model of architecture, claiming that the style of architecture is unsuitable for their lifestyle or poorly reflects on personal values and identity (Elizabeth and Adams 2005). Instead, there is a nostalgic return to handmade houses (Cedar and Chiras 2003), which are perceived as more authentic, especially when the house is made from locally sourced natural materials. Natural materials are defined as non-synthetic, organic with minimal processing (Racusin and McArleton 2012). An owner-built house better reflects the owner’s personal values and emotionally connects the person to the structure they are building (Wilke 2011).

This project was designed to explore visceral reactions to natural materials, as each person grants materials particular meanings, and to better understand how those meanings manifest into the experience of being within the house. I was told that houses made from natural materials such as mud and straw feel good, reiterating the common trope from architectural discourse (Strelitz 2008). I expected people to tell me that using locally sourced materials would connect them to place or imbue them with a connection to the earth but instead I was told that mud and straw houses felt good and people are comforted by the radiated aura of materials and that they are nurtured by their house. The anomaly is the Earthship, or house built with discarded car tyres, glass bottles and cans, where the category of ‘garbage’ is reclassified to fit an emerging green consciousness of the bourgeois Western eco-warrior. The connection between architecture and cultural constructions of sensory perceptions is explored through three examples of houses made from earth, straw bale and car tyres.

Mudbrick

Earth is considered the oldest, most authentic and most natural of all the building materials. In its raw form, mud comes from the earth and the buildings’ bricks are literally made by hand; the labour of love is poured into the bricks. Integrated Bio-tecture Design¹ hosted an Earth Building Workshop at Kathy’s² 150 acre property in New South Wales. Kathy was building a mudbrick house because she considered mud ‘a magical building material’. She felt more connected to her land by excavating soil from her own property, soaking clay in buckets, hand-picking out the stones, arms covered in mud up to her elbows. Kathy was grinning from ear to ear. The soaked clay mixture was poured onto a tarp and mixed with sand and straw. Workshop participants were encouraged to jump in and stomp the mixture. We were instructed to stomp and turn the mixture until it had the right consistency (Figure 14.1); we laughed, we stomped and we were filthy. Some said mud stomping was the best part of making mudbricks – the tactility and feeling the mixture squeeze between the toes. It was as if to satisfy a primeval, almost child-like state of playing in the mud; of being connected to nature.

This was Kathy’s home that she was building with her bare hands, with dirt from her land. Everything about this house was hers, from start to finish. Kathy told me about ‘earthing’ (Earthingoz.com.au), which is a way of conducting the energy of the earth into your body. Pouring an earth floor kept Kathy grounded, physically connecting her to the earth without



Figure 14.1 Mixing mud to make mudbricks

Source: Courtesy of William Eastlake

barriers. Kathy applied this ideology to her mudbrick building, to surround herself with earth bricks to keep her connected to the land and nurtured by Mother Nature. In the kitchen, Kathy had built a rocket stove into a bench, where the heat from the stove would transfer into and radiate out of the bench and surrounding walls. Kathy would also cook on her rocket stove, as it was the most effective method to keep the house warm, while storing and transferring heat generated from cooking. The main living space was opposite the kitchen wall so the stove efficiently heated two rooms.

The undulating texture of the bricks and the rounded corners created an organic, natural sense of peace. Several workshop participants told me they feel most connected to mudbrick homes because they are surrounded by earth and get a feeling of being grounded. While in New South Wales, I toured the facility of Make It Mudbricks, a family run business by Peter Jirgens. In their company advertising materials, the company claims that building with mudbricks will create a home that's warm and welcoming to be enjoyed for generations to come. The thick walls will be warm in the winter and cool in the hot summers, which is crucial for the Australian climate. Make It Mudbricks claim that mudbrick walls absorb sound and reduce echo, producing a home that is quiet and serene. The thick mud walls also act as an impressive sound barrier, where any outside noise all but disappears. A common mantra for mud houses is that a house built from earth feels good.

William Eastlake, co-founder of Integrated Bio-Tecture Designs, describes himself as a disgruntled architect. He grew tired of the rigidity of traditional designs and building practices and was more attracted to flexibility, malleability and fluidity of natural materials, such as mud and bamboo. The malleability of mud makes it a very forgiving and flexible building medium. Will taught us that an ideal mudbrick recipe has less than 30 per cent clay and varying parts of sand and straw but there was a substantial flexibility within this ratio. Workshop participants told me that working with mud allows for experimentation, where 'you can try out your ideas'. A house can be created one stage at a time; you can literally make it up as you go. This flexibility invites creativity and can be easily altered. As part of the workshop, we toured William's other projects in the area; each house used different materials, had a unique feel. For example, an old car windscreen had been set in as a window and a tree had been sculpted in mud on the outer wall. William preferred to work with mud because of the adaptability and its diversity. The malleability of mud creates a malleability of the mind, where people can experiment, be creative and learn lessons without detrimental effects.

Australian radio personality Richard Glover spent 11 years building a mudbrick house (2009). Eight of those 11 years were spent making mudbricks but the process and act of making bricks and building the house forever changed him and his life. For Glover, the house is a signifier for a multitude of individual, deeply personal values, which are represented in the bricks themselves. Glover wanted something to pass down to his children, something that represented his identity, his efforts and his vision.

The mud house was, for me, a kind of 'representation in mud of my innermost thoughts'. It expressed the tangle of things that made up my particular masculinity. It was my friendship with Phil given solid form; it was a physical manifestation of my romance with Debra; of the eager energy of my two sons; of all the friends who have helped over decades.

(Glover 2009, p. 244)

Here Glover reaffirms his masculinity and sees the structure as a physical manifestation of all the relationships throughout the years. All of the friendships and love are literally embedded in the structure. The house walls embody these relationships and give him comfort. In the end,

Glover claims that he built the house but the house built him (2009, p. 225), an echo of Churchill's famous quote, 'first we shape our buildings thereafter they shape us'. Glover learned how to become a man through the process of making bricks and building a house.

Strawbale

Susan and her husband Monty³ were looking to build a home for their family. Initially, Susan wanted to build a conventional home and paid \$15,000 to have architectural drawings drafted. But Susan was immediately converted to straw bale when she visited the home of Pete Sim of Reliable Constructions (Munro 2013). Susan was immediately overwhelmed by the comfortable feel of the building; 'the house felt good', she told me. There was an indescribable feeling about the house that Susan attributed to the thick straw bale walls and earth render. It was warm, quiet and peaceful. Susan was prone to allergies and chronic headaches that she attributed to off-gassing of synthetic building materials. Susan's choice of straw bales was also motivated by health concerns, as she regarded straw bales as a solution for physical ailments. Susan then hired Pete to convert her architectural drawings to a steel frame with straw bale walls.

Susan and Monty raise and sell bulls in a rural part of New South Wales. The choice of a straw bale house was not for sustainability or reducing their carbon footprint. Although the family's intention was not to make a public statement about alternative building materials and sustainability, Susan hosted a straw bale workshop (Figure 14.2), more as a forum to teach and



Figure 14.2 Image of Susan's roadside sign, advertising the straw bale workshop

Source: Serena Love

promote awareness of straw bale than a plea for free labour. I found the workshop advertised on the Strawbale Building of Australia page of Facebook and there was a press release in the local newspaper. In this example, the choice of straw bale was to make a comfortable family home in which to live and raise two children. The family chose a straw bale home for its sensual qualities and as a personal statement about family priorities and comfort.

The sensory impacts of being inside Susan's unfinished house were demonstrable. Without windows and doors, the house had a marked temperature difference. A cool breeze could be felt through the house with the thick straw bale walls insulating against the intense heat from outside. Inside the house was still and quiet. The distant road noise had vanished and not one bull could be heard in the neighbouring paddock. Even the thick internal straw walls muted the sounds from one end of the house to the other. The straw had a slight fresh-cut odour that would eventually disappear behind multiple layers of earth plaster. Even with a half-built house, it was evident that Susan had achieved her goal: to create a comfortable and healthy home for her family.

The Australian company Viva Strawbales⁴ claims their homes feel good and support a healthy lifestyle choice. 'You walk into our homes they're everything people want in a home. Warm, welcoming, light, airy, amazing to look at, with the best sleeps!' Thick strawbale walls keep an even temperature throughout the year and are claimed to be healthy, because the bales do not give-off gas, lack toxic compounds and only natural materials are used during the construction. Thick bale walls have high insulating properties that help to regulate indoor temperatures and act as a sound barrier. Viva Straw Bales customers write how they feel more comfortable, more secure and more solid in a straw bale house.

This sentiment is frequently echoed in the popular BBC television programme, *Grand Designs*; often the presenter, Kevin McCloud, will ask 'how does this house make you feel?', focusing on the sensory input of certain building materials, such as cold glass and steel or the warm, comforting feeling of rounded corners from straw bale or earth. In an episode from *Grand Designs Abroad* (2004, S1E02), McCloud focuses his attention on an English couple who are building a straw bale house in southern France. The couple visited several straw bale houses in Arizona and 'fell in love with the atmosphere of it'. They wanted their house to have good light inside the home and a steady indoor temperature that is cost-efficient but they also wanted to have their personal values reflected in the building. The episode ends with a statement from McCloud, 'they have a healthy house, built with safe, organic materials and that simple philosophy translates into a space that also feels good'.

Earthship

The brainchild and life work of architect Michael Reynolds in Taos, New Mexico, called 'Earthships – independent vessels – to sail the seas of tomorrow' (Reynolds 1990). Reynolds combines what he calls Building Biology with architecture and coined the term Biotope. Reynolds has been experimenting with radical architecture for the past 40 years and was subject of the documentary *Garbage Warrior* (Hodge 2009) for his innovative approach of using discarded car tyres and beverage containers as primary construction materials. Tyres with rammed earth form the external three walls with the sun-facing wall made of angled glass. Thick rammed earth tyre walls create high thermal mass for temperature regulation, requiring very little heating and cooling. Earthships are designed to be self-sustaining, off-grid homes that anyone can build and are defined by six characteristics: 1) passive heating and cooling, 2) self-generating power, 3) water catchments with solar hot water, 4) grey-water recycling, 5) sewage treatment, and 6) food production in large plant cells (Freney 2009). Earthships are built with natural and

recycled materials, where 'natural' refers to the earth used to pound the tyres and the certified, sustainable wood used for the construction frame.

Australia's first Earthship set sail in Agnes Water, Queensland, in January 2013 (White 2013). Bob and Shelley embarked on this project with very little building experience; Bob is a skipper on a fishing boat and Shelley trained as a cook. They wanted to build something different for themselves and were willing to be the first ones to experiment with this style of architecture in Australia, particularly in cyclone-prone coastal Central Queensland. This is a house with strong environmental credentials at its core, which are a perfect reflection of Bob and Shelley's personal values; dreadlocks, permaculture, farmer's markets, self-sustaining, minimal impact lifestyle. Several materials were sourced locally, often from people personally known to Bob and Shelley. For example, the coarse earth to pound the tyres and fine white clay for the interior plasters came from a local friend and the horse dung was sourced from a neighbouring stud farm. An attachment to place was created by incorporating locally sourced materials, harmonising the house with the immediate environment and reinforcing social relationships. The build was performed in two phases: the first phase in January 2013 was earth packing the outer tyre walls and the second phase in June 2013 to finish the glass-bottle internal walls and rendering wall surfaces. Both building phases are the subject of a documentary by Jennifer Brownson (2013).

In addition to using alternative materials, one of the greatest appeals of building an Earthship is the communal construction process. The Earthship philosophy is about communities, touting an ideological shift from the solitary ego to one promoting community and communal space. A conventional house is square and Earthships are circular, which is considered more friendly and inviting. Strangers are invited to build the house and in turn, they are taught how to build and are educated in self-sustaining principles. Volunteers pay to learn the methods and gain valuable experience in Earthship construction. I found an advertisement for the Finishing Workshop posted in the Earthship Australia newsletter. As part of the application process, I had to complete a survey asking questions such as, 'how will you take what you learn back into your world? We are creating this Earthship with loving intent, how does that resonate with you?' In setting the intention of the build, Bob and Shelley wanted to ensure that only people with a genuine loving purpose participated in the building of their house; they wanted love built into their walls. This loving intention had palpable results. Shelly commented that 'locals drop in and mention they noticed how good it felt and loved the vibe' (Clements 2014, p. 10). Twenty-five of us paying volunteers arrived in Agnes Water to live, eat and build communally for two weeks. Brownson's (2013) documentary has several references to personal growth during the build, where the process of building this house transformed people as individuals. People learned how to better cooperate and learned something about themselves; they learned how to be better people. The build created a new family: 'We came together for the build, as complete strangers and now we're family' (Brownson 2013). We built the Earthship and the Earthship built us.

Throughout the workshop, I struggled to understand why would someone want to live in a house made from garbage? Yet that aspect, the garbage, was precisely the appeal (Harkness 2011). The Earthship inhabitants have a clear conscious that they are personally taking positive actions for the environment by removing these materials from the system by re-purposing waste materials that would have otherwise ended up in a landfill. Shelley did not classify the materials as garbage. Instead, she felt good about re-purposing these materials: 'we are doing something useful with it instead of letting it go to waste.' This Earthship used 750 tyres (Figure 14.3), thousands of aluminium cans, and 7000 glass bottles pillaged from the local pub's recycle bin (Figure 14.4), along with timber, plastic and steel materials salvaged from the tip (Goldlust 2014; White 2013). To the people who build and occupy Earthships, using recycled and reclaimed

items as building materials is a strong appeal of this architectural style (or biotecture). The category of 'trash' has been re-categorised into something beneficial and useful (Douny 2007). Earthships are an intentional and blatant rejection of traditional materials. Tyres, cans and bottles have transcended typological categories of 'trash' into 'building material', perhaps lending credence to the old adage 'one man's trash is another man's treasure'. A person gains a sense of peace and connection to the local landscapes through building with these materials. Shelley was tremendously excited to be building with tyres, saying that she personally can contribute to the solution, rather than being a passive, unhelpful observer to the problem of mounting waste. Ultimately, Earthships are houses driven by a philosophy and these unconventional materials used in construction offer a significant philosophical contribution (Harkness 2011).

These three ethnographic examples demonstrate an irrefutable connection between building materials, the sensory experience of dwelling. Thermal mass of mudbrick, straw bale or rammed earth tyres provides insulation and regulates internal temperature but also acts to block sound. The earth plasters disperse light and the textures of the walls are often smooth surfaces with soft, rounded corners. These materials directly contribute to the tactility, temperature, light and sound that are experienced and perceived through the body. Smell and taste were two senses that are rarely discussed, in preference for an overall corporeal sense of comfort and well-being. The choice of building materials was deliberate by each builder, for reasons specific to each individual, but equally each material had inherent sensory qualities.

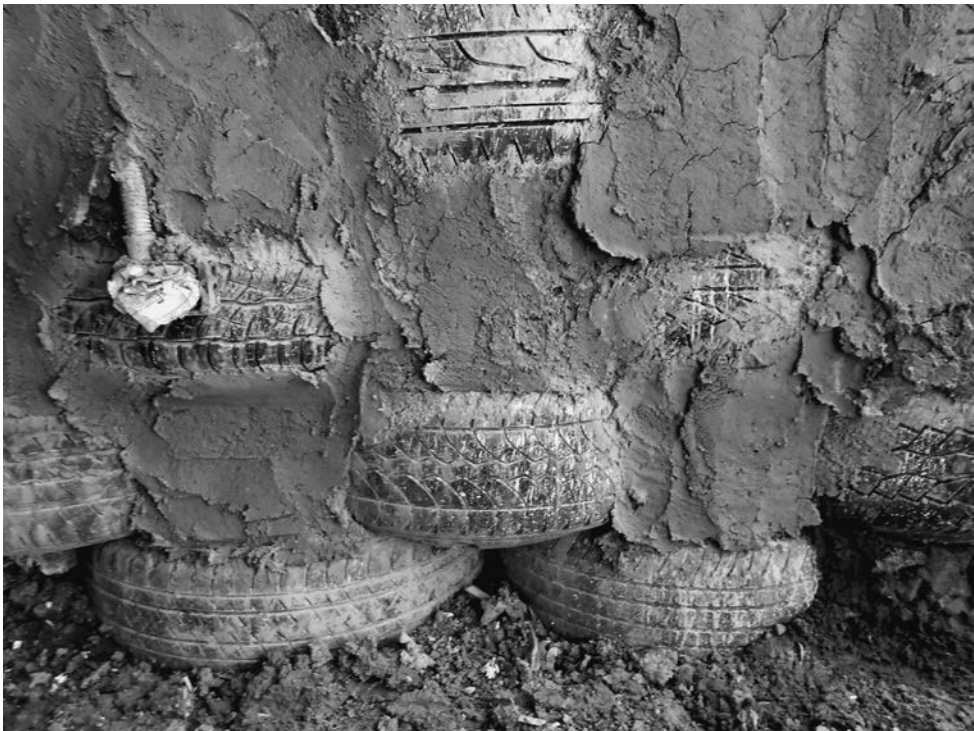


Figure 14.3 Partially rendered tyre wall

Source: Serena Love



Figure 14.4 Glass bottle wall

Source: Serena Love

Yet perhaps more important were the socio-cultural meanings assigned to these materials. Meanings and understanding were induced by these visceral experiences and perceptions (Merleau Ponty 1984), which were reciprocally linked back to the materials. Mudbricks were seen as malleable, creative and grounded; straw bales were healthy and comforting; Earthships reinforce an eco-conscious ideology and support principles innate to the architectural design that incorporated discarded materials. These specific materials were intentionally used to enliven a space, to give each home a meaning and to deliberately create a healthy living space that is perceived and felt through the haptic sense (Rodaway 1994). These owner-built natural homes feel good because of the interdependent relationship between the sensual qualities inherent to materials, in combination with the ascribed meanings attributed with the materials.

Living architecture

Living architecture has an increasing presence in the architectural discourse, where there has been a popular plea for natural materials and healthy homes (Chiras 2000; Pearson 2005). The premise of living architecture is to nurture the house we live in so the house can, in turn, nurture us. This philosophy is the backbone of Irish-born eco-architect Peter Cowman, founder of The Living Architecture Centre.⁵ Cowman's main concern is to re-establish the connection between architecture and life and to maintain the balance between the two. Cowman's (2012) philosophy is 'uncover the dream of your life + live your architecture . . . because buildings

are like people'. Living Architecture is a personal expression and building a house around that personalised philosophy. The location of a house and types of materials used will dramatically enhance the quality of a space. If the purpose of architecture is to maintain aliveness, then the quality of the building materials is crucial.

The types of materials used have inherent sensual qualities. 'We appreciate a place not just by its impact on our visual cortex but by the way in which it sounds, it feels and smells' (Anderton 1991, p. 27). Architecture has special qualities that make it worth being in and worth living for. Architecture has a life force and a *joie de vivre* situated in the atmosphere, light, smell, surfaces and colours (Anderton 1991) that radiate from and through the building materials. Some buildings are said to affect our happiness and our overall well-being. Books such as *Architecture of Happiness* (De Botton 2008), *Building Happiness: Architecture to make you smile* (Wernick 2008), and *Houses that Feel Good* (Strelitz 2008) epitomise a Western narrative that treats the house as an object, ascribing agency to the building itself. De Botton's book begins with a premise that our happiness is deeply affected by our physical surroundings, where our physical and emotional well-being is directly influenced by materials, shapes and colours of the buildings we live in and even suggests that these attributes have 'positive qualities as friendliness, subtlety, strength, and intelligence' (De Botton 2008, p. 98). Wernick's (2008) edited volume suggests that the true meaning of architecture is to help make the human existence meaningful by creating buildings and spaces that let people feel in control and connected to nature. Buildings evoke a sensory relationship that creates a sense of comfort, familiarity and belonging through the principles of composition, of light and shade, form and material, texture and tactility.

It has long been recognised in architectural circles that houses are animate objects, ones that can be controlled by their occupants (Cowman 2012; Roaf *et al.* 2007, p. 25). This perspective is in contrast to Le Corbusier's dictum 'the building is a machine for living in', where the house is regarded as a machine-like fixed entity. Instead, buildings are likened to living, breathing organisms where architecture is often referred to as a third skin (the second skin being our clothing) (Drake 2007; Pearson 2005; Roaf *et al.* 2007; Schimmelschmidt 1989).

A building, whether house, office, or factory, is more than simply a machine for living or working in: it breathes, it settles and matures upon its earth; it has a character and a unique persona of its own. It interacts, not only with the environment around it, but with the people who work or live within it.

(Schimmelschmidt 1989, p. 62)

In order for the organism to be healthy, the skin should be uninhibited and allowed to function naturally. Like our skin, the walls need to be protected and breathe, allowing the flow of air and moisture to regulate the indoor climate (Pearson 2005, p. 26). This premise became the ideological foundation for the Natural Building movement (Elizabeth and Adams 2005), a rejection of synthetic materials in favour of unaltered, untreated materials such as wood, clay, stone or straw. The Natural Building movement 'encompasses a broad set of ethics, underpinned by a worldview that treats the earth not only as sacred, but alive' (Elizabeth and Adams 2005, p. 4). Natural houses are designed to be healthy with minimal environmental impact but also represent a holistic philosophy.

The Natural Building movement is a reaction against Sick Building Syndrome (SBS), first recognised by a German doctor, Hubert Palm (Schimmelschmidt 1989, p. 62) and was legitimised as a medical condition by the World Health Organisation in 1982 (Jansz 2011). Starting as far back as the Industrial Revolution, there was a shift in building materials to artificial

and synthetic materials such as concrete, fibreglass, particle board and carpets. Research from Sweden and Germany discovered that indoor pollution was higher than outdoor pollution and the culprit was the toxicity from the building materials (Pearson 2005). SBS is identified when the ‘building occupants experience acute health and comfort effects that appear to be linked to time spent in a building’ and usually refers to the indoor air quality (Kirch 2008, p. 1303). Causes of SBS are poor ventilation, bad acoustics, inadequate heating and chemical contamination, which is causally linked with synthetic construction materials. The symptoms are both physiological and psychological including stress, depression, general malaise or imbalance, and are linked with personal ailments such as allergies, asthma, digestive disorders, sleep loss, dizziness, headaches, multiple organ damage (kidney, liver, lungs), multiple cancers (leukaemia, lung, lymphoma), chemical sensitivity (Mobbs 2010; Racusin and McArleton 2012; Roaf *et al.* 2007) (see Table 14.1). These symptoms are directly linked with buildings as clinical neuropsychological studies have shown ‘these symptoms appear with prolonged exposure to a particular environment, often dissipating within an hour after leaving that space, such as when going home from work for the day, during weekends, or going on vacation’ (Spivack 2011, pp. 2293–2295).

The experienced malaise is a result of Volatile Organic Compounds (VOCs), carbon based compounds stored in synthetic materials that vaporise and become volatile at room temperature, and are highly mobile and easy to inhale (Racusin and McArleton 2012, p. 24). The most common VOC is formaldehyde, while other harmful gases are found in paints, varnishes, sealers, adhesives. VOCs can be found in nearly every component of a conventional building, but especially paint. As far back as 1987, the World Health Organisation stated that there was a 40 per cent increased occupational risk for cancer among painters and the U.S. Environmental Protection Agency estimates indoor pollution from VOCs to be responsible for more than 11,000 deaths a year in the United States (Racusin and McArleton 2012, p. 24). These are some staggering statistics, all of which attribute ailments to the materials used in houses.

Sick Building Syndrome has slowly been combated with Building Biology, which is defined as ‘relationship between life forms and the built environment in a holistic way [that] aims to create a healthy living, working and cultural environment by preventative measures’ (Schimmelschmidt 1989, p. 63). Building Biology combines healthy building with ecological and spiritual sensitivity (Day 2002).

Table 14.1 List of illnesses and causes (list compiled from Mobbs 2010; Racusin and McArleton 2012)

<i>Ailment</i>	<i>Source</i>
Affects the nervous system	Adhesives
Allergies	Concrete
Asthma	New furniture
Cancers (leukemia, lung, lymphoma)	Floor coverings
Chemical sensitivity	Foam insulation
Depression	Paints and plastic paints
Digestive disorders	Particleboard
Dizziness	Sealers
Headaches	Synthetic carpets
Organ damage (kidney, liver, lungs)	Wallpaper
Sleep loss	Varnishes

You will know when you enter a home designed with [building biology] principles – it will feel clean and fresh, light and airy, and gently warm, with an aroma of natural materials and finishes – a healthy haven for relaxation and rejuvenation.

(Pearson 2005, p. 26)

The holistic approach of Building Biology not only considers the building materials but also the physical setting of the building, indoor climate, the avoidance of toxic materials and radioactive building materials, electromagnetic fields and microwaves. Architect Christopher Day uses architecture as a healing art, where places must be harmonious, bringing changes as an organic development so that new buildings seem not to be imposed aliens but inevitably belong where they are (Day 2004). Pearson (1991; 2005) argues that houses must not only respond to the surroundings and be responsible for minimising pollution but must also nourish the human being. It is these principles of harmony, tranquillity and well-being that gave rise to the trend of natural building.

Almost any book on natural building will present a similar trope within the first few pages. Natural materials, defined as unaltered materials from the earth, are healthier, more comfortable, keep us connected to the earth, and are good for our bodies and our minds.

Natural homes provide a nurturing and supportive environment for people. They are a kind of mental salve to battered senses in a high-stress world. Natural homes provide us with an opportunity to relax and rejuvenate after a hard day's work.

(Cedar and Chiras 2003, p. 2)

Pearson (1991, p. 69) argues that no analysis is needed to identify a healthy building; you just feel it. 'You are both relaxed and stimulated, reassured . . . you feel at home.' But what exactly creates these feelings? It is argued that it is the physical qualities of the building materials, quality of light, air, colour, temperature, sound and scent that lend to how we feel in a building.

The sensory impact of building materials is implicit in Sick Building Syndrome. If the materials in the house change, the character, the comfort and the well-being of the house (and inhabitants) will change. SBS points to the toxic additives in the construction materials and furnishing but it all points to the direct physical, emotional and sensual impact on the occupants. Academic interpretations of architecture are predominately visual or spatial, which does not adequately address the integrated sensory, cultural and metaphysical experience. It is clear that housing conditions influence the health and well-being of inhabitants. 'People feel when a room or building is supporting or harming their health and well-being' (Lawrence 2001, p. 146). It is clear that building materials are having a direct and indirect influence on the occupants.

Architecture and the senses

Architecture has an undeniable influence on our senses (Howes 2005) and is felt through the body, primarily with the haptic sense. Rodaway (1994, p. 42) defines the haptic sense as 'the tactile receptivity of the skin, the movement of the body parts and the locomotion of the whole body through the environment'. The entire body is a haptic sense organ, where touch is the literal contact between a person and the world, creating an emotional bond between the self and the world but is only part of the whole multisensual experience (Rodaway 1994). The whole purpose for exploring the haptic sense in architecture is because through touching, we are informed about textures, as well as temperatures, mobility, flexibility, size, weight of objects, surfaces, etc. (Pallasmaa 2005; Rodaway 1994). Touch is regarded as the most intimate sense,

which is convenient to juxtapose against domestic architecture. Textures create an intimate relationship with the land and are how the everyday practices are experienced (Evans 2003, p. 45). Tactile knowledge involves the whole body and 'the skin mediates between the body and the surrounding environment' (Rodaway 1994, p. 42). The architectural experience is affected by aesthetics, not necessarily in reference to the perception of beauty but to the sensory experience.

The sensual experience of architecture is corporeal, visceral and emotional. As social beings, human emotions are inseparable from the quotidian experience (Tarlow 2000), where the senses mediate the everyday experiences of space and place (Rodaway 1994). Even though the sensory hierarchies are never spoken, they are lived, practised and experienced by all cultures (Howes 2005). Smith (2007, p. 3) suggests the senses are 'historically and culturally generated ways of knowing and understanding'. Yet Smith is careful not to be definitive about anything regarding the senses; as such, he intentionally avoids the word 'is' and refuses to say that the senses are anything definite, arguing that 'to do so violates a fundamental point. The senses are not universal, are not transhistorical, and can only be understood in their specific social and historical contexts' (2007, p. 3). Sensory hierarchies, the human sensorium and even the 'five senses' are all cultural constructs (Classen 1993; Howes 1991, 2011). The senses are not just another genre of study, like gender, colonialism or material culture, rather the senses are the vehicle through which gender, colonialism and material culture are experienced and understood (Howes 2005).

James Gibson (1979) considers the senses as aggressively seeking mechanisms rather than passive receivers (see also Classen 1993; Pallasmaa 2005). Sense perception is 'actively involved in the structuring of that information and is significant in the overall sense of a world' (Rodaway 1994, p. 4). True sensory awareness is indirect (Perkins 1983); one does not have to directly interact with the house walls to become aware of texture or for the architecture to elicit an emotional response. The haptic realm of architecture is defined by the sense of touch and it is also the eye that touches (Holl *et al.* 2007). Pallasmaa (2005, p. 39) advocates for 'sensory architecture in opposition to the prevailing visual understanding of the art of building' and stresses that buildings are sensory agglomerations. Literature on architectural design focuses on how buildings 'feel', through the manipulation of textures, form, light, reflection, comfort, visual and acoustic impact (Blesser and Salter 2007; Carlson 2000; Strelitz 2008) and building materials are a source for a corporal reaction. Architecture is experienced through the body. Temperature is felt on the skin; mood is visceral; the eyes take in the form, light, texture; the ears determine whether a space is large or confined (Holl *et al.* 2007).

Therefore, architecture plays a significant role in sensory input. Like emotions, architecture is inseparable from everyday life, which includes emotions and the senses, each capable of invoking an array of responses. But how can the senses be reconstructed in the past? A multi-sensory approach focuses on connections between objects, embodied experience and the senses. Recent archaeological investigations have adopted a multi-sensory approach for understanding prehistoric source materials on the basis of texture, sound, colour, smell or location in the landscape (Boivin *et al.* 2008; Boivin and Owoc 2004; Ingold 2007; Jones and MacGregor 2002; Mills 2014; Pawlowska 2014; Tilley 2004). A multi-sensory approach attempts to dissolve the visual hegemony and notes that humans rarely engage with the world with a single sense, nor can one sense tell the whole story. Sense perception is culturally specific (Howes 2011; Ingold 2011) and in no way am I attempting to recreate the archaeological experience; rather, my intention is to explore the contribution of the other senses. There is no denying that people of the past lived in and experienced a multi-sensory environment. Archaeological discourse advocates the collapse of nature/culture and subject/object but within the context of the senses, I suggest we collapse thinking/feeling and consider that thinking *is* feeling, focusing on the sensory experience (Classen 1993; Howes 2005).

A sense of architecture in the past

One critique of sensory archaeology is the lack of empirical data: how could we possibly know what people felt in the past? However, it is possible to recreate certain sensory input aspects of a building based on archaeological remains, such as temperature, light and sound. The reconstructed height of a wall can predict illumination sources, direct, reflected or diffused sunlight. Internal lighting can also be influenced by presence and locations of windows, building entrances, of colour of internal walls and the type of roof. The orientation of a structure to the sun will influence the light source but also heat. Passive heating and cooling from solar radiation, outside air temperatures, wet or damp surfaces and internal metabolism are potential thermal sources. An internal fire feature is a source of heat, which magnifies if it abuts a mud wall or is built on an earth floor to absorb and radiate the warmth. Floor surfaces such as earth, wood or marble will contribute to the internal temperature. The direction of the prevailing winds can provide information about ventilation, draught or downdraft, as will the height of the ceiling. Thickness of walls, distance between neighbouring buildings and density of the settlement will influence the aural experience. These examples are a few among many that provide empirical data for the sensory contribution of building materials and can be easily determined from archaeological remains.

The most tactile sensual experience inside a structure is the thermal function (Heschong 1979), which can be determined by the thermal mass of the exterior walls. Thermal mass generally refers to a building's comfort, keeping the indoor temperature constant and comfortable, and can be stored in walls, floors or roofing materials. While acknowledging that the personal experience of temperature is culturally specific, it is still possible to quantify variations in annual temperature to predict what it would have felt like while inside these buildings. The ambient temperature can be calculated by establishing the thermal mass properties and insulating value (R-value) of the building materials. Thermal mass is the ability of a material to absorb, transfer and store heat and is related to the density of the material and its exposure to a heat source. The density of the material is proportional to its thermal mass; a dense material (i.e. stone, mudbrick, cob, rammed tyres) equates with a high thermal mass. Conversely, less dense materials, such as straw bale, timber or wattle-and-daub, have a low thermal mass. The thermal mass of a wall will absorb heat until it is as hot as the surrounding environment and transfer that heat once the surrounding temperature drops below the heat of the thermal mass. For example, it will take approximately nine hours for heat to start to transfer through a 250cm thick earth wall (Elizabeth and Adams 2005). Heat gain or heat loss is proportional on the size of the structure and the internal metabolism, i.e. heat generated inside the building through light, fire or people.

In addition to retaining heat, is insulating against heat. Insulative value of materials is measured in R-values, on a scale of R1–R5; the higher the R-value, the better the insulation. While earth walls provide great thermal mass, they have a relatively low insulation R-value. Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) rate a 200mm mud wall R-value of 0.4. Typically, mudbricks have a high thermal mass and a low insulation value. In contrast, a rendered straw bale wall has a R-value of R4.6 but a low thermal mass. Straw bale walls are typically 45–60cm thick, which provides dense insulation but does not retain heat. In addition to determining indoor temperature, thick mudbrick, straw bale and rammed-earth tyre walls each creates a dense sound barrier, preventing influences of outside noises. These examples demonstrate how thermal mass, insulation and wall thickness can provide empirical data for a sensory experience of architecture in the past.

Conclusion

Architecture acts as a third skin, therefore an exploration of building materials is imperative to any discussion or interpretation about architecture in archaeology. Here, I have used ethnographic data to highlight the sensory impact specific building materials have on the experience of dwelling and emphasise the meanings people attribute to these materials. The Australian natural built homes emphasised the visceral aspects of mud, straw and discarded materials but also the cultural associations with material choices and illustrated how owner-build homes reflect personal values. These ethnographic examples illustrate how building materials elicit a variety of physical and emotional reactions; materials can make people sick or healthy, how one can feel at peace or irritated simply by their choice of materials. A contemporary ethnography was used to understand the sensory contribution of natural materials and people's reaction to materials, in full acknowledgement of cultural perceptions and Western bias. But that is not to dismiss the underlying message – that the materials used in constructions can indeed enliven the house. Materials can be intentionally manipulated to create certain outcomes. Just because we cannot demonstrate archaeological intentionality does not mean the question should not be asked. Thermal mass and insulation are some empirical measures that can be employed to determine the sound quality, indoor climate, and perhaps even perception of light in the past. For example, what impact did the introduction of fired bricks by the English monarch Henry VIII have on the experience of dwelling? Or how do the smooth, cold marble stone floors in a Roman villa contrast with a wattle and daub British Iron Age round house with a central fire and earth floor? Thermal mass and R-values could provide empirical data about sensory experiences and explore the different experiences between wood, stone and earth built houses. Of course, building materials are functional and serve a purpose but that is not to diminish their sensory input.

The examples presented here illustrate how materials strongly influence the architectural experience and the house becomes enlivened by considering the active role of materials. If houses are active, and the materials used to build houses are also active, then it follows that building materials create and contribute to the sensory experience of architecture. 'Material and colour may contribute decisively to characterisation. Stone, brick and wood are different "presences" which express the way buildings "are" on earth' (Norberg-Schulz 1980, p. 67). A house is enlivened through this presence or life force inherent to raw materials. Incorporating certain materials into the house can 'imbue houses with added power as structuring agents' (Boivin 2004, p. 66). A house is actively enlivened through the ascribed qualities of materials in their basic, unmodified state. Mud, straw and tyres are all meaningful, each with significant sensory contributions. Capturing the material essence into the literal fabric of the house, the intimate space of dwelling, creates the ontological character of the house.

Acknowledgements

My sincere gratitude to the people who were a part of this study and the many workshop participants who were willing to put up with my endless questions: Pete Sim, Will Eastlake, Shelley Clements, Peter Hickson, Peter Cowman and countless others. This research was funded through a New Staff Start-Up Grant from the University of Queensland, with Institutional Human Research Ethics Approval #2013001139.

Notes

- 1 www.integratedbiotecture.com/ Accessed 19 June 2014
- 2 Names of participants have been changed.
- 3 Names of participants have been changed.
- 4 www.vivahomes.com.au/ Accessed 19 June 2014
- 5 www.livingarchitecturecentre.com/ Accessed 19 June 2014

References

- Anderton, F. 1991, 'Architecture for all Senses', *The Architectural Review* 189/1136, pp. 27–28.
- Blessner, B. and Salter, L.-R. 2007, *Spaces Speak, Are You Listening? Experiencing aural architecture*, MIT Press, Cambridge, MA.
- Boivin, N. 2004, 'Mind over Matter? Collapsing the mind-matter dichotomy in material culture studies', in E. DeMarrais, C. Gosden and C. Renfrew (eds), *Rethinking Materiality: The engagement of mind with the material world*, pp. 63–71, MacDonald Institute for Archaeological Research, Cambridge.
- Boivin, N. and Owoc, M.-A. 2004, *Soils, Stones and Symbols: Cultural perceptions of the mineral world*, UCL Press, London.
- Boivin, N., Brumm, A., Lewis, H., Robinson, D. and Korisettar, R. 2008, 'Sensual, Material, and Technological Understanding: exploring prehistoric soundscapes in south India', *Journal of the Royal Anthropological Institute* 13, pp. 267–294.
- Brownson, J. 2013. *Australia's First Earthship*. YouTube Video. Accessed 19 June 2014. www.youtube.com/watch?v=U3Zm6iUP1aA
- Carlson, A. 2000, *Aesthetics and the Environment: The appreciation of nature, art and architecture*, Routledge, London.
- Cedar, G. and Chiras, D. 2003, *The Natural Plaster Book*, New Society Publishers, Gabriola Island.
- Chiras, D. 2000, *The Natural House: A complete guide to healthy, energy efficient, natural homes*, Chelsea Green Publishers, White River Junction.
- Classen, C. 1993, *Worlds of Sense: Exploring the senses in history and across cultures*, Routledge, New York.
- Clements, S. 2014, 'Earthship Gratitude: an owner builder's perspective' *The Owner-Builder* April/May 182, pp. 9–11.
- Cowman, P. 2012, *The Sheltermaker's Manual*, Vol. 2, Python Press, Castlemine.
- Day, C. 2002, *Spirit and Place: Healing our environment, healing environment*, Architectural Press, Oxford.
- Day, C. 2004, *Places of the Soul: Architecture and environmental design as a healing art*, Elsevier, Burlington, VT.
- Day, J. (ed.) 2013, *Making Sense of the Past: Towards a sensory archaeology*, Center for Archaeological Investigation, Occasional Paper No. 40, Southern Illinois University Press, Carbondale, IL.
- De Botton, A. 2008, *The Architecture of Happiness*, Random House, New York.
- Douny, L. 2007, 'The Materiality of Domestic Waste', *Journal of Material Culture* 12/3, pp. 309–331.
- Drake, S. 2007, *The Third Skin: Architecture, technology and environment*, University of New South Wales Press, Sydney.
- Elizabeth, L. and Adams, C. (eds) 2005, *Alternative Construction: Contemporary natural building methods*, Wiley, New York.
- Evans, J. 2003, *Environmental Archaeology and Social Order*. Routledge, London.
- Freney, M. 2009, 'Earthships: Sustainable housing alternative', *International Journal of Sustainable Design* 1/2, pp. 223–240.
- Glover, R. 2009, *The Mud House*, HarperCollins, Sydney.
- Gibson, J. 1979, *The Ecological Approach to Visual Perception*, Houghton Mifflin, Boston, MA.
- Goldlust, R. 2014, 'Australia's First Earthship', *The Owner-Builder* April/May 182, pp. 6–8.
- Grand Designs Abroad*, 2004, Television programme (S1E02), BBC, London.
- Harkness, R. 2011. Earthships: The homes that trash built. *Anthropology Now* 3/1, pp. 54–65.
- Heschong, L. 1979, *Thermal Delight in Architecture*, MIT Press, Cambridge, MA.
- Hodge, O. 2009, *Garbage Warrior*, Open Eye Media, London.
- Holl, S. Pallasmaa, J. and Perez-Gomez, A. 2007, *Questions of Perception: Phenomenology of architecture*, William K. Stout Publishers, San Francisco, CA.
- Howes, D. (ed.) 1991, *The Varieties of Sensory Experience: A sourcebook in the anthropology of the senses*, University of Toronto Press, Toronto.

- Howes, D. 2005, 'Architecture of the Senses', In M. Zardini and W. Schivelbusch (eds) *Sense of the City: An alternate approach to urbanism*, pp. 322–331. Canadian Centre for Architecture, Montréal.
- Howes, D. 2011, 'Reply to Tim Ingold', *Social Anthropology* 19/3, 317–322.
- Ingold, T. 2007, 'Materials against Materiality', *Archaeological Dialogues*, 14/1, pp. 1–161.
- Ingold, T. 2011, 'Worlds of Sense And Sensing the World: a response to Sarah Pink and David Howes', *Social Anthropology* 19/3, pp. 313–317.
- Ingold, T. 2012, *Making: Anthropology, archaeology, art and architecture*, Routledge, London.
- Jansz, J. 2011, 'Introduction to Sick Building Syndrome', in S. Abdul-Wahab (ed.), *Sick Building Syndrome in Public Buildings and Workplaces*, pp. 1–24, Springer, London.
- Jones, A. and MacGregor, G. (eds) 2002, *Colouring the Past: The significance of colour in archaeological research*, Berg, Oxford.
- Kirch, W. 2008, *Encyclopaedia of Public Health*, Springer-Verlag, London.
- Lawrence, R. 2001, 'Housing, Health and Aesthetics: Reconnecting the senses', in B. Cold (ed.), *Aesthetics, Well-Being and Health: Essays within architecture and environmental aesthetics*, pp. 143–156, Ashgate, Aldershot.
- Love, S. 2012, 'The Geoarchaeology of Mudbrick Architecture: A methodological study from Çatalhöyük, Turkey', *Geoarchaeology* 27, pp. 140–156.
- Love, S. 2013a, 'Architecture as Material Culture: Building form and materiality in the Pre-Pottery Neolithic of Anatolia and Levant', *Journal of Anthropological Archaeology* 32/4, pp. 746–758.
- Love, S. 2013b, 'The Performance of Building and Technological Choices Made Visible in Mudbrick Architecture', *Cambridge Archaeological Journal* 23/2, pp. 263–282.
- Merleau-Ponty, M. 1984, *Phenomenology of Perception*. Routledge, London.
- Mills, S. 2014, *Auditory Archaeology: Understanding sound and hearing in the past*. Left Coast Press, Walnut Creek, CA.
- Mobbs, M. 2010, *Sustainable House*, 2nd edn, Choice Books, University of New South Wales.
- Munro, S. 2013, 'Straw Bale in a Subdivision', *The Owner Builder* August/September 178, pp. 21–26.
- Norberg-Schulz, C. 1980, *Genius Loci: Towards a phenomenology of architecture*, Rizzoli, New York.
- Pallasmaa, J. 2005, *The Eyes of the Skin: Architecture and the senses*, Wiley-Academy, Chichester.
- Pawlowska, K. 2014, 'The Smells of Neolithic Çatalhöyük, Turkey: Time and space of human activity', *Journal of Anthropological Anthropology* 36, pp. 1–11.
- Pearson, D. 1991, 'Making Sense of Architecture', *The Architectural Review* 189/1136, pp. 68–70.
- Pearson, D. 2005, *Designing Your Natural Home: A practical guide*, HarperCollins, New York.
- Perkins, M. 1983, *Sensing the World*, Hackett Publishing, Indianapolis, Indiana, IN.
- Racusin, D. and McArleton, A. 2012, *The Natural Building Companion*, Chelsea Green Publishing, White River Junction.
- Rasmussen, S. 1962, *Experiencing Architecture*, MIT Press, Cambridge, MA.
- Reynolds, M. 1990, *Earthships: How to build your own*, Solar Survival Press, Taos.
- Roaf, S., Fuentes, M. and Thomas, S. 2007, *Ecohouse: A design guide*, Architecture Press, Amsterdam.
- Rodaway, P. 1994, *Sensuous Geographies: Body, sense and place*, Routledge, New York.
- Schimmelschmidt, M. 1989, 'Our Third Skin: Hazard or shelter', *Royal Institute of British Architects* 96/10, pp. 62–64.
- Skeates, R. 2010, *An Archaeology of the Senses: Prehistoric Malta*, Oxford University Press, Oxford.
- Smith, M. 2007, *Sensory History*, Berg, Oxford.
- Spivack, A. 2011, 'Sick Building Syndrome', in J. Kreutzer, J. DeLuca and B. Caplan (eds) *Encyclopaedia of Clinical Neuropsychology*, pp. 2293–2295. Springer, London.
- Strelitz, Z. 2008, *Buildings that Feel Good*, Riba Publishing, London.
- Tarlow, S. 2000, 'Emotion in Archaeology', *Current Anthropology* 4/5, pp. 713–746.
- Tilley, C. 2004, *Materiality of Stone: Explorations in landscape phenomenology*, Berg, Oxford.
- Wernick, J. (ed.) 2008, *Building Happiness: Architecture to make you smile*. Black Dog, London.
- White, M. 2013, 'Australia's First Earthship Sets Sail,' *Rolling Stones Magazine*, June 2013, p. 23.
- Wilke, G. 2011, *Building Your Own Home: A comprehensive guide for owner-builders*, New Holland Press, Sydney.

Part 3

Performance and process

This page intentionally left blank

Architecture in motion

Mikkel Bille and Tim Flohr Sørensen

Introduction

In late June and early July 2006, approximately 100,000 people gathered on a field outside a provincial town in Denmark with the aim of enjoying the music and conviviality of the Roskilde Festival. The festival included seven stages, erected in the days before the festival, and dismantled upon closing. The visitors lived in a huge camping area next to the festival zone, where tens of thousands of tents were set up within a few hours after the opening of the festival. A week later, the visitors had vacated the area, yet tens of thousands of tents were left behind, alongside abandoned sleeping bags and other equipment and waste, only to be bulldozed and transferred to a waste site. An archaeological project conducted just before and during the festival in 2006 had the aim of probing into what archaeological evidence remains of this and previous festivals on the site, escaping the bulldozer. The excavation documented tent pegs, bottle tops, tent fabric, broken glass, tinfoil, and used condoms – evidence of intense, convivial and vibrant festivals. The project also studied the plan of a tent camp, using the same methods as in settlement studies where distribution patterns and debris scatter is documented, only replacing fireplace, animal bones and flint with beer crate, ghetto blaster, beer tops and wasted food (Albris *et al.* 2009).

The architecture of this contemporary festival site is in a sense very different from that of more lasting and solid constructions. Yet in another sense it issues forth through the same basic need in order to be socially comprehensible: it must be enacted and embodied through human performance. The rapid – yet repeated – ‘occupation sequence’ as it would be termed in a prehistoric context, implies the (in archaeological terms) brief gathering of some 100,000 individuals on a field, which is turned into a very particular form of architecture, only to dissolve one week later. As discussed in our introduction to this volume, the notion of assemblage and the way things are enacted also implies a focus on the role of the performative in shaping architecture. In this, we see an unproductive separation in the archaeological practice of making typologies of different modes of inhabiting space. This ‘practice of making typologies’ means that some studies are dedicated to exploring settled and sedentary architecture and others to mobile dwellings. This approach is often reproducing rather stereotyped expectations of what it means, for example, to live as a hunter-gatherer in the Mesolithic or as a farmer in the Neolithic. In fact, several hunting, gathering and fishing communities of the Mesolithic were highly sedentary, while Neolithic farming communities have in certain cases also been proven to assume

a high degree of mobility (Bar-Yosef and Belfer-Cohen 1989; Cummings and Harris 2014; McFadyen 2008; Price 1991; Whittle 1996; Zvelebil 2008).

The point we want to make in this context is that any form of architecture only assumes its social reality by being caught up in bodily movements and social activities. In a sense, approaching building through notions of performance and process offers a view of architecture in reverse. Numerous studies, including contributions to this book, allow for understandings of how built form creates social space and directs experience. Yet we may also be interested in exploring how moving bodies – whether human or non-human – are co-creating space (Sørensen 2015). This is illustrated by Mads K. Holst and Marianne Rasmussen (2013) in their study of the Nordic Bronze Age. While many other studies have focused on the stability and social consolidation of longhouses and burial mounds for the reproduction of farming communities, Holst and Rasmussen contend that long-distance movement in connection with herding implies a landscape of temporary engagements and a high degree of mobility. This point challenges the notion of fixed settlements and central places. It moreover implies that houses and burial mounds in the landscape were engendered and textured through movement; by the movement towards them and away from them, by returning and departing as social experiences.

Such empirical evidence suggests a need to explore the interconnectedness of modes of dwelling and the temporality of architecture, examining how on-going processes and notions of futurity materialize in the performance of human dwelling. Exploring nomadic architecture, Labelle Prussin for instance notes that the space the nomad's home contains,

is permanent, even though, as a moving volume, it is not fixed permanently in space. Its 'permanence' is in the minds and behavior of those who build it, from the repetitive reassemblage and reconstruction of the architectural elements into an almost identical assemblage at each new point in space.

(Prussin 1995: 42)

On the one hand Prussin is reproducing the archaeological understanding of the assemblage that is a group of contemporary objects in a defined spatial extension. On the other hand she also highlights the productive role of the reassembling process. This observation can be linked to Albena Yaneva and Bruno Latour's statement on architecture in general that 'a building is not a static object but a moving *project*' (Latour and Yaneva 2008: 80, emphasis in the original), and they continue:

everyone agrees that the drawing (or the photography) of a building as an object does not say anything about the 'flight' of a building as a project, and yet we always fall back on Euclidian space as the only way to 'capture' what a building is – only to complain that too many dimensions are missing. To consider a building only as a static object would be like gazing endlessly at a gull, high in the sky, without being able ever to capture how it moves.

(Latour and Yaneva 2008: 82)

In this line of thought, architecture becomes a mode of navigating through a series of successful and failing projects, where users, building materials and technologies, definitions and expertise mingle in a process, rather than a static object. In order to be able to approach these contingencies and the dynamism of architecture, archaeology hence needs to be better equipped with a theoretical and methodological framework for understanding architecture as process (Yaneva 2009b). Architecture is not an end product, but a way of socializing and inscribing oneself into the object world, and vice versa. A processual approach to architecture can be helpful in exploring

the shifting temporalities and identities of architecture. It helps shed light on the origins of built space and its gradual and not necessarily linear transformation through people's practices.

This processual perspective is precisely Yaneva's point (this volume), when arguing that even before the actual building is completed, the drawings and images teach the viewer *how* to think architecturally. Yaneva has been at the forefront of focusing on architecture as a performative process by situating her fieldwork in the everyday practices of the architects (Yaneva 2009a, 2009b; see also Cuff 1992). Focusing on the role and production of images for a prospective building on the Birmingham New Street Station, she shows that in the process of generating, inspecting, retouching and enhancing scales in and of the images, a particular kind of composing, re-assembling and re-enacting images is being constructed. This re-assemblage is not simply a representation of a building. Rather, the images are entangled in ways of training the eyes and minds of those planning the city to 'think architecturally' and educate planners. Thereby, the image is part of redefining the city. This insight may relate to the archaeological practice of documenting the finds and the ontological doings this is part of constructing, as discussed in the introduction. Thus, rather than seeing images, the 'documentation' or illustrations that accompany the architects' (and archaeologists') work as representations; they may be seen as particular ways of shaping temporal and spatial understandings of architecture. In this sense the images do not represent a city (or excavation) but rather attend to the multiplicity of the city by addressing and performing *different versions* of the building.

The focus on the performed or 'enacted' city is further illustrated by Larry Zimmerman in his contribution on homelessness in St Paul, Minnesota, and Indianapolis, Indiana, USA. He offers a compelling example of how architecture – in this case 'homes' – not simply just is, but has to be *made*. Being constantly exposed to the threat of eviction, Zimmerman illustrates how the architecture of 'those that live outdoors' is concealed, portable and ephemeral. Yet such concealment also hinges on notions of stability, privacy and meaning. The elements are enacted in the performance of social relations in the built – or 'collected' – environment. Like the initial case from the Roskilde Festival, this form of architecture is thus constantly coming into being by amassing utilities and personal belongings in semi-personal and quasi-collective spaces that are transient and therefore always have to be enacted. Altogether, this is a clear illustration of the point in understanding architecture as a performance of assemblages of people, places, things, emotions and aspirations.

In a similar vein, Morten Nielsen's research in the Mulwene, Mozambique, demonstrates how personhood comes into being through the act of building a house. From this relationship between the act of building and notion of self he argues that personhood is 'acentred', adopting Gilles Deleuze's notion of that which 'lacks a centre of anchorage and of horizon'. House-building often turns out to be an ongoing project among Nielsen's informants: 'the building process never stops. You will die while constructing', as one of his informants states. This means that the inhabitation of the house in a sense begins before its completion, attesting to the notion that the becoming of architecture is never concluded. Or as Nielsen observes, 'People were, so to speak, building the same house over and over again', being constantly in movement, generating 'new social perspectives'. This highlights, but also questions, the perceived relationship between house and human, where one seems to *reflect* the other. By employing an acentred person, houses are not merely reflecting but actively unfolding the person.

It is not only people and architecture that are in the process of (dis)assemblage. To some people in the multi-faith community of Chunchucmil, Yucatán, Mexico, a dilapidated church is the ideal place for a 135 year old painted plaster Virgin of the Rosary. Better here than to be relocated in the next-door modern church. Through a study of this tension and the violent dispute associated with it, Jason Ramsey illustrates how architecture, understood as the physical

structures in a particular artistic style, is not somehow detached, independent or prior to the space it contains. Rather, such physical structure is enmeshed in a larger process of assemblage of spiritual forces, local sentiments and economical priorities. Ramsey argues that these should be understood as entangled in a network of mutually enforcing actions and processes through which a building is constantly being formed and performed. In these processes, the very notion of building is made relative in order to include sedimentation, making it more relevant to speak of 'build-up' than building. Build-up is even part of the disintegration of form over time and may accumulate meaning and indeed assume form. The community, the object of worship and the building are thus associated in an emergent and dissolving process.

This interlinkage between emerging architecture and person becomes even more pronounced when Nick Kaye explores the work of artist Vito Acconci. Here, architecture also emerges as the outcome of those who occupy and use it. At the same time, architecture is highly responsive, mobile and interventionist. Place 'is inseparable from the occasion of its enactment and use', as Kaye argues. Through his contribution, Kaye offers a critique of what might be considered 'conventional' architecture for producing discrete meanings, uses and social regulations. He instead seeks to understand the mutability of architecture, foregrounding 'experience of uncertainty, ephemerality and absence'. Kaye contends that architecture, person and performance unfold as co-participation, and he examines this perspective by, among other things, exploring Acconci's work *Seedbed*. Removing himself from view under the floor of the exhibition room, Acconci would fantasise about the audience in the art hall above him while masturbating 'overtly'. In this, Kaye argues, Acconci would move psychologically closer to the audience, while still remaining absent and thus stimulating a powerful presence in absence (see also Bille *et al.* 2010). As such, this architectural space is 'not yet complete' without intervention and performance, in the same way as a 'ritual space' in archaeological context is always uncompleted, since the practices are missing. Re-enactments or phenomenological approaches may try to fill this 'gap in completeness', but it may be very contested to whom the gap has been sealed off through such intervention.

This, however, does not mean that such re-enactments or phenomenological approaches of attending to the performing body in space are unproductive. This is shown in Augusta McMahon's study of the monumental ziggurats of ancient Mesopotamia, perhaps one of the most cherished architectural forms in archaeology. She contends that past approaches to the monumental architecture of Mesopotamia has been preoccupied with issues of materials and symbolic power. This however fails to take into account the lived experience and bodily performances of people on the street level, so to speak. While the sheer scale of the monuments evidently is tied to power and potency, their very monumentality has also precluded an understanding of these conspicuous buildings from the perspective of the grounded, situated view. For McMahon this has serious implications for the understanding of the ziggurats, in terms of how the scale of the monuments affect the practice of looking as part of the enactment of the ziggurats and in fact the urban matrix as a whole (see also , this volume). She thus in part explores how the monuments would have participated in the making of the South Mesopotamian cities in terms of symbolism and architectural ingenuity and tradition. Yet more importantly the monuments also testify to the complexity of visibility, visual culture and experience. Particularly, she points to how mobility is central to perceiving and performing the city, when movement towards the ziggurat through the city would engender experiences of displacement and encounter.

In essence, the contributions to this section all in different ways attend to how particular kinds of space or architectural form are constructed when approached as a performative process. Performances should in this respect not be seen as futile events, but also as a way of securing

duration of identity of place or person, and a way of learning to think about and through a space. Thus, once again we are shown the somewhat evident, yet also at times neglected point in archaeology, that architecture is not simply the plan drawing or material remains. Rather architecture unfolds in the material engagement with person, perception and place-making. And importantly, this happens on different scales: From the image to the presence or absence of person, from the homeless to the homemaking, and to the potency of the absent monumental encounter.

References

- Albris, S. L., A. S. Beck, and L. Sørensen. 2009. 'Smattens arkæologi'. *Siden Saxo*, 2: 4–13.
- Bar-Yosef, O., and A. Belfer-Cohen. 1989. 'The Origins of Sedentism and Farming Communities in the Levant'. *Journal of World Prehistory*, 3(4): 447–498.
- Bille, M., F. Hastrup, and T. F. Sørensen. 2010. 'Introduction: An Anthropology of Absence' in *An Anthropology of Absence: Materializations of Transcendence and Loss*. Edited by M. Bille, F. Hastrup and T. F. Sørensen, pp. 3–22. New York: Springer.
- Cuff, D. 1992. *Architecture: The Story of Practice*. Cambridge, MA: MIT Press.
- Cummings, V., and O. J. T. Harris. 2014. 'The Continuity of Hunting and Gathering in the Neolithic and Beyond in Britain and Ireland' in *The Oxford Handbook of the Archaeology and Anthropology of Hunter-Gatherers*. Edited by V. Cummings, P. Jordan and M. Zvelebil, pp. 823–837. Oxford: Oxford University Press.
- Holst, M. K., and M. Rasmussen. 2013. 'Herder Communities: Longhouses, Cattle and Landscape Organization in the Nordic Early and Middle Bronze Age' in *Counterpoint: Essays in Archaeology and Heritage Studies in Honour of Professor Kristian Kristiansen*. Edited by S. Bergerbrant and S. Sabatini, pp. 99–110. Oxford: BAR.
- Latour, B., and A. Yaneva. 2008. "'Give me a gun and I will make all buildings move": An ANT's View of Architecture' in *Explorations in Architecture: Teaching, Design, Research*. Edited by R. Geiser, pp. 80–89. Basel: Birkhäuser.
- McFadyen, L. 2008. 'Temporary spaces in the Mesolithic and Neolithic' in *Prehistoric Britain*. Edited by J. Pollard, pp. 121–134. Oxford: Blackwell Publishing.
- Price, T. D. 1991. The Mesolithic of Northern Europe. *Annual Review of Anthropology*, 20(1): 211–233.
- Prussin, L. 1995. *African Nomadic Architecture: Space, Place and Gender*. Washington, DC: Smithsonian Institution Press.
- Sørensen, T. F. 2015. 'More Than a Feeling: Towards an archaeology of atmosphere. *Emotion, Space and Society*', 15: 64–73.
- Whittle, A. 1996. 'Moving on and Moving Around: Neolithic Settlement Mobility' in *Neolithic Landscapes*. Edited by P. Topping, pp. 15–22. Oxford: Oxbow Books.
- Yaneva, A. 2009a. Made by the Office for Metropolitan Architecture. Rotterdam: 010 Publishers.
- . 2009b. The Making of a Building: A pragmatist approach to architecture. Bern: Peter Lang AG.
- Zvelebil, M. 2008. 'Innovating Hunter-Gatherers: The Mesolithic in the Baltic' in *Mesolithic Europe*. Edited by G. Bailey and P. Spikins, pp. 18–59. Cambridge: Cambridge University Press.

Politics of architectural imaging

Four ways of assembling a city

Albena Yaneva

Introduction

The growing influence of the pragmatist philosophy has gradually changed the way we think of our cities and urban realities and has shifted the focus from architecture as meaning to architecture as process and becoming, from the lives of those who inhabit the cities (de Certeau, 1984) to the life of buildings, streets and other material entities, including images and scale model as actors in urban design. Paradoxically, the divide between subjective interpretations of the city (through the perspective of the *flâneur* experiencing, walking in and perceiving it) and objective interpretations (the city as an objective frame, a map, a set of artefacts, a city guide) is still so much alive in contemporary urban theory. Recent architectural studies questioned the boundaries between these two types of interpretations and attempted to circumvent the divide by tracing cities *in concreto* (Zitouni, 2010; Doucet, 2015). Cultural geographers (Lees, 2001; Graham and Thrift, 2007; Jacobs, Cairns and Strebel, 2007; Strebel, 2011; Jacobs and Merriman, 2011), archaeologists (Buchli, 2013), sociologists and science studies scholars (Yaneva, 2009a; Houdart and Minato, 2009; Loukisass, 2012) shared a renewed attention to architecture as an on-going process rather than accomplishment (or artefact) of human doing, and engaged in path-breaking research that aimed at deciphering the making of buildings, cities and urban phenomena.

They all shared the assumption that architecture cannot be reduced to a static frame of symbolic meaning (Latour and Yaneva, 2008); that a deeper understanding of architecture can be gained by studying ordinary unfolding courses of action in design, use, inhabitation, maintenance, reuse and urban contestation. The focus on representation was judged as insufficient in its potential to do justice to the complexity of architectural processes; a contemplative attitude to architecture effectively risked ‘paralysing’ its objects of study.

Recent pragmatist-inspired studies of architecture directed attention to non-human entities such as architectural renderings (Houdart, 2008), scale models (Yaneva, 2005), city plans (Zitouni, 2010), urban artefacts (Doucet, 2012), simulations (Loukisass, 2012) and maps (Nadaï and Labussière, 2013). Attempting to unpack what it is to dwell in a material world, Victor Buchli’s seminal work *An Anthropology of Architecture* (2013) revealed the ways materiality of built form in its great variety makes people and society, and triggers different ways of performing

the social. Trace the urban: suspend the zoom, multiply the adjunctions between the different views, re-localize the sites where one talks about a city, and you will see a city that is invisible (rather than a visible, perceivable entity), that is to be composed, to be recollected, to be aggregated (Latour and Hermant, 1996). By unpacking the different material registers of architecture and tracing the paths and flows of a variety of non-humans that circulate within cities, we are able to gain a better understanding of cities.

This new trend took inspiration from the work of thinkers such as Bruno Latour and the tradition of Science and Technology Studies (STS). STS 'flourished' in the 1980s in the aftermath of the structuralism wave, with the writings of Bruno Latour, Michel Callon, Madeleine Akrich, Michael Lynch, Peter Galsion and others, and generated new concepts and methodologies for the understanding of the social. In the past decade STS, and in particular Actor–Network Theory (ANT), gained critical acclaim among researchers in the fields of design and architecture studies. The city was thrust into the STS limelight as early as the 1990s (Latour and Hermant, 1996). Following Michel Callon's (1996) seminal work, architectural design also became an epistemological territory of exploration for STS-trained anthropologists, who engaged in extended studies of 'architecture in the making' and accounted for the materialization of successive design operations (Yaneva, 2005; Houdart and Minato, 2009; Yaneva, 2009a; 2009b). This inspired an interest in the 'ecology' of the practice of design, use and habitation. 'Ecology' means in this context an alternative to modernization (Latour, 1998). It is a new way to handle all the objects of human and non-human collective life. To view architecture as an 'ecology of practice', means to redefine the complicated forms of associations between its beings: habits, skills, buildings, sites, city regulations, designers' equipment, clients, institutions, models, images, urban visions and landscapes. 'Ecology' dissolves boundaries and redistributes agency. 'Ecology of practice' is not as a naturalizing metaphor, but rather a politically sensitive concept to capture and understand contemporary design practice. Drawing on ANT as a mode of overcoming simplistic dichotomies (nature/culture, materiality/meaning, subject/object), the 'ecology of practice' approach would require tracing the routines, actions and transactions of all participants in design, in complex spatial settings. By re-describing the socio-material practices of design, this method helps circumventing both traditional sociological approaches that rely solely on social contextualization of the working environment of architectural firms (Blau, 1984) and anthropology informed approaches that treat all products of architectural design as collectively and socially constructed through negotiations among all participants in design (Cuff, 1991).

Drawing on the recently developed pragmatist approach to architecture, I will question here the specific relationship between the city and the various images of buildings and urban realms that talk on its behalf (or *represent* it, in philosophical parlance). My ambition is to account and better capture the practical relation between the large scale and the modification of the human and non-human associations. I argue that a better understanding of cities could be gained by literally keeping our compass sights on the paths of image making in design process, following the routes that link the humans with the material world, the subjective with the objective, the built with the inbuilt, the small with the big. To miss following these traces and accounting for these paths is to miss what a city is; and how it can be re-assembled in design.

In other words, I aim to ask specific questions here: How can architectural images assemble the variable qualities of urban life and recollect the city features? How is a city grasped, made present and enacted *in concreto* through the quotidian process of image-making in design? The city that inspired these questions is one that I happened upon while conversing with the architect Alejandro Zaera-Polo in 2008: Birmingham. Engaging with my desire to understand the specificity of the city, I asked architects 'What kind of city is Birmingham?' in addressing how the city could itself be grasped. I further explored this through attending to the process of design

and construction of the Birmingham New Street Station (the Gateway project). Curious to understand how the modalities of its urban life could be unpacked, I persisted with such questions. These came to form my research agenda.

The chapter offers a practice-driven perspective to the composite nature of the Gateway images, attending to their scalar and ontological specificity, and accounting for the particular way they capture and assemble the city of Birmingham. I trace their making at the architectural practice of Alejandro Zaera-Polo (AZPA),¹ and how they become *real*. I explore their modalities of action and account for the nature of the entities that make the images real, as well as for what can be said to exist *through* them. To do this, I use a variety of sources ranging from participant observation in the office of Alejandro Zaera-Polo in the period 2008–2013, to in-depth interviews with AZPA designers working on the project, content analysis of project related documentation, correspondence between the different stakeholders, official statements and also studies of the Gateway website (www.newstreetnewstart.co.uk/). I have also been able to compile and carefully assess an image archive on the project, in order to get a rounded understanding of the image ontology, its transformations, ‘travels’, compositions and re-compositions.

Politics of architectural imaging

The Birmingham I found as my study progressed was not that recollected in history. Rather, it was recollected and re-enacted in design. The first image I found to adequately capture the city in its current state of flux was itself mid-production in the office of Zaera-Polo, before being submitted to further transformations, decompositions and synthesis through design and construction processes (Figure 16.1). Generated on the computers of AZPA designers, morphed and inspected, retouched and enhanced many times, small and large-scale images of the Gateway flooded the screens. Architects spent long days and endless nights zooming in and out these

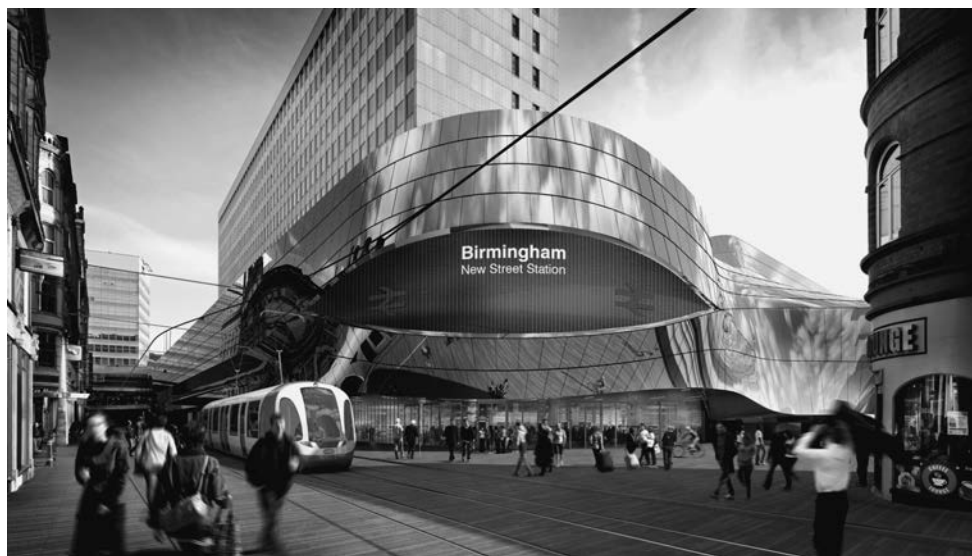


Figure 16.1 Image of the Birmingham New Street station, concept design of the station envelope

Source: Copyright AZPA

images, morphing their sequences, adjusting parameters, retouching their contours with Photoshop, rendering colours, choosing textures, or ‘populating’ them with human and non-human entities. The production and use of design images always happened to be a collective venture distributed between designers, software engineers, planners, citizens and politicians. Reproduced and rendered in different versions and according to different types of anticipated viewers, these images left the small office at Curtain Road in London and travelled the world. Touring back and forth between London and Birmingham, they talked on behalf of planners and architects, and enrolled different publics of supporters and critics.

A quick look at these images tells us that architectural visuals are pixelated, rendered and reproduced, yet also animated, enlivened and versioned. They are far from being black-boxed pictures, witnessing iconic design or certain urban knowledge, highly anaesthetized static illustrations of urban visions or mere documentations of different stages of design. Instead, the images are dynamic cognitive objects, tentative and open, vigorously impacting the city reality. They are versatile as they constantly change so as to accommodate the new knowledge about the city. Dynamic also, because of their numerous ‘travels’ and flexible trajectories that all constitute the course of design. Underpinning other forms of visualization (models, animations, simulations), architectural images define the working visions of architects and at the same time cultivate the expectations of many different participants in design who view the images and act according to them.

The reason for choosing to focus on the Gateway images is twofold. First, following the making of these images will allow illustrating how the city qualities of Birmingham permeate design practice: how they are grasped, translated and synthesized. Second, the images are central to city making practice across the fields of architecture and urban planning and they are crucial for how city phenomena are to be seen by all participants in urban design. Thus, architectural imaging is unraveled here as a set of everyday techniques for attending to the specificity of the city of Birmingham. Although the grain of analyses will not be as fine-grained and meticulous as an ethnographic account of these practices will imply (Yaneva 2005, 2009b; Houdart 2008), as long as the practicalities of image-making is part of our story, it is a story about design practices. The Gateway visuals form a tentative collection of working images that help in grasping the complexity of the city of Birmingham, its multiple facets, rhythms and diversity. They encapsulate the ‘working object’ of designers and planners: the city-to-be. The visuals enact four aspects of the city in a hologram way: the industrial, the multicultural, the informational, and the infrastructural. Clouds, information flows, crowds and trains move together at once, mediated and enhanced by the steel reflections, thus shaping four versions of Birmingham, four distinct realities, four facets of it that make it one.

The Gateway: ‘New street, new start’

Located in the city centre, Birmingham’s New Street Station is one of the busiest rail interchanges in Europe. Dating from the 1960s, its age is indicated by poor quality internal spaces and an outdated and unattractive external appearance; the station was considered as ‘lacking the requisite capacity to meet the forecast passenger demand’. It was therefore proposed that the station and elements of the shopping centre above are to be remodelled. In addition to these spatio-functional qualms, pedestrian access was judged as poor and not fully compliant with the requirements of the Disability Discrimination Act 1995. Furthermore, the station environment was considered as not only inefficient, but aesthetically unwelcoming, with dark and cluttered platforms and a congested and haggard concourse area. The resulting space was perceived as an uninviting one for both public and station staff alike.

In December 2007 National Rail (NR) and the Royal Institute of British Architects (RIBA) launched an international competition for developing an overarching vision for a redevelopment of the external form of the station and the atrium roof space. The RIBA brief for the content short-list demanded 'a visionary concept designer to create a landmark building and example of cutting edge architecture'. Six architectural practices were short-listed in February 2008: CRAB Studio, FOA, IDOM UK Ltd, LAB Architecture Studio, UNStudio and Rafael Viñoly. Later that year Alejandro Zaera-Polo was commissioned as concept architect to design the New Street façade and atrium space. The winning scheme was unveiled on 18 September 2008.

The Birmingham Gateway is meant to support over 52 million passengers a year, and therefore demands world-class architectural design in order to 'embody the rebirth of New Street station', in the words of Cllr Mike Whitby, chairman of the New Street Gateway Funders' Board (Herbert, 2008). The overall Gateway project is a £600 million joint scheme between Birmingham City Council, Network Rail, Advantage West Midlands and Centro. Its aim is to double passenger capacity through constructing a concourse three-and-a-half times its current size. This will be enclosed by a giant, light-filled atrium. Accessible, bright and clear platforms, serviced by 42 new escalators and 14 new lifts, will be accompanied by a new station façade. Together, these changes aim to add to Birmingham's growing reputation for good design, while dramatically improving pedestrian accessibility (with eight new entrances).

The RIBA brief for the concept design encompasses the primary aim of 'ensuring that the architecture of the new station building *meshes* with the different urban qualities of the surrounding area – both in terms of the existing fabric and that of proposed new developments' (RIBA Brief, 2008: 4, author's emphasis). The design is also expected to 'reflect the aspirations of modern day Birmingham'. These ambitions are encapsulated as follows: 'Birmingham is the UK's second largest city. The significant investments and regeneration activities that Birmingham has attracted in recent years have transformed the City' (ibid.: 5). A long list of such investments follows, before adding that 'the redevelopment of New Street Station lies at the core of the City Centre Master plan that aims to further Birmingham's position on the world stage' (ibid.: 6). Commenting on the design after the design review panel, chaired by commissioner M. J. Long, on 29 April 2009, the Commission for Architecture and the Built Environment (CABE) concluded that the design of the wrapping façade is a 'striking and imaginative response to the brief' (CABE letter to the Birmingham City Council, 15 May 2009).

In designing the station façade and atrium, AZPA architects were conscious of the indispensable position of the station in the City of Birmingham and the large amount of traffic that the station handles. Birmingham, as the most important regional centre for the Midlands, receives a large influx of visitors, and many of them access the City through New Street Station. It is effectively the first point of contact for many visitors to the city, hence has the potential to form a dramatic Gateway. The latter therefore heavily influences the first impressions of the large, 'floating' population that enters the city on a daily basis. This is judged to be of critical importance by the station's architects, who argue that its current design (and the quality of the surrounding public realm) is inconsistent with the ambitions and calibre of the City, summarized in the following words:

our [AZPA] proposal is aimed at correcting this situation and providing the station with an adequate envelope, which will give a long-lasting impression to those visiting the city, and the appetite to discover Birmingham. For the citizens, Birmingham New Street Station will become an important urban reference, and a source of urban pride.

(Gateway Project GRIP 4 Report, 2009: 8)

In addition to their ambition 'to correct' the situation, AZPA's explicit objective is to produce an architecture that will be able to communicate the function of the building to the public via railway-specific iconography and other related and recognizable content. Architects elaborate this as an attempt to 'capture the animus of the railway'. By this they mean the potential energy or power contained in certain objects within, and the holistic orientation and arrangement of the train station itself. Taking inspiration from the bifurcating patterns of the rails, or the distortion of perception produced by movement, the undulating, smooth forms of the track field have been transferred and embedded into the geometry of the architectural design; the resulting smooth and curved geometry will employ bifurcation as a formal system of perceptory distortion, while the reflective stainless steel skin will wrap the car park and conceal the roof.

How do architects know and research the specificities of Birmingham's 'situation' so as to learn what this icon-to-be should encompass? How do they extract knowledge of the local, cultural and environmental circumstances of the city, before it is packaged together under the label of 'context'? As I follow the making of the aforementioned envelope images I witness that such understanding must come from a mixture of both material sources and also practices. These are found not only within the textual sources of the brief, drawn from written and verbal feedback from the planner, but also through the practice of actual engagement with the client and the many other participants in the project. This multiplicity of contextualizing sources is crucial to acknowledge, yet 'context' remains the wrong word. It is not a stable framework standing 'out there'. While it is important to consider the relationship of design to the characteristics of its locality, this does not imply a one-way projection of the city as an embracing framework onto the works of design.

The movability of context lies at the core of AZPA's conceptual design. The proposed architecture is supposed to transform: to create emergent effects irreducible to the underlying context. It is this transformative and thus political power, I will argue, that is being communicated by the images such that the envelope actually creates contexts; it produces versions of Birmingham-ness. What one can see in it is not the bright future of Birmingham, traced in a manifesto style, but mundane crowds, flows of information, trains and the variegated shades of Birmingham's sky. One can rather experience the emergent dynamics of the reflective façade, the curvaceous and bifurcating lines underlying the structural or programmatic effects of the envelope. Architects hope the building will gain autonomy (an *animus*) while maintaining a pragmatic effort 'to find formal efficiencies that exist beyond expression, in order to avoid becoming a caricature' (Gateway Project GRIP 4 Report, 2009: 9). Notably, the station's envelope deliberately avoids mirroring the surrounding buildings. By tilting the upper half of the skin inwards and the lower half of the skin forward at precise angles that depend on the topography and the available distance for pedestrians to move, AZPA architects have set up a field of reflection that brings clouds and passengers, nature and technology together. The façade becomes an active mechanism of reflection: imitating, mirroring and mingling different types of movements and agents simultaneously.

A history of past attempts to refurbish Birmingham train station precedes this brief. Some proposals, notably that of John Mcaslan, were denied planning permission and so the required redevelopment was delayed for quite some time. There have also been efforts to build a new station at the outskirts of the city, as it proved difficult to design an up-grade of the existing structure. Despite such challenges, the final decision of planners was to maintain the central location and to embrace this aspect of its regeneration. The current city planners were cautious in broadcasting the envelope images, given the failures of their previous attempts to refurbish the station.

Alejandro explains the tension this decision lies upon: ‘they were very nervous that if you put an image in the public realm, the people are going to make you accountable for it’. The images produced during the competition did not pretend to illustrate a ‘promise’ as such. From an architectural point of view ‘everybody knows that the building will never look exactly the same. Everybody understands that things will change, and [this] will be a process in which technically a lot of problems will be solved’. Alejandro also highlighted Network Rail’s fear of accountability to a strict reproduction of the image, were it to be broadcast. All parties involved in the decision-making process (mainly Network Rail and Birmingham City Council) ensured a restraint on the announcement of preliminary images and their dissemination in the public realm. ‘There were a lot of questions to be answered before the architect came with a final image and they didn’t want to publish anything,’ argues Alejandro in an interview in September 2008. On the eighteenth day of that month, following a lot of discussions and negotiations, Network Rail sealed the deal with the city. The people of Birmingham and the West Midlands were presented with visionary new designs for the station (Figure 16.1). Released in the press, presented and discussed by the designers in public presentations, and widely distributed on the web, these images also ‘landed’ as large panels on the old station and decorated its premises during the construction process. In this way, the old station served at the same time as a site and as a material support of the visionary new design; it mediated this exchange through its very contrast to the new, prepared public opinion, and helped shape the right users’ expectations. For politicians and city authorities, this image did much more than bringing skies and passengers together. The image, indeed, held an important promise, which returns us to the difficulties noted as inherent to its public release.

Despite this, the first public reactions were very positive, explaining that ‘the striking concept designs, clad in shimmering, reflective metal, will create a bold, modern gateway to the city for the millions of people using the station each year’. AZPA’s design is defined as ‘world looking’ and ‘breath-taking’: a design that ‘places Birmingham on the international map for very high quality, daring design’ (Herbert, 2008). The critics argued that ‘Alejandro Zaera-Polo’s bold architecture symbolizes Birmingham’s arrival over the last few years as a globally relevant city looking to its future, as a connected international hub, to the advantage of citizen and investor alike’ (Herbert, 2008).

What makes this image an intriguing object of study is the fact that the architect’s role in this project is a very specific one. The engineering company Atkinson are hired to do the design. However, no matter how efficient their design and engineering work is, they are not expected ‘to give image to this new development’. As such, Alejandro Zaera-Polo is given this role serving as the crux of the project: ‘to give image’ to a city. This is a city that he barely knows. Commenting later on the design of the John Lewis store AZPA was commissioned to do as a part of the station concept, Alejandro reiterated that their work consisted in ‘wrapping’ the station, that the remit of the architect is reduced here to ‘dressing’ the building. Yet, the images of this ‘wrapping’ have important scalar and ontological, composite and rhythmic dimensions.

Adopting a ‘slow’ mode of enquiry (Stengers, 2011; Yaneva, 2013) as opposed to a ‘quick’ understanding of urban reality that relies on stable definitions, the analysis presented here will step aside from a simplistic characterization of Birmingham. To understand this city one must attempt to account for what is specific to it as revealed in architectural design and by reclaiming the art of dealing with and learning from what some may consider a messy and contingent design process.

The making of the Gateway images

It is October 2008, at the offices of Zaera-Polo, London. I am following the operations of image making: generating, morphing, inspecting, retouching and enhancing small- and large-scale images of Gateway. I watch architects at work and account for the alternating rhythms of scaling the images as they zoom in and out on the computer screen, as they morph sequences of images, adjust parameters, retouch the contours of Photoshop images and allow themselves to be surprised by the results displayed on the screen. Gathering my ethnographic data as such, I follow the making of these images, unravelling the complexity embedded into the micro-operations of rendering a colour, choosing a texture, parametricizing, morphing sequences, and populating an image with both human and non-human entities.

In order to produce these images architects use a computational engine based on quasi-dense 3-view algorithms. In this quasi-dense image reconstruction from un-calibrated sequences of images, all geometry is computed based on re-sampled quasi-dense correspondences, rather than the standard sparse points of interest. This not only produces a more accurate and robust reconstruction due to the highly redundant and well-spread input data, but also provides sparse reconstruction for visualization application (Lhuillier and Quan, 2002). Alejandro explains, 'my generation is blessed. For us computers became tools for design. I think that you can work on the computer and still remain a designer. In a way we witnessed the first integration of technology into the practice' (interview with Alejandro, 10 October 2008, London). For him, an engagement with these tools is crucial in gaining knowledge about the computer rotation and the dimensions that would allow for the production of different designs. Once familiarity with the digital tool is gained, a concomitant improvement in one's knowledge of the design options is made available and the designer can intuit immediately what the geometrical determinations of that form are and define that intimate relationship between quantifiable data and design.

The superior accuracy and robustness of quasi-dense sparse reconstruction is important in accommodating non-human actors into the image: this includes trains, crowds, clouds and digital information. Thus, the making of such images involves a multitude of operations ranging from matching the colours, defining the sky bluish and reddish nuances, morphing sequences of images, defining the number of parameters, setting up an algorithm, testing the geometry of reflection, measuring the angles of the skin, tilting the surfaces upwards and downwards to make the reflect trains, crowds and clouds, testing how to control the image reflections, adjusting the variable geometry of tracks and bifurcations, modifying colours depending on the sky and the height of the sun at different times of the day, and changing the relationship between quantifiable data and design. Transformation, morphogenesis, combination or superimposition, alteration and also simulation, reproduction, enhancement and augmentation are but a few of the techniques architects employ in the execution of these often complex design procedures.

As I follow Alejandro and his colleagues' computer-based 'craft' in defining the intimate relationship between data and design, adjusting parameters, rotating and rendering images, I witness the reproduction of details and their parametricizing, in defining the façade performance, putting people inside, adding trees, trains and clouds, turning the black of the sky into blue, and enhancing the effects of the image, I am in the world of computational design. Through witnessing first hand the making of the computer image, one can find it consists of an immense array of entities: humans, colour shades, parameters, sequences, settings, rotating and pasting devices, among others. For any so-called 'small' rendering to be produced, the designers must collect and consider millions of colours, hundreds of material samples and millions of repetitive moves in retouching the image. Far from being reduced reflection of the complex realities of the city of Birmingham, the images of Gateway reveal themselves as being more complex,

multifaceted and composite. Yet, their making is slow, complex and gradual, requiring painstaking operations of adjustment, fine-tuning of colours, transformation, combination or superimposition, simulation, reproduction, enhancement and augmentation.

The multiple natures of the city

What is the ontological specificity of the images described thus far? How do they encapsulate Birmingham and aid at the same time our understanding of the city? Following architects at work I witness that drawing and retouching the numerous images of the Gateway allow architects pragmatically to approach the city of Birmingham as knowable. By so doing they do not simply rearrange its different facets, but also gain in this process new knowledge about it; knowledge about its sound reality, knowledge that is not graspable otherwise.

The stories of the architects about how they get to the city specificity do not expel the reality of the city of Birmingham. They talk about it for it is everywhere: in the materiality of infrastructures, in the industrial history of the 'spaghetti junction', in the movements of crowds and trains. 'Spaghetti junction' is a nickname of the massively intertwined road traffic interchange that resembles a plate of spaghetti; it refers to specific urban developments in Birmingham in the 1960s.² It denotes a suffocating reality, it has noises; it is dense. Hundreds of images witnessing for historical and current developments are collected; pieces of evidence are brought after every design meeting. Letters fly between CABE and AZPA, AZPA and Network Rail, Birmingham City Council and CABE. Moments of disappointment. Waves of excitement. More calculations pile up in the GRIP reports. Experiments with software. Long hours spent on the computer generating millions of versions of the same image. Long evenings in the office at Curtain road. Long afternoons in the construction office at New Street in Birmingham before rushing back to London. Events are made to happen by several types of actors. Words and drawing software participate too. Paperwork, building and construction documents pile up. The local news from Birmingham city council circulates on a daily basis. Words exchanged in planning meetings. Glamorous images shown at public presentation. A model touring the city of Birmingham to meet the citizen. The images of the station are spread all over the sites of design and construction. Buildings. Words. Visuals. Archival images. Publicity snapshots. Flows of information. Crowds. Ticking clocks. Movements of trains and clouds. Design happens among all these things and people.

To witness how the city is enacted in design, I remain interested in the techniques that the designers use to capture its dynamics. Architects tell me that knowledge about Birmingham is gained via the processes of design, as well as through a number of subsequent meetings on the construction site (Figure 16.2). Alejandro relates this to the specificity of the city as a crux of mobility:

At a certain point I was going there very often. That is where my image of the city comes from. It is a large city with a large immigrant population. . . . It is a city that gathers people. People go through Birmingham. The city 'processes' them and then they go back to Pakistan, Canada or Germany, etc. For me, the centre of Birmingham has more of this kind of transient character. This was something that we had detected already through the competition stage. You talk to people who work on the project and nobody lives in Birmingham. They commute. The city itself is almost hollow.

(Interview with Alejandro, 20 July 2012, London)

Acting as a nexus, as passage point for different groups, this city of Birmingham welcomes people from all over the place, integrates them into the economy. Grasping the character of



Figure 16.2 Birmingham New Street, the image of the station envelope on the construction site

Source: Photos by the author

the city is essential to the design process, yet that of Birmingham I have found to be multiple and composite. It is difficult simply to isolate one central characteristic. During the research phase, architects 'select a number of elements that belong to Birmingham' and assemble them together to 'synthesize an image of the city' (interview with Alejandro, 20 July 2012, London). In identifying and distilling these elements, the architects traced the city's history back to the time of World War II, during which the city had been completely destroyed. From this they aimed to understand its current condition and geographical location.

Endeavouring to understand how Birmingham was transformed into a hub for transit, AZPA's design opts for a train station envelope that is suited to the task of reflecting this evolutionary history. In this sense the challenge, explains Charles, was

to understand on a macro scale the immediate neighbourhood and the reconstruction that is going on, in and around Birmingham, and also the impact that the development of the public realm around the station will have on the pedestrian flow; thus recreating a city centre that does not exist now, but that I have seen taking shape in the process of construction.

(Interview with Charles, 26 July 2012, Birmingham)

The accumulated reflections of designers emphasize the point that there is no one particular identity of Birmingham, one city nature – stable, given, acknowledged by everyone – that would be captured by one image in the process of design and construction and would inspire a specific architectural form of expression. Rather, a number of features emerge and are synthesized as architects engage in learning about a city that reveals itself through multiple realities.

The image of the station comes as a result of recombining manifold elements in a new composition: the famously black sky of Birmingham turned into blue blended together with the spaghetti junction experiments in the 1970s, along with the experiments of transport and infrastructure, the pollution, and the frantic circulation of people and trains. As the architects put it, 'we collected a number of qualities or things we can build the image from' in forming a computer image that would communicate this 'vortex' character of the façade. This will be made by agglomerating the swarms of people at the train station, coming and going, and the train tracks going under the station, to visualize the city going through the station. As such, the image is made, and in its making Birmingham is enacted rather than observed and represented. It is at the same time composite (as it puts together different entities in a new relational arrangement) and dynamic (as it sets all these entities in motion). By fusing and recombining elements of the city that will be reassembled in the shared pixelated space of the image, architects do not engage in a work of representation. They do not strive to grasp a certain essence of a city by reflecting its unique nature, creating symbols. They rather engage in the much more complex series of operations of composing, recollecting and re-assembling. This generates a versatile image that will resist all further interpretations of its iconic-to-be nature.

The envelope is made to reflect all these qualities recollected in design research, to gather a number of entities and grasp their movements.

We were wondering how to use the fact that the tracks are going here, and to play with the reflection of the façade, so that when you look at it you will see the tracks reflected on it. So, basically we are reflecting the tracks, the trains and the crowds of commuters. We are reflecting the station, and we are inserting content from the public information system. These are four layers of movements: clouds, information, crowds and trains. All this is captured by the skin.

(Interview with Alejandro, 27 October 2008, London)

These four layers correspond, I will argue, to four versions of Birmingham that are ‘extracted’ through the process of design. These together give us four different ontological layers of the city; four distinct realities of Birmingham emerge and are being enacted in the image-making process.

The first reality is the industrial one; the black and grey skies of the city are immediately associated with its pollution and associated steel industry (Figure 16.3). As Alejandro puts it:

Birmingham has a famously black sky. It was a very industrial city and was very famous because it was overcast [laughing], like most of the UK, but apparently more. It also used to have a lot of heavy industry – steel, coal, etc. and therefore high-level pollution.

(Interview with Alejandro, 27 October 2008, London)

The industrial history of the city is emergent in the processual reflection of Birmingham’s sky in the steel surface, as it clears: not grey, but blue. The blue hints at the death of the economy and the birth of a city with an altogether different form of pollution. It speaks of the developers transforming it into a city with offices and shopping centres, rather than factories and production lines. Clouds appear and disappear from the envelope as it reflects the various shades of sky above it. Birmingham is thus portrayed by the image as a city in flux.

Another feature of Birmingham that is considered in the process of composite image making is its sociocultural diversity. The image should reflect the ethnic composition of ‘the first majority/minority city in the UK, with the youngest population in the UK; the most “multicultural” city’. This is quite literally illustrated as one can see different crowds of people with various compositions reflected by the steel envelope (Figure 16.3). A sense of the ethnic mixture responsible for the city’s vibrancy is gained as I follow different groups of people in transit: going in and out, mingling and flocking into both crowded and emptying spaces. The moving crowds animating the envelope emphasize this quality of the city: to collect, often temporarily, people from many different cultures.

The infrastructural variation is also very present as the station was also ‘the place where in the 1970s the experiments with spaghetti junctions took place. The highways around Birmingham are incredibly sophisticated and the most extravagant loops were built there at that time almost like experiments of transport and infrastructure’ (interview with Alejandro, 10 October 2008, London). One can get a sense of the existing infrastructure as one follows the train tracks and junctions projected on the envelope (Figure 16.3). The visual reference to the tracks plays a crucial role in successfully conveying the local infrastructural specificity. The station was built over pre-existing tracks, with the city standing a further level above; the trains running below the station thus outline a plurality of wholes hidden in the middle of the city. This gives the façade a unique ability to capture the movements of trains, while itself producing an unfolding loop of the dynamic processes at the train station, rather than an opaque flat surface of symbolic projections.

The fourth level is informational. The envelope will contain information drawn from the public information system, and a number of screens will be inserted in the building skin on the top of the main gate (Figure 16.3). They will broadcast information about the operation of the building or the content. Thus, the reflective wrapping will adapt and convert its own content to enliven the surrounding city. The station will continue the city effort of public space development across Birmingham (a number of similar screens have been placed in front of the city hall and at various other locations). The result will be numerous flows of public information circulating through the reflecting envelope, joining the circuits of movements of clouds, trains and passenger crowds.



Figure 16.3 Four layers of movement: sky, public flow, train tracks, information flow

Source: Original image by AZPA, public presentation, Redevelopment of New Street Station, Birmingham, April 2008

The four layers of the Gateway image discussed here do not provide different individual perspectives on a single reality of the city of Birmingham seen from the point of view of different participants in design – spanning the industrial, the infrastructural, the socio-cultural, the informational. These are not four essences of the city, neither are they alternative constructions emerging from the past. Instead they are different versions, different realities of the city that coexist in the present and help enact it. Different, and yet related. The image holds them all.

However, the image is also false, unfaithful. Yet that is precisely why the rendering is capable of bringing the viewers into a different dynamics of the city. The image, instead of faithfully reflecting one urban essence, is ‘populated’ in the process of design with people and objects of all kinds: from trains, tracks and ‘spaghetti junctions’, to shops, cars, screens and benches, and of course skies. Every relevant element from the digital catalogue of things, be it a human, a tree or a track, is submitted to the same process of encoding, importing, cutting–pasting and correcting, regardless of their ontological differences. Since the very first renderings appeared on the designers’ screens, a specific thinking about how to bring together trains and clouds, different ethnic groups and information flows, retailers and developers, jobs seekers and commuters, blue and grey skies, new and existing buildings was brought to the fore. Akin to the hybrid space described in Sophie Houdart’s ethnography of the design process and image-rendering that occurs in the office of Kengo Kuma (Houdart, 2008) where people and forest, animals, fairies and muses would create a new cosmology of harmonious cohabitation of humans and non-humans, the Gateway image presents a novel cosmopolitical assemblage (Yaneva and Zaera-Polo, 2015). The envelope creates an impression of 3-dimensionality, populated by

differentially sized entities with varied ontologies arranged within several non-overlapping steel surfaces. The resulting image effectively exemplifies the cosmopolitical question of co-habitation of different entities and brings together within a single, visually coherent space all of the entities necessary for the Birmingham station redevelopment.

The result is a dramatic envelope with immanent tensions of surface reflections, irregularities and curvatures, with visual interrelationships between the different parts. The image is as dramatic as it is full of action. Action, furthermore, implies relationships and interactions between reflected entities found in the same visual space. Nothing stays constant on the reflective façade: the clouds alter their shades, the information changes, the crowds come and go, and the trains move. The resultant image thus can vividly demonstrate how it is that a number of previously disconnected entities may coalesce in a single continuous rhythmical movement. Each movement of one entity garners meaning through a series of related movements of the other. The envelope ‘moves’ and regroups the accommodated entities according to their different inherent regimes of enactment.

The image captures the station dynamics. Architects themselves fully traversed the station studying the geometry of reflection and testing the tilted surfaces to ensure their ability to capture and reflect decisive moments of what happens around the station, not the surrounding buildings. The designers explain:

We are capturing from a number of positions the distance from which you look at the building, and depending on that distance, [depending] on the relationship between the public and the building, the angles of the skin have to change in order to show something.
(Interview with Alejandro, 10 October 2008, London)

There is an intrinsic dynamic component of this image: it contains and enacts the life unfolding around the station, the variegated dimensions of Birmingham, in such a way that they become its own image; it is not the image that becomes Birmingham. Each reflection reacts to and acts upon others, on its facets. Each type of entity reflected on the façade merges with the actions and reactions of the multiple actors whose movements are captured. The moving image introduces us into a world of universal variations, universal undulations; a world that has no axes, no centre; one that has neither left nor right.

As the envelope never maintains a single shape or colour, but constantly changes in capturing the different movements, its image will never embrace one specific iconography either. Alejandro explains, ‘When the reflective skin is tilted backwards, thanks to the ambers, it reflects the sky and clouds, and when it is tilted downwards it reflects the crowd or the tracks’ (interview, 27 October 2008, London). Constantly seeking ‘a certain effect of reflections’, its dynamic nature is expressed in two ways: through the changing arrangement and composition of entities, and through alterations in colour. Once it is wrapped with the reflecting envelope, the building will change colour depending on the sky and on the height of the sun at different times of the day: at 12pm it may have a bluish colour, in the afternoon – a more reddish hue. Its image therefore should also capture this constant lack of aesthetic stasis. The planners’ demand to fix the representation arguably goes against the image’s inherent propensity to vary as it grasps, in a dynamic and rhythmic way, the multiple realities of a city.

The city ‘reassembled’

‘Now, I understand what kind of city Birmingham is,’ says Charles, as we walk around the construction site of the Birmingham train station in 2012 (Figure 16.4). Following architects at work through the processes of design and construction of the New Street station, one has



Figure 16.4 The architects on the construction site, July 2012

Source: Image by the author

gained an understanding of Birmingham that is far removed from a vision of the city as merely an objective frame, or context, wherein one may place a building. It escapes the simplistic, yet widespread, divide of urban theory between subjective and objective perceptions.

The speaking of Birmingham *tout court* without mentioning the design images of its new developments, the imaging techniques, the disputes in design meetings, the changes of the façade geometry on the building site or any other modality of enacting the city will require bracketing all practicalities. Birmingham would appear in isolation. Yet, if one follows the practices of image making, the city of Birmingham would appear as a flux of information, as a flow of moving clouds changing their hues according to the reflecting steel surface of the façade, or as an important vortex of movements of crowds and trains. That is a city that has many variations, but at the end is one.

Tracing the making of the Gateway image one can see that at any moment in the study of AZPA one does not witness a radical shift from face-to-face interactions to bigger social structures, from the pixels on the designers' computers to the genuine context of Birmingham. A sense of Birmingham-ness is gained in the process of design, in the recollection of the multiple realities of the city; Birmingham is rendered and reassembled. Thus, tracing the actions of architects allows us to witness a city that is very different from the one that appears through the many subjective experiences of the Birmingham *flâneurs*, the station users or the building experts. I remained sceptical to the appeal of urban theory that: 'people, not spaces and structures, animate the city' (Beaumont and Dart, 2010). Rather, I illustrated the potential of images to 'capture', 'animate', 'assemble' and 're-enact' a city.

The story I tell here is very English. If I slightly altered the lenses of my study, if I were to travel to Birmingham and London every day, if I were given access to every single design meeting, if I were able to witness every move of the designers' hands and software, attend and record every public presentation of Alejandro and follow every model and image of this new development, I would tell different stories. The specificity would differ. However, what would not alter is the coexistence of different ways to enact Birmingham. There is a multiplicity that stays the same. As long as the practicalities of enacting the city are kept unbracketed, the varieties of Birmingham multiply. In the process of design the city appears to be more than one – without being fragmented into many.

The images of the Gateway do not represent Birmingham; they rather attend to the multiple reality of the city. As the city cannot be removed from the practices that sustain it, its reality is multiple. Through image making, the city becomes a reality that is manipulated in practice. The city that one is able to attend to by following the practices of architects is never alone. It does not stand by itself. It depends on everything and everyone that is being active while it is being practised. The city is not 'out there', and ready to be represented. It is being done. The images carry new realities with them. They trigger various enactments of the city of Birmingham. Different enactments entail different ontologies. They come with a different way of doing the city. Yet, the realities produced by architects are not random. They are ontologically political (Mol, 1999). Ontology defines, in standard philosophical parlance, what belongs to the real, the conditions of possibility we live with. If the term 'ontology' is defined with that of 'politics', then this suggests that the conditions of possibility are not given; that reality does not precede the mundane practices in which we interact with it, but is rather shaped within these practices. So the term 'politics' in this context works to underline 'this active mode, this process of shaping, and the fact that its character is both open and contested' (Mol, 1999: 74–75). Other variations of Birmingham than the one presented here possibly exist and may be enacted in other architectural practices. Enactments of realities are not a matter of free creative choice; they are always socio-material workings.

The Gateway images are far from being passive and illustrative, their role is rather performative: images serve as astute devices used to train the eyes of those who make the city: to teach designers and viewers how to see and how to think architecturally, but also to educate planners and builders on how to read the images of this new development. Images invoke a number of workaday choices: which software to use, whether to retouch a rendering, how many copies to render, how to teach planners to read it. Through their reiterative tutorial performance, new knowledge about the city is gained and new urban knowledge is communicated.

Re-describing the operations of image-making illustrates that a building is not simply inserted into a context that exists 'out there' and prior to any process of design. It is rather an object that will redefine the city, will reshuffle it and set it into motion. The station becomes an extension of Birmingham, 'a variation' of it; its images act as sophisticated reflecting machineries that drive the city to 'go through the station' and trigger contextual mutations. Relying on re-composition, not representation, the images also convey an idea of architecture that is very different from the traditional understanding of buildings as static structures put into space. Flipping through changing arrangements of entities, the moving envelope image makes it impossible to perceive a building as an aesthetic object, a flat projection, or a surface of symbolic life. No matter how overwhelming and complex the Gateway building is meant to be, it is impossible to grasp it in one instantaneous moment; its perception has temporal and rhythmic qualities.

Following the production of the Gateway images, I travelled through hybrid spaces and was able to witness a city that is not made by powerful men (planners, politicians and visionary architects), but a city that emerges as its images trace many intricate relationships, involving a variety of non-human and natural entities. Follow the Gateway images and you see Birmingham, not on the images, but through them. Watch their variations, and you will be able witness its multiple natures. When designers and planners meet in design meetings, when viewers inspect a huge scale model of the station, when builders and citizens of Birmingham cross paths on the construction site of the station, they all together jointly give shape to the reality of the new train station; they reassemble Birmingham.

Notes

- 1 The project started at the Foreign Office Architects (FOA), which later split into two practices, and the project continued with the practice of Alejandro Zaera-Polo – AZPA, currently AZPML.
- 2 The term was originally used to refer to the Gravelly Hill Interchange on the M6 motorway in Birmingham, United Kingdom. In an article published in the *Birmingham Evening Mail* on 1 June 1965 the journalist Roy Smith described plans for the junction as 'a cross between a plate of spaghetti and an unsuccessful attempt at a Staffordshire knot'. Since then many complex interchanges around the world have acquired the nickname of 'spaghetti junctions'.

References

- Beaumont, M. and Dart, G. (eds) (2010) *Restless Cities*. London: Verso Books.
- Blau, J. R. (1984) *Architects and Firms: a Sociological Perspective on Architectural Practice*. Cambridge, MA: MIT Press.
- Buchli, V. (2013) *An Anthropology of Architecture*. London: Bloomsbury.
- CABE. (2009) CABE letter to the Birmingham City Council, 15 May.
- Callon, M. (1996) Le travail de la conception en architecture. *Situations Les Cahiers de la recherche architecturale*, 37, pp. 25–35.
- Cuff, D. (1991) *Architecture: the Story of Practice*. Cambridge: MIT Press.
- De Certeau, M. (1984) *The Practice of Everyday Life*. Berkeley, CA: University of California Press.

- Doucet, I. (2012) Making a city with words: Understanding Brussels through its urban heroes and villains. *City, Culture and Society (CCS)*, 3(2), pp. 105–116.
- Doucet, I. (2015) *The Practice Turn in Architecture: Brussels after 1968*. Farnham: Ashgate.
- Gateway Project GRIP. (2009) Birmingham New Street Station. Gateway Project GRIP 4 Report 2 (01).
- Graham, S. and Thrift, N. (2007) Out of order: Understanding repair and maintenance. *Theory, Culture and Society*, 24, pp. 1–25.
- Herbert, B. (2008) New Start for New Street Unveiled, 18 September. www.newstreetnewstart.co.uk/construction-progress/press-release/2008/september/ retrieved on 6 October 2011.
- Houdart, S. (2008) Copying, cutting and pasting social spheres: Computer designers' participation in architectural projects. *Science Studies: An Interdisciplinary Journal of Science and Technology*, 21(1), pp. 47–64.
- Houdart, S. and Minato, C. (2009) *Kuma Kengo. An unconventional Monograph*. Paris: Editions Donner Lieu.
- Jacobs, J. M. and Merriman, P. (2011) Practising architectures. *Social and Cultural Geography*, 12(3), pp. 211–222.
- Jacobs, J. M., Cairns, S. and Strebel, I. (2007) A tall story . . . but a fact just the same: the Red Road high-rise as a black box. *Urban Studies*, 44 (3), pp. 609–629.
- Latour, B. (1998) To modernize or to ecologize? That's the question. In Castree, N. and Willems-Braun, B. (eds). *Remaking Reality: Nature at the Millenium*. London and New York: Routledge, pp. 221–242.
- Latour, B. and Hermant, E. (1996) *Paris, Invisible City*. Paris: Les empêcheurs de penser en rond.
- Latour, B. and Yaneva, A. (2008) Give me a gun and I will make all buildings move: an ANT's view of architecture. In Geiser, R. (ed.). *Explorations in Architecture: Teaching, Design, Research*. Basel: Birkhäuser, pp. 80–89.
- Lees, L. (2001) Towards a critical geography of architecture: the case of an ersatz Colosseum. *Ecumene*, 8, pp. 51–86.
- Lhuillier, M. and Quan, L. (2002) Quasi-dense reconstruction from image sequence. *Computer Vision – ECCV, Lecture Notes in Computer Science*, 2351, pp. 470–471.
- Loukissas, Y. (2012) *Co-Designers: Cultures of Computer Simulation in Architecture*. London and New York: Routledge.
- Mol, A. (1999) Ontological politics: a word and some questions. In Law, J. and Hassard, J. (eds) *Actor Network Theory and After*. London and New York: Routledge, pp. 74–89.
- Nadaï, A. and Labussière, O. (2013) Playing with the line, channelling multiplicity: Wind power planning in the Narbonnaise (Aude, France). *Environment and Planning D: Society and Space*, 31(1), pp. 116–139.
- RIBA Brief. (2008) Brief for the short-listed, Redevelopment of New Street Station Birmingham. RIBA. 14 February.
- Stengers, I. (2011) Another science is possible! A plea for slow science. *Faculté de Philosophie et Lettres*, ULB 13 December, Inaugural lecture Chair Willy Calewaert 2011–2012 (VUB).
- Strebel, I. (2011) The living building: towards a geography of maintenance work. *Social and Cultural Geography*, 12 (03), pp. 243–262.
- Yaneva, A. (2005) Scaling up and down: extraction trials in architectural design. *Social Studies of Science*, 35, pp. 867–894.
- Yaneva, A. (2009a) *The Making of a Building: a Pragmatist Approach to Architecture*. Oxford: Peter Lang.
- Yaneva, A. (2009b) *Made by the Office for Metropolitan Architecture: an Ethnography of Design*. Rotterdam: 010 Publishers.
- Yaneva, A. (2013) Actor–Network–Theory approach to archaeology of contemporary architecture. In Graves-Brown, P., Harrison, R. and Piccini, A. (eds). *Oxford Handbook of the Archaeology of the Contemporary World*. Oxford: Oxford University Press, pp. 121–135.
- Yaneva, A. and Zaera-Polo, A. (eds) (2015) *What is Cosmopolitical Design?* Farnham: Ashgate.
- Zitouni, B. (2010) *Agglomérer. Une anatomie de l'extension Bruxelloise (1828–1915)*. Bruxelles: Brussels University Press.

Homeless, home-making, and archaeology

“To be at home wherever I find myself”

Larry J. Zimmerman

Scene one: Our team of archaeologists studying the material culture of homelessness visited an often-used camp site we had surveyed and photographed many times over the past four years. This time, however, we came across a poignant sight. Along a fence line marking the western edge of the interstate highways that pass near the city center of Indianapolis lay a slightly rumpled but made-up bed with a double mattress, sheets and a white bedspread. There also were two pillows, a throw rug at the foot of the bed, and cardboard and cloth baffles on the fence and nearby bushes to dim the lights and reduce noise from cars and trucks that passed the location at all hours (Figure 17.1). Immediately opposite the head of the bed, inserted in a small tree, was a stuffed, multicolored, toy cat, which could easily be seen by someone lying in the bed.

Scene two: I visited our primary survey area often during the summer of 2011 to observe the changes that occurred almost daily at the Davidson Street bridge homeless camp site. One afternoon, I noticed an African-American man and woman I had not seen before. They were very near the edge of the street and not directly under the bridge, as was common for new occupants. They had chairs, a mattress and blankets, and some clothing in a plastic bag, but almost nothing else. The man came over to speak with me, but the woman remained near their bed, sweeping the dirt off the nearby bricks. They had rented an apartment, he told me, but were evicted when he had lost his job two weeks earlier. When I asked why his wife was sweeping the bricks, he observed that she knew it didn't do any good, but that she hated the dirt and wanted to stay busy.

For the archaeologists in *scene one*, the material culture of homelessness often surprised. Our performance in the poorly understood drama that is the life of homeless people who live in camps was partly scripted by training, standard archaeological field methods, and research design. We documented the bed photographically and noted the location as we would any artifacts and their contexts. However, because this was archaeology of the contemporary and the past at this site was perhaps only minutes old, there was a demand for improvisation. Key actors were not on the stage, nor did we meet them. We also realized how unlikely it was that we

ever would. We understood that we should not—indeed, ethically could not—touch the bed or collect any of the associated artifacts; for at least for a night or so, this place was the actors' home, with the made up bed showing their intent to return. The artifacts we are able to objectify, turning them into data, but they also carried poignant emotional content with which we could easily identify—belonging, security, comfort, rest, perhaps love—as an attempt by someone without one to make a home, albeit one that would be fleeting.



Figure 17.1 IUPUI Cultural Heritage Research Center. A made up-bed with mattress, pillows, blankets, and rug, looking east, with Interstate Highways beyond the fence

Source: Larry Zimmerman

Scene two was completely unintended and unexpected, outside the project research design, but probably inevitable. Although I had done ethnography before, my performance was unscripted and improvised with no planned interview questions. I just wanted to understand what I was seeing, and just by interacting with the couple, to show some level of caring and understanding. The particulars of our dialog were irrelevant to the archaeology of homelessness project. The couple's performance essentially was *mise-en-scène*, similar to hundreds played out each year in Indianapolis, and probably an unknowable number of times in the drama that is homelessness for our species since at least the origins of urban life. Yet, the bed, the woman's sweeping, and their chairs provided a context that helped me understand the powerful reasons behind the bed in scene one: the couple was making a home.

The fragment of a quotation that is the subtitle of the chapter is from American poet Maya Angelou. The full quotation reads, "I long, as does every human being, to be at home where I find myself" ably describing the central theme in the scenes above, attempts by homeless people to create a homelike place—however temporary—that has been observed many times in our study of homeless campsites in Indianapolis, Indiana, as well as in other cities. This is not a particularly remarkable observation. Our species might be thought of as "home-seeking" or "home-making," the archaeology of which has been well-described by Jerry Moore (2012) who considers "home" to be something uniquely human (p. 1) and a framework for construction of meaning (p. 223).

Homes are complex and variable, with tangible and intangible components that reflect decision-making about environment; availability of materials; access to resources; social systems; and as important as these, systems of meaning. The concept of architecture clearly encompasses these factors, but homeless people often make ad hoc decisions based on the simplest factors—weather, perceived safety, access to food, available time, even their emotional state—especially if they are alone and responsible only for themselves. Warm, dry weather may require no roof at all; rain may lead them to something as simple as a bus bench in Vancouver, British Columbia, that converts easily to a simple shelter and even has messages that change from "This is a bench" in daylight to "This is a bedroom" at night.¹ Couples or families may require homes of greater substance such as a vehicle or an abandoned house that can provide safety and mobility. As will be discussed later, homeless people often label others by what type of shelter they choose, made more complex because people move between types based on immediate circumstances. Architecturally, homeless people clearly demonstrate profound adaptability as they seek or make homes.

Home-making behavior is abundantly evident in journalistic reporting of homelessness. For example, in *Dark Days* (2000) British filmmaker Marc Singer provides a mid-1990s *cinéma vérité* portrait of homeless people living underground in the Freedom Tunnel, then an unused segment of the New York City Amtrak train system. These "mole" or "tunnel" people, as some scholars and journalists (e.g. Toth 1993; Voeten 2010) have labeled them, have been the stuff of speculation about their very existence, misinformation, and even urban legend. Clearly visible in *Dark Days*, however, the mole people used cast-off building materials and furnishings to create "homes" as part of a ramshackle underground community, even tapping into the local electric grid for lighting, television, and other comforts. Similarly, Matthew O'Brien (2007) documented life in the underground drainage system tunnels of Las Vegas, Nevada, and described almost identical behavior, again clearly visible in the video, but on a smaller scale than in New York City, often centered on individuals and couples instead of communities (Ling and Hinman 2009).

In terms of the use of space and material culture, architectural aspects of home-making by homeless people have also been reflected in recent ethnographic and archaeological studies. At the same time, homes created by homeless people need not be as complex as those of tunnel

people and may even be as simple as a piece of cardboard on the ground or overhead as protection from the cold and precipitation; the only requirement is that “home” be in a relatively safe or private space. The meanings associated with home for some actually may be negative or confining, but homeless people must still exist someplace and make decisions about how to adapt to that place. What provides an additional level of decision-making and social meaning for homeless people is that others may not want them in that place. As cultural anthropologist Martha Valado (2006: 10) observed in her ethnographic study of homelessness in Tucson, Arizona, homeless people must “constantly strategize to find or make private, safe, functional, comfortable, and supportive places for themselves in a landscape designed to exclude them.”² The purpose of this paper is to explore how homeless people go about doing just that and how it is reflected in material culture and social meaning. The observations, information, and opinions presented here come primarily from archaeological (Zimmerman *et al.* 2010) and ethnographic (Karim 2014) studies of homelessness in St. Paul (Minnesota) and in Indianapolis (Indiana). From these two studies, there is enough information to make general observations about the many factors that homeless people in the two cities consider in their attempt to seek-or-make homes within a contemporary urban landscape whose citizens at best seek to ignore them, but at worst exclude, denigrate, and even criminalize them. There are parallel projects in Bristol and York in England (Kiddey 2014) and an ongoing project outside Darwin (Northern Territory) in Australia (Pollard 2015). The investigators in all three countries have compared observations and have identified common themes. However, there are enough differences in approaches and data sets to preclude identification of anything but the most general threads at this time.

Homelessness through the lens of the local

Homelessness apparently is an intractable, highly variable, social problem that has roots that are temporally at least as deep as the development of urbanization (Zimmerman 2013: 337), depending, of course, on how homelessness is defined. By a simple definition homelessness may be a condition of being removed—forcibly, by circumstance, or by choice—from a place in which one finds shelter, safety, physical comfort, regularized social interaction, and emotional succor, attributes that are often mutually reinforced and sometimes thought of as a “feeling of security.” Thus, homelessness creates a condition of “insecurity” that may be long term or short and may be as varied as families or communities driven from their homes by warfare or extreme social unrest who are forced into refugee or internment camps; those who lost their jobs and homes due to an economic downturn; individuals suffering from mental illness or addiction; or even a teenager who “runs away from home” to escape domineering parents or just to “see the world.” Homelessness, whatever its source or duration, is popularly understood as an absence of materiality centered on ideas about domesticity and place. Yet as ethnographic and archaeological research demonstrate, as home-seeking-and-making beings, people who become homeless tend to find or create “homes” that may exhibit both materiality and domestic behaviors. What these “homes” are, however, may or may not reflect popular ideas of what a home *should* be or how “security” might be understood.

As with many Westerners, I tend not to think of homelessness in contemporary urban settings as anything as catastrophic as mass displacement of people due to warfare or ethnic cleansing or, for that matter, even teenagers who leave home with a notion of seeing the world. When I first began to use archaeology to examine the materiality of homeless, my understandings of homelessness mostly echoed the popular ideas about contemporary urban homelessness. The first time my views were challenged came with a lecture on my research that I gave to a large group of homeless people, mostly men, in the Carnegie Centre, a community day shelter on

Hastings Avenue, a primary area for homeless people in Vancouver (Canada). Within minutes of starting my talk and using the phrase “hardcore homeless” several times, a man near the front interrupted me, saying, “Some of us like this life. We aren’t homeless. We are home free. No mortgage, no rules. All I have to do is find a warm place to sleep and food” (Zimmerman *et al.* 2010: 453). As he told me later, he did tend to go to favorite places, where he knew he would find something to eat and a safe place to rest. In spite of his contentions, “home free” people seem to be very aware of their local area and its resource base.

In Indianapolis, homeless people use their own categories for adaptations made by local homeless people (Creative Change Project 2014: 4). They use five terms that incorporate type and use of space. The categories are not mutually exclusive, and homeless people may move between categories depending on needs of the moment. The most well-known are the “panhandlers,” the commonly used term in America for begging money, usually, or food. They tend to be visible on busy street corners, often “flying” or holding signs asking for money, or “shaking,” that is, holding a cup with a few coins making it obvious what they want; occasionally they can be aggressive. Of the five groups, panhandlers spend the least time actually living on the streets. The money they procure by begging allows them to make arrangements with friends or family members for temporary sleeping arrangements, which is also known as “couch surfing,” that is, moving from place to place sleeping on the sofa or even floors, but inside and safe. “*Those that live in their vehicles*,” that is, in their cars or vans, are mostly families. In the United States, city and state laws prohibit children from living on the street, so living in their vehicles allows parents to avoid social service agencies that would take their children to live in foster care. Family shelters do exist, but are often full or have waiting lists. Such families find meeting even basic daily needs to be challenging. “*Those that live in shelters*” are usually people new to being homeless, who have no family support, and who have no or few resources. Fear motivates them because they have little knowledge of living on the streets and how to meet basic needs. In a shelter they get three meals a day, have a small place to store things, a place to shower, a bed, and a modicum of safety. Because space is limited, most Indianapolis shelters allow only ten consecutive days of residence per month. Many people in shelters are in programs for alcohol or drug addictions, mental health, and domestic violence, and their occasionally uncontrolled behaviors raise stress levels for other residents. Because many shelters are provided by faith-based organizations, many residents resent being proselytized in exchange for shelter or food. As one resident once told me, “We don’t like being forced to listen to that Jesus shit all the time!” When I mentioned this during my Carnegie Centre lecture in Vancouver, the audience cheered. “*Bandos*” live in empty houses or apartments or in *abandoned* buildings, from which the name “bandos” is derived. The number of bandos varies with the seasons, but is significantly larger during the winter because the limited number of shelter spaces fill quickly and few homeless men have proper outside camping equipment. During the summer, the number drops because the heat drives them outdoors, and they disperse into the other groups until cooler fall weather returns. The other risk is that “squatting” is illegal in America, and if found, they may be evicted or arrested. Finally, “*those that live outdoors*” use public places that may include parking garages, parks, on sidewalks, in storefronts, and similar locations to sleep, as well as to use public facilities such as libraries to use computers, read, or watch videos and just “kill time.”

Those who live outdoors but through an archaeological lens

The primary focus of all archaeological studies of homelessness so far has been on “those that live outdoors” for reasons that are relatively understandable, mostly because their use of material culture is more visible than with the other homeless groups. The lives of sheltered people, for

example, have been the target of most social science studies, in part because homeless people in shelters are easy to find. Most of the time shelters are relatively controlled environments, safe places for the investigators who administer surveys or conduct interviews. Although shelters have plenty of material culture to study, its use tends to be carefully monitored by shelter managers following strict policies, and residents are allowed to bring little with them, which is usually stored in small lockable baskets or cabinets. Bandos have been more difficult to study, partly because they live inside empty or abandoned structures, are difficult to find, and the buildings potentially are much more dangerous to enter. For example, one abandoned warehouse within our primary Indianapolis survey area was heavily used by homeless people, and local lore said that police and medical personnel were hesitant to enter except in the most extreme situations. Near the end of our intensive survey, the owners demolished the building. Movement from place to place makes those who live in their vehicles difficult to identify let alone to study their use of material culture. They may have substantial quantities of material culture in their cars, but vehicle size and the number of occupants limit what they can carry. Anthony Bozzo, one of my students who has been part of the Indianapolis study, chose to live in his van for nearly two years in order to save money, moving it from place to place on the university campus. He lived alone, but his interview by a local newspaper provided several insights to issues that plague those—especially families—who live in their vehicles (Brown 2011). Even for those who live outdoors there is substantial variation in use of both material culture and space, which has been evident in all of the studies to date. Finding places to stay that are relatively safe and provide some privacy seems to be paramount, but access to key resources, especially food and water, clothing, and medical care, must also be important considerations.

The St. Paul Minnesota Project

That homeless people make selecting safe and relatively private places to sleep a priority was obvious soon after the start of the project in St. Paul, Minnesota. That project was not intended to study homelessness. Rather, excavations were done to learn about construction techniques of two massive stone garden walls and buildings associated with the James J. Hill mansion located on the hills above the St. Paul city center (Zimmerman 2004: 134–135; Zimmerman and Welch 2011). The gardens were abandoned after the Hill family left the property in the early 1920s. The Minnesota Historical Society bought the property and restored the mansion in the late 1970s, but did nothing to the gardens until 2003 when it began work to restore the walls and gardens. By then, the walls had deteriorated, and trees and shrubs had overgrown much of the area, providing a nearly ideal place for occupation by homeless people. In the trees and bushes there were many locations for privacy, and in terms of safety, the gardens were out of sight from the street on the hillslope above them and even from the highway that now passes below the gardens at the base of the hill. Police had no reason to come to the area unless nearby residents complained. Even campfires, of which there was plentiful evidence, would be difficult to see, and circles of stones pulled from the garden walls were often used to contain the fires. In the upper wall the Hill family had built a small “cave” for growing mushrooms, and when the gardens were abandoned by the family, homeless people used it as shelter, even though part of the roof had fallen. Excavations in the cave revealed a midden-like accumulation of debris associated with decades-long use by homeless people. Nearby was a hole created by a fallen tree and its roots, which similarly was littered with camp debris. Two poles leaning against the trunk of the tree supported a large plastic sheet that served as the roof of the camp. Spread over the rest of the garden area there was also plentiful evidence of short-term usage with abandoned and rotting sleeping bags, empty beer and other alcohol bottles, and food remains, most of it

under small trees or in areas where bushes provided privacy. Almost every morning during our excavations we saw someone sleeping under the remaining roof of the mushroom cave or found evidence that someone had recently been there. We were surprised to find numerous items of clothing scattered around the property, some of it in nearly new condition, and apparently unworn. The source, as we discovered, was a church charity that provided clothing and food located within a kilometer of the gardens, and similarly, the gardens were only a short distance from many local businesses including restaurants from which the homeless could either purchase, beg, or recover cast-off food. Even though it might seem insignificant, the gardens looked out over the city and a river valley, providing a relatively pleasant view of the area. As we would eventually discover in our Indianapolis project, Courtney Singleton's analysis of blogs written by homeless people showed that a good view and pleasant surroundings could also be factors in selecting places to sleep or camp. Understand that these observations about homeless people in St. Paul were not the primary purpose of the project. We did excavate and analyze many items related to homeless use of the gardens, but did no systematic survey or mapping of campsites. Even the number of photographs of areas of intensive usage by homeless people was limited. Thus, many of these observations were after-the-fact. However, in 2005, a year after I moved to Indianapolis, Indiana, I began a more systematic project specifically studying homelessness.

The Indianapolis, Indiana Project

The Indianapolis project has been multifaceted, using a range of archaeological and ethnographic approaches. All of them initially focused on what the study of material culture in homeless sites might tell us about homeless life, carried out with the general goal of providing information that might assist service providers who aid homeless people. Because I had little knowledge of homeless life in Indianapolis, one of my students, Jessica Welch, offered to work with me. She had been homeless for about two years in California where she lived as a "bando." We began to focus on the area immediately east of the Indianapolis city center where she had often observed homeless people, probably there due to the proximity of a faith-based shelter, Wheeler Mission, that provided clothing, food, and short-term shelter. Also nearby was the Horizon House day shelter, which provided places to receive mail, use computers, take showers, and get a meal. After preliminary survey of the area, in 2007 we started to systematically survey an area of approximately 10×10 city blocks (roughly 2.6 square kilometers) to locate places used by "those that live outdoors" as indicated by the presence and locations of certain kinds of material culture. We could not enter fenced properties, but we could sometimes see through the fences that homeless people had been there. We also did not enter abandoned buildings or areas that we considered unsafe, though we did make note of what appeared to be usage by homeless people.

The urban landscape of the survey area was highly variable, but generally areas closer to the city center were more developed, that is, with more buildings and relatively few open spaces to provide privacy or safety from law enforcement or harassment by owners or passers-by. Toward the east, open areas were more evident between buildings and more abandoned buildings were common. The extreme northeastern survey area had more private residences while the southeastern area was more industrial with lots of open spaces and even small wooded areas. Two transportation features interrupted the area, but were key to location of homeless campsites. Two multi-lane Interstate highways run side-by-side in a north-south direction. The highways have wide, fenced rights-of-way at their edges to keep people and animals off the highways, but because of the noise, even some distance away from the fences, there is little occupation by homeowners or businesses. Property is poorly tended, leaving areas of trees, bushes, and tall weeds, which homeless people often use for both short-term and long-term campsites. Only a

few bridges for cars cross the highways, but there are several railroad bridges for the trains that go to the Union Station, a short distance from the survey area. For homeless people who walk almost everywhere, the railroad and bridges actually provide the shortest and easiest access to resources instead of following streets. Where rail lines pass through the more open areas in the eastern survey zone, small copses or thickets of trees, bushes, and weeds grow at the edges of the railroad, providing places to camp with privacy and relative safety. However, the railroad company or property owners occasionally removed the thickets, and camps that we had located were often removed as well.

We developed three site categories. As people moved from place to place within the survey area they would often stop to rest or hold conversations at *route sites*. These were commonly marked by visible human waste, but mostly by the smell of urine, graffiti, food wrappers and containers, and, rather often, Styrofoam coffee cups. These items were not random urban litter or trash, but were clustered in places away from streets, along the railroads, and in other locations where the homeless would be less visible as they moved from place to place. We recorded five route sites. *Short-term sites* were places where people had stayed for only a night or two, evidenced by use for sleeping or eating, but rarely for cooking. Occasionally short-term sites would have an abandoned sleeping bag or pillow, and if in grassy areas, just an impression in the weeds or grass where someone had slept. If there was shelter of any kind it tended to be simple, such as a plastic ground cloth or a piece of cardboard on or under which to sleep. Occasionally in tall weeds, the tops of the weeds would be pulled together and tied, with the weeds underneath pulled out, providing a quickly made shelter with a roof. We located 40 short-term sites. Places where there was evidence of well-defined areas for sleeping, cooking and eating, socializing, and trash, garbage, or waste disposal were defined as *camp sites*. Camp sites often had more durable shelters such as tents and small huts fabricated from wood, plastic sheeting, and cardboard, but some just used protected areas under the railroad bridges. Many also had well-organized hearths delimited by brick, stone, or concrete blocks with a range of cooking pots and other utensils. Camps contained a much wider range of material culture such as mattresses, pillows, and blankets for sleeping, and occasionally evidence of pets, usually dogs. Because there was so much more material culture and occupants did not stay in camp all day, there was evidence of caching of possessions, that is, items they did not want to carry with them but intended to retrieve. Black plastic trash bags were the most common way to store items, which we never opened, but which were reported to contain personal items such as military and medical records, medications, and personal memorabilia as well as favorite items of clothing or camping gear. If they had no durable shelter, these might be hidden behind bushes or in the metal beams supporting bridges. Sometimes they were kept in grocery shopping carts and covered with plastic sheets. We recorded 16 camp sites. We also noted that 26 of the short-term sites and 11 of the camp sites were within a few meters of the railroad tracks. Many of the short-term sites appeared to be ad hoc, that is, used with little planning, mostly to get out of inclement weather. Sometimes they slept beneath the railroad and car bridges and, in one instance, under three semi-truck trailers parked side-by-side for a long period. Camp locations obviously were more carefully picked, mostly in places with adequate space and away from public scrutiny. Those located in copses of trees usually meet these criteria best, but sometimes permanent structures such as the car and train bridges over the streets proved “irresistible,” attracting larger numbers of residents as well as greater attention from police and nearby business or home owners. Camps are usually well known to the police and known to have their own “personalities,” that is, often focused on and occasionally named for an individual identified as a spokesperson for the camp.

Usually, however, they tended to be named for some feature associated with the camp. Many considerations go into the location of the camps—available space that is relatively private, some

protection from weather, and proximity to resources. In terms of proximity to resources, team member Anthony Bozzo mapped distances from the main camps to the major service providers such as shelters, medical care, places to bathe, and the like. He found that no camp was more than about 4 km to most services. Apparently more important, however, was the ability to move from place to place without many hindrances, that is, not having to walk on busy streets or sidewalks. What may be a linking factor is that none of the camps discussed below are more than about 0.5 km to the core railroad routes that all move through Union Station, the city's main train station on the south edge of the city center. Although there is some danger in walking along the railroads, only a few trains pass through the city. The major problem now is that tracks have become more heavily guarded due to concerns about terrorism. Also worth noting is that many of the manufacturing industries that once dominated the landscape on the immediate edge of the city center were served by the railroads. The trains still use the tracks, but many of the industries are now closed, which leaves abandoned buildings, many open spaces, and relatively little surveillance by authorities, ideal places for use by homeless people.

In many ways the camps are territorial. According to Maurice Young, considered by many residents of the *Davidson Street Bridge/Irish Hill* camp to be its "mayor," residents of the camps thought of themselves as "tribes." For example, at the time Karim (2014: 65–66) discussed the matter with Mr. Young in 2013, there were eight camps in areas near the city center, but generally in or near abandoned industrial areas to the east and south. For example, *The Jungle* was close to the Davidson Street Bridge camp, but had three sub-camps named for Gerald, Steve, and Scotty. Residents often were thought of as those who lacked social skills and were "kicked out" of other camps. *The River Wood*, sometimes called Jerry's camp, was located along the banks of the White River, which runs near the western edge of the city center. The camp is large, and during a brief survey, we found it to be well structured, with many smaller tent camps, several well-constructed small shelters, a large communal cooking area, piles of firewood, and, in a few places, even stairways with handrails, the steps cut into the steep earthen banks leading from the nearby street to the floodplain. *The Salt Mines*, *The Fern* camp, the *Terry and Bedford* camp, the *GM Bridge camp*, and *The Zoo* likewise are named for individuals or their locations. In the early days of our project, the Pine Street Bridge camp was located under a little-used railroad bridge almost directly east from the Davidson Street Bridge camp, but on the other side of the highways. The residents were known as drug users with a tendency to get into fights. Their behavior often drew the police to the camp, and eventually occupants were evicted and the bridge closed off. Of interest is that after the eviction, the Davidson Street Bridge camp would not let the former Pine Street camp members move in with them, recognizing that a propensity for drug use and fighting would inevitably draw the attention of the police or other city authorities. However, no camp is ever truly safe from eviction and the Davidson Street/Irish Hill camp twice suffered that fate.

Archaeology and ethnography at the Davidson Street Bridge camp

The Davidson Street Bridge encampment attracted our regular attention early in the project, partly because it was extremely visible. We could observe daily changes in the number of residents and the nature of the material culture in camp just by driving by. The occupants were evicted by the city twice, once during the late winter of 2010 and again in late summer of 2013. As we discovered, the use of the Davidson Street Bridge area as a place used by homeless people had a substantial heritage.³ Without going into too much detail, the area has been a "home" to transient people since the industrialization of Indianapolis (see Singleton 2014 for a longer

discussion and sources). Railroad workers settled into the area and built houses, soon becoming a stable Irish-American neighborhood. The neighborhood was physically aligned with the angles of the railroad tracks, not the city grid system, and was disrupted when a second bridge was built in the 1920s about 12 m to the south. That pushed the neighborhood east and made the original location ideal for industrialization. As deindustrialization began in the late 1950s, the factories built in the old neighborhood were shut down and eventually demolished. Construction of the Interstate highways further disrupted the zone. As Singleton notes, this created an area with patches of the original brick-lined streets, dead-end streets, and vacant lots or rubble that to outsiders symbolize non-places, spaces of forgetting and neglect, but that homeless people see in very different ways.

When we began studying the area in the three years before the first eviction, most of the activity of homeless people was in the copses of trees, brush, and weeds away from the bridges in the area identified to us as the “jungle” upslope along the fences marking the Interstate highways. Most of this area is protected from the view of people passing on Davidson Street or the highway. People sometimes camped in small tents but more often were protected by trees and weeds, as short-term sites. By the winter of 2010, more organized shelters developed under the north bridge. The sidewalks on both sides of Davidson Street were wide and well protected from cold winter winds and snow, with the outer concrete wall built into the earth. As well, the bridge was supported in part by concrete pillars about 2 m apart that paralleled the street, effectively dividing each side into relatively cosy, small rooms created when the homeless residents made walls with plastic sheeting. They brought in mattresses, chairs, and other furnishings, even a few small kerosene heaters. The problem came when the occupation completely blocked both sidewalks, the population grew, and the nearby permanent residents began to complain about sanitation, feeling intimidated, and thefts from their property, which they attributed to the homeless people. The city ordered eviction of the homeless people living under the north bridge by March 1, 2010. Assisted by the Department of Public Works (sanitation staff), the police, and several volunteers from shelters and churches, many occupants left the area, but many just moved their materials into tents out of sight in the “jungle” a few meters south. The city then put heavy duty fences completely blocking any use of the sidewalks under the bridge. The area under the south bridge was a more open space and larger, but much more visible. By the summer of 2010, the population began to grow in that area, and by 2013 was occupied by approximately 70 people.

In our earlier surveys, we never directly observed homeless people staying under the south bridge, but there was plenty of material evidence left by short-term users who had placed cardboard on the surfaces next to the largest concrete wall and behind a parallel, short concrete wall that served as a raised support for metal I-beams that held up the railroad bridge. For approximately 3 m away from the short wall, the remnants of the brick street were visible and someone had pulled up the brick to create a hearth against the large concrete wall. Cooking supplies and food remnants were also visible. Used clothing was scattered around the cardboard and sometimes hanging from the metal beams. Black plastic bags were hidden around the area to cache supplies, and tightly shoved into places where the I-beams crossed. During the summer and autumn of 2010, most homeless people in the area seemed to stay in the more private “jungle” area, which is where we observed the bed described in *Scene one*, but by late autumn and into winter, the population under and near the bridge had grown substantially, estimated to be about 30 people. Those who settled under the bridge early were able to claim the most protected spaces between the concrete walls; later arrivers were often unable to find space under the bridge, so stayed near it, but in the open. Many of them had tents, but a few had only mattresses and blankets. Worth noting is that, although much is communal in the camps, there

is a kind of spatial hierarchy in terms of the best locations for sleeping and keeping possessions. Those who were there first and stayed the longest got the best places.

Weather is also a key to the location of camps and use of space within them. For those choosing to stay out during the winter finding substantial shelter can be crucial. On most nights early in the winter of 2010, the temperature was relatively warm so sleeping in the open was not dangerous. Starting during the evening of January 31, 2011, and lasting until February 2, Indianapolis was hit by several ice storms that deposited about 2.5 cm of ice, which covered most unprotected surfaces. The following summer, I asked a couple, Daniel and Amanda, if they happened to be there during the storm. They had been, but were in the open with no tent, sleeping on a mattress covered by several blankets, which they pulled over their heads. Some moisture soaked into the top blankets and eventually froze, with more ice forming on top. They stayed warm, but in the morning were trapped under their blankets and had to kick and punch the ice to break their way out. Because of the very icy ground everywhere, walking was extremely difficult, and several people in their camp fell, a few injured severely enough to be taken to a nearby hospital. During harsher winters, on the coldest nights many homeless people seek warmth and safety in local shelters, but some do not even do that, partly because of their dislike of the shelters, but also for such reasons as having pets that are not allowed in the shelters. During those times, shelters go into emergency mode, trying to take in as many people as possible, but often must turn people away. During the harshest weather outreach teams from the shelters and churches visit the main camps to check on residents and take sleeping bags, blankets, and food. Inevitably, however, one or more homeless people get frostbite, fall very ill, and a few freeze to death. Many homeless people actually move to warmer climates in the southern and far western states to avoid winter entirely, then come back during the spring. Movement to shelters, becoming “bandos,” “couch-surfacing” at homes of relatives or friends, and even leaving the city cause the number of people in the camps to decrease substantially.

Life in the camp could be described as “communal,” with sharing of some goods such as food and water occasionally delivered to camp by people concerned about the well-being of occupants. Communal also applies to what is thought of as shared space, where shared food might be divided or consumed, but which also may be used for socializing and just relaxing. Some of those who leave never return to the camp, so others may claim anything they left behind, and at the Davidson Street Bridge camp, this included the best spaces. Daniel and Amanda, for example, were able to move under the bridge itself, which in the summer provides shade and protection from rain. As with other long term residents, both had mattresses between the concrete walls and numerous possessions such as lawn chairs, plastic storage containers for clothing, small tables, rugs, and even a “guest bed” between their beds for visitors. Most of those by the walls were not especially visible from the street, but those in the middle areas on the brick had tents or just slept on cardboard or blankets on the ground. Many also had possessions but rarely as many as those by the wall. These areas were much more visible from the street so the “bedding,” tents and other possessions needed to be picked up in the morning and put out-of-view so that passers-by would not complain. Important possessions were often cached in bags placed in the I-beams or behind bushes. Most of the time, during the day the camp looked mostly empty, though some might sleep late or just stay around to socialize. As evening approached people would return from wherever they had gone, and the camp became a very active place, with people recovering possessions, laying out their sleeping area, and socializing by playing games, drinking, and telling stories. Courtney Singleton, who did much of the camp ethnography during the summer,⁴ described it as “ritualistic.” What became very clear was that at least during the time they lived there, the Davidson Street Bridge camp was home, a place that provided a sense of security, privacy, and meaning.

Some who stayed mostly on the periphery had lots of possessions. Patrick, for example, had initially stayed in shelters, but mostly lived rough in the city center and as a “bando.” By the time he arrived at the camp, he found a place on the edge, and usually slept on cardboard and blankets on the ground. His approach to managing his possessions was to keep everything in a grocery shopping cart. The cart allowed him to move everything if he wished. In it he kept his bedding, various tools, buckets, personal journals, and books. Singleton noted that once she needed string and a ruler for mapping, which he pulled from his cart and loaned her. He placed the cart near where he slept, a spot he thought of as his personal space. None in the camp touched any of Patrick’s possessions, and they even warned away anyone new to the camp. The major problem Patrick faced was the need to hide his cart because the police were known to confiscate the cart itself as property stolen from a business. Loss of the cart contents probably would have devastated Patrick, which speaks to a broader issue homeless people have. As noted earlier, police or sanitation workers in several cities have removed carts, other possessions, and caches, considering them as trash. When that happened they sometimes destroyed favorite clothing or blankets; medical, military, or social services records; medications to control psychological issues or other maladies; books; and personal memorabilia connecting them to families. Civil rights lawyers have sued cities on behalf of those whose material lives have been “confiscated” by authorities and won their cases, but it is often too late for those individuals to recover their lost feeling of security and perhaps even a lost sense of personal identity or heritage.

From this relatively brief discussion of the Davidson Street Bridge camp it should be obvious that the camp is a place of constant change, even “micro-change.” Archaeologists certainly recognize that such change happens on any site while it is occupied and even afterwards. They usually, however, deal with materials in a site that have accumulated over decades, centuries, or millennia, which tends to mask micro-change. Although material culture at some homeless camps may accumulate over decades, we felt that we should make an effort to document changes happening minute-by-minute and where possible, do it collaboratively with residents, essentially practicing ethnoarchaeology. Much of this has been experimentation only. As well as our own formal mapping of the site, we asked two residents to sketch their own map of the camp and its immediate environments. We also took daily panoramic photographs and noted more substantive changes over a week’s time. Finally, we designed a small experiment about micro-change. Singleton had noted that in the evening before bed those with beds along the back wall smoked heavily, and when finished with a cigarette, flipped the cigarette butt directly into the dirt just beyond the remaining bricks. Each smoked their favored brand, so the butts could be keyed to individuals. In the morning a 1 m square subdivided into 10 cm units was placed over the area along a baseline and the cigarette butts photographically mapped to assess consistency of the spread of each brand over the area during the evening. We never were able to complete it, but we also realized that sounds changed over the camp during the day, which we hoped to document by recording soundscapes.

As we were present at the site, people came and went, which made us realize that much of what happened at camp was linked to what people did during the day. With that in mind, Singleton accompanied people a few times and used a GPS unit and Google Earth to track favorite routes, which only sometimes followed the streets. Across the Interstate highways was a fast food restaurant, Hardee’s, at which people bought cups of coffee, which we discovered accounted for the ubiquitous Styrofoam cups we noted throughout the survey area, and sometimes even food when they had money. They also were allowed to use the restrooms to wash up so long as they kept it clean and didn’t bother others. Their route used the railroad bridge which shortened the distance by about half. Similarly, we had seen alcohol bottles and cans in use and thrown away at the site but didn’t know where they came from. Most were inexpensive brands and

small quantities, which for wine and beer are often called shorts or singles. They did not get these from city center shops, but from a favored liquor store in Fountain Square, a nearby neighborhood, and also bought other supplies in convenience and grocery stores there. This route also used railroad and street bridges over the highway, but sometimes cut through private property. Finally, as a test, we provided disposable film cameras to three residents asking them to photograph places they went. There were lots of differences, but one place they all visited was a large park with many military memorials that has many places to socialize, is near one of the shelters, and a place where organizations often provide lunches or other food. As it turned out, however, the reason most went there was that at the north end was the large city public library. Many used it regularly, a place they could use computers for e-mail or blogging (see Zimmerman *et al.* 2010 for a discussion); take a class on how to find a job; and read, watch videos, or listen to music before heading back “home.” As Karim (2014) later documented, a few homeless people also used the library and its facilities as a focal point for activism.

Conclusions

At this point there is no reason to belabor our observations with a theoretical analysis. To date, the St. Paul and Indianapolis projects have been a matter of pattern recognition more than anything else. The primary goal has been to determine whether using archaeological methods, ethnography, material culture study, and spatial analysis could provide information that other social sciences and social service agencies don’t have or may not understand. Most of their information is anecdotal rather than systematic and to a degree the data they have, such as annual homeless counts, are generated bureaucratically for the purposes of funding or budgeting. This is not to say that homeless agencies and outreach teams in particular don’t have a wealth of observations or information that is useful, but those agencies have biases derived from their roles as part of the homeless industry. Their philosophy is shelter-first which declares that the first goal is to find shelter for homeless people. If only homeless people living rough would come in, the shelter-first reasoning goes, their problems can be addressed. They actively discourage, except in the direst circumstances, providing aid in homeless camps because that allows homeless people to stay out. Do not misunderstand: shelter-first advocates have good intentions, but what we have learned in our projects is that the lives of homeless people are very much more complicated than many homeless industry specialists understand. Our early research showed that regular citizens also don’t really know much about homelessness, and when they think of aiding homeless people they filter it through what they think they themselves would need, not knowing what real needs might be and what the limitations of living rough actually are.

In the simplest of terms, our work has clearly demonstrated exactly what Valado (2006: 10) found in her Tucson, Arizona study, that homeless people must “constantly strategize to find or make private, safe, functional, comfortable, and supportive places for themselves in a landscape designed to exclude them.” Our projects also challenge common narratives about homeless people as incapable of handling life’s ordinary challenges and instead show that many prove to be adept at seeking and making homes, often in the most difficult of circumstances.

Epilogue: Scene 3

On a late August 2014 afternoon, my Indonesian graduate student Karim, whose thesis is cited in this chapter, and my former student Courtney Singleton (who was key to doing research on the project and is now doing her PhD at Columbia University), and I are meeting with Maurice Young on the third floor of the IUPUI University Library. Maurice is a large, bearded-with-

dreadlocks, African-American man with a soft voice, but a resounding laugh. More important, he has vision, organizational brilliance, and passion. Everything he is and does benefits homeless people. You may recall from earlier in this chapter that some people called Maurice the “Mayor” of the Davidson Street Bridge/Irish Hill camp. Now, former mayor might be more appropriate, a man who occupies a library table and uses computers that he jokingly calls his university “office.” He actually does meet lots of students and faculty members there, willingly teaching them what he knows about homelessness and trying to recruit their help. He actually chose to devote his life to working with homeless people, gave up a good business in the entertainment booking industry, and purposely became homeless. His story is nothing short of inspirational, and students at Taylor University produced an award-winning documentary, *The Advocate*, about his life (see the trailer at <https://vimeo.com/94907412>).

After our fieldwork at the camp, the site grew to nearly 70 residents. Maurice helped this happen, mostly because of his spirit and skill. He lobbied the city to provide portable toilets and large garbage bins (dumpsters) at the camp; he set up duty rosters to get the daily work done; he built a small lending library for reading materials; and the list could go on. Maybe more important, he networked all the camps and the various organizations that provided meals. Before he did this, two churches might bring breakfasts to a camp on the same morning, and lots of food was wasted. He coordinated the places and times for food delivery, and designed an app with times, locations, and bus routes so that homeless people could get regular meals. The camp truly operated like a small city and for many was a real home. Unfortunately, Maurice was too successful and the camp grew too large, drawing the attention of city officials. The railroad wanted the occupants out from under the bridge claiming a need to repair it. Local residents complained about thefts and intimidation; local media claimed that some camp residents had a drug-resistant strain of tuberculosis, which wasn’t true, but several cases had appeared in the shelters. Essentially, the camp was being criminalized. The city ordered eviction, which police, Department of Public Works, and volunteers carried out on August 26, 2013. Maurice was arrested along with four camp supporters, but the case has yet to be tried in court. Another fence went up much like that on the other bridge, and the Davidson Street Bridge has yet to be repaired (Figure 17.2). Rumors have surfaced that the eviction happened because a developer wants to build condominiums near the property. In the meantime only about 15 of the occupants have found shelter and the remainder have moved to other camps or situations.

We hear all this from Maurice, who apparently has not been depressed by these events. Instead he is excited because a property owner may be willing to donate a large house as a day shelter. He has a broad smile when he shows us the plans. He discusses his efforts to lobby the city and state to pass a homeless bill of rights advocated by the National Coalition for the Homeless.⁵ That afternoon he spends about three hours with us; he was so engaging that I could have talked hours longer. Working as I have on the archaeology of homelessness for more than a decade, I have been asked if it is depressing or have been told that what I have been doing is a waste of time and not really archaeology. Talking with Maurice helps me realize that archaeology can indeed provide useful information and can be part of solutions to several issues relating to delivery of specific services. More important, archaeology can provide a counter-narrative that is supported by data derived systematically, not anecdotally. Such a counter-narrative can be used by Maurice and other advocates for the homeless to counter the very powerful narratives about the homeless and their daily lives that are limited or erroneous at best, and at worst, used by some social service agencies, law enforcement, media, and the homeless industry as the basis for discriminatory social policy, criminalization, and isolation. So, I won’t let homelessness depress me or let anyone convince me that it isn’t really archaeology. I believe that I owe Maurice and the homeless people of Indianapolis at least that much!



Figure 17.2 IUPUI Cultural Heritage Research Center. The Davidson Street Bridges, looking north. The camp evicted and fenced in 2010 is in the distance. In the foreground, the 2013 camp is empty with fences on left and right sides to keep homeless people out

Source: Larry Zimmerman

Acknowledgements

The archaeology of homelessness research in St. Paul would not have happened without the generous support of the Minnesota Historical Society and the staff members of the James J. Hill House and the MHS Archaeology Department. Yes, it was accidental, but the project got its start there. The Indianapolis research benefitted from work spanning more than a decade by a small number of students and colleagues, but in particular IUPUI students Jessica Welch, Courtney Singleton, Tony Bozzo, and Karim. My colleagues Elizabeth Kryder-Reid and Susan B. Hyatt have provided support on several aspects of the project. The IU School of Liberal Arts at IUPUI supported a sabbatical leave during the 2010–11 academic year. Daniel, Amanda, Chris, Patrick, and others at the Davidson Street Bridge/Irish Hill camp willingly provided information with us and essentially shared their homes.

Notes

- 1 see www.huffingtonpost.ca/2014/06/30/homeless-bus-bench-photos-vancouver_n_5544338.html (accessed October 18, 2015).
- 2 If you doubt that landscapes are designed to exclude the homeless, there have been recent architectural efforts in several countries to design places with attributes specifically meant to keep homeless people

away. See a blog by sociologist Lisa Wade (2015) that discusses an essay by Alex Andreuo (2015) in *The Guardian*. Such designs are apparently a cross-cultural phenomenon.

- 3 Please note that the term heritage is used purposely here. Obviously heritage is a complex topic, but defining heritage materially is one of the strengths of archaeology. There is a tendency in Western cultures to define heritage around places of importance or pride, but another way might be to consider heritage to be consistent and durable adaptations of people to an area over time. However, people tend not to assign the term to adaptations that they think of as social problems or issues that they wish would disappear. See Zimmerman (2013: 347–48) for a discussion.
- 4 Singleton worked on the Indianapolis project during the summer of 2011 on an internship for her Master of Arts in Applied Anthropology degree in the Department of Anthropology at the University of Maryland.
- 5 See <http://nationalhomeless.org/campaigns/bill-of-right/> (accessed October 18, 2015). Worth noting is that the Indianapolis/Marion County Council adopted a version of the Homeless Bill of Rights, but the Indianapolis Mayor vetoed it on March 15, 2015.

References

- Andreou, A. (2015) "Anti-homeless Spikes: 'Sleeping rough opened my eyes to the city's barbed cruelty.'" *The Guardian*, February 18. Online. Available www.theguardian.com/society/2015/feb/18/defensive-architecture-keeps-poverty-undeen-and-makes-us-more-hostile?CMP=share_btn_fb (accessed March 10, 2015).
- Brown, N. (2011) "The top five tips for living in your vehicle." *Nuvo*, December 9, 2011. Online. Available www.nuvo.net/Timesuck/archives/2011/12/09/top-5-tips-for-living-in-your-vehicle (accessed February 27, 2015).
- Creative Change Project. (2014) "Did you know?." *The Voice Indianapolis*, September: 4. Online. Available media.wix.com/ugd/1c33a8_b1a461e07af646749aa2c4a7ae627477.pdf (accessed February 26, 2015).
- Dark Days*. (2000) Directed by M. Singer, New York City: The Picture Farm.
- Karim, A. (2014) "Leaving the Bridge, Passing the Shelters: understanding homeless activism through the utilization of spaces within the Central Public Library and the IUPUI Library in Indianapolis." Thesis (MA), Indiana University-Purdue University Indianapolis. Online. Available scholarworks.iupui.edu/handle/1805/5928 (accessed February 25, 2015).
- Kiddey, R. R. M. (2014) "Homeless Heritage: collaborative social archaeology as therapeutic practice." Thesis (PhD), University of York. Online. Available etheses.whiterose.ac.uk/6262/7/Kiddey_PhDthesis_final2014.pdf (accessed 25 February 2015).
- Ling, L. and Hinman, K. (2009) "Under Las Vegas, tunnels stretch for miles." Online. Available abcnews.go.com/Nightline/las-vegas-strip-home-homeless/story?id=8652139 (accessed February 25, 2015).
- Moore, J. D. (2012) *The Prehistory of Home*, Berkeley, CA: University of California Press.
- O'Brien, M. (2007) *Beneath the Neon: Life and death in the tunnels of Las Vegas*, Las Vegas, NV, Huntington Press.
- Pollard, K. (2015) "Archaeology in the Long Grass: a study of Contact Period Aboriginal fringe camps in urban hinterland, Darwin, Australia." Thesis (PhD), Department of Archaeology, Flinders University.
- Singleton, C. (2014) "The rupture of home: a contemporary archaeology of violent dispossessions within homeless encampments." Paper presented at the Archaeologies of the Present: critical engagements with post-industrial urban transformations workshop, August 3–7, 2014. Wayne State University, Detroit, Michigan. Manuscript in possession of the author with some information available: detroitarchaeology.wordpress.com/archaeologies-of-the-present-workshop-august-2014/ (accessed February 25, 2015).
- Toth, J. (1993) *The Mole People: Life in the tunnels beneath New York City*, Chicago, IL: Chicago Review Press.
- Valado, M. T. (2006) *Factors Influencing Homeless People's Perception and Use of Urban Space*. Thesis (PhD), School of Anthropology, University of Arizona. Accessed October 3, 2007 from ProQuest Digital Dissertations database (Publication No. AAT 3218224).
- Voeten, T. (2010) *Tunnel People*, Oakland, CA: PM Press.
- Wade, L. (2015) "Unkind Architecture: designing against the homeless." *Sociological Images*, Online. Available thesocietypages.org/socimages/2015/03/12/unkind-architecture-designing-against-the-homeless/ (accessed March 10, 2015).
- Zimmerman, L. J. (2004) "Archaeological evaluation of the Hillside Gardens areas at the James J. Hill House (21RA21), St. Paul, Minnesota," *Minnesota Archaeologist*, 63: 118–36.

- Zimmerman, L. J. (2013) "Homelessness," in P. Graves-Brown, R. Harrison, and A. Piccini (eds), *The Oxford Handbook of the Archaeology of the Contemporary World*, Oxford University Press, pp. 336–350.
- Zimmerman, L. J. and Welch, J. (2011) "Displaced and barely visible: archaeology and the material culture of homelessness," *Historical Archaeology*, 4(1): 67–85.
- Zimmerman, L. J., Singleton, C., and Welch, J. (2010) "Activism and creating a translational archaeology of homelessness," *World Archaeology*, 42(3): 443–454.

Into architecture

House-building and acentred personhood in Maputo, Mozambique

Morten Nielsen

Introduction¹

After our late night conversations at the small bar attached to Sauden's grocery shop in the southern part of Mulwene, a peri-urban neighbourhood on the outskirts of Maputo, Mozambique, I walked slowly home with Daniel and Celso, my two good friends and neighbours, while admiring recently initiated construction projects and half-built houses. Although the lack of any street lighting made it virtually impossible to make out the particularities of individual houses, Daniel and Celso easily recalled the main characteristics of most of the buildings in the area, which were carefully evaluated and compared to other construction projects, not least their own. As we walked the short distance from Sauden's grocery shop to our houses while discussing the particular advantages of different construction strategies or the unavoidable failures of using inappropriate materials, my two interlocutors also made me aware of the crucial importance of house-building to people in Mulwene: building a house did not simply constitute a temporary process in a person's life that anticipated the proper constitution of a household. Rather, house-building was constitutive of the process of establishing social personhood as such. 'To construct is part of our culture', Daniel reminded me. 'If you don't have a house, you don't have anything. Then you're just pushed around by the wind (*anda a favor do vento*) and so you don't have any strength (*não tem força própria*).'² As we passed the last corner before reaching our destination, Celso grabbed my arm and pointed at the plot to our right. Without any street light, I could not make out the details but I remembered that it was a small two-room reed hut occupied by a family of four who had recently moved to the area. 'Look at that, Morten,' Celso lowered his voice. 'That is not even a house. They are completely exposed . . . The owner can't hide his head (*esconder a cabeça*) in there.' Celso resumed walking while continuing to talk. 'I can't tell you how grateful I am that my family is living in a cement house . . .'

This chapter focuses on the relationship between social personhood and the architecture of house-building projects in southern Mozambique. In particular, it explores the puzzling effects that half-built cement houses have on the house-builders' social identity and status among peers and state officials. While it could be imagined that house-building projects tie the house-builders to particular (physical and ideational) locations from where to engage in reciprocal relations with

significant others (such as relatives, neighbours and officials), in southern Mozambique, they allow for a certain elusiveness of individual positions. In Mulwene and many other peri-urban areas in Maputo, the official legitimacy of house-building projects is questionable (Anderson *et al.* 2015; Jenkins 2000; Nielsen 2011). Given the fragile functioning of formal administrative systems, it is rare that prospective house-builders manage to obtain building permits or official property rights. Instead, access to land is acquired through informal channels, such as illegal transactions with former land owners and community chiefs (Negrão 2004; Nielsen 2007),³ and houses are built from informal blueprints that are made by state architects hired by house-builders to imitate formal housing standards. In this unstable socio-political environment, then, informal house-building projects serve as apt vehicles for obscuring the status of the house-builder, say, when the architectural layout of an on-going building project appears to adhere to formal housing standards while, in fact, the occupancy of land is both informal and illegal. As I have documented elsewhere, it is through such house-building practices that the large majority of residents living on the fringes of the city manage to secure rights to the land (Nielsen 2010; 2011). Returning to Celso's apt description, to 'hide one's head' refers precisely to the effects of obfuscating the house-builder's status arising from his or her on-going house-building project. It is not a matter of exposing what (or where) you are but, rather, what you *might* be (say, a formal citizen) and, equally important, what you are *not* (say, an illegal squatter) (cf. Nielsen 2013b).

I take house-building to constitute a particularly salient material and ideational medium through which people interact and create individual personhood. Following Carsten and Hugh-Jones, house-building is understood here as an extension of the person (1995). According to these authors, the '(h)ouse, body and mind are in continuous interaction, the physical structure, furnishing, social conventions and mental images at once enabling, moulding, informing and constraining the activities and ideas which unfold within (and beyond) its bounds' (*ibid.*: 2). Similar to the ways in which material objects are absorbed in the process of constructing individual personhood, the distinction between buildings and people may ultimately become blurred. As Daniel reminded me above, a person's strength is frequently an effect of the gradually emerging house. In a nutshell, then, by building houses, residents in Mulwene are also building their personhood. Like the Baruyan single houses described by Strathern (1991: 213), the external socio-political world is, so to speak, folded back on to the individual as houses in Mulwene are gradually being built. In order to realize a house-building project, residents engage in reciprocal encounters with neighbours, local leaders and state agents in order to exchange what is, in fact, an 'everted inside', i.e. an 'interior state turned momentarily outside, subsequently to be folded back and concealed from view' (Strathern 1998: 140). A resident might thus agree to cede some of his hitherto unregistered plot to a local quarter chief⁴ (*chefe de quarteirão*) (who subsequently resells it to another client) in return for an assurance of continued secure occupancy, which is, so to speak, absorbed through the leader. Through these reciprocal encounters, where 'inside and outside turn about one another' (Merleau-Ponty 1968: 264), the house-builder engages with and partially appropriates broader understandings of how to 'make a life' (*kuzama utomi* in xiChangana) in a peri-urban context, e.g. regarding ideas of proper (reciprocal) integration within the local community and, more broadly, Mozambican society. In a sense, the process of building a house thus becomes a particularly potent medium for balancing the 'visible and invisible elements of social life' (Corsín Jiménez 2008: 180). It allows the house-builder to oscillate between different potential (but not necessarily actualized) perspectives and positions separated both in time and in space. Personhood in this part of sub-Saharan Africa is thus to be considered as an outcome of skilfully moving around in the positional field that is made available, say, by commencing to build a cement house. In contrast to Melanesian social personhood, in which a person is always the effect of distinctly amalgamated dichotomies of male:female (Strathern

1988), personhood in Mozambique is fundamentally characterized by the elusiveness with which it asserts its positionality and inherent qualities.

Taking my cue from the writings of Gilles Deleuze, I approach this elusiveness as the production of ‘acentred personhood’ (1986; 1998; Deleuze and Guattari 1994). In *A Thousand Plateaus* (2005), Deleuze and Guattari explain how the primary characteristic of acentred systems is that ‘local initiatives are coordinated independently of a central power, with the calculations made throughout the network (multiplicity)’ (op. cit.: 519–520). In Deleuze’s explorations of modern cinema, he consequently argues that cinematographic perception transcends the limitations of natural perception, which is grounded in a fixed and privileged point of view. Insofar as cinematographic perception ‘lacks a centre of anchorage and of horizon’ (1986: 58), it can be considered as *acentred*: in modern cinema, the human eye can be eliminated from cinematographic perception and the spectator is faced with perceptions ‘in its *acentred* purity, in its primary regime of variation . . . while it is still untroubled by any centre of indetermination’ (op. cit.: 66, italics added). Indeed, as recently argued by Marrati, the image of the world that arises through Deleuze’s explorations of modern cinema is one of a ‘radically acentred universe in which perception does not wait for the human gaze to emerge’ (2003: 3).

I commence this chapter by describing how Amade, an entrepreneurial resident in Mulwene, initiated and managed to continue building what is still the largest house in the neighbourhood. The analysis of Amade’s house-building project is then used as a catalyst for exploring the process of building houses in southern Mozambique. By returning again to ‘Amade’s palace’, I unpack the intricate relationship between acentred personhood and the architecture of house-building projects and conclude by arguing that the acentring of personhood through architectural forms is what allows house-builders on the periphery of the city to engage in crucial but also potentially detrimental social relations with significant others, such as friends, neighbours and state officials.

Amade’s palace

Amade Sítioe bought two plots (30 × 30 metres) from old Mphumo’s wife in March 1999, and in December of that same year he built a two-room annex (*dependência*) right at the back of his parcel, thus leaving sufficient space in the middle for the main house, soon to be built, where Amade would live with Christina, his wife. Not long afterwards, Amade contracted local bricklayers who started laying the foundations to an impressive building. Whereas most houses in Mulwene had only two or three rooms, Amade was planning a seven-room house covering more than 300 m².

A few months prior to the purchase of the plots, Amade started working as a customs officer within a special branch⁵ funded by the British Embassy and focusing on large-scale smuggling and fraud among border guards. Apparently, his serious and creative style quickly impressed his British superiors, who made Amade responsible for interviewing smugglers immediately after their arrest. What they did not know, however, was the actual scope of Amade’s creativity. ‘My approach was first to work seriously, and then we can talk about it,’ as Amade told me with an ironic smile.

It was the lucrative business of pressuring accused smugglers into offering him bribes that made it possible for Amade to buy the two plots in Mulwene. After discovering that an allegedly legal import of oil was a cover for a series of smugglings, Amade made the perpetrators pay a significant bribe. ‘Do you know how much I got out of that case?’ Amade eagerly asked me: ‘40 million MZM (1,666 USD)! I gave 15 million (625 USD) to my assistant to make him shut up. That’s what made it possible for me to buy my land.’

In 2000, Amade's luck ran out when his illegal activities were exposed, leading to his immediate and forced dismissal and subsequent charges of fraud.⁶ At the time, his construction project in Mulwene was rapidly coming along. Cement walls had been erected with 'false ceilings' in all rooms. The skeleton for what was soon known among neighbours as 'Amade's palace' was thus in place and, as Amade later told me, had he been able to continue only a few more months as a customs officer, the construction process would have reached a successful conclusion. Things turned out differently, however. After his forced dismissal, Amade managed to continue briefly with his illicit activities as smugglers rewarded him for indicating customs officers who were prepared to accept bribes. As personnel were changed, however, this 'information service' gradually became obsolete, leaving Amade without the financial means to continue the construction process. After the abrupt termination of his career as a customs officer, he began to study at the Eduardo Mondlane University in the agrarian studies department. As a result, his household had to live off Christina's salary as a civil servant in the Ministry of War Veterans (approximately 3.5 million MZM (146 USD)). Once all expenses had been paid, nothing was left for further construction.

When I visited Amade for the first time in 2005, the bare construction was still the only indication that a 'palace' was underway. Although its sheer size continued to impress from afar, it was apparent that exposure to changing weather conditions had taken its toll on the building. Blocks were beginning to crumble, insulation paper on the ceilings was hanging loosely down, and vegetation was sprouting up in all the rooms. Without other viable alternatives, Amade, Christina and their two-year-old son Oscar continued to live in the small two-room annex initially intended only for temporary residence. Although they inhabited a plot double the size of most others in Mulwene, the skeleton for the 'palace' took up a large section of the available space, thus making it impossible to engage in other activities, such as growing vegetables and fruits.

Although Amade was well aware that he would be incapable of bringing the construction process to a successful conclusion in either the near or more distant future, he preserved the idea that eventually the house would be built. Countless times was I taken on guided tours through the half-built rooms, with Amade explaining in detail the precise interior arrangement: where the bar would be, the appropriate lighting for the hall, the wooden doors to be made by a carpenter in Chókwè and the expensive but essential window frames, without which the building would be nothing but a faint imitation of a house. Thus, although it was impossible to say with certainty whether the planned house would ever materialize, the image of its completion was constantly present in a relatively fixed form.

In a sense, then, Amade's projected house was already there as a temporal image made present by and through the physical materiality of its concrete, half-built structure. It was constantly necessary for Amade and Christina to relate to the house, not merely given its sheer size, but also as a temporal projection suggesting certain futures while rejecting others. Although Christina was frustrated about their continued residence in the small two-room annex and frequently suggested tearing down the 'palace', its final successful completion still served as an important temporal reference point. After Amade's graduation from the university, he began working with rural associations in Beira. When I visited Amade and Christina in 2006, he was on a short-term visit back home. Apparently uplifted by his current employment, Amade continued talking about saving enough money to continue the building project. Although, as Amade told me, his initial idea might not be realized, he was still determined to continue the building process whenever an opportunity to do so occurred.

To both his neighbours and local state officials, Amade's 'palace' was a source of incessant speculations, which primarily revolved around its seemingly dubious financial base. I would

regularly hang out with Amade and his friends during their afternoon sessions at local liquor stalls and oftentimes Amade's house-building project was a key topic to be scrutinized in detail. Beginning with a few cursory remarks on the magnitude of the project and the huge efforts it must have required, the conversation soon narrowed in on the building project's financial base and the unfortunate situation that Amade was currently in. Still, while the conversation would often get quite animated, Amade rarely (if ever!) revealed either how he had managed to commence the massive building project nor the scope of the financial predicament that he was currently in. When I spoke to state officials at the department for urban planning in the neighbourhood, they were as mystified as Amade's neighbours. During an interview with Rogério, the state official responsible for inspecting all house-building projects in the area, Amade's house was repeatedly mentioned as a particularly puzzling case. He even asked me if I knew about its background. 'How did he manage to build that house, Morten?' Rogério threw his hands into the air and looked at me while shaking his head in bewilderment.

I mean . . . Who builds a house like that? The house is a castle! He must know someone high up in the party's [i.e. the governing Frelimo party] ranks, that's for sure. How else would he have gotten a permit to build the house?

What I did not mention to Rogério, of course, was that Amade never applied for a building permit nor that he completely lacked personal ties with 'someone high up in the party'. What Amade did have, however, was an impressive house-building project whose architectural building style seemed to adhere to state-defined housing standards. Although I never asked Rogério directly about this, I was quite convinced that the material aesthetics of the house was the reason for not having questioned Amade about its legal base.

I did not visit Mulwene again until 2009 and, by then, things had changed significantly. With the regular salary as rural consultant, Amade managed to continue the building project and the bare skeleton that I had previously admired was beginning to look like a building project that might actually reach its successful completion. In 2010, wooden doors and window frames were installed and Amade contracted a local bricklayer to commence the complicated process of covering all outside walls with burnt stones imported from South Africa. In May 2011, three rooms were finally ready for habitation and Amade and his family moved into what is still the largest house in the southern part of Mulwene.

Building a house

The immediate impression I received from visiting Mulwene leaves little doubt of the importance of building projects (Nielsen 2008; 2011; 2014). Although interspersed by occasional reed huts, most houses were cement buildings in the process of being constructed. Some were still in the very early stage where only a cement foundation (the 'shoe' or *sapata*) and series of parallel iron pillars positioned at the corners indicated the gradual emergence of a home. Others were already inhabited, although the construction process was far from complete. If they had been living in a reed hut or a small annex (*dependência*) behind their future house, most residents preferred to move in when only a few rooms had been covered with corrugated iron sheets. As Angélica informed me, 'the building project (*a construção*) never stops. You die while constructing (*se morre construindo*)'. I had asked her when, in her estimate, she and her husband would finish building their house. Apparently, the moment of its final completion was still somewhat vaguely defined. Angélica's situation was, however, anything but rare. According to the household survey I made of all households in Quarter 20, 71 per cent (85 respondents) of residents were

currently working on their house. Indeed, house-building was a primary activity characterizing occupation in the neighbourhood.

House-building is first and foremost a temporal phenomenon in relation to which most other activities are measured (Nielsen 2013a; 2014). From my many conversations with present or future house-builders in Mulwene, I was constantly given the impression that building a house was, in a sense, a perpetual temporal movement whose recurrent rhythmic structure held its many micro-activities in a momentary equilibrium. In fact, to many residents in Mulwene, the process might never result in a finished house. Rather, house-building constituted a particular way of balancing competing forces in a socio-cultural universe built on a presumption of malice. Angélica's precise statement that 'the building project (*a construção*) never stops. You die while constructing (*se morre construindo*)' is an appropriate condensation of the building project as experienced by most future or current house-builders in Mulwene. During my second stay in the area in 2006, I made a small household survey of only 40 households in Quarter 20. Although lacking significant statistical validity, it still gives an illuminating image of the building process. Of the 85 per cent (34 respondents) currently working on their houses, the average time already spent was 4.8 years, with 58 per cent (23 respondents) of respondents being involved in the current building process for the last four to ten years. Hence, considering that house-building is anything but a passing phase, it is, I argue, perhaps best described as a particular temporal modality involving numerous heterogeneous micro-activities that are, to some extent, held together by the overall process of building a house.

My overall introduction to the building process occurred on my first night at Sauden's grocery shop. I had asked Celso, Tinga and Daniel to help me understand the complexities of the building process, and although the discussion often wandered off into other, less fundamental areas of human existence, one thing was made abundantly clear: a house is built in phases (*fases*).

Tinga: As it happens, the type of construction that we make depends more than anything else on our financial capacities. I may wish to make a *tipo 2* [i.e. a two-room house] but if I don't have the means to do so, I opt for a *tipo 1*. A lot of things depend on the financial capacities . . . and it's not right away that you erect a house.

Celso: It's not easy for us.

Tinga: We don't build right away. If I decide to construct a house, I do it gradually (*paulatinamente*). Perhaps I buy ten sacks [of cement] the first month; the second month I don't buy anything . . . then, perhaps two months without buying anything. During that time I attend to other matters of life (*outras questões da vida*), such as health problems and stuff like that. Then, the five coming months I might have enough money to make blocks out of five more sacks of cement. So, you see, it might take a long time.

Celso: It occurs in phases (*vai em fases*).

Very few people in Mulwene had the financial means to complete a building project in a single phase, and so the majority of the house-builders I knew preferred to do it little by little (*pouco a pouco*). In April 2005, a 50 kg sack of cement cost 190,000 MZM (8 USD) but the price had been drastically increasing for the last four to six years and still continued to fluctuate. Disregarding the few house-builders who bought fabricated blocks, the great majority had their blocks made in situ, either by themselves or, more likely, by a hired bricklayer. I was frequently told that, as a rule of thumb, three sacks of cement plus sand equalled approximately 100 blocks, and that with 2000 blocks it was possible to make a *tipo 2* or two-room house. Hence, the

costs of the cement alone amounted to at least 11.4 million MZM (475 USD). This number, however, says little of the overall expenses. Most house-builders hired a local bricklayer to construct their houses, and so, depending on the scale of the project and the status of the bricklayer, the cost of salaries might amount to 10 million MZM (416 USD) (i.e. more than three minimum salaries).⁷ Furthermore, throughout the process, additional expenses constantly arose, e.g. for nails, beams for the ceiling (*barrotes*), corrugated iron sheets for the roof (*chapas de zinco*) and iron pillars (*pilares*). Although it is virtually impossible to determine definitively the total amount that might be spent in building a two-room house, a rough estimate based on calculations made with present house-builders indicates a total of somewhere between 100 and 150 million MZM (between 4,164 and 6,247 USD). Given that 72.3 per cent (68 respondents) of all household heads in Quarter 20 earned less than 1.5 million MZM (62 USD) per month (plus additional income through infrequent odd jobs), Nelson's argument that 'as soon as there is an idea, we start on the house (*a gente começamos a casa*)' makes perfect sense. I visited Fernando Tembe shortly after he had gathered enough money to commence his long-desired building project, and, apparently, he agreed with Nelson:

When I saw that I had enough (money) to start the project, I began. So, whenever I managed to find some money, I bought building materials. When I began, I wasn't even sure that I would have enough money to complete it.

The building process can be divided into three consecutive and, to a certain extent, overlapping phases, i.e. (1) the walls (*paredes*); (2) the roofing (*cobrir*); and (3) plastering (*rebocar*).⁸ The initial phase commences by making a cement foundation (locally called the 'shoe' or *sapata*) and placing iron pillars at all corners. The foundations consist of five layers of 20 cm blocks (three below ground and two above). This is followed by five layers of 15 cm blocks for the walls below the window. Although the walls and foundations ought to be separated by transverse concrete girders or *vigas* to secure the building properly, due to the high costs involved, these are often used only on top of the windows, followed by three or four final layers of blocks. If possible, girders should also be placed in the foundations.

The objective of the second phase is basically to roof all the rooms. In 2005, it cost approximately 5.5 million MZM (229 USD) to roof a two-room house with corrugated iron sheets. Hence, as Celso reminded me, 'You easily spend a year just to roof (*cobrir*) a house.' Given the high costs, people usually preferred to roof the house too in phases in order to start using some of the rooms while still living in a reed hut or small annex behind the future house. The iron sheets are propped up by parallel series of beams or *barrotes* and, depending on the location of the house, blocks are positioned on top of them to prevent them from flying off in strong winds. It is also possible to make a cement roof with plates (*placas*), which, if made by a skilful bricklayer, stabilizes the house further. However, it increases the overall costs considerably, given the need for extra cement for both the roof and the walls, which have to be made with 25 cm blocks to carry the extra weight. The middle course preferred by house-builders who want a secure roof but are incapable of collecting enough money for a cement roof is the 'false roof' (*teto falso*), i.e. an exterior roof consisting of iron sheets with interior concrete ceilings.

During the final phase, the house is plastered with cement, and wooden doors and windows are inserted before the building process is concluded by painting all interior and exterior walls and securing all entries with iron gratings. This phase, however, is the most troublesome, and so residents frequently begin inhabiting their houses long before the building process reaches its conclusion.⁹ 'The door is another headache.' Daniel shook his head and sipped his beer before

continuing. 'Everything made of wood is expensive.' Indeed, the cost of a well-made wooden door plus frame easily mounted to 15 million MZM (625 USD).¹⁰ Usually, the only door in the house was the front door with pieces of cloth used to separate individual rooms from other parts of the house.

When possible, the last phase might be extended by building cement walls to encircle the plot. 'Walls (*muros*) are very important,' Fernando Tembe explained. 'They protect my family and prevent disputes with the neighbours because it will be impossible for their chickens to enter.'¹¹ Unable to muster the financial means necessary to erect cement walls, most plots in Mulwene were divided by *espinhosa*, which was easily obtained through neighbours donating a few cuttings. However, to most residents, cement walls were the ideal. '*Espinhosa* is a form of defence,' Beatrix told me; 'But with walls, you are more secure. Then, the neighbours can't rob you. And my children don't know the boundary lines between our land and the neighbour's. So walls are a form of guarantee.' Walls were increasingly perceived as the definitive signal of individual ownership. While we were passing a plot with only sparsely growing *espinhosa*, Nelson noted that 'They don't have a back yard (*quintal*) yet. It's not *espinhosa* that we want (*espinhosa não é o que nós desejamos*). We're calmer with walls because they're permanent (*definitivo*).'

This brief synthesis of an extremely complicated process is, indeed, an ideal that most people strive to achieve, but which is seldom executed. When a life trajectory changes, e.g. if a person loses his or her regular income or the family experiences severe illness, it becomes impossible to continue the on-going building process. Hence, rather than perceive the building process as a temporary and transitional phase, it is better understood as an overarching temporal modality through which agents attempt to proportion the different aspects of existence. As the house is built *pouco a pouco* (little by little), the house-builder also attempts to create a momentary but volatile equilibrium between the different components of their life, which are, in a sense, subordinated to the broader functional imperative of the building process. While discussing a particular house in Quarter 20, Alberto Manjate reflected on the house-building process. 'Constructing a house requires a lot of effort,' Manjate explained. 'It's *pouco a pouco*. This guy hasn't finished (the building process) yet. It's a lot of sacrifice. . . . The house is a wish (*desejo*). He is realizing his dream so that his children can be proud of him.'

The aesthetics of a house-building project

I never ceased to be amazed by the apparent homogeneity of the great majority of house-building projects in Mulwene. No matter where I went, a significant number of houses apparently exhibited similar characteristics, with size as the only differing factor. As I learned more about the different phases of the building process, it even seemed that general aesthetic ideals and the locations of houses within plots were widely shared. People were, so to speak, building the same house over and over again. When I carried out a small household survey in Quarter 20 of the neighbourhood, this led me to ask all household heads how they decided how and where to build their houses within the plot. Basically I was interested to know why so many house-builders apparently preferred precisely the same location: annexes located right at the back of the plot, and permanent houses 3 metres from the road, with a maximum of 3 metres being left at each side. While the responses were, indeed, quite varied, one particular response was reiterated: 13 per cent (six respondents) of the 45 household heads replied that the location had been determined by municipal regulations. Surely, the relatively small number of respondents claiming that the location of the house was determined by official regulations is not by itself significant. Still, when considering the overall status of this section

of the neighbourhood, the responses do require further explanation. Crucially, the quarter in which I carried out the survey had never been covered by formal urban plans. Similar to many other peri-urban areas in the city, the large majority of the house-building projects in this section of Mulwene were initiated by residents having accessed land through informal transactions with former owners and local architects trying to make a profit on the city's booming land market. During an extended interview with Luciano Sambane, a municipal land surveyor, I asked about the legal status of the house-building projects in this section of Mulwene.

Sambane: All the houses in that area are illegal from the municipality's point of view. They (the house-builders) did not apply for building permits because they're afraid of paying for the permit. Consequently, people built their houses during the weekends.

Morten: So, this area is all illegal?

Sambane: It's illegal because the houses are illegal. . . . They didn't send us any sketch (*croqui*) explaining the type of house they were going to erect. All the houses in that neighbourhood are made that way. It's true that people don't have the capacities to erect everything at once. First, they make one room (*quarto*), and then they make the second and then the third (i.e. in phases). And look . . . in the end, they all look the same . . . ! [laughs].

Indeed, most residents in Mulwene generally preferred individual houses to display a certain degree of homogeneity, as was clearly manifest from the uniform façades and the locations of the houses within the plots. Although lacking any legal basis, residents related these aesthetic considerations to municipal regulations allegedly conditioning the principles for house-building. I asked Daniel, my neighbour, if all house-builders are initially intending to build houses that conform to state-defined architectural standards. 'Well, that's how I started,' Daniel explained:

But it also has to do with the location. It has to be close to the road. It has to be allocated a formal number, and therefore it can't be too far away from the road. It's a question about order.

Celso intervened: 'It's also about aesthetics. . . .' Daniel agreed. 'Yeah, the rule is three metres from the plot's boundaries.'

In sum, to initiate and successfully complete a house-building project on the outskirts of Maputo is an immense effort that often requires the house-builder to exceed his or her physical and, indeed, financial capabilities. What is gradually being built is an architectural structure that seems to replicate itself throughout the area. Despite its lacking legal basis, it is a material form that potentially allows the house-builders to acquire a legitimate status within the urban domain and ultimately secure rights to the plot that they are already occupying. In the next section, I thus return to the discussion of 'Amade's palace' in order to flesh out in detail the puzzling effects that half-built cement houses have on the house-builders' position among peers and state officials.

Acentred personhood

In June 2011, I sat down with Amade to discuss the bumpy ride towards building the house of his dreams. Being both relieved and proud of having turned a dilapidated cement structure

into his family's future home, Amade happily shared his thoughts with me over a couple of cold beers in the shade outside his impressive house. While Amade never questioned the probability of completing the ambitious building project, it was apparent that his neighbours and friends began to think otherwise as soon as he was fired as a customs officer. 'It was hard for me to act as a proper person (*peessoa*), Morten. If I didn't have a house, anyone could eat¹² my things (*comer as minhas coisas*) and I wouldn't be able to do anything about it.' As Amade told me, it was often difficult to engage in productive reciprocal exchanges with friends and neighbours while the building project was suspended. Without the house, he was, in a sense, too exposed to the intrusive acts of others, such as neighbours, local-level officials and envious relatives, who would undoubtedly attempt to 'eat (his) things'. Hence, although a seemingly counter-intuitive assumption, being a 'proper person' required an acentring of one's position in relation to those significant others who were both fundamental but also potentially detrimental to one's social existence. And, as I will argue, house-building projects afford precisely this acentring of one's social position. Not unlike the cinematic montage examined by Deleuze, the architecture of a half-built cement house essentially eliminates the house-builder as the 'centre of anchorage' (Deleuze 1986: 58) by obfuscating the qualities of his or her status.¹³ It disconnects the house-builder from an otherwise fixed position and, by so doing, opens up an acentred positional field that, by itself, generates movements and new social perspectives (Deleuze 1995). For Amade, this was clearly apparent in his interactions with state officials, such as Rogério, the state official working in Mulwene. Although Rogério would often visit Amade to confirm that the building process was not violating state-defined housing standards, he never asked Amade whether he did, in fact, have a building permit for the house.

Consider again the widely held assumption that a cement house allows the resident to 'hide one's head'. Shortly before leaving, I had a last dinner with Amade and Christina on their veranda. Christina had cooked a wonderful meal of *matapa* in coconut sauce and rice, which was elegantly served on a white ironed tablecloth. It was late afternoon, and as the sun was slowly vanishing beneath the horizon, we discussed the advantages of having a cement house. 'You know why I really wanted a house, Morten?' Amade put down the fork that he had been holding in his hand and made a sweeping gesture towards the house behind him. 'I knew that it would improve my situation because nothing I do inside can be seen from the outside.' Amade fell back in the chair and nodded several times before continuing. 'Yeah, no one will know what kind of life we're living here in the house.'¹⁴

As I was often told by residents in Mulwene, it is crucial to have a place to 'hide one's head' (*esconder a cabeça*), which in all practical matters is represented by the house. People in the area generally agreed that a reed hut did not offer a sufficient degree of privacy. Not only was it possible for neighbours to hear what was going on inside; the lack of cement foundations also indicated relative exposure to the acts of malevolent others, e.g. envious neighbours or enterprising civil servants. Moreover, in Mulwene, reed huts were frequent targets for burglars, who easily found their way in by cutting through the compressed but vulnerable reeds. As Amade suggested during our last meal together, the cement house allowed for him and his family to 'hide their heads' and thereby acquire a much needed distance to their peers in the neighbourhood. Its fundamental opacity enabled a fundamental acentring of Amade's position and thus gave him a certain advantage when engaging in reciprocal encounters with friends, neighbours and state officials operating in the area. Crucially, very few of his peers in the area knew exactly how he had accessed the huge plot – let alone how he had managed to gather the money to commence the impressive building project. Did he know a centrally placed official in the municipal system? Had he managed to skilfully navigate the dysfunctional administrative system and acquire a formal construction permit? Or was he perhaps connected to the local

mafia? Given that no one really knew the genealogy of Amade's house-building project, his capacities were (at least virtually) limitless. When the house-building project was suspended, however, Amade experienced a gradual limitation of his scope for manoeuvring. Whereas the on-going building project had, in a sense, enveloped him in a cloud of productive ambiguity, the unwanted interruption following his dismissal as customs officer seemed to suddenly reveal his position as well as exposing his lacking capacities for completing what was then considered as an excessive undertaking that had been predestined for failure.

Finally, the question remains how the acentring of social personhood analytically affects the relationship between house-builder and building project. While the architecture of a half-built house on the outskirts of Maputo might serve as an *index* of acented personhood (cf. Gell 1998), it does not lend itself to a straightforward tracing of social agency. The problem is, one might argue, that the effect of agency (i.e. the materiality of the house-building project) disturbs its 'origin' to such an extent that it becomes impossible to establish a viable 'causal sequence' (op. cit.: 16). To be sure, the building of a cement house does indicate that someone or something has acted as an agent. As Gell argues, 'the attribution of agency rests on the detection of the effects of agency . . .' (op. cit.: 20) and, in this regard, the cement house indexes the capacities or intentions of the agent capable of initiating the building project. Still, the question remains who or what that agent might be. In an unstable socio-political milieu imprinted by the failures of a dysfunctional administrative system, the regular aesthetics of a cement house might indicate the intervention of an agent who is capable of enforcing his or her will upon a recalcitrant environment. Or, equally likely, it might suggest the gradual upgrading of an area that is still struggling with weak infrastructure and lacking social services. As I have argued in this chapter, it is this elusiveness that potentially allows house-builders to secure viable positions on the fringes of the city.

Conclusion

In southern Mozambique, the source of people's agency was essentially located outside themselves in their relationships to other residents and things in the surrounding world (Nielsen 2012). Residents in the area were not distinct from these relations. Basically, people were what their relations to others made them be, whether the counterpart was a close relative, a malevolent neighbour, an inefficient state official or a deceased ancestor still asserting a certain form of dominance. Crucially, the relational composition of personhood also signalled a perennial incompleteness, as people made themselves available to others. A premise for engaging in reciprocal encounters was the exposure of one's composite constitution, which signalled the potential extractability of valuable items, such as plots of land, daughters or favours. Notwithstanding its decisive operational function, however, the overt manifestation of incompleteness was a general concern for most people in Mulwene, who were constantly worried about being intruded upon by malevolent others taking advantage of their momentarily exposed positions. Like the 'world of witches' so vividly described by Ashforth (2001; 2005), life in Mulwene was essentially built on a 'presumption of malice', where the individual agent had to assume that anyone with the motive to cause harm *would* cause harm. Not everything was known, and what was known was that power worked in hidden and capricious ways. What seemed to be a mutually beneficial exchange might turn out to be harmful to one or both of the interacting agents, who momentarily everted their inside in order for reciprocal exchanges to occur.

According to my interlocutors in Mulwene, a cement house offered the house-owner the possibility to (at least momentarily) transcend the limitations of these fundamental but also capricious social relations. The gradual emergence of a seemingly standardized architectural

form afforded the house-builder a particular kind of 'acentred' perspective (Deleuze and Guattari 2005; Zourabichvili 2000; cf. Nielsen and Pedersen 2015) that was not entirely limited to that of an always already positioned interlocutor in an on-going series of reciprocal exchanges. Without ignoring the importance of making oneself available to others, local house-builders were 'unhinged', as it were, from otherwise stable positions (say, as donor and recipient) through the architecture of a half-built house-building project. Indeed, as Amade precisely summed up, by building a cement house, 'nothing I do inside can be seen from the outside'. In that sense, the architecture of the cement house obfuscates the otherwise clearly decipherable relationship between house and house-builder and slightly decentres the status of the latter. To paraphrase a recent Woody Allen movie, the house-builder is, truly, 'out of focus'. Disengaged from a stable and easily identifiable position, the house-builder is positioned within an acentred field that is established through the architecture of the house-building project.

Notes

- 1 This chapter is based on 15 months of ethnographic fieldwork carried out between 2004 and 2012 in Mulwene, a peri-urban neighbourhood on the northern outskirts of Maputo, the capital of Mozambique.
- 2 Unless otherwise noted, all translations are between Portuguese and English.
- 3 In Mozambique, it has been illegal to make transactions in land since Independence in 1975 when the ruling Frelimo party initiated a comprehensive nationalization campaign.
- 4 Mulwene is organized as 56 quarters (*quarteirões*), each having approximately 120 households and governed by individual quarter chiefs.
- 5 Amade was working with the Department of the National Investigation Service, General Customs Management (*Departamento do Serviço Nacional de Investigação (SNI) da Direcção Geral das Alfândegas*).
- 6 Accusation Account: National Customs Administration, the Ministry of Planning and Finance, 26 October 2000 (*Nota de Acusação: Direcção Nacional das Alfândegas, Ministério do Plano e Finanças*).
- 7 Of the 91 per cent (38 respondents) who had hired a bricklayer, 62.2 per cent (23 respondents) had hired one living in Mulwene.
- 8 Although house-building as described here relates to the process of constructing a cement house and not a reed hut, this does not mean that people do not live in reed huts in Mulwene. Indeed, from the survey of all households in Quarter 20, it appears that although 55.8 per cent (63 respondents) currently live in cement houses, 36.3 per cent (41 respondents) have reed huts. However, given the status of cement house-building and its temporality, this process is privileged here. Building a reed hut is fundamentally a less comprehensive process. Whereas it easily costs more than 100 million MZM to build a cement house, the costs of erecting a reed hut rarely exceed 10 million MZM. Furthermore, the majority of residents living in reed huts imagine that their permanent residence is somewhere else and preferably in a cement house. Hence, when discussing house-building with residents living in reed huts, this also included block housing.
- 9 Fernando Tembe thus estimated that he needed 17 sacks of cement at a total price of 3.2 million MZM just to plaster all the exterior walls. In his current position as a truck-driver, this amount constituted more than a month's pay, and so plastering was being postponed until he had purchased the immediately necessary items, such as wooden doors and, if possible, windows.
- 10 However, at the wood market in Benfica, a nearby neighbourhood, it was possible to buy doors for approximately 1.5 million MZM, which is what the great majority of people in Mulwene opted for.
- 11 Many families kept livestock in their homes, and this frequently caused disputes among neighbours. Once, while visiting Angélica, one of her children came running from the other side of the house, crying that their neighbour's duck had bitten her. Angélica became upset, arguing that the neighbour was responsible for the attack by failing to fix a hole in the hedge separating the two plots.
- 12 Here, 'eating' refers to any wrongful appropriation of Amade's (material as well as immaterial) belongings, such as money, electronic devices, daughters, important relations with significant others, etc. See also note 3.
- 13 Here, we might consider again my discussion with Rogério, the local state official, about Amade's house-building project. It was clear that the aesthetics of the impressive house made it virtually impossible for Rogério to determine the position from which Amade was engaging with his surroundings.

- 14 Interestingly, the cloud of ambiguity that enveloped the house might be further strengthened using spirit media. Generally, a household is protected by its family spirits resting under the *gândzèlò* (the ancestors' altar), which was usually the largest tree on the plot. As Salvador Guambe told me, 'When those spirits causing harm approach, they will fight the spirits by the tree. They (the malevolent spirits) won't even make it to our bedroom.' In several instances, however, additional measures were put in place, as the malevolent spirits might be stronger than the ancestral spirits protecting the house. A sorcerer is then called to perform *kubiamúnti*, i.e. a ceremonial act intended to protect the household from harmful intrusions (cf. Ashforth 2001: 213). Ideally, *kubiamúnti* occurs before people move into the house, but as it is a costly ceremony (approximately 6 million MZM (250 USD)), it is usually performed only when the house owners discover that they are being attacked by malevolent spirits. In these instances, the ceremony has two phases. First, the sorcerer locates and extracts the evil spirits from the victims' bodies. The few times I witnessed *kubiamúnti* ceremonies, the sorcerer thus physically 'eats off' the victims' bodies until the harmful forces are removed. During the second phase, the house is shielded by burying magical items treated by a secret mixture of herbs in all corners of the plot. Whereas an unprotected household is visible to harmful spirits, irrespective of whether it is occupied by ancestral spirits, after the *kubiamúnti* ceremony it will be completely invisible to them.

References

- Andersen, J. E., Jenkins, P. and Nielsen, M. 2015. Who plans the African city? A case study of Maputo: part 1 – the structural context. *International Development Planning Review* 37(3), 331–352.
- Ashforth, A. 2001. On living in a world with witches: everyday epistemology and spiritual insecurity in a modern African city (Soweto). In: Moore, H. L. and Sanders, T. (eds) *Magical Interpretations, Material Realities: Modernity, Witchcraft and the Occult in Postcolonial Africa*. Oxon: Routledge, pp. 206–225.
- Ashforth, A. 2005. *Witchcraft, Violence and Democracy in South Africa*. Chicago, IL: The University of Chicago Press.
- Carsten, J. and Hugh-Jones, S. 1995. *About the House: Levi-Strauss and Beyond*. Cambridge: Cambridge University Press.
- Corsín Jiménez, A. 2008. Well-being in anthropological balance: remarks on proportionality as political imagination. In: Jiménez, A. C. (ed.) *Culture and Well-Being: Anthropological Approaches to Freedom and Political Ethics*. London: Pluto Press, pp. 180–197.
- Deleuze, G. 1986. *Cinema 1: The Movement-Image*, trans. H. Tomlinson and B. Habberjam. Minneapolis, MN: University of Minnesota Press.
- Deleuze, G. 1995. On the time-image. In: Joughin, M., trans., *Negotiations: 1972–1990*. New York: Columbia University Press, pp. 57–61.
- Deleuze, G. 1998. *Essays Critical and Clinical*, trans. D. W. Smith and M. A. Greco. London: Verso.
- Deleuze, G. and Guattari, F. 1994. *What is Philosophy?* Trans. H. Tomlinson and G. Burchill. New York: Columbia University Press.
- Deleuze, G. and Guattari, F. 2005. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis, MN: University of Minnesota Press.
- Gell, A. 1998. *Art and Agency: An Anthropological Theory*, Oxford: Clarendon Press.
- Jenkins, P. 2000. Urban management, urban poverty and urban governance: planning and land management in Maputo. *Environment and Urbanization* 12, 137–152.
- Marrati, P. 2003. *Gilles Deleuze: Cinema and Philosophy*. Baltimore, MD: The Johns Hopkins University Press.
- Merleau-Ponty, M. 1968. *The Visible and the Invisible*, Evanston, IL: Northwestern University Press.
- Negrão, J. 2004. *Mercado de terras urbanas em Mocambique*. Maputo, Cruzeiro do Sul.
- Nielsen, M. 2007. Filling in the blanks: the potency of fragmented imageries of the state. *Review of African Political Economy* 34(114): 695–708.
- Nielsen, M. 2008. In the vicinity of the state: house construction, personhood, and the state in Maputo, Mozambique. *Department of Anthropology*. Copenhagen, University of Copenhagen. PhD dissertation.
- Nielsen, M. 2010. Mimesis of the state: from natural disaster to urban citizenship on the outskirts of Maputo, Mozambique. *Social Analysis* 54(3): 153–173.
- Nielsen, M. 2011. Inverse governmentality: the paradoxical production of peri-urban planning in Maputo, Mozambique. *Critique of Anthropology* 31(4): 329–358.
- Nielsen, M. 2012. Interior swelling: on the expansive effects of ancestral interventions in Maputo, Mozambique. *Common Knowledge* 18(3): 433–450.

- Nielsen, M. 2013a. Analogic asphalt: suspended value conversions among young road workers in Southern Mozambique. *HAU: Journal of Ethnographic Theory* 3(2): 79–96.
- Nielsen, M. 2013b. Temporal aesthetics: on Deleuzian montage in anthropology. In: Willerslev, R. and Suhr, C. (eds) *Transcultural Montage*. New York, Berghahn: pp. 40–57.
- Nielsen, M. 2014. A wedge of time: futures in the present and presents without futures in Maputo, Mozambique. *Journal of the Royal Anthropological Institute* 20(S1): 166–182.
- Nielsen, M. and Pedersen, M. A. 2015. Infrastructural imaginaries: collapsed futures in Mozambique and Mongolia. In: Harris, M. and Rapport, N. (eds) *Reflections on Imagination: Human Capacity and Ethnographic Method*. Farnham: Ashgate: pp. 237–262.
- Strathern, M. 1988. *The Gender of the Gift. Problems with Women and Problems with Society in Melanesia*. Berkeley, CA: University of California Press.
- Strathern, M. 1991. One man and many men. In: Strathern, M. and Godelier, M. (eds) *Big Men and Great Men*. Cambridge: Cambridge University Press, pp. 197–214.
- Strathern, M. 1998. Social relations and the idea of externality. In: Renfrew, C. and Scarre, C. (eds) *Cognition and Material Culture: the Archaeology of Symbolic Storage*. Oxford: Oxbow Books.
- Zourabichvili, F. 2000. The eye of montage: Dziga Vertov and Bergsonian materialism. In: Flaxman, G. (ed.) *The Brain is the Screen: Deleuze and the Philosophy of Cinema*. Minneapolis, MN: University of Minnesota Press.

Sedimentation and sentiment

Destabilizing architecture at the post-industrial Mexican periphery

Jason Ramsey

Introduction

“Throw her out of there! (*¡Sacale de allí!*)” Priscila scowled, gesticulating emphatically in the cool tropical night. The light of a dangling incandescent bulb lent a special depth to her face while running roughshod over the apsidal limestone walls of her home. Priscila was re-enacting for me the character of local Evangelicals—as she saw it—within what had become an ongoing, acrimonious debate in this rural Yucatecan community known as Chunchucmil (*choon-chook-MIL*). Its central, irresolvable quandary was this: after over a century of receiving local Catholics like Priscila and pilgrims from across the region, should a four-foot high, painted plaster Virgin of the Rosary continue to reside in the site’s central limestone church? Or should it be relocated a few blocks distant?

The question was certainly far from trivial. The church was surrounded by the former infrastructure of a *hacienda* estate on which, from 1872 to 1991, resident laborers harvested and processed sisal agave fiber for world markets. In stark contrast to the church, the adjacent landowner’s residence (*casa grande*), colonnaded mills, and spacious corrals were little more than asset-stripped shells, used by the descendant community for loitering or improvised seating for regional football matches (see Figure 19.1). But by the dawn of the twenty-first century, private heritage developers took notice of Chunchucmil and earmarked its infrastructural core as a future heritage resort.¹ According to developers, this meant that the Virgin, along with all religious and recreational activities, would have to be relocated beyond the core.

In the Spring of 2007, however, a sudden outbreak of violent resistance took developers by surprise. Their campaign to ‘rescue’ what they viewed as the endangered architectural patrimony of the nation came to an abrupt halt. The demure plaster Madonna and some of her most ardent resident followers successfully withstood the call to relocate (Ramsey 2014). But why? For developers and their local supporters (around 60 percent of residents), the Virgin’s relocation to a site just meters beyond the core should have represented a successful partnership between the community and the private sector. According to such a view, even if they cared nothing



Figure 19.1 Chunchucmil's site core. From left to right: the hollowed-out mills, the actively used church, and the defunct landowner's residence

Source: Photo by author

for the conservation of the site center or the promise of sorely needed local jobs in tourism, those Catholics who opposed the project (hereafter shorthand as “anti-development Catholics”) should have understood that their congregation stood to benefit handsomely.

That is, as a gesture of good faith, developers commissioned a brand new church for the Virgin two blocks to the north. And what a church it was. Built with remunerated local labor, the Virgin's new would-be home rose up in stark contrast to her fraying nineteenth century quarters. And local Catholics, hit just as hard as everyone else by deindustrialization and the elimination of the main source of local employment, needed all the support they could get. After all, as the pro-development Doña Catalina put it, “How are people here to take care of the old church if they can't even put a new door on their own house?!”

Where the old church presented to the outside world a lean, angular façade of intricately carved geometrical motifs set in and around a lofty tympanum, the new structure was wide-set, with a flowing silhouette of rounded edges and a completely unembellished façade (see Figure 19.2). Instead of the faded teal, yellow, and peach of the pock-marked limestone church, the new building offered up a welcoming monotone of gold on smoothed cement. Its insides featured a floor of polished concrete beneath a sturdy ceramic shingle roof instead of the cracked tile floors, rotting wooden rafters, and rust-stained walls to which the Catholic congregation had been long accustomed. In this way, developers offered local congregants a drastic and unexpected upgrade in amenities, free of charge. The new church would not only offer a safer venue for its users, but, the thinking went, a much more attractive domicile for the 135 year old Virgin.

Partly for this very reason, some local Catholics joined with their Evangelical neighbors in clamoring for developer intervention. Others like Priscila, however, insisted that the prospective move was merely a ruse by developers to steal the Virgin, leaving Chunchucmil without a patron saint and spiritual guarantor. What pro-development residents understood as



Figure 19.2 The old Catholic church, housing the Virgin (left) and the new, developer-built church (right)

Source: Photo by author

a unique opportunity for local economic and architectural renewal, anti-development Catholics saw as little more than a harbinger of their congregation's spiritual ruin. But why? Why, amid the shared fallout of deindustrialization and consequent socio-economic decline, were the terms of ruin and renewal at Chunchucmil so acutely unstable? More specifically, how could a beautiful new church *not* be eminently substitutable, even entirely preferable, to an old one whose sturdiest days appeared to be behind it?

Local Evangelicals, to be sure, possessed a very particular experience and understanding of ritual place that informed their position on the issue. For members of the two Evangelical congregations in Chunchucmil, *Monte de Zion* and *Evangelio Completo*, the sincerity of personal testimony and participation in biblical exegesis mattered far more than where it occurred. A Protestant *templo* simply provided a sheltered venue in which such performance could take place. One house of worship could be easily forsaken for another and, particularly in the case of the *Evangelio Completo* sect, services often rotated among the actual homes of congregants. No one building held the public expression of religious sentiment. Their devotion was nomadic in its manifestation. Members took pride in hosting worship services as gatherings alternated between their modern cinder block *templo* and their own thatched limestone dwellings. All that was needed were a few rows of folding chairs and enough bibles to go around.

Nevertheless, while perhaps not theologically central, each group's *templo* stood as a proud monument to collective sacrifice. In spite of the state of poverty into which they were plunged by the collapse of sisal fiber production, a great deal of member tithing over many years went toward the (still unfinished) construction of each sect's *templo*. Meanwhile, the offer of a new church fell, as if from heaven, into the laps of local Catholics, only to be refused by the more vociferous among them such as Doña Perla: "The Virgin is where she belongs and nobody shall move her," as she once put it.

If someone approached you, in your own home, and said "You know what? Get out!" Would you do it? Of course not. And the Virgin has been there for years. How can they just kick her out? Whatever happens, she isn't moving.

But why does a longstanding history of occupation—by anything—proscribe subsequent movement? To take up Perla's analogy, many community members, both Catholic and Evangelical, had moved to the provincial capital of Mérida or even Mexico City (albeit not under physical duress). Her reasoning was not immediately apparent. And for Evangelicals, accustomed to a practical and footloose approach to worship, this sort of attitude confounded the intellect and frustrated the soul.

Whether or not Priscila's portrayal of Evangelical ire was an unfair caricature, the indignation among Evangelicals was palpable. "They're just ignorant! (*¡Son unos ignorantes nada más!*)" was a refrain I became accustomed to hearing from pro-development residents in reference to their supposedly backward neighbors. With the prospect of the Virgin's move signifying spiritual desolation to some and the refusal to relocate viewed as abject ignorance by others, the space for mutually intelligible dialogue within Chunchucmil quickly shrank to nothing. While positions in the debate over the Virgin's (dis)placement do not devolve neatly along confessional lines, it is clear that more than one kind of relationship between the built environment and religious practice is to be found in this community. Though it may be easy to understand why the prospect of changing venues of worship is a trivial one for local Evangelicals, accounting for the obstinacy of anti-development residents requires a closer cultural analysis. Neither accusations of "ignorance" nor rationalizations that the Virgin has "always been there" shed much light on the deeply felt imperative of congregational sedentarism among some of Chunchucmil's Catholics. Past a certain point, local interpretations on their own fail to advance dialogue between rival factions or the comprehension of outsiders such as myself.

In order to coax out the cultural and religious significance of spatial fixity for some of the Virgin's followers, a more fine-grained resolution of architectural elaboration and ritual practice in Chunchucmil's old church is needed. That is, one that not only uses the spatial flexibility in Evangelical worship as a foil to bring out its cultural distinctiveness, but trades in cultural dispositions that are versatile, negotiable, and unpredictable enough to allow for *some* local Catholics to forsake them while still ascribing to themselves a Catholic identity.

To do this, I take up recent theoretical discussion by archaeologists on the notion of "assemblage" (e.g. Buchli 2013, DeSilvey 2006, Edensor 2011, Lucas 2012) in order to frame the politics, anxieties, and ambiguities surrounding the Virgin's placement within Chunchucmil. This enables me to go beyond the constitution of buildings themselves² so as to consider their status within a broader "build up" of historically sedimented offerings that constitute a *ritual* assemblage. I will bring this theoretical armature to bear on debates at Chunchucmil over the proper relationship between container and contained—i.e. is it always and everywhere a casual, incidental one or might ritual efficacy in certain cases depend on its ongoing fixture? I then conclude with a critical look at the epistemological categories of architecture (e.g. structure and contents, building and dwelling)³ and the fetishism of the built environment evident in the majority of heritage preservation efforts. As I will show, by expanding the activity of "building" to include various sorts of *in situ* "build up," assembly, and sedimentation, we are able to significantly relativize the notion of architecture within the much more expansive and contingent work of fomenting religious sentiment and creating ritual place.

A church grows in Yucatán

No matter the soundness of architectural design or the integrity of materials used, the work of upkeep can become a Sisyphean charge. At Chunchucmil, the Virgin's followers know this only too well. That is why, as the pro-development Catholic Doña Matilda once told me:

A young man, Hercules, used to stand up in front of everyone during services and say: “Right now, the Virgin’s house is falling apart. Would you like for it to collapse on top of you? Well I would like for whoever can to help us with money for stone, gravel, and cement . . .” But who knows what happened? It’s their problem . . . If tourists want to come, if tourists [sic] want to fix all of this: Why should they? – Because they have the money! And us? How?! We’re not going to fight for something that we can’t keep standing [*que no podemos levantar*]. I barely have enough to pay for a mason to fix my own house!

Especially given the ongoing ethical debate over how best to care for Chunchucmil’s built core as it embarks on a post-industrial existence, in the hands of pro-development residents the condition of the old church can be made to speak volumes. Whereas Priscila and other anti-development Catholics insist that they regularly put money toward church upkeep, it is undeniable that the old church, aesthetically and structurally, has seen better days. Its painted limestone façade is faded from the dedicated work of sun and rain. Inside, its upper rafters are rotted and comfortably accommodate a few long-abandoned bird nests. Moss grows in crevices here and there. Parts of the inner walls are stained by water while in other places they belch plaster. The church floor is paved with hexagonal ceramic tiles that are missing in a few places so that pilgrims and parishioners have regularly to contend with tiny potholes that obstruct the way.

Nevertheless, architectural decadence could be made to figure in more than one kind of semiotic register. Indeed, Doña Faustina, the sage Catholic matriarch of a prominent anti-development family, made use of it in some of her regular cautionary tales about the importance of piety. One of the more memorable ones involved pilgrims: a church group of about two dozen who arrived in a white van from parts unknown. They parked in the plaza and all made the short trek through the blazing heat to pay respects to Chunchucmil’s Virgin. All, that is, but one who felt indifferent toward this Virgin and decided to wait out the visit from the relative comfort of the van. Perhaps they were visiting many patron saints in the area and this traveler was just tired—Faustina was not sure. She was certain, however, that after a few minutes the remaining pilgrim decided to get out and, only very casually, approach the church to rejoin the group. As she sauntered up the stairs and along the raised front walkway, some of the stone became loose underfoot and she tumbled to the side, landing in a cistern for collecting rainwater. All the other visitors had entered the church without incident, but, in her blatant disinterest toward Chunchucmil’s spiritual patron, she ended up with a broken leg. Damage to the built environment need not always stand as an indictment of those tasked with caring for it, but could in fact be mobilized as a sign of the Virgin’s justice and miraculousness.

Regardless of religious ascription,⁴ one’s intentions toward and treatment of the Virgin, evinced outwardly in speech, bodily gesture, and movement through space, took special priority in the ethical calculus of anti-development Catholics. She should always be treated with pious deference. An important component of pious behavior among followers involved visiting the Virgin during her annual fiesta. This time of year—a four day span containing the final weekend of May—featured distinctive ways of dwelling in and utilizing the space of the church. Normally shut tight, its side doors are thrown open, flooding the interior in light; its pews, otherwise allowing only a narrow aisle up to the altar, are all pushed up against the walls, producing a grand expanse for the influx of residents, pilgrims, and mariachi musicians; in addition, the Virgin is removed from her usual perch inside a glass-paned tabernacle above the main altar and placed onto a wooden palanquin down on the main floor where she can personally receive her faithful one by one.

Beyond a deferent and loving attitude in the Virgin's presence, a proper display of piety during fiestas involves the giving of votive offerings that outlast the intimate encounters between Virgin and visitor that occasion them and in some cases permanently alter the surrounding space. Most offerings consist of flowers and candles that have rather short use lives. From time to time, though, these gifts are punctuated by more durable and costly ones such as rosary beads, a crown of gold, miniature dresses, or, more commonly, a colorfully embroidered banner. Each and every such votive banner, even those commissioned by illiterate individuals, are marked with the date of offering, the donor's family name, and a formulaic phrase identifying it as a "*Recuerdo* in honor of Mary of the Rosary, Patroness of Chunchucmil."

"*Recuerdo*" is a term in Spanish that can refer not only to a discrete memory in the mind's eye but to all manner of mementos, from tourist souvenirs and family heirlooms to historical monuments and photo albums. As in the case of catholic devotion at Chunchucmil, it can also describe the return token of thanks given to the Virgin in exchange for her miraculous intervention in the donor's life. It is the second half of a transaction between follower and Virgin known as a *promesa* or "promise." While precipitating out of an intimate exchange between Virgin and follower, the deposited banner is assimilated into a larger archive of textiles in the old church that has built up over generations. It constitutes an ever-growing portfolio of miracles rendered, confirming for all observers a Virgin efficacious enough to have drawn in such a wealth of offerings. In this capacity, the ritual banner fixes a transient, ineffable moment of divine intervention in an individual's life within a common framework of days, months, and years in which a chronicle of similarly recorded miracles stretches back to at least 1969. Every May, the most opulent and expensive ones are brought out from storage in the rectory and draped along the inner walls (see Figure 19.3).

In addition to portable items such as jewelry, clothes, and banners, ritual *recuerdos* can also take the form of architecture. For example, integrated into the base of church walls is a row of marble grave markers signaling the reinterments of select devotees. It seems that the most ardent among the Virgin's followers could give the ultimate offering—they could commend their own bodies to her for eternity. Each plaque is inscribed with the name of the deceased, the date of passing, and labeled as "A *recuerdo* from" the deceased's children, parents, or spouse—in effect, whichever relatives shouldered the brunt of the funerary expenses. Integrated into the fabric of the church, these markers publicly commemorate more-than-lifelong intimacies with the Virgin and her ongoing miraculousness. Like the archive of textiles and bodily adornments, these reinstalled grave markers index a "concrete" history of the Virgin's gravitational pull, her miraculous nature, reaching in this case as far back as 1887.

More than an elaboration of the ritual inventory of the church or the makeup of its architectural fabric, the history of ritual sedimentation included the church itself. Rather than just being an opulent shelter for the indwelling Virgin, this building constituted the most grandiose and oldest of her still-extant offerings (though most likely not the first). It was commissioned for her by the first estate owner, Rafael Peón Losa, soon after he founded the hacienda in 1872. As did just about every other hacienda founder in Yucatán (Farriss 1984), Peón Losa felt the urge to employ his earliest resident laborers in the construction of a church worthy of his new estate's spiritual patron, where she would dwell, hear prayers, and receive followers. It is quite possible this happened in stages as it did elsewhere in the region—beginning as a simple altar covered by a limestone apse and a thatched canopy under which followers would regularly amass (e.g. Hanson 1995).

Whether the Virgin's church evolved progressively through multiple architectural incarnations or rose up in its current form in just a few months, as a show of piety by the estate owner, it shares with votive clothes, rosaries, ritual banners, and reinterments the quality of a gift elicited



Figure 19.3 Virgin surrounded by signs of her ongoing efficacy: pious devotees in foreground; special votive flags and banners in background

Source: Photo by author

by miraculousness. They collectively serve as a mixed-media portfolio of the Virgin's miracles, a unitary archive of earned offerings that signals to prospective followers, and recalls for existing ones, her spiritual efficacy. By enabling her to capture new followers and keep current ones faithfully returning, the cumulative sedimentation of ritual place around the Virgin—a material culture that spans the movable and the immovable, the miniature and the monumental—is an integral component of her agentiveness and identity. In addition to her name and appearance, it is this indexed history of loving devotion that distinguishes this Virgin from the patron saints of settlements across the region. It helps convince a prospective follower to seek out her guidance rather than that of another saint with less miraculousness in evidence. Seen in this way, “the Virgin” is much more than a painted plaster Madonna; she is an instantiation of divine agency distributed spatially throughout the footprint of the church complex and temporally between 1872 and the present (Gell 1998: 96–154, Munn 1986: 105–20, Ramsey 2014).

It is precisely because beads, cloth, bone, and stone here work seamlessly together to perpetuate the Virgin's miraculous efficacy that the prospect of relocating the plaster Madonna to the new church provokes such an alarmed response from devotees such as Faustina and Priscila. In this perspective, housing the Virgin in a brand new church, far from effecting an improvement, instantly results in loss of the greater part of her sedimented self grown over long years of miracle work. Only some of her ritual *recuerdos* are portable; and those that are not happen to be the oldest and most grandiose of the assemblage. From an archived efficacy reaching back to 1887

(the earliest grave marker) and possibly as far as 1872 (the founding of the estate and earliest possible date for the church), swapping homes would leave her with an attenuated historic assemblage reaching back only to 1969 (the oldest votive banner) and suddenly much lower in the pecking order of regional saints.

Relocated to the new church, then, the plaster Madonna would not be quite the same Virgin as before; the greater part of her biography and distinctiveness would be gone overnight. What this means in more abstract terms, then, is that the categories of architectural container and contents are not always and everywhere in a flexible relationship. Not only that, but in some cultural contexts, the two can be constituted, through metaphors of corporeality, as all of the same substance. As such, the insistence by anti-development Catholics that the proposed move represents the Virgin's theft become—far from the illusions of “ignorance”—coherent renderings of a place grown through slow ritual sedimentation. Moving her would be a criminal amputation of the greater part of her historically sedimented person, provoking something analogous to the visceral revulsion we feel when hearing stories of organ theft. Enough of her would be permanently stripped away to render her a completely different Virgin; one less opulent and less effective in attracting followers. Who knows if she, or her congregation, could successfully survive such an injury?

This understanding of ritual place as metaphorically corporeal recalls Alfred Gell's (1998) work on the agentic capacities of artistic forms (see also Carsten and Hugh-Jones 1995, Connerton 2009). In this way, the resplendence of the old church and its ritual contents do not simply represent bygone miracles; rather, they are meant to perpetuate the Virgin's ability to continually attract weary mortals. By sedimenting around the plaster Madonna in a pattern of concentricity and containment (Gell 1998: 133), the assemblage of ritual *recuerdos* lends a sense of mysterious, indwelling agency by counterbalancing it, much as an outer “body” implies an inner “mind” (ibid: 132). No definitive break between an “inside” and “outside” can be found, however, since the various kinds of *recuerdos* progressively encase her at different scales, effecting a “reduplication of skins, outwards towards the macrocosm and inwards towards the microcosm” (Gell 1998: 148). Each layer, in its placement and scale figures as an outer shell to all that lays within it.

The specific materiality of the offerings commends itself to this campaign of enclosure: at the most miniature scale, votive robes clothe the Madonna while rosaries and crowns adorn her; except for during the annual fiesta, she is encased in a tabernacle on the altar; the prettiest ritual banners encircle her along the inner walls as do her reinterred followers inside the wall; and finally, at the most monumental scale, is the church itself. Each corporeal layer works synergistically with all others to create the effect of an efficacious spiritual patroness, distributed through space and sedimented over time. In this sense, “the Virgin” is much more than the Madonna.

We can even see the effect of reduplication and containment at the scale of the effigy itself since it is difficult to pinpoint precisely where “the Madonna” ends and the world around her begins. The painted plaster figure is, unsurprisingly, depicted as clothed—but where inside the plaster form does her skin end and her plaster vestments begin? Since this is impossible to answer, might “the Madonna” as an entity include both the flesh *and* clothing as rendered in plaster? And, if so, why not include her textile robes that are placed on top of her plaster robes? Furthermore, the effigy depicts not only a Madonna but a Madonna-with-Child. Is the primary spiritual entity here both figures or just the former? If it is both, then why then are they referred to as “the Virgin”? Under scrutiny, a purely representational analysis of the effigy breaks down at several points. And so, if it is this difficult to parse bodies from coverings at this microcosmic

scale, then why not extend such aporia outward to encompass the entire assemblage of ritual offerings that accrue to her—including architecture itself (Carsten and Hugh-Jones 1995: 42–43, Gell 1998: 136, 142)?

It should come as no shock that the elaboration of ritual place among Chunchucmil's Evangelicals contrasts starkly with this. The larger congregation, *Monte de Zion*, boasts a long, cinder block *templo*, enforced with thick steel posts and topped by aluminum sheeting. Its dais, used for liturgies and the congregation's band, is austere decorated with fake flower and balloon arrangements. Only three times is the monotony of its beige walls broken by painted images of scrolls with bible verses on them (see Figure 19.4). The *templo* for the *Evangelio Completo* is smaller, but consists of many of the same construction and decorative motifs. The main difference is that, instead of bible verses on its walls, it features verses (e.g. Matthew 4:19 and Psalms 133:1) embroidered on white cotton banners draped over its podia (quite similar in appearance to ritual banners in the Virgin's assemblage).

The fake flowers and balloons are not offerings. Neither are the painted and embroidered bible verses addressed to anyone, nor inscribed with the date of production or name of the artist. They do not form a chronological archive based around local patterns of devotion; they refer only to the timeless Word recited and interpreted incessantly in sermons and personal testimonies. The architecture of the *templos*, in varying states of construction paid for by generous tithing, may hold an emotional significance for congregants. But it holds no *ritual* significance



Figure 19.4 *Monte de Zion* before a service (left); one of the painted banners on its walls (right)

Source: Photo by author

for the efficacy of what goes on inside, as evidenced by the ease with which *Evangelio Completo* Evangelicals forsake their *templo* for members' homes.

By drawing out stark differences in approach to religious architecture between Chunchucmil's two main confessional communities, reasons for both the disquiet that anti-development Catholics felt over the Virgin's prospective move between churches, as well as its gross unintelligibility for Evangelicals, becomes clear. While this figures as an important first step in understanding the politics of ruin and redevelopment in this postindustrial landscape, it does not explicitly address the position of pro-development Catholics. Without further elaboration, it runs the danger of a typological, dichotomous, and deterministic cultural scheme that can offer only awkward interpretations of this "in-between" factional group: If local Catholic piety is a homogeneous phenomenon dependent on the Virgin's permanent fixation, then why have some of her followers joined Evangelicals and developers in supporting (or at least accepting) her relocation? Are we still to understand them as local Catholics in the full sense, as they consider themselves to be? Or should we instead declare them "Catholic" in certain aspects of devotion while "Evangelical" in others such as the conceptualization of religious architecture? Just as an analysis of cultural difference complicates the idea held by developers and local Evangelicals that religious architecture serves a self-evident and universal function (i.e. lending form and shelter to a space of worship while remaining ontologically independent and eminently substitutable), further complication is required so as to avoid the reification of culture.

In-built ambiguity

"To keep the sun off of it," said Don Mario without hesitation. Don Mario was the owner of a house I passed daily on my way to and from the state archives in the Yucatecan capital of Mérida and, seeing him in his yard one morning, I decided to stop and ask why the tabernacle affixed to the front wall (containing a figurine of the Virgin of Guadalupe) had such an architecturally elaborate roof. It was paved inside with porcelain floor tiles, fronted with a glass and wrought iron door, sided with painted wood, and capped by a sloping clay tile roof complete with a raised center seam. Whereas many Catholic residents across the Yucatán embellish the outside of their homes with religious images ensconced in various types of frame and niche, some arrangements, like Mario's, were unusually elaborate. After having already spent a good deal of time living in Chunchucmil and confronting the complex politics and ritual corporeality of its old church, I recall feeling almost let down at the simplicity and practicality in Mario's pithy response.

As I came increasingly to understand, however, such feelings on my part were ill-founded. The religious images in popular Yucatecan Catholicism, whether graphic portraiture or sculpted effigies, are vulnerable to all manner of human and non-human threats. I have seen rather large garden shrines in Mérida (standing about six feet tall) enclosed in front with an iron gate and padlock that, even so, did not prevent the theft of the indwelling image.⁵ It should be noted that almost all such household images feature one or several rows of ancillary adornments arranged in concentric patterns, such as draped Mexican flags, tinsel garlands, fake flowers, string lighting, the borders of a niche, even additional, more diminutive images of saints. I believe that such a patterning of adornment has to do, as at Chunchucmil, with sedimenting a ritual space around the image that reinforces its opulence and indexes the pious disposition of its custodian. In this sense, a large roofed tabernacle, concrete shrine with a columned portico, or limestone church with resplendent altar are simply more expensive and durable instantiations of such corporeal, ritual sedimentations.

However, as Mario suggested and the unfortunate ex-owner of the stolen saint knows, these more durable encasings *also* have highly practical functions that give them value; not just ritual value relative to an assemblage of concentric skins, but practical value as a result of their own physical attributes.⁶ In the former capacity, it contributes to ritual efficacy as part of a concentric, seamlessly coordinated space anchored and animated by a divine center; in the latter, it operates as one among a host of self-sufficient objects in an open space with no one center, and guarding against threats that can impinge upon it at any time.

The truth is that practical threats constantly haunt the agency of all ritual images in popular Yucatecan Catholicism. Some, like sunlight, are slow-acting; others are actual thieves in the night. In Chunchucmil, Doña Betty has a beautifully ornate living room altar to an effigy of the Divino Niño⁷ but an empty concrete ledge and niche outside her front door where it used to sit. “We decided to bring it in,” she told me, “because you never know what might happen to it with all the drunkards that roam the streets.” In fact, a great deal of the households in Chunchucmil (and Mérida) feature abandoned outer shrines or niches due to theft, preemptive protection against theft and damage, decorating decisions, or simply from moving house. Whatever the reason for displaying domestic images outside to begin with,⁸ it is clear that they could be, and often were, easily uprooted from such a venue for reasons of crime, security, or convenience.

Even Chunchucmil’s Virgin of the Rosary was not immune from such practical measures against mundane threats. The wood and glass tabernacle she inhabits for 11 months of the year was not always there. She used to stand unfettered atop the main altar. But, many years ago, a drunken devotee from the neighboring village of Coahuila visited to pay respects and gravely damaged her by accidentally knocking her to the floor. After being returned from professional repair in Mérida, the estate owner donated the tabernacle, what some refer to as her *casita* or little house (Ramsey 2014). While it fits the ritually significant pattern of concentric “skins” to have the plaster Madonna inhabit at once a “little house” within her larger house, the fact remains that the tabernacle arose out of immediate, practical concerns and is useful in *this* sense as an object physically distinguished from—rather than ritually conflated with—both the effigy it protects and the space around it.

The fact is that religious images in popular Yucatecan Catholicism have the potential to be both 1) highly mobile, able to conveniently change locations and adopt new architectural contexts in order to fit changing needs, and 2) carefully anchored at the center of ritual place around which sediment various instantiations of architecture. Many miraculous images that ended up with their own churches and congregations in fact began their career as purchases in a market or pilgrimage souvenirs (Rugeley 2001). Whereas, upon reaching a certain critical following, a newly miraculous domestic image is ideally supposed to become forever after fixed in place (with its own souvenirs moving outwards and offerings coming in), it can never truly lose its potential for mobility in which architectural contexts serve expedient ends and are easily forsaken. This in itself is a source of threat (for instance, the constant specter of theft faced by domestic images and church-bound images alike), but it can perhaps also provide, as it does with household images, a form of convenience, flexibility, and adaptability to changing circumstances.

It is this ever-present ambiguity that Chunchucmil’s pro-development Catholics exploit in the ongoing debate over the Virgin’s location. What explains why particular local Catholics view the old church as independent of the Virgin and replaceable while others do not? Many factors redound on this question of individual interpretation in ways that are not predictable. On top of ethical and religious debates over rightful management of the church, there is an ongoing legal dispute over ownership of the entire monumental core of the ex-estate, and the legal standing of developers in this regard has convinced pro-development Catholics such as

Doña Anastasia who nevertheless remain ambivalent over their choice (“What else can we do?”). Others, such as Don Pich and Doña Luz, fell in early on with developers and lobbied to have the new church built next to their own house lot, perhaps seeing in it a chance to improve their political prominence within the congregation. Still others, without alternate skills or home businesses to fall back on after the collapse of the sisal fiber industry, simply pine for the return of local employment and believe the promises of developers to that effect. While an essential element, then, confessional ascription is not enough to account for the constructions of ritual place at Chunchucmil. We also need recourse to the play of interpretation, power, and political contingency within the unfolding debate.

Building versus “build-up”

If attending to the significance of emplaced ritual sedimentation has implications for the terms of local debate at Chunchucmil—if it suggests we are witnessing a contest not between pro-development “Progress” and anti-development “Ignorance,” but one between different cultural constructions of ritual place open to multiple interpretations and deployments—then so too are its findings significant for recent scholarly debates over the category of “architecture” itself. If we in the West understand architecture to mean “the art or practice of designing and constructing buildings” (Oxford English Dictionary), this is not, of course, due to anything self-evident but the outcome of a history of disciplinary techniques and divisions of labor stretching over two millennia (Ingold 2013). Though not always this way within Western traditions of construction, architecture today tends to romanticize the work of design as the true seat of ingenuity rather than that of construction, which supposedly contributes little in the way of genuine creativity (ibid: 47; Edensor 2011: 250).

Regardless of the relative importance they are ascribed or the degree of mutual feedback between them, though, “architecture” combines design and construction within the singular mission of “building,” an act conceptually segregated from the subsequent work of dwelling, even in cases where the same people are responsible for both (Buchli 2006: 262, Ingold 2013: 47). This encouraged a balkanized approach to scholarly inquiry whereby “anthropologists have tended to assume that buildings and the people they contain are entities of entirely different kinds” (Carsten and Hugh-Jones 1995: 41). Taking as universally self-evident the categorical distinction between the old church and its divine occupant led developers and local supporters to both elicit and misunderstand a visceral pushback among some Catholics. Less violent, but no less vexing, misunderstandings are produced by scholarship that relegates the study of building and dwelling to separate disciplines or, to the extent it considers them together, parses them into mutually exclusive moments of domination and resistance respectively (Buchli 2006: ibid.).

Of course, experience and common sense belies such conceptual segregation of activities. Buildings are often occupied years—even centuries—before they are ever “finished” (think of Gaudí’s Sagrada Familia in Barcelona, a much-visited nineteenth century landmark still “under construction”). Meanwhile, scholars have for some time been exploring the implications of what all homeowners know: buildings are never once and for all “complete,” as the work of building bleeds endlessly into dwelling (Brand 1994, Buchli 2006, Carsten and Hugh-Jones 1995, Edensor 2011, Ingold 2013). A great deal of this categorical overlap is due to the ceaseless work of human and non-human agents that constantly threaten to disrupt the aesthetic and structural integrity of built form.

As already mentioned, Chunchucmil’s fraying nineteenth century church is a product of the work of sun, rain, nesting birds, moss, and trampling congregants. In his own study of a historic church complex, Tim Edensor (2011) draws out an analogous tangle of agencies and vitalities

within built form using the model of “assemblage” (cf. Lucas 2012). He notes that, for instance, whereas stone constructions elicit a sense of monumental stability and permanence—of being eminently malleable by human techniques and technology while remaining largely inert in the face of non-human forces—they are in fact assemblages of edifying and entropic forces undergoing constant change by human and non-human agents (Carsten and Hugh-Jones 1995: 37, Edensor 2011: 240–41). Recent posthumanist considerations such as these are allowing us to escape the restrictive view of architecture as little more than a marriage of human ingenuity and dead, durable matter.

At the same time, the peculiarities of sacred built form at Chunchucmil can prove a useful contribution to this ongoing scholarship. By carrying analysis beyond consideration of “the building assemblage” (Edensor 2011: 246) to building-as-part-of-ritual-assemblage we can see it as just *one* act in a wider class and historical sequence of pious gestures. Conceptually segregating the act of building is counterproductive not only for all the reasons mentioned, but because in this case the construction of Chunchucmil’s church was itself only one element in a larger process of unadulterated ritual assembling that almost certainly predated it and will, ideally, continue indefinitely. Not only that but, in *this* interpretation, favored by anti-development Catholics, rather than remaining aloof from whatever occurs within it, the building is partly responsible for the *attraction* of visitors and the continual build-up of ritual sedimentation inside. Along with the rest of the ritual assemblage, it is an essential *participant* in ongoing practices.

By using the notion of sedimentation or “build-up” rather than traditional notions of “building,” we are able to further complicate the entanglements of human and non-human agency being explored in the recent posthumanist scholarship on architecture (Bille 2013, Buchli 2006, 2013, Edensor 2011, Lucas 2012). For instance, where does agency lie in the accumulation of *recuerdos*? Does religious sentiment in humans lead to the ritual sedimentation of offerings or vice versa? Also, to the morass of human and non-human agents, we must add the super-human or supernatural, as the Virgin and her sedimented body stokes religious sentiment in weary mortals and the consequent desire to draw near to her.

Conclusion

Emphasizing the artistic genius of whichever architect designed the old church adds little of value to our understanding of what is now happening at Chunchucmil. Rather than an architect, the agent responsible for the church’s manifestation was the estate’s founder Peón Losa, or more accurately, the coy plaster Madonna whose miraculous nature demanded it from him. In any event, it significantly complicates understandings of agency within episodes of “building” and across periods of “build-up.” What we are then left with is less architecture as a triumphant, ex-nihilo creation, ontologically independent of and prior to the space it contains, than architecture as just one among many different material media that were both elicited by and enriched something pre-existing. It is architecture as vital (Edensor 2011), architecture as part of a *larger* process of cumulative (miraculous) growth and assembly; architecture enmeshed in a network of distributed agencies and desires.

By this token, we also have the potential of its converse: architecture as mortal, as part of an unavoidable process of degradation. Such a consideration is anathema to the seemingly unstoppable expansion of heritage tourism industry that brought developers to Chunchucmil and ignited an unanticipated—even unimaginable—conflict among competing factions and their divergent conceptions of the role of religious architecture. Recent theorizations of heritage, however, have found cause for sustained critique of notions of architectural preservation that underlie the interferences of developers at Chunchucmil (The nation’s patrimony is crumbling!)

as well as the current overaccumulation of heritage forms (Castañeda 2000, Harrison 2012, Meskell 1996, Sørensen 2013). Critiques of heritage development—critiques that recognize the importance of material transformation and the entanglements of human and non-human agencies—have led to reimaginings of how we might in fact responsibly curate the past by letting historic buildings “grow old gracefully” (Edensor 2011: 247) or valorizing an “entropic heritage” (DeSilvey 2006: 335). But if this rising chorus is needed because it facilitates more sophisticated theorizations and practices of heritage work, it is also urgently required in order to improve cross-cultural understanding and mitigate social conflict related to heritage development intervention.

This is precisely the kind of object lesson that the turmoil at Chunchucmil provides. If there are multiple cultural possibilities for the construction and use of built form (e.g. whether it should take into account a wider sedimentation of place or not), then that means that there may be multiple cultural renderings of the degradation of built form. For instance is the broken church walkway at Chunchucmil a sign of material ruin that can be used to indict lax administration or a sign of divine retribution against a disrespectful visitor (e.g. Bille 2013)? Similarly, does the prospect of the church’s “perfect” restoration *without* the presence of the plaster Madonna and portable offerings ultimately represent preservation or perdition? Before we conceptually limit “ruination” of built form to a self-evident process of material decay, we must investigate all the possible political and cultural deployments of architecture by the parties in question. We may find that doing so not only renders our notions of architecture more intellectually sophisticated but opens the way for heritage interventions to occur in a more egalitarian and socially responsible manner.

Notes

- 1 Hotel developers from the firm Grupo Plan along with community development experts from the Foundation of the Haciendas of the Mayan World (Fundación de las Haciendas del Mundo Maya), a subsidiary of the National Bank of Mexico’s Cultural Development Program (Fomento Cultural BANAMEX).
- 2 Though, as regards the political and ethical interpretations of a fraying church among residents, it includes this as well.
- 3 Even putting it in terms of “container” and “contained” betrays my own cultural bias and the problem of translation since this is only one possible metaphor through which a built environment is viewed cross-culturally (e.g. Carsten and Hugh-Jones 1995).
- 4 Faustina likewise recounted similar tales of bodily injury to local Evangelicals who showed disrespect toward the Virgin.
- 5 This constitutes precedence for at least the possibility of interpreting in a *straightforward* way the objections of anti-development Catholics over developer interference with the Virgin. As this example also shows, however, there exist ways to steal ritual images that are easier and cheaper that supposedly involves bankrolling an entirely new church as part of an elaborate ruse. As such, an analysis that demonstrates some sort of illicit taking of the Virgin’s essence with her successful move to the new church is needed. To the extent that theft of images is known to occur in Yucatán, however, it is not out of the question that anti-development Catholics might couch their visceral uneasiness over the permanent loss of ritual efficacy in such terms.
- 6 This is reminiscent of DeLanda’s (2006) distinction between the “capacities” of an entity that are drawn out only in concert with other members of an assemblage versus the rightful “properties” it has due to its own makeup and that it carries from one assemblage to another (in Edensor 2011).
- 7 A popular saint in Yucatán, depicting the Christ Child standing, arms wide, face upturned, capped with an elaborate halo and inscribed with the caption “I Shall Reign.”
- 8 If my experience in Yucatán over the years is any indication, they feature almost exclusively the Virgin of Guadalupe. Such images were placed outside, according to Doña Priscila, in order to receive the devotions of roving groups of singers who traveled the streets on December 12 in celebration of the Guadalupeana, the Day of Guadalupe.

References

- Bille, Mikkel. 2013. Dealing with Dead Saints. In: *Taming Time, Timing Death: Social Technologies and Ritual*. Christensen, D. R. and Willerslev, R., eds. London: Ashgate, pp. 135–155.
- Brand, Stewart. 1994. *How Buildings Learn: What Happens after They're Built*. New York: Penguin.
- Buchli, Victor. 2006. Architecture and Modernism. In: *Handbook of Material Culture*. Tilley, C., Keane, W., Küchler, S., Rowlands, M. and Spyer, P., eds. London: Sage, pp. 254–267.
- Buchli, Victor. 2013. *An Anthropology of Architecture*. London: Bloomsbury.
- Carsten, J. and Hugh-Jones, S. 1995. Introduction. In: *About the House: Levi-Strauss and Beyond*. Carsten, J. and Hugh-Jones, S., eds. Cambridge: Cambridge University Press, pp. 1–46.
- Castañeda, Quetzil E. 2000. Approaching Ruins: A Photo-Ethnographic Essay on the Busy Intersections of Chichén Itzá. *Visual Anthropology Review* 16(2): 43–70.
- Connerton, Paul. 2009. *How Modernity Forgets*. New York: Cambridge University Press.
- DeLanda, M. 2006. *A New Philosophy Of Society*. London: Continuum.
- DeSilvey, Caitlin. 2006. Observed Decay: Telling Stories with Mutable Things. *Journal of Material Culture* 11(3): 318–338.
- Edensor, Tim. 2011. Entangled Agencies, Material Networks and Repair in a Building Assemblage: The Mutable Stone of St Ann's Church, Manchester. *Transactions of the Institute of British Geographers* 36(2): 238–252.
- Farris, Nancy. 1984. *Maya Society Under Colonial Rule: The Collective Enterprise of Survival*. Princeton, NJ: Princeton University Press.
- Gell, Alfred. 1998. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press.
- Hanson, Craig. 1995. The Hispanic Horizon in Yucatán: A Model of Franciscan Missionization. *Ancient Mesoamerica* 6: 15–28.
- Harrison, Rodney. 2012. Forgetting to Remember, Remembering to Forget: Late Modern Heritage Practices, Sustainability and the “Crisis” of Accumulation of the Past. *International Journal of Heritage Studies* 19(6): 579–595.
- Ingold, Tim. 2013. *Making: Anthropology, Archaeology, Art, and Architecture*. New York: Routledge.
- Lucas, Gavin. 2012. *Understanding the Archaeological Record*. Cambridge: Cambridge University Press.
- Meskill, Lynn. 1996. *Dissonant Heritage: The Management of the Past as a Resource in Conflict*. New York: J. Wiley.
- Munn, Nancy. 1986. *The Fame of Gawa: A Symbolic Study of Value Transformation in a Massim (Papua New Guinea) Society*. Cambridge: Cambridge University Press.
- Ramsey, Jason. 2014. In Ruins New and Old: Cultivating Threat on a Former Hacienda, Yucatán. In: *Ruin Memories: Materiality, Aesthetics and the Archaeology of the Recent Past*. Olsen, B. and Pétursdóttir, Þ., eds. New York: Routledge.
- Rugeley, Terry. 2001. *Of Wonders and Wise Men: Religion and Popular Cultures in Southeast Mexico, 1880–1876*. Austin, TX: University of Texas Press.
- Sørensen, Tim F. 2013. We Have Never Been Latourian: Archaeological Ethics and the Posthuman Condition. *Norwegian Archaeological Review* 46(1): 1–18.

Performance architecture

Absence, place and action

Nick Kaye

This essay is concerned with architectural interventions that make explicit and articulate the performativity of built forms: practices that range from architecture conceived and designed to bring form and function into collision with its use, such as Bernard Tschumi's *Parc de la Villette* (1982–98) (Tschumi 1987), to architecture that is responsive and mobile or that intervenes into the regulation of public space. It is an idea captured by the notion of 'performance architecture': an architecture driven by a dynamic interlacing of private and public spaces, whose realisation is identified with the 'pedestrian' user's phenomenal encounter with built forms. Defined, first, in meetings between architectural practice and contemporaneous turns in visual art, including conceptual art, performance, film and installation, 'performance architecture' is rooted in the self-consciously avant-gardist and conceptual re-visioning of architectural form and function by groups such as the London-based ARCHIGRAM (1961–74), the Florentine Superstudio (1966–78) and the San Francisco collective Ant Farm (1968–). The frequently manifesto-like interventions of these groups intended to provoke a crisis in the idea of architecture or, as Superstudio proposed, 'the end of architecture' (Superstudio 2012), in their challenge to the authority of the built environment. Embracing collisions between architectural practice, theory, and political critique, Superstudio's projects are exemplified by *The Continuous Monument* (1969–70), a collage proposal for an infinitely extending gridded structure wrapped around and subsuming – while simultaneously exemplifying – the triumph of corporate architecture. ARCHIGRAM's influential conceptual architecture included designs for living buildings and living cities (Cook 1999), while Ant Farm's large-scale touring *Inflatables* (1971) invited participatory 'architectural performances' by the public (Scott 2008). As these various beginnings of performance architecture suggest, this mode and attitude arises from a collision of the aesthetic, public and political agendas that inform the definition of public space – a tension that, when foregrounded, also serves to open these built forms to a sense of their completion by those who occupy and use them.

Performance architecture and the mutability of place

The concept of 'performance architecture' is closely linked to the development of ideas and practices of site in various forums. That place is 'performative' has become a key part of performance theory (Kaye 2000; Pearson 2010) as well as threading its way through influential

aspects of post-processual archaeology (Pearson and Shanks 2001) and contemporary architectural practice. Rooted in J. L. Austin's (Austin 1975) definition of a 'performative' speech-act as one that is the social enactment of that which it states – such as a wedding vow 'I do', or bequeathment 'I will to you' – a performativity of place suggests that what a site *is*, is inseparable from the occasion of its enactment and use. It is an approach congruous with deeply influential ideas concerning the mutability of identity, gender and meaning (Butler 2006) and their production in personal and social enactments and exchanges. In this context, too, ideas of site and identity have become explicitly linked (Kwon 2004) to form a paradigm through which the meaning and effect of the performance of place may be understood.

In the 1990s, major built architectural projects, including Tschumi's *Parc de la Villette* integrated aspects of these notions around site into architectural practice. For Tschumi, in particular, architecture became aligned to 'event'; an 'event' provoked by disjunctive relationships between architecture as phenomenon and text; between the experience of architecture and conceptualisations of its use and function (Tschumi 1994). Tschumi's layered design for *La Villette*, then, worked in its combination of schema over a 125 acre site near Paris to emphasise the contingencies surrounding pedestrians' experience – and ultimately the use and definition – of these built forms. More recently, the New York-based architects Diller + Scofidio have explored conjunctions of art, theatre and architecture to create temporary structures that obtain complex relationships between architectural form, environment and use. Diller Scofidio + Renfro's *Blur Building* (2002, Lake Neuchatel) realised, Liz Diller has suggested, an 'architecture of atmosphere . . . No walls, no roof, no purpose, just a mass of atomized water, a big cloud' (Diller in Gratza 2013): a mutable, environmental architecture whose boundaries with site and the senses fall toward dissolution. In these respects, performance architecture also critiques conventional architecture's production of regulated social and personal space by provoking a crisis or critique of its own meaning and use.

It is in response to the mutabilities of place, too, that this architecture finds another key aspect. Exemplified by Diller Scofidio + Renfro's *Blur Building*, and in contrast to a conventional architecture's assertion of fixed form and defined function – and so the certainties of *being in place* – 'performance architecture' foregrounds experiences of uncertainty, ephemerality and absence. Here, too, this architecture obtains an affinity to early minimal, conceptual and performance art and their emphasis on phenomena of encounter over fixed forms. In this paper, then, performance architecture is defined in relation to these overtly avant-gardist forms as well as interrogations of place that emphasise the implication of those who occupy and use architecture in the generation of its meanings.

In accounting for recent architecture's relationship to these performative strategies in visual art, the New York-based artist Vito Acconci's transposition of his deeply influential work in poetry, performance, installation and video, developing from the late 1960s toward his architectural practice with Acconci Studio (1988–2012) provides a model for the definition and analysis of the form and impact of a performance architecture. In discussing the aims of Acconci Studio at the time of its dissolution in 2012, Acconci reflected first on how the Studio's work sought to critique the conventional authority of architecture precisely by integrating a mutability of forms and realise an architecture contingent on action:

The problem with architecture is that when you design a space you are also designing people's behavior in space. So probably architecture is almost inherently a totalitarian activity . . . What architecture really has to become is: person goes into a space; person feels tired; person leans against the wall and wall starts to recede to make a kind of seating place; person is not tired anymore; person gets up; another person comes in with another desire.

Can architecture ever reach that? Probably not exactly, but the notion of a changeable architecture is what we are kind of obsessed with.

(Acconci 2012)

In the context of 'performance architecture', Acconci's traversing of performance, installation and architecture also exemplifies a development of the implications of site-specific art toward ideas and practices of the built environment. Always *located*, Acconci's early writing, actions, video and installation explored the capacity of artworks to simultaneously intervene into, disturb, and become bound in material and meaning to the particularities of the places of which they form a part. This, in turn, became the basis for Acconci's direct interrogation of the built environment, while Acconci Studio's architectural projects reveal the performative root of this mode of work. For these reasons, this paper will foreground Acconci's early work and the relationship between his diverse engagement with performative forms and strategies and his later architectural practice through Acconci Studio.

The idea of a mutable architecture reflects also contemporary assumptions about the nature of place and the experience of 'absence' in the encounter with place. In emphasising site as phenomena realised in occupation and use, much recent anthropological, archaeological and performance theory calls the stability and continuity of any site into question. Always already in occupation by others, the meanings of a place are subject to instability and displacement. 'Place' is thus a function of multiple and mutable aspects: it is palimpsestual and simultaneous, embracing diverse material, historical, cultural, spatial and personal aspects for different occupants at different times. The temporal dimension of place is also complex: 'a place' does not exist simply in the 'now' of its present-tense occupation by any individual or group, but is a function of memory and anticipation; and of disjunctions and differences between the experience of 'being in' that place and speculation over its enactments by others. Thus in post-processual archaeology, rather than provide a transparent gateway to the past, archaeology itself is understood as a form of place-making in which the archaeological 'site' and the artefacts that constitute it form a present moment in a 'life cycle' (Shanks 1998) of objects and remains. Correspondingly, as part of the broader debate over ephemerality and presence in performance, Rebecca Schneider's influential work has focused on how the persistence of sense and meaning is inscribed into the performance remains of history in specific sites (Schneider 2012: 69), implicitly providing a further intersection between archaeology and performance theory.

Like any located object, too, the 'pedestrian' performance of architecture participates in the definition of the places it animates, performing and changing the contingencies that influence architecture's meaning. Architecture, then, under this notion of site, and while ordering and ruling public and private spaces and so behaviour and the body, is nevertheless subject to the mutability of all places – and it is this view that the link between performance and architecture, conceptually and in practice, elaborates. Architecture is realised in its use, and in time it changes.

Towards an architecture of absence

Vito Acconci's steps into performance in the late 1960s that led ultimately toward his architectural practice were aligned to an emergent site-specificity in art and performance defined, in significant ways, through a critique of what the artist Robert Morris designated as 'so-called Minimalism' (Morris 1997). Indeed, the concept and practice of site-specificity as a mode of disrupting or questioning the stabilities of site and place is rooted in the performative and conceptual turn in art of this period, which coincides with the radical architectural propositions that also influence performance architecture as an idea and mode.

Shown in conventional gallery contexts from 1963 and 1964, the seemingly blank, 'minimal', geometric forms by Robert Morris, Richard Nonas, Donald Judd and others, either installed singly as 'unitary forms' or in series, served to intervene into the experience of viewing in the specific space of their installation. Presented as visual obstructions that frequently replicated the dimensions of the body, in their apparent 'emptiness' these forms critiqued the vacuity of the gallery space, forcing the viewer's attention back on itself as if to insist that they become the 'agent' and phenomena of the work. With regard to his own development, Acconci records that minimalism:

was the art that made it necessary to recognise the space you were in. Up until that time I had probably assumed the notion of a frame, I would ignore that wall around it. Finally, then, with minimal art, I had to recognise I was in a certain floor . . . I was in a certain condition, I had a headache, for example. I had a certain history, I had a certain bias . . . what minimal art did for me was to confirm for myself that art obviously had to be this relation between whatever it was that started off the art and the viewer.

(Acconci 1982)

For Acconci, specifically, the very muteness of the unitary form also suggested the necessity of his own exposure and interrogation of the *ground* of the work. In response to minimalism's apparent silence, Acconci has recounted that: 'Minimal art was like the father I had to kill . . . it had no history, it just appeared . . . I wanted to show the source of what I was doing.' Thus Acconci concluded: 'I had to show me' (Acconci 2008).

Where Acconci's response to the unitary form surfaced relationships between sculpture, site and performance, the contemporaneous conceptual turn in art – to which Acconci's work contributed – also saw explorations of phenomena of place through attention to that which is absent or other to the object. Thus Lucy R. Lippard's landmark publication, *Six Years: The Dematerialisation of the Art Object 1966 to 1972* (1973) catalogued a trajectory of practices that questioned 'static objects' (Marioni 2000: 10) in a rich seam of conceptual art engaging with the specificities of place. For Lippard's first two years alone, 1967 and 1968, *Six Years* catalogues site-specific works by Dan Graham, Richard Long, Carl Andre, Keith Arnatt, Douglas Heubler, Dennis Oppenheim and Robert Smithson, each of which plays between occurrences in a place and its documentation or mapping. Critiquing the containment and economics of the gallery system, on which they nevertheless depended and ultimately reinforced, these practices had profound aesthetic influence in fracturing relationships between object, material and artwork. Thus, for Dennis Oppenheim, these tendencies – and 'earthworks' in particular – installed an ephemerality and absence into the artwork, producing situations such that he subsequently recalled: 'you can't see the art, you can't buy the art, you can't have the art' (Kaye 1996: 66). Oppenheim's position was reflected across radically diverse practices: in the 'conceptual' work that eschewed the primacy of material forms documented by Lippard, yet also in large scale earth art sculptural installations by artists such as Robert Smithson, Michael Heizer, Walter de Maria or James Turrell. Taking the form of geographically remote constructions incorporated into the land whose effect was obtained both in their formal and phenomenal uniqueness encountered by the few who visited them, and in their *telling* – in published and verbal report – the reception of this work was shaped by the (seeming) impossibility of this work's containment in the gallery. In turn, these practices opened up the question of 'place' in art and – in the effects of conceptual and earth art's *absences* – in the work's constitution in the 'viewer's' response to the documents, speculations and mythologies propagated in their very inaccessibility.

In Smithson's work in particular, this quality of absence is explicitly linked to the very idea and enactment of a site or a place. Presented as large-scale and often visually empty maps combined with bins of materials from the specific places of which they are an index, Smithson's Non-Sites begin by announcing the absence to the gallery of the geographic location with which they are concerned. Indeed, even where the Non-Site presents itself as a functional map leading to a place – prompting Smithson to note on his work *A Nonsite, Franklin, New Jersey* (1968) (Figure 20.1) that 'Tours are possible' – these maps do not yield a satisfactory destination, but merely an encounter with 'outdoor collections of undifferentiated materials' (Smithson and Wheeler 1996: 221). The Non-Site, Smithson thus notes, 'is a map that will take you somewhere, but when you get there you won't really know where you are' (Béar and Sharp 1996: 249). Caught between the object in the gallery as an index of the site and the impossibility of finding its 'real' 'location', the Non-Site produces a paradoxical lacunae, where '[w]hat you are really confronted with . . . is the absence of the site . . . a very ponderous, weighty absence' (Lippard and Smithson 1996: 193). For the viewer encountering a work seemingly unable to rest in *one place*, the Non-Site thus prompts a 'dialectic of place' (Smithson 1996: 153) in which the absences at play between map and site – and between representation and its object – provoke dialectical movements toward and away from a place the viewer would occupy to resolve the question of *where* the work (and site) *is*. Smithson suggests that:

The range of convergence between Site and Non-Site consists of a course of hazards, a double path made up of signs, photographs and maps that belong to both sides of the dialectic at once. Both sides are present and absent at the same time . . . Two-dimensional and three-dimensional things trade places with each other in the range of convergence. Large scale becomes small. Small scale becomes large. A point on a map expands to the size of landmass. A landmass contracts to a point.

(Smithson 1996: 153)

Importantly, though, and as this dialectic reveals, in Smithson's work, the Non-Site – in its absences – is no less the place than 'the place itself'. Instead, the Non-Site is a map that resists eclipsing the absence of the 'real place' and so a map that refuses to close the meaning and function of that which it describes, so provoking a sense of place as emergent. The significance of Smithson's project to the performance of architectural place, then, is the positioning of the viewer within a dynamic based on the absence of the 'real place' to prompt processes of conceptual mapping and place-making that have no resolution.

More broadly, too, in conceptual art's compendia-like elaboration in the genre's defining exhibitions, *Information* (1970) in New York and *When Attitudes Become Form* (1969) at Berne, it is this sense of absence; the void or the negative space; that is integral to its mechanisms and its implication of the viewer. Signalling this, and for the *Information* catalogue in New York in lieu of an Index, Lucy R. Lippard presented an exhaustive and insistent definition of absence, beginning:

ABSENCE: 1) withdrawal, nonexistence, nonresidence, nonpresence, nonattendance, disappearance, dispersion. 2) emptiness, void, vacuum, vacuity, vacancy, depletion, exhaustion, exemption, blank, clean slate, tabula rasa. 3) absentee, truant. 4) nobody, no body, nobody present, nobody on earth, not a soul, nary a soul, nobody under the sun, nary one, no one, no man, never a one.

(Lippard in McShine 1970)

And ending, after exhaustive elaboration, 'PRESENCE: see absence' (Lippard in McShine 1970).

Lippard's statement reflects not only a deflection of attention from the material properties of the work that is a common formal strategy within conceptual art, but the articulation of experiences of absence toward the viewer's participation. Indeed, and as Lippard's final equation of presence and absence suggests, absence implies recollection and anticipation: it is the experience of the absence of *some thing*. It is here, too, that performance and performativity come to be lodged at the heart of this work. Where site-specific or conceptual art asserts the



Figure 20.1 Robert Smithson, *A Non-Site*, Franklin, New Jersey, Summer, 1968.
© Estate of Robert Smithson/DACS, London/VAGA, New York 2015.

permeability and absences of a place, so it looks toward emergent properties: toward a description of site as processual. It is an aspect of site captured by Frederic Jameson's view of postmodern architecture as a contemporary space or place 'which can only be represented *in motion*' (Jameson 1991: 45).

It is an idea of site reflected, too, in architectural theory. Thus for the architect Peter Eisenman, in his questioning of 'traditional geometries and processes in architecture' (Eisenman 1986: 4), the place made by architecture is understood to be a function of absence. Suggesting that 'absence is either the trace of a previous presence, it contains *memory*; or the trace of a possible presence, it contains *immanence*' (Eisenman 1986: 4–5), Eisenman describes architecture's site as layered and in process and so subject to definition in an ebb and flow between disappearance and appearance. Whereas in architecture '[a] presence is a physically real form, whether a solid, such as a building or a void, such as a space between two buildings' (Eisenman 1986: 4–5), site, he suggests, 'can be thought of as non-static' (Eisenman 1986: 5–6). Thus, Eisenman emphasises, 'To privilege "the site" as *the* context is to repress the other possible *contexts*, is to become fixated on the presences of "the site," is to believe that "the site" exists as a permanent knowable whole.' Such a position, he concludes, 'is untenable today' (Eisenman 1986: 5). In understanding this effect of the site's *absences*, Eisenman suggests, we might consider

the difference between a moving arrow and a still arrow . . . if a picture of each were taken and compared, they would be virtually indistinguishable. What distinguishes a moving arrow from the still one is that it contains where it has been and where it is going, i.e., it has a memory and an immanence that are not present to the observer of the photograph; they are essential absences.

(Eisenman 1986: 5–6)

For Eisenman, architectural site is thus realized *in movement*, where it is subject to transitions between what is anticipated and recalled. Architectural place, it follows, is realised – or performed – in time, while the phenomenon of being present to or within architectural sites is processual. Indeed, Smithson's rhythm of absence and presence also echoes the processual characteristics of the experience of presence, whereby, for example, following Heidegger's proposition that presence is a 'verb':

presence occurs as persistence between 'self' and 'other,' and so a traversal of difference . . . Presence, here, then, is not a function of unity and synthesis; not the untroubled occupation of a place, or a definitive *being here* or *being there*; but is performed in the persistence of 'being' across division and differentiation.

(Giannachi *et al.* 2012: 10–11, original emphasis)

'Being in' a place implies all the partialities of acting out a place. Indeed, incompleteness and absence, in this context, may be read as a condition for the occupation and realisation of a place: as a condition under which the user is implicated in the emergence or performance of a place. It is this, also, that the foregrounding of performance in architecture captures – as performance architecture prompts and reveals its own place-making.

Vito Acconci: performance to architecture

The key features and dynamics of Acconci Studio's architecture – and the Studio's investment of performance and performative tactics in architectural design find their roots in Acconci's formally diverse practices with text, performance and visual art from 1967. His earliest work

also engaged with map and site, and with dynamic and ruled relationships between private and public spaces – and time and the body – that subsequently became defining features of his architectural practice.

Publishing as a poet from 1967, and as editor of the journal *0 to 9*, Acconci approached language as a medium between his (and the reader's) body and the materiality of the page-space. In his early writing, words prompt, regulate and control acts in 'actual space time' (Acconci 1978), negotiating the private space of reading while pressing toward the seemingly 'public space' of action. Thus, by way of example, in *0 to 9* no. 5, January 1969, alongside Sol Lewitt's 'Sentences on Conceptual Art' and Robert Smithson's 'Non-Site Map of Mono Lake, California', Acconci published 'Four Pages', beginning, in the first five lines of 28 of the first page:

Good. This one's okay, too. This one keeps it going. All right.
That one is wrong, perhaps another will be better: this one.
This one is strong. This one is active. This one has color.
This one. This is what I want here. This is what should go here.
This is the right word here. This is the right detail here.

(Acconci 2004: 32)

Exemplifying the performative effect of words deployed simultaneously to shape the meaning and act of reading, Acconci's writing – published extensively in *0 to 9* from 1967 to 1969 – asserts a 'literal page-space' as a forum for author and reader: a regulated space of action. Incorporating, variously, crossings-out, self-reflexive directions, page-spaces and punctuation as a means of reflecting on and directing a mapping of the page-space and its meanings by a reader, Acconci installs the ephemeral, the temporary – the conventionally peripheral movement of the eye – in direct relation to fulfilling the meaning of the word. This page implies the body's action, engaging with a 'real space' occupied by a language that rules behaviour and interaction in order to fulfil its meanings. Furthermore, where the page is a space to be enacted, it is also explicitly a space occupied and performed by others, as time and memory intrude into the place of the page. Language, here, conveys, first, absence, as the act in reading is *other* to language, and in turn conditioned by *other acts* in this place. As a result, these pages provoke a sense of doubling and self-reflexivity. For Acconci, it is this dynamic; the regulation and performance of social and private space, be that within page-space, bodily space, or 'real' and urban space, that ties his radical early work so closely to his later architectural projects.

Acconci's early work also poses the question of where the impulse toward architecture begins when architecture is defined in spatial practices. Indeed, the primary mode of Acconci's work can be read as spatial, while the various media he employs can be seen as driving in different ways toward the contingencies of spatial practice. In this context, the development of Acconci's work toward performance architecture needs to be understood in his developing address to different arenas for action rather than through the formal affinity of the various media he employs. Symptomatically, then, in Acconci's step from the page and into the street, he employed photography to extend his mapping of actions into places, and mapping of places through recollection, in an attempt to *get to* 'real place'. Presented in the manner of a documentation of an action, the photo-piece *Blinks* (1969) thus announces an action in which:

Holding a camera, aimed away from me and ready to shoot, while walking a continuous line down a city street.
Try not to blink
Each time I blink: snap a photo

(Acconci 2014)

Blinks, along with other 'Photo activity' pieces including *Fall* (1969), *Margins* (1969) and *Throw* (1969) are produced by schemes for action in specific places whose results narrate an unresolved – and troubled – occupation of a site. The images, here, remain integral to the activity producing them, yet fail to represent the 'real' action and the place of its definition, offering instead what was 'unseen' to Acconci. As a result, these peripheral, visual remains point back to the incapacity of any action or object to obtain and represent location, in which form and meaning inheres *in situ*. Instead, *Blinks* remembers a dynamic, permeable – and performed – relationship between site, object and action. Acconci's work is directed toward the unsettled nature of this site, leading him to strategies that install and challenge systems of place.

Acconci's subsequent and overt performances of place adopted strategies that amplified this displacement and implicit spatial anxiety, even as he finds systems to engage – and reasons for behaviour – within the everyday. Thus for the 'Activity' *Following Piece* (1969), conducted over 26 days as part of *Street Works IV* a series commissioned over a period of one month by the Architectural League of New York:

Once a day, wherever I happen to be, I pick out, at random, a person walking in the street.

Each day I follow a different person; I keep following until that person disappears into a private place (home, office, etc.) where I can no longer follow.

(Acconci 2004: 196)

Following Piece narrates Acconci's mapping of the relationship between private and public spaces. Here Acconci brings into the public realm – the realm of the 'Activity' – anonymous, private schemes that give meaning to and provide for his occupation of a site, a process whose limits are marked only by the legal definition of the private space where Acconci cannot intrude. Where the private activity becomes public in Acconci's appropriation, it is displaced from one site to another: from 'real place' to schematic 'performance'; but then from the 'real' ground of the street to its documentation. *Following Piece* claims private activity as the site of Acconci's performance, re-enacting, displacing, and then – in documentation – removing the work further from its object to produce a series of indices of an absent and unavailable private space (of the enacted place) in the public realm of the artwork.

It is specifically in this spatial dynamic between private and public spaces, too, that Acconci narrates his turn toward architecture, notably in *Claim* (1971). A three hour performance at the *Avalanche Magazine* office, at 93 Grand Street, New York, *Claim*, Acconci notes, 'was probably one of the beginnings of architecture for me because I was making a kind of private house . . . I'm saying no one else can get in, this is mine' (Acconci 2011). Here, too, Acconci amplifies the performance of 'public space in a private time' (Acconci 1992), but directs the limits of this space toward the viewer or visitor and their choices and negotiation. Acconci's contemporaneous documentation of *Claim* describes:

A two-level space, street-level and basement.

Where viewers enter, on street-level, there's a video monitor next to the door that leads downstairs to the basement. The video monitor functions as an announcement, maybe a warning: seeing and hearing what's going on in the basement, a viewer decides whether or not to open the door and come downstairs.

I'm seated on a chair at the foot of the stairs in the basement. I'm blindfolded; I have on my lap two lead pipes and a crowbar. I'm talking, the talk is addressed to myself: 'I'm alone here in the basement . . . I want to stay alone here in the basement . . . I don't

want anybody to come down to the basement with me . . . I'm alone here in the basement . . .'

The talk is drummed into me, like self-hypnosis. Whenever I hear someone coming down the stairs, I swing my lead-pipe, I swing my crowbar, out in front of me, claiming my space.

(Acconci 2004: 212)

Exemplifying Acconci's concern, at the time, that 'I didn't want viewers; I wanted users and inhabitants – or participants – I wanted people to be within something or have something in their hands or on their bodies' (Acconci 2011), *Claim* creates dynamic spatial and psychological and interlaced places that positions the visitor as *active* – as potentially traversing spatial boundaries asserted in Acconci's actions, and driven by his blindfold performance of absence and unavailability. Indeed, Acconci's *Claim* is the performance of the private in public space that forces the visitor toward an active and performed choice: to encounter or step back. *Claim* also anticipates Acconci's later approach to the definition of architectural space as intrinsically performed, whereby '[w]hen "place" is embodied concretely enough to be "sensed," it had been made distinguished from the places surrounding it' (Acconci 2011). Here, the distinctiveness of place is bound to phenomena of difference, to displacement, to the bodily sense of space. Acconci notes: 'I was so used at that time of thinking of a power field in terms of as something that exudes from a person' (Acconci 2008). A sense of place, too, flows through Acconci's modes of performance: in power-play; in the violent claim to private time and space. Subsequently, in one of Acconci's most celebrated, notorious and influential performances, *Seedbed* (1972), Acconci removed himself completely from view, hiding beneath the floor, merging his private sexual space with the viewer's occupation of the public gallery space above. Beneath the feet of his audience – in a situation detailed to his audience through the installation description – Acconci fantasised about the viewer, focusing on their steps – overtly masturbating beneath the floor while relaying his imagined intimacy to those above him, entrapping them within his private space and so the public performance. In *Seedbed*, Acconci's absence – his merging with the architecture of the room – becomes a means of moving psychologically closer to the viewer/participant. Acconci notes: 'when I did *Seedbed* I did think that I was trying to become part of the architecture of the room . . . I think I was using the word architecture just as another word for surrounding or room' (Acconci 2008).

The root of Acconci's architectural work lies in these approaches to the body and the inhabitation of private spaces within the public space; and in the concomitant sense of oneself within the public arena. Arising from an absenting of his body as a visual focus in order to move closer to the viewer, Acconci's performance architecture operates through interlaced spaces, where built forms broker dynamics between private and public, inside and outside. In *Seedbed* absence is necessary for Acconci's implication of the viewer as participant. In Acconci's later practice, performance arises in architecture through an analogous absence, with all the anticipations around the action and presence of the 'participant' that implies.

Acconci Studio: architectural operations on a place

For the Acconci Studio, then, architecture takes forward precisely this gesture. In particular, Acconci's proposals and built projects envisage spaces that reveal their contingencies in the way they shape and regulate their own occupation and use. Acconci Studio's practice also poses the question of where architecture begins and is articulated, returning to Acconci's long-standing focus on the nature of ruled space. In this context, Sanford Kwinter reports that '[t]he public

realm, Acconci has proclaimed, is not actually a place, but a mode' (Kwinter 2001: 53). Architecture begins, in this sense, in the relationship between the body and public (regulated) space, in which context the pedestrian becomes the agent of architecture's realisation and potential subversion. To this end, Acconci Studio's designs emphasise the dynamics through which space is defined – provoking an awareness of the performance of spatial practices – over and above the assertion of formal closure. In 'Some Grounds for Art as a Political Model' of 1981, prior to establishing his architectural practice, Acconci states:

If the space presented is complete, what's left for the viewer is to relive the space – this is the domain of fiction, the impulse is preservation (conservative); if the space presented is not yet complete, what's left for the viewer is to try out the space, attempt the space – this is the domain of essay, the impulse is change (radical).

(Acconci in Sobel 2001: 18)

Architecture whose spaces are 'not yet complete' is an architecture creating conditions for performance: for its realisation in a spatial practice – and one that might know itself. In turn, this aim shapes Acconci's approach to built form, which emerges as *interventions into* a site rather than the resolution and completion of a place. In his lecture 'Into and Through and Out of Architecture' at Harvard in 2011, Acconci thus noted the tendency of the Studio

to think in terms of what we call operations that are made on a site – on a situation. This possibly comes at least partially out of my background in activity and performance. Our tendency is to make places that aren't so much nodes and stopping places but are more activity places.

(Acconci 2011)

Here, too, Acconci describes the nature of these 'operations': 'Operation number four – continuous surface, endless space'; 'Operation number seven: split, separate, strips and strands'; 'Operation number eight: folding, enfolding, embedding' (Acconci 2011). Acconci's spatial turns emphasize inversions and reversals, tropes that tend to call the effect of form into question and aim to de-limit experience. Thus, 'Operation number eighteen: an architecture of air' (Acconci 2011).

In his built projects, these operations have characteristically alluded to the Möbius Strip or Klein Bottle – topologies of inversion and exchange where the inside of one form, when walked, reveals itself as the exterior of another. *Möbius Bench* (2000–01) built for Fukuroi City, Japan, thus plays out the property of a Möbius Strip, whereby '[o]utside the circle, the back of the seat twists to become the seat itself, which twists to become the bottom of the seat . . . You sit and shift from outside to inside and vice versa' (Acconci Studio 2014). These tropes were elaborated further in *Möbius Bench II* (2003, Pasadena) and the Studio's award winning *Klein Bottle Playground* (2014, Miami) (Figure 20.2) that is constructed in an extension of the Möbius Strip such that 'there is no identifiable inside and outside – one surface flows continuously into the other' (Acconci Studio 2014). These forms articulate not only the production of space but continually deflect attention toward *use*, toward interaction and transformation in time: toward dynamic relationships between phenomenal bodies provoked by the built form. Indeed, each of these forms suggests a lack of stability revealed in their enactment at any given point and articulates the dependency of one order of space (for example, 'inside') upon another (as one moves, 'inside' is revealed as 'outside'). Acconci has formulated this approach in terms of the construction of topological space rather than the design of forms, noting in 2008 that:

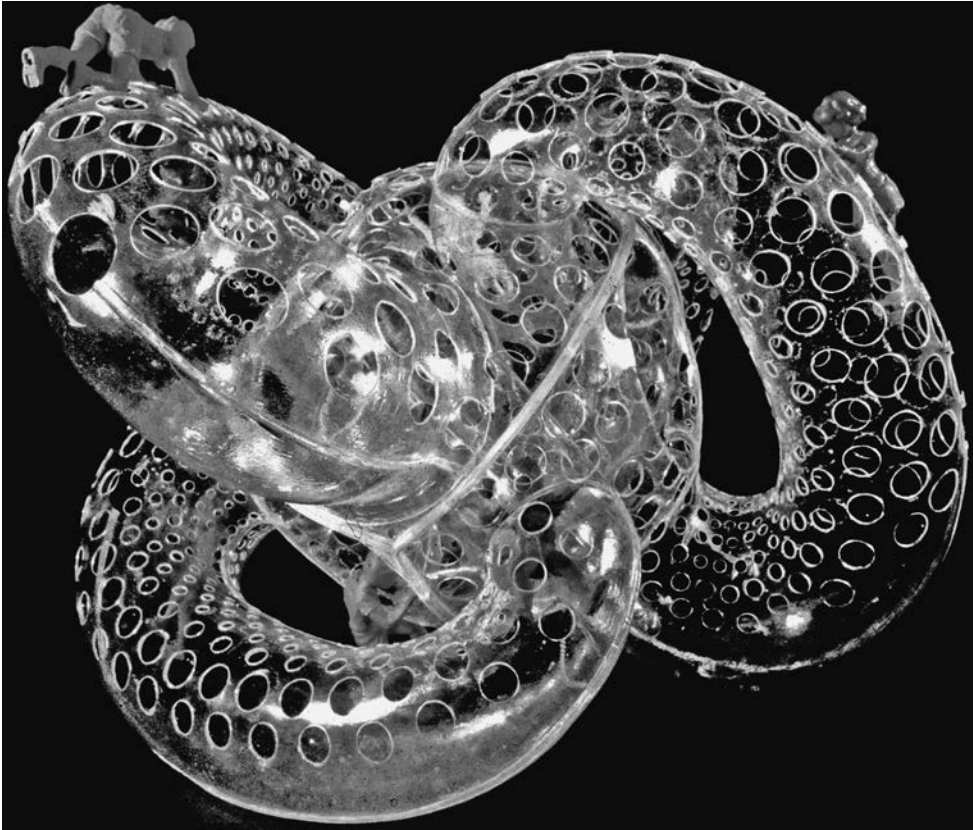


Figure 20.2 Acconci Studio (V.A., Dario Nunez, Peter Dorsey, Sergio Prego, Kyle Steinfeld)
KLEIN-BOTTLE PLAYGROUND 2000 Molded polycarbonate; 4m x 4m x 6m.

The playground is a bottle with four necks: a sphere that bulges out into four tubes. Each tube loops back on itself and penetrates the shell of the sphere; each tube squeezes against the other and crosses through the sphere, where it flares out to merge with the inside of the shell – as it merges, it makes an opening into the sphere.

The continuous surface is molded polycarbonate; it's transparent and, mostly, perforated; the holes make the sphere and its tubes climbable, outside and inside.

When you enter an opening, you're inside one neck of the bottle. Where there are no perforations on the bottom of the tube, you can slide down the surface. You climb, you slide, through the neck of the bottle as it passes from inside the bottle to outside and then enters inside again. You emerge inside the bottle now, but outside the necks of the bottle; you squeeze between tubes and sphere – you step, you climb, between the interior surface of the bottle and the exterior surface of the necks of the bottle.

From the inside now, you crawl into one neck of the bottle again; you climb and slide through the tube as it shoots out of the sphere and then circles back and comes in again, and passes through the sphere again, and now you're outside in the open air.

topology is much more on the mind of the Studio than it ever was when I was using the term ‘power field’ . . . now we consciously think of it, consciously think of continuous surfaces, a never-ending surface. And why – because if a space is malleable well then maybe there’s not so much an inside and an outside.

(Acconci 2008)

At stake here, too, is the relationship and politics between public (civic, external) space and private (personal, psychological) space. By way of example, Acconci describes topological space in terms of action and transformation:

a convincing description of what a topological space was . . . if you set an ant down on either the supposed inside or outside of this space the ant without flying, without being lifted off, goes from inside to outside without getting off its surface . . . as soon as there is not such a clear distinction between inside and outside then there is not such a clear distinction between public and private and there’s more up for grabs.

(Acconci 2008)

Significantly, these forms also echo key themes and mechanisms within site-specific art: the ‘topological space’ describes ‘place’ as subject to time and action, and so to use; relationships between ‘inside’ and ‘outside’ and boundaries between architecture and the contingencies of site are challenged; form gives way to phenomena. To this end, Acconci Studio’s projects also characteristically perform an operation on a site by extending and reversing or inverting – formally and in function – an existing form. Thus for *Roof like a liquid flung over a plaza* at the Cano Centre for the Performing Arts, Memphis 2004 (Figure 20.3), the Studio intervened into the reception of the architectural canopy that had provided the primary experience of the space. Acconci Studio describe the operation of this design:

The roof is pulled down to make columns and up to make a funnel: sunlight shoots down across the plaza, like the spotlights on-stage inside. At the bottom of the columns, the structure folds to make seats, outside and inside: the roof is mirrored above and below – inside the column you sit inside a room of sky.

(Acconci Studio 2014)

Roof like a liquid flung over a plaza effects a series of spatial inversions, recombining and permutating public and private spaces that reform an extant architecture. The roof of the building is drawn down to the street in one continuous action in such a way that pedestrian users find themselves in seemingly private spaces simultaneously perceived as public. In this moment, visitors find themselves paradoxically implicated in the determination of this site’s meanings – and so of the civic space it is creating.

In these various strategies, Acconci’s forms press toward a lack of resolution as the topological space emphasises change and transformation over the articulation of fixed and stable forms and perspectives. Indeed, topological space is not revealed from any fixed point, but in the transformation of surface, and so in its use: in its performance by the pedestrian over time. In this context, stillness – the fixed point – and even the form itself – provides for phenomena of absence or lack: of an architecture that can be realised and represented, like site itself, only *in motion*. This is a dimension of Acconci’s architecture that can be associated, as Kwinter points out, with ‘a performance and practice of the *hinge* . . . a promiscuous and articulated fold’ in which ‘the continuity between inside and outside, public and private, is enacted or performed’

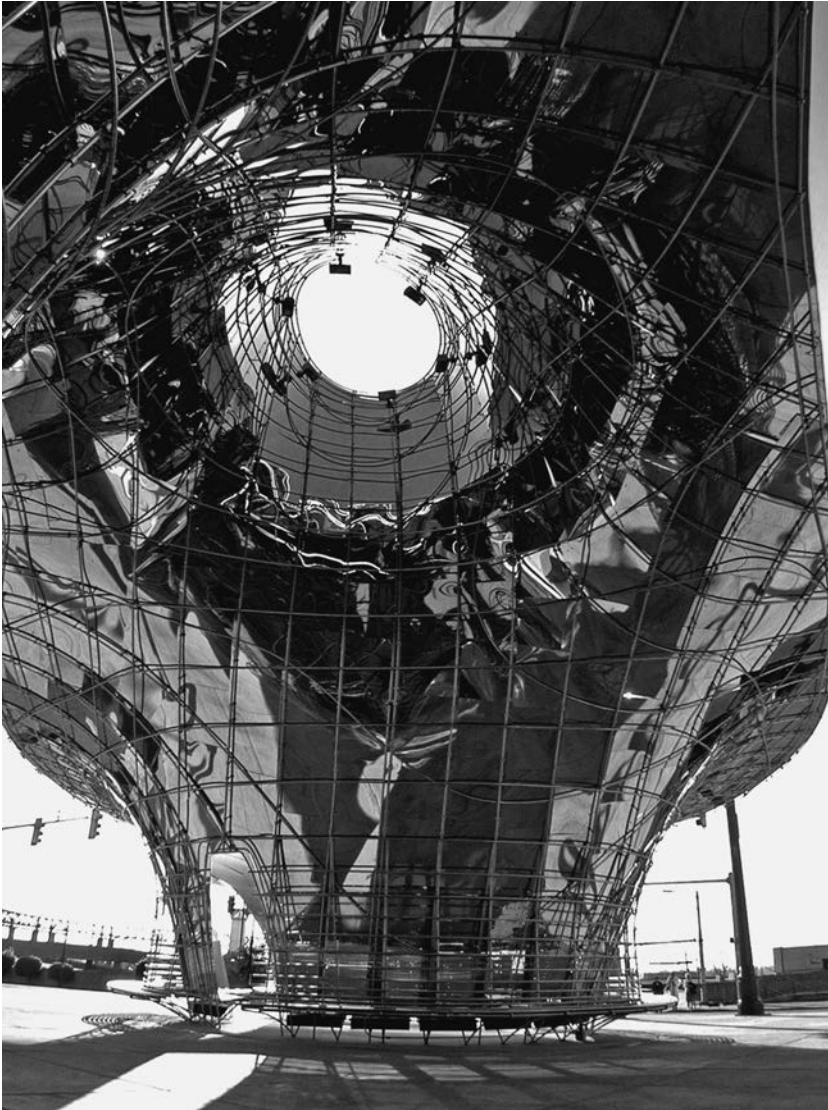


Figure 20.3 Acconci Studio (V.A., Peter Dorsey, Stephen Roe, Dario Nunez, Gia Wolff) *ROOF LIKE A LIQUID FLUNG OVER THE PLAZA*, Cannon Center For The Performing Arts, Memphis 2004 Mirrored stainless-steel, fluorescent light; 4,784 sq. ft. Photos: Chip Pankey.

The roof that sweeps out from the building is pulled down to make columns & up to make a funnel: sunlight shoots down across the plaza, like spotlights on-stage inside. At the bottom of the columns, the structure folds to make seats, outside & inside: the roof is mirrored, above & below – inside the column, you sit inside a room of sky . . .

(Kwinter 2001: 48, original emphasis). The ‘hinge’ is a figure Jacques Derrida identified with a dissonant moment, an articulation of “‘a single word for designating difference and articulation . . . This word is *brisure* [joint, break] – broken, cracked, part. Cf. breach, crack, fracture, fault, split. Fragment . . . The hinge, the *brisure* [folding joint] of a shutter. DF. Joint.” – Roger Laporte (letter)’ (Derrida 1976: 65). The hinge implies a moment or act that is neither ‘here nor there’ but operates and is produced as the *joint* on which mutually exclusive spaces or terms nevertheless depend, leading to an emphasis on threshold or transition, rather than difference or opposition. Significantly, it is this *brisure* – as the inside becomes the outside, or the private becomes the public – that is the fulcrum of Acconci’s architectural practice, and where action comes to be lodged and articulated – between action and form, between time and spatial experience, in transition and *performance*. Indeed, Acconci reads the relationship between public and private space itself as subject to the same reversal and inversion:

Setting up a public space means setting aside a public space. Public space is a place in the middle of the city, but isolated from the city. Public space is the piazza, an open space



Figure 20.4 Acconci Studio (V.A., Dario Nunez, Celia Imrey. Saija Singer, Luis Vera, Sergio Prego) *COURTYARD IN THE WIND*, Buildings Department Administration Building, Munich 2000 Pavement, grass, trees, steel, motors; 61m x 95m x 105m.

Propped up on the tower is a wind-wheel, a wind turbine: down below, inside the courtyard, a ring is cut out of the landscape – under the ring is a turntable powered by the electricity that the wind turbine generates – the ring of landscape is always moving, slowly, slowly . . .

separated from the closure of alleys and dead ends; public space is the piazza, a space in the light, away from the plots and conspiracies in dark smoky rooms.

The space that is made public began as its own opposite. This was a space that was never meant to be public at all: a royal space, or a presidential space, or a corporate space. (Acconci 1992)

It is in this dynamic, too, that Acconci locates his ambitions for an architecture that rests on performance:

we've never done I think what architecture really has to eventually do, which is give people the occasion to make their own space. Because until then, then architecture's always kind of totalitarian activity. And giving people choices isn't really enough – because it's almost a kind of supermarket freedom: people can do anything they want as long as we have set up the possibility of doing those things. But what if people want to do something else? And I think that's what we – and most of the architects we are interested in – really seem to want to get at.

(Acconci 2008)

Where Acconci Studio's built projects such as *Mur Island* (2003, Graz), *Wave-A-Wall* (2006, Coney Island) and *Down For Us Is Up* (2012, New York) exemplify topological space, for *Courtyard in the Wind* (2000, Munich) (Figure 20.4) Acconci transposed these relationships toward a mutable architecture that gave physical expression to spatial permutation and transition. Here, architecture became an active agent in the transformation of public and private spaces in time, while participating explicitly in the performance of different orders of space. Emphasising the 'importance of change: we wanted to make a plaza that would never be the same' (Acconci 2011) *Courtyard in the Wind* embeds a continuous process of change and recombination into the functioning of architectural form and its articulation of variable relationships between landscape and time. Here, then, a wind turbine from a rooftop overlooks a courtyard where a ring defines and cuts into the public space. When the wind turbine is activated, the ring very slowly turns gradually transforming the plaza, which participates with the user in its own permutation. Acconci accounts for the consequences of this continuous change as follows:

From the edges of the courtyard, you see the landscape in the centre change slowly, right in front of your eyes: you know the tree is 'here' – you look again, and now it's 'there.' Where you stand, you know where you are: the ground is stable, you're sure of your ground. As you walk across the lawn, toward the centre, you feel the earth move – slowly, softly – under your feet; you're moved as you move, you're not walking in a straight line. You walk from the outer ring to the middle ring, and the ground you stand on is still again, while the ground moves in front of you and behind you. You come to the centre, and the centre is not a still point; as the world turns, you're turned – as you keep still, you survey the courtyard around you, on every side of you.

(Acconci 2003: 24)

Performance architecture and the phenomenal body

Where Acconci Studio permuted performance and site-specificity through architecture into interrogations of public and private spaces in the city, 'performance architecture' finds its most recent expression in the production and reading of spaces as 'sensed': as the orchestration of



Figure 20.5 Installation photo from; *Sensing Spaces: Architecture Reimagined* 25 Jan–6 April 2014. Royal Academy of Arts, Main Galleries. Installation by Eduardo Souto de Moura. Photo © Royal Academy of Arts. Photography: James Harris/© Eduardo Souto de Moura

the phenomenal body in overtly architectural space. In 2014, the Royal Academy in London presented *Sensing Spaces: Architecture Reimagined*, an exhibition of large-scale architectural interventions by Kengo Kuma, Grafton Architects, Li Xiaodong, Diébédo Francis Kéré and Álvaro Siza in the principal spaces of the Academy's home, the Palladian mansion Burlington House. In many ways the work brought together in *Sensing Spaces* carries forward a memory of performance architecture's roots in the phenomenological turn in object-based art that minimalism exemplified – and to which Acconci responded with acts of performance. These installations also operate explicitly in disrupting the order of a given space, intervening, here, into the Academy's spacious, visually rich and allusive rooms. Thus, Eduardo Souto de Moura intervenes into the passage from one hall to another (Figure 20.5), doubling the arches that form the threshold between spaces. As one passes through the installation, the mirroring effect of Souto de Moura's doubled archway forces a bodily self-consciousness in passage and transition, and so an acute moment and retrospective awareness of the constructed nature of spatial sense. In contrast, Grafton Architects produced monumental constructions installed to lower, in relative darkness, the height of one of the House's principal spaces to produce a tactile sense of dramatic weight surrounding the body, forcing a reconsideration of the visitors' negotiation of felt space and social interaction. In each of these large, extensive and temporary constructions, and in the passages between them, there is no doubt that architecture culminates in its performance and that the sensed body is in symbiosis with built form. Vito Acconci's work, and that of Acconci Studio, articulates connections between architecture and performance that link the turn in conceptual and performance art of the late 1960s towards contemporary architecture's emphasis on the phenomenal body. This work tells us that architecture reproduces and orders the body. Performance architecture seeks to speak back to that regulation, contesting and re-articulating the phenomenal order of the social and civic space.

References

- Acconci, V. (1978) *Vito Acconci*. Luzern: Kunstmuseum, Luzern.
- Acconci, V. (1982) Recorded documentation by Vito Acconci of the exhibition and commissioning for San Diego State University. San Diego, CA: San Diego State University (audio tape).
- Acconci, V. (1992) *Public Space in a Private Time*. Vienna: Galerie Hubert Winter.
- Acconci, V. (2003) *Courtyard in the Wind*. New York: Distributed Art Publishers.
- Acconci, V. (2004) *Vito Hannibal Acconci*. Barcelona: Museu D'Art Contemporani de Barcelona.
- Acconci, V. (2008) *Vito Acconci in Conversation at the Acconci Studio*. DVD. Philadelphia: Slought Foundation for Contemporary Art.
- Acconci, V. (2011) *Vito Acconci: Into and Through and Out of Landscape* [online]. Available from: www.youtube.com/watch?v=ndUbwL7s8pQ. Accessed 30 November 2014.
- Acconci, V. (2012) *SHOWstudio: In Your Face: Interview, Vito Acconci* [online]. Available from: www.youtube.com/watch?v=8QEzFDXW8YY. Accessed 30 November 2014.
- Acconci, V. (2014) *Blinks* [online]. Available from: <http://aleph-arts.org/art/lsa/lsa39/eng/1969.htm>. Accessed 30 November 2014.
- Acconci Studio (2014) [online]. Available from: <http://acconci.com>. Accessed: 30 November 2014.
- Austin, J. L. (1975) *How to Do Things with Words*. 2nd revised edition, Cambridge, MA: Harvard University Press.
- Béar, L. and Sharp, W. (1996) 'Discussions with Heizer, Oppenheim, Smithson'. In: J. Flam, ed. *Robert Smithson: The Collected Writings*. Berkeley, CA: University of California Press, 242–252.
- Butler, J. (2006) *Gender Trouble: Feminism and the Subversion of Identity*. London: Routledge.
- Cook, P. (1999) *Archigram*. Princeton, NJ: Princeton Architectural Press.
- Derrida, J. (1976) *Of Grammatology*. Baltimore, MD and London: Johns Hopkins University Press.
- Eisenman, P. (1986) *Moving Arrows, Eros and Other Errors: An Architecture of Absence*. London: Architectural Association.

- Giannachi, G., Kaye, N. and Shanks, M., eds. (2012) *Archaeologies of Presence: Art, Performance and the Persistence of Being*. London and New York: Routledge.
- Gratza, A. (2013) 'The Evolution of Performance Architecture' [online]. *Frieze* 157, September. Available from: www.frieze.com/issue/article/open-house/. Accessed 30 November 2014.
- Jameson, F. (1991) *Postmodernism, or, The Cultural Logic of Late Capitalism*. London: Verso.
- Kaye, N. (1996) *Art into Theatre: Performance Interviews and Documents*. London: Routledge.
- Kaye, N. (2000) *Site-specific Art: Performance, Place and Documentation*. London and New York: Routledge.
- Kwinter, S. (2001) 'Saint Architect of Sodom'. In: D. Sobel and M. Andera, eds. *Vito Acconci Studio Acts of Architecture*. Milwaukee, WI: Milwaukee Art Museum, 43–56.
- Kwon, M. (2004) *One Place After Another: Site-Specific Art and Locational Identity*. Cambridge, MA: MIT Press.
- Lippard, L. R. (ed.) (1973) *Six Years: The Dematerialisation of the Art Object 1966 to 1972*. New York: Praeger.
- Lippard, L. R. and Smithson, R. (1996) 'Fragments of an Interview with P. A. [Patsy] Norvell'. In: J. Flam, ed. *Robert Smithson: The Collected Writings*. Berkeley, CA: University of California Press, 192–195.
- McShine, K. (1970) *Information*. New York: Museum of Modern Art.
- Marioni, T. (2000) *Writings on Art 1969–1999*. San Francisco CA: Crown Point Press.
- Morris, R. (1997) Unpublished interview with Nick Kaye, 8 April.
- Pearson, M. (2010) *Site-Specific Performance*. Basingstoke: Palgrave MacMillan.
- Pearson, M. J. and Shanks, M. (2001) *Theatre Archaeology*. London: Routledge.
- Schneider, R. (2012) 'Performance Remains Again.' In: G. Giannachi, N. Kaye and M. Shanks, eds. *Archaeologies of Presence: Art, Performance and the Persistence of Being*. London: Routledge, 64–81.
- Scott, F. D., ed. (2008) *Living Archive 7: Ant Farm. Allegorical Time Warp: The Media Fallout of July 21, 1969*. Barcelona: Actar.
- Shanks, M. (1998) 'The Life of an Artefact' [online]. Available from: <http://documents.stanford.edu/michaelshanks/229?view=print>. Accessed 30 November 2014.
- Smithson, R. (1996) 'The Spiral Jetty'. In: J. Flam, ed. *Robert Smithson: The Collected Writings*. Berkeley, CA: University of California Press, 143–153.
- Smithson, R. and Wheeler, D. (1996) 'Four Conversations between Dennis Wheeler and Robert Smithson'. In: J. Flam, ed. *Robert Smithson: The Collected Writings*. Berkeley, CA: University of California Press, 196–233.
- Sobel, D. (2001) 'From Thought to Monument'. In: D. Sobel and M. Andera, eds. *Vito Acconci Studio Acts of Architecture*. Milwaukee, WI: Milwaukee Art Museum, 15–42.
- Superstudio (2012 [1969]) 'Superstudio: projects and thoughts' [online]. *Domus*. Available from: www.domusweb.it/en/from-the-archive/2012/02/11/superstudio-projects-and-thoughts.html. Accessed 30 November 2014.
- Tschumi, B. (1987) *Cinegram Folie Le Parc De La Villette*. Princeton, NJ: Princeton Architectural Press.
- Tschumi, B. (1994) *Architecture and Disjunction*. Cambridge, MA: MIT Press.

Reframing the ziggurat

Looking at (and from) ancient Mesopotamian temple towers

Augusta McMahon

Monumental architecture is often used as an index of past social complexity and is interpreted as a symbol of past power. But a symbol must be seen in order to be read, and the visibility and settings of monumental buildings, whether these settings are designed or informal, too frequently remain unexplored. The world's first urban culture originated in Mesopotamia (modern Iraq and northeast Syria) and was characterised by monumental architecture. However, the combination of easily eroded mud-brick construction material and the reuse of the same building locations over millennia has made past urban landscapes in this region difficult to reconstruct. Studies of Mesopotamian monumental architecture thus tend to focus on the functional features of single building plans viewed in isolation. Nevertheless, the most distinctive buildings of ancient Mesopotamia, the stepped temple towers or 'ziggurats', offer the opportunity to explore aspects of visibility within and beyond the city and may provide useful analogies for built landscapes elsewhere.

Ziggurats are the iconic buildings of Mesopotamia, a unique artefact of this culture. Ziggurats (from Akkadian *zāqānu*, 'to project, to build high') were excessive, far larger than was needed for their simple task of supporting a small single-room shrine. Their veneers, incorporating thousands of baked mud-bricks, were expensive and opulent in this land of limited fuel for brick firing. As monumental architecture, their messages about power and ideology can be easily read across the millennia (Smith 2011, Trigger 1990). As royally commissioned buildings, they reflected kings' ability to access resources and to control labour and further legitimised their authority. However, their functions were multivalent. As houses of the gods, set between earth and sky, they were places where the divine and human worlds intersected. Ziggurats were 'communal', in that each served the full community of the city in which it was placed and the inhabitants of attached rural settlements. But ziggurats were restricted in access, to priests, royalty, and other elites.

After the political collapse of Mesopotamia in the first millennium BC, ruined ziggurats drew the attention of travellers through the region, from Herodotus to explorers of the 1700s–1900s (Parrot 1949; Schmid 1995). Like the Egyptian pyramids, ziggurats represented exotic architecture unparalleled in the West, while their ruined and abandoned state supported Western

ideas of chaos and civilisation's decline. Most studies of ziggurats are descriptive (Heinrich 1982; Koldewey 1911; Wetzel and Weissbach 1967; Woolley 1939) or assess construction techniques and investment in materials and labour (Sauvage 1998). Alternatively, the simple power statement of ziggurats is often referenced (Heinz 2013; Pollock 1999; Stone and Zimansky 1995). But these foci on materials and power leave a gap between the empirical and the ideological: the gap of lived experience.

Ancient Mesopotamia was rife with awkward spaces: villages perched on older mounds many metres above the plains, highly visible in the landscape but necessitating exhausting climbs; palaces and temples that proclaimed power by embracing such massive scale that they made everyday use inefficient; or open courtyards that awed the eye but were overheated wind-traps. Were ziggurats so 'mediated' that their symbolic messages were more important than their use? If architecture and settlement landscapes are reflexively integrated with actions, formed by specific activities and formulated to remind users of expected behaviours (Rapoport 1990), what were the past activities and behaviours near and on the ziggurats? And if architecture guides movement or gaze (Lefebvre 1991), what kinds of looking did ziggurats generate? What was the lived experience of those who encountered the ziggurat in the past, whether to look at it, walk around it, or ascend its height? This chapter explores the visuality of Mesopotamian ziggurats and their participation within past urban landscapes.

What and where were the ziggurats?

Ziggurats were formed of super-imposed solid platforms of descending size, with a final upper shrine reached by an external staircase on one side, either single or in three converging sections (Figure 21.1). Their cores were sun-dried mud-brick and/or rubble, with a veneer of fired mud-bricks.¹ The façade of each stage normally had low, widely spaced buttresses that created lines of shadow but were not structural. The earliest known ziggurats were built in the late third millennium BC (Ur III Period, 2112–2004 BC); these had three or four platforms or stages, while first millennium BC examples had as many as seven stages. Damage wrought by later constructions and millennia of erosion means that upper stages are rarely well preserved, and this information gap has given rise to a range of reconstructions of their final form (Parrot 1949; Schmid 1995; Woolley 1939).

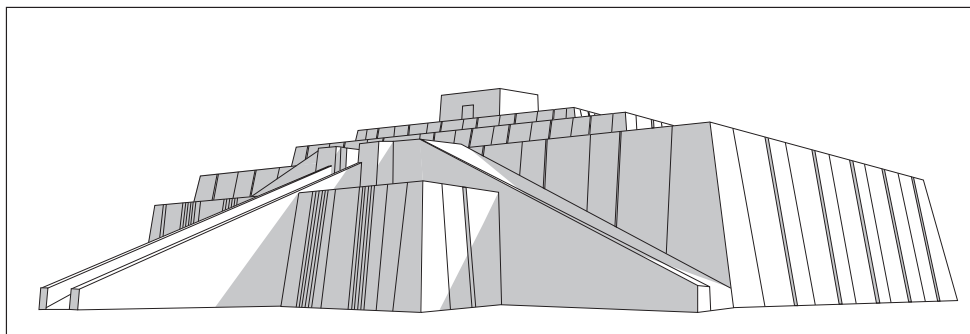


Figure 21.1 Schematic reconstruction of the third millennium BC ziggurat at Ur, South Iraq

Source: Augusta McMahon

Ziggurats originated in the religious architecture of the late prehistoric Ubaid and Uruk Periods, *c.* 6000–3000 BC (Busink 1949; Heinrich 1982; Lenzen 1941; Schmid 1995). The superimposed sequence of temples at Eridu in South Iraq (Safar *et al.* 1981) clearly shows that the ziggurat was a logical outcome of conservative building traditions. Once a particular location was used for a shrine, it tended to remain religious in function, and mud-brick architecture needs frequent renewal. Therefore, by *c.* 4500 BC, the Eridu temple already stood on a low platform formed from earlier iterations of the same temple that had been flattened and reused as foundations. This platform was expanded horizontally and extended vertically across the fourth and third millennia BC until it was suddenly elaborated into a stepped tower within an expanded courtyard late in the third millennium BC.² Eridu is simply the best example of a process repeated at many Mesopotamian sites. The earliest true ziggurats were commissioned by the Ur III dynasty king Ur-Nammu (2112–2095 BC) and finished by his son, Shulgi. In addition to Eridu, other Ur III ziggurat complexes are at Ur itself, nearby Uruk, and Nippur in the centre of the alluvial plains. These first ziggurats were repaired during the second and first millennia BC and were joined by further ziggurats in cities across southern Mesopotamia, plus some sites in the north (Figure 21.2 and Table 21.1). Ziggurats appeared across all of southern Mesopotamia (Sumer and Akkad, or Babylonia), but in the north they were restricted to the

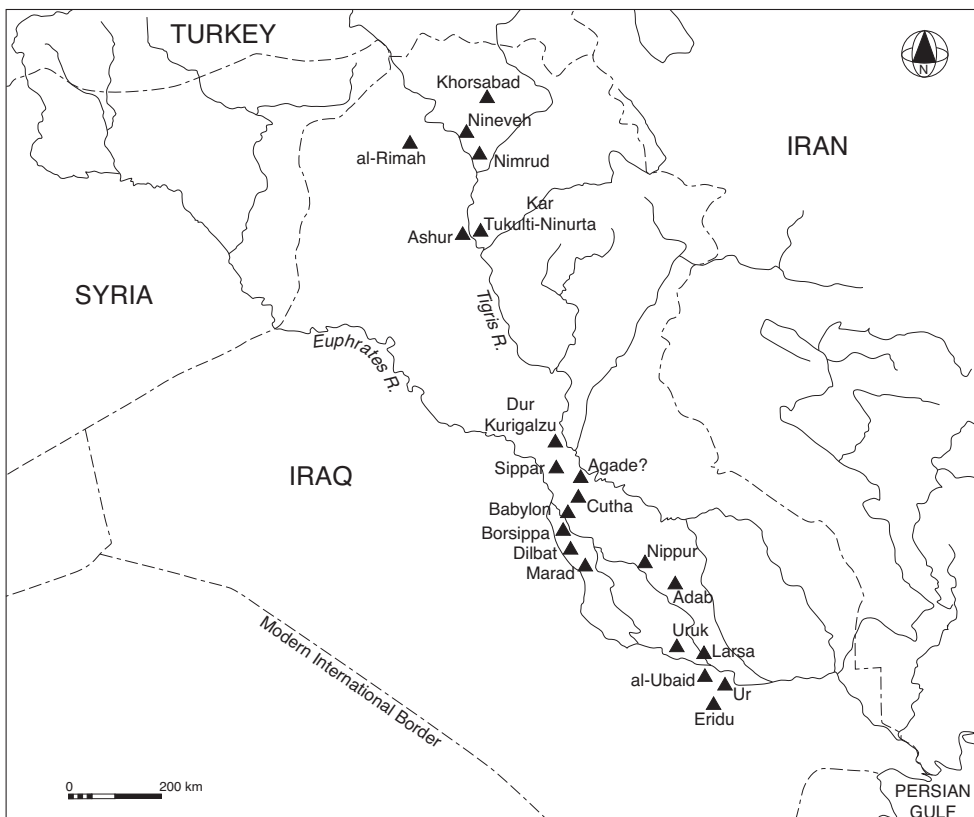


Figure 21.2 Map of Mesopotamia with ziggurat locations

Source: Augusta McMahon

Table 21.1 Features of Mesopotamian ziggurats, from south to north

<i>Site</i>	<i>Stair orientation</i>	<i>Base size (approx.)</i>	<i>Height (as preserved)</i>	<i>Notes</i>	<i>Date range, BC</i>
Eridu	SE	61.8 × 46.5 m	9.5+ m		late 3rd mill
Ur	NE	62.5 × 43 m	20–25 m		late 3rd–1st mill
al-Ubaid	SE	35 × 33 m	i 5–6 m		late 3rd mill
Larsa	NE?	45 × 45 m	c. 18 m		late 3rd–1st mill
Uruk Eanna	NE	56 × 52 m	14 m		late 3rd–1st mill
Adab	SE?	20 × 20 m	11–13 m	Platform only?	late 3rd mill
Nippur	SE	57 × 39.5 m	9 m		late 3rd–1st mill
Marad	–	–	–	Textual evidence only	late 3rd–1st mill
Dilbat	–	–	–	Textual evidence only	1st mill
Borsippa	NE?	55 × 60 m	47+ m		late 3rd–1st mill
Babylon	SSE	90 × 90 m	66 m		1st mill
Kish Uhaimir	–	59 × 63 m	19.5 m		2nd–1st mill?
Cutha	–	–	–	Textual evidence only	1st mill
Agade	–	–	–	Textual evidence only	1st mill
Sippar	SE	41 × 41 m	–		1st mill
Dur-Kurigalzu	SE	69 × 69 m	69 m?		mid 2nd mill
Ashur Anu and Adad	SE	35 × 35 m each	–		2nd–1st mill
Ashur, Assur	SE	61 × 62 m	c. 20 m		2nd–1st mill
Kar Tukulti-Ninurta	ENE	34 × 34 m	c. 8 m		mid 2nd mill
Nimrud	E?	65 × 65 m	43 m		1st mill
Nineveh	–	–	–	Textual evidence only	1st mill
Khorsabad	?	43 × 43 m	–		1st mill
Tell al Rimah	ESE	31 × 24.5 m	c. 23 m		2nd mill

core of Assyria. The Ur III kings aimed to create a unified nation-state out of a disparate scatter of long-established independent city-states, and they perhaps hoped to create a national symbol in inventing the ziggurat.³ It combined elements of traditional architecture (mud-bricks, buttressing, temple platform) with an innovative and impressive form; it referenced and connected to a successful, enduring past while suggesting a new, dynamic future.

Ziggurats were standardised in form, but their construction differed slightly from site to site and over time. Some had an unstructured rubble core (Ur), while others were entirely laid brick (Dur Kurigalzu). Some ziggurats had layers of levelling reed mats (Dur-Kurigalzu, Uruk), but others omitted this feature (Nippur, Ur). First millennium BC ziggurats were often square in plan, versus rectangles of the third millennium BC. Northern ziggurats may have had winding stairs against their sides rather than the abutting staircases in the south. Northern ziggurats were also steeper than those of the south. The topography of the southern Mesopotamian plains is so flat and featureless that any man-made structure need not be particularly tall in order to be potentially highly visible. Meanwhile, Assyria's rolling hills, deeper river valleys and distant

mountains mean that any man-made structure needed greater scale, particularly vertical, to achieve the same visibility. However, it must be noted that ziggurats did not stand in isolation. In northern Mesopotamia, they were attached to temple buildings on one side. In southern Mesopotamia, they were invariably surrounded by completely walled courtyards and associated ground-level structures, including additional shrines, treasuries, administrative offices, kitchens and offering tables (Figures 21.3, 21.4), all of which would have restricted viewing (see below). This chapter focuses on the original southern Mesopotamian ziggurats.

Ziggurat sizes did not reflect the city size: the late third millennium BC ziggurat at 50-hectare Ur was slightly bigger than its contemporary at 130-hectare Nippur. Although ziggurats were integrative structures that served the entire community, there was no attempt to make them accessible to the full city population or to suggest its scale.

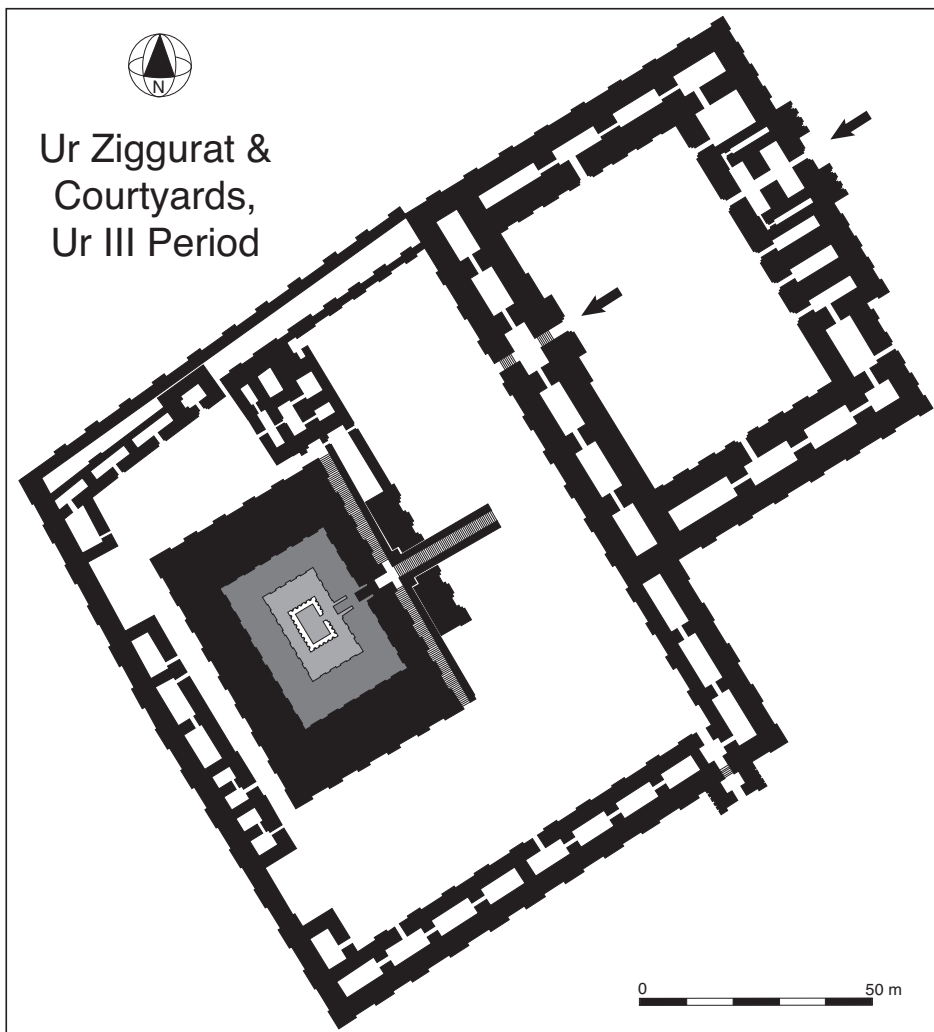


Figure 21.3 Ur ziggurat complex, late third millennium BC

Source: Augusta McMahon

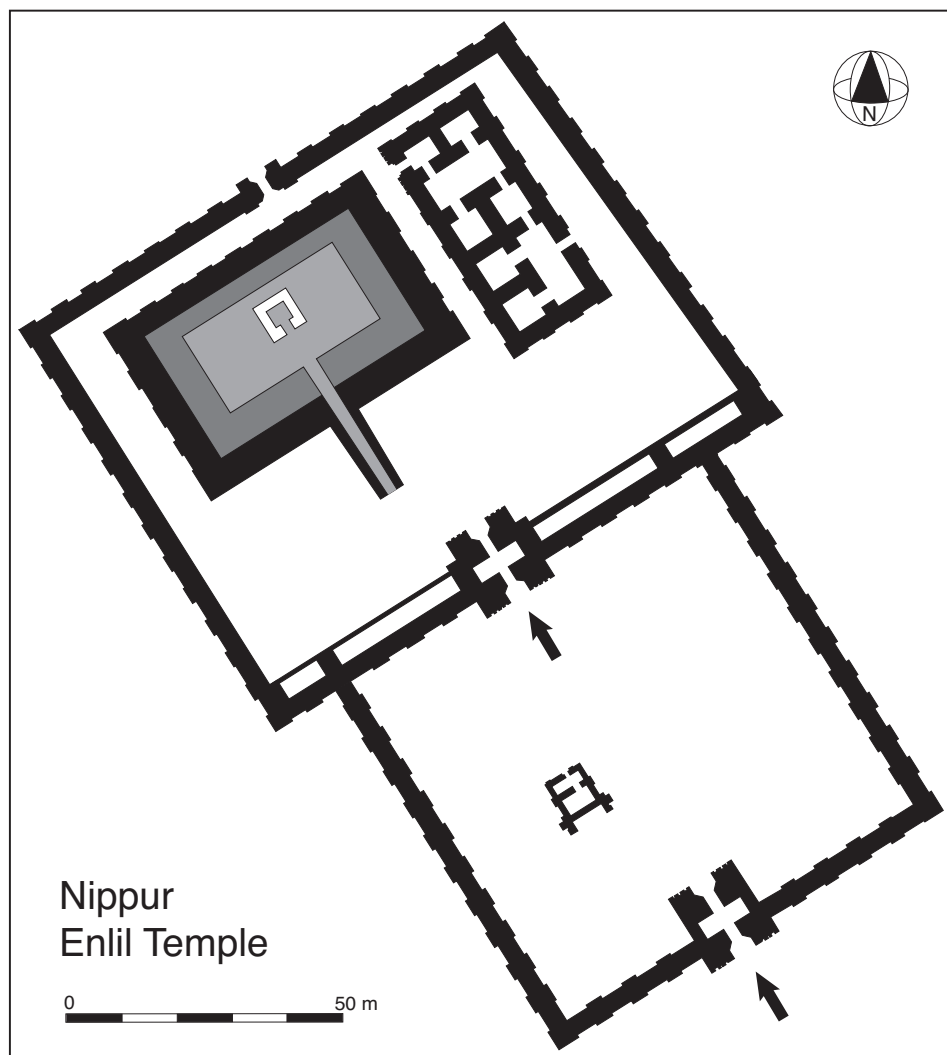


Figure 21.4 Nippur zigurat complex, third–first millennia BC

Source: Augusta McMahon

Ziggurats and urban planning

Ziggurats were urban structures, restricted to cities rather than towns or villages.⁴ Since ziggurats were usually built over earlier temples, they were located in the oldest part of any multi-period mounded settlement. Most ziggurats were therefore entirely surrounded by buildings and located well within the city, not at the city's edge.⁵ But they were rarely perfectly central to southern Mesopotamia's compact urban landscapes (Stone 1991), since settlements did not expand in regular ways. However, 'epicentres' (Smith 2009a), or core areas for performance and observation of rituals, need not be physically central.

Like many ancient cities, most Mesopotamian cities had informal, ‘organic’ layouts that were particularly flexible in areas of housing (Smith 2009b). This unplanned arrangement was not chaotic but had a dual logic, corresponding to the everyday actions and needs of its users, tempered by long-standing property ownership and inheritance (Baker 2014; Smith 2009b, 2011; Stone 1996). The shape and position of the ziggurat complexes were variable and may have reflected the organic development of each city as a whole, as houses and activity areas accumulated around the original shrine and traffic patterns were maintained or adjusted.

However, the ziggurat complexes were planned, to an extent. The stairs are invariably on the eastern side of the ziggurat (Table 21.1), suggesting a response to the rising sun, visual and/or ideological. A change in temple orientation has been identified for the Ur III Period, involving a shift so that morning light illuminated their facades and main gateways. This shift created a brightly lit space for legal judgements, reflecting the link between the Sun God and the concept of justice (Shepperson 2012). Further, the strong elements of symmetry, large formal courtyards, evenly buttressed walls, and massive gateways reveal master plans underpinning the ziggurat complexes.

Representing the ziggurat

Mesopotamia was literate and rich in figurative artworks, so we might expect emic representations of ziggurats that could suggest past experiences and impressions of these structures. But images of ziggurats are few and uncertain in identification, while textual mentions are oblique. In artworks, the most interesting aspect of possible ziggurat representations is their scale: often smaller than any human figures nearby and disconcerting for the modern Western viewer. However, in Mesopotamian art, importance was placed on recognisability, whether of buildings, people, or animals. It was crucial to represent the entire object and to draw out key features that aided readability of the image. If a building could be recognised as a type, the viewer would not need a reminder of its size. In addition, the small size of many artworks made visually proportionate representation of people and buildings together unworkable: each figure or structure effectively had a unique scale. And finally, Mesopotamian artists often made the most important element in any scene the largest; kings, deities or soldiers, and their actions, outranked any building that mainly provided the context for these actions.

This deliberate mixing of scales in Mesopotamian art makes it difficult to identify two-dimensional representations of ziggurats with certainty. For instance, tiered structures tentatively identified as ziggurats, flanked by human figures, are a feature of a group of mid–late third millennium BC cylinder seals (Figure 21.5A; Amiet 1980: Pls. 108–110, 112, 132; Hempelmann 2004: 111–120; Parrot 1949: Pl. II). A sub-set of these seals shows a ladder-like object at the side of the ‘ziggurat’ (Hempelmann 2004: Figs. 109, 110); this has been interpreted as a construction scene. In these seals, the humans are usually slightly larger than the tiered structures; these potentially mixed scales might in part be due to the exigencies of working on a canvas only a few centimetres high. But the ‘ziggurats’ often have curved tops or triangular forms and look more like haystacks than ziggurats; the seals also pre-date the earliest archaeologically known stepped towers by almost four centuries. They may instead be piles of grain, granaries or altars, all structures approximately the height of a person.⁶ Rectilinear, stepped structures reappear on cylinder and stamp seals in the later second–first millennia BC, some faced by a human figure with a hand raised in worship (Figure 21.5B; Hempelmann 2004: 115) or associated with ritual equipment (Roaf 1984: Pl. XIIi). Again, on these very small objects, the potential of mixed scales for human and structure makes their interpretation difficult: ziggurat or altar?

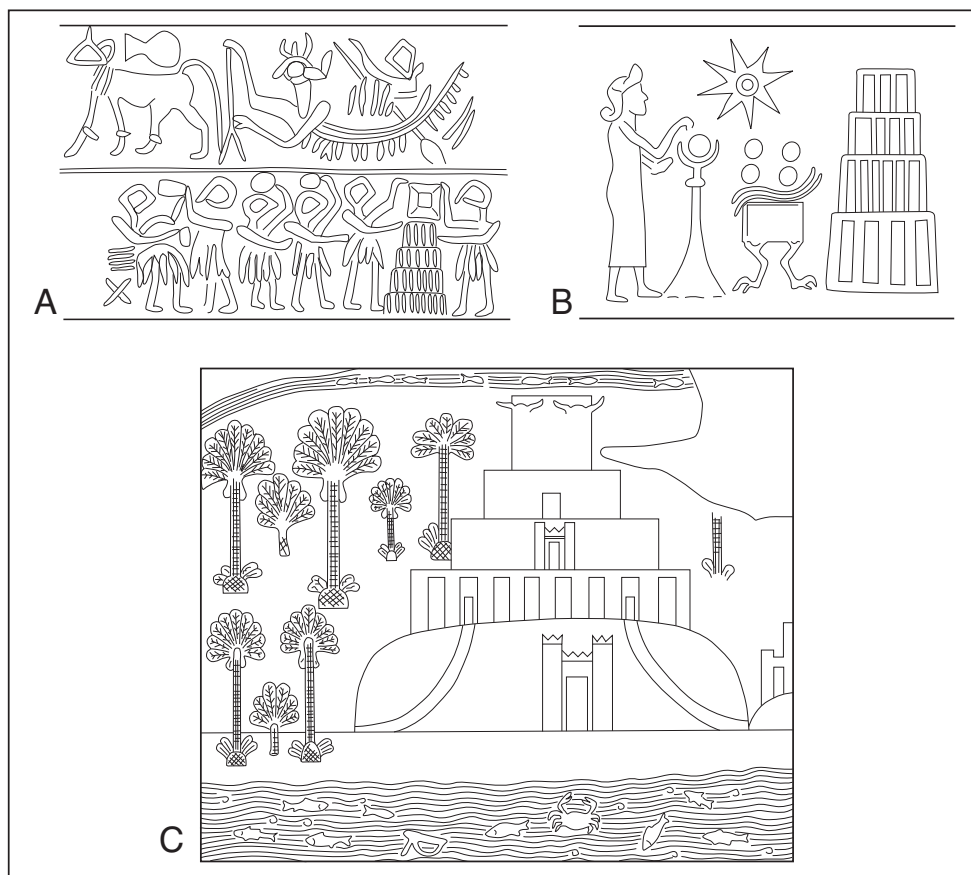


Figure 21.5 (A) A third millennium BC cylinder seal from Kish with possible ziggurat construction scene, lower right; (B) Mid-second millennium BC cylinder seal from Ashur with altar or possible ziggurat; (C) Neo-Assyrian relief from Nineveh with possible representation of ziggurat

Source: Drawn by the author, A after Hempelmann 2004:106, B after Dombart 1929: Abb. 5, C after Parrot 1949: Fig. II.

We are in a slightly stronger interpretive position with larger stone reliefs that presented narrative scenes and referred to specific places. A Neo-Assyrian palace relief from Nineveh (Figure 21.5C; Parrot 1949: Fig. 18) shows the front view of a three-stage structure with an upper shrine, built on a curved base that may represent an ancient settlement mound. Mixing of scales can be seen in the building, trees and fish (in the stream at the bottom of the scene); the inclusion of these natural setting elements suggests a building rather than an altar in this case. Neo-Assyrian reliefs are never reliable informants on proportions, since mixed scale was often used deliberately in reliefs depicting cities besieged by the Assyrian army. Cities were represented by a schematic elevation of their exterior walls, and Assyrian soldiers often dwarfed these walls. The message was the power of the Assyrian army. Mesopotamian art is a constant reminder that representational ‘accuracy’ is context-specific, not absolute (Witmore 2013).

Texts present different challenges. Religious texts refer to ziggurats using elaborate metaphor (Edzard 1987). Ziggurats and other parts of temple complexes had names, reflecting concepts of strength and order. For instance, the main temple in Babylon was É.TEMEN.AN.KI, ‘The house of the foundation of heaven and earth’; the Ur ziggurat was É.LUGAL.GALGA.SI.SA, ‘The house of the king who lets counsel flourish’ (George 1993). A more practical tablet from the later first millennium BC (the ‘E-Sagil Tablet’) gives dimensions of rooms, courtyards and other features of the main temple in Babylon (George 1992; Parrot 1949; Wiseman 1972). This included the seven stages of its ziggurat. But this record may have been an urban planning guide or an abstract mathematical exercise, and it gives no information about past responses to this building. A few other second and first millennium BC tablets present plans of ziggurats, seen from above, as six or seven concentric squares (James and van der Sluijs 2008; Rochberg 2012). Thus, one point of view of a literate Mesopotamian appears to have embraced a mathematical approach, rather than reflecting upon the visual impact of the structure.

Using the ziggurat

The ziggurat was a solid with no internal rooms; its use area was its stairs and upper shrine. The ziggurat at Ur had three stairs from the ground to the top of the lowest stage; other ziggurats had a single stair. The angle of southern Mesopotamian ziggurats is relatively low, *c.* 25 degrees, in contrast to the steep, dramatic ascents of, e.g. Mayan pyramids, at *c.* 35 degrees or more. The shallow staircases suggest welcome and an easy access for worshippers, but in fact only priests and kings were allowed to ascend and communicate with the god, while the average worshipper had access only to the ground level shrine and courtyard.

Thus, in one of its strongest visual aspects, the ziggurat presents a problem for our ability to find Rapoport’s ‘low-level meanings’ in the built environment (1990; Smith 2011). Low-level meanings link aspects of architecture to expected and appropriate behaviours. Welcoming shallow stairs are a simple and recognisable ‘affordance’ (Gibson 1977, 1979) that should suggest ascending, but for many observers, this would have been a readable cue that was nonetheless not allowed. That those in power could use the stairs, and could be seen to do so by the disenfranchised, falls into middle-level meanings and ‘architectural communication theory’ (Rapoport 1990; Smith 2011). The designers of the ziggurat perhaps aimed to deliver a reinforcing statement about status difference, particularly inclusion versus exclusion. But although the ziggurat could not be climbed, it could be seen.

Looking for the ziggurat

Visibility starts from fields of view and lines of sight, but beyond these physical principles, complex psychological aspects are engaged (Wheatley and Gillings 2000). It has been argued that high visibility is necessary for a building to be monumental and to effectively disseminate messages about social order (Letesson and Vansteenhuyse 2006). Ziggurats are often said to have been visible from a long distance over the flat southern Mesopotamian plains (Edzard 1987; Pollock 1999; Stone and Zimansky 1995; van de Mierop 1997; Winter 1991). They have also been called a ‘visual focus’ (Stone 1991: 237) and compared to mountains (Busink 1949; Edzard 1987, Frankfort 1970: 22). Indeed, the *c.* 25-metre height of the Ur ziggurat could have made it visible at long range, theoretically from up to *c.* 18 km away. However, in the heat haze, dust haze and frequent sandstorms of South Iraq, the ziggurat’s visibility from the plains would have been variable and often greatly reduced. In addition, river channels and irrigation canals flowed near or through Mesopotamian cities, and garden agriculture, particularly of date palms, would have

utilised the levees of these watercourses, adding further vision-obscuring elements.⁷ And viewed from outside the city, the ziggurat would have had a surrounding collar of its own complex, plus houses and other buildings. The full visibility of ziggurats from a distance today – from base to top – does not match the hazy and partial view in the past. A further, unanswerable, question is whether workers in the fields and inhabitants of outlying villages ever looked up and towards the city, to experience this view. This separation between perceived, or measurable, space and lived space (Lefebvre 1991) is challenging to bridge.

The next question is whether monumental architecture served as a focal point or organising feature at medium range. What was the viewer's experience or 'reception' (Smith 2011) of the ziggurat from within the city? Was the ziggurat even visible, or was it obscured by other buildings in the urban landscape? No Mesopotamian city has been excavated in its entirety, so all the possible lines of sight to any ziggurat are not known. But these cities were usually crowded and compact, without open spaces that would have provided the necessary extended sightlines. Houses were sometimes located near the outer wall of the ziggurat complex, integrating ziggurats with the city fabric but preventing unobstructed observations. Finally, ziggurat courtyard walls were high, further limiting possible views from within the city to the upper stages of the tower only.

At Ur, there are two excavated neighbourhoods of the early second millennium BC, at which time the late third millennium BC ziggurat had been repaired and rebuilt, while retaining the same footprint. Although there was not a continuous excavation from ziggurat to houses, large areas of houses were uncovered and suggestions about sightlines can be made. These two neighbourhoods (Areas AH and EM; Woolley and Mallowan 1976) are classic examples of the organic development of Mesopotamian cities. The narrow streets (max. *c.* 2 m wide) are irregular, and the houses were subdivided or merged as families and households expanded or contracted. None of the streets in either neighbourhood runs directly towards the ziggurat (Figure 21.6). Those few segments of streets and open spaces that are roughly oriented towards it are very short (maximum length in Area EM is *c.* 10 m, *c.* 7 m in Area AH). This limited open space, combined with the height of the houses at 2–5 m or more,⁸ mean that it was impossible to view the ziggurat from street level within either neighbourhood.⁹ The only opportunities to view the ziggurat from these areas would have been from house roofs. The excavators proposed that most Ur houses had a second storey (Woolley and Mallowan 1976), but the walls are not substantial enough to support this, nor do contemporary texts refer to upper storeys in rental or inheritance agreements (Stone 1996). However, use of open roofs for food preparation, crafting and summer sleeping is common in the modern Middle East and probable in the past. Thus, in city dwellers' stationary house-roof-based activities, the ziggurat may have been visible, but not during movement through the city streets.

Limits on excavation at Ur mean that it is unclear whether there was open space adjacent to the ziggurat complex, from which it might be viewed. Houses did not abut the outer wall, but the width of any unbuilt space there is unknown. However, the Ur ziggurat stood on a terrace *c.* 2 metres high as well as being surrounded by a massive courtyard wall, *c.* 4 metres high. The height of terrace and wall, plus the distance of the ziggurat from its courtyard wall (*c.* 16 metres at the closest), would mean that even if there were some open space surrounding the ziggurat complex, anyone gazing up from less than *c.* 10 metres from the outer wall would still see nothing of the ziggurat. And any strip of open space surrounding the complex is likely to have been less than 10 metres wide; space within Mesopotamian cities was in high demand.

Ur is a single example, but contemporary neighbourhoods at Nippur show similar non-orthogonal plans and a lack of streets oriented to provide ziggurat views. These neighbourhoods are matched at Tell Asmar, Khafajah, and other cities; limited open space is typical of central and southern Mesopotamian urban settlements. Even if there were straight stretches of streets

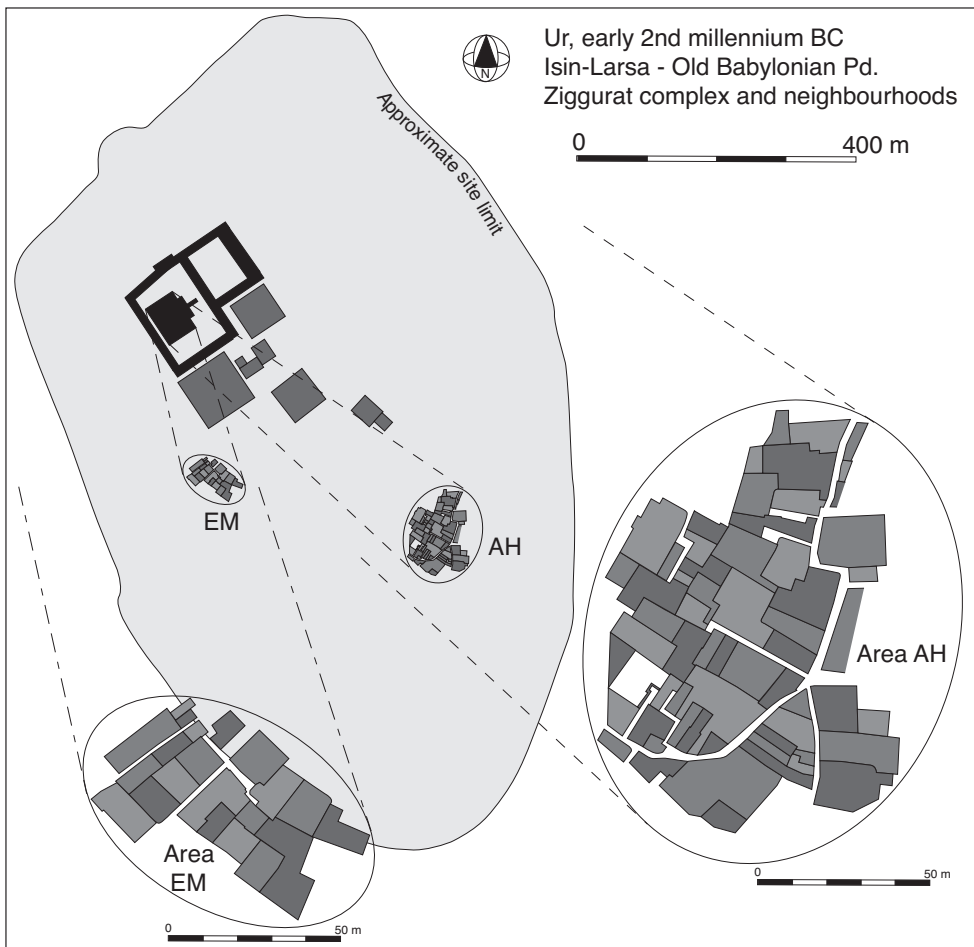


Figure 21.6 City of Ur, ziggurat and excavated neighbourhoods, early second millennium BC

Source: Augusta McMahon

that ran towards a ziggurat and afforded a brief view, looking sharply upwards for the ziggurat would have been disruptive to walking (Higuchi 1983; Paliou 2011). Therefore, it is unlikely that ziggurats were reference or focal points within the Mesopotamian city; they did not help city inhabitants orient themselves as they moved through the streets.¹⁰ Thus, as in the issue of whether people in outlying villages would have deliberately observed the distant city, we must question whether the mostly obscured ziggurat was a looked-for object from within the urban landscape.

Looking at the ziggurat

Given the surrounding buildings, terrace and courtyard walls, and winding streets, the full ziggurat would have been visible only from within its surrounding courtyard, at close range. The courtyard also may have invoked a psychological reaction. These courtyards are massive: 125 × 90 m at

Ur, 100 × 75 m at Nippur. This combination of huge open space and the ziggurat's mass and height would have been visually dramatic, particularly in contrast to the crowded, narrow streets experienced on the journey through the city to the temple. The ziggurat courtyards are analogous to the plazas of Maya and Inka cultures in their capture of space, but while the plazas of the Americas were usually open and accessible areas for rituals, processions, commerce and other interactions (Moore 1996b), the completely enclosed Mesopotamian temple courtyards were limited in range of activities and frequency of visits. Their emptiness provided few inherent indicators of expected behaviours, possibly creating a sense of disorientation.

The moment of arrival at the ziggurat courtyard would have been crucial for visual and mental impact. It was that moment that a user moved from informal space to a place of 'strategy' (de Certeau 1984), from collectively owned space to an alien place. At Ur and Nippur, where the surrounding complexes are best preserved, the main entrances into the final courtyards were off-set from the ziggurat stairs and its central axis (Figures 21.3, 21.4). This off-set means that the ziggurat could not be seen from an outer courtyard or from outside the complex, through aligned open doorways. The off-set is similar to the 'bent-axis approach' of Mesopotamian shrines from the fifth through third millennia BC. The 'bent-axis' involved a visitor making a 90-degree turn between arriving through the main door and facing the altar and god's statue. The off-set of ziggurat courtyard gates had a similar effect, but here the architects may have embraced the potential for making a dramatic final reveal rather than hiding; the encounter was more important than concealment. This off-set, asymmetrical entrance appears awkward in a two-dimensional plan from above but has a fierce logic for the rapid unveiling of the previously hidden ziggurat.

This new view can be quantified. Humans' clear field of horizontal vision is usually 60 degrees, with further relatively clear binocular vision to 90 degrees. Horizontal isovists (Benedikt 1979; Turner *et al.* 2001) are good representations of this focused field of view, comprising every surface visible from one point. Probable fields of view of a person at the entrance to the Ur ziggurat courtyard are shown in Figure 21.7B; a 60-degree clear vision cone centred on the ziggurat's shrine neatly corresponds to the full width of the ziggurat as seen from that angle, filling the visual field from side to side and maximising the apparent footprint of the structure, as well as the impression of spaciousness of the courtyard.¹¹

But the height of the ziggurat was its most distinctive feature, and a vertical isovist may reveal more about the ziggurat's visual impact. Humans' vertical field of view commonly encompasses 50–60 degrees above horizontal, with an acute focus field within that, achieved via eye rotation and without head movement, of 25 degrees above horizontal.¹² Supplementing these physiological limits, degrees of monumentality have been associated with specific vertical angles of view (Higuchi 1983 [after Märtens 1890]; Letesson and Vansteenhuyse 2006; Moore 1996a). At 18 degrees, a building is considered monumental or impressive; at 27 degrees, a building fills the complete vertical range of vision. Figure 21.7A presents the 18-, 25- and 50-degree vertical isovists generated by a viewer at the courtyard entrance looking towards the ziggurat centre (along the dashed line in Figure 21.7B);¹³ the figure also shows the location of a 27-degree vision-filling view along the same line. The ziggurat's reconstructed height matches the 18-degree monumentality marker extremely well. The height also matches the 25-degree acute vision cone fairly well but would not have completely filled the vision field. To achieve a 27-degree vision-filling view, a viewer would have had to walk into the courtyard some 16 metres. Alternatively, a viewer standing at the bottom of the stairs would have an almost exact 27-degree view. The planners of the ziggurat and its courtyard would not have known about these precise angles and their psychological effects, but whether through trial-and-error or fortuitous placement, they achieved a maximum visual impact.¹⁴

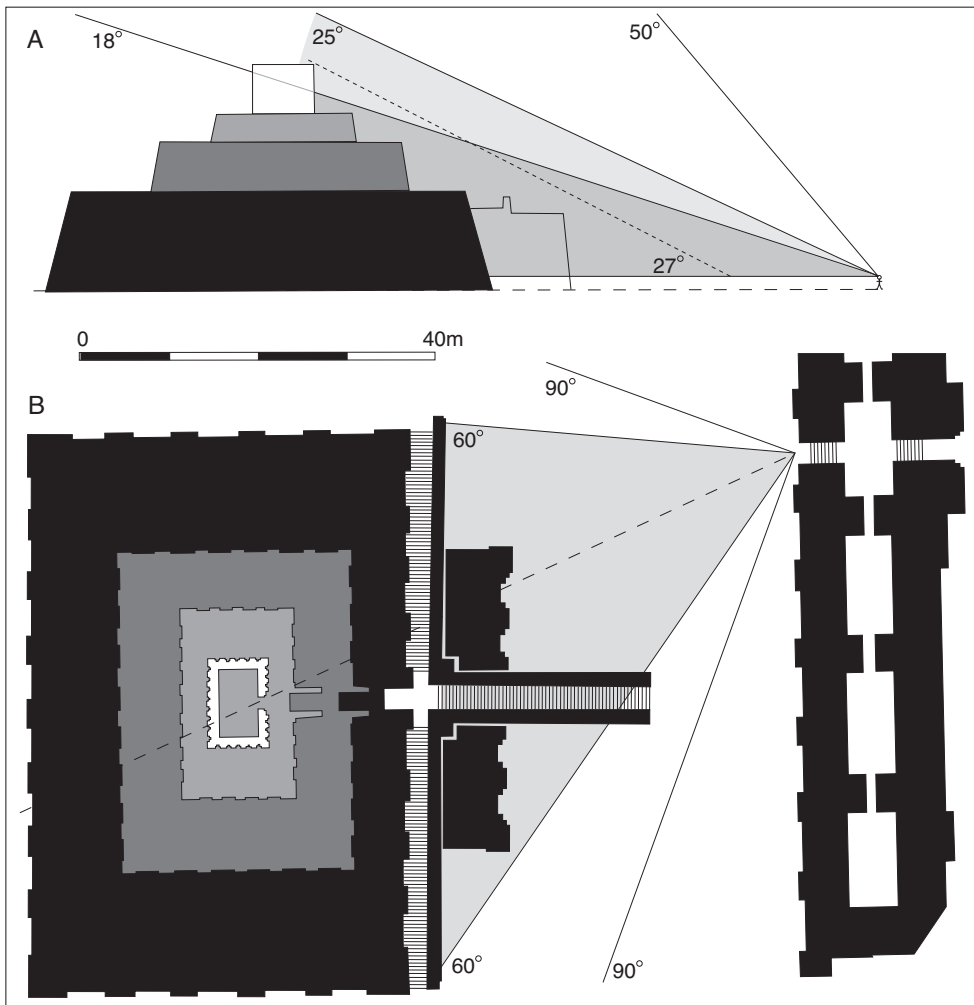


Figure 21.7 (A) Vertical isovists of Ur ziggurat; (B) Horizontal isovists of Ur ziggurat

Source: Augusta McMahon

These isovist representations rely on the moment of encountering or other ‘stand-and-stare’ fixed points and are admittedly map-based, flat calculations. Walking into and within the courtyard would have engaged further fluid concepts of space and place related to the experience of movement (Tilley 1994) and may have revealed details of subsidiary structures or created encounters with other users (Johnson 2002). The lack of paths or other directive features within the courtyards makes such experiences a challenge to infer. Volume of space is also crucial for impact: the contrast of open courtyard (light, moving air, both near and distant views) versus compact urban streets (dark, still air, near views only) might have affected receptivity to messages. But what were Mesopotamians’ preferences? Narrow streets were awkward but cool and familiar, the open courtyard was impressive but potentially alienating. The notice an individual would take of an encounter and its sensory impact further depends on the individual and how often

they experienced that encounter (Seamon 1979). But this study focuses on the individual whose prior experience of the ziggurat was limited, the 'average' Mesopotamian urban dweller who might have entered the ziggurat courtyard only a few times each year and been highly susceptible to its impact. Finally, the size of the audience remains uncertain. Very different experiences would be created if the courtyard were filled with hundreds or even thousands of other people (noise, excitement, vitality) versus largely empty (quiet, awe, fear).

Higuchi (1983) has proposed a number of indexes of spatial perception; the index of depth is particularly relevant here and may have been enhanced by the actual fabric of the ziggurat. The low buttresses on each stage were, as mentioned above, not structural, but they did throw shadows and created a strong and regular textural feature. Such textural density can strengthen the impression of depth, which would be muted on an otherwise-featureless wall. An even closer view has a different impact; at 45 degrees, significant detail of any building can be observed (Märtens 1890 [cited in Higuchi 1983 and Moore 1996a]). This frame of vision is reached at approximately 7 metres from the Ur ziggurat. As a viewer walked within the courtyard and approached the lowest stage, the size and regularity of its bricks would have been apparent. The ziggurat's bricks were the same size and manufactured of the same raw materials as those used in houses and other buildings. Filling the vision with thousands of this essential 'building block' of Mesopotamia would reinforce that a familiar everyday item had been used to make something extraordinary, and that houses of gods and of people still shared a basic feature.

The courtyard is thus the only place where Lefebvre's conceived – or deliberately planned – space reached its full potential in regard to the ziggurat; beyond the courtyard walls, the deep-seated foundations of everyday life and the 'tactics' of individual urbanites (de Certeau 1984) blunted any attempt to extend that space and to project royal and divine power into or beyond the city.¹⁵ But ultimately, these close range views and complex messages relayed by the full ziggurat and its surface, from within the courtyard, are far stronger than any long-range view from outside the city or possible mid-range glimpse from street level.

Looking from the ziggurat

Finally, the ziggurat offered a panoptic view; from its top it would have been possible to see a full panorama of the city and its surroundings, potentially up to *c.* 18 km distant. While the ziggurat would have been rarely seen by people in the streets (and thus vice versa), the roofs of all houses and the edge of the city and beyond were within an unobstructed field of view from its upper stage and top.¹⁶ This difference between viewing and being viewed is similar to that between GIS-based projective ('view-from') and reflective ('view-to') viewsheds, a distinction that acknowledges the potential for hiding and non-reciprocal, one-way viewing (Loots 1997; Wheatley and Gillings 2000). Unlike people in the fields or streets who might not have looked up and towards the ziggurat, it would be an unusual user of the ziggurat who would have not taken the opportunity to look outwards.

Following Bentham (1791, cited in Bowring 1838–43) and Foucault (1977), the panopticon is strongly associated with punishment by control, behaviour correction, and discipline. Control through observation is also part of the 'panoptic practice' that results from power strategies (de Certeau 1984). There was no physical incarceration associated with the over-view from the Mesopotamian ziggurat. But the concept of divine control and power, and the possibility of being seen by an often unseen human or divine observer, may have supplemented the already strong social taboos and legal prohibitions that regulated Mesopotamian urban society and interactions. The possibility of observation did not replace these social controls but added to them; the ziggurat was more like a modern surveillance camera (even with its blind spots) than

an inspector's lodge.¹⁷ It encouraged self-regulation. Of course, any people working or preparing for sleep on house roofs would have seen the ziggurat, as well as being seen by its users, so it is not Bentham's perfect panopticon that shields the viewer. But as has been argued, power is only powerful if its source can be seen: 'the gaze which operationalises the Panoptic effect is not the gaze of the surveyor but is, in fact, the gaze of the surveyed' (Crossley 1993: 405). Similar proposals ascribing panoptic-based behaviour modification to built spaces have been made for colonial Annapolis and Baltimore (Leone 1995), South Carolina plantations of the eighteenth–nineteenth centuries (Randle 2011), and Western Pueblo plaza-centred villages (Graves and Van Keuren 2011), although the inter-visibility in these situations is far greater than for the Mesopotamian city.

Was this patchily panoptic view from the ziggurat a conscious goal or inadvertent? The Ur III political system under which the ziggurat was invented was an expanding territorial state that both pushed its own borders outwards and intensified internal administration through a complex bureaucracy. The Ur III Period is known for dense government-based documentation of administrative and economic activities, but this does not seem to have extended to greater control of its citizens' private lives. The immense visual fields created by the ziggurats would have been radically new; the height of the ziggurats was more than double the height of any previous structures in southern Mesopotamia. But this height would have also dehumanised the views; the scale of any visible figures would have been so small that their identities would be subsumed into generic city-dwellers. The panoptic principle that is ordinarily so focused on control of individuals was, in Mesopotamia, blurred and relaxed by distance and the presence of hidden spaces.

Conclusion

At the most basic level, the size and innovative form of ziggurats emphasised the power of their creators and owners (gods, kings and religious elites). But paradoxically, ziggurats were integrative structures: their consistent format from city to city and through time reinforced the often fragile unity of Mesopotamia by referencing deep cultural traditions and manufacturing a national identity. An exploration of visibility of the ziggurat reveals a subtle approach to transmission of these messages. In contrast to traditional assumptions, the ziggurat was not always strongly visible from within or outside the city. But this muting of the ziggurat's visibility perhaps reinforced its messages by limiting their repetition; if a message is repeated too often, the senses become dulled to its meaning.

It was only at very close range that the ziggurat was fully revealed from base to top. Its monumentality thus is based upon an aspect of surprise at its unexpected scale. How could something so large have remained almost hidden from view? Ultimately it was not the ziggurat alone but the ziggurat in its closed courtyard setting, encountered after movement along narrow and unplanned streets, that created monumentality and inspired awe. Simple scale is not enough to make a monument; the setting and the journey are vital contributions.

Notes

- 1 Mud-bricks were the primary building material for all structures in Mesopotamia, particularly in southern Mesopotamia (South Iraq), which lacks significant stone and timber useful for construction.
- 2 The Anu 'ziggurat' at Uruk, c. 3200 BC, is widely described as the first such structure (e.g. Winter 1991) although it has only a single-stage platform, and mid-third millennium BC single-stage platforms at Kish are often referred to as ziggurats (Heinz 2013; Moorey 1966). However, strong evidence for the classic stepped version did not appear until the late third millennium BC under the Ur III kings.

A seven-stage temple described by the king Gudea of Lagash (2141–2122 BC), a predecessor of the Ur III kings, is known only from texts; possible mid-third millennium BC stepped platforms at Kish and Nippur may have been created by later building programmes or the imagination of archaeologists in the late 1800s–early 1900s.

- 3 The dominant Mesopotamian political unit of the fourth to mid-third millennia BC was the city-state, approximately 30 of which are known in southern Mesopotamia. The Ur III kings were preceded in their creation of a nation-state by the Akkadian kings (2334–2154 BC), but in comparison to the tradition of the city-state, this was a short and unsuccessful episode of unity.
- 4 Not every Mesopotamian city had a ziggurat; many only had temples at ground level or on single-stage platforms. Cities with ziggurats usually had only one, dedicated to its patron deity; exceptions include Ashur and Kish, both with as many as three in the first millennium BC. Mesopotamia was polytheistic; cities with ziggurats also had ziggurat-less temples and shrines to other deities.
- 5 This inner city position holds true across southern Mesopotamia and for some cities in the north. However, some of the first millennium BC Assyrian capitals (particularly Ashur and Nimrud) incorporated ziggurats into the river-facing facades of their citadels, which were located at the city edge.
- 6 Tiered structures also appear on second millennium BC *kudurrû* boundary stones, supporting symbols of deities; in these *kudurrûs*, the tiered form certainly represents an altar. These objects have had a reflexive effect on interpretation of the earlier seals.
- 7 Omission of past vegetation is one of the primary criticisms of both GIS and phenomenological approaches to landscape archaeology (Wheatley and Gillings 2000). Date palms can reach 20–25 m in height, and they can cope with quite close spacing of 4–10 m. They are slender and bear relatively sparse leaf crowns but still could have obscured lines of sight at close and medium range.
- 8 Two metres is a probable minimum height, even if the floor level in houses was lower than that of the street; see Shepperson 2012 for 5 m approximation.
- 9 Published excavation records do not provide elevations across Ur, making a GIS model (DEM) of the city too patchy to be useful. Therefore, calculation of lines of sight in each neighbourhood incorporated the distance between the ziggurat and any stretch of open space, elevations at ground level of this possible viewing area and of the ziggurat, the ziggurat's height, the height of surrounding buildings at the viewing area, and the height of the viewer. Ground level at the ziggurat is 14.9 m; elevations in the neighbourhoods are not published, but estimates were made by combining elevations from the topographic plan with the depth of excavations in these two areas (as indicated by wall heights, sections, and supplemented from photographs): c. 13–14.5 m in Area AH, c. 18–20 m in Area EM. Area EM is c. 175 m from the ziggurat, Area AH c. 425 m distant. The early second millennium BC ziggurat was approximately 25 m high. Even using a conservative 3 m approximation for surrounding buildings' height and a generous 2 m viewer height, any possible lines of sight are so steeply angled that they do not reach the ziggurat. Similar invisibility from within (and even adjacent to) the settlement has been proposed for the major monument at Chan, Peru (Moore 1996a: 114–115), due to comparable variables of surrounding architecture.
- 10 This reconstruction holds primarily for the early second millennium BC but was surely similar to the situation in the late third through late second millennia BC, during most of which Ur was a thriving urban centre. The visibility of the ziggurat may have greatly increased during Ur's several episodes of climate-change-induced retraction and its eventual gradual abandonment, during which occupation density was reduced.
- 11 Any isovist shape and angle changes as the viewer moves or turns; this study focuses on a static isovist generated at the arrival moment, at which the user would be most vulnerable to the perception of the space's qualities. Off-set entrances placed to maximise scale and spaciousness are also a feature of Mesopotamian palace architecture of the first millennium BC (McMahon 2013).
- 12 Cousin (1980; cited in Letesson and Vansteenhuyse 2006) identified an even narrower vision ellipse of 14 degrees above horizontal, 23 degrees below; the emphasis on below-horizontal reflects that the natural line of sight of a standing person is not an absolute horizontal at eye level but falls 10–15 degrees below it. This narrower, downward-focused comfort zone would further heighten the monumentality impression of the ziggurat.
- 13 The isovist baseline is 160 cm from the ground, assuming an average height of 170 m and eye level 10 cm below top of head. The field of vision below horizontal has here been omitted for clarity.
- 14 This study focuses on visibility, despite the current multi-sensory turn in archaeology, the undeniable connectivity of human senses, and critiques of the dominance of sight in archaeological analysis (Friedman

and Gillings 2007; Hamilakis 2002; Wheatley and Gillings 2000). Touch and taste can perhaps be downplayed in this study, but acoustics within the courtyard would have been a further factor in perception of its space. The impact of the temple 'smell-scape' is another complicated subject; scents of rubbish and human waste would be reduced, compared with the urban surroundings. Beyond the classic 5-part sensorium, a sense of temperature could also have been in play, with the lack of shade in summer raising the temperature significantly.

- 15 The limits on creation of conceived space and restriction of its impact are relevant mainly for the long-established cities of southern Mesopotamia. It has been argued that the newly founded or expanded capital cities of Assyria in the first millennium BC were largely composed of conceived space and were eloquent statements of authority and imperial ideology that nevertheless were subject to adjustment and reinterpretation by users (Lumsden 2004).
- 16 Like the long-range view from the countryside to the ziggurat, the view outward from the ziggurat would have been intermittently reduced by sandstorms and heat haze. But unlike the view from countryside to the specific point of the ziggurat, which might have been obscured by, e.g. palm trees or buildings, the view from the ziggurat may have been patchy but was less subject to being completely blocked.
- 17 We should not lose sight of the fact that the primary function of the ziggurat was not observation but supporting the god's house and providing space for religious rituals. However, its secondary function as an observation point is likely, and knowledge of its presence and potential would have been strong.

References

- Amiet, P. 1980. *La glyptique mésopotamienne archaïque*. Paris: Editions CNRS.
- Baker, H. 2014. The Babylonian Cities: Investigating Urban Morphology using Texts and Archaeology. Pp. 171–188 in N. May and U. Steinert, eds. *The Fabric of Cities: Aspects of Urbanism, Urban Topography and Society in Mesopotamia, Greece and Rome*. Leiden: Brill.
- Benedikt, M. 1979. To Take Hold of Space: Isovists and Isovist Fields. *Environment and Planning B* 6(1): 47–65.
- Bowring, J., ed. 1838–43. *The Works of Jeremy Bentham*. Edinburgh: William Tait.
- Busink, T. 1949. *De Babylonische Tempeltoren*. Leiden: Brill.
- Crossley, N. 1993. The Politics of the Gaze: Between Foucault and Merleau-Ponty. *Human Studies* 16: 399–419.
- De Certeau, M. 1984. *The Practice of Everyday Life*. Berkeley, CA: University of California Press.
- Dombart, T. 1929. Alte und neue Ziggurat-Darstellungen zum Babelturm-Problem. *Archiv für Orientforschung* 5: 220–229.
- Edzard, D. O. 1987. Deep-Rooted Skyscrapers and Bricks: Ancient Mesopotamian Architecture and Its Imagery. Pp. 13–24 in M. Mindlin, M. Geller and J. Wansbrough, eds, *Figurative Language in the Ancient Near East*. London: SOAS.
- Foucault, M. 1977. *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books.
- Frankfort, H. 1970, 4th edn. *The Art and Architecture of the Ancient Orient*. Harmondsworth: Penguin.
- Frieman, C. and M. Gillings. 2007. Seeing is perceiving? *World Archaeology* 39(1): 4–16.
- George, A. 1992. *Babylonian Topographic Texts*. Leuven: Peeters.
- George, A. 1993. *House Most High: The Temples of Ancient Mesopotamia*. Winona Lake, OH: Eisenbrauns.
- Gibson, J. J. 1977. The Theory of Affordances. Pp. 67–82 in R. Shaw and J. Bransford, eds, *Perceiving, Acting, and Knowing*. Hillsdale NJ: Erlbaum.
- Gibson, J. J. 1979. *The Ecological Approach to Visual Perception*. Boston, MA: Houghton Mifflin.
- Graves, W. M. and S. Van Keuren. 2011. Ancestral Pueblo Villages and the Panoptic Gaze of the Commune. *Cambridge Archaeological Journal* 21: 263–282.
- Hamilakis, Y. 2002. Experience and Corporeality, Introduction. Pp. 99–103 in Y. Hamilakis, M. Pluciennik and S. Tarlow, eds, *Thinking Through the Body: Archaeologies of Corporeality*. New York: Kluwer.
- Heinrich, E. 1982. *Tempel und Heiligtümer im alten Mesopotamien: Typologie, Morphologie und Geschichte*. Berlin: de Gruyter.
- Heinz, M. 2013. Public Buildings, Palaces and Temples. Pp. 179–200 in H. Crawford, ed., *The Sumerian World*. Oxford: Routledge.
- Hempelmann, R. 2004. 'Gottschiff' und 'Zikkuratbau' auf vorderasiatischen Rollsiegeln des 3. Jahrtausends v. Chr. *Alter Orient und Altes Testament* 312. Münster: Ugarit Verlag.
- Higuchi, T. 1983. *Visual and Spatial Structure of Landscapes*. Cambridge, MA: MIT Press.

- James, P. and van der Sluijs, M. 2008. Ziggurats, Colors, and Planets: Rawlinson Revisited. *Journal of Cuneiform Studies* 60: 57–79.
- Johnson, M. 2002. *Behind the Castle Gate: From Medieval to Renaissance*. London: Routledge.
- Koldewey, R. 1911. *Die Tempel von Babylon und Borsippa*. Ausgrabungen der Deutschen Orient-Gesellschaft in Babylon. Leipzig: J. C. Hinrichs.
- Lefebvre, H. 1991. *The Production of Space*. Malden, MA: Blackwell Publishing.
- Lenzen, H. 1941. *Die Entwicklung der Zikkurat, von ihren Anfängen bis zur Zeit der III. Dynastie von Ur*. Leipzig: Harrassowitz.
- Leone, M. 1995. A Historical Archaeology of Capitalism. *American Anthropologist* 97(2): 251–268.
- Letesson, Q. and Vansteenhuyse, K. 2006. Towards an Archaeology of Perception: ‘Looking’ at the Minoan Palaces. *Journal of Mediterranean Archaeology* 19(1): 91–119.
- Loots, L. 1997. The Use of Projective and Reflective Viewsheds in the Analysis of the Hellenistic City Defence System at Sagalassos, Turkey. *Archaeological Computing Newsletter* 49: 12–16.
- Lumsden, S. 2004. The Production of Space at Nineveh. *Iraq* 66(1): 187–197.
- McMahon, A. 2013. Space, Sound, and Light: Toward a sensory experience of ancient monumental architecture. *American Journal of Archaeology* 117(2): 163–179.
- Moore, J. 1996a. *Architecture and Power in the Ancient Andes: The Archaeology of Public Buildings*. Cambridge: Cambridge University Press.
- Moore, J. 1996b. The Archaeology of Plazas and the Proxemics of Ritual: Three Andean Traditions. *American Anthropologist* 98(4): 789–802.
- Moorey, P. R. S. 1966. A Re-Consideration of the Excavations on Tell Ingharra (East Kish), 1923–33. *Iraq* 28(1): 18–51.
- Paliou, E. 2011. The Communicative Potential of Thera Murals in Late Bronze Age Akrotiri: Applying Viewshed Analysis in 3D Townscapes. *Oxford Journal of Archaeology* 30(3): 247–272.
- Parrot, A. 1949. *Ziggurats et Tour de Babel*. Paris: Albin Michel.
- Pollock, S. 1999. *Ancient Mesopotamia*. Cambridge: Cambridge University Press.
- Randle, L. 2011. Applying the Panopticon Model to Historic Plantation Landscapes through Viewshed Analysis. *Historical Geography* 39: 105–127.
- Rapoport, A. 1990. Systems of Activities and Systems of Settings. Pp. 9–20 in S. Kent, ed., *Domestic Architecture and the Use of Space: An Interdisciplinary Cross-Cultural Study*. Cambridge: Cambridge University Press.
- Roaf, M. 1984. Excavations at Tell Mohammed ‘Arab in the Eski Mosul Dam Salvage Project. *Iraq* 46(2): 141–156.
- Rochberg, F. 2012. The Expression of Terrestrial and Celestial Order in Ancient Mesopotamia. Pp. 9–46 in R. Talbert, ed., *Ancient Perspectives: Maps and Their Place in Mesopotamia, Egypt, Greece, and Rome*. Chicago, IL: University of Chicago Press.
- Safar, F., M. A. Mustafa and S. Lloyd. 1981. *Eridu*. Baghdad: State Organization of Antiquities and Heritage.
- Sauvage, M. 1998. La construction des ziggurats sous la Troisième Dynastie d’Ur. *Iraq* 60: 45–63.
- Schmid, H. 1995. *Der Tempelturm Etemenanki in Babylon*. Baghdader Forschungen 17. Mainz: von Zabern.
- Seamon, D. 1979. *A Geography of the Lifeworld: Movement, Rest and Encounter*. London: Croom Helm.
- Shepperson, M. 2012. The Rays of Shamash: Light in Mesopotamian Architecture and Legal Practice. *Iraq* 74: 51–64.
- Smith, M. E., 2009a. The Archaeological Study of Neighborhoods and Districts in Ancient Cities. *Journal of Anthropological Archaeology* 29(2): 137–154.
- Smith, M.E., 2009b. V. Gordon Childe and the Urban Revolution: An Historical Perspective on a Revolution in Urban Studies. *Town Planning Review* 80(1): 3–29.
- Smith, M. E. 2011. Empirical Urban Theory for Archaeologists. *Journal of Archaeological Method and Theory* 18: 167–192.
- Stone, E. 1991. The Spatial Organization of Mesopotamian Cities. *Aula Orientalis*: 235–242.
- Stone, E. 1996. Houses, Households and Neighborhoods in the Old Babylonian Period: The Role of Extended Families. Pp. 229–235 in K. Veenhof, ed., *Houses and Households in Ancient Mesopotamia*. Istanbul: Nederlands Historisch-Archaeologisch Instituut.
- Stone, E. and P. Zimansky. 1995. The Tapestry of Power in a Mesopotamian City. *Scientific American* 272: 118–123.
- Tilley, C. 1994. *A Phenomenology of Landscape: Places, Paths and Monuments*. Oxford: Berg.
- Trigger, B. 1990. Monumental Architecture: A Thermodynamic Explanation of Symbolic Behaviour. *World Archaeology* 22(2): 119–132.

- Turner, A., M. Doxa, D. O'Sullivan, and A. Penn. 2001. From Isovists to Visibility Graphs: A Methodology for the Analysis of Architectural Space. *Environment and Planning B: Planning and Design* 28: 103–121.
- Van de Mieroop, M. 1997. *The Ancient Mesopotamian City*. Oxford: Oxford University Press.
- Wetzel, F. and F. H. Weissbach. 1967. *Das Hauptheiligtum des Marduk in Babylon*. Ausgrabungen der Deutschen Orient-Gesellschaft in Babylon. Osnabrück: Otto Zeller.
- Wheatley, D. and M. Gillings. 2000. Vision, Perception and GIS: Developing Enriched Approaches to the Study of Archaeological Visibility. Pp. 1–27 in G. Lock, ed., *Beyond the Map: Archaeology and Spatial Technologies*. Amsterdam: IOS Press.
- Winter, I. 1991. Reading Concepts of Space from Ancient Mesopotamian Monuments. Pp. 57–73 in K. Vatsayayan, ed., *Concepts of Space, Ancient and Modern*. New Delhi: Indira Ghandi National Centre for the Arts.
- Wiseman, D. 1972. A Babylonian Architect? *Anatolian Studies* 22: 141–147.
- Witmore, C. 2013. The World on a Flat Surface: Maps from the Archaeology of Greece and Beyond. Pp. 127–152 in S. Bonde and S. Houston, eds., *Re-Presenting the Past: Archaeology through Text and Image*. Oxford: Oxbow.
- Woolley, L. 1939. *Ur Excavations V: The Ziggurat and its Surroundings*. London: Oxford University Press.
- Woolley, L. and M. Mallowan. 1976. *Ur Excavations VII: The Old Babylonian Period*. London: British Museum.

This page intentionally left blank

Part 4

Disintegration and unfinishedness

This page intentionally left blank

Architecture becoming new spaces

Mikkel Bille and Tim Flohr Sørensen

Introduction

In 1955 the American Federal Civil Defence Administration conducted *Operation Cue* with the aim of testing and publicising the effects of a nuclear attack on an American town. A number of houses, homes, shelters and civilian installations (school, fire station, library, and the like) were constructed at the Nevada Test Site in order to estimate the chances of survival in an average American town in case of a nuclear blast. Several buildings and installations were obliterated in the test blast, yet many still stand as relatively intact ruins today (Veitch 2010). These remains may be perceived as ruins; disintegrating, dilapidating and damaged buildings that do not fulfil the criteria for habitation and utility. And in an archaeological study, they might have been seen as such; upon construction, they merely show an ultra-brief habitation phase, only to be damaged and abandoned. In this sense, these ruins are tokens of failure. However, in the context of the test site, they did precisely what they were supposed to do: they lent themselves to whatever fate the nuclear blast would cause, and the ruins thus stand as the final configuration of a deliberate and successful achievement.

Or rather, the ruins stand as the *seemingly* final configuration of an event. Oftentimes, ruins and archaeological remains are considered precisely to be the final configuration of past events and material processes. However, for many archaeologists, there is probably much more truth in Jeremy Till's (2009: 67) contention that 'all architecture is but waste in transit'. This suggests that all built forms are – eventually – subject to the passing of time and the associated metamorphosis of structures and materials. Importantly, Till observes that architectonic processes do not expire. Rather, the transitory character of architecture implies that it is at all times marked by transformation and unfinishedness (Till 2009: 104ff). This also goes for archaeological remains and ruins.

In this sense, the remains of the 'built-to-be-blasted' structures of *Operation Cue* may remind us of the picturesque gardens of eighteenth century England, where many artificial 'ruins' were constructed with the aim of mimicking more or less disintegrated buildings of classical antiquity, oftentimes seen as representing an aesthetic appraisal of carnal mortality (see also Hill, this volume). Or, as Karsten Harries contends, 'The appeal of the picturesque ruins hints at something in us that desires the death of architecture' (Harries 1998: 244). This longing very much represents a concern with potentiality and futurity rather than cessation. In this, processes of disintegration

and the unfinishedness of architecture are key, and attention is drawn towards the presence of an architecture that moves on its own (see also Harman, this volume). A similar quality of architecture is described by David Gissen (2009) with the notion of ‘subnature’ by which he refers to the autonomous ecology of architecture made up by dust, debris, insects and weeds. These phenomena infuse architecture with a life and vibrancy beyond human intentionality, and reach beyond discrete notions of dysfunctionality.

As the contributions to this part of the book demonstrate in different ways, ruination, failure and dissatisfaction in and with buildings are not synonymous with the end of architecture. In fact, architecture can endure, transform and assume new forms and experiences through their very disintegration. Thus what at one level of analysis may be seen as failure and dysfunction, in need of being theorised beyond its normative value judgement, may at another level be seen as the inevitable unfinishedness of material processes. We hold that disintegration and unfinishedness highlight a number of the non-linear processes and open-ended futurities of the elements of architecture, centred on re-appropriation, re-evaluation and repair. In fact, as the contributions show, the potentiality nested in framing ruination, failure and dissatisfaction as disintegration and unfinishedness makes it difficult to work with notions of reuse and recycling. Such notions of *reuse* suggest a moment of cessation that may rarely be the case with architecture. Instead it most often lends itself to *continued* use, albeit sometimes in utterly different forms from those planned or previously performed.

Referring back to the concept of assemblage outlined in our introduction for this volume, this also implies that the idea of architectural permanence as a coherent whole is problematic or, as Stephen Cairns and Jane Jacobs contend, ‘Architecture as assemblage is always part of matter–energy flow, such that our perception of it as durable and permanent is possible only if this flow is denied or actively worked against’ (2014: 65). For a social archaeology, this means that permanent architecture becomes synonymous with a particular (unfruitful) conceptualisation of ‘cultural heritage’ as the conserved and sterilised relict, and not with vibrant, living and lived spaces of past and present societies.

In exploring failed, dysfunctional, unfinished and disintegrating architecture, the papers in this part of the book deal with the knowledge, or lack of such, in the construction and habitation of architecture. They thereby explore archaeological and ethnographic cases where insufficient craftsmanship, poor materials, or the lack of knowledge, priority or maintenance is part of the architectonic remains. The section also deals with the many cases where the material properties of the built form may be working well, but the social aspects of it, the ways in which people inhabit it, or the consequences of global economic development, somehow lead to the disintegration of architecture. The papers challenge any taken-for-granted notion of ‘dysfunctional architecture’, as that which does not work and is abandoned, or that emphasises function as the exclusive parameter to form as in Louis Sullivan’s classic dictum that form follows function (Sullivan 1896). Rather we aim to highlight how disintegrating architecture can assume a number of virtues by being sites of subaltern identities or of enunciating opposition. This also highlights how building and buildings are not always successful, reaching the ideals that were intended. Quite often there is a gap between the initial ideas, the ideals, and the images and drawing that initiated the building process, and the final outcome.

As a normative expression, the notion of something failed or dysfunctional entails moral and political implications and premises. At a more theoretical – and also empirical – level, as Tim Edensor particularly highlights in his contribution, there is much to be gained. Edensor contends that the standard view of ruins as static tokens of failure, construct uselessness and obsolescence, thereby misses the actual processes observed at derelict sites. He draws attention to multiple temporalities that are emerging in industrial ruins, exploring how material processes depend on

how a building is 'opened up to the elements', such as wind and rain, and how dilapidating architecture is circumscribed by the 'multiple agencies that swirled through and around the place, eroding and colonising the built environment'. In this, Edensor suggests that the term 'ruin' is better used as a verb than a noun, 'obviating any sense of static form' as ruins (like any other form of building) are always processes of becoming rather than a standstill. The notion of the ruin, Edensor argues, is rooted in perceptions of value, usefulness and aesthetics, contending that ruination emerges as a combination of three processes: material properties, politics and maintenance.

In her contribution, Þóra Pétursdóttir is similarly concerned with appreciating derelict architecture as 'ruination' rather than 'ruin'. Pétursdóttir explores an Icelandic herring station, Eyri, that has recently become a popular destination for visitors after being abandoned in 1952. While not designated as a formal heritage site, Pétursdóttir argues that Eyri is circumscribed by an affective energy as visitors characterise the places with 'a lover's discourse; a personal, nostalgic and fragmentary prose'. She explores this love affair with derelict architecture through visitors' engagements and her own research at the place, contending that by extending the transmission of affect to ruins offers a possibility for understanding how and why certain locales issue forth an immediacy that cannot ordinarily be found at conventional and conserved heritage sites. Pétursdóttir explains how many visitors to Eyri are drawn to the place due to its 'unruly and ever changing state'. She argues that precisely the unruly aesthetics is what makes the modern ruin attractive: 'its pestering materiality encourages, or even forces, a nearness with things that is radically different from our conventional user-driven engagement with them in our everyday conduct'. This, in turn, is also the reason why Eyri cannot be appreciated within the conventional notions of heritage value and history. Rather, Eyri is valued for 'its current state and ongoing ruination'. The consequence, Pétursdóttir shows, is that the ruin thus insists on being contemporary and urgent; situated on the brink of disintegration and unfinishedness.

Precisely the capacity for unfinishedness is what Michael Ulfstjerne explores in his contribution, focusing on the recent economic boom and collapse in Inner Mongolia, China. This boom has led, among other things, to the development of large-scale urban projects, which in public media often go under the term 'ghost towns'. Ulfstjerne turns to the city of Ordos 100; a mega-city initiated in the frenzy of economic growth. When construction commenced in 2007 in a spirit of optimism and excitement, Ordos 100 was planned as a creative hub of a larger region, yet the construction of most of the creative and cultural buildings came to a halt by June 2011. Apart from Ordos New Art Museum and a few artists' studios, all other buildings, including hundreds of prestigious villas, were unfinished and no longer worked on, except for an 'art hotel' close to the museum. Ulfstjerne explains how the entire 80 hectare site 'appeared forgotten and somehow neglected. Rarely was much going on'. At the same time, the architecture of Ordos 100 is constructed with the aim of being multi-purpose, or as one of Ulfstjerne's informant's states: 'it's more about building empty containers of space. . . . In the future they can be anything' – billionaire villas or botanical gardens. This implies that, 'contingency becomes the rule, while the plan or blueprint mostly serves to acquire land, and subsidies'. This open-ended, non-determinate nature of building in Ordos 100 turns the emphasis to potentiality, yet without the turbulence that initially characterised the city. In fact, the whole economy of Ordos 100 has been resting on the lucrative exchange of land and projects for investors, speculators and prospectors. Drawing on Anna Tsing's notion of the 'economy of appearance', Ulfstjerne then shows how the abandonment and deliberate unfinishedness of projects 'can prove valuable, or profitable, at least'. So even when seeming dysfunctional or even entirely lacking function, the unfinishedness of architecture can also issue forth as productive capital.

From the empty and unfinished building in China, Jørgen Ole Bærenholdt turns to designed tourist sites in Norway to show the complexity of apparent dysfunctional places. He points out that certain peripheral tourist sites frequently hinge on the tailoring of particular experiences. Yet in the cases he explores these are largely considered dissatisfying by visitors, ranging from experiences of being ‘trapped’, ‘directionless’ and ‘disappointing’ to more mundane complaints of sites being ‘overpriced’ and ‘cramped’. The evaluations of tourist places that Bærenholdt explores testify to a notion that places not simply *are*; rather they come into being through the interaction of people, place and things, including the elements that are absent. In this, multiple realities – both present and absent – are ‘folded into each other’ as Bærenholdt phrases it. He proceeds by suggesting that one of the reasons these tourist sites are largely perceived as ‘dysfunctional’ is a result of them being expected to be finished and final, while they could be committed to a sense of engagement and experimentation, ‘since design processes are always open ended’. Bærenholdt contends that since ‘connections make places’, the dissatisfaction with the sites is nested in a lack of exploitation of the unfinished as a key to open up for the connectivity of ‘multiple realities’.

In the last contribution in this section and the volume as a whole, the element of expectation and anticipated intentionality also forms the subtext of Rosemary Joyce’s contribution that explores the notion of failure in architecture. Focusing on the future, and the archaeological contribution to it, she examines nuclear waste containment in the USA. Joyce questions whether materials can fail, when they ‘to accomplish things – even if the things they accomplish have the potential to disrupt human lives’. This question derives from a new materialist concern with unsettled and continuously fluctuating subject–object relations, and Joyce thus examines the relationship between the failure of architecture, materials and people. Projects for securing future generations against nuclear waste (and vice versa) in the USA have drawn on the demarcation of waste sites, including newly built ruins that were meant to transmit a message about failed intentionality. In this sense, what has failed is not architecture or materials – which remain very active – but humans’ intentionality, and therein lies the peril. Ruins are thus turned into markers; ‘an unprecedented project to build structures that anticipate material ruination in order to prevent failure’. This implies that the ruin does not fail, but ‘maintains its intended purpose’. Yet Joyce also argues that intentionality cannot stand alone in securing future generations against accidentally coming into contact with nuclear waste. Rather, material vitalities ‘make material demands that cannot be subsumed to human intentions as tools or instrumentalities’.

The contributions in this section then in essence testify to the potentials of looking at cases where the social or material fabric making up a building has failed, disintegrated, or even pinpoint that the very idea of finished architecture may indeed be highly flawed. Here, we may also point to Mathijs Pelkman’s study of Batumi, Georgia, where the (almost) emptiness of a kindergarten two years after its completion was not simply waiting to be filled with life, but the emptiness achieved ‘a future of fulfilled dreams’ (Pelkmans 2003: 129) by enforcing ‘the idea that every day its gates could be opened’. It was thus the almost emptiness that kept the future ‘bright and accessible for everyone, but also, it tied this future close to the present’ (2003: 130). Similarly, the chapters in this part of the book offer insights into how architecture can endure despite disintegrating.

References

- Cairns, S., and J. M. Jacobs. 2014. *Buildings Must Die: A Perverse View of Architecture*. Cambridge, MA: MIT Press.
- Gissen, D. 2009. *Subnature: Architecture’s Other Environment*. Princeton, NJ: Princeton University Press.
- Harries, K. 1998. *The Ethical Function of Architecture*. Cambridge, MA: MIT Press.

- Pelkmans, M. 2003. 'The Social Life of Empty Buildings'. *Focaal – European Journal of Anthropology*, 41: 121–135.
- Sullivan, L. 1896. 'The Tall Office Building Artistically Considered'. *Lippincott's Magazine*, March: 403–409.
- Till, J. 2009. *Architecture Depends*. Cambridge, MA: MIT Press.
- Veitch, J. 2010. 'Dr. Strangelove's Cabinet of Wonder: Sifting through the Atomic Ruins at the Nevada Test Site' in *Ruins of Modernity*. Edited by J. Hell and A. Schönle, pp. 321–338. Durham, NC: Duke University Press.

Incipient ruination

Materiality, destructive agencies and repair

Tim Edensor

Several years ago, I carried out research into the industrial ruins of the UK. At that time, derelict structures littered much of the British urban landscape as waves of deindustrialisation and economic restructuring followed the decline of manufacturing. The ruins were remarkable for many reasons. They served as a venue for a host of unofficial social and cultural practices, from the respectable to the transgressive (Edensor, 2005a). They offered vicarious contact with the denizens of the industrial past: the workers who populated such factories and personal traces of whom lay across shop floors and workbenches in clothing, tools, work-related graffiti and vernacular customisation of work stations; people who are rarely conjured up in official and commodified versions of heritage (Edensor, 2005b). They delivered a rich sensory environment beyond the often antiseptic spaces of the over-regulated city, provoking intense experiences of smell, sound and touch, and an unfamiliar, disorderly aesthetic (Edensor, 2007). Finally, these ruins revealed the multiple materialities out of which buildings are composed (Edensor, 2005c). Lath emerged from behind plaster walls, tiles were scattered across floors, pipes and wires burst forth from their usual confinement. Timber joists and iron girders surfaced to expose structural skeletons, and multifarious debris and detritus collected in peculiar compounds. I focus on this dimension in this chapter.

Once these industrial structures were consigned to obsolescence, entropy took hold; the multiple agencies that assail the built environment had free reign to work away at their fabric. Yet each building did not disappear into dust at the same speed. The rate of decay depended on multiple factors: the degree to which the building had been opened up to the elements and subject to various schemes of destruction; the kinds of material out of which the building had been made; and the efficacy of the multiple agencies that swirled through and around the place, eroding and colonising the built environment. Consequently, the pace of material transformation varied for each derelict building.

Moreover, at each site, sequential visits brought new experiences, for ruins continually change as they moulder and fall apart (Edensor, 2007: 217). A particular building might be utterly transformed within a month. Where windows had secured an interior expanse of flooring against moisture, their subsequent smashing allowed the formation of large pools around which rapid plant growth prospered, the unexpected tumbling down of a wall scattered surfaces with different materials, causing the moving body to manoeuvre around potential hazards, and the sudden

collapse of a roof allowed rain to pour in and opened up areas of gloom to bright sunlight, revealing previously obscure features. It was like visiting a different building each time. And this continuous change revealed that although the word ruin is usually used as a noun to identify a discrete and identifiable entity, ruin is better considered as a verb. For where it has not been arrested by an act of will, whereby the likes of classical Roman edifices and dilapidated medieval castles are frozen at a point in their falling apart, ruination proceeds apace, obviating any sense of a static form.

A ruin appears to be a symbol of failure, devalued, assigned as useless, obsolete and not suited to any current purpose, a signifier of municipal indifference, social alienation or economic stagnation (DeSilvey and Edensor, 2013). Transparently having failed to endure as a functional structure, the ruin has lost all value as a building, and this is reflected in its crumbling materiality, which embodies decay and imminent erasure from the landscape. However, in drawing on the evanescent qualities of derelict sites, I want to consider how every building at all times is in the process of ruination. For as Jacobs and Merriman assert, 'the ostensibly inert, seemingly bounded, usually obdurate, and presumably situated and static thing called architecture' (2011: 212) is, in fact, none of these things. The illusion of the fixity of a building and the place to which it belongs is realised through its enduring presence over time. Despite the fact that under capitalist modernity all that is solid in the city is always liable to turn to air, for much of the time, many places appear to possess a material consistency that contributes to the habitual, everyday experience of those who dwell in and belong to place.

Though this illusion of stasis can be powerful, as the new materialist thinking has underscored, the material world in all its aspects is in a state of continual becoming, not just that which has been designated as a ruin. As Tim Ingold eloquently explains

a building is a condensation of skilled activity that undergoes continual formation even as it is inhabited, that it incorporates materials that have life histories of their own and may have served time in previous structures, living and non-living, that it is simultaneously enclosed and open to the world, that it may be only semi-permanently fixed in place.
(Ingold, 2004: 240)

During their existence as discrete entities, buildings may house multiple, diverse activities, be aesthetically appraised in changing ways according to contemporary tastes, be demolished, renovated, cannibalised, extended and reduced, their textures changing as they decay and disintegrate. Accordingly, buildings must be 'continually modified and adapted to fit in with manifold and ever shifting purposes' (Ingold and Hallam, 2007: 4) and are often drawn into new heterogeneous associations and networks that recontextualise them (Bouzarovski, 2009). When this does not occur, failure and ruination beckons. Moreover, every building is falling apart as we dwell within it, even though – like our own bodies – we consider them to constitute the same entities as they were when they were constructed, even if centuries before, despite innumerable material changes. Focusing upon familiar buildings that we move through and dwell within, J. D. Dewsbury asks about the 'speed of flux that is keeping it assembled'. Though such a structure may appear to be permanent, it is instead 'ephemeral nonetheless: while you are there it is falling down, it is just happening very slowly (hopefully)' (2000: 487).

Thus a building is a process, and in no sense a fixed material entity, as Tait and While insist: 'architectures are morphogenetic figures forged in time, tacking against a general entropic tendency' (2009: 6). Like all material things, buildings are composed of a heterogeneous, often changing collection of components that irrespective of its provenance are forms of 'vibrant matter'

(Bennett, 2010). In this context then, I suggest that this endless transformation of the material world undergirds the notion that ruin(ation) is best thought of as a process, a process that never ceases. As Cairns and Jacobs (2014) pithily assert, buildings must die, for all are incipient ruins, potential failures whose security as discrete entities is continuously under threat from a range of forces that may render them subject to decay and erasure. This brings to mind Jeremy Till's (2009) observation that all forms of architecture can be conceived as mere 'waste in transit', and his call for architects to take greater account of contingencies such as the agents of decay and their effects, to embrace the temporal engagements solicited by such processes. As I will discuss, questions of value usually determine whether such contingencies provoke a determination to ensure that a building endures or is permitted to fail. Though all buildings are persistently threatened by ruination, and some become ruins, their ultimate fate depends upon decisions that are made about whether they ought to endure. Assessments about whether buildings have outlived their usefulness, should be repaired or are *beyond repair*, ought to be subject to continual maintenance, possess or lack esteemed aesthetic or symbolic qualities, have retained or lost their function, are saturated with or devoid of value, vary over time and space. The consignment of buildings to ruination, as signifying failure, is volatile and unpredictable.

Instead of fetishising particular buildings as ruins, and thereby tainting them with a romantic allure, I explore the factors that trigger an accelerated process of ruination. I particularly focus on three processes that shape the ongoing emergence of a ruin. First, I discuss the non-human factors that contribute to ruination: the properties of building components along with the multiple agencies that assail the material world and interact with its capacities. Second, I investigate how ruins are produced by a plenitude of human decisions based on changing political, social, economic and planning imperatives. Third, I emphasise the key role of maintenance and repair in preventing ruination, keeping it at bay through diverse practices that aim to sustain the value of buildings. I conclude by pointing out the signs of ruination that litter all urban realms and interrogate whether the ruination of buildings invariably signifies failure.

Materialities, properties and capacities: non-human agents of failure

In moving away from accounts that construe the world as composed of durable, discrete objects, recent writings focus on the vital qualities of matter, understanding identifiable objects as always inextricably entangled with other elements, and always liable to lose their form. As Karen Barad contends, everything that exists 'is not a fixed essence; rather matter is a substance in its intra-active becoming – not a thing but a doing; a congealing of agency' (2003: 828). At a subatomic level, all things endlessly shapeshift, as Yussof and Gabrys state: 'solids are particles built up around flux, they are objective illusions' and even 'the most inert objects are made up of the spin of microscopic particles which will eventually split, decay and transform' (2006: 447). And as Jane Bennett (2010) argues, while matter possesses 'incipient tendencies' to self-arrange, such tendencies are variously enacted according to the other forces, affects or bodies with which it comes into contact. Buildings are hybrid, heterogeneous assemblages of materials sourced from near and far, including wood, clay, tiles, plaster, glass, plastic, iron and steel, copper, piping and wiring, brick and stone. They are thus dynamic, processual entities for the numerous components out of which they are constituted have their own vibrant qualities that decay or mutate within the assemblage and interact in dynamic ways with other components. Given these diverse material propensities to transform, we might consider buildings to be emergent mosaics of various temporalities, collages of matter characterised by an incessant becoming.

In exploring the emergent susceptibilities of an assemblage towards stability and entropy, DeLanda (2006) distinguishes between the *properties* of an entity (the qualities it takes with it to another context) and its *capacities* (its potential to affect and be affected by other entities). Clearly, certain materials are more susceptible to decay than others but this also depends upon the agencies that circulate in and around it. Accordingly, ruination proceeds at different rates, depending upon the composition of buildings, as the material constituency of the industrial ruins I visited testified. The old mills, foundries, engineering workshops and capacious warehouses that served as the basis for nineteenth century British industrialisation were built out of thick steel infrastructures, weighty stone, layers of concrete and millions of bricks. The sturdy, brick-built Victorian cotton mills that remain a feature of the urban landscape of North West England (though many have also disappeared) tend to fall apart slowly, as do the stone woollen mills of Yorkshire. Such structures are costly to demolish, possessing the architectural attribute of ‘obduracy-in-obsolescence’ (Cairns and Jacobs, 2014), but with the demise of the textile industries across North England they lack a certain adaptability that delimits reuse and thus lose value. Though failure may be attributed through the lack of resilience signified by this inflexibility, their material solidity suggests that they are a success if durability is foregrounded.

A consideration of the properties of a particular building material, concrete, divulges that it is a substance that varies enormously according to the mixture and mode of reinforcement deployed. Certain celebrated 2000-year-old unreinforced concrete structures, such as the iconic Pantheon in Rome and aqueducts throughout Europe, made of slow-hardening, lime-pozzolanic cements, have endured through the ages. Conversely, more recent reinforced concrete buildings that use Portland cement have swiftly deteriorated, especially when exposed to corrosive environments such as marine settings in which the erosive power of seawater wears the aggregation down.

A striking example of a concrete particularly susceptible to ruination is found at Hvalfjörður in Iceland, where British forces built an important submarine base at the site of Hvítanes during the Second World War. Opening in 1941, it incorporated many concrete structures. Once hostilities in the North Atlantic ceased, the base was abandoned and very rapidly began to disintegrate. The use of seawater in the concrete mix consigned the buildings to a short life-span, and so poor was the material that it has crumbled to the extent that few buildings remain; rather a collection of debris and intermingled matter merge into the landscape. The pier is now an extraordinary mix of organic and inorganic matter as seawater and biological organisms continue to break down the concrete and steel (Pálsson, 2013). The lack of durability contrasts with the American naval base constructed during the same era, later used as a whale station, that lies on the opposite side of the fiord, and with the particularly durable Nazi concrete fortifications of the Atlantic Wall. Yet the base fulfilled its short-term purpose and, with no future use envisaged, its hasty construction served the wartime imperative to build quickly. Thus despite the poverty of their materiality and construction, it is questionable whether these buildings can be considered to have ‘failed’.

This highlights the shifting values attributed to particular materials. While reverence is accorded to the Roman concrete that has endured over millennia, the impermanence of particular building components may be regarded as a virtue. Where temporary structures are erected or inexpensive materials are required in periods of financial constraints, such as the prefabricated dwellings erected during the Second World War in the UK, this temporary expediency and disposability are integral. Also, where there is an expectation that circumstances may change, that volatile economic and social conditions may turn all that is solid into air, buildings may be constructed to be of limited durability, as Ulfstjerne (this volume) exemplifies in his discussion of the recent yet decaying ‘ghost city’ of Ordos, China.



Figure 23.1 Mingling concrete, metal and seaweed, Derelict naval base, Hvítanes, Hvalfjörður, Iceland

Source: Tim Edensor

In the future, the evident demise of buildings such as those at Hvalfjörður may no longer be a feature of landscapes in which they have been abandoned. Little trace remains of contemporary functional buildings that served as warehouses, retail sheds and light industrial units. Their thin, prefabricated skins clothe light skeletons, adding to the array of disposable or removable components that may be simply disassembled and re-erected elsewhere when economic viability is threatened. The lingering demise of ruins, testifying to apparent failures of various kinds, will in the future be absent due to this enhanced mobility of materials and commercial operations. A further strategy to remove material traces is perpetrated by the contemporary demolition practice that grinds building matter into fragments and pummels it into the earth, eclipsing all evidence of that which was there before, and adding to the substrata upon which new buildings may be erected. This treatment suggests what McDonough and Braungart (2002) term ‘downcycling’, whereby building materials are recycled but in a form where their value is reduced, as in similar instances where they serve as matter for landfill or constitute the large ‘waste’ mounds on the urban fringe depicted by Neilsen (2002). Such practices contrast with those of salvage and reuse; for instance where old bricks are reclaimed from demolished structures to serve as aestheticised cladding for new buildings. Yet materials like these bricks were once also conceived as valueless, highlighting how formerly discarded abject matter may become newly valuable, revealing that ‘rubbish is temporally, socially, politically and economically dynamic’ (O’Brien, 1999: 271).

Though the impermanence of poor concrete and other materials is attributable to its properties, its decay is primarily conditioned by its capacities, the ways in which it is affected by the dynamic forces that coexist in the place at which it is situated. For while a building assemblage provides a structural quality to a collection of heterogeneous materials, its becoming is also shaped by the situated agencies that surround it. And despite a building being well constructed, certain material constituents may be susceptible to particular situational conditions.

Most evident are climatic conditions. As Tim Winter (2004) discusses, at the Angkor Watt temple complex in Cambodia, ruination proceeds swiftly as plentiful rain and humidity provide rich conditions for bacteria, plants and other agents to work on stony matter. And whereas buildings in the UK are susceptible to rapid ruination because of a combination of plentiful rain and freeze thaw action, in Mediterranean climates, structures may last for millennia because of the general dryness and warmth. The qualities of the weather may also combine with chemical agents to provide particularly dynamic conditions for ruination and impact upon architectural decisions that attempt to avoid chronic building failure.

For instance, the deep red sandstone provided by Runcorn Quarry – at one time the largest quarry in the UK – was esteemed not only for its rich colour but also for its durability, and this is evidenced by its continued presence in nineteenth century buildings across North West England. In Manchester, the local Collyhurst sandstone that had provided building material for medieval structures ‘could no longer resist the industrial and domestic emissions of the town’ (Bowler and Brimblecombe, 2000: 80), and with the advent of canal links following the huge growth of the city, alternative, far better quality stone supplies could be imported from surrounding counties. The smoke produced through Manchester’s rapid industrial development and the rise of coal fires also heralded thick, polluted air and as a consequence Victorian architects were compelled to ‘ensure the correct choice of external stone’ (*ibid.*) was made so that it could withstand such a polluted atmosphere, and not, like other material become defoliated, discoloured and obscured by a sooty veneer. During the construction of the city’s neo-gothic John Rylands Library in the 1890s, Runcorn sandstone was chosen as a prestigious component, presumed to be ‘the best and most effective’ material, yet it ‘proved unsatisfactory in terms of durability’ (*ibid.*: 81). Although resilient in other geographical settings, it easily eroded and instead Cumbrian sandstone from Penrith was chosen as a more hardwearing material suited to the specific environment, thus avoiding the building’s rapid ruination.

Mindful of this atmospheric, chemical cocktail, Alfred Waterhouse, the architect of Manchester’s Town Hall, completed in 1877, also in the neo-gothic style, chose Spinkwell sandstone from Bradford. Though of dun-coloured, somewhat unattractive hue, Waterhouse considered that it would resist ‘the evil influences of the peculiar climate of Manchester’ (*ibid.*: 75) and in any case, he contended, the colour hardly mattered since the building, like others in the city, would be rapidly coated in soot. The stone has indeed proved highly durable, resisting these unpromising conditions and remaining largely intact to the present day. However, since Manchester’s air quality changed dramatically following the Clean Air Acts of 1956 and 1968, the soot that coated all buildings has largely been removed and, while Manchester now assumes a multi-hued constitution, the modest colour of the Town Hall has become apparent. Yet despite the decline of the more severe atmospheric causes of stone decay, Wood *et al.* (1984: 60) estimate that in the mid 1980s central Manchester levels of sulphur dioxide might increase the corrosion of stone by 50–70 per cent in comparison with surrounding rural areas, and soiling by particulates added 10–25 per cent to cleaning costs. The amalgam of changing chemical, atmospheric and ecological factors ensures that the erosion of external building material has depended upon the variable quantities of sulphuric acid and nitrates present in the atmosphere and such factors continue to threaten to ruin Manchester’s stone buildings.

Besides these atmospheric chemistries, there are hordes of non-human agents waiting to attack a building's fabric if given the chance, a swarm of life-forms that change over time but are specific to local environmental conditions. Animals and birds seek places to shelter and uncared for buildings open up potentialities that they can exploit. Pigeons, birds of prey, jackdaws and smaller birds seek nesting and roosting sites, enlarging holes, collecting nesting materials and covering floors with their droppings. Millions of arachnids and insects work away at materialities and exploit cracks, woodlice and woodworm attack timbers and create networks that bore through matter. Rats and mice find spaces to shelter, feed, breed and undermine structural components, and foxes weaken foundations in digging out dens. In addition, plants and mosses search out fissures in fabric and put down roots in any gathering of fertile material. At most derelict sites in the UK, spaces are swiftly colonised by rosebay willow herb and buddleia which break up floors and prepare the terrain for larger plants to move in (Figure 23.2). Finally, biofilms – complex consortia of algae, bacteria, fungi, lichens and protozoa – can cause damage to stone and brickwork, releasing destructive acids and exploiting moist crevices in which to grow. Given the ubiquitous menace of these non-human agents, it is essential that pest control measures and strategies to proof buildings against invasion are systematically and regularly deployed.

Furthermore, the assembly of a building is envisaged as combining a medley of components that dwell together harmoniously. Yet, given the latent properties of certain materials, what may for many years form a stable aggregation can be undermined by the agency of one component that threatens the whole assemblage. At St Ann's Church in Manchester, the inspecting architect



Figure 23.2 Sapling breaks up wall, quarry building, Tillicoultry, Scotland

Source: Tim Edensor

pointed out to me that many decades ago, at either side of an external door, iron staples had been inserted beneath stone to provide support (Edensor, 2011). However, water had seeped through minor cracks that emerged in the stone to rust these metal fixtures and their subsequent expansion pressured the surrounding stones to fracture. Other, unforeseen agents exterior to the structure may also act to erode building materials, as for instance with salt that lies in the ground beneath the foundations but rises due to changing conditions of moisture and then saturates permeable stone and brick, damaging it rapidly. Whether external or internal, the catalysing agencies of such materials may be unpredictable and unforeseen, perhaps lying dormant for a very long time before exploding into action.

Social and political historical ruination: failure by design

Above I have discussed material properties and capacities, and identified some of the agencies that act upon buildings, making them continually susceptible to ruination. However, the ultimate consignment of a building to dereliction and subsequent erasure, a stamp that underscores the notion it has failed, is sealed through the decisions made by a multitude of human agents. A building may be abandoned because it is thought that it would cost too much time and effort to rehabilitate, yet such decisions are always informed by value judgements. Political decisions have immense impact, with local strategies to regenerate urban areas, compulsory purchase orders and plans for demolition, planning schemes and changing architectural tastes playing key roles in determining the fate of a building.

Besides being subject to competing ideas about aesthetic and cultural value, buildings are also situated within an 'economic sphere of value' (Cairns and Jacobs, 2014: 49), and key for most of the ruined industrial sites that I investigated between 2002 and 2004 was that economic decisions were critical in consigning buildings to abandonment and subsequent ruination. These decisions may have been responses to bankruptcy, and desires to modernise production or relocate operations, but they belonged to a broader politico-economic context initiated by the policies of Margaret Thatcher's Conservative government in the 1980s to allow industries conceived as uneconomic and outdated to die without receiving any state support. The consequence was a swathe of derelict and decaying industrial buildings across the UK, as coal, pottery, steel, cotton, wool and engineering production came to an end in areas where they had persisted for over a century (Figure 23.3). Most of the purpose-built structures that housed such businesses were immediately rendered outmoded since industrial production became obsolete or was relocated elsewhere. While some were repurposed as apartments, offices or housed smaller workshops, most large brick built and stone factories were conceived as not particularly adaptable and devalued.

Such policies of abandonment epitomise capitalist tendencies towards 'creative destruction', the obliteration of economic orders and older modes of production to clear the way for the creation of new wealth (Schumpeter, 1994). Under conditions of globalisation, as investment has become more free-floating and production more flexible, according to Dylan Trigg (2009: 124) 'capitalist space is no longer obliged to rely on spatial permanence and thus the creation of place'. Cowie and Heathcott exemplify this speeded up evisceration of industrial production in describing how the flight of capital from Detroit precipitated the evacuation of numerous industrial buildings and widespread dereliction: '(T)he very set of political rules that created the industrial order that we once took to be permanent provided the means by which corporations could dismantle that order' (2003: 15). Only recently, after years of decay in which buildings were left as 'devalued capital' (Harvey, 1985), have many been demolished, since with changing economic conditions their sites have become ripe for future accumulation, blank spaces that potential developers can imagine as the site for new buildings.



Figure 23.3 Abandoned rubber factory, Bryn Mawr, South Wales

Source: Tim Edensor

Currently highlighting the recent volatility of capitalist production are the half-finished buildings whose construction was halted by malign economic conditions, such as the notorious ghost estates in Ireland (Kitchin *et al.*, 2014) and the abandoned luxury home developments in the USA, victims of the collapse of the subprime mortgage market and its domino effects upon global financial markets. In the context of the latter example, Nick Yablon comments upon how ‘buildings no longer followed a traditional life cycle – ripening gradually from gestation through maturity to old age – but rather the artificial, accelerated, and unpredictable cycles of speculative real estate’ (2010: 255). Such accelerated ruination is also evident following the sharp decline of the building boom in central Manchester that has left abandoned sites that may never become buildings despite the copious quantities of concrete flooring laid to serve as foundations. Yet decisions have not yet been made to clear these sites, for there is often a variable period of suspension during which it is unclear whether development may proceed in the future. At unfinished building projects and ruins that linger, a sense of ‘unfinished disposal’ (Hetherington, 2004) may persist where considerations of future potentiality postpone decisions that would definitively devalue such sites. Such sites have not yet ‘failed’.

Decisions to relocate production elsewhere leave established sites bereft and in need of redevelopment, though whole networks may become obsolete if they become uneconomically viable, constituting a series of connected ruined elements, as Mattias Qviström (2012) details in his depiction of a Swedish rail network that slid into ruination. Indeed, increasingly complex networks constituted at ever-larger scales may fail and threaten the buildings that belong to them (Graham, 2010). The spread of such networks beyond urban realms illustrates that ruination engendered by capitalist crises also affects rural spaces, as Justin Armstrong (2011) depicts in his account of the gradual abandonment of farming settlements in Saskatchewan. Youths move to cities, rail services close down, grain-processing centres become larger and more

centralised, small farms are absorbed by agribusiness, and shopping is carried out at larger supermarkets, producing a littering of the rural landscape with derelict industrial and agricultural buildings, shops and homes.

Despite the consignment of buildings to ruination via capitalist processes of creative destruction, ruins also emerge during substantive political change. Susan Buck-Morss (2002) discusses how buildings that projected visions of communist utopia have become obsolete with the subsequent failure of the ideologies and regimes from which they emerged. Relatedly, Anca Pusca (2010; also see Lahusen, 2006) discusses how Romanian and Czech iron-works formerly embodied socialist values that celebrated the ways in which heroic workers, industry and city were bound together. For the suddenly disconnected worker, the derelict sites that stand where industry had once flourished provide evidence of a futile sense of connectedness that formerly prevailed, as well as a sense of loss at the disappearance of shared communal and ideological ideals.

A host of other policies and social practices impact upon the vulnerability of buildings to abandonment and dereliction. We have already seen how the Clean Air Acts lessened the threat of atmospheric pollution to Manchester's buildings, reducing the chance of ruination and failure, but derelict buildings can be subject to less formal human threats that constrain their potential for rehabilitation. The illegal practices of salvage merchants who strip lead and other material from evacuated buildings and the destructive endeavours of those who wreak damage for pleasure open up sites to the non-human agencies discussed above (Hudson, 2012). On the other hand, as I have inferred, ruinous and derelict buildings may be subject to unanticipated revaluation and subsequent reclamation in ways that may not have been imaginable at the time of their desertion, as with the disused ironworks complex at Emscher Park, Duisberg, in Germany's Ruhr region. This site has been innovatively utilised for climbing, diving and other recreational purposes with other areas colonised by vegetation and serving as an unmanaged nature reserve (Barndt, 2010; Langhorst, 2004). The steel production complex has been unexpectedly revalorised, decay has been arrested, and different aesthetic assessments have challenged notions that derelict industrial sites are abject, dangerous and ugly. It has been incorporated into the group of buildings officially designated as ruins worthy of preservation and as such is now subject to maintenance and repair, processes that militate against failure and further ruination.

Arresting failure by stabilising materiality: maintenance and repair

Though some architects, notably John Soane and Albert Speer, have envisaged what their creations might look like after the ravages of time have transformed them into ruins, most of those involved in the production of architecture anticipate that the buildings they create will endure for many years. They are able to imagine these buildings as enduring fixtures in the landscape because like most structures they will be subject to extensive and ongoing processes of maintenance and repair. Having discussed how political and economic decisions produce ruins by conceiving buildings as particular kinds of failure that are beyond repair, I now focus on the key human practice that prevents buildings from slipping into ruination, the processes that arrest decay, repair damage, replace worn out materials and keep ruinous agents at bay. For like all manufactured material entities, the process that stops buildings from decaying into a condition from which they become devalued is maintenance, relentless, repetitive maintenance that restores the shape and texture of the world. Ongoing repair and maintenance provides a powerful illusion of durability and reproduces value in architecture, postponing failure.

As Alan Weisman reveals (2007), urban maintenance is integral to the continuity of the city and its survival as a space of organised and ordered matter, for without it everything would fall

apart very rapidly. He imagines what would happen to Manhattan if human life were suddenly extinguished: the erosion of the human-made world would commence instantly. The incessant operation of the electricity-driven pumps that keep New York's underground transport water-free would immediately cease, the subways filling within two days, and subsequently the flow of water would rapidly undermine roads and pavements. Lack of heating and road maintenance would allow ice to fissure tarmac, concrete and stone, assisted by numerous plants that would settle in the cracks and layers of detritus gathering in a world bereft of street cleaning. Lightning would create widespread fires and exposed steel foundations would rust. The entire built environment would quickly become ruinous without the human procedures that clean and restore.

Accordingly, a ruin can be defined as a building for which maintenance and repair has ceased because decisions are made that such structures possess no current or future value. The multiple rhythms of maintenance, cleaning, inspection and treatment are incessant, and if these practices cease or are inadequately performed, ruin accelerates. An army of urban cleaners, often during the night or early morning, move across offices and factories to sweep away the detritus of the day that if left unchecked would exercise ruinous agencies. Heating engineers, pest-controllers, lighting designers, electricians, plumbers, tilers, glazers, air conditioning workers and lift repair workers are summoned to restore systems that have failed, whether through wear and tear or human error, and that threaten comfortable inhabitation and, ultimately, the integrity of a building. These programmes of maintenance, repair and restoration operate according to different temporalities. For instance, Strebel (2011) identifies the daily block checks performed at high-rise flats in Glasgow where concierges carry out such mundane maintenance practices as closing windows left open, ensuring that disposal chutes are clear, removing rubbish, and surveying the interiors for any potential problems, all measures that prevent more extensive threats. At a different scale, the Church of England has a systematic programme of quinquennial inspections where architects specialising in the materials and construction of older structures are appointed to investigate all aspects of a building's fabric, identify repair requirements, and organise any necessary programmes of repair. Such procedures are undertaken where decisions about the value of a building have already been decided, along with commitments towards the cost of upkeep. For instance, in adding particular buildings to a statutory list that values their special architectural or historic value, the government body *English Heritage* institutes maintenance and repair procedures.

In most cases though, despite its crucial role in ensuring the fabric of the built environment, maintenance work is unheralded, seeming to characterise 'the things and the people who are primarily unseen and banished to the periphery of our social graciousness' (Gordon, 1997: 196). In sustaining the illusion that the world is 'characterized by perfect order, completeness, immanence and internal homogeneity rather than leaky, partial and heterogeneous entities' (Graham and Thrift, 2007: 10), the incessant application of complex procedures to control, repair and maintain the material world underlines how, as Jacobs and Merriman insist, architecture is 'an ongoing process of holding together' (2011: 212).

These processes also foreground the fact that buildings are assemblages that are composed and ceaselessly recomposed by inserting new constituents and deploying techniques that hold things together. From this perspective, particularly old buildings might seem to bear scanty evidence of originality. Since extensive maintenance and repair programmes have been carried out at England's medieval cathedrals for centuries, most of their exterior stone may not be that which was installed when they first assumed their form. With the *Last Supper*, there have been so many restorative interventions over time that virtually none of the original paint remains, and we may ask whether this can still be regarded as a painting by Leonardo? Similarly, should such buildings be regarded as unstable, decaying failures or successes in having solicited intensive practices of maintenance and repair over centuries?

Cities and their buildings are continuously reconstructed through their ever-changing connections with the material resources of other places. Materials are imported for new buildings and to replace depleted matter in old ones, highlighting Robert Sack's contention that the 'flows through space are the strands from places that are woven and re-woven to become elements in yet other places' (2004: 248), contributing to what Doreen Massey (2006) calls the 'mixity' of the city. Accordingly, in embodying this importation of matter from elsewhere, buildings reveal the historical and contemporary connections between places (Edensor, 2009). As Cairns and Jacobs point out, buildings are increasingly technically sophisticated and hence they and their components are 'enmeshed in increasingly complex urban systems over "ever larger scales"' (2014: 22). In being constitutive of other places and times, buildings index networks of production that are conjoined, forged and subsequently suspended. For instance, decisions to choose a new supply of stone to arrest the ruination of a building may subsequently contribute to the ruination of the quarry from which stone was previously supplied. And the routes that conveyed this matter to the city may also be threatened with obsolescence, as unused canals and railways lose their functions (Qviström, 2012). The restoration of a building through incorporating new material, ensuring its continuation as a successful structure, thus extends success or failure to other places. Connections with other places can also be forged through the redistribution of selective materials that belonged to a failed building, where stone, tiles and bricks may be reassembled as part of other structures.

Though the persistence of techniques that arrest decay might suggest ongoing success and esteem for a building, repair and maintenance itself can lead to structural and material failure. For instance, according to Maxwell (1998), 'an incalculable amount of permanent damage has been caused to the country's building stock', with abrasive cleaning, notably the deployment of sandblasting 40 or so years ago, blunting detail and perpetrating damage by removing the protective crust that forms on surfaces. Malign effects have also been incurred at aged buildings where infill repairs using mortar of different porosity have curtailed the permeable qualities of the stone that lies between, producing extensive damage through water saturation. And previous removal techniques using biocides have affected the chemical composition of the stone, also reducing permeability as well as producing salt crystallisation and discolouring.

These failures mean that repair has to be an adaptive practice. It is not characterised by seamless technical progress but by an abundance of contested approaches and a history of abandoned techniques. As Graham and Thrift contend, adapting and improvising is a 'means by which societies learn and learn to re-produce' (2007: 5). Technologies thus persist, decline and are superseded. Recently developed methods of restoration include brushing and rubbing, washing and steaming, the use of *wet and dry abrasives*, chemical procedures that apply liquids and *poultices* to draw out bacteria or salts, preservative coating, and consolidants that infuse lost chemicals and stabilise weathering processes (Garrod, 2005). Other techniques promote the use of *laser technology*, ultrasonic equipment and heat lances (Maxwell, 1998). Yet all can only act as temporary bulwarks against entropy and decay.

As Gregson *et al.* (2009) discuss, repair depends upon the qualities of the material, the competencies of those performing maintenance, and the social and cultural meanings associated with particular approaches. Elizabeth Spellman (2002) discusses the diversity of repair workers, people intimate with different assemblages and materialities, and guided by different understandings about the aesthetics, ethics and authenticity that should be mobilised. As I have emphasised, repair is a contingent endeavour that employs continually changing techniques and must recognise shifting materialities, surrounding social and environmental conditions, and contesting aesthetics.

These contestations emerge through the maintenance and repair of buildings, especially with regard to the aesthetics surrounding conservation. Here, notions of failure and success are battled over and change over time. For instance, the vexed issue of whether to source a material that matches the colour of that replaced is replete with contesting aesthetic values. Tait and While underline the complexity of competing understandings over restoration in pointing to 'the multiplicity of meanings attributed to buildings but also the multiple nature of buildings as objects' (2009: 724). Indeed, Graham and Thrift claim that the number of components in buildings 'has been proliferating, becoming more complex and becoming composed from an ever greater range of materials' (2007: 3).

Tait and While argue that though 'the objects of conservation' are 'very complex, hybrid things embedded in technological, social, economic, and political relationships', the tendency in conservation discourse and practice has been 'to simplify and segregate around the idea of stable objects, with authentic meaning residing in the original architectural vision' (2009: 734–735). This is exemplified by the different conceptions that focus on which kinds of new material should be used to replace degraded stone. As Vans (2009) points out, '(H)owever skilfully it is carried out, the insertion of new stone into a weathered wall is likely to have a substantial impact on its appearance'. In recent times, the reproduction of a pristine, 'authentic' appearance was advocated but this is challenged by Smith and Přikryl (2007: 2), who complain that 'it is rare that significant buildings are allowed to "grow old gracefully"'. They compare the 'removal and cosmetic replacement of non-life-threatening blemishes to human cosmetic surgery' in the 'presentation of facades that are forever young'. The issue arises as to whether buildings can be regarded as 'pleasantly weathered rather than dirty' (Maxwell, 1992: 5); whether this signifies failure or enduring success. Some articulate a desire to avoid a scarring 'with the harshness of new stone' (Bristow, 1998: 13) and others suggest that the search for exactitude in matching new and old colours and textures institutes another purist approach.

These conservation discourses have recently been supplemented by strategies that accept the ultimate failure of features in the built environment. Caitlin DeSilvey explores how the National Trust property, the stone-built harbour at Mullion Cove, Cornwall, first erected in 1895, has had to be continuously repaired due to the erosive power of the sea. The expense and great effort required for this unremitting maintenance is now being questioned. The persistence of the harbour as an enduring fixture has until now been achieved through a conservation ethos: 'The harbour is a temporary arrangement of matter, made durable by a twentieth century heritage discourse that granted it a symbolic cultural value' (2012: 49). However, following these ceaseless efforts to shore it up, a recent decision introduced a policy of non-intervention, following a policy of 'managed ruination' through which nature will take its course and the harbour will in time be claimed by the sea.

Numerous conceptions about how to conserve buildings are mobilised during conservation schemes, with heterogeneous actors, including stonemasons, curators and heritage managers, deploying distinct professional practices and articulating different ideas, some emphasising authenticity of material fabric, others focusing upon aesthetic authenticity. As Jones and Yarrow show, 'conservation emerges as an inherently complex process in which practitioners grapple with the stability and instability of the monuments and buildings they work with' and accordingly, 'creates a space in which the multiplicity and instability of the object of conservation are exposed (2013: 23). Such strategies exemplify how 'buildings are defined, categorised and shaped in complex networks over time' (Tait and While, 2009: 726), negotiated over, restored, inadvertently ruined and consigned to obsolescence.

Conclusion

In identifying the continuous threats to the fate of buildings and the endless procedures carried out to ensure they remain valued and thus survive, I have emphasised that incipient ruination must be kept at bay to prevent the slide towards failure of one sort or another. Yet ruined buildings prevail in certain settings at particular times because of malign economic and social circumstances. Areas of rapid or persistent disinvestment, or in which manufacturing has become obsolete or superseded by technological advances, are likely to produce derelict industrial sites, as with the rapid political and economic change in post-Socialist Europe that heralded the demise of networks of production. On the other hand, locations that successfully attract inward investment and hastily regenerate may swiftly demolish the obsolete to banish any signs of failure. And regimes in which maintenance is particularly systematic scrupulously replace, cleanse and repair any suggestion of decay. In Singapore, for example, levels of maintenance are so insistent that even patches of marginal green space are intensively manicured, and it can be difficult to find traces of even the recent past in the city's fabric. The absence of material traces of the past is likely to spread, for the aforementioned practice of using mobile components that can be readily assembled and disassembled is increasingly prevalent.

Yet in certain other cities – Manchester for example – while obvious ruins persist in a declining number of abandoned mills and warehouses, minor sites and constellations of ruination are everywhere, which if left unattended, will further erode and decay. Cobbles erupt from beneath tarmac, conjuring a vanished world of horses, carts and stables, and concrete floor layouts spread across derelict land, the only vestige of buildings that occupied the site. Elsewhere, in back alleys, culverts and service roads, little effort is expended to provide public-facing, aesthetically pleasing façades. Repairs are unfinished, bricks fall out of walls, wooden ledges rot, copious moss grows and ad hoc patching up signifies temporary mending. More obviously, in the struggling businesses on marginal industrial estates and run-down housing estates, the fabric of buildings shows numerous signs of ruination. Mortar crumbles, slates slip off roofs, grass erupts through paving, ferns colonise brickwork, hedges break their former bounds, and broken drainpipes permit water to pour onto facades, staining stone and paintwork. Maintenance and repair is sporadic at best and buildings are devalued and imperilled. Such sites lack the ascribed value that would incur the instantiation of a more systematic deployment of maintenance and repair. But if wholly unattended they may proliferate the *subnatures* depicted by Gissen (2009) that leak into the more regulated parts of the city, those substances frequently regarded as abject such as dust, debris, mud, dankness and weeds that threaten to become uncontrollable (Figure 23.4).

The forces of planning, bourgeois regimes of hygiene, architectural modernisms, minimalism, home styles and domestic regulation have all often manufactured fantasies about producing a frictionless life – but such an eventuality is an illusion. Because pervasive maintenance is an impossibility, and especially because most cities have neither the resources nor the disposition to commit to such extensive regimes, incipient ruins are everywhere. Together with factors that range from inept construction, poor or unsuited materials, local non-human agencies, creative destruction and other human practices and decisions, buildings are always under threat of ruination. Whereas decisions about (re)making the material world by building always involve assembling disparate things together, decisions are also always made or avoided that allow other buildings to fall apart. Accordingly, we need to consider the contexts of building failure.

Perhaps a building can be seen to have succeeded when it has endured the ravages of time, though this will have been achieved by the interventions of maintenance and repair work that have sustained its durability. Venerable successful buildings bear innumerable traces of the work



Figure 23.4 Distressed wall, industrial estate, Manchester

Source: Tim Edensor

that has sustained them through the ages: replacements, extractions and cleaning procedures. Such buildings bear traces of their partial failure but have solicited repair, are successful because they have been valued according to prevailing cultural tastes and ideals and treated sympathetically. Fatal flaws in the materials or construction have not (yet) emerged, building materials may have been suited to the environment, and no repairs have been deemed unworthy of effort and expense. However, a perpetually untarnished building, a building that never ages and requires no repair, is a grotesque impossibility. We must ceaselessly live with and deal with ruination, allowing it to proceed sometimes and to impede its ravages in other instances, but we should more critically acknowledge its contribution to the built environment.

References

- Armstrong, J. (2011) 'Walter Benjamin and the politics of abandonment in Saskatchewan, Canada', *Cultural Studies*, 25(3): 273–293.
- Barad, K. (2003) 'Posthumanist performativity: toward an understanding of how matter comes to matter', *Signs: Journal of Women in Culture and Society*, 28(3): 801–831.
- Barndt, K. (2010) '"Memory traces of an abandoned set of futures": industrial ruins in postindustrial landscapes of Germany', in Hell, J. and Schonle, J. (eds) *Ruins of Modernity*, Durham, NC: Duke University Press, pp. 270–293.
- Bennett, J. (2010) *Vibrant Matter: A Political Ecology of Things*, Durham, NC: Duke University Press.
- Bouzarovski, S. (2009) 'Building events in inner-city Gdansk, Poland: exploring the socio-spatial construction of agency in built form', *Environment and Planning D: Society and Space*, 27: 840–858.
- Bowler, C. and Brimblecombe, P. (2000) 'Environmental pressures on building design and Manchester's John Rylands Library', *Journal of Design History*, 13(3): 175–191.
- Bristow, I. (1998) 'An introduction to the restoration, conservation and repair of stone', in Ashurst, J. and Dimes, F. (eds) *Conservation of Building and Decorative Stone*, Butterworth Heineman: Oxford, pp. 1–18.
- Buck-Morss, S. (2002) *Dreamworld and Catastrophe: The Passing of Mass Utopia in East and West*, Cambridge, MA: MIT Press.
- Cairns, S. and Jacobs, J. (2014) *Buildings Must Die: A Perverse View of Architecture*, Cambridge, MA: MIT Press.
- Cowie, J. and Heathcott, J. (2003) *Beyond the Ruins: The Meanings of Deindustrialization*, Ithaca, NY: Cornell University Press.
- DeLanda, M. (2006) *A New Philosophy of Society*, London: Continuum.
- DeSilvey, C. (2012) 'Making sense of transience: an anticipatory history', *Cultural Geographies*, 19(1): 31–54.
- DeSilvey, C. and Edensor, T. (2013) 'Reckoning with ruins', *Progress in Human Geography*, 37(4): 465–485.
- Dewsbury, J. D. (2000), 'Performativity and the event: enacting a philosophy of difference', *Environment and Planning D: Society and Space*, 18: 473–496.
- Edensor, T. (2005a) *Industrial Ruins: Space, Aesthetics and Materiality*, Oxford: Berg.
- Edensor, T. (2005b) 'The ghosts of industrial ruins: ordering and disordering memory in excessive space', *Environment and Planning D: Society and Space*, 23: 829–849.
- Edensor, T. (2005c) 'Waste matter – the debris of industrial ruins and the disordering of the material world: the materialities of industrial ruins', *Journal of Material Culture*, 10(3): 311–332.
- Edensor, T. (2007) 'Sensing the ruin', *The Senses and Society*, 2(2): 217–232.
- Edensor, T. (2009) 'Building stone in Manchester: networks of materiality, circulating matter and the ongoing constitution of the city', in Guggenheim, M. and Söderström, O. (eds) *Re-Shaping Cities*, London: Routledge.
- Edensor, T. (2011) 'Entangled agencies, material networks and repair in a building assemblage: The mutable stone of St Ann's Church, Manchester', *Transactions of the Institute of British Geographers*, 36(2): 238–252.
- Garrod, E. (2005) 'Stone consolidation: halts decay and prolongs life', www.buildingconservation.com/articles/stoneconsol/stoneconsol.htm (accessed October 2014).
- Gissen, D. (2009) *Subnature: Architectures's Other Environments*, New York: Princeton Architectural Press.
- Gordon, A. (1997) *Ghostly Matters*, Minneapolis, MN: Minnesota University Press.
- Graham, S. (ed.) (2010) *Disrupted Cities: When Infrastructure Fails*, New York: Routledge.
- Graham, S. and Thrift, N. (2007) 'Out of order: understanding repair and maintenance', *Theory, Culture and Society*, 24(3): 1–25.

- Gregson, N., Metcalf, A. and Crewe, L. (2009) 'Practices of object maintenance and repair: how consumers attend to consumer objects within the home', *Journal of Consumer Culture*, 9(2): 248–272.
- Harvey, D. (1985) *The Urbanization of Capital*, Oxford: Blackwell.
- Hetherington, K. (2004) 'Secondhandedness: consumption, disposal, and absent presence', *Environment and Planning D: Society and Space*, 22: 157–173.
- Hudson, J. (2012) 'Informal spaces: Creative (re)appropriations of the city', Unpublished PhD thesis, Manchester Metropolitan University.
- Ingold, T. (2004) 'Buildings', in Harrison, S., Pile, S. and Thrift, N. (eds) *Patterned Ground: Entanglements of Nature and Culture*, London: Reaktion, pp. 238–240.
- Ingold, T. and Hallam, E. (2007) 'Creativity and cultural improvisation: an introduction', in Hallam, E. and Ingold, T. (eds) *Creativity and Cultural Improvisation*, Oxford: Berg.
- Jacobs, J. and Merriman, P. (2011) 'Practising architectures', *Social and Cultural Geography*, 12(3): 211–222.
- Jones, S. and Yarrow, T. (2013) 'Crafting authenticity: An ethnography of conservation practice', *Journal of Material Culture*, 18(1): 3–26.
- Kitchin, R., O'Callaghan, C. and Gleeson, J. (2014) 'The new ruins of Ireland? Unfinished estates in the post-Celtic Tiger era', *International Journal of Urban and Regional Research*, 38(3): 1069–1080.
- Lahusen, T. (2006) 'Decay or endurance? The ruins of socialism', *Slavic Review*, 65(4): 736–746.
- Langhorst, J. (2004) 'Rising from ruins: postindustrial sites between abandonment and engagement', *Conference Proceedings: Tourist Places/Theories and Strategies*, Edinburgh.
- McDonough, W. and Braungart, M. (2002) *Cradle to Cradle: Remaking the Way We Make Things*, New York: North Point Press.
- Massey, D. (2006) 'Landscape as a provocation: reflections on moving mountains', *Journal of Material Culture*, 11(1/2): 33–48.
- Maxwell, I. (1992) 'Stone cleaning, for better or worse? an overview', in Webster, R. (ed.) *Stone Cleaning and the Nature, Soiling and Decay Mechanisms of Stone*, London: Donhead, pp. 3–35.
- Maxwell, I. (1998) Stone Cleaning, www.buildingconservation.com/articles/stone98/stone98.htm (accessed October, 2014).
- Neilsen, T. (2002) 'The return of the excessive: superfluous landscapes', *Space and Culture*, 5(1): 53–62.
- O'Brien, M. (1999) 'Rubbish power: towards a sociology of the rubbish society', in Hearn, J. and Roseneil, S. (eds) *Consuming Cultures: Power and Resistance*, Basingstoke: MacMillan, pp. 262–277.
- Pålsson, G. (2013) 'Situating nature: ruins of modernity as *náttúruupperlur*', *Tourist Studies*, 13(2): 172–188.
- Pusca, A. (2010) 'Industrial and human ruins of postcommunist Europe', *Space and Culture*, 13(3): 239–255.
- Qviström, M. (2012) 'Network ruins and green structure development: an attempt to trace relational spaces of a railway ruin', *Landscape Research*, 37(3): 257–275.
- Sack, R. (2004) 'Place-making and time', in Mels, T. (ed.) *Reanimating Places: A Geography of Rhythms*, Aldershot: Ashgate, pp. 243–254.
- Schumpeter, J. (1994) *Capitalism, Socialism and Democracy*, London: Routledge.
- Spellman, E. (2002) *Repair: The Impulse to Restore in a Fragile World*, Boston, MA: Beacon Press.
- Smith, B. and Příkryl, R. (2007) 'Diagnosing decay: the value of medical analogy in understanding the weathering of building stones', in Příkryl, R. and Smith, B. (eds) *Building Stone Decay: From Diagnosis to Conservation*, London: The Geological Society, pp. 1–8.
- Strebel, I. (2011) 'The living building: Towards a geography of maintenance work', *Social and Cultural Geography*, 12(3): 243–262.
- Tait, M. and While, A. (2009) 'Ontology and the conservation of built heritage', *Environment and Planning D: Society and Space*, 27: 721–737.
- Till, J. (2009) *Architecture Depends*, Cambridge, MA: MIT Press.
- Trigg, D. (2009) 'The place of trauma: memory, hauntings, and the temporality of ruins', *Memory Studies*, 2: 87–101.
- Vans, J. (2009) 'New stone for old: techniques for matching historic stone finishes', www.buildingconservation.com/articles/newstone/newstone.htm (accessed October, 2014).
- Weisman, A. (2007) *The World Without Us*, London: Virgin.
- Winter, T. (2004) 'Cultural heritage and tourism in Angkor, Cambodia: developing a theoretical dialogue', *Historical Environment*, 17(3): 3–8.
- Wood, C., Lee, N., Luker, J. and Saunders, P. (1984) *The Geography of Pollution: A Study of Greater Manchester*, Manchester: Manchester University Press.
- Yablon, N. (2010) *Untimely Ruins: An Archaeology of American Urban Modernity, 1819–1919*, Chicago, IL: University of Chicago Press.
- Yussof, K. and Gabrys, J. (2006) 'Time lapses: Robert Smithson's mobile landscapes', *Cultural Geographies*, 13(3): 444–450.

For love of ruins

Póra Pétursdóttir

Introduction

Eyri is the name of an abandoned farm in Ingólfssfjörður in northwest Iceland, and the location of a herring processing station deserted in the early 1950s. Herring fishing and processing played a significant role in Iceland's recent history and during the early twentieth century the growing herring industry affected more or less every settlement along the coast of the island. Eyri was one of these settlements. The herring station established here was not among the most successful and prosperous ones, however, and its rise and fall only spans a few decades. Moreover, unlike many settlements where herring was replaced with other products, and rendering factories with new processing plants, Eyri has remained deserted, a desolated place where the ruining herring station still dominates the landscape (Figures 24.1 and 24.3). Its current but out-dated architecture is a relic, thus, and resembled by only two other stations in the whole of Iceland. In that sense, though one of the least successful stations in Iceland's herring history, Eyri is definitely among the most persistent.

Despite its architectural and culture-historical uniqueness, Eyri has not been listed as heritage; it has, in fact, been more or less completely ignored by heritage authorities. Excluded on grounds of young age, untraditional construction material and ruining state Eyri has, since the abandonment in the 1950s, freely outlived its post-industrial, post-human life as ruin. Nevertheless, and its marginality notwithstanding, Eyri is a popular destination. People travel here and explore the decaying herring station, some by intention while others stumble across it more unexpectedly on adventurous quests to the road's end (Figure 24.2). Disregarding what brought them here, however, most people that come to Eyri and meet the station and its decaying buildings and structures seem to fall in love with it. Or to be more precise, rather than describing it *as* love, their attempts to articulate the affects and sentiments of the encounter often take the form and vocabulary of a lover's discourse; a personal, nostalgic and fragmentary prose, anchored in the site itself and the withering surface of things encountered.

[. . .] the lover's discourse is today of an extreme solitude. This discourse is spoken, perhaps, by thousands of subjects (who knows?), but warranted by no one; it is completely forsaken by surrounding languages: ignored, disparaged, or derided by them, severed not only from authority but also from the mechanisms of authority (sciences, techniques, arts). Once a

discourse is thus driven by its own momentum into the backwater of the ‘unreal’, exiled from all gregarity, it has no recourse but to become the site, however exiguous, of an affirmation.

(Barthes 2002 [1977]: 1)

While being one of those people deeply moved by Eyri’s aura, my first encounter with the site came about very differently from that of most other visitors. Arriving as an archaeologist intending to make the herring station a subject of scientific research, my affection, at first, seemed inappropriate or unprofessional, even forbidden. As a scholar intending to do research my interest should be with the site’s past and its historical/archaeological significance – disregarding subjective or naïve experiences of love and affection. Gradually, nevertheless, and for reasons that I cannot rationalize except by returning to the force of that first encounter, my research focus was turned towards this affective energy; to the site’s present, its ongoing ruination and its seemingly afforded affect.

There is definitely a growing concern for affect and emotion in heritage studies (e.g. Smith and Waterton 2009: 49; Byrne 2013; Waterton and Watson 2013; Smith and Campbell 2015), as there is in the humanities and social sciences generally. Drawing inspiration from this literature, I set out to inquire what it is with the ruins of Eyri that made me, and others, ‘wonder wounded’ (Malpas 2012), and in what way this seeming affection might be significant for understanding and explaining people’s engagement with a tangible past. I was curious to know,



Figure 24.1 Eyri herring station, Iceland. The women’s lodging house to the left

Source: Þóra Pétursdóttir

as Yael Navaro-Yashin in her explorations of the postwar geography of Northern Cyprus, whether this affect, eeriness, this ‘creepy wave I felt through my stomach’ could be explained simply as ‘a reflection of my subjectivity, my own projections onto the built (or destroyed) environment, my own constructions, my transference?’ (Navaro-Yashin 2012: 132). As argued by Teresa Brennan modern, Western thought is ‘particularly resistant to the idea that our emotions are not altogether our own’ (2004: 2). However, while traditional sociological and psycho-analytical theory may have placed affect within the domain of the subjectively created and mediated, the current turn to affect has underlined the significance also of materiality, the non-subjective, our tangible environment, in its ignition and transmission (Massumi 2002; Brennan 2004; Deleuze and Guattari 2004; Clough and Halley 2007; Thrift 2008; Navaro-Yashin 2012). Following this, and with empirical reference to my work on the ruining herring station in Eyri, this paper explores the connotation of and conditions for a turn to affect in heritage studies. How does a turn to affect influence perspectives on tangible heritage? Does it require a rethinking of the role things play in their own constitution as heritage? And, a more serious consideration of material processes, like ruination, in the heritagization of ruins? And if so, how does such rethinking comply with current trends and developments in heritage studies?

Before moving further to this discussion, however, I will briefly turn to the concept of love, which, arguably, was the initial drive of my research. Though mostly associated to subjective sentiment, even to irrationality and blindness, I here suggest that love may also be understood as compatible ‘with feelings of obligation and responsibility’ (Miller 2002: 343); responsibility and commitment, for example, towards the objects of our research and the way in which we and others become *moved by them* (de Laet and Mol 2000: 253). Rather than ignoring this experience I believe it is important, and in particular in relation to affect and emotion, that we not merely allow ourselves to be moved but allow affection to move our inquiry and writing.

For love

In a wonderful article named ‘Love and loss in the 1960s’, Denis Byrne (2013) sets off to explore whether the ‘lover’s discourse’, as proposed by Roland Barthes (2002 [1977]), may potentially become a language spoken by heritage studies. Both heritage studies and archaeology, Byrne proclaims, ‘have great potential to foster empathy with the experience of past others’, but what such attentiveness also requires is ‘a sophisticated understanding of how objects become imbued with affect and how they transmit it’ (Byrne 2013: 596). While Byrne’s concern is here with the role objects play in the context of human experiences of love and loss, I believe his discussion – and indeed love – is applicable and important for an understanding of ruins, things and tangible heritage generally. As he points out, attentiveness to our own emotions and relations with things may generate a ‘critical proximity’ (Morris 2006) with our subject matter, which may aid understanding of how also other people contemplate and engage with things and heritage (Byrne 2013: 606–607). In other words, concern for how love, sensation, memory and affect are transmitted or afforded by the things, structures and sites we engage with in everyday life may inspire a rethinking of heritage notions and uses.

Consider the staircase. During the time Su Li Zhen and Yddy were together, Su walked up and down that staircase dozens of times. We can assume her feet came to know the specific rise of the steps, her heart beat faster towards the top partly from exertion, partly from anticipation of what the stairs were leading her to. The staircase is ‘active’ in the sense, for instance, of taking her up to the apartment (turning her around at the landing halfway up), but also in the sense of being no mere container of movement, no neutral

bystander to her passage. It was involved that first night of their affair when they came back to the apartment; it was involved when she left the apartment the night they broke up. Later again, the night she climbed the stairs on her way to attempt a reconciliation we can assume that her hand recognized the terrazzo balustrade – we might say its touch ‘took her back’ to the time they were together. . . . Its affective power is residual. Her presence, movements and emotions on the stairs are sedimented into it both in the sense of affective contagion and of physical sensuality.

(Byrne 2013: 602)

Employing love as a scholarly concept may, however, appear absurd, if not utterly outrageous, and certainly far off what is considered ideal or even possible when it comes to inspiration or impetus for preferably rational and ‘non-passionate’ academic writings. Nevertheless, Byrne is not at all the first to suggest love’s possible momentum (see references to de Laet and Mol 2000, and Miller 2002 above). Barthes’, though somewhat equivocal, and importantly deliberately so, elaboration of the lover’s discourse is already mentioned and quoted above. Possibly more accommodating as a ‘rationalization’ for love’s metaphysical or ontological quality is Alain Badiou’s persuasive discussion in his *Praise of Love*. Here Badiou states, and with reference to Plato, that, ‘anyone who doesn’t take love as a starting point will never understand the nature of philosophy’ (Badiou and Truong 2012: 3). While this may still sound strange, it is important to add that in Badiou’s understanding love is not a vague, abstracting or transcendental sensation that carries us away from or ‘beyond’ the factual or the everyday, but is rather a down-to-earth intense experience of the otherness of a person, thing or world. To him, love is also the risk taken when we are challenged by this difference and rather than being suspicious of it we put all our trust in it. Thus, despite its often harmonious depiction, love in Badiou’s sense is woven from the experience of *otherness*; it does not seek sameness but embraces, and empathises with, what is different, incompatible or even impossible. Hence, Badiou argues, ‘thinking inspired by love is also thinking that is created against all order, against the powerful order of the law’ (Badiou and Truong 2012: 79).

This clearly recalls Barthes’ words quoted above illuminating that it is love’s familiar, yet ungraspable momentum that simultaneously has exiled it ‘into the backwater of the “unreal”’ and underpins its indisputable, and very *real*, affirmative power. Moreover, and as I will discuss further in the following, this allusion to love’s unbound character also recalls its primitivism, and close connection to an aesthetic instinct: as referring to our pre-contemplative, corporeal reaction to the other’s and the world’s affect and touch. To use Terry Eagleton’s (1990) phrase, this aesthetics is a ‘primitive materialism’, an experience grounded in our very primordial *being-in-the-world* and, thus, our *being-in-touch* with the substance of this world, also pre-cognitively.

While Badiou (and Barthes) is for the most part referring to love between *human* beings, I think his theorizing or ‘re-invention’ of love – and its relation to a ‘primitive materialism’ – is pertinent also for other experiences of affective otherness, including the passion we may feel for the things we do or engage with. Following this, and getting closer to the topic of this chapter, I find Byrne’s proposal that ‘a lover’s discourse’ may be an appropriate language for heritage very thought-provoking and inviting. Through my archaeological studies of modern ruins in Iceland’s far north, I have found motivation and been intrigued by the attentiveness and affection people (myself included) show for the ruins, and for the very processes of ruination. Though neither an undisputed nor uniform phenomenon, this interest and ‘passion’ is something we also see growing worldwide, reflected for example in the Urban Explorer movement, in the genre of contemporary ruin photography (see Pétursdóttir and Olsen 2014) and in various online ruin forums (see DeSilvey and Edensor 2013 for discussion of the current

‘ruinenlust’). One might even claim that the current rise of contemporary archaeology displays some affinity with this same phenomenon – a love for ruins.

This notwithstanding, accounting for this passion is complex and challenging. In my own work on the modern ruins of Eyri and my attempts to understand people’s engagement with them, I have clearly felt the double constraints of hegemonic ways of designating heritage and conventional academic tropes and modes of expression. In other words, not only does it appear contradictory to speak of ruins’ and ruination’s *own* affective affordance or energy (cf. Navaro-Yashin 2012) in relation to processes of heritagization, memory and knowledge, but it may also appear somewhat improper and incompatible with the traditional academic genre (Pétursdóttir 2013).

Thus, alluding to the lure and affect of ruins may be derided as subjective, trivial and superficial in an academic environment more accustomed to, and expecting, abstracted or ‘underlying’ social/historical connotations when it comes to explaining the meaning and significance of heritage. Nevertheless, current development within heritage studies clearly underscores the need to consider affect and emotion in the study of heritage practices and use (e.g. Smith and Waterton 2009: 49; Byrne 2013; Waterton and Watson 2013; Smith and Campbell 2015). What is important in this relation, however, and as I will discuss in the following part, is that this is considered in relation to both the immaterial and material aspects of heritage experiences. That is, that affect and emotion is released from the purely subjective and intangible domain and allowed to infiltrate also our tangible environments and the interactions between these (Navaro-Yashin 2012: 161ff.). Thus, with inspiration from Byrne’s proposal – and with foothold in my own studies of modern ruination (Pétursdóttir 2012, 2013, 2014) – what follows of this chapter will explore how a more empathetic perspective and genre may aid this rethinking of heritage, of ruins and abandoned buildings, and of people’s engagement with these.



Figure 24.2 Visitors in Eyri

Source: Þóra Pétursdóttir

Critical heritage, emotion and affect

Heritage studies are flourishing and not least the newly formed branch of what has been identified as *Critical Heritage Studies* (CHS). In a preliminary manifesto, composed in relation to the inaugural meeting for the Association of Critical Heritage Studies (ACHS) in Gothenburg in 2012, Campbell and Smith declare that ‘heritage studies needs to be rebuilt from the ground up’, which they further state ‘requires the “ruthless criticism of everything existing”’ (Campbell and Smith 2012); questioning traditional ways of doing and thinking heritage, in order to bring to the fore perspectives of those others marginalized through conventional heritage notions and practices (ibid.). The fact that this first conference attracted close to 500 participants (Smith 2012: 533), clearly speaks to the significance of posing these questions and the urge for a critical rethinking of heritage as a concept and act in general. Nevertheless, what comprises a *critical* approach may not be entirely clear (e.g. Winter 2013; also Waterton and Watson 2013), and in the very manifesto of ACHS Campbell and Smith also encourage scholars to react to and question what they propose as possible conduits for more critically innovative ways of thinking and doing heritage (see also Smith 2012).

One issue that was specifically stressed in relation to the first ACHS conference is that contributions ‘should be underpinned by an active move away from site- and artefact-based definitions of heritage in a traditional sense’, to instead encourage ‘interdisciplinarity stemming from social science, scholarly traditions, natural science, and also areas such as artistic practices and the performing arts’. Though neither deliberately proposed in this excerpt nor in the manifesto, the suggested distancing of heritage from *sites* and *things*, though in a ‘traditional’ understanding, is something that may be read between the lines also in much of the work recently produced under the banner of CHS. I would insist that this should, furthermore, be seen in light of the liaison between the development of a notion of CHS and the preceding (and indeed contemporaneous) emphasis on *intangible* heritage as a *critical* and corrective move in theoretical and applied notions of heritage (Pétursdóttir 2013). This includes the current accentuating of heritage as a verb and, thus, of understanding heritage not as thing, site or structure but as a process (Harvey 2001; Smith 2006).

As I have argued in more detail elsewhere (Pétursdóttir 2013), though intangible heritage is initially proposed as co-constituted and integral with its tangible aspects, much of the recent intangible heritage discourse has rather underpinned an opposition between the two and, moreover, furthered a notion of ‘intangibility’ as the fundamentally defining aspect of all heritage. That is, maintaining that heritage should be understood as a mentality, an experience, or a process of remembering where ‘the sites themselves are cultural tools that can facilitate, but are not necessarily vital for, this process’ (Smith 2006: 44), clearly leaves little room for tangible aspects or affective affordances. Rather, heritage mostly appears as a process where things and sites may be engaged in the representation or manifestation of amorphous social values, but are themselves by no means imperative to that process. The statement that ‘all heritage is intangible’ (Smith 2006: 3; Waterton and Smith 2009: 16; see Solli 2011 and Pétursdóttir 2013 for criticism) is a reflection of this. As is also the claim that heritage is *made* (e.g. Carman 2010) – and the understanding that ‘heritage is heritage *because* it is subjected to the management and preservation/conservation process, not because it simply “*is*”’ (Smith 2006: 3). In other words, it is my judgement that the tangible, and the role this plays in heritage experiences, has received increasingly less attention, and even been deliberately stigmatized, in recent developments and critical reconsiderations in heritage studies.

The rise of CHS, and the notion of heritage as a process and engagement has, however, impelled an interest in how affect and emotion become part of heritage experiences (e.g. Smith



Figure 24.3 Ingólfur herring factory, Eyri

Source: Þóra Pétursdóttir

2011; Crouch 2012; Byrne 2013; Waterton and Watson 2013; Hetherington 2014; Smith and Campbell 2015). Smith and Waterton (2009: 49–51) underline that recognizing the emotional qualities of heritage experiences and the way these are facilitated and ‘managed’ is significant for an understanding of the cultural mechanisms of heritage. They, moreover, underline how Western heritage discourses often have ignored and discharged the emotional registers of heritage experiences by associating them with ‘nostalgia’ and, thus, with a reactionary, non-significant and even fallacious view of the past (see also Smith and Campbell 2015). Also focusing on emotions in heritage, and building on interviews with museum and heritage ‘users’, Smith and Campbell conclude that both should be understood as ‘places where people go to feel’, and ‘arenas where people go to “manage” their emotions’ (Smith and Campbell 2015). However, the ‘calculated’ character of this emotional register, as something exclusively humanly constituted and controlled, and as reflected in the designation of people as conscious ‘users’ of museums, sites and things, evidently risks rendering the latter as mere *tools* employed rather than themselves actively entwined in the afforded experience.

It should be added, though, that a significant distinction is often made between emotion and affect (Pile 2009), where the former may, indeed, be seen as a more conscious and ‘controllable’ phenomenon. And while emotion may, moreover, be represented or expressed in e.g. poetry or prose, affect is conceived as beyond both cognition and representation; that ‘affect is non-discursive’ as stated by Guattari (1996: 159). Nevertheless, though being aware of this distinction is important, I believe it is no less significant to also underline the relations between affect and emotion. That is, while affect often is beyond cognition and expression, its momentary force may result in conscious sensation, emotion and reflexive expression. Thus, while emotion may appear more human centred and regulated, its rhizome is also in the ‘affective

contagion’ (Thrift 2008: 237) between different bodies – human and non-human – and in the very primitive experience of being-in-the-world and being moved by the touch of things.

More in line with this understanding and drawing on ideas on performativity, David Crouch (2012), for example, argues for the significance of considering the very ‘experiences’ associated with being a tourist, how it *feels* really, in order to gain understanding of how people encounter and engage with heritage spaces. By so doing he also brings a conceptualizing of tourism and heritage closer to what we could term the ‘everyday sphere’ and the mundane experiences of ‘being alive’ (ibid.) and being-in-touch with things. The same is to say about Byrne’s approach to love and loss mentioned above, though his notion of heritage is also broader and thus in this sense more ‘democratic’ or inclusive. Pinpointing how forms of national and official heritage have often been privileged over local and more mundane and intimate levels of heritage experience, Byrne states that as heritage studies increasingly ‘turns to consider emotion and affect it is towards this intimacy that it largely turns. We pull back to the space we know best; we claim the right to take our heritage personally’ (Byrne 2013: 597).

In other words, and as Byrne does suggest, turning to affect and emotion – and to its root in a primordial or primitive materialism – cannot simply be a means to ‘enlarge our thinking’ about heritage, ‘a means of capturing the embodied state beyond’ (Waterton and Watson 2013: 552). Rather, turning to affect requires no less than *a ruthless criticism and rethinking of everything existing* – including our own stance as researchers of heritage, and the language we employ to express our thinking and experience. Surely, and as rightfully warned by Waterton and Watson (2013), there may be a risk ‘that if the intuitive and embodied are theorised too loosely, inclined as they are towards an almost universalist conceptualisation of affect, then *all* bodies would appear to be the same’ (ibid.: 556; see also Thien 2005; Tolia-Kelly 2006; Sharp 2009). Nevertheless, and the significance of this critique notwithstanding, *the intuitive and embodied* can by definition only be *loosely theorized* – it cannot be fully rationalized or made intelligible in the conventional modern understanding of scholarly reasoning. A turn to affect rather calls for a different science language, for alternative expressions and forms that *care for personal experiences* and convey moments of wonder and affect.

What may be needed, thus, if we are to proceed with affect, emotion and love as scholarly concepts, is a break with the social critic’s apprehension and negative notion of our ‘situatedness’, to instead adopt a more overt but optimistic notion of our stance. A break, we might say, that resembles a shift from an *etic* viewpoint, utterly detached, distanced and generalizing, towards an *emic* perspective that is grounded, overtly situated and affected by the object of study (cf. Headland *et al.* 1990). Far from understanding our inquiry and engagement as an objective or interrogating gaze from a perspective external to the world, it should be seen as a multisensory and situated encounter with a world we are always part of. Thus, refraining from the conventional genre of scientific disseminations – ‘the god trick of seeing everything from nowhere’ (Haraway 1991:189) – we must rather, as suggested by Byrne (2013: 597), ‘take our heritage personally’, allow ourselves to feel and be moved and, as follows, also let these affective contagions permeate our academic disseminations.

Encountering Eyri

It was bright though half cloudy when I entered the old *kvennabraggi* – the women’s barrack or lodging – at Eyri, the abandoned herring processing station in Ingólfssfjörður in northwest Iceland. Sunlight burst into the narrow and shrouded fjord, sending dusty beams and flickers through windows and riven woodwork. Rooms, corridors, hallway, staircase, basement, attic, were lit up, though vaguely. I entered the house through a gaping window on the south gable, to step right into a small room with yellow painted walls, a single bed, a private sink and a

small closet. How intrusive to invade a small room of past privacy so abruptly – and how pestering the nearness of the yellow walls, the bed, sink and closet, when so unexpectedly encircled by them. Opening a shrieking door, leaving the room, I crossed a narrow hallway to enter another small room; this one dim, with covered windows and walls in cold blue. From here I was led to the staircase in the centre of the building. A beautiful timber stairway leading up to the second floor, and down to the basement. The supporting wall softened by the strokes of hands, and the steps engraved with the memory of feet, stockings, boots – striding, running, halting. I was captivated by that simple structure – as I also was with the building and site as a whole. Perhaps it was its immediate slanting break with the building's otherwise horizontal and vertical landscape? But there was also more to it. The curiosity roused by the steps fading into thick darkness below and above. The memory of movement and dynamics kindled – of girls and women passing through, season after season. Each of them leaving a stroke and mark on the wall and steps, though possibly never giving it a single thought. Unlike those elaborate markings on bedsides and bedroom walls, where they meticulously engraved their names and initials, these marks were subtle, unthought-of, but gradually sedimented material memories. Maybe it is this vague, withdrawn and involuntary character, being neither thought nor memorized, that yet enhances the thickness of their telling and affect on my encounter with them?

The paragraph above describes my very first encounter with the women's barrack, which together with other buildings at the Eyri herring station was to become the material of my doctoral research. The photograph (Figure 24.4) is one of many taken on that first encounter, and its loyalty to the softened woodwork, the stairway's slanting figure and etched surface, continuously takes me back to that moment, saturated with an almost tangible affect. When I read Byrne's description of Su Li Zhen's love, and his affective portrayal of the staircase and its active role in her affair, I was again taken back to the staircase in Eyri – I stumbled on that high step of the 'first stairway' as described by Bachelard in his poetic topoanalysis of the childhood home (1994: 14–15) – and was reminded of its role in my own destiny and research.

I was well prepared on my first visit to Eyri. I had conscientiously done my homework, and read much of what there was to read about the site and the period and herring-history it belonged to. This solid ballast notwithstanding, what I encountered took me by immediate surprise. Located almost at the road's end, Eyri's small community of buildings and structures had, since the herring station's abandonment in 1952, been left more or less unattended. Its ruination, therefore, had been uninterrupted by human concerns, and now, 60 years later, an aura of otherness veiled its whole presence. Hence, nothing of what I had read had accounted or prepared me for what I saw, smelled, touched and felt.

The last bit of the gravel track takes you from Trékyllisvík in sharp, twisting curves up the Eyrarhals pass, from where you get the first glimpse of Ingólfssjörður and Eyri, the cluster of buildings at the foot of the steep slope below. From above, Eyri already looks deserted. The eastern gables of two of the timber houses are gaping towards the fjord mouth, walls are leaning, roofs caved in, windows broken and the concrete of the factory is cracked and fractured. The previous clear distinction between the man-made and the natural is blurred; grass is growing on roofs, moss and lichen in bright colours on walls and window ledges. A swarm of birds circles above – the arctic tern that now has colonized the flat roofs of the factory. Smaller birds also fly in and out of its broken windows, sparrows nesting in nooks and crannies enjoying the protection and security involved in neighbouring the aggressive tern. Sheep graze between the buildings and seek shelter from rain and wind in their vacant rooms, while mice hide in darkness.

Along with the screeching sound of birds the buildings also generate different eerie and indistinct noises; loose boards of corrugated iron or timber move in the wind, hinges creak, things fall, water drips, dust drifts. Walking around and inside the buildings you hear the sound



Figure 24.4 The timber stairway in the women's lodging house, Eyri

Source: Þóra Pétursdóttir

of rubble and glass crushing underneath your feet. It is cold and dim inside, even though it is sunny and rather warm outside. The smell is intense though different from house to house – a heavy stench of damp and rotting wood and paper, moist soils, animal dung and mould.

As the eye adjusted to the dark inside the buildings their strange world took over. Everywhere I turned things insistently demanded my attention, familiar and alien, whole, broken and pulverized: rusting machines in the factory; unused spare parts in the storage; equipment and tools in the garage; beds, straw mattresses, cupboards and stools in the women's residence; empty shelves in the shop; rusting cans of liver pâté and fish pudding in the stock room; an archive of damp books and documents in the attic; test tubes and jars in the laboratory; soil, dust and animal droppings on floors. A strange mass of things degraded and reunited into a state of threatening otherness in a yet familiar context. A mixed feeling of wonder, excitement and despair overtook me – exhausted by the overwhelming and pestering presence of these strange things wherever I turned I was unsure how to proceed? Of course, I never doubted the significance of these things and fragments for a fuller understanding of Eyri's past. Simply walking among the machines in the factory is an undocumented experience and thus adds a whole new aspect to the herring history. So does also sitting on a stool in one of the bedrooms in the women's house silently reading their carved and written names, calculations and images on the wall panels, doors and bedsides (Figure 24.5). Or wandering the rooms in the storage house, a landscape of strange things, unfamiliar and out-of-hand. All of this was undocumented – but simultaneously, I thought, part of the domain of the unspoken and even ineffable.

Like Byrne's focus on the local and mundane heritage of love and loss, Eyri also implores a broader and less restricted understanding of what constitutes heritage. Despite its quite literal remoteness from any official listing as such, it is nevertheless called on and valued, and primarily because of its own self-presencing and lure as an active ruin. This, I believe, is crucial, as it is seemingly not the well regulated 'use' of an already facilitated and explained site that attracts or affects in the case of Eyri, but rather the opposite: the encounter with structures and things that have not undergone the cosmetic and ordering procedures conventionally involved in heritage preservation and management (Figure 24.6). This also appears to be the case with much of the current '*ruinenlust*' more generally (DeSilvey and Edensor 2013), where interest and attraction to a large extent seems grounded precisely in the aesthetic affect of active decay and ruination.

Many of the people I met and talked to during my fieldwork at the herring station expressed this interest and affection. While also expressing knowledge of the site's past – its history – they claimed to be rather more drawn and affected by its unruly and ever changing state. This lure of the ruin, the awe and wonders it evoked among people, both fascinated and troubled me, and not least because this affect seemed in many ways unrelated to my own (initially) professional interest in it as a historical witness. I soon realized that arguing that Eyri was *neglected* or *unvalued* – as its current ruining state could conventionally construe – was simply misleading. Interestingly, however, the way it was valued could not be grasped with any conventional notion of heritage value, nor with reference to its history and past, but appeared more or less entirely based on its current state and ongoing ruination. Thus, whereas my first thought was that the proper way to proceed involved overcoming, or ignoring the 'presence effect' (Gumbrecht 2004) of the site and structures and my immediate affection for them, I was intrigued to consider that an alternative exploration of heritage value might also involve taking seriously these affective moments of encounter and, thus, the site and things preceding explanation or contextualization. In other words, that another way to approach the site, structures and things, to include them and underscore their significance as heritage, would be to recognize them as they are – as ruins, fragments – and take seriously the ruin memories they appear to afford and the aesthetic affects they generate on encounter.



Figure 24.5 Bunk beds and decorated bedside in the women's lodging house, Eyri
Source: Þóra Pétursdóttir



Figure 24.5 Continued



Figure 24.6 Entangled things, untamed materiality, Eyri

Source: Þóra Pétursdóttir



Figure 24.6 Continued

Heritage and ruin affect

Affect – this immediate sensation of being caught by the aura of, for example, a modern ruin such as Eyri, or a prehistoric structure such as Stonehenge – is a challenging topic to address and underscore. Not only is it impossible to plan or prepare, but it is also, by definition, pre-cognitive and utterly ineffable and will, therefore, resist any conventional attempts at capture or retelling. Nevertheless, and recalling Badiou's argument that if we allow our thinking to be inspired by affect, or by love, it may become 'created against all order' (Badiou and Truong 2012: 79), there appears to be something to gain for a restructuring of heritage from aiming towards this impossibility. Without encouraging a move towards the personal and mundane at the expense of a more general focus, as warned by Waterton and Watson (2013), there is something important to be learned by taking seriously how we become moved by 'doing heritage'.

Thus, while I am fully aware that my focus on Eyri and discussion of its affective affordances may not be readily applicable to the experience of just any ruined structure or heritage site, I still contend that there is a commonality that makes the current interest in modern ruins, and the way people engage with these structures, relevant also for heritage more generally. And although an 'active' modern ruin is conspicuously different from the conventional and conserved heritage ruin (though I argue that people engage with the former also as heritage), I believe it is not least in this *material* contrast that some of the message lies.

While programmes of heritage management and conservation may be seen as challenging conventional modern systems of value and care, focusing partly, or even mostly, on *ruined* things, promotion to the category of heritage generally involves strict material manoeuvring, which may be argued to reflect an underlying paradox of heritage management; the care for *ruins* but repugnance toward processes of *ruination*. Thus, while the 'old saying' in architecture that 'form follows function' may initially appear utterly incompatible to the category of heritage sites, it is clear that as structures and things become listed their physical being is ordained to certain aesthetic restrictions that pertain to their 'function' and 'use' as heritage. They should invite visitors to aesthetically styled, ordered and pleasant spaces where decay is staved off and where disturbing materials, as plants, fauna, modern debris or other chronological anomalies, are cleared away (Edensor 2005b). Indeed, as discussed by Bangstad (2014), even in those rare cases where decay and regrowth may be experimentally pursued as part of heritage management and display, it is mostly a strictly regulated and controlled tolerance for otherness, which is carefully monitored to prevent it from becoming too wild or really ruining.

Furthermore, the emphasis on proper 'function' and 'usefulness' also characterizes the rationale underlying most arguments for heritage value and protection, as articulated in heritage legislation and policy. These rarely refer to any *inherent value* of the respective ruined building or thing, or indeed to the possible value involved in the ruining state, but to *our need* for, and *right to*, historical rootedness and sense of belonging – and thus to their value as tools in identity construction, and/or by serving as scientific, socio-political or economic resources. In other words, heritage is mostly valuable because it is useful *to us*, as crystallized clearly in the concept of 'cultural resource management' (see Solli 2011, Harrison 2013, Pétursdóttir 2013 for criticism). And this, moreover, is also what is claimed to constitute the significance of heritage; as part of already acknowledged and understood culture-historical and socio-political tropes. Reference to such *deeper* meaning is what makes our valuing of and engagement with heritage meaningful, whereas lack thereof would render it superficial and superstitious. An example of this, as pointed out by Smith and Waterton (2009), is how Western heritage discourses have tended to disregard the emotional registers of heritage experiences as nostalgic and fallacious.

Hence, we could say that what is reassuring of well-managed heritage and properly curated museums is that they provide visitors with an aesthetic, material and epistemological security

by regulating and constraining the possibilities of encountering things (Edensor 2005b: 313). Things are presented to us in ways that rarely require or initiate attentiveness for their otherness and the part of their character that may involuntarily affect us (beyond grandeur and beauty): we are in fact mostly diverted from a movement towards their genuine 'thingness', from encountering things themselves outside human control and conservation. When approaching modern ruins, however, that safety net or *buffering* is lost. In their unruly self-presencing things in ruin are released from these chains of human utilitarian relations and thereby confront our customized habit of dealing with them as tamed and domesticated possessions – as also characterizes much of conventional heritage experience. The ruining ruin presents itself partly as a mystery, partly as disclosure; things are allowed to be themselves, to appear 'out of context', soiled, fragmented and unordered. Ruination reveals them in ways never noticed, never thought possible, making their presence more enigmatic and unfamiliar. At the same time they appear more manifest, present and disquieting, exposing some of their unruly thingness. The forms of things are foregrounded: their texture, their smell and their frightening persistency (Andreassen *et al.* 2010: 142; Edensor 2005a: 117).

Perhaps it is this unruly aesthetic difference that currently is making the modern ruin so attractive; that is, its pestering materiality encourages, or even forces, a nearness with things that is radically different from our conventional use-driven engagement with them in our everyday conduct. Just think of the contrast their presumed disgraceful alteration and disintegration provides, not only to the smooth and increasingly regulated urban spaces, but also to museums and heritage sites and their normalized tactilities of domesticated sounds, smells and sights (Edensor 2005a: 57). This aesthetic difference, I argue, is what makes the encounter with the modern ruin so startling, disturbing and affective.

Heritage aesthetics

Aesthetics, as experience and affection, has not been a central theme of discussion in heritage studies or discourses, other than those concerned specifically with the management and conservation of 'works of art'. In an article with the telling title 'The aesthetic experience of ruins' philosopher Linda E. Patrik (1986) discusses aesthetics in relation to *ruins* also more generally. Interestingly, and in line with the writing of earlier ruin enthusiasts (e.g. Riegl 1903; Simmel 1911), Patrik argues that the effects of ruination, like fragmentation, overgrowth, disintegration and incompleteness, actually contribute to the *aesthetic pleasure* of experiencing structures and that, rather than disturbing the observer's experience, ruined structures become valued *as ruins*. That is, that ruination and deterioration may add positive aesthetic value and a sense of historicity and 'pastness' to objects and structures, and thus even render aesthetically pleasing objects that before were considered non-aesthetic. Patrik's argument and her genuinely positive perception of ruination represent a now rare and important perspective on these heritage matters. Nevertheless, the concepts of *aesthetics* and *ruin/ruination* remain unscrutinized; the ruins discussed all belong to a category of 'ready-ruined' classical structures, already safely incorporated into heritage management programmes, which means that the important argument does not in any way challenge the conception of the valued heritage ruin as, above all, aesthetically *pleasing*, comfortable and unchallenging – that is, as everything that *active* ruination is not. But in what sense might aesthetics apply to such disobedient structures?

The origin of *aesthetics*, etymologically and philosophically, is in fact rather different from this 'pleasant', 'humanized' and currently canonized conception. Through its Greek root aesthetics rather refers to a direct 'sensory experience of perception' (Buck-Morss 1993: 125; see also Eagleton 1990; Bale 2009; Jameson 2009), which, moreover, is associated neither with representation nor the pleasant or beautiful alone, but with *reality itself* and the unmediated,

corporeal experience of it (ibid.; Bale 2009). Very much like affect the aesthetic experience may, therefore, be understood as a ‘discourse of the body’ (Eagleton 1990: 13), a cognition “‘out front” of the mind, encountering the world prelinguistically, hence prior not only to logic but to meaning as well’ (Buck-Morss 1993: 125). In other words, rather than applying to the vague, illusory, imagined or abstract – or to pleasure alone for that matter – aesthetics may be described as a basic rationality, or instinct – an immediate reaction to a confrontation with reality (Buck-Morss 1993: 125).

Though modern critical and rational thinking has been predominantly hostile to this primitive, sensual perception, depicting the aesthetic as contemplative and subjective, the archaic conception rather maintains that the aesthetic experience is a reaction triggered by an element, an affective force, partly inherent to, or transmitted by, the very reality encountered. Thus, and without ignoring the fact that it also requires human perception, this conception of aesthetics embraces its also *partly tangible* constitution. Or as argued by Terry Eagleton, in this sense aesthetics is about

the business of affections and aversions, of how the world strikes the body on its sensory surfaces, of that which takes root in the gaze and the guts and all that arises from our most banal, biological insertion into the world. The aesthetic concerns this most gross and palpable dimension of the human, which post-Cartesian philosophy, in some curious lapse of attention, has somehow managed to overlook. It is thus the first stirrings of a primitive materialism – of the body’s long inarticulate rebellion against the tyranny of the theoretical. (Eagleton 1990: 13)

Heritage definitions and conventions have traditionally favoured a *pleasant* and comfortable aesthetics of distanced and disengaged contemplation, an ‘agreeable and cozy affect’ (Navaro-Yashin 2012: 206), rather than one of physical engagement with the ruined and real. It is my belief, however, that a conception of heritage aesthetics more in line with ‘primitive materialism’ would make a productive point of departure for a rethinking of how we engage with ruins. First, this form of aesthetics would inspire a notion of heritage experiences, where the rhizome of affect may be trailed also beyond the subjective, to the energetic flow *between human and non-human*, between people and their tangible environs (cf. Navaro-Yashin 2012). Second, this could encourage a form of heritage management that is more ‘thing oriented’ and attentive also to the *material* processes of heritagization, and how these may become aesthetically or affectively muted through conventional manoeuvring and domestication. That is, towards a conception that is open to the possibility of appreciating things also in their otherness, for example in ruination, and capable, moreover, of acknowledging their own affordances and contribution to the very act of *becoming and being experienced as heritage*.

This is not to say that heritage should be left to ruin, or to suggest that object-oriented perspectives should exclude subject-centred aspects. It is rather to underline that affect is produced, transmitted, experienced and qualified relationally, and that an important lesson in this relation may be learned from the current love for modern ruins. What, generally, separates the modern ruin from the traditional heritage ruin is its tangible state, its untamed ruination. And I propose that its lure lies precisely in this unrefined materiality; exposed and open, yet fragmented and mysterious, the ruin lends itself to experiences of awe and wonder. Our engagement with the ruin, thus, makes us particularly vulnerable to its affective contagion.

As I have discussed above, the tangible aspects of heritage have lately been somewhat overlooked, and are even deliberately excluded in missions to rethink heritage. A call for a more thing oriented heritage discourse may therefore appear somewhat misplaced in this

current landscape. Nevertheless, a radical rethinking of the tangible, how things ‘become imbued with affect and how they transmit it’ (Byrne 2013: 596), is, I argue, crucial for a new and different heritage perspective. Not least so if affect, sensation, emotion and love are to become part of the ‘critical’ heritage lingo.

To conclude

While the *critical* in a new heritage approach is yet not entirely elucidated, a more mindful consideration of emotion and affect should be among its aims. It is important in this relation, however, that we are aware of a fundamental difference between, on the one hand, what is traditionally understood as a ‘critical’ approach and the language this is associated with (which arguably is the language that generally characterizes scholarly discourses), and on the other hand, affective experience, emotion and sensation and the prose often employed to articulate it. That is, that we are mindful of how the ‘lover’s discourse’ (Barthes 2002 [1977]), grounded in trust and attentiveness for the immediate and pre-cognitive, in fact differs from that of the ‘social critic’, which rather pertains to a suspicious hermeneutics, to the rational and analytical. Hence, it may be necessary, in order to allow for a serious consideration of affect, to reform not merely the traditional ways of thinking and doing heritage, but also the no less traditional modes of thinking and proceeding implied by a more ‘critical’ approach.

As discussed above, what characterizes motivation for heritage protection and significance is not least its meaningful contextualization through underlying culture-historical or socio-political relations. Awareness and celebration of this deeper meaning is, moreover, what makes our engagement with heritage ‘rational’, rather than superficial, fetishist or naïve. In contrast, however, what comprises the affective contagion of heritage, as evident in people’s engagements with modern ruins, appears to be grounded precisely in a more ‘primitive’ or naïve attentiveness – in the immediate and, thus, very *superficial* encounter with ruins and sites.

The unequivocal negative association of the ‘superficial’ in modern critical thought may well be linked to what Susan Sontag in her attack on art criticism called the ‘contempt for appearances’ (Sontag 1966: 6); a contempt driven by the modern intellectual imperative of interpretative depth, an ‘aggressive hermeneutics’ (ibid.) where neither truth nor meaning are to be found in the immediate and ostensible but always hidden from view (Foucault 1989; Thomas 2004). According to this, what you see and sense on the stage, the screen or the canvas should never be taken at face value, as something to be directly experienced and enjoyed, but is rather considered an expression of a ‘shadow world of meanings’ (Sontag 1966: 7). However, and contrasting this view, an important condition for a turn to affect in heritage would be an active move away from the scepticism towards the immediate and superficial, in order to make room also for ‘extra-scientific’ sensations (cf. Olivier 2011: 32; see also Shanks 1992), for *pre*-historic or *pre*-contextual wonder, and for the moments of ‘theoretical innocence’ so crucial to the lure of the modern ruin.

Wonder, philosopher Jeff Malpas writes, is the genuine response we find ourselves caught up in when facing the immediacy of things’ existence. And while it may cause puzzlement, questioning and an urge to resolve through inquiry and explanation, it simultaneously, and quite explicitly, evokes a certain self-contained experience and even sympathy for that which cannot be explained (Malpas 2012: 253–258). Wonder, Malpas further argues, requires no effort, no decision to act, and usually appears in the interplay between the familiar and the remarkable, between that which is known or explicable and that which is outside of any explanation. Every child may know what causes the rainbow and that a falling star is not a star at all. But knowing does not lessen their affect; wonder can neither be explained nor eliminated by knowledge

(Malpas 2012: 256–260). That is also how we become affected by the familiar unfamiliarity of the modern ruin, and how we may become inexplicably moved and continuously haunted by the worn surface of a simple, quite unremarkable, wooden stairway in a building far away.

To care for that which cannot be explained is to allow for wonder. But no less important, however, is to also accept and appreciate to, occasionally at least, be *left in wonder*. This is not to discard or shun explanation or interpretation, but rather to argue against the hierarchy that has been allowed to render immediacy and surface – affect and love – secondary to depth and meaning. Hence, a turn to wonder and affect must recall in us a certain naïve nerve – a kind of ‘ambitious naiveté’ (Bennett 2010: 19) – that permits us to boldly ‘name’ things themselves and how they come to our view, or withdraw from it; to name their colour, smell, texture, sounds and movements – and to name the sensations, memories, fears and dreams that their sheer presence may provoke on our encounter with them, no matter how banal these declarations may appear in the context of ‘normal science’. And though incapable of grasping that which cannot be grasped or naming that which is ineffable, prolonging that tangible and moving contagion also through our academic prose is important and inevitable if affect, emotion and love is to be part of our critical approach.

Acknowledgements

I would like to express my gratitude to the editors of this volume, Mikkel Bille and Tim Flohr Sørensen, for the invitation to contribute to the publication and for their very helpful comments on the manuscript. Gratitude is also paid to the series editors, Gavin Lucas and Chris Witmore. Lastly I am indebted to Bjørnar Olsen, who read and commented on an earlier version of this chapter.

References

- Andreassen, E., Bjerck, H. and Olsen, B. (2010) *Persistent Memories: Pyramiden – a Soviet Mining Town in the High Arctic*, Trondheim: Tapir Akademisk Forlag.
- Bachelard, G. (1994) *The Poetics of Space*, Boston, MA: Beacon.
- Badiou, A. and Truong, N. (2012) *In Praise of Love*, trans. Peter Bush, London: Serpent’s Tail.
- Bale, K. (2009) *Estetikk: En innføring*, Oslo: Pax Forlag.
- Bangstad, T. R. (2014) Defamiliarization, conflict and authenticity: industrial heritage and the problem of representation, Unpublished PhD Thesis, Department of Language and Literature, Faculty of Humanities, Norwegian University of Science and Technology.
- Barthes, R. (2002 [1977]) *A Lover’s Discourse*, trans. Richard Howard, London: Vintage.
- Bennett, J. (2010) *Vibrant Matter: A Political Ecology of Things*, Durham, NC: Duke University Press.
- Brennan, T. (2004) *The Transmission of Affect*, Ithaca: Cornell University Press.
- Buck-Morss, S. (1993) Aesthetics and anaesthetics: Walter Benjamin’s Artwork essay reconsidered, *New Formations: The Actuality of Walter Benjamin*, 20: 123–143.
- Byrne, D. (2013) Love and loss in the 1960s, *International Journal of Heritage Studies*, 19(6): 596–609.
- Campbell, G. and Smith, L. (2012) Association of Critical Heritage Studies Manifesto. Online. Accessible at: <http://criticalheritagestudies.org.preview.binero.se/site-admin/site-content/about-achs> (accessed September 2014).
- Carman, J. (2010) Promotion to heritage: how museum objects are made, in S. Pettersson, M. Hagedorn-Saupe, T. Jyrkkio and A. Weij (eds), *Encouraging Collections Mobility: A Way Forward for Museums in Europe*, pp. 74–85, Helsinki: Finnish National Gallery.
- Clough, P. T. with Halley, J. (eds) (2007) *The Affective Turn: Theorizing the Social*, Durham, NC: Duke University Press.
- Crouch, D. (2012) Meaning, encounter and performativity: threads and moments of spacetimes in doing tourism, in L. Smith, E. Waterton and L. Watson (eds), *The Cultural Moment in Tourism*, pp. 19–37, London: Routledge.

- De Laet, M. and Mol, A. (2000) The Zimbabwe bush pump: mechanics of a fluid technology, *Social Studies of Science*, 30(2): 225–263.
- Deleuze, G. and Guattari, F. (2004) *A Thousand Plateaus: Capitalism and Schizophrenia*, London: Continuum.
- DeSilvey, C. and Edensor, T. (2013) Reckoning with ruins, *Progress in Human Geography* (published online on 27 November 2012). Accessible at: <http://intl-phg.sagepub.com/content/early/2012/11/27/0309132512462271.full.pdf+html> (accessed 12 March 2013).
- Eagleton, T. (1990) *Ideology of the Aesthetic*, Oxford: Blackwell.
- Edensor, T. (2005a) *Industrial Ruins: Space, Aesthetics and Materiality*, Oxford: Berg.
- Edensor, T. (2005b) Waste matter: the debris of industrial ruins and the disordering of the material world, *Journal of Material Culture*, 10: 311–332.
- Foucault, M. (1989) *The Order of Things: An Archaeology of the Human Sciences*, London: Routledge.
- Guattari, F. (1996) Ritornellos and Existential Affects, in G. Genosko (ed.) *The Guattari Reader/Pierre Felix Guattari*, pp. 158–171, Oxford: Blackwell.
- Gumbrecht, H. U. (2004) *Production of Presence: What Meaning Cannot Convey*, Stanford, CA: Stanford University Press.
- Haraway, D. (1991) *Simians, Cyborgs, and Women*, New York: Routledge.
- Harrison, R. (2013) *Heritage: Critical Approaches*, London: Routledge.
- Harvey, D. C. (2001) Heritage pasts and heritage presents: temporality, meaning and the scope of heritage studies, *International Journal of Heritage Studies*, 7(4): 319–338.
- Headland, T. N., Pike, K. L. and Harris, M. (eds) (1990) *Emics and Etics: The Insider/Outsider Debate*. Newbury Park, CA: Sage.
- Hetherington, K. (2014) Museums and the ‘death of experience’: singularity, interiority and the outside, *International Journal of Heritage Studies*, 20(1): 72–85.
- Jameson, F. (2009) *Valences of the Dialectic*, London: Verso.
- Malpas, J. (2012) *Heidegger and the Thinking of Place: Explorations in the Topology of Being*, Cambridge, MA: MIT Press.
- Massumi, B. (2002) *Parables for the Virtual: Movement, Affect, Sensation*, Durham, NC: Duke University Press.
- Miller, D. (2002) Making love in supermarkets [1998], in B. Highmore (ed.) *The Everyday Life Reader*, pp. 339–345, London: Routledge.
- Morris, M. (2006) *Identity Anecdotes: Translation and Media Culture*, London: Sage.
- Navaro-Yashin, Y. (2012) *The Make-Believe Space: Affective Geography in a Postwar Polity*, Durham, NC: Duke University Press.
- Olivier, L. (2011) *The Dark Abyss of Time: Archaeology and Memory*, Lanham, MD: Alta Mira Press.
- Patrik, L. E. (1986) The aesthetic experience of ruins, *Husserl Studies*, 3: 31–55.
- Pétursdóttir, Þ. (2012) Small things forgotten now included, or what else do things deserve?, *International Journal of Historical Archaeology*, 16: 577–603.
- Pétursdóttir, Þ. (2013) Concrete matters: ruins of modernity and the things called heritage, *Journal of Social Archaeology*, 13(1): 31–53.
- Pétursdóttir, Þ. (2014) Things out-of-hand: the aesthetics of abandonment, in B. Olsen and Þ. Pétursdóttir (eds), *Ruin Memories: Materiality, Aesthetics and the Archaeology of the Recent Past*, pp. 335–364, London: Routledge.
- Pétursdóttir, Þ. and Olsen, B. (2014) Imaging modern decay: the aesthetics of ruin photography, *Journal of Contemporary Archaeology*, 1(1): 7–23.
- Pile, S. (2009) Emotion and affect in recent human geography, *Transactions of the Institute of British Geographers*, 35: 5–20.
- Riegl, A. (1903/1996) The modern cult of monuments: its essence and its development, in N. Stanley Price, M. Kirby Talley Jr. and A. Melucco Vaccaro (eds) *Historical and Philosophical Issues in the Conservation of Cultural Heritage*, pp. 69–83, Los Angeles: The Getty Conservation Institute.
- Shanks, M. (1992) *Experiencing the Past: On the Character of Archaeology*, London: Routledge.
- Sharp, J. (2009) Geography and gender: what belongs to feminist geography? Emotion, power and change, *Progress in Human Geography*, 33(1): 74–80.
- Simmel, G. (1911/1959) The ruin, in K.H. Wolff (ed.) *Georg Simmel, 1858-1918: a collection of essays, with translations and a bibliography*, pp. 259–266, Columbus: Ohio State University Press.
- Smith, L. (2006) *Uses of Heritage*, London: Routledge.
- Smith, L. (2011) Affect and registers of engagement: navigating emotional responses to dissonant heritages, in L. Smith, G. Cubitt, R. Wilson and K. Fouseki (eds) *Representing Enslavement and Abolition in Museums: Ambiguous Engagements*, pp. 260–303, New York: Routledge.

- Smith, L. (2012) Editorial, *International Journal of Heritage Studies*, 18(6): 533–540.
- Smith, L. and Campbell, G. (2015) The elephant in the room: heritage, affect and emotion, in W. Logan, M. Nic Craith and U. Kockel (eds) *A Companion to Heritage Studies*, Malden, MA: Wiley-Blackwell.
- Smith, L. and Waterton, E. (2009) *Heritage, Communities and Archaeology*, London: Duckworth.
- Solli, B. (2011) Some reflections on heritage and archaeology in the Anthropocene, *Norwegian Archaeological Review*, 44(1): 40–88.
- Sontag, S. (1966) Against interpretation, in S. Sontag, *Against Interpretation and Other Essays*, pp. 3–14, London: Penguin.
- Thien, D. (2005) After or beyond feeling? A consideration of affect and emotion in geography, *Area*, 37: 450–456.
- Thomas, J. (2004) *Archaeology and Modernity*, London: Routledge.
- Thrift, N. (2008) *Non-representational Theory: Space, Politics, Affect*, London: Routledge.
- Tolia-Kelly, D. (2006) Affect – an ethnocentric encounter? Exploring the ‘universalist’ imperative of emotional/affectual geographies, *Area*, 38(2): 213–217.
- Waterton, E. and Smith, L. (2009) There is no such thing as heritage, in E. Waterton and L. Smith (eds), *Taking Archaeology out of Heritage*, pp. 10–27, Newcastle upon Tyne: Cambridge Scholars Publishing.
- Waterton, E. and Watson, S. (2013) Framing theory: towards a critical imagination in heritage studies, *International Journal of Heritage Studies*, 19(6): 546–561.
- Winter, T. (2013) Clarifying the critical in heritage studies, *International Journal of Heritage Studies*, 19(6): 532–545.

Unfinishing buildings

Michael A. Ulfstjerne

Introduction

During its initial years of development and rapid growth, Ordos, a resource hub in Inner Mongolia, became well known for its large-scale urban projects (Figure 25.1). Not many years ago, few would have considered cities in Inner Mongolia to be epicentres for state-of-the-art architecture. But as the following excerpts illustrate, with the attention it gained – spreading across the virtual realm of architectural blogs, art discussion forums, and urban design magazines – the city had refashioned itself as a site for fathomless riches and pioneering architecture:

ORDOS 100 is a development in Inner Mongolia that you might have heard of. It consist [sic] of one hundred 1000sqm villas designed by 100 hip architects in 100 days, selected by Herzog and de Meuron over a master plan developed and curated by Ai Wei (FAKE Design). If during modernism, architectural experimentation was practiced through large housing projects, we now find it in curated projects such as this, on countries with a raising – or at least before the crisis – economy. The project was split into two-phases, of 28 and 72 houses respectively. In *ArchDaily* we are going to feature the projected villas each week, and hopefully we manage to document all #100.

(Jordana 2009)

At a time when housing markets across the West are contracting and American architects' billings are at their lowest point in 12 years, according to the American Institute of Architects, Mr Cai (pronounced sigh) was offering his guests a rare chance to build big—and paying them, improbably, in wads of cash . . . everywhere the architects travelled [in Ordos], their parade of gold-colored Mercedes buses had police escorts, which served no purpose other than to emphasize something that was obvious from the presence of numerous public officials at the Holiday Inn [architects' designated hotel during stay]: that Mr Cai has government support for the ORDOS 100 project.

(Bernstein 2008)

ORDOS 100 quickly became a popular topic, drawing attention to not only the ambitious culture and creative industry zone that would make a suitable surrounding for the ORDOS 100, but also to the wider context of Ordos' spectacular boom and urban aspirations. The broader



Figure 25.1 Concept drawing of the larger Jiang Yuan Culture and Creativity Zone

Source: Design by China Architecture & Design Research Group in 2007

creative industry zone was merely one of the new industry zones planned for the city's new district development. While much was built in the heyday of Ordos' construction frenzy, the creative industry zone and the villas remained mostly barren land and never materialised as planned.

The bulk of critical analysis that deals with designs and architecture follows a post-hoc style analysis of buildings' effects: classical examples critically convey how architecture works as technologies of power (Foucault 1975, Schivelbusch 1987); examine the way particular designs serve to solidify the position and interests of specific social groups (Caldeira 2000, Davis 1990, Harvey 2008); or conversely how alternative uses of architecture or building alterations manifest to oppose, debunk, or convert the ideology lurking in the design (cf. de Certeau 1984, Holston 1989).¹ On the other side of the spectrum, another trail considers how societies' social, political and economic conditions foster particular designs and architecture. As observed by Yaneva (2012, p. 2) this causes an impasse in 'architectural theory', as studies fall into either one of these categories: i.e. society *makes* architecture or architecture *makes* society. This essay follows Yaneva's trail more broadly² by 'mapping controversies' (Yaneva 2012, p. 4), investigating how the entire process including stakeholders, shifting policy regulations, practitioners' reflections on design, and the wider economic conjunctures intersect with material conditions. Moreover, tracing out the potentiality for plans and designs to be moulded by shifting visions of the future, the essay raises related questions as those of Dawdy and Kohns dealing with the futurity of architecture (see present volume). Ethnography that deals with architecture or design tends, if not for practical reasons, to focus on projects and designs that actually materialise. However, intrigued by why so many meticulously planned projects prove to be such volatile endeavours in the Chinese urban economy, the essay traces the trajectory of a project that fails to materialise – while doing so. From this it examines what values shape the social life of prestigious real estate projects in Ordos that remain unfinished. This raises questions of what urban planning might look like when unfinishing buildings becomes a valuable endpoint in itself, and how this relates to the frequent critiques of modern Chinese ghost towns, flawed urban planning and real estate bubbles. For the architects themselves it brings attention to the question of how value is conceived when designs remain unrealised, when the majority of their designs are altered beyond recognition. What would an architect's portfolio look like given these tendencies? While many of these questions are beyond the scope of the current essay they call for further attention.

In the context of hyped architectural designs, value production is often conjured up from the buzz, and works through expectations rather than tangible assets (Martin 2011). Yet something else seemed to be at play in the case of ORDOS 100. To make an investigation of architecture that is not yet there I draw much inspiration from Anna Tsing's notion of 'economy of appearances' (2000), that deals with the question of how something – in Tsing's case a fraudulent mining discovery in Indonesia's years of spectacular growth – can attain an immense value by making an investment appear credible. Moving against the grain of mainstream economic arguments about universal boom to bust crisis cycles, Tsing investigates how the plausibility of the gold discovery drew upon myths of earlier adventurous discoveries invoking images of dark impenetrable jungles and hidden treasures in a wild west-like 'regional frontier culture' (Tsing 2000, p. 121, 133). The imageries of unimaginable wealth caused investors to discard any evidence that would suggest such a discovery to be unlikely. Tsing's analysis shows how the unreal discovery quickly produced connections between widely different agents that cut across global and local scales, connections that would yield immense effects on the local environment, casting aside any traits of local culture, or rights to land (2000, p. 132). So, by addressing the ORDOS 100 Desert Villa Project as an instance of conjuring up a value by the invocation of certain imaginaries that perforate speculative real estate, I give less importance

to the project's architectural dimensions. This shift of emphasis, however, provides more ethnographic detail to the prevailing forms of complicity and collusion of pro-growth coalitions engaged in landmark projects.

Despite its local specificity in the context of Ordos' economic growth and lax regulation, it is argued that far from being a single standing case of speculative land development, the case is instructive for a more general trend in Chinese urban development where flagship developments such as ORDOS 100 become benchmarks for local officials' political careers while, at the same time, political buzzwords are adapted by entrepreneurs and developers to gain access to land. Complying with initial designs or plans is of minor importance while, as one interviewee phrased it, 'it's about building empty containers or space . . . in the future they can be anything' . . . if building anything at all. In this context, real estate projects are conditioned by changing political demands and developers' strategies to adapt to these. This suggests that the intersection of corporate and official interests in real estate does not always imply stable growth coalitions; second, this also leads us to acknowledge how the radical redirection of real estate projects or existing gaps between plan and outcome does not constitute failure as such. In other words, that value might be generated from *not* finishing projects.

To make this argument the first part – 'Stakeholders and coinciding interests' – treats how the ORDOS 100 project catered to the official ambitions in pre-crisis times and likewise how government officials drew force from the aura of creative cluster developments. Next in 'Empty containers of space', the chapter scales up from the ORDOS 100 case to include broader observations from professionals working in the Chinese property development industry. This helps shed light on how projects might be valuable, even when they do not follow initial plans or remain incomplete. Drawing on Tsing (2000) and by taking a short historical detour around US frontier urbanism, the final part of the chapter foregrounds the importance of the imagined or virtual aspects of real estate in the art of conjuring up value from what is essentially not there.³

Stakeholders and coinciding interests

In 2007, entrepreneur and financier, Mr Cai Jiang contracted China Architecture and Design Research Group (CADREG)⁴ to carry out the overall design for a creative cluster development zone. The zone was eloquently framed to project Ordos as a pioneer municipality within modern architecture, creativity, and sustainable urban development – all themes that coincided well with the recent national emphasis on creativity as a component for sustainable growth (cf. Keane 2013, Zheng 2010).

A 2009 press release announcing the inauguration of the 'Ordos Prize of Architecture' would lift the veil on the zone's most spectacular components, including an overview of its building phases. According to the press release, the creativity zone was designed to include numerous cultural venues, theatres, studios, offices, apartments and villas, all designed by acclaimed Chinese and international architects.⁵ The 'Ordos Prize of Architecture' was to be the very first Asian architectural prize, set up to honour and praise upcoming Asian architects. The founding director was renowned Chinese architect Ma Qingyun. The zone's larger development was backed by an alleged initial investment of 600 million USD by Mr Cai's own development company, yet was dependent on attracting further investment. From the press release it follows that the process of construction was divided into three phases: the first phase began in 2007 with the Ordos Art Museum and high-end artist studios. The second phase would include the abovementioned villas, a cultural industry education base, a creativity incubation zone, commercial and residential buildings – all expected to be well underway by 2009. The final phase included schools, kindergartens, a waterfront park, playgrounds, and additional residential and commercial buildings. The ORDOS 100 Desert Villa Project was launched in 2007–8 as

the architectural flagship of the larger Jiang Yuan Culture and Creativity Industry Zone. With the purpose of designing each of the 100 unique villas, 100 architects and design groups from 27 different countries were selected by Swiss Herzog and de Meuron, the architectural firm behind the prestigious Olympic Bird's Nest construction. ORDOS 100 was further planned and curated by renowned artist Ai Weiwei on behalf of Mr Cai, a business tycoon who had made his fortune from dairy products, now turned patron of the arts. A native of Ordos' neighbouring city of Baotou, Mr Cai was engulfed in an air of mystery, mostly as a consequence of his continuous absence from his own development site. A *New York Times* reporter described him as follows:

At 40, he knows something about the good life he is promoting: he travels by Harley-Davidson or chauffeured Mercedes-Benz, has a mansion in Baotou as well as homes in Beijing and Shanghai, collects contemporary art and is seldom seen without a Cuban cigar. (Bernstein 2008)

Moreover, with the escalation of the buzz, several rumours surfaced about the almost fire sale-like conditions in which billionaire buyers worldwide would pre-order a villa from Mr Cai. Media worldwide attests to such stories, conjuring up imageries of Ordos' unparalleled growth, new wealth and limitless opportunities. Despite critical reflections about the project's long-term sustainability or the ethical quandaries of building such 'Babel for billionaires' (de Muijnck 2009), no one questioned the feasibility of the project itself. Architectural reviews and design magazines ran numerous illustrations where the group of international architects would stroll around in the empty dunes of sand, imagining futuristic designs. Headlines such as 'Pushing architecture's outer limits' (Bernstein 2008) or 'Architecture's new Frontiers' (Rundle 2009) echoed similar mysteries and fantasies as those brought about by the 'regional frontier culture' that Tsing describes succinctly:

here [in a regional frontier setting] mystery can flourish, and unexpected discoveries can be made. Unimagined riches can be found because the layout of wealth and poverty is unsettled, un-imagined. Impossible promises cannot be ignored. In this landscape, the economy of appearances seems so real that it must be true.

(Tsing 2000, p. 141)

Mr Cai's candid interest in the arts was widely recognized by his employees who insistently held Mr Cai's personal interests in the arts as sign of his 'good intentions', i.e. being cultural rather than financial. The whole ordeal, explicitly linking the wider city and its sudden wealth with creative industries, was tailored to suit different purposes: Mr Cai's ambitious plan successfully attracted the attention of international media, practitioners within architecture and planning, and maybe most importantly the municipal government's attention, as they were responsible for the allocation of the 198 hectares of land needed for the wider zone. The ORDOS 100 development initially gained a great deal of recognition within official circles, even to the extent that the Ordos municipal government agreed to co-sponsor the Ordos Prize. This recognition was also illustrated by the excerpt from the *New York Times*, stressing the notable official presence in the early stages of the project:

Everywhere the architects travelled, their parade of gold-coloured Mercedes buses had police escorts, which served no purpose other than to emphasize something that was obvious from the presence of numerous public officials at the Holiday Inn: that Mr Cai has government support for the ORDOS 100 project.

Creativity on the bottom-line

Already back in 2006, Ordos municipal government announced its ambition to act as Inner Mongolia's pivot for cultural industries within film, traditional and contemporary arts, Web design, fashion etc. Deputy Mayor Yang Gongyan of the Ordos Municipal Government envisioned Ordos as the next in an exceptional line-up of model cities, with culture and creativity playing a central role:

In the 1980s we looked at Shenzhen as a model for urban development, in the 1990s we looked at Shanghai and Pudong and it is my hope that in the coming 20 years when people look for a new model they will look at the development of Ordos.

(Yang in Ulfstjerne and de Muynck 2012)

The official stand was thus to encourage entrepreneurs such as Mr Cai to invest considerably in the development, to help attract further investment and brand the city. In the corridors, local officials referred to the group of international architects as 'the messengers',⁶ those who would help to spread the word of Ordos' tremendous growth, and draw attention to its purportedly cosmopolitan and creative environment. In an interview with China urban Magazine, Deputy mayor Yang Gongyan described Mr Cai's creative and cultural zone as 'a world class architecture museum that's also a place to live and work', one that aims to

open the door to the world for Ordos . . . Of course every city wants to be the best. . . . We want people to come here not just for business, but to relax, go shopping. We want to attract more creative talents, create a space where people can work, work creatively, and live comfortably.

(Alex 2008)

Clearly, officials in Ordos eyed an opportunity where the city's reputation could gain from association with Mr Cai's project and in a broader light, the recent buzz of creative industries.

In China, the creativity on the bottom-line logic became an important component of national policymaking in 2007, proclaiming to transform China into an innovative nation by 2020.⁷ The discourse was not confined to the level of national policy implementation but quickly spread across the wider spectrum of business rhetoric, urban planning policies invoked by local governments, real estate vernacular, and among the creative practitioners themselves. Upon closer inspection this generated incentives for local governments such as Ordos' municipal government to engage in the development of creative clusters. High profile and landmark projects are central for political ambition and ascendance. In order to move upwards in the administrative hierarchy, local cadres and mayors need to show tangible proof of growth, usually measured by criteria such as creative industries, five-star hotels, luxury shopping malls, green projects, science and developments parks etc. (Hsing 2008, p. 60). Nevertheless, this brings local government officials into a close relation with property developers such as Mr Cai who buy into the openings of the most recent policy offers in a rapidly changing landscape of new urban buzzwords. What was obvious from merely the name of the project – ORDOS 100 – was that it catered to the official ambitions for the city's urban development by inscribing itself in the broader trends of state-of-the-art urbanization, as stipulated by the central state. Beyond local state leaders' quest for political ascendance, the following looks closer at how the ORDOS 100 development was perceived on site, and from the vantage points of professionals who were engaged in the project.

Upon my first arrival in March 2011, I found the ORDOS 100 Project listed in a small bilingual (English and Chinese) booklet that circulated in Kangbashi during 2011. The municipal



Figure 25.2 The ORDOS 100 plot on site, 2012

Source: Michael Ulfstjerne

government distributed the booklet as a quick guide to the region's main tourist sites and focal points of investment. It included information on local ecology, culture, development and industries. And in it, 42 out of the 100 villa models were displayed in small colourful renditions. While most of the booklet's other listed cultural venues were easy to locate: the Library, the Museum, Culture and Art Centre, and the Grand Theatre, finding the ORDOS 100 project proved to be a surprisingly strenuous task. Given the wide range of attention and the mere spectacle of the project, it was hard to believe that nobody seemed to know the location of 198 hectares of its surrounding culture and creative industries park or something as conspicuous as '100 billionaire villas' (de Muynck 2009). One would assume that it had still to be in the end phase of the construction and thus was not launched yet. Several days of searching proved fruitless and the visit was postponed until a later opportunity.

This opportunity came in June 2011 along with Baatar (pseudonym), an employee in the local department of the Ministry for National Land and Resources who I had become acquainted with. Baatar had heard mention of a privately owned museum (Ordos New Art Museum) at the periphery of Ordos' new flagship district. Setting out to find the Museum eventually led to the location of the Jiang Yuan Cultural and Creative Industry Zone. Located on a stretch of barren land, the 198 hectares designated for culture and creativity was laid out, neatly enclosed by one of the few natural lakes in Ordos. Upon arrival it dawned on me why I had had such difficulties in locating the site. Apart from the museum and several of Ai Weiwei's artists' studios, no other buildings were finished. The only building undergoing actual construction was located in front of the museum, labelled with the term 'Art Hotel'. The hundred villas were reduced to five rough and shell-like structures, and had no construction going on. Most of the ambitious culture and creativity zone thus remained nothing but barren landscape with only a few paved lines moving through the dunes of sand (Figure 25.2). Employees in the museum were mostly art students, who could use the desolate area to study, but had little conception of the prospects of the villas or the ambitious park. In response to the many questions about what would become



Figure 25.3 The Art Hotel, 2013

Source: Michael Ulfstjerne

of the villas or the wider zone, employees would verify the prospects of the development by pointing to a large wooden model that was displayed inside Mr Cai's (i.e. the financier's) museum. The model laid out the whole 198 acres of creativity zone, including the *creatively* designed housing, music halls, art museum, schools, sites for consumption etc. The time frame for the construction phases as well as the whereabouts of the financier, presumably Mr Cai Jiang, remained elusive to everyone I encountered at the site during 2011. Moreover, due to his imprisonment in 2011, the curator, Mr Ai Weiwei, was also unavailable to assist. From my repeated visits and extended stays throughout 2011, the whole site appeared forgotten or somehow neglected. Rarely was much going on: a few shifts of employees in Mr Cai's museum and, on occasion, a new work crew would once again arrive attempting to engage with the design of the Art Hotel (Figure 25.3). During one visit, four construction workers did some minor work on one of the five villa shells. The difficulty of retrieving the site as well the halted development prompted the question of what underlying reasons could account for the discrepancy between initial plans and the zone's prevailing emptiness during summer 2011.

Building billionaire villas or botanical gardens

Besides the slow progress of the 'Art Hotel', throughout summer 2011 there was little activity. The initial plans for the entire 198 acres of land, the overall construction, appeared to be persistently halted. Next to Mr Cai's private museum, Ai Weiwei had commissioned the construction of a maze of artist studios (a copy of his Beijing-based studios in the Caochangdi Art District). Nevertheless, no artists had arrived yet, and the vast majority of studios were vacant. A few employees resided in the studio, mostly engineers and people responsible for the overall

planning and supervision. One employee who worked from inside Ai Weiwei's artist compound was Xiao Bai, a young man who formed part of the steering group for all the construction that was underway. Xiao Bai had been employed at the building site since the development first started. He could clearly recollect the two occasions when they had received the international architects on the site. The days were hectic with little sleep, lively discussion, and excess drinking. Of the designs themselves, Xiao Bai and his colleagues thought them more strange and artistic than liveable, at least for a Chinese person, they underlined. Who could live in a house with 100 different rooms, or one modelled as a large dune, let alone in one that is completely transparent?⁸

One afternoon I joined Xiao Bai inside Ai Weiwei's artists' studios. His main office was located inside a spacious bunkerlike structure where sounds would resonate. Along the walls were 100 military storage cabinets that contained each of the complete villa designs. In the middle of the room a large table was covered with detailed maps of the topographical features of the entire area, engineer drawings, and a computer. The west wall contained a visual overview of the entire collection of villas. Together examining the many designs, I asked whether they would be built. He wasn't sure. Facing the virtual villas, I raised the issue of the national policy that had implemented a ban on allotment of land to villa construction. In June 2006, the central government announced a package of policies to cool down the overheated market. The policies included raising mortgage down payments from 20 per cent to 30 per cent on units larger than 90 square metres; and requiring that 70 per cent of all houses be smaller than 90 square metres. Also the ban on allotment of land to villa construction that was already implemented in 2003 was to be more strictly implemented (Jiang 2006). To my surprise, Xiao Bai pointed out that what we were actually looking at were not villas at all. Confused by his response I rephrased my question: 'In the case the developer will proceed with the construction what will they do with the government's policy to curb the construction of villas?' He pointed to the villas and explained: 'these are not villas, they are botanical gardens or maybe even zoological gardens'. I insisted: 'but they are villas'. He nodded, and continued:

Still, they can easily become multi-purpose buildings, or something like a public architectural exhibition. . . . There is always a way to get around it. All you really need is a piece of paper stating that they are this or that kind of construction, something in line with regulations, just don't mention luxury villas.

Alluding to collusion in the real estate development sector and the local proclivity to completely discard central state regulations, Xiao Bai later explained his statement by reference to a famous Chinese idiom, 'here the mountains are high and the emperor far away'.

In Beijing, I met with Yu Jie, an architect from CADREG⁹ who was initially contracted to design the master plan for the entire Jiang Yuan Culture and Creativity Industry Zone. She gave her take on why villas can suddenly turn into botanical gardens by looking at the case in its broader context. In the initial phase of the project Yu Jie and her colleagues produced a 100-page book for Mr Cai. The book starts out with a historical outline of the region. To emphasise the creative component it includes photos and designs from other international architectural developments, science and creative zones. The book was also complete with descriptions of cultural, economic and geographical conditions in Ordos: facts about local weather conditions were considered in relation to the careful choice of architectural design and construction materials. As the whole creative buzz had yet to gain force by 2007, the team had never undertaken similar projects. Therefore, Yu Jie explained, they had to find models and inspiration in other creative zones abroad. Despite its verisimilitude and comprehensiveness of

calculations, the overall conceptual design for the district, and the book, was produced within a month. Upon its conclusion, the client, Mr Cai would present it to representatives in the local administration to get access to the large plot of land, and with the recent national emphasis on creative clustering this would most likely be well subsidised by government. With the conceptual plan in itself, Yu Jie explained how the value of the land parcel had risen several times, even before any construction was undertaken. Despite acknowledging her faith in Mr Cai's sincere interest in creative zones, Yu Jie pointed out how most zoning strategies are often misleading:

They say words like creativity or culture, but if you look at what is really built, only a minor part is dedicated to these uses. Most of it will probably become residential or commercial space – if it becomes anything at all.

Yu Jie refrained from making any predictions about the zone, but showed little surprise when she was presented with recent photos of the current state of the zone, clearly illustrating how none of their initial plans including designs or development stages had yet materialised.

Common to such diversions or rhetorical shape-shifting is the strategy of shuffling words to suit policy demands in a capital-intensive industry. As Yu Jie disclosed, a key driver behind such endeavours thus lies in real estate, land value appraisals, and not necessarily an interest in the creative outcome. Rather than the actual pursuit of promoting the creativity that the central state policies advocate, such cases of rhetorical shape-shifting seem to be indications of an emerging tendency of more *creative* land grabs. To summarise, we have so far accounted for coinciding interests between property developers and local government, and pointed to on-the-ground strategies applied to ensure profit despite changes in regulatory orders, something that might only be possible with a lenient local state. From the support and engagement that ORDOS 100 initially received from local officials, it seemed that the valuable buzz of the project was given priority ahead of any attempts to sanction or prevent construction that was clearly a transgression of central state building policy. Rhetorical shape-shifting might therefore equally apply to officials in Ordos' municipal government, enabling erratic or ad hoc enforcement of regulations for the sake of growth; clearly trading into the central state's creativity agenda, while simultaneously ignoring land-use designation such as the ban on allotment of land for villa construction. The following scales out from the ORDOS 100 case and by looking beyond creative permutations on the level of rhetoric, it argues that the rapidly changing regulatory landscapes and speed of the industry have brought about changes in building design and construction: both in terms of the quality of materials, and also by building in ways that maintain an increased capacity for a complete reorientation of projects.

Empty containers of space

The speed and scale of the Chinese property development sector attract many international architects to China: some on a short-term basis as in the case of ORDOS 100 while others commit themselves to long-term employment. Projects similar to that of Mr Cai emerged at a time when architects' opportunities were scarce. Moreover, the appeal was even stronger as architects, before actually working in China, were often mesmerised by the thought of working in an environment with few, if any, creative restrictions (van de Water 2012); projects such as ORDOS 100 laid out few guidelines or restrictions on design (de Muijnck 2008). Yet despite this appeal, several interviews with international and Chinese architects who have years of experience working in the Chinese property development industry suggest how, in praxis, few

projects proceed as planned and often with radical changes along the way. Henri van Hoeve, a Dutch architect who worked alongside Ai Weiwei and participated in the initial conceptual design phase of the ORDOS 100, explains:

The different phases of conceptual design, practical design, project overview etc. are all mixed up. Not linear at all. The client has much more power and influence in the question of design than in Europe . . . it's like a negotiation that's going on. That keeps going. Like a continuous construction, and I am sure these villa plans have been changing all the time. First the government changes it, then somebody else changes it, then the neighbour changes it, and then when the people actually move in, they change it again. Some of these alterations are fundamental, that you can't just change.

(Van Hoeve, pers. comm., Beijing 2011)

The different phases are not clearly separated, with each professional solely responsible for his or her own area of expertise. Every part of the process appears flexible and open to changes – related either to changes in national policies or changes in the market, or simply to satisfy the clients. Another component that affects the design and quality of construction is the velocity of the industry, a point often raised by interviewed architects and others employed within the property development industry. One of these is John van de Water who has worked as an architect in China through the last decade. John drew me a diagram to explain his take of the Chinese building sector. The diagram was a simple curve marking the lifespan of a generic building. The horizontal axis designated the building's *lifetime* with the vertical lines progressing with a ten-year span. Architects, John explained, often calculate one generation to every ten years. In China most construction is built to last 20 years, i.e. two generations, and will then most likely be torn down before that. In high growth areas such as in Ordos, buildings rarely last 20 years. Most buildings that were built 5–6 years ago are commonly described as old by the population, and were often already set for demolition. Much construction in Europe, John went on to explain, is built to last 80 years, and instead of being demolished it is usually renovated or modernised. As a consequence, the short calculated lifetime of a building doesn't require top quality material. In the phase where the Local Design Institute is responsible for changing the conceptual design into established national standards for construction, a cost–benefit analysis is likely to be conducted. Such cost–benefit analysis, interviewees explained, would result in the use of much cheaper materials and components than those suggested by the architect. As several of the interviewed architects complained, this often meant cutting off the architect from the phases of construction in order to minimise costs. This could also result in completely different designs. One architect mentioned how a client had doubled the rent space of a building design by adding an extra level between each floor, something that was surely not advised by the Local Design Institute. Judging from these statements, the intensity and speed that characterise the Chinese property development industry, and maybe even more so in high growth regions, generated bad quality construction and dictated more flexibility in terms of altering the direction of the project. Looking at how developers and entrepreneurs build in a market characterised by sudden policy changes, John drew attention to another feature of the Chinese building euphoria. Developers use certain buildings specs to secure their profits in the ever-changing political climate and shifting policies:

Most of the projects that are being built look like office projects or hotel projects. But when you look inside they are all smaller units, like 50 m² units, 40–90 m². Then you can

buy two or put them together. Or just buy them as investment. Most of them are sold as investment projects. Seven or eight years ago most of the projects that were realised were like villas, or large typologies, huge apartments. Then, from one day to the other they say they now don't want villas, 70 per cent of projects that are realised should have apartments of 90 m² or less. That means the market was changing from large typologies to smaller typologies.

(John Van de Water, Beijing 2011)

As indicated in John's statement, the employment of particular building specs is a way to accommodate and adapt to rapid changes, but also as a broader clientele can buy them like small shares. Large-scale changes occur on the level of entire buildings, and imminent changes are pre-empted already in the design process. From his experience, John listed what changes were deemed less complicated within the industry and which ones needed more extensive work and investment: for example, from office to residential is an easy change. So is hotel to residential. More difficult changes would be changing a factory into a standard Chinese office building. However, as John pointed out, it happens, nevertheless. And often with a complete discard for transgressing land-use designations. Whether the end result will match the initial plan is not so important: 'it's more about building empty containers of space now, as an integral part of the Chinese model. In the future they can be anything', John explained.

Building with an eye for potential change or building what John called 'empty containers of space' does, to some extent, echo broader international architectural strategies. For instance, a generic 'shell and core' strategy combines a unique shell, i.e. design visible from the outside with a bland core of easily sellable and alterable specifications to accommodate fluctuations in demand (Martin 2011, p. 75). The Ordos case, however, takes this a step further towards a total inversion of contingency and plan. Contingency becomes the rule, while the plan or blueprint mostly serves to acquire land, and subsidies. Yet this alone does not account for the delay in construction of the ORDOS 100 project. Taking a closer look at such practices they might also be taken to index a new mode of planning and new modalities of valuation. As actual construction was deferred, the space that was initially designed for a creative industry zone remained open to substantial changes in the direction of the project or, as will become obvious from the following, simply catered to profit from reselling the rights to develop on the parcel.

Economy of appearances

Most of my designs are never built

(Architect Dan Roggeveen)¹⁰

To start developing this kind of area you have to persuade the government that you are good at your work and you are going to make something beautiful. So from the beginning you have to show them images of what it is going to be like although there is no proper information about the site. . . . So basically you get this book, which is like a 120 page presentation of the area . . . mainly it looks finished cause somebody just copy-pasted it from somewhere. The only thing that is important is that you can show here will the villas be, there's going to be administrative buildings, here's going to be a shopping mall, over there will be houses. Something like this. That's the only thing that is important. And they just get that park . . . it's all about the relation to the authorities.

(Henri van Hoeve, interview 2011)

Henri, who had participated in developing the overall frame for the ORDOS 100 project explained how Mr Ai Weiwei, his employer at the time, would continuously stress that they should only take part in the initial phases of the project and seemed reluctant to have any part in the actual construction or the tedious work of transforming 100 unique villa designs into not only feasible constructs, but buildable according to Chinese construction standards.¹¹ In the project's initial phases, Ai Weiwei directed a documentary (2012) about the ORDOS 100. In one sequence he states what he deems the project's most important characteristic:

[It's not about] one person designing a villa. You become part of this large movement. This movement is about communicating. Exchange ideas, knowledge and many experiences are much stronger. So we are not interested in just producing architecture. We are more interested in human conceptual exchange. That's much more important especially today. The old is not so interesting – because we are talking about a possibility rather than a fixed solid product.

Beyond the project's yields in terms of 'intellectual exchange', Ai Weiwei's emphasis on possibility rather than 'a fixed solid product' adds a particularly volatile and speculative nature to the project. The imagined and potential qualities of it resonate well with Tsing's idea of conjuring up value – a conjuring that, as Tsing (2000) notes, cuts across fields as diverse as extractive industries, financial investments and speculative real estate.

The production of certain alluring imageries or tropes as part of a sales pitch is no new phenomenon at the intersection between real estate development and cases of overnight or instant cities' speculative hype. Similar instances are widely recorded in geographical accounts of pioneer settlements, boomtowns and instant cities along the US urban frontier throughout the eighteenth and nineteenth century (Barth 1975, Reps 1965, Yablon 2009). These cases show how corporate enterprises were apt to adapt visual measures to go with the selling of lots in pioneer cities. In his tour de force account of urban planning patterns in America, historian John Reps treats the capitalist drive inherent in much of the planning schemes. Even the communities driven by a strict moral and Christian conduct, Reps notes, would keep a keen eye out for 'financial profits along with the presumed benefits to mind and spirit' (Reps 1965, p. 349). Speculators and prospectors would themselves design the new towns. Blueprints would include all the trimmings: squares, broad avenues, wharves, public squares, monuments etc. The speculator would think up a suitable name for the city that would be plastered up everywhere as town promotion or 'town jobbing'. In reality, the city so beautifully laid out on paper was often nothing but a mere mirage – a sales pitch to accumulate capital of the small lots on the virtual streets and plots of land that only rarely existed:

[T]he promoters advanced extravagant claims of buildings already existing or to be constructed shortly. The New Babylons of Kansas Territory . . . were usually represented as having one or more railroads, a university, churches, parks, exchanges, and the like. In fact New Babylon . . . was rarely more than a shack of tents and often consisted solely of an expanse of rolling prairie. Few persons bothered to visit the site of these cities before buying a lot or share. . . . [I]t was not a swindle, but a mania. The speculators were quite as insane as the rest.

(Richardson in Reps 1965, p. 364)

Schemes themselves were not always intended, as Reps notes, but might be understood as a logical component of a wider madness (Reps 1965, p. 359). Or as a case of Tsing's 'art of

conjuring' (2000, p. 126), we have seen how spectators imagined the 'wads of cash' that architects were purportedly paid; essentially a form of valuation that directs the gaze towards prospects, while less attentive to the downsides of development, e.g. the transgressions of land use designations or abuse of regulatory gaps (cf. Tsing 2000, p. 133). The cases of both Tsing and Reps attest to the alluring power of images and myths in the inventive promotion of something that is essentially not-yet-there, in Rep's case supposedly in the midst of rapid urbanisation. The cities of the eighteenth and nineteenth century US urban frontier capture aspects of the dynamics that underlie the real estate-driven urbanism that also seemed to characterise Ordos in its boom. Considering how the images of bold architectural achievements proliferate on the Internet, one could even identify similar traits of 'developers' madness'. CADREG's conceptual design of the overall development came complete with depictions of green lawns, seagulls drifting around in the air above the creative cluster. Combined with geological and climatic facts this made investments credible and helped to conjure up the value of the plot – despite construction being indefinitely unfinished. A similar tendency was found in the locally distributed place-making material such as the bilingual promotional booklet depicting 42 colourful models of villas that no one seemed to know of, and didn't really exist at all. Here, the production of plans, models and designs is therefore better understood as being indications of potential value rather than promises of a firmly set trajectory. This was similar to what Dickens himself experienced on his travels to the US boomtowns, and later through his protagonist, Chuzzlewit, 'even Eden, you know, ain't all built',¹² yet it did nevertheless yield effects. Even in its absence.

The value of unfinished buildings

On a later occasion I was invited to spend a weekend in Mr Ai Weiwei's artist studios at the ORDOS 100 construction site. As no artist had come to occupy the space, mostly higher ranked engineers resided in the spacious art dormitories. The workforce that laboured on the Art Hotel was accommodated in simple on-site temporary dormitories. Xiao Bai brought me along the only paved path of road in the zone to the Art Hotel workers canteen. During the lunch conversation Xiao Bai discussed terms of employment and standards of provision with a local worker. The name of a new developer consistently came up in the conversation. Inquiring about this developer's role in the overall development, Xiao Bai explained how there had been a change of ownership. Giving his account of the shift, Xiao Bai seemed little preoccupied or surprised. Mr Cai Jiang was no longer his employer. As it turned out, the Creative Industry Zone no longer belonged to Jiang Yuan Group but had been resold to another developer, a local business tycoon from Ordos, Liu Manshi.¹³ Xiao Bai sketched a map of Kangbashi, in which he located the creativity zone that he referred to as his 'work unit', on the map. Here he divided the entire 198-hectare plot into one large and one small section:

Manshi and Mr Cai now have a kind of agreement. Take this piece of land. Before it was all his [Mr Cai's], but since 2010 in April or May, the Manshi Group bought a large share. In the future maybe the entire plot will belong to Manshi. In the beginning the small one keeps a small share, like 10 per cent. Afterwards, maybe the entire plot will change hands and be under Manshi's name. . . . Then plans are likely to change once again. Up until now they haven't made new plans, still thinking about how to do it, how to develop the plot. It's up to Manshi to decide now, maybe he won't follow the plan, maybe he will build residential dwellings, maybe large hotels, maybe do some kind of business, that's also possible. In Ordos this phenomenon is very common. Manshi might develop and manage

the plot himself but it's also possible that he will resell everything: this floor here in front of you [pointing at the Art Hotel's construction site] might be installed today but be dismantled again tomorrow. This is very common here.

According to Xiao Bai, the shift included 90 per cent of the entire plot, i.e. the land-use rights to develop on the land that also included the entire collection of plans, designs, documents and licences (and several employees, including himself). The Jiang Yuan Culture and Creativity Industry Zone was therefore resold, before its completion. Only the few structures that were finished at the time of the sale still belong to Mr Cai. The architectural groups who were responsible for the designs of the ORDOS 100 villas, and even the wider zone, received no news of the transfer of rights. Consequently, few of the architects seemed to know that their designs had been sold to another developer that would now be responsible for carrying them out. Reflecting upon the further effects of these shifts Xiao Bai continued:

[Rhetorically posing as developer] If this plot doesn't make me money then I won't develop it. If I do this or that project, it's for the sake of profit. With everything starting over it's likely that everything will result in some chaos. Although some shifts include approved designs, material, workforce, some decide to start over again. If you plan from scratch you need to think of basic engineering like water, electricity, and so on. That will be a huge cost. But they [developers] hope only to pay small costs; at least not big . . . these changes are rarely in accordance with national conditions. But after a secret permission the place [the Jiang Yuan Creativity and Culture Zone] might become a residential area, or something else. In these times there is no way of saying. You say this is residential area, but it isn't; say these are villas, but at the same time they are not villas; say these are offices, but then again they might not be.

The chaos that Xiao Bai inferred from the turbulent conditions in which plots change owners and completely new projects might or might not emerge illustrates several characteristics of speculative land development under periods of growth. The strategic set-up of Mr Cai's Creativity Industry Zone resonated with several of the above key features of US boomtown urbanism. Considering the nature and timing of Mr Cai's development project it appeared he wisely traded into several things simultaneously: the new national emphasis on creativity, real estate ventures in high-growth areas, the internet hype produced by global creative networks' capacity to spread information, and the buzz that revolves around famous architects and artists. As Yu Jie argued above, the key incentive behind many purportedly 'creative' or 'green' development projects lies in real estate and does not necessarily reflect a sincere interest in any sustainable or creative outcome. This becomes even more evident when one considers the abundant cases of projects that share a similar fate to that of ORDOS 100 and the creative industry zone, as interviewees would regularly attest to. Most of these comprise radical shifts where land is sold and resold in the process between design and construction. Consequently, utterly different projects might emerge as land-use rights are transferred into the hands of new developers, if ever. In an evocative paragraph, historian Gunther Barth treats the commencement and rapidly ensuing decline of the 'instant cities' of San Francisco and Denver:

The concern for opportunity, stimulated by the dazzling promise and the blatant insecurity of the cities, curbed the effectiveness of government. In the absence of success, only the future mattered. It held out the promise of the completion of the cities as the ultimate source of personal prosperity. A past did not exist, and the present was continually rendered

obsolete by changes that sustained the development of the cities until the urban explosions spent themselves and the cities' uniqueness vanished.

(Barth 1975: xxiv)

In the passage, Barth argues how the kind of instant city urbanism that he juxtaposes with the temporal and cultural orders of ordinary cities,¹⁴ relied on prospects and promises; on the ways that personal prosperity became entwined in the wider trajectory of the city. This, Barth underlines, did not imply a sense of belonging and collective care for the city, but rather the opposite: as most citizens were pioneers and looking for quick profits, it posed challenges to local order (1975, p. 128). As one effect, Barth notes, much of what was created served the moment and thus quickly vanished or 'fell into disuse when the moment passed' (1975, p. xxiii, xxiv). Coming back to the question raised in the introduction, not finishing projects can prove valuable, or profitable, at least. One associate from inside Mr Cai's closest circle that I became acquainted with during fieldwork, stated that Mr Cai presumably had 'abandoned' the whole project with an estimated 200 million RMB profit. Whether this can be explained by an initial vile intention of hucksterism, or simply as a consequence of Ordos' chaotic real estate conditions is unclear. Maybe Mr Cai simply caught on to the impending crisis in due time and sought to get out before the Ordos bubble burst (Ulfstjerne 2015). In August 2012 Xiao Bai resigned from his job at Manshi and returned to Hohhot. On the phone he explained that all construction in the zone had been paused indefinitely. With the abrupt economic downturn that struck Ordos from 2012 onwards, Manshi Group had experienced notable setbacks in its other main industries: tourism, commerce, coal and real estate. The Art Hotel had also ceased construction. In light of the crisis, Xiao Bai saw no point staying in Ordos.

Conclusion

In his analysis of the initial phases of the ORDOS 100 Desert Villa Project, Bert de Muynck opened his article with a line from *The English Patient*: 'It's funny . . . The desert's a big place, but nothing really ever gets lost there.' In hindsight, the logic of the sentence was almost reversed. Due to the extensive footage, photos and models accessible on the Internet and inside the bunker office, the desert was familiar and not big at all. Only, the many virtual renditions of modern structures, populated by artists and billionaires in the sand dunes-cum-creative space were not only lost, they were never really there – a proper mirage, only conspicuously present by its absence. The hype conjured up from urban design magazines and creative networks fostered imaginations that, whether critical or optimistic, nevertheless assumed that the zone and the villas existed, or at least, would be built. The 'wads of cash' that commentators had imagined would be paid to the selection of architecture and design groups was itself an iteration of the almost mythological assumption about how a boomtown economy would naturally produce an abundance of things, of wealth – an assumption that would not likely consider the economy of unfinished construction.

Unfinishing buildings, this essay has argued, carried a potential to momentarily align a set of diverse agents and interests: central state directives for urban planning, growth ambitions for cadres in local governments, and property developers' quests for profit and wealth. By examining the social life of prestigious real estate projects in Ordos, the analysis provided more detail on the collusion between officials and high-end property developers. Despite its spectacular characteristics, statements from inside China's property development sector suggested that the case represented a broader trend where buzzwords and high-profile projects simultaneously trade into the political ambitions of local officials while also offering entrepreneurs and developers loopholes to gain easy access to land.

Ordos Municipality has been ridiculed worldwide for being emblematic of China's growing real estate bubble, widely lampooned as a 'modern ghost-town' – a flawed development scheme in an overheated Chinese economy. But the question of whether it is or isn't a bubble does not fully account for the change from villas to botanical garden – nor for the flexibility in property developers' strategies that encompass and calculate changes into the design itself, as exemplified in the trend of 'building empty containers of space' – pre-emptive strategies that help adapt to radical changes in markets or building regulations. As an instantiation of developers' strategies, building 'empty containers of space' may most of all be characterised by a potential for adaptation; containers that can be tailored to accommodate the changing scenery of regulatory landscapes. Therefore, simply to regard the redirection of real estate projects such as the Jiang Yuan Culture and Creativity Industry Zone, or even projects on the scale of the whole Ordos growth region – as merely flawed schemes due to the gap between initial goals and outcomes reflects an outdated reference point . . . or in the words of Xiao Bai as he gazed upon the virtual building site in Ordos: 'these are not villas, they are botanical gardens or maybe even zoological gardens.'

Notes

- 1 Listing a selection of designs and architecture that has been the focus of anthropological analysis: e.g. different forms of dwellings and houses, high-modernist cities, religious alters, WTC, Paris' arcades, Buchli engages with the materiality of these built forms and how these 'make people and society' (2013, p. 1). Raising the issue of iconoclasm and ruins, Buchli's insightful analysis similarly suggests how things (e.g. buildings) in their quality of not being there also yield effects.
- 2 This essay, however, aims less at accounting for the *making* of a design following a Science and Technology Studies frame (Yaneva 2009, 2012), yet draws on Yaneva's insight into performance, value and the process of design.
- 3 The data collected for this essay builds on interviews with various professionals connected to the planning, design and construction of urban projects in Ordos from 2008–2013. Also, it builds on observations and brief stays at the ORDOS 100 building site during the course of fieldwork (2011–2013). Professionals range from international architects, construction workers and worksite managers, urban planners, employees at Ministry for Land and Resources, and Chinese architects employed at China Architecture and Design Research Group (Beijing). These have all contributed to gaining a better understanding of the building process, in theory and in praxis. Since 2008, I had kept myself updated on the web, looking for new developments in the ORDOS 100 project. The discussions regarding technicalities and ideas behind the many unique architectural structures seemed to continue on a vast scale. The ORDOS 100 Project was even included as part of artistic and architectural expositions showing the latest trends of contemporary urbanism.
- 4 China Architecture Design Research Group (CADREG) is one of China's largest and most productive architectural companies and acts as one of China's State-Owned Local Design Institutes. CADREG's most central tasks include: architecture design and consultation; urban and town planning; municipal engineering comprehensive design; urban gas and industrial gas design; sewage and garbage disposal; road and bridge design; building intelligence and systems design; building standardisation design; landscape design; project supervision; project general contracting; residential projects study; research works concerning building standardisation, architectural history.
- 5 Jury members counted several international leading architects including Rem Koolhaas as the head of the jury. Since 2011/12, however, neither the website nor people responsible for the prize have been available.
- 6 I want to thank Bert de Muynck for bringing this to my attention. Bert has provided key insights into the ORDOS 100 through his engagement with curators, planners and architects during the initial phases of conceptual design and on location events (see de Muynck 2008; 2009).
- 7 At the CCP's 17th national congress in 2007 Hu Jintao expressed China's aim to become an innovative nation as a central tenet of the national development strategy (see Hu Jintao in Keane 2013, p. 31).
- 8 Other designs were devoted to hedonism; some drew inspirations from a panopticon such as design; some lend inspiration from what they imagined to be local cultural designs as yurts or traditional

Mongolian cave dwellings. A quick Google picture search attests to the rich discussions on design and detailed renditions.

- 9 CADREG is listed as a State-Owned Enterprise although smaller units seem to be more independent and project based. Local design Institutes are responsible for changing sketch and conceptual design into construction design, complying with existing laws and building regulations. Before the 1990s every design institute was state-owned and held a monopoly of construction – commissioned by central government's logistics and planning. In the last two decades these institutes underwent large changes: to cope with changing market demands, these institutes deployed new strategies to become more flexible and catered to the private sphere. Some were fully privatised and others partly. One such strategy included making smaller project-based teams, working with a degree of independent units under the larger State-Owned LDI. For more information see: www.culturalexchange-cn.nl/mapping-china/architecture/architecture-practice-china/state-owned-local-design-institutes-ldi.
- 10 Interview conducted in Shanghai, 2011. Daan Roggeveen is a Shanghai based architect. He was also contracted for designing projects in the initial phases of the Jiang Yuan Cultural and Creativity Industry Zone; projects that were never commenced and did not proceed from conceptual design to construction.
- 11 This point was confirmed by CADREG architect Yu Jie. During the interview she noted how her group, besides producing the book with the overall design of the creative zone were also responsible for changing every villa construction into buildable units, in accordance with local building legislation and standard. This process proved highly tedious: one man was responsible for the whole set of villas. After working full time for six months he finally succumbed and decided to quit his position in CADREG, despite almost having finished.
- 12 In Charles Dickens's novel, *The Life and Adventures of Martin Chuzzlewit*, the protagonist ventures across the Atlantic to seek his fortunes, lured by the prospects of nineteenth century boom cities in the USA. Upon one of his quests Chuzzlewit is tricked into buying a land lot in Eden [i.e. Cairo, US], a 'paper city' that is detailed by planners' and speculators' comprehensive maps that far from resemble the desolate Eden that Dickens's protagonist encounters upon arrival (Dickens in Yablon, 2009, pp. 75–80).
- 13 Liu Manshi was locally known as a success story of Ordos. The story told of a common peasant who managed to set up a huge empire that came to include coal extraction, real estate, travel businesses, shopping malls etc. Yet, due to his background, none of the workers working at the building site believed that Li Manshi would have any interest in constructing cultural industry zones.
- 14 Barth equates instant cities to 'transplants' whereas ordinary cities would rather resemble trees that 'grew haltingly, matured slowly, and decayed imperceptibly' (Barth 1975, p. xxii). In the case of high growth urbanism, even the decay proves 'untimely' (cf. Yablon 2009).

References

- Alex, P., 2008. Dawn of a New Century. Orientation. Available from: <http://postalex.blogspot.dk/2008/04/dawn-of-new-century-ordos-100.html> (accessed 10 October 2013).
- Barth, G., 1975. *Instant Cities: Urbanization and the Rise of San Francisco and Denver* (Urban Life in America Series). Oxford: Oxford University Press.
- Bernstein, F. A., 2008. In Inner Mongolia, Pushing Architecture's Outer Limits. *The New York Times*, 1 May, sec. Home & Garden. Available from: www.nytimes.com/2008/05/01/garden/01mongolia.html (last accessed 5 December 2014).
- Buchli, V. A. 2013. *The Anthropology of Architecture*. Oxford: Berg Publishers.
- Caldeira, T. P. R., 2000. *City of Walls: Crime, Segregation, and Citizenship in São Paulo*. Berkeley, CA: University of California Press.
- Davis, M., 1990. *City of Quartz: Excavating the Future of Los Angeles*. London: Verso.
- De Certeau, M., 1984. *The Practice of Everyday Life*. Trans. Steven Rendall. Berkeley, CA: University of California Press.
- De Muynck, B. 2008. Babel for Billionaires. *Mark Magazine*, 15, 124–131. Available from: <http://movingcities.org/bertdemuynck/on-china/babel-for-billionaires/> (accessed 28 October 2015).
- De Muynck, B., 2009. Architecture on the Move: Urban and Architectural Design in Inner Mongolia. *Continuum*, 23(2), 209–219.
- Foucault, M., 1975. *Discipline and Punish: the Birth of the Prison*. New York: Random House.
- Harvey, D., 2008. The Right to the City. *New Left Review*, 53, 23–40.

- Holston, J., 1989. *The Modernist City: An Anthropological Critique of Brasília*. Chicago, IL: University of Chicago Press.
- Hsing, Y. T., 2008. Socialist Land Masters, the Territorial Politics of Accumulation. In: Z. Li and A. Ong, eds, *Privatizing China: Socialism from Afar*. Ithaca, NY: Cornell University Press, pp. 57–70.
- Jiang, Z., 2006. No More Land for Luxury Villas. *China Daily*, June 1. Available from: www.chinadaily.com.cn/china/2006-06/01/content_605504.htm (accessed 28 October 2015).
- Jordana, S., 2009. AD Round Up: Ordos 100. Part I. *Archdaily*. Available from: www.archdaily.com/22039/ad-round-up-ordos-100-part-i/ (accessed 5 May, 2014).
- Keane, M., 2013. *China's New Creative Clusters: Governance Human Capital and Investment*. London; New York: Polity Press.
- Martin, R., 2011. Financial Imaginaries: Toward a Philosophy of the City. *Grey Room*, 42, 60–79.
- Reps, J., 1965. *The Making of Urban America: A History of City Planning in the United States*. Princeton, NJ: Princeton University Press.
- Rundle, L. B., 2009. *Architecture's New Frontier*. *UofT Magazine*. Available from: www.magazine.utoronto.ca/all-about-alumni/ordos-region-architecture-inner-mongolia-cai-jiang-herzog-and-de-meuron/ (accessed 17 March 2014).
- Schivelbusch, W., 1987. The Policing of Street Lighting. *Yale French Studies*, 73, 61–74.
- Tsing, A. L., 2000. Inside the Economy of Appearances. *Public Culture*, 12(1), 115–144.
- Ulfstjerne, M. A., 2015. *Unreal Estate: The Social Life of Temporary Wealth*. Thesis (PhD). Copenhagen University.
- Ulfstjerne, M. A. and de Muynck, B., 2012. Ordos: A Chinese City Constructed in the Fast Lane. *Portal9 Journals*, 1, 57–77.
- Van de Water, J., 2012. *You Can't Change China, China Changes You*. Rotterdam: OIO Publishers.
- Yablon, N., 2009. *Untimely Ruins: An Archaeology of American Urban Modernity, 1819–1919*. Chicago, IL: University of Chicago Press.
- Yaneva, A., 2009. *The Making of a Building: a Pragmatist Approach to Architecture*. Oxford: Peter Lang.
- Yaneva, A., 2012. *Mapping Controversies in Architecture*. Farnham: Ashgate.
- Zheng, J., 2010. The 'Entrepreneurial State' in Creative Industry Cluster Development in Shanghai. *Journal of Urban Affairs*, 32 (2), 143–170.

Other sources

- Ordos100 Documentary (directed by Ai Weiwei, China 2012). Available from: www.youtube.com/watch?v=LLL72t_bHV0 (last accessed 3 December 2014).

The disconnected experience of some designed places

Jørgen Ole Bærenholdt

Introduction

Places increasingly appear to be more than discrete stages or arenas of human practice. They are also performed as sites of tourist experience, and are thus designed to attract visitors affording their experiences. This is not new. From ancient times, attractive places have enticed people to come and admire them and have been key sites for holders of merchant, religious, political and symbolic power. Not surprisingly, architects have always played a role in forming such places, but with the expansion of tourism during the twentieth century in the age of globalisation, entrepreneurialism and the experience economy, places designed to attract tourists have gained a central significance, becoming key attractors in economies driven by signs and space (Lash and Urry 1994), where places are produced to be sold and consumed (Kearns and Philo 1993; Urry 1995; Ek and Hultman 2007). This is perhaps most apparent in the case of cities (Amin and Thrift 2002; Cronin and Hetherington 2008), but it also applies to peripheral areas where the remaking of places as *inter alia* tourist destinations has become a coping strategy for survival and restructuring (Shields 1991; Bærenholdt and Granås 2008; Nyseth and Viken 2009; Viken and Granås 2014). Reinventing, rebuilding and rebranding places have become acknowledged strategies for regional and urban development. This process goes on in economies portrayed as competing between places for visitors, residents, investments, global public presence and, not the least spectacular, designed attractions. The experiential quality of places is constantly evaluated and compared, not only by professionals, but also by lay people in their considerations of where to travel, move, visit and even settle down.

Given the competition, failure to be attractive can be critical. There are high expectations involved when people visit places to experience them. These expectations change over time, however, so as visitors change, places that were functional to experiences in one period may become dysfunctional in another. To investigate the nature of dysfunctionally designed places, this chapter approaches tourist experiences of places as emerging from both affordances of the place and the performance of visiting people, thus transcending Cartesian dichotomies between object affordances and actor performances (Bærenholdt *et al.* 2008: 199). There is variation and difference in the performance of experience, but there are limits to dissimilarity as a specific place, along with its designed artefacts and architecture, affords some but not all kinds of experience. Performance and affordance are deeply connected to a certain kind of relational

socio-material entity, constituting certain tourist gazes (Urry and Larsen 2011) and ordered tourist practices. Functional and dysfunctional architecture can therefore be understood as part of specific tourist practices that also include certain modes of expectation about what is good and what not when it comes to the tourist experience of place.

A contemporary example of such an experience order is the design of tourist places in accordance with certain time-specific architectural principles, such as those of the New Nordic school (Andersen and Schelde 2012; Hvattum 2012). Thus, Norway has seen the redevelopment and fancy new design of tourist places along the National Tourist Routes even in remote places (Berre and Lysholm 2010), and these designs are more or less part of the so-called New Nordic trend. We might expect that these designed places would be widely experienced as functional, since they also afford a certain order of performed design experiences, at least for middle-class tourists. But it is interesting to see how sustainable such orders are.

Dysfunctionality in architecture can emerge over time, along with development of the tourist practices of specific social and cultural groups. As part of this, expected dysfunctionality can also become part of ordered tourist practices. One classic example is the leaning tower of Pisa where dysfunctional construction has produced a major tourist attraction. In broader terms, outside of the tourism sphere, Le Corbusier's *Unite d'Habitation* (see Chapter 1) was constructed as a holistic modernist vision of all integrative life inside one building. Similar residential housing projects exist around the world, including the 200 metre long, 320 apartment Blok P in Nuuk, Greenland, constructed as part of the Danish led modernisation of Greenland in the 1960s and demolished in 2012. In tourism, a dark example often mentioned is Hitler's 4 kilometre long Prora Hotel, with its 11,000 rooms, on the island of Rügen. The hotel building still stands, so solidly built that the Red Army was not able to demolish it.

In contrast to these well-known examples, there might be more to learn from minor cases of dysfunctional design in peripheral places, where the attraction of the designed tourist place is critically important for developing tourism. Northern Norway provides some interesting cases, among which two different examples are examined here.

The first case is North Cape Hall, which is a popular, commercially run visitor centre located on top of the iconic North Cape Cliff, Northern Norway's main attraction (www.nordkapp.no/en/activities/item/nordkapphallen). This example is already much discussed both among locals and in the literature. The second case is the Hurtigruten Museum (www.hurtigrutemuseet.no) in Stokmarknes, Vesterålen Islands, also in Northern Norway. A much smaller attraction, it was designed to make Hurtigruten a historical attraction. Hurtigruten is the name of the coastal steamer route that calls at ports along the long Norwegian coast and has existed since the late nineteenth century. Today it is mostly a tourist cruise experience.

This chapter investigates these two tourist attractions as cases of designed places that to some extent have been found wanting by tourist visitors. While the choice of the sites was based on the author's broader professional knowledge about the region and his own tourist visit to the two places in 2012, it is the experience of the designed attraction that is at the core of the investigation here. This investigation first and foremost builds on reviews found on TripAdvisor, a much-used Internet based tourism site where tourists comment on the places they have visited. The chapter also draws on the author's own observations and experiences at the two attractions. Furthermore, information on how the places present themselves, both as built facilities and on the Internet, forms a background to the investigation. Finally, existing research, especially on the North Cape case, supplements these materials.

In terms of methodology, this chapter takes as its point of departure the view that tourist experiences involve the social performance of the tourists themselves (Bærenholdt *et al.* 2004; Urry and Larsen 2011), including what tourists do, how they behave in relation to their

expectations of others' reception, and how they document their visits through photography and the written text. Writing travel logs and reviews on the Internet is therefore also a part of the tourist performance, and these texts thus provide a public empirical account of tourist experiences. Such reviews as those on TripAdvisor are not statistically representative of the tourists visiting a particular place, but when searching for those taking a critical view on dysfunctional aspects of visiting sites, reviews on websites can be particularly fruitful for finding critical, experienced travellers who are used to reviewing sites, thus implicitly making comparisons with other sites they have visited. As mentioned, the reviews are not only sources conveying experiences, but are also part of experiences themselves. Where reviews of bed and breakfasts, smaller hotels and restaurants often involve certain, implicit, diplomatic considerations in relation to the hosts and service staff met, reviews of attractions are usually more direct and outspoken. Internet reviews can thus be regarded as interesting and valid expressions of the tourist experience, especially when they deal with specific tourist attractions. Furthermore, they are reviews that are accessible by others. Munar and Jacobsen (2013) investigated tourists' trust in a number of different platforms, and found reviews on TripAdvisor to be among those seen as more reliable and one of the most trustworthy.

The remaining part of the chapter discusses how visitors come to evaluate aspects of designed tourist attractions as dysfunctional. The ambition is to better understand what dysfunction means in relation to designed tourist places. Since place affordance and tourist performance are highly intertwined into experience orders, as argued above, it is a complex and contested issue as to what dysfunctionality is. This raises the question of whether or not dysfunctional architecture is 'external', something in itself, or rather an integrated part of tourist experience.

North Cape Hall

North Cape Hall was built as a visitor centre, but is now called an experience centre. Visiting the North Cape is the ultimate goal of any tour around Northern Norway, attracting thousands of visitors each year coming by car, motorcycle, coach and increasingly also by bike, or by cruise on Hurtigruten or other ships, anchoring in Honningsvåg. The North Cape is a very symbolic and international place. Most summer visitors go at midnight, hoping to see the sun shine from the north. It is a major case of tourism on the edge, developed through a long history of travelling, attraction making and tourism development (Jacobsen 1997, 2000; Birkeland 1999, 2005; Viken and Aarsæther 2014).

North Cape Hall was first built in the 1960s, before being reconstructed and expanded in the 1980s and 1990s to handle thousands of visitors. There is also a large rough parking space. While the North Cape itself, with its views over the sea and over the more northern Knivskjellodden to the west, is a natural winner among tourist attractions, the Hall itself has been associated with a feeling of disappointment, especially since late 1988 when the former owner, Scandinavian Airlines (SAS), opened the reconstructed Hall and introduced an increased fee for entering the parking area and the Hall (Jacobsen 2000: 76, 84; Viken and Aarsæther 2014: 40).

The Hall consists of three fully connected parts, most of which are built in what can be called an airport style, not dissimilar from that associated with SAS, which first took responsibility for running the place. Today, facilities are operated by a hotel chain, and thus there is a kind of monopoly over the site (Viken and Aarsæther 2014: 51). The Hall is split into various sections: a restaurant and cafeteria are housed in a circularly designed part constructed in the 1960s; there is a boxed kind of modernist Hall containing a bar and a very large souvenir shop; and finally subterranean parts on several floors contain a large cinema, where a 20 minute film is regularly



Figure 26.1 The North Cape Hall in midnight sun

Source: Jørgen Ole Bærenholdt

shown, a post house, a nightclub and a viewing balcony. The subterranean corridor leading to the nightclub and viewing balcony features exhibits showing the history of North Cape tourism, but also a chapel and a Thai exhibition connected to a visit by the king of Thailand in 1907.

The author visited the North Cape and the Hall in July 2012 on a, no doubt, extraordinarily warm and sunny midnight (Figure 26.1). This was followed by an afternoon revisit on another day after having completed the five hour Knivskjellodden hike. While the outdoor location and views fascinated, the indoor experience of the Hall was frustrating and stressful. The Hall offered only standard services somewhat reminiscent of a shopping mall, and there was no experience or information connected to the place. In contrast to the reviews discussed below, this experience was not connected to dissatisfaction with the high entrance fee, since this was known about in advance. Visiting the Hall produced an unsatisfied search for information about the North Cape's natural history and the history of mapping, including even basic information about geographical coordinates, how high the cliff is, the distance to the North Pole and so forth. Furthermore, the viewing balcony – accessed from the nightclub – seemed to have some basic functional problems in dealing with ice and snow, meaning that the windows into the nightclub were covered. This made the whole passage through the crowded, subterranean corridor and back again an unclear, and stressful, experience. If it did not remind one exactly of an airport, it certainly had the feel of a shopping mall, with its seats connected to the consumption of drinks, food, films and the like. Thus the contemplative atmosphere suggested by the North Cape itself is far from what is experienced here – hence its dysfunctionality.

A typical short review on TripAdvisor (of 09.09.2014; at tripadvisor.co.uk accessed 19.11.2014) stated:

'Really expensive'

Nice monuments and statues, but entre [sic] fee is simply much for that. Inside is nice view point, chapter, museum, cinema, coffee place and souvenirs shop.

Though the indoor heating is appreciated, a winter tourist supported the view that the place is overpriced (review of 06.02.2012; at tripadvisor.com.my accessed 19.11.2014):

'Tourist trap but warm after the cold outside'

This is the tourist centre at the North Cape. There is a cafe, toilet facilities and a vast, expensive gift shop. I am amazed at how expensive everything is in Norway. £10 for 3 postcards and 1 stamp!

However it is a warm respite from the -18°C outside.

There is a sort of museum here which I have reviewed separately. This centre is at the supposed northernmost point of Europe which isn't as the most northern bit is a puffin infested island you cannot go onto. Expensive to get there and only moderately interesting.

There are of course other more enthusiastic reviews both from winter and summer visits. But there are also a number of critical reviews about this being an all too expensive service centre.

A typical review on TripAdvisor (of 28.03.2012 for an August 2011 visit; at tripadvisor.co.uk accessed 19.11.2014) said:

I can't imagine visitors NOT passing through the North Cape Hall, which is an enormous, parking-lot of a building that heralds the gateway to the walk leading to the infamous North Cape. It was raining and cold on our August visit (advisory: consider yourselves part of an elite group if you have sun or can even see a few meters beyond the precipice of the Cape's Barents Sea overlook) but you're likely to go inside the rather 'touristy' visitor's center with its large gift store, cafeteria and coffee shop upstairs and an interpretive center downstairs, where you can watch a 20-minute documentary about the Cape (we left in the middle because it was boring). Have a cup of coffee and a pastry at the little bistro, but avoid the generic cafeteria.

The place is clearly described as a service centre and a shelter in hard weather. But there is also disappointment with the experience of the Hall itself including the film shown. These tourists feel trapped, where the tourist trap is more than general dissatisfaction with being a tourist, relating instead to bad weather and the high entrance fee as compared to the lack of experiences inside. No doubt the centre meets a service need, but it does not meet the expectations of visitors in terms of its being at the iconic northern edge of Europe.

There are also more critical reviews, such as one entitled 'Overpriced and Directionless' (of 25.12.2011 for a June 2011 visit; at tripadvisor.co.uk accessed 19.11.2014):

I had braced myself for this overpriced mediocrity so was not surprised. It is actually just a large visitors complex with shops, cafes and very little else of interest. An overlooked stone in the lobby contains the interesting monogram of the Thai King Chulalongkorn

from 1907 – one of the first official visitors to newly independent Norway. A small Buddhist shrine in the bowels of the building commemorates this visit. I was advised that I should buy the NOK 245 [Euros 29] ticket rather than the NOK 160 [Euros 19] ticket which would limit my access. This was a load of crap, since my ticket was never checked and I have no idea what I paid extra for. In fact, I'm not sure what I paid for except access to the fenced in area (the fences themselves [are] a hideous eyesore) designating the North Cape. Possibly a necessary evil, but vastly more fun was the hike to the real northernmost point on the peninsula to the west . . . and it didn't cost an ore! Hopefully local tourist interests will intervene and revamp this un-Norwegian mess.

This very critical review illustrates the relationship between payment and expectation, but in an elitist way, it does not think about what it would mean if all visitors took the five hour hike, to Knivskjellodden, from a parking space for maybe only 20 to 30 cars (author's own experience). Like the preceding review above, it is more articulated, written half a year after the visit, and compares the visit to the North Cape with the hike to the more northern point that also has the best sea level view of the North Cape Cliff (Figure 26.2).

All the reviews support the opinion that North Cape Hall is, in fact, a functional service centre ('a necessary evil'), like any other airport, shopping mall or highway service centre, but it does not fulfil its announced status of being an experience centre. Thus dysfunctionality has two aspects: one is the lack of a deeper curated exhibition of some sort, which would have



Figure 26.2 View of North Cape Cliff from Knivskjellodden

Source: Jørgen Ole Bærenholdt

needed the inclusion of more perspectives and actors than those of a single hospitality firm meeting no competition. The other is about architecture, since it is well known that well designed attractions can achieve much with very little curated content. North Cape Hall's architecture does not signal any specific connection to the place, apart from the circular design with a globe on top of the older and smaller part that no longer stands out from the rest. The now extended complex could be anywhere with an architectural design that does not communicate any connection to the North Cape.

Evaluated as an experience, North Cape Hall stands out as disconnected. The design of the built space and its exhibits is not connected to the location, environment, history or fantasies, apart from the peculiar celebrations of the Thai and other royal visits. It is a service space providing visitors with basic provisions and amenities in a very regular order. But it is also a dysfunctional order of experience. Afforded by place and performed by people, the experiences unfolding in North Cape Hall combine into a non-extraordinarily routine moving around among possible supplies of drinks, food and souvenirs ready to be consumed. As stated in the reviews, such an order is called 'the tourist trap'. It is a designed place but it is not the attraction; the attraction is outside. Inside there is only the cinematic experience, which is also meant as compensation to those visiting on days when there is no visibility outside.

The design is thus dysfunctional in respect to experience – but not in terms of basic services. And the dysfunctional experience is stressed by the fact that the high parking fee explicitly also includes access to North Cape Hall; visitors feel that they have paid for more than just parking and services, especially in a Scandinavian (as opposed to, for example, a British) context where paid access to natural attractions is considered non-legitimate, since nature has the status of the commons. And visitors do not experience any extra dimension. Here is no Heritage Trust explaining natural history, no actors, networks or associations, no volunteers or professionals, representing other perspectives and knowledge about absent realities many visitors would be happy, or even expect, to meet in such a place.

The explicit common dissatisfaction is about paying a high fee to enter a place that is not, in fact, the northernmost, particularly when North Cape Hall does not add more experiences. While one might think that the North Cape and not least the journey along the steep roads to the North Cape would remain a natural winner in tourism, regardless of the facilities at North Cape Hall, there are reviews so critical that they recommend people to stay away from the North Cape as such (see www.virtualtourist.com/travel/Europe/Norway/Finnmark/Nordkapp-2271934/Tourist_Traps-Nordkapp-TG-C-1.html accessed 03.01.2015).

Understanding this dissatisfaction, both Jacobsen (1997) and Birkeland (1999 and 2005) suggested that the North Cape lost some of its historical attraction when the road opened in 1956, meaning that people no longer had to walk up the cliff from sea level. Access became so easy that the bodily feeling of how high and steep the cliff is disappeared. Employing her broader concepts of verticality and horizontality Birkeland explained:

The vertical element experienced by climbing the cliffs was lost in favour of a flat, horizontal framing. Verticality is today experienced visually, and only from above. However, the representations of North Cape in advertising and sales materials etc. still reproduce the main frame of the striking profile of the vertical cliffs, dividing the horizontal plains from arctic ocean.

(Birkeland 1999: 23)

Visitors to the top of the cliff, where North Cape Hall is, do not really see or experience the characteristic image of the promontory. This is something better experienced by hiking to the

more northern and much lower Knivskjellodden. In conclusion, North Cape Hall's design does not add any new dimensions to the attraction, making the place change into a more complex experience. It has also lost dimensions that, historically, were part of the tourist experience; a history of tourism actually exhibited in the subterranean corridor. This hints at the irony that the TripAdvisor reviews quoted above transmit, namely the feeling that the tourist trap experience of this major tourist attraction is foreseeable: Many people know in advance that this is the case – and critical reviews are to some extent playing an already composed, standard song about the tourist trap. This suggests that even dissatisfaction with dysfunctional tourist design can produce memorable tourist experiences. North Cape Hall thus ties into an order of experience where the dysfunctional may already be expected prior to arrival; a pattern that reviews such as those on TripAdvisor contribute to. Thus, North Cape Hall becomes a case of ordered tourist practices associated with specific modes of expectation, where dysfunctional architecture and design are part of the expectation. In this sense, the dysfunctional is not only about affordance of the design; it is about performed dysfunction, too.

Hurtigruten Museum

The regular, daily coastal steamer route Hurtigruten from Bergen to Kirkenes has played a formative role in Norwegian and especially north Norwegian society (Bærenholdt 2007: 104–105). Officially opened in 1993 on the hundredth anniversary of the route, the Hurtigruten Museum is located in Stokmarknes where the coastal steamer still calls every day. The Museum was built as a strategic initiative for future development, branding Hurtigruten on the basis of the heritage of its past shipping practices (Granås 1997). It is clearly still under development. The present location, to which the Museum moved in 1999, consists of an exhibition on the ground floor of Hurtigrutens Hus (Hurtigruten House) connected via a bridge, several floors up, to the former Hurtigruten ship *Finnmarken*, built in 1956, which has stood onshore since 1999 (Figures 26.3, 26.4). The ship is considered one of the largest museum objects in the world and is clearly the main attraction. It is possible to tour the many labyrinthine corridors, steep staircases and empty salons and cabins on the stationary ship, the deck of which is very high aboveground. However, it could be a rather spooky experience, because, apart from some tarpaulins covering the outside, there is no evidence inside of anything having been touched since it was moved onshore.

The more problematic side of the Museum is the exhibition and the building hosting it. Although there are some maritime designs and ship-like angles in the construction, the building's architecture communicates only general purposes. It was clearly not built primarily for the Museum, as it also houses offices and part of the University of Nordland, which has its main campus in Bodø, as well as a seasonal hotel. Visitors have to pass through the office and teaching areas when moving from the exhibition to the ship; a passage that in no way attunes the visitor to any atmosphere of the attraction.

The exhibition itself is a collection of very many objects and tableaux from the interior of various ships, photos and many ship models, an obligatory aspect of maritime museums. Many of the exhibits and posters show signs of having been first presented in other places or for specific events. In short, the exhibition does not carry a narrative or common reflection across its many different parts. There is a lack of connection between the parts and between many objects in the exhibition, with no clear common, purposeful aesthetic line of design. Furthermore, the exhibition is displayed in what seems to be the standard ground level lounge area of an office building.



Figure 26.3 Hurtigrutens Hus, Stokmarknes

Source: Jørgen Ole Bærenholdt

The author visited the Museum on a very rainy day in the summer of 2012, on the way southwards by car, almost a week after visiting the North Cape. There were only a few visitors, and the experience of walking around *Finnmarken* was a very cold and humid one. The areas of Hurtigrutens Hus passed through on the way from the exhibition to the *Finnmarken* were empty, and the whole place felt abandoned. At the entrance to the exhibition, visitors paying the entrance fee also get a visitor survey questionnaire, but this can seem premature when one has yet to go through the exhibition and museum ship.

Most visitors to the museum go during a scheduled stop of the present-day Hurtigruten steamer, so many comments relate to the limited time available for visiting the place. One review (of 07.09.2014; at tripadvisor.co.uk accessed 19.11.2014) was especially critical under the title 'Very cramped and almost no curation':

This is a very small museum, with lots of exhibits, but very little editing or presentation. It's run by the Hurtigruten company, and when the ship is in the harbour, the museum is very busy – avoid if you can! The most interesting exhibit is one of the older coastal express boats, where you get to see old cramped cabins, chintzy salons and wood panelled restaurants.

However, again there is no explanation or direction. You're on an old ferry/cruise ship, and you get to draw your own conclusions. A bit more information would have been great!



Figure 26.4 The *Finnmarken* ship

Source: Jørgen Ole Bærenholdt

Framed within the busy situation where a whole shipload of potential visitors arrive at one time, this reviewer would have preferred not to see the place at all, particularly as there is a lack of information, and the visitor is left to draw his or her own conclusions. A specific visitor modus – and mood – is at play here, dissatisfied with both what was seen and the dimensions missing. It hints at the paradox of letting a crowd of tourists pass with ‘no explanation or direction’, something that might have been easier in a situation with much fewer visitors.

Another review (of 08.08.2014 for a July 2014 visit; at tripadvisor.co.uk accessed 19.11.2014) is more balanced, urging visitors to give the *Finnmarken* priority:

If you are travelling on a Hurtigruten ferry your time will be limited here as the stop is only 60 minutes. The museum is in two parts: the exhibition/history of Hurtigruten ferries – and the preserved *MS Finnmark*. You do not have time for both! Unless you have a specific interest in the history of Hurtigruten, the ship is by far the most interesting – but the route to it is not very well marked. You have to take the lift, then walk through a ‘mock-up’ of part of the ship before getting on to the ship itself, but once you get there it’s fascinating. If, like me, you remember an ocean voyage in the late 50s/early 60s, this will bring it all back. You can walk round the deck, the bridge, the lounges and restaurant, the kitchen and various classes of cabin – oh yes, and the communal showers. I could have spent much longer here, but our modern ship [*MS Richard With*] called us back. Some of our party never found their way to the *MS Finnmark* at all, which was very disappointing

for them. DO NOT MAKE THE SAME MISTAKE! – you will be rewarded with a unique experience.

This reviewer suggested dealing with the problems of the exhibition by giving the ship priority, and supported future visitors in finding their way up and into the ship. There is no need for more communication since the visitor can produce a nostalgic experience with reference to the visitor's own past experiences. The dysfunctional design of the site is therefore only something to overcome in order to connect between experiences of the past and those of the present. Another visitor with personal memories from the past of Hurtigruten explicitly stated (09.10.2014 review for an October 2014 visit; at tripadvisor.co.uk accessed 04.01.2015):

'Step back in time'

While I agree with the other reviews concerning lack of time to visit, and the limitations of the static displays within the entrance area . . . taking the lift to the third floor and crossing over the road to board the preserved *MS Finnmarken* was a nostalgic experience for me having made two trips in the late 1970s in contemporary vessels, *MS Harald Jarl*, and *MS Lofoten*.

During the previous week, at a morning stop in Trondheim, on the northbound sector of our round trip voyage we were able to board *MS Lofoten*, during its stop on her Southbound sector. Although time was at a premium, we did manage to check out the many refurbishments to this 'old lady – pride of the Classic Fleet'!

And so for the reason for me awarding a 4 star rating for this exhibit alone! Whether by design or circumstance, this 'old lady' has been conserved in the same state that she was in after her final voyage, offering a unique insight into how times have changed/upgraded both the facilities and levels of comfort available.

In her heyday she was operated as a two class ship, even with a separate cabin for nursing mothers! Of course, no stabilizers [sic], and at around 2000 tons an eighth of the tonnage of her modern namesake. Happy memories of earlier cruises with a much smaller number of guests, cargo being loaded and off-loaded by crane from a front hold, and no excursions!

Keeping her as she was – definitely a case of 'less-is-more'! Only regret was not having enough time to explore further!

Having praised the ship loaded with memories as a case of 'less-is-more', the tourist conquered the exhibition area as a limited 'entrance area', and was able to connect realities at several levels, including ships similar to *Finnmarken* but modernised and still sailing as part of the 'Classic Fleet' some tourists choose to go with. This review contrasts with the first, illustrating how much it means to the tourist experience if tourists are able to make connections with other realities, experiences and histories themselves. Thus, under these circumstances, dysfunctional designs can produce very rewarding tourist experiences. When performing in relation to memories of past and present sailing experiences, visitors to *Finnmarken*'s dysfunctional state are afforded rich connections across time and space. Compared with one of the other examples above, there is no need of further explanation and direction. The ship itself affords the performance of specific visitor experiences. 'Less-is-more' thus hints at how much can unfold from the simple and the unexplained.

Clearly, experiences differ, and for many the bad state of the ship is a disappointment, having expected to see the old ship in a better shape and with more enactment of the past. This is the simple message of this review (of 19.06.2014 for a June 2014 visit; at tripadvisor.co.uk accessed 04.01.2015):

'Informative museum with room for improvement'

Though the museum is rather small, it varies a lot with film, pictures, objects, models and text. You learn a lot about the history from the very beginning in the late 19th century until today. The informations [sic] are mostly written in Norwegian, English and German. A highlight should be the biggest museum object in the world: the 1956 built Hurtigruten boat *MS Finnmarken* which can be visited as part of the museum. Unfortunately, the boat is not taken very good care of. It smells awful inside and the different rooms are a big mess. Here the museum could improve by cleaning the boat and for example use dolls from the 50s to give a nice impression of the board life in the past. We were also disappointed that there was no possible insight into the machine room. However, the bridge and some booths can be visited.

The visit to the ship was disappointing since dolls were missing and access to certain parts of the ship was prevented – these tourists wanted more. Other critical tourist reviews can be found in an otherwise rather traditional quantitative Master's thesis by Shi and Cai (2011), showing examples of foreign tourists in search of more information expected in museums. Among the 'Illustrative examples' are these two extracts:

A: Interesting for me, but I prefer to be on a real one . . . the boat is old one; I do not like this, a little disappointed. Comparing the museum, the other museum has different languages, Hurtigrutemuseet too general. The museum is not very special. Polar museum in Tromsø was interesting. They had scripts in different languages.

[. . .]

A: Oh, interesting. It could be nice we get more time to see . . . short time in the boat.

Q: Which parts do you like the most?

A: Boat is better. But need more information in English and German about what we are looking at. More languages can be chosen. No guide to show things to us.

(Shi and Cai 2011: 63)

Meanwhile, the quantitative part of Shi and Cai's survey points to visitors asking for more signs and services, and a better structure to the museum. And as illustrated by their examples, it is also apparent from their data that visitor experiences from the Hurtigruten Museum vary, thus pointing to different ways in which the dysfunctional is afforded and performed. *Finnmarken* in particular is experienced differently. Some find it less interesting, since the dysfunctional ship does not sail anymore; others would like more information and direction. Along the same lines, the TripAdvisor reviews illustrate how some see the dysfunctional ship as in need of cleaning and better smells, while others make new experiences connecting to past and present sailing experiences. In most cases, the dysfunctionality led to disconnected experiences, but it is worth stressing that the opposite version also exists. In contrast to North Cape Hall, the Hurtigruten Museum is less scripted in advance, and thus expectations, possibly also supported by reading TripAdvisor reviews in advance, are more diverse.

Comparing the two places, the Hurtigruten Museum is approached as a museum, and it is therefore also performed in different modes of visiting a museum. Furthermore, most visitors are Hurtigruten passengers visiting in a hurry, when a ship has arrived. Together this produces certain orders of experience, where tourists practise the overall dysfunctional characteristics of the museum differently. Some are dissatisfied, some are coping, directing attention to *Finnmarken*, and some fully mobilise connections themselves, taking the *Finnmarken* as it is on board. While *Finnmarken*'s dysfunction becomes part of the attraction, the overall dysfunction of the museum

design, including the exhibition design and the troublesome passage to *Finnmarken*, is critical in relation to the place development strategy behind the initiative.

The state of the Hurtigruten Museum has much to do with the kind of actors and networks involved. Though the various shipping companies sailing on Hurtigruten are involved in and, during certain seasons, also pay for the visits of all their passengers, the Museum is run by a foundation and volunteers. *Finnmarken* was a present from one of the shipping companies, and the state of Norway paid to get the ship onshore on the condition that local actors would be able to run the Museum. But regional and municipal authorities struggle to find enough funding, especially to cope with the huge task of securing the ship in need of protection against the intrusion of water. The conservation of such a huge museum object seems an almost unbearable task, though expensive projects for putting the ship under a roof have been outlined.

The absence of curated information for visitors is a characteristic here just as in North Cape Hall. Still, a ship calls every day, ensuring visitors independently of the attraction. Both parts of the Hurtigruten Museum have obvious problems, but in the end the most basic problem is the lack of an architecture and exhibition design that communicate connections, narratives and imaginations. The *Finnmarken* ship attracts visitors, but as it is, the ship alone attracts only those with a nostalgic sense of the ship, mostly among those with memories from being aboard in the past. This may remind one of the outdoor experiences of the North Cape, which depends much on weather and visibility, but is clearly an established must-see geographical location to visit. In both cases, the indoor experience receives the most criticism. Yet the Hurtigruten Museum is far from being a tourist trap, or is at least a very different kind. Therefore, the order of experience in tourist practices does not appear as regular as in the case of North Cape Hall. It is rather a case of the surprising, unexpected dysfunctional affording more diverse performances.

Absent–present orders of experiencing places

Research into the experience of tourist places has approached tourist practices in new ways (Shields 1991; Edensor 1998; Bærenholdt *et al.* 2004; Haldrup and Larsen 2010; Urry and Larsen 2011; Viken and Granås 2014) with a focus on how places are performed and what performances places afford. The case studies above have tried to move this discourse further into understanding dysfunction in experiencing designed places. The orders of experiences investigated turn out to be intangible and emergent, coming out of complex engagements between the affordance of designed places and tourist performances. Experiences rest on the co-presence of objects and subjects, producing patterns of shared practices that also include orders of expectations and evaluation, as seen on TripAdvisor.

When places are acknowledged as performed, distinctions between places per se and the humans visiting, inhabiting, doing and performing places are impossible to make clear (Bærenholdt *et al.* 2004: 150–51). Places are not precisely delimited entities in time–space. Places emerge, are done, come and are made into something else. Such an open perspective on multiple and porous, relational and fluid places can be found in the strong tradition of place theory in modern human geography, above all in the work by Doreen Massey (1991, 1995 and 2005) and Tim Cresswell (2004; see also Bærenholdt and Granås 2008). In her *For Space* Massey (2005) argued for her perspective on place as ‘throwntogetherness’ and events. Here, places emerge as material, social and cultural assemblies working emotionally as part of the events people are thrown into.

However, many conceptualisations of place tend to put the material side and function of place into the background. Investigating failed and dysfunctional architecture, there is a need for a firmer understanding of how the material designs of places afford certain performances.

Performance is intrinsically important to the making of place and, as we saw in the cases above, not all performances are afforded in every place. Some place designs do not inspire or satisfy specific tourist performances. The places investigated show that tourist experiences become beyond dichotomies between the affordance of place and the performance of people. Affordance and performance are intertwined into certain orderings – or assemblages or multiple realities (see below) – of tourist practices produced over time.

The cases above indicate that tourist experiences work when different dimensions or elements are connected. Dovey (2009) suggested a Deleuzian approach to place-as-assemblage, which is in line with the findings above. With support from DeLanda, Dovey explained:

For instance, a street is not a thing nor is it just a collection of discrete things. The buildings, trees, cars, sidewalks, goods, people, signs etc. all come together to become the street, but it is the connections between them that makes [sic] it an assemblage or a place.

(Dovey 2009: 16)

In parallel to Dovey, Anne Marie Mol suggested overcoming traditional distinctions within the philosophy of science in order to understand a world in the making through ‘ontological politics’ (Mol 1999 and see Jóhannesson and Bærenholdt 2008). Ontology is no longer only about what the world is. Ontology is about becoming – making and remaking the world. Mol and Law (2002) stressed that this implies the making of several realities. With actor-networks producing worlds, this also implies the making of several worlds. Worlds then emerge in complex tensions of absence–presence (Law 2002).

This means that experiences involve multiple realities and enact both absent and present realities. It is exactly in coping with the somehow absent that experiences of place emerge. Absence and presence is not a new binary, and we should be careful ‘not to conflate absence with “the immaterial”’ (Bille 2010: 170). When presence is so central in experiencing place, this is because presence always mobilises a relation to absence. Presence implies absence of other people, things and histories, thereby rendering the concept of place mobile and full of experiences that are real. Anderson and Harrison (2010: 9) explained how the world is really ‘made-up’ but because it is so, it is not at all less real. An early and important contribution to such an inspired understanding of place was presented by Kevin Hetherington (1997), who stressed how places become through contingent and mobile processes of placing, ordering and naming. Places are on the move and take part in topological understandings of space, as suggested by Mol and Law (1994), folding time and space in interesting ways.

Various earlier case studies (Bærenholdt 2012; Svabo *et al.* 2013) have shown how the experience of place unfolds in the relations between material designs, human bodies and social interactions, which are all performed by those involved. In such places, the atmosphere is more than just material, bodily or social; it is exactly the entanglement among these dimensions that enacts intensity (see Dovey 2009), memories and thereby experiences. This implies the careful involvement and enactment of absent, historical, possible futures, with other connecting and disconnecting elements mediating real fantasies across several worlds. Multiple realities are folded into each other making the museum, the festival, the natural attraction, the historical place and so on, an experience.

Also, those designing attractions must take part in these involvements (Haldrup and Bærenholdt 2010). One condition for designing places connecting experiences across realities is that those designing places must also take the position of the experiencing tourist and do this in an experimental way (in French: experience is closely connected to experimenting). There is a crucial need for engagement with and commitment to experiential (historical, natural, cultural,

symbolic) content by those making places. And since design processes are always open-ended, there must be a place for redesign, learning from experimental experiences and visitor encounters. Inner uncertainty is necessary, as is always played out in the tensions between ‘the pull of hopes and dreams and the drag of material constraint’ (Ingold 2013: 73). Furthermore, important absences need to play a role and be represented by more than just historical evidence (for example, tourists of the past climbing the North Cape). In the case of the Hurtigruten Museum, one review embraced the quality of the visit to *Finnmarken* as ‘less-is-more’, an approach that can hardly be performed at the much more visited North Cape Hall anymore. Instead, North Cape Hall has become a shield from the uncertain weather conditions at the North Cape; a shield that compensates the lack of a view with a cinema movie.

The concept of the absent–present, together with multiplicity, inspires an understanding of what the diverse realities are that architecture needs to connect in order to afford experiences, while also acknowledging the integrated part performed by tourists, in order to realise experiences.

Conclusion on architecture and dysfunction

In the cases studied in this chapter, the vertical dimension, not least, was a problematic experience. The North Cape experience lost its vertical dimension historically when people ceased having to walk up the cliff from the shore, having arrived there by boat. The Hurtigruten Museum presents a ship onshore, with the deck lifted high over the ground floor exhibition, but only offers visitors a standard escalator to move vertically. The subterranean passage in North Cape Hall with its exhibition of the historical effort needed by past tourists to move vertically produces little compensation – rather, frustration. And in both cases, the experience of the unforeseeable movement of the sea has also been lost. The vertical – and unforeseeable – dimensions of place play a central role in the disconnected experiences reported in this chapter. The North Cape case illustrates well that historical time also plays a crucial role in orders of experience.

The cases presented here also show how dysfunctional architecture, when expected, can be performed within the experience order of the tourist trap. It is therefore insufficient to investigate the affordance of a tourist place simply by considering the architecture of the place itself. While Ingold (2000) had a clear point about affordance, when, drawing on Gibson (1979), he argued that perception – and I would say experience – is ‘out there’ in the world, beyond the subjective, we also need to acknowledge that the environment involved in experiencing includes the mediated orders of expectations, circulating on the Internet, in guidebooks and so on. On the other side, we need to acknowledge that tourists do not only perform role-play as tourist practices, addressing the expectations of others, as outlined in Goffman (1959). Nor do they perform only more or less already choreographed and embodied discourses (Butler 1993). While the orders of experience are clearly present as forms of mediated expectations for tourist practices, there are good reasons to take a moderate stand on performance, which ‘is also about the unpredictable, creative and non-stable’ (Haldrup and Bærenholdt 2015: 66). The findings of diverse performances, especially in the Hurtigruten Museum, support this understanding.

This integrated approach to performance–affordance avoids simplistic – but also complicates – understandings of dysfunction. As became apparent in North Cape Hall, dysfunction can be performed in tourist practices ordered to expect the tourist trap. Therefore it is the entrance fee visitors feel dissatisfied with, since tourists who have travelled such a long distance really do not think they can then escape the attraction. However, complaints about the entrance fee are also performed as part of the scripting on TripAdvisor and other mediators. It is thus clear that

the dysfunctional design of tourist attractions is not something separate from the way in which tourist practices are involved in certain specific orders of experience.

The analysis of visitor experiences at North Cape Hall and the Hurtigruten Museum points to two fields where experiences were especially disconnected. First, the curated exhibition of traces of things, stories and latent, but not apparent, parts of the place is a field full of possibilities for letting multiple dimensions unfold. Some visitors explicitly wanted to know more; others would have got further dimensions in their experience if they had met with more multiple curated content. Second, the architectural frame is extremely important: Tourist experiences could have been otherwise if both the functional and the symbolic had presented more perspectives. The design of these two places does very little in referring to the places in question. Nor does either place open up the possibility of multiplicity.

This is contra the contemporary (New) Nordic architecture tradition, which starts with the simple, the place-specific, and hints at what is already in place – the *Genius Loci* (Berre and Lysholm 2010; Andersen and Schelde 2012). It is a tradition that has recently developed in the direction of the performative place in architecture, which is a place that is open to people's performance of the place (Andersen and Schelde 2012) and therefore towards reinterpretation and multiplicity (Hvattum 2012). It is no coincidence that the architects referred to here, just like Dovey (2009), have made explicit references to Doreen Massey's non-essentialist concept of place in explaining how places can be designed with both 'place-bound' reference and multiple, event-like character.

However, this also reminds us that approaches to understanding tourist experiences and place are as time-specific as architecture and associated orders of experience. The Danish architect Steen Eiler Rasmussen (1966) expressed this clearly when he stressed how the architect can be approached as a host and as a producer ordering the environment to invite people to take part. However, this task is difficult for two reasons: since the actors are ordinary people, the producer needs to have a sense of how they will act; and what is right in one culture is not necessarily so in another. What suits in one century does not necessarily suit in another (Rasmussen 1966: 10–11). As stated in Chapter 1, architecture is something people live with and are part of, and therefore New Nordic architecture and its inspiration from Massey is also a historically and culturally specific phenomenon. And this underpins how the experience of the North Cape has changed with the growth of mass tourism and technological change – from ships calling into the bays beneath the cliff making visitors climb up, to automobile arrivals at a parking space and visitor centre, also ordered by, among other things, the Internet and reviews such as those on TripAdvisor. The orders of expectation and experience change, as does architectural place design.

Place design thus copes with 'the potentials for what it might become' (Dovey 2009: 29), similar to the way in which Ingold understood uncertainty, dreams and hope in designing and constructing. Place designs need to connect multiple dimensions in order to become real events for people to take part in. It is also worth remembering that many visitors had memorable experiences, even though they reviewed the place critically. Also, even dysfunctional designs become part of the experience, especially in the afterlife.

In conclusion, this chapter investigated how dysfunctional designs come into being in tourist experiences. It argued that dysfunction experienced by visitors, as indicated in their reviews on the Internet, has to do with disconnection; that is, the lack of connections between multiple realities. It seems that place designs emerge as dysfunctional if they have not been designed as performative places, where visitors can co-enact their experiences across multiple dimensions. In particular, both the design of the (not so) curated exhibitions and the architecture of the two tourist attractions had problems in coping with the vertical dimension, which is otherwise

a 'natural' component of a cliff or a ship. Enhanced global competition over the attractiveness of places may require efforts to raise the appeal of such designed places. But, paradoxically, the unfinished places, not fully designed, open for awkward experiences, may continue to take part in the performance of tourist experience in peripheral areas, where the unfinished, such as the Hurtigruten Museum, still leaves more possibilities for multiple dimensions than the all too finished and logged-in tourist trap. And even the 'tourist trap' at North Cape Hall produced memorable tourist experiences of the dysfunctional in a world of the non-perfect. It works as long as tourists make connections. And how tourists do this changes over time, producing a diversity of experiences, and leaving plenty of room for dysfunction to be replayed in new ways in the future.

Acknowledgement

In writing this chapter I thank the editors Mikkel Bille and Tim Flohr Sørensen for their enormously supportive advice in developing the analysis and argument. The chapter is made in parallel with a partly similar chapter in Norwegian 'Designede turiststeder: Hva får dem til å virke?' for the Norwegian book 'Med sans for sted' (2015, Bergen: Fakkbokforlaget) edited by M. Aure, N. G. Berg, J. Cruickshank and B. Dale.

References

- Amin, A. and Thrift, N. (2002) *Cities: Reimagining the Urban*, Cambridge: Polity.
- Andersen, M. A. and Schelde, J. R. (2012) 'Arkitektur giver form til vores tilværelse', in K. Kjeldsen et al. (eds), *New Nordic: arkitektur og identitet*, Humlebæk: Louisiana Museum of Modern Art, pp. 32–53.
- Anderson, B. and Harrison, P. (eds) (2010) *Taking-Place: Non-Representational Theories and Geography*, Farnham: Ashgate.
- Bærenholdt, J. O. (2007) *Coping with Distances: Producing Nordic Atlantic Societies*, London: Berghahn.
- Bærenholdt, J. O. (2012) 'Enacting destinations: The politics of absence and presence', in R. van der Duim, C. Ren and G. T. Jóhannesson (eds), *Actor–Network Theory and Tourism: Ordering, Materiality and Multiplicity*, London: Routledge, pp. 111–127.
- Bærenholdt, J. O. and Granås, B. (eds) (2008) *Mobility and Place: Enacting Northern European Peripheries*, Farnham: Ashgate.
- Bærenholdt, J. O., Haldrup, M. and Larsen, J. (2008) 'Performing cultural attractions', in J. Sundbo and P. Darmer (eds), *Production of Experiences*, Cheltenham: Edward Elgar, pp. 176–202.
- Bærenholdt, J. O., Haldrup, M., Larsen, J. and Urry, J. (2004) *Performing Tourist Places*, Aldershot: Ashgate.
- Berre, N. and Lysholm, H. (eds) (2010) *Detour: Architecture and Design along 18 National Tourist Routes in Norway*, Norway: Statens vegvesen/Norsk Form.
- Bille, M. (2010) 'Seeking providence through things: The word of God versus black cummin', in M. Bille, F. Hastrup and T. F. Sørensen (eds), *An Anthropology of Absence: Materializations of Transcendence and Loss*, New York: Springer, pp. 167–184.
- Birkeland, I. (1999) 'The mytho-poetic in Northern travel', in D. Crouch (ed.), *Leisure/Tourism Geographies: Practices and Geographical Knowledge*, London: Routledge, pp. 17–33.
- Birkeland, I. (2005) *Making Place, Making Self*, Aldershot: Ashgate.
- Butler, J. (1993) *Bodies that Matter*, London: Routledge.
- Cresswell, T. (2004) *Place: A Short Introduction*, Malden, MA: Blackwell.
- Cronin, A. M. and Hetherington, K. (eds) (2008) *Consuming the Entrepreneurial City: Image, Memory, Spectacle*, New York: Routledge.
- Dovey, K. (2009) *Becoming Place: Urbanism/Architecture/Identity/Power*, Hoboken, NJ: Taylor & Francis.
- Edensor, T. (1998) *Tourists at the Taj: Performance and Meaning at a Symbolic Site*, London: Routledge.
- Ek, R. and Hultman, J. (eds) (2007) *Plats som Produkt*, Sweden: Studentlitteratur.
- Gibson, J. J. (1979) *The Ecological Approach to Visual Perception*, Boston, MA: Houghton Mifflin.
- Goffman, E. (1959) *The Presentation of Self in Everyday Life*, New York: Anchor Books.

- Granås, B. (1997) ‘“Av Fortida Skal Framtida Skapes”: En Opplevelsesstudie av Utviklingen av Hurtigrutemuseet, Hurtigrutedagen og Hurtigrutens Hus i Stokmarknes’, Master’s thesis in Sociology, Department of Sociology and Human Geography, University of Oslo.
- Haldrup, M. and Bærenholdt, J. O. (2010) ‘Tourist experience design’, in J. Simonsen, J. O. Bærenholdt, M. Büscher and J. D. Scheuer (eds), *Design Research: Synergies from Interdisciplinary Perspectives*, London: Routledge, pp. 187–200.
- Haldrup, M. and Bærenholdt, J. O. (2015) ‘Heritage as performance’, in E. Waterton and S. Watson (eds), *The Palgrave Handbook of Contemporary Heritage Research*, Houndmills: Palgrave Macmillan, pp. 52–68.
- Haldrup, M. and Larsen, J. (2010) *Tourism, Performance and the Everyday*, London: Routledge.
- Hetherington, K. (1997) ‘In place of geometry: The materiality of place’, in K. Hetherington and R. Munro (eds), *Ideas of Difference*, Oxford: Blackwell, pp. 183–199.
- Hvattum, M. (2012) ‘At skabe steder’ in K. Kjeldsen *et al.* (eds), *New Nordic: Arkitektur and Identitet*, Humlebæk: Louisiana Museum of Modern Art, pp. 100–115.
- Ingold, T. (2000) *The Perception of the Environment*, London: Routledge.
- Ingold, T. (2013) ‘The sighted watchmaker’, in T. Ingold (ed.), *Making: Anthropology, Archaeology, Art and Architecture*, Abingdon: Routledge, pp. 61–73.
- Jacobsen, J. K. S. (1997) ‘The making of an attraction: The case of North Cape’, *Annals of Tourism Research*, 24(2): 341–356.
- Jacobsen, J. K. S. (2000) ‘Tourist perception at the ultimate European periphery’, in F. Brown and D. Hall (eds), *Tourism in Peripheral Areas*, Clevedon: Channel View Publications, pp. 74–90.
- Jóhannesson, G. T. and Bærenholdt, J. O. (2008) ‘Enacting places through the connections of tourism’, in J. O. Bærenholdt and B. Granås (eds), *Mobility and Place: Enacting Northern European Peripheries*, Aldershot: Ashgate, pp. 155–166.
- Kearns, G. and Philo, C. (eds) (1993) *Selling Place: The City as Cultural Capital, Past and Present*, Oxford: Pergamon Press.
- Lash, S. and Urry, J. (1994) *Economies of Signs and Space*, London: Sage.
- Law, J. (2002) ‘Objects and space’, *Theory, Culture and Society*, 19: 91–105.
- Massey, D. (1991) ‘A global sense of place’, *Marxism Today*, June 24–29.
- Massey, D. (1995) ‘The conceptualization of place’, in D. Massey and P. Jess (eds), *A Place in the World*, Oxford: Oxford University Press, pp. 45–85.
- Massey, D. (2005) *For Space*, London: Sage.
- Mol, A. M. (1999) ‘Ontological politics: A word and some questions’, in J. Law and J. Hassard (eds), *Actor–Network Theory and After*, Oxford: Blackwell, pp. 74–89.
- Mol, A. M. and Law, J. (1994) ‘Regions, networks and fluids: Anaemia and social topology’, *Social Studies of Science*, 24: 641–71.
- Mol, A. M. and Law, J. (2002) ‘Complexities: An introduction’, in J. Law and A. M. Mol (eds), *Complexities: Social Studies of Knowledge Practices*, Durham, NC: Duke University Press, pp. 1–22.
- Munar, A. M. and Jacobsen, J. K. S. (2013) ‘Trust and involvement in tourism social media and Web-based travel information sources’, *Scandinavian Journal of Hospitality and Tourism*, 13(1): 1–19.
- Nyseth, T. and Viken, A. (eds) (2009) *Place Reinvention: Northern Perspectives*, Farnham: Ashgate.
- Rasmussen, S. E. (1966) *Om at opleve arkitektur*, Copenhagen: G.E.C.Gads Forlag [second Danish edition of *Experiencing Architecture*].
- Shi, Y. and Cai, Y. (2011) ‘An Exploratory Study for Hurtigrutemuseet’, MSc thesis, The Norwegian School of Hotel Management, The University of Stavanger at <http://brage.bibsys.no/xmlui/handle/11250/185137> (accessed 04.01.2015).
- Shields, R. (1991) *Places on the Margin: Alternative Geographies of Modernity*, London: Routledge.
- Svabo, C., Larsen, J., Haldrup, M. and Bærenholdt, J. O. (2013) ‘Experiencing spatial design’, in J. Sundbo and F. Sørensen (eds), *Handbook on the Experience Economy*, Cheltenham: Edward Elgar, pp. 310–324.
- Urry, J. (1995) *Consuming Places*, London: Routledge.
- Urry, J. and Larsen, J. (2011) *The Tourist Gaze 3.0*, London: Sage.
- Viken, A. and Aarsæther, N. (2014) ‘Transforming an iconic attraction into a diversified destination’, *Scandinavian Journal of Hospitality and Tourism*, 13(1): 38–54.
- Viken, A. and Granås, B. (eds) (2014) *Tourism Destination Development: Turns and Tactics*, Farnham: Ashgate.

Failure?

An archaeology of the architecture of nuclear waste containment

Rosemary A. Joyce

On May 10 of 2014, *Forbes* ran an article under the headline “Nuclear Waste Leak Traced To—Kitty Litter” (Conca 2014). This chapter takes that story—and the incident that it attempts to explain—as a beginning point to consider failed architecture.

In the process, I will push against the boundaries of what we might consider to be “architecture,” and how we might understand that architecture has “failed.” To say architecture has failed is to say something about how a building project relates to some set of intentions, how it falls short of someone’s expectations. In light of contemporary understandings rooted in new materialisms that seek to unsettle subject–object relations, I am led to consider whether we can talk about the failure of architecture as a failure of the aims of materials themselves. Because my case in point is rooted in governmental and technocratic claims that nuclear reactors (and other uses of technology that produce radioactive materials, including military uses) can be managed safely, this discussion considers the ethical difficulties and potential evasions that might be entailed by treating materials as engaged autonomously in these projects. I also find myself asking whether materials can be said to have “failed” when they accomplish things—even if the things they accomplish have the potential to disrupt human lives and projects.

While my beginning and ending point is given by the nuclear industry of the late twentieth and early twenty-first centuries, the route I trace here wanders back far into the past, to the period between 1000 to 500 BCE, drawing on my own work as an archaeologist in Honduras. As an anthropological intervention, I want to understand both something of the circumstances that allowed architecture to “fail” in that other time and place, and through that understanding how we might understand architecture failing in our own time—in part, I will suggest, as a consequence of what we imagine we understand about pasts. Because the example I am considering is part of a larger governmental project that weaves together archaeological warrants and projection of human intentions well into the future, this chapter also engages with a critique of how we attempt to understand a future through projection of what we think we understand about a past.

And it all begins, *Forbes* tells us, with kitty litter.

Architectural failure

The Carlsbad Environmental Monitoring and Research Center of New Mexico State University first reported on an incident at the nuclear Waste Isolation Pilot Project (WIPP), located in the Carlsbad, NM, area, on February 19, 2014 (CEMRC 2014). Their data came from a monitoring station filter put in place on February 11, three days before an announcement by the US Department of Energy that radiation had been detected underground in the facility (DOE 2014a).

The February 2014 press release from the Department of Energy described WIPP as “a cornerstone of DOE’s cleanup effort . . . the nation’s first repository for the permanent disposal of defense-generated transuranic radioactive waste left from research and production of nuclear weapons” (DOE 2014a: 1). As an example of an architectural project, at its core the repository is simple: “disposal rooms excavated in an ancient, stable salt formation . . . almost one-half mile . . . underground” (DOE 2014a: 2).

The underground architectural assemblage, however, is actually much more complex: a dynamic product of multiple stages of construction and use (Accident Investigation Board 2014: 5–8). Above ground, the site includes 55 buildings, over 350,000 square feet of occupied space. The release of radioactivity, however, happened in the less conventional architectural assemblage located 2150 feet below the ground surface, in the south part of a 120 acre area excavated in a salt formation. Plans show a layout of four symmetrical sets of rooms laid out on either side of a central corridor (seven of these areas already excavated, one in progress). Each of these areas, called a “Panel,” contains seven rooms; photos show walls and ceilings with metal supports and bolts, and the report describes structural failures of both kinds of construction elements. Published plans for the WIPP facility seem uniformly to lack scales, but an outside watch-dog report describes each room as “approximately the size of a football field” (New Mexico Nuclear Watch 2002: 1).

The underground chambers making up each Panel are linked to the surface through four excavated shafts: a Salt Handling Shaft, used in removing excavated material from the facility; a Waste Shaft, through which waste to be stored is lowered into the facility; an Air Intake Shaft; and an Exhaust Shaft (Accident Investigation Board 2014: 5). The first four panels, on the left as you enter the underground excavated area, are already filled and closed, as are the two panels on the right that are farthest from the entry. The release of radioactivity came from the active Panel 7, next closest panel on the right, separated from the entry area only by the footprint allocated for construction of panel 8. Excavation of each panel begins as the previous panel is being filled; two rooms in Panel 8 had been excavated at the time the accident occurred in Panel 7 (Accident Investigation Board 2014: 10).

Nuclear waste enters the facility encased in drums that in turn are grouped together and moved around on pallets (WIPP 2003). Each truck entering the facility can contain up to three of these basic packing units, which can contain two sets of seven 55 gallon drums; ten “overpack” drums; or two “standard waste boxes.” These are moved into the Panel room, and surrounded by bags of magnesium oxide as “backfill.”

The formal report on the release of radioactivity into the atmosphere identified flaws in the plan for handling air as key to the release. During excavation of the underground chambers, three ventilation fans rated to move 60,000 cubic feet per minute (cfm) were installed, with the ability to be redirected through HEPA filters once the waste disposal activities were in place, but retaining a configuration that allowed for up to 1000 cfm “leak rate” of unfiltered air (Accident Investigation Board 2014: ES-2). When containment of radioactive waste in Panel 7 was breached, the air filtration system allowed some of the contaminated air to escape the facility.

As the product of governmental efforts that a timeline traces back to 1957 (WIPP 2007b), this is an unusually well documented example of an architectural project where intentions need

not be inferred; they are spelled out in detail in the abundant documentary record, including multiple competing arguments.

When the WIPP repository actually failed in its intended goal of containing radioactivity, the failure itself became the subject of (ongoing) investigation, commentary, and exegesis. My primary sources for understanding the intentions, expectations, and material performance of this architectural installation are these government documents.

Yet the story is captured most compellingly by news stories such as James Conca's (2014) fingering kitty litter as the culprit:

The wrong kitty litter was probably used to treat some of the nuclear waste recently disposed in the world's only deep underground nuclear waste repository . . . Cat litter has been used for decades in radiochemistry labs and nuclear facilities to stabilize certain radwastes, like liquid scintillation solutions, evaporator bottoms, and other materials that have nitrate salts in solution.

Nitrate salt solutions can ignite when they dry out . . . so you need to stabilize nitrate solutions before they dry out, or prevent them from completely drying out.

Traditional cat litter is made from various inorganic geologic silicate minerals like diatomaceous earth, zeolites or bentonites, materials that are excellent in absorbing and stabilizing chemical species like nitrates, ammonia, and urea. This is the very reason we use minerals for cat litter. Unfortunately, someone working with this waste, before it was to be shipped to WIPP, used a new "green" cat litter, made with materials like wheat or corn. These organic litters do not have the silicate properties needed to chemically stabilize nitrate the correct way.

What is interesting about this narrative is that it is wedded to a reassurance that this incident was minor, and the failure was not of the architecture itself: "WIPP . . . had its first minor accident . . . after 15 years of perfect operations" (Conca 2014). The error in fact is said to have happened outside the immediate architectural assemblage in the caverns, and the integrity of that architectural project, we are told, can be protected now: "we know which drums were treated with this green litter . . . We can solve this problem . . . this was not the result of any safety lapse at WIPP or any failure of the repository itself" (Conca 2014).

The rhetoric of this *Forbes* contributor contrasts strikingly with the conclusion presented in the report from April 2014 by the DOE's Accident Investigation Board. No mention of "green litter" is presented; instead, the report notes that no one had yet been able to enter the underground storage, which

prohibited definitive determination of the physical cause of the waste container(s) breach/failure . . . The Board presumes either the penetration of a waste container or multiple containers by a roof bolt, or partial collapse of the back (roof) and/or ribs (walls) caused the breach and release of contamination.

This body concluded that the release of radiation into the atmosphere "was preventable," had there been "a thorough and conservatively considered hazard analysis, coupled with a robust, tested and well maintained HEPA filter capable exhaust ventilation system" (Accident Investigation Board 2014: ES-1). Detailed assessments of the event contained in appendices to the report repeatedly identified changes in people's behavior as key to the failure to contain radioactivity: staff were reported to be reluctant to report issues, accepting of "degradation of equipment and conditions over time," and as believing that the alarm was the result of a malfunction, delaying response (Accident Investigation Board 2014: B-21, C-1, C-10).

The two accounts are, of course, addressing slightly different parts of the chain of events that led to this architectural installation failing in its intended purposes. The Accident Investigation Board in its first phase of investigation was most interested in understanding how radiation was released into the atmosphere, and did not yet have access to enough information to assess how the radiation was released inside the room, through a breach of a container. The kitty litter explanation speaks directly to how a container burst. The substitution of organic kitty litter for inert mineral litter as packing required to absorb liquids happened at Los Alamos Laboratory, according to a report by the Inspector General of the Department of Energy (DOE IG 2014). From this perspective, the architecture of WIPP itself, the stable elements constructed in the disposal site, did not “fail.”

One way to reconcile these two views would be to acknowledge that the architectural assemblage called WIPP is not bounded by the perimeter surrounding the 120 acre site where nuclear waste is being buried. WIPP does not solely consist of a series of chambers dug into salt formations, buried under a dry desertic landscape. WIPP was intended to articulate with people entering and leaving the site, bringing materials to remain on site from a variety of other locales. As a built setting designed for specific purposes, WIPP extends out over roads and railroad lines to connect with other buildings. Its success at containment can be narrowly evaluated by looking only at what happens within its perimeter fence: in which case the architecture did not fail, the humans within it did. Or, it can be assessed as the entire set of related spaces: in which case, still, the architecture did not fail—the people preparing barrels at Los Alamos did.

Or in the end, maybe it was the kitty litter itself that “failed.”

Material failure

The Department of Energy Inspector General’s report details how the substitution of materials happened in a section called “use of absorbents” (DOE IG 2014: 3). It cites a white paper that specified “Kitty Litter/Zeolite clay” for use in packing waste to be sent to WIPP, and concludes that “ordinary kitty litter and Zeolite clay are inorganic dirt mixtures,” but that the final documentation of a meeting to discuss switching to this material inaccurately described the approved material as “an organic absorbent (Kitty Litter/Zeolite)” (DOE IG 2014: 4).

Four different descriptors of the material that could be or was used appear in the documents about this incident: kitty litter, Zeolite, clay, and organic. The intentions of those preparing nuclear waste for delivery from Los Alamos were directed to ensuring the absorbency of materials collectively described as “kitty litter.” Zeolite, a specific mineral category, was always attached to the words “kitty litter” in guiding documents. What seems clear is that the individuals using the consumer product (kitty litter) were not necessarily attending to the specificity of the geological material that composed this product (zeolite, or in some documents, clay).

Zeolite is a family of minerals, with 176 identified structures (“framework types”) enumerated in a recent authoritative compendium (Baerlocher *et al.* 2007). Zeolite shares chemistry (silicate) and very small particle size (under 2 microns) with clay minerals, but is different structurally from clays, which form sheets (Velde 2007:16). Zeolite structures instead have “channels,” “windows,” and cavities (Baerlocher *et al.* 2007).

Both zeolites and specific clays used for cat litter (bentonite, a form of montmorillonite clay) are highly absorbent. There doesn’t seem to be any reason why the Department of Energy guidelines should specify a preference for zeolite over bentonite, which has been specifically identified as a useful mineral for nuclear waste containment in other work (NIREX 2005: 7). The substitution in some places in Department of Energy documents of the word “clay” suggests that both kinds of mineral cat litter were deemed acceptable for packing nitrate salt nuclear waste.

What is most remarkable about the guidelines is, in fact, the recommendation for the use of a specific commercial product (kitty litter) when what was actually needed was a specific kind of mineral (highly absorbent, non-reactive clay or zeolite). By specifying a household product, the Department of Energy guidelines opened the way to the substitution of different versions of that product, made with other kinds of materials, including materials whose properties were antithetical to the intentions of the builders of WIPP.

The kind of material substituted was substantially different, because it was organic: made from the remains of biodegradable, combustible, reactive materials (plants). The Inspector General's report routinely placed the word organic in quotation marks when it was used to modify the commercial product: "organic" kitty litter (DOE IG 2014: 3–4). The use of quotation marks betrays an ambivalence about what precisely "organic" implies in conjunction with this commercial product. This ambivalence is not unfamiliar: similar quotation marks are seen in discussions of claims made for organic foods, where "organic" doesn't just mean made from plant materials. Organic in the contemporary consumer lexicon means something more; it means good for the environment (James 1993; Sandilands 1993; Scollon 2008).

While there is nothing in the documents from the Department of Energy to suggest there was an overt decision to go green, popular accounts of the accident at the WIPP repository repeatedly cite this explanation for the substitution of organic cat litter for mineral cat litter, as if it were an established fact. National Public Radio interviewed James Conca, author of the *Forbes* article, where he repeatedly used the term "green" to refer to organic cat litter (Conca 2014). In NPR's coverage, Conca is quoted saying "Now that may sound nice, you're trying to be green and all that" (Brumfiel 2014). Other popular writers followed this line to infer the motivation of the workers who substituted organic cat litter at Los Alamos while preparing containers to send to WIPP (Hartley 2014):

Think of the nuclear waste as liquid fire . . . if you added clay to a drum of liquid fire, it essentially would put the fire out or, at worst, become hot clay. It wouldn't, however, create more fire the way adding wood or some other organic material would.

Now think of the choices you have when it comes to cat litter: You can pay very little and buy a bag of inorganic clay, or you can pay a lot and buy a bag of stuff made from recycled wood chips, wheat, corn or some other flammable material. Sure, it would be stupid stuff to add to a drum of liquid fire, but it would be "organic," so at least you could feel proud of yourself for going green.

Well, someone at Los Alamos National Laboratory can feel proud of himself or herself for going green because someone decided to buy organic cat litter. It wasn't the wisest choice, but I'm sure it was well-meaning.

So you can take your pick from the popular explanations and technical reports on this failure of architecture: it was human error (based on a miscarriage of laudable values) or a failure of the material (kitty litter) to behave as expected. Not, we are reassured repeatedly, a failure of the architecture built for containment of nuclear waste.

In *Vibrant Matter*, Jane Bennett (2010: 20–38) writes about another notable failure of modern engineering: the blackout that cut electrical power to much of northeast North America in 2003. She uses that event to explicate her understanding of "the agency of assemblages," including similarly problematic questions of responsibility for an occurrence whose causality was distributed across humans and nonhumans. The assemblage, as she understands it based in the work of Deleuze and Guattari, is an uneven, open-ended, and ad hoc grouping of elements that is emergent in its capacity to do things, and that has its own contingent history and ending point.

Bennett's discussion (2010: 37) reaches a critical conclusion about rethinking the responsibility for negative outcomes that also applies to the incident of failure of the WIPP facility:

the notion of a confederate agency does attenuate the blame game, but it does not thereby abandon the project of identifying (what Arendt called) the sources of harmful effects. To the contrary, such a notion broadens the range of places to look for sources. Look to long-term strings of events . . . Perhaps the ethical responsibility of an individual human now resides in one's response to the assemblages in which one finds oneself participating.

If we take this admonition as a guide, then where can we take our inquiry into the failure of the WIPP containment architecture? What are the "long-term strings of events" that led to this particular assemblage, and what might be the ethical responsibilities of humans that participate in it?

These questions lead directly to what at first glance might seem an unlikely place: the responsibility that archaeologists have for the broader project of which WIPP is a showcase, the quest to design containment systems for nuclear waste that have a high probability of working over very long periods of time. Where archaeological knowledge can charitably be characterized as normally occupying the footnotes on most policy issues, the design of WIPP and its asserted potential to work as an architectural assemblage is grounded fundamentally on archaeological knowledge—or at least, on a popular perception of archaeological knowledge.

A design for living: ensuring the inviolability of nuclear waste containment

The Waste Isolation Pilot Plant in New Mexico, WIPP for short, is the product of a design process that proposed creation not just of underground containment chambers, but of additional architectural elements that would theoretically protect the buried waste from human intrusion for the thousands of years required for the worst radioactive hazards to be ameliorated.

The WIPP marker project has drawn attention across scholarly disciplines because so much time was invested in exploring whether it is possible to put in place any kind of markings that would, with a reasonable hope of success, protect people long into the future from inadvertent exposure to radioactivity. Most recent discussions, whether from within the nuclear industry (Mobbs 2012) or far afield in academic disciplines ranging from art history (Anderson 2005; Bryan-Wilson 2003) to geography (Pasqualetti 1997) and rhetoric (Moisey 2012), express skepticism about the project and its feasibility. I share that skepticism, but here (and elsewhere) am more concerned with what the project can tell us about how contemporary human actors understand the effects materials can have in the absence of human agents, how efficiently materials are imagined to convey human intentions, with how little friction. My particular interest is sparked by the fact, sometimes foregrounded in other work, sometimes obscured under other disciplinary labels (e.g. Anderson 2005; Brooks 2012), that the main arguments used to support the validity of proposals for enduring markers as part of the WIPP came from the discipline of archaeology (Kaplan and Adams 1986).

An early study assessing prospects for protecting nuclear waste facilities from casual intrusion assumed that intrusions most likely would come about as a result of future industrial exploration by drilling, and discussed the possibility of identifying ways to prevent such intrusions, primarily through physical barriers that would prevent drilling, make it difficult, or signal that the area had existing human-made materials (Tolan 1993). Despite its emphasis on control of the physical world, this study identified two dimensions required in planning that are related directly to

human activity. These have remained a part of all proposals for designs for marking such sites: that any barrier should be “be composed of materials with little or no economic value *and that will not degrade over the 10,000-year, post-closure, period*; and not attract unwanted attention to the site or encourage exploration activities” (Tolan 1993: 44; emphasis added).

In the course of discussing the likelihood of future drilling, this author also drew a direct link between contemporary people who might be prospecting for minerals and those who might come to the site in the future (Tolan 1993: 40):

If one were to assign the attitudes and abilities of people involved in the drilling industry today to those in the future, the inadvertent intruders might well view such a barrier as a curiosity or challenge and try to circumvent it, especially if they do not realize its intended purpose.

The report ended by endorsing the adoption of a multitude of small buried markers inscribed with warning messages that might be encountered and serve to deter future intruders. This hints at the much wider range of material markers that emerged in design projects for the Waste Isolation Plant in New Mexico (Hora and von Winterfeldt 1997; Lomberg and Hora 1997).

Markers envisioned for the WIPP would embody a message that would last for 10,000 years. Through a series of installations that would not require active management, called “Passive Institutional Controls” (PICS), the project aims to mark as dangerous locations where nuclear waste will be concentrated (DOE 1996a, 1996b; Hart & Associates 2004). As part of the development of the PICS, a variety of “expert” panels were convened (Benford *et al.* 1991; Hora and von Winterfeldt 1997; Trauth *et al.* 1993). The proposals they produced, and the project designs based on them, were then subject to scrutiny by the US Environmental Protection Agency (EPA 1996).

The marker system proposed consists of three major concentric installations demarcating space, with buried and above ground structures within the perimeters defined by these elements (DOE 1996a; WIPP 2007a). Two concentric lines of granite monoliths inscribed with diagrams and texts form the basic footprint of the marker. An estimated lifespan of at least 4000 years was proposed by the experts by explicit analogy with Stonehenge; and indeed, in the planning documents, the experts argued that any such monoliths made today would inevitably last longer. This reflects an assumption that our understanding of materials today is superior to that of the makers of Stonehenge. It is therefore worth noting that reviewers from the Environmental Protection Agency cited statements by two stone quarries that it would be technically impossible with existing technology to produce the monoliths specified (EPA 1996: 9–10).

The third concentric element proposed was an earthen berm encasing salt, intended to ensure that there is a vegetational dead zone to ward off future visitors by signaling some defect in the soil. As originally proposed, this berm would contain metallic elements that would leave a detectable signature for technologically sophisticated future visitors. The lifespan estimate of 5000 years given for the earthen berm again cited Stonehenge but also Serpent Mound in Ohio.

The plan also called for thousands of small tokens to be buried in the space enclosed by the circles of monoliths, each object inscribed with danger messages in one of seven world languages proposed for use at the site. The endurance expected for these was based on Mesopotamian cuneiform tablets.

At the center of the architectural assemblage, an above-ground installation of walls covered with inscribed warning messages placed with careful attention to the possibilities of erosion would constitute the most significant marker. The lifespan estimate for this construction was justified based on the continued existence of the Acropolis in Athens, and the persistence over thousands

of years of Australian rock art. A final element, buried storage rooms that again would contain significant messages describing the location of radioactive materials, are modeled on and given lifespan estimates based on the chambers in New Grange and in the Egyptian pyramids.

As has, I hope, become evident by now, the marker system proposed as the main PIC is nothing more or less than an artificial archaeological site: not an analogue of the original functioning architectural assemblage that a group of humans might have constructed and used in daily life, but a reproduction of ruins and monuments that more or less endure materially after abandonment of inhabited places, but become engaged in novel ways with the humans who enter places in the process of decay (Buchli 2013: 158–166).

We could explore at some length the understanding of ruins implicit in this project, which rests on familiar romantic notions that characterized eighteenth century attention to archaeological sites in Europe (Huyssen 2010; Schönle 2012). This concept of “ruin” has a long history and variation and cross-over can be explored between concepts of ruins as “a vehicle to create a romanticizing mood,” as a “document of the past,” and as “a means of reviving the original concept of space and proportion” (Zucker 1961: 120). It is the last way of understanding ruins that seems to provide the basis for the marker project’s belief that creating a ruin from scratch will instantiate a sacred, awesome space that can resist economic motives for excavation. A version of the romantic sensibility about ruins seems to lurk behind the creation of a tourist attraction in Nevada, where the US nuclear enterprise required the construction of a very detailed replica of a small town, which remains today like a post-nuclear folly (Veitch 2010: 332–333). Anthropologists and archaeologists have produced thoughtful critiques addressing how the concepts of ruins and ruination might be refigured to contest the romanticization of the broken down and explore how things come to be ruined (Dawdy 2010: 769–772; Stoler 2008: 193–198).

For the experts proposing the design of the marker system, architecture assemblages that have collapsed, been physically re-ordered, eroded, and no longer serve their original function—ruins—nonetheless continue to have the capacity to do one thing with some degree of success: communicate a complex message. Their project of building a representation of an archaeological site relies on the idea that (some) archaeological sites can convey concepts even as they fall into ruin. This distinction makes very clear that failure, in the projects that accompany the modern nuclear industry, is about the transmission of intentions. Ruins are not failed architecture because they can convey intentions; and radioactively contaminated underground vaults are not failed architecture because they can be placed back into action, even serving to contain the products of their own necessary decontamination (DOE 2014b: 11). What fails, in both the analysis of the accident that took place at the WIPP site, and the projection into the future of the proposed marker system, is not the physical stuff of these architectural assemblages, but the humans who animate them. If we hew to a strict association of architecture with the spatialized materials, then nothing architectural has failed. Yet the WIPP installation, at least, did “fail” by releasing radioactivity against intentions: and this allows us to reopen the question of what fails when architecture fails.

Failing architecture?

While never made explicit, the imagined functionality of the architectural assemblage of newly built ruins that would provide a permanent marker preventing release of nuclear waste far into the future rests on assumptions about how human beings would react to encounters with abandoned architecture.

Perhaps most illustrative of this point is the requirement in the specifications for the marker system that the above ground information center be roofed, in order to allow future visitors to see the unilluminated interior spaces solely through natural light (DOE 1996a: 5–10). To a certain degree, then, the architectural assemblage that makes up the proposed WIPP marker is an unprecedented project to build structures that anticipate material ruination in order to prevent failure. Yet the rhetoric of the project and its power to persuade the US Environmental Protection Agency regulators comes from claims to be based on that which does not fail, that which, as architecture is collapsing into ruins, maintains its intended purpose.

Thus, the initial proposal for the markers states that “historical analogues of structures, media and messages that have *withstood the test of time* represent design characteristics” for a lasting marker (DOE 1996a; EPA 1996: 36; emphasis added). The phrase “test of time” embodies the assumption that things that have reached us from the past were *meant* to last over the long term. The planning documents do appear to allow some uncertainty. Passive Institutional Controls, they say, “must attempt to reproduce the features of analogues *that appear to be responsible* for their survival” (EPA 1996: 36; emphasis added). In fact, EPA reviewers more easily accepted assertions about the behavior that the markers would exhibit in the future, than they did proposals concerning future human behavior, commenting that “the exact processes involved in receiving and transmitting information, including how messages are understood by the human mind, are in greater dispute than the physical processes that lead to the breakdown of stone in different environments” (EPA 1996: 27).

The archaeological analogues that the experts cited come from a wide range of times and places. But they share one feature in common: offered as examples of stable forms unchanging over time, they in fact are viewed by archaeologists today in quite the opposite way: as materialities whose unfolding biographies sometimes include quite extraordinary transformations. Like all traces of architecture examined by archaeologists, the analogues offered as proof that the WIPP marker system will endure in a stable fashion in fact were (and are) demonstrably in a constant state of unfolding. As Buchli (2013: 67–69) notes, both Stonehenge and the Acropolis of Athens, which figures as another warrant for part of the WIPP design, are viewed by archaeologists today as coming into and out of focus as sites, monuments, and places through changing and usually multiple contested engagements with human actors. The invocation of Australian rock art as a warrant for the legibility over the long term of graphic messages incorporated in the WIPP design ignores substantial archaeological research concerning the active interpretive lives and multiple readings and re-marking of images in rock art (e.g. Sale 1993) that relate them to Buchli’s (2013: 62–64) discussion of architecture as palimpsest. From the contemporary perspective of archaeologies of architecture, we might reconsider the archaeological assemblages offered in the WIPP project as a kind of testimony to endurance of material intentions from the past.

In the WIPP project documents, places such as Stonehenge and Serpent Mound, while having endured physically, were understood to be partly or completely unintelligible due to the lack of written sources detailing the intentions of their original makers. The emphasis on the lack of original written records underlines the planners’ implicit view of these architectural assemblages as having singular, original, intended meanings, rather than a complex life history and even, at their beginning, multiple understood and felt significances. In my own writing about monumental scale earthen platforms that were first made in Central American sites between 1000 and 500 BC, I have tried to adopt a perspective that assumes these assemblages exceeded or even undermined the intentions of their builders (Joyce 2004a). By closely examining the initial stages of construction of Honduran examples of such earthen platforms, which can rise more than 20 meters above the surrounding landscape, I was able to show that they did not

begin their histories as intentionally constructed tall pyramids, but as broad and relatively low terraces. The construction techniques and materials used were those already enlisted in constructing houses. I argued that the behavior of these materials—alluvial clays—when packed into much larger terraces produced an unexpected effect: the platform did not erode as quickly as those supporting houses, which needed constant maintenance. It was only after this behavior of the material writ large was manifest that other human actors capitalized on the solid core provided by these more stable terraces to pile clay higher and create much more elevated terraces, producing an unprecedented architectural form (Joyce 2004b).

While the human builders of the variety of constructions offered as assurance that the WIPP system would work surely had outcomes in mind, it is in the nature of the assemblages that come together through such projects to incorporate materials not all of whose properties are already known and predictable.

This is the kind of effect that Bennett (2010: 27) explored in her discussion of the blackout of 2003:

The reactive power deficit was an effect unanticipated by human advocates of the regulations that created a huge, continent-wide market in energy trading. Their actions produced unintended consequences; or, to put the point in a vital materialist vocabulary, they were subject to the “slight surprise of action.”

For the planning of the Waste Isolation Pilot Project, there can be no credence given to such surprises of action, even if the actual significance of archaeological examples mobilized in support of predictability is that history is a series of surprises of action: like the way that organic kitty litter, when added to volatile nuclear waste, can cause a container to fail in a buried chamber whose human wardens have stopped believing mechanical warnings are real.

Architecture or archetype

The planning process for WIPP actually produced an alternative vision of how to mark the site for the future. I end with consideration of that alternative vision as a suggestive hint at how very hard it is to leave behind the belief that architectural assemblages can be designed to succeed with any real hope of ensuring their long-term success. It isn't simply the apparent facticity of architecture from the past, or an over-confident belief that materials will behave as we want them to, that lures us into thinking we know what the future may bring when we construct spaces for human occupancy.

In 1993, the Sandia National Laboratories published its report on the work of its experts panels exploring ideas for Passive Institutional Controls, in particular, markers (Trauth *et al.* 1993). The report cites the findings of a Futures Panel, further subdivided into a number of teams, charged with imagining what future society might be like (Hora and von Winterfeldt 1997). The main subject of the 1993 report was the deliberations of the Markers Panel of experts, broken into two teams.

Team B's report, edited by anthropologist David Givens, produced the basic inventory of elements discussed up to this point: an earthen berm, granite monoliths, small buried markers with inscribed messages, and a central structure with more extensive textual and visual markings. This team's report provided extensive discussion of markings and symbolic communication, in addition to citing archaeological examples to support proposed temporal frameworks for their proposed design elements. In an appendix, an artist who was part of Team A argued strongly against any attempt to aestheticize the marker, or to view it as a monumental art work.

Marker Team A's report, however, although also produced by a similar group of disciplinary experts, reached some quite different conclusions. The difference was visible from the very first page of the appendix, which started with quotations from different cultural texts, culminating in the reproduction of the complete text of Percy Bysshe Shelly's *Ozymandias*—itself, of course, a classic work of Romantic poetry that contributed to creating the romantic image of ruins (Ast *et al.* 1992: F-10; McFarland 1981: 15). While their proposed design shared the use of earthen berms with that of Team B, in a note on page F-12 they conclude “‘Menacing Earthworks’ is the final recommendation for the overall design option.”

“Menacing Earthworks” was the name given to one of seven conceptual designs discussed in detail by team member Michael Brill, a professor of design, in a brief article titled “An Architecture of Peril” (Brill 1993). Where Team B proposed a design rationalized with concrete citations of archaeological precedents, Team A brainstormed ways to use “archetypal” forms to discourage future human visitors from engaging in excavation of the waste disposal site.

Brill (1993) began strikingly:

In such a future, none of today's languages may be readable except by scholars. Many successive cultures may exist at the site, some perhaps primitive. There is no guarantee of U.S. governmental control 100 years past internment. No built places have lasted for 10,000 years.

From this pessimistic starting point, the team's work is inherently paradoxical. While it assumes failure (of human governments, societies, languages, and building projects) it presumes the persistence of the materials, that will allow the installation to “*all last on its own*” (Brill 1993; emphasis original). Where Team B designs an architectural assemblage in ruins (failed as a building project) that they expect to succeed in conveying intended information, Team A instead proposed a successful design assemblage that would succeed in conveying ruinous messages:

This place is a message . . . and part of a system of messages . . . pay attention to it!

Sending this message was important to us. We considered ourselves to be a powerful culture.

This place is not a place of honor . . . no highly esteemed deed is commemorated here . . . nothing valued is here.

What is here was dangerous and repulsive to us. This message is a warning about danger. . . .

This place is best shunned and left uninhabited.

(Ast *et al.* 1992: F-49-F-50)

The designs for markers were based on “archetypal images whose physical forms embody and communicate meaning.” The recommended design, Menacing Earthworks (Ast *et al.* 1992: F-58), was described as composed of

Immense lightning-shaped earthworks radiating out of an open-centered Keep. It is very powerful when seen both from the air and from the vantage points on the tops of the four highest earthworks . . . Walking through it, at ground level, the massive earthworks crowd in on you, dwarfing you, cutting off your sight to the horizon, a loss of connection to any sense of place.

The team argued that the *irregular geometries and denial of craftsmanship* were key to the success of their proposed designs (Ast *et al.* 1992: F-59):

None of our designs uses any of the regular or “ideal” geometric forms, and only crude craftsmanship is sought, except for the precision of engraved messages. Why? the geometry of ideal forms, like squares and cubes, circles and spheres, triangles and pyramids is a fundamental human invention, a seeking of perfection in an imperfect world. Historically, people have used these ideal forms in places that embody their aspirations and ideals. In our designs, there is much irregularity both of forms and in their locations and directions, yet done by people with obvious knowledge of pure geometry. This shows an understanding of the ideal, but at the same time a deliberate shunning of it . . . suggesting we do not value this place, that it is not one that embodies our ideals. . . .

The same is true of craft and workmanship. Historically, people use good workmanship to bestow value on things they value. In most of our schemes, the structures . . . are made crudely, or of materials that prohibit workmanship. . . . At the same time, we make an enormous investment of labor in these rude materials. It speaks of a massive investment, but one not tinged with pride or honored with value-through-workmanship.

Andrew Moisey (2012: 106–115) offers a convincing analysis showing that the actual designs, and the philosophy underwriting them, were destined to produce a work subject to becoming an attraction to visitors, rather than the warning that it claims will inevitably emerge from the massive scale, abstraction, and refusals of symmetry and craftwork involved. In his view, then, this team’s proposal was also for an architectural assemblage that would fail to fulfill the intentions of its designers.

These proposed marking systems were subsequently rejected, because their generalizations about how humans would understand the intended messages, based on Jungian psychological theories of archetypes, were considered to be questionable (Lomberg and Hora 1997: 184–185). In their place was substituted the marker system I have described that uses archaeological sites and excavated materials to justify predicting not only the physical survival of the PICs long into the future, but also their intelligibility to a future visitor.

Discussion

In 1995, the National Research Council, charged with advising on the development of another nuclear waste disposal site at Yucca Mountain, Nevada, which would incorporate ideas for a long-term marker system developed for the Waste Isolation Pilot Plant project, published their assessment of the project overall. In the Executive Summary, they conclude that “it is not reasonable to assume that a system for post-closure oversight of the repository can be developed” and that there is “no technical basis for making forecasts about the long-term reliability of passive institutional controls, such as markers, monuments, and records” (National Research Council 1995: 11).

Since the Yucca Mountain project was not approved to move forward, these comments primarily serve as a critique of the entire project to design an architectural assemblage that would serve as a marker for nuclear waste storage sites in general, such as the Waste Isolation Pilot Project in New Mexico. This, then, may be the final failure of this architecture, if only as an imagined project. Yet there is a problem with the definitive rejection of the projection into the future of human intentions that the Marker Panel took so seriously. It rests on precisely the same assumption of predictability that caused the Marker Panel teams’ projects to look so very uncertain. There are futures in which either form of marker might have (might still, if the politics change) not only be built, but work.

Bennett (2010: 31–32) worries about how intentionality fares when we admit that there is no easy way for human intentions to prevail:

A theory of distributive agency does not posit a subject as the root cause of an effect. There are instead always a swarm of vitalities at play . . . To figure the generative source of effects as a swarm is to see human intentions as always in competition and confederation with many other strivings . . . This understanding of agency does not deny the existence of that thrust called intentionality, but it does see it as less definitive of outcomes. It loosens the connections between efficacy and the moral subject, bringing efficacy closer to the idea of the power to make a difference that calls for response.

Both of the projected architectural assemblages proposed by the Marker team, seen in this way, have already been effective. They have called for and obtained responses of a variety of kinds. While the architectures defined would surely be much more likely to behave in ways not predicted or explicitly denied by these teams, the failure of those intentions (and the failure even to realize either plan in physical form) is not the same as a failure of the assemblages themselves.

Their vitalities, like the vitality of organic cat litter, would make material demands that cannot be subsumed to human intentions as tools or instrumentalities. The litter that burned, the faux tomb that I suspect would have invited excavation in the not too distant future as did the Pharaonic model it is based on, and the archetypal art installation that seems explicitly to be inviting engagement while insisting it will do the opposite, all did or would have performed and had effects: succeeded in doing things, which is how we must, surely, now assess the capacity and achievement of things in a world where humans acknowledge being taken up in assemblages.

References

- Accident Investigation Board. 2014. Phase 1: Radiological Release Event at the Waste Isolation Pilot Plant on February 14, 2014. Accident Investigation Report, April, 2014. US Department of Energy Office of Environmental Management.
- Anderson, Kelli. 2005. Designing for Deep Time: How Art History is Used to Mark Nuclear Waste. MS thesis, School of Art and Design, Pratt Institute, New York City.
- Ast, Dieter G., Michael Brill, Ward Goodenough, Maureen Kaplan, Frederick Newmeyer and Woodruff Sullivan. 1992. Marking the Waste Isolation Plant for 10,000 Years. Expert Judgment on Markers to Deter Inadvertent Intrusion into the Waste Isolation Pilot Plant Appendix F. Sandia Report SAND92–1382. Albuquerque, NM: Sandia National Laboratories.
- Baerlocher, Christian, Lynne B. McCusker, and David H. Olson. 2007. *Atlas of Zeolite Framework Types*, Sixth edition. Amsterdam: Elsevier Science.
- Benford, Gregory, Craig W. Kirkwood, Harry Otway, and Martin J. Pasqualetti. 1991. Ten Thousand Years of Solitude? On Inadvertent Intrusion into the Waste Isolation Pilot Project Repository. United States Department of Energy, Los Alamos National Lab. LA-12048-MS, March 1, 1991, accessed October 24, 2014. www.osti.gov/scitech/biblio/6124942.
- Bennett, Jane. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.
- Brill, Michael. 1993. An Architecture of Peril: Design for a Waste Isolation Pilot Plant, Carlsbad, New Mexico. *Environmental and Architectural Phenomenology* 4 (3): 8–10, accessed November 4, 2015. www.arch.ksu.edu/seamon/Brill.htm.
- Brooks, Andrew. 2012. Radiating Knowledge: The Public Anthropology of Nuclear Energy. *American Anthropologist* 114 (1): 137–145.
- Brumfiel, Geoff. 2014. Organic Cat Litter Chief Suspect in Nuclear Waste Accident. NPR May 23, 2014, accessed October 24, 2014. www.npr.org/blogs/thetwo-way/2014/05/23/315279895/organic-kitty-litter-chief-suspect-in-nuclear-waste-accident.

- Bryan-Wilson, Julia. 2003. Building a Marker of Nuclear Warning. In *Monuments and Memory, Made and Unmade*, edited by Robert S. Nelson and Margaret Olin, pp. 183–204. Chicago, IL: University of Chicago Press.
- Buchli, Victor. 2013. *An Anthropology of Architecture*. London: Bloomsbury.
- CEMRC. 2014. CEMRC Detects Trace Amounts of Radioactive Particles at Air Sampling Station Near WIPP Facility. February 19, 2014, accessed on October 24, 2014. www.cemrc.org/2014/02/19/cemrc-detects-trace-amounts-radioactive-particles-air-sampling-station-near-wipp-facility/.
- Conca, James. 2014. Nuclear Waste Leak Traced to– Kitty Litter. *Forbes.com* May 10, 2014, accessed on October 24, 2014. www.forbes.com/sites/jamesconca/2014/05/10/nuclear-waste-leak-traced-to-kitty-litter/.
- Dawdy, Shannon Lee. 2010. Clockpunk Anthropology and the Ruins of Modernity. *Current Anthropology* 51 (6): 761–793.
- DOE. 1996a. Title 40 CFR Part 191 Compliance Certification Application for the Waste Isolation Pilot Plant: Appendix EPIC: Effectiveness of Passive Institutional Controls in Reducing Inadvertent Human Intrusion into the Waste Isolation Plant for use in Performance Assessments. United States Department of Energy, Waste Isolation Pilot Plant, Carlsbad, NM. June 4, 1996, accessed on October 24, 2014. www.wipp.energy.gov/library/CRA/CRA-2014/References/CCA/Appendix_EPIC.PDF.
- DOE. 1996b. Title 40 CFR Part 191 Compliance Certification Application for the Waste Isolation Pilot Plant: Appendix PIC: Passive Institutional Controls Conceptual Design Report. United States Department of Energy, Waste Isolation Pilot Plant, Carlsbad, NM. May 14, 1996, accessed on October 24, 2014. www.wipp.energy.gov/picsprog/Test1/CCA_Appendix_PIC.PDF.
- DOE. 2014a. Operations Personnel Responding to Possible Radiological Event at WIPP. February 15, 2014, accessed on October 24, 2014. www.wipp.energy.gov/pr/2014/2-15-14_Event%20Release-1.pdf.
- DOE. 2014b. Waste Isolation Pilot Plant Recovery Plan. September 30, 2014, accessed on March 25, 2015. www.wipp.energy.gov/Special/WIPP%20Recovery%20Plan.pdf.
- DOE IG. 2014. Management Alert: Remediation of Selected Transuranic Waste Drums at Los Alamos National Laboratory– Potential Impact on the Shutdown of the Department’s Waste Isolation Plant. US Department of Energy, Office of Inspector General, Office of Audits and Inspections. DOE/IG–0922, September 2014, accessed October 24, 2014. <http://energy.gov/sites/prod/files/2014/10/f18/DOE-IG-0922.pdf>.
- EPA. 1996. Compliance Application Review Document No. 43: Passive Institutional Controls. Compliance Application Review Documents for the Criteria for the Certification and Re-Certification of the Waste Isolation Pilot Plant’s Compliance with the 40 CFR Part 191 Disposal Regulations. US Environmental Protection Agency, Washington, DC. October 29, 1996, accessed October 24, 2014. www.epa.gov/rpdweb00/docs/wipp/card43.pdf.
- Hart, John & Associates. 2004. Passive Institutional Controls Implementation Plan. United States Department of Energy, Waste Isolation Pilot Plant, Carlsbad, NM. DOE/WIPP 04–2301, August 19, 2004, consulted October 24, 2014. www.wipp.energy.gov/library/PICsImplementationPlan.pdf.
- Hartley, Todd. 2014. I’m With Stupid: Organic Cat Litter Could Destroy Mankind. *Huffington Post* June 13, 2014, accessed October 24, 2014. www.huffingtonpost.com/todd-hartley/im-with-stupid-organic-ca_b_5491497.html.
- Hora, Stephen C. and Detlof von Winterfeldt. 1997. Nuclear Waste and Future Societies: A Look into the Deep Future. *Technological Forecasting and Social Change* 56:155–170.
- Huyssen, Andreas. 2010. Authentic Ruins: Products of Modernity. In *Ruins of Modernity*, edited by Julia Hell and Andreas Schönle, pp. 17–28. Durham, NC: Duke University Press.
- James, Allison. 1993. Eating Green(s): Discourses of Organic Foods. In *Environmentalism: The View from Anthropology*, edited by Kay Milton, pp. 205–218. London: Routledge.
- Joyce, Rosemary A. 2004a. Unintended Consequences? Monumentality as a Novel Experience in Formative Mesoamerica. *Journal of Archaeological Method and Theory* 11 (1): 5–29.
- Joyce, Rosemary A. 2004b. Unprecedented projects: The birth of Mesoamerican pyramids. *Expedition* 46 (2): 7–11.
- Kaplan, Maureen F., and Mel Adams. 1986. Using the Past to Protect the Future: Marking Nuclear Waste Disposal Sites. *Archaeology* 39 (5): 51–54.
- Lomberg, Jon, and Stephen C. Hora. 1997. Very Long Term Communication Intelligence: The Case of Markers for Nuclear Waste Sites. *Technological Forecasting and Social Change* 56: 171–188.
- McFarland, Thomas. 1981. *Romanticism and the Forms of Ruin: Wordsworth, Coleridge, the Modalities of Fragmentation*. Princeton, NJ: Princeton University Press.

- Mobbs, Shelly. 2012. Planning to “Remember to Forget”? *Mineralogical Magazine* 76 (8): 3491–3496.
- Moisey, Andrew. 2012. Considering the Desire to Mark Our Buried Nuclear Waste: Into Eternity and the Waste Isolation Pilot Plant. *Qui Parle* 20 (2): 101–125.
- National Research Council. 1995. *Technical Bases for Yucca Mountain Standards*. Washington, D.C.: National Academy of Sciences.
- NIREX. 2005. Excavating the Future: Archaeology and Radioactive Waste Management. NIREX Report N/068, March 2005. Didcot, UK: NIREX Limited.
- New Mexico Nuclear Watch. 2002. A Fact Sheet on the Waste Isolation Pilot Plant. January, 2002, accessed March 25, 2014. www.nukewatch.org/facts/nwd/WIPPFactSheet.pdf.
- Pasqualetti, Martin J. 1997. Landscape Permanence and Nuclear Warnings. *The Geographical Review* 87 (1): 73–91.
- Sale, Katherine. 1993. “Make ‘em Bright” – Aboriginal Re-marking of Rock Art in Past and Present Australia. *Australian Archaeology* 37: 65–66.
- Sandilands, Catriona. 1993. On “Green” Consumerism: Environmental Privatization and “Family Values”. *Canadian Women’s Studies/Cahiers de la Femme* 13 (3): 45–47.
- Schönle, Andreas. 2012. Broken History and Crumbling Stones: The Romantic Conception of Architectural Preservation. *Slavic Review* 71 (4): 745–765.
- Scollon, Ron. 2008. Discourse Itineraries: Nine Processes of Resemiotization. In *Advances in Discourse Studies*, edited by Vijay Bhatia, John Flowerdew, and Rodney H. Jones, pp. 233–244. London: Routledge.
- Stoler, Ann Laura. 2008. Imperial Debris: Reflections on Ruins and Ruination. *Cultural Anthropology* 23 (2): 191–219.
- Tolan, Terry L. 1993. The Use of Protective Barriers to Deter Inadvertent Human Intrusion Into a Mined Geologic Facility for the Disposal of Radioactive Waste: A Review of Previous Investigations and Potential Concepts. Contractor Report SAND91–7097. Albuquerque, NM: Sandia National Laboratories.
- Trauth, Kathleen M., Stephen C. Hora, and Robert V. Guzowski. 1993. Expert Judgment on Markers to Deter Inadvertent Intrusion into the Waste Isolation Pilot Plant. Sandia Report SAND92–1382. Albuquerque, NM: Sandia National Laboratories.
- Velde, Bruce. 2007. *Clay Minerals: A Physico-Chemical Explanation of Their Occurrence*. Amsterdam: Elsevier Science.
- Veitch, Jonathan. 2010. Dr. Strangelove’s Cabinet of Wonder: Sifting through the Atomic Ruins at the Nevada Test Site. In *Ruins of Modernity*, edited by Julia Hell and Andreas Schönle, pp. 321–338. Durham, NC: Duke University Press.
- WIPP. 2003. Step-by-Step Guide for Waste Handling at WIPP. Revised January 2003, accessed March 24, 2015. www.wipp.energy.gov/fctshts/wastehandling.pdf.
- WIPP. 2007a. How Will Future Generations be Warned? Updated February 5, 2007. accessed October 24, 2014. www.wipp.energy.gov/fctshts/PICs.pdf
- WIPP. 2007b. WIPP Chronology. Updated February 5, 2007, accessed October 24, 2014. www.wipp.energy.gov/fctshts/Chronology.pdf.
- Zucker, Paul. 1961. Ruins: An Aesthetic Hybrid. *The Journal of Aesthetics and Art Criticism* 20 (2): 119–130.

Index

- abandonment 109, 196, 199, 204, 209, 258,
260–264, 321, 343–345, 351–352, 355–356,
361, 365, 369, 372–373, 375, 414, 431
absence 10–11, 51, 95, 102, 199, 204, 236, 259,
303–311, 314–315, 361, 391, 400–402,
419–420
Acconci Studio 303–319
Acconci, Vito 236, 303–319
acentred personhood 275, 281–284
Acropolis 99, 432
actor–network theory 17, 31, 37, 39, 42, 115,
239
adaptation 94, 102, 260, 271, 403
addiction 259–260
aedicula 97
aesthetics 2, 4, 20–23, 43, 79, 135, 150,
164–169, 181, 183, 186, 190–192, 226, 277,
280–281, 283, 345, 359–360, 368, 381–383
affect 2, 3, 12, 13, 15, 22–23, 39, 53, 60–61, 65,
67, 69–70, 73, 79, 107, 116, 159–161,
164–165, 167–169, 170–175, 177–180, 184,
186–192, 195–196, 203–207, 209, 210, 214,
223, 345, 350, 351, 365–369, 370–375,
380–384
affordance 329, 369, 370, 380, 382, 406, 408,
413, 418–420
age value 93
agency 10, 13, 206, 210, 223, 239, 283, 293,
294, 297, 299, 350, 354, 428, 429, 436
air 1, 11, 101, 115–116, 159–161, 163–170,
174–175, 178–179, 187, 223–225, 227, 312,
333, 353, 425
Alasitas 125–128, 132, 136
allegory 79, 94
altar 291, 292, 294, 296, 297, 327, 328, 332, 336
American Academy, Rome 90, 92
Andean urbanism 124–125
anthropocene objects 31, 42–44
anthropology 7, 8, 32, 65, 122, 213–214, 239
anticipation 3, 10, 14, 17, 160, 304, 307, 311,
367
appearance 40, 69, 70, 150–154, 165, 190, 241,
293, 295, 308, 345, 360, 383, 389, 398–403
Ardnamurchan 160–161, 195–209
assemblage 3–4, 12–22, 35, 51, 55–61, 65, 80,
99, 112–116, 150, 154, 160–161, 195–209,
233–236, 250, 290, 293–295, 297, 299,
300, 344, 351, 353–354, 358–359, 419,
425–436
atmosphere 1, 3, 12–14, 23, 159–160, 163–175,
177–179, 182, 186, 188, 191–192, 203, 214,
219, 223, 303, 353, 409, 413, 419, 425–427
attunement 3, 13
aura 167, 178, 215, 366, 373, 380, 390
auto-construction 127

Barragán, Luis 100
barrows 53–61
becoming 10, 12, 16–17, 35, 39, 51, 136,
160–161, 169, 195, 202–205, 207–209, 235,
238, 343–345, 349–350, 353, 382, 419
Benjamin, Walter 94, 125, 167
Bennett, Jane 21–22, 35, 65, 350, 428–429, 433,
436
Bentham's Panopticon 9, 334–335
bentonite 426–427
biotecture 215, 219, 221
biotemporalities 114
Blur Building 1–3, 20, 22–23, 303
body 13–14, 23, 32, 33, 55, 57–61, 85, 87, 95,
105, 163, 172–175, 178, 192, 208, 221,
225–226, 236, 274, 294, 299, 304–306, 309,
311–312, 317–319, 348, 382
Böhme, Gernot 13–14, 161, 164, 167–168,
179
Bolivia 51, 122–136
boomtown 399–402
Brand, Stewart 112–115
branding 153, 406, 413
Brenner, Neil 66
bridge 160, 183–188, 192, 256, 264–267
Brown, Frank E. 90–91
Brussels (Belgium) 149–154
Buchli, Victor 6, 9, 17, 403, 432
built form 50, 161, 234, 238, 298–300, 312,
317–319, 344

Index

- cairn 200, 203, 205
 Callon, Michel 66, 239
 camp site 256
 Campo Marzio, Rome 87, 89
 capitalism 38, 80, 121
 Catholic 288–292, 296
 China 19, 20, 135, 345, 351, 387–404
 church 95, 192, 235, 287–300, 354
 Cladh Aindreis (Scotland) 199–206, 209
 communication 180, 190–191, 329, 416, 433
 complexity 20, 76, 136, 175, 209, 236, 238, 241, 245, 321, 346, 360
 complicity 390
 conservation 288, 360, 370, 380–381, 418
 contemporaneity 15, 51, 106–108, 112, 119
 context 9, 12, 14, 15, 39, 54, 66, 116, 149–150, 186, 236, 243, 253, 254, 258, 308, 327–328, 375, 381
 contingency 298, 345, 398
 ‘couch surfing’ 260, 266
 creative destruction 149, 355, 357, 361
 creative industries 391–393
 Cret, Paul Philippe 90
 crisis 121–122, 154, 303, 387, 389, 402
 Critical Heritage (Studies) 370, 383

 decay 10, 52, 85–87, 93–94, 101–102, 149, 153, 300, 348–361, 375, 380, 404, 431
 DeLanda, Manuel 15, 17, 31, 43, 199, 201, 208, 351, 419
 Deleuze, Gilles 15–16, 35, 196, 202, 208, 275, 282, 428
 Derrida, Jacques 80, 315
 deterritorialisation 198
 Diller Scofidio + Renfro 1–2, 23, 303
 disaster 51, 122
 disintegration 3, 10, 236, 343–345, 381
 dissolution 3, 4, 17, 183, 303
 documentation 6–7, 235, 305, 309–310
 ‘duomining’ 30
 duration 17, 60–61, 107, 188, 237, 259
 dwelling 3, 8–9, 12, 50, 97, 121, 133, 186, 198, 213–214, 221, 228, 234, 290–291, 298
 dysfunctionality 19, 121, 344, 407–409, 411, 417

 earthing 215
 Earthship 215, 219–220
 effigy 294, 297
 Eisenman, Peter 31, 40–42, 308
 emergence 16, 22, 76, 200, 203, 207, 308, 350
 emic 12, 327, 372
 emotion 10, 14, 19, 91, 150, 153, 159–161, 177–183, 186–188, 190–192, 203–204, 210, 213, 215, 223, 225–226, 228, 235, 257–259, 295, 366–372, 380, 383–384, 418
 emptiness 171, 305–306, 332, 346, 394
 endurance 107, 430, 432

 ensemble 65, 69–70, 116, 119
 entanglement 3, 31, 33, 35, 36–40, 160–161, 175, 196, 299–300, 419
 entropy 114, 208, 348, 350, 359
 environment 5, 12, 22, 37, 43, 49, 85, 115, 125, 153, 164, 166–167, 171, 191, 223, 225–227, 235, 258, 303, 351, 353–354, 359, 389, 420
 Environmental Protection Agency (USA) 224, 430, 432
 Eridu (Iraq) 323–324
 ethnoarchaeology 267
etic 372
 evangelical 287–290, 295–296, 300
 eviction 235, 264–265, 269
 Eyri (Iceland) 345, 365–380

 fabric analysis 106
 failure 10, 21, 23, 76, 91, 121, 133, 185, 243, 273, 283, 343–346, 349–363, 390, 406, 424–436
 feeling 1, 13, 77, 92, 101, 163–168, 173, 179–181, 184–191, 199, 203–205, 213–219, 225–226, 412
 felt body 13, 178, 192
 Fleisher House, Elkins Park (USA) 95–97, 100
Forma Urbis Romae 87–88
 formalism 31, 35, 40–42
 fragmentation 3, 17, 381
 Freud, Sigmund 93
 Fried, Michael 31, 43
 functionalism 40, 42, 91–92
 functionality 2, 180, 182, 188, 191, 431
 future 4, 7, 13, 19–20, 49–51, 55, 58, 68, 84–85, 90–95, 121, 124–137, 153, 184, 276–282, 324, 345, 346, 352, 355–358, 389–390, 399–400, 419, 422, 424, 429–436

 gaze 100, 171, 275, 322, 335
 gender 65, 80, 136, 226, 303
 gesture 186, 190–191, 192, 196, 282, 288, 291
 Gibson, James 170–174, 226, 420
 Giedion, Sigfried 91–94
 Goethe, Johann Wolfgang von 101, 173–174
 Greenberg, Clement 30, 43
 Gregory, Richard 102
 Guattari, Félix 16, 196, 201–202, 204, 208, 275, 371

 hacienda 122–123, 137, 287, 292, 300
 Hadrian’s Villa, Tivoli (Italy) 84–86, 88, 90, 99
 haptic sense 165, 222, 225–226
 Harman, Graham 3, 8, 10, 16–17, 23
 Harris matrix 106
 Heidegger, Martin 3, 11, 30, 308
 heritage 91–92, 150, 154, 264, 267
 historical value 93, 150, 153–154

- Hodder, Ian 31, 33–34, 36–39, 42–44
 home 4, 17, 50, 93, 113, 130, 135, 152, 203,
 204, 213–219, 222–225, 234, 235, 257,
 258–259, 264, 266, 268, 271, 277, 282, 289,
 310, 357, 373
 homelessness 235, 256–269
 household 5, 130, 151–154, 274, 285, 296, 297
 housing 20, 21, 91, 94, 151, 225, 274, 277, 282,
 293, 327, 361, 394
 Hurtigruten Museum (Norway) 407–408,
 413–418, 420–422

 Iceland 51, 108–110, 118–119, 345, 351–352,
 365–379
Ichnographia 88–89, 99
 iconic 51, 71, 79, 154, 184, 241, 243, 248, 251,
 321, 351, 407, 410
 identity 17, 33, 50, 59–60, 66, 84–85, 95,
 149–151, 154, 179, 183, 186, 215, 217, 237,
 248, 267, 273, 290, 293, 303, 335, 380
 ideology 186, 217, 222, 321, 337, 389
 immanent form 50, 53–61
 impermanence 17, 84, 351, 353
 inaccessibility 61, 305
 incremental construction 125, 133
 informality 121–122
 infrastructure 11, 51, 66, 70, 150, 153, 160, 175,
 180–181, 186, 188, 246, 248–249, 283, 287,
 351
 Ingold, Tim 7–8, 13, 20, 34–35, 160, 177, 202,
 208, 214–215, 349, 420, 421
 Inner Mongolia (China) 345, 387–403
 insecurity 259, 401
 installation 114, 302–305, 311, 317–318, 343,
 426–427, 430–431, 434, 436
 intangibility 3, 6, 11, 13, 22–23, 71, 159–160,
 214, 258, 369–370, 418
 intangible heritage 370
 inversion 163–168, 312, 314–315, 398
 isovist 332–333, 336

 Kahn, Louis 51, 90–102
 Kant, Immanuel 38, 70, 166
 kitty litter 424, 426–428, 433

 landscape archaeology 106–107, 336
 Latour, Bruno 17, 31, 33–34, 36–38, 65–67,
 122, 133, 160, 234, 239
 Laugier, Marc-Antoine 87
 Le Corbusier 20–21, 90, 182, 223
 life cycle 21, 113, 125, 127, 129–130, 136, 304,
 356
 light 11–12, 13, 20, 65, 91, 95, 101–102,
 159–161, 163–175, 178, 180, 182–183, 188,
 191, 213, 219–228, 258, 273, 276, 287, 291,
 297, 314–315, 327, 333, 349, 358, 372, 432
 Lippard, Lucy R. 305–307

 living architecture 163, 222–223
 love 33, 77, 178, 217, 219–220, 257, 345,
 365–369, 372–373, 375, 380, 382–384

 McFadyen, Lesley 6, 8, 50, 196
 macrophobia 66–67
 maintenance 8, 21, 37–38, 110, 113–114, 116,
 136, 238, 344–345, 350, 357–361, 433
 Maputo 273–284
 materialism 30–38, 42, 368, 372, 382
 materiality 2, 3, 9–10, 13, 20–22, 31–34, 37, 50,
 122, 125, 150, 161, 167, 238–239, 246, 259,
 276, 283, 294, 309, 345, 349, 351, 357,
 381–382, 403
 memory 3, 10, 33, 93, 153–154, 170, 205, 292,
 304, 308–309, 319, 367, 369, 373
 Merleau-Ponty, Maurice 160, 171–175
 Mesopotamia 236, 321–335, 430
 metabolism 115–116, 118–119, 227
 meteorology 164–169
 microphilia 65–67, 79
 minimalism 43, 304–305, 317, 361
 modern ruin 101, 345, 368–369, 380–384
 modernism 80, 90–92, 95, 361, 387
 modernity 121, 165, 168, 349
 mood 3, 13–14, 102, 160, 163–169, 178, 183,
 191, 226, 415, 431
 morphology 5, 106–107
 Morris, Robert 304–305
 mudbrick 13, 50, 214–217, 221–222, 227
 multiplicity 10, 11, 16–17, 51–52, 114, 235,
 243, 253, 275, 360, 420–421
 multi-sensory 214, 226, 336, 372

 Neolithic 5, 34, 49, 53, 55–61, 161, 195–196,
 199, 201, 205, 207, 233
Neue Phänomenologie (New Phenomenology) 13
 New Materialism 31, 34, 424
 New Phenomenology (*Neue Phänomenologie*) 13
 Nippur (Iraq) 323–325, 330, 332, 336
 Nolli, Giovanni Battista 87, 88
 non-human agents 33, 37, 298–299, 350, 354
 Non-Site 306, 309
 North Cape Hall (Norway) 407–413, 417–418,
 420–422
 nuclear waste 346, 424–436

 Object-Oriented Philosophy 3, 10, 16–17,
 30–35, 41, 44, 382
 obsolescence 49, 101, 344, 348, 351, 359–360
 offering 99, 102, 290, 292–295, 297, 299–300,
 325
 Olsen, Bjørnar 31–34, 37, 40–43, 101, 208
 Olwig, Kenneth 165, 168
 ontological dumping 7
 ontology 7, 14, 23, 31, 34–35, 38, 67, 240, 253,
 419

Index

- Oppenheim, Dennis 305
Ordos (China) 19, 345, 351, 387–404
otherness 368, 373, 375, 380–382
‘overmining’ 30
- The Palace of Culture and Science (Warsaw, Poland) 50, 63–80
Palladio, Andrea 11, 51, 84–88, 91, 95, 97, 99
performance 3, 4, 6, 11, 12, 14, 17, 23, 164, 215, 233–236, 254, 256, 258, 289, 302–319, 326, 403, 406–408, 416, 418–422, 426
performativity 8, 115, 302, 303, 307, 372
periodization, phasing 106, 114, 119
persistence 51, 107–108, 112, 204–205, 304, 308, 359–360, 430, 434
personhood 4, 235, 273–284
petrol station 160, 180, 188–191
phenomenology 12, 105, 177–178
photography 7, 234, 309, 368, 408
Piranesi, Giovanni Battista 51, 85–91, 99–101
Polish People’s Republic (PRL) 70–71, 74
politics 3, 4, 44, 52, 55, 66, 131, 168, 207, 238–254, 290, 296, 314–315, 345, 419, 435
presence 10–14, 22, 51, 102, 174, 181, 204, 228, 236–237, 300, 304, 306–308, 335, 373, 375, 381, 384, 418–419
- quick architecture 55, 57–58
- refugee camps 8, 49, 259
relationism 39, 44
religion 9, 192
relocation 287, 296
repair 8, 10, 22, 23, 107–108, 110–118, 198, 297, 323, 330, 344, 348–363
Riegl, Alois 93
ritual 51, 60–61, 93, 125–126, 236, 266, 289–299, 326–327, 332, 337
ruination 8, 51, 85, 87, 89, 93–94, 101, 300, 344–346, 348–363, 366–369, 373, 375, 380–382, 431–432
‘ruinenlust’ 369, 375
Ruskin, John 169–170
- Salk Institute for Biological Studies, La Jolla, San Diego (USA) 97–101
Sandia National Laboratory (USA) 433
Schmitz, Hermann 13, 160, 178–179, 190
Schumacher, Patrik 31, 40–42
Scofidio, Ricardo 1–2, 23, 303
sedimentation 236, 287–300
senses 10, 14, 23, 41, 43, 170, 181, 188, 190, 213–228, 303, 335, 336
sensory architecture 226
sequence 85, 99, 106–112, 116, 119, 233, 241, 245, 283, 323
- Serpent Mound (USA) 430, 432
shelters 8, 260–269, 343
Sick Building Syndrome (SBS) 22, 161, 214, 223–225
situational 179
Skálholt (Iceland) 51, 108–119
sky 160, 164–175, 188, 243, 245, 248–251, 321
skyscraper 63, 65, 73, 80, 201
slow architecture 54
Smithson, Robert 305–309
socialism 70, 77, 79
Souto de Moura, Eduardo 317–319
squatting 260
Stalinism 65, 70
Stonehenge (United Kingdom) 12, 380, 430, 432
stratigraphy 50, 105, 107
sublime 63, 65, 70, 77–79, 80, 95, 186
surfaceless space 13
Swordle Corrach (Scotland) 197–207
symbiosis 39, 42–44, 174, 317–319
symbol 59–61, 71, 93–94, 121, 135, 150, 152, 181, 183, 184, 186, 192, 248, 321, 324, 336, 349
Symmetrical Archaeology 15, 17, 31, 36, 40, 44
- tactile knowledge 226
tangibility 17, 370
tangible heritage 367, 370
technology 106, 188, 243, 245, 299, 424, 430
temporality 3, 14, 17, 19, 22, 23, 49–52, 60, 107–108, 112–116, 119, 122–126, 137, 171, 234
territorialisation 201
tourism 159, 299, 372, 406–422
transportation 180–192, 262
trash 221, 263, 267
trust 61, 188, 368, 383
Tschumi, Bernard 302–303
tunnel 151, 160, 180–181, 186–188, 258–259
tunnel people 258
turf 50, 53–58, 108–114, 197–198
typology 5, 105, 107, 137, 149
- Uexküll, Jakob von 174
uncanny 93, 99, 170
underground 151, 180–181, 186–187, 192, 204, 258, 358, 425–426, 429, 431
‘undermining’ 30
unfinishedness 1, 10, 127, 153, 219, 343–346, 356, 361, 387–402, 422
Unite d’Habitation (France) 20–23, 90, 407
Ur (Iraq) 322, 323
urban planning 136, 138, 149–150, 154, 241, 277, 326, 329, 389, 392, 399, 402
urbanization 66, 136, 259, 392

- vagueness 3
- visibility 1, 10, 35, 41, 236, 321, 325, 329, 330, 335, 336, 412, 418
- visuality 322, 336
- weather 1–3, 7, 11–13, 20–22, 57–58, 101, 114, 160, 164–169, 177–179, 187, 258, 260, 266, 418, 420
- Witmore, Christopher 31, 34–35, 43
- Wotton, Henry 11
- wrapping 51, 95, 102, 242, 244, 249
- Yaneva, Albena 7, 9–10, 21, 234, 235, 389
- Yucatán (Mexico) 235, 290–300
- Yucca Mountain (USA) 435
- ziggurat 236, 321–337



Taylor & Francis eBooks

Helping you to choose the right eBooks for your Library

Add Routledge titles to your library's digital collection today. Taylor and Francis ebooks contains over 50,000 titles in the Humanities, Social Sciences, Behavioural Sciences, Built Environment and Law.

Choose from a range of subject packages or create your own!

Benefits for you

- » Free MARC records
- » COUNTER-compliant usage statistics
- » Flexible purchase and pricing options
- » All titles DRM-free.

REQUEST YOUR
FREE
INSTITUTIONAL
TRIAL TODAY

Free Trials Available

We offer free trials to qualifying academic, corporate and government customers.

Benefits for your user

- » Off-site, anytime access via Athens or referring URL
- » Print or copy pages or chapters
- » Full content search
- » Bookmark, highlight and annotate text
- » Access to thousands of pages of quality research at the click of a button.

eCollections – Choose from over 30 subject eCollections, including:

Archaeology

Architecture

Asian Studies

Business & Management

Classical Studies

Construction

Creative & Media Arts

Criminology & Criminal Justice

Economics

Education

Energy

Engineering

English Language & Linguistics

Environment & Sustainability

Geography

Health Studies

History

Language Learning

Law

Literature

Media & Communication

Middle East Studies

Music

Philosophy

Planning

Politics

Psychology & Mental Health

Religion

Security

Social Work

Sociology

Sport

Theatre & Performance

Tourism, Hospitality & Events

For more information, pricing enquiries or to order a free trial, please contact your local sales team:
www.tandfebooks.com/page/sales



Routledge
Taylor & Francis Group

The home of
Routledge books

www.tandfebooks.com