The Material Imagination

Reveries on Architecture and Matter

Edited by
Matthew Mindrup
University of Canberra, Australia

ASHGATE

Published by
Ashgate Publishing Limited
Wey Court East
Union Road
Farnham
Surrey, GU9 7PT
England

Ashgate Publishing Company
110 Cherry Street
Suite 3-1
Burlington, VT 05401-3818
USA

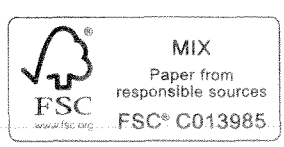
www.ashgate.com

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
The material imagination : reveries on architecture and matter / [edited] by Matthew Mindrup.
pages cm. -- (Ashgate studies in architecture)
Includes bibliographical references and index.
ISBN 978-1-4724-2458-7 (hbk) -- ISBN 978-1-4724-2459-4 (ebook) --
ISBN 978-1-4724-2460-0 (epub) 1. Architecture--Philosophy. 2. Matter. I. Mindrup, Matthew, editor.
NA2500.M37 2014
720.1--dc23

2014023407

ISBN 978 1 4724 2458 7 (hbk)
ISBN 978 1 4724 2459 4 (ebk – PDF)
ISBN 978 1 4724 2460 0 (ebk – ePUB)



Printed in the United Kingdom by Henry Ling Limited,
at the Dorset Press, Dorchester, DT1 1HD

11

Found Spaces and Material Memory: Remarks on the Thickness of Time in Architecture

Jonathan Hale

Back in 2004 I was invited onto the competition jury to select an architect for what in 2009 became the new Nottingham Contemporary arts center. Resisting the understandable temptation to choose an international figure, the jury overlooked Zaha Hadid during the final stages in favor of what was then a little-known London practice called Caruso St John. A key factor in the final decision was Adam Caruso's evocative vision for the new gallery as a kind of "purpose-built found-space." His approach was based on the fact that many successful contemporary art spaces had been created within existing buildings. And not just any buildings: predominant among the precedents shown to the jury by Caruso were redundant industrial structures, marked with a distinctive individual history along with a family resemblance. His examples included: the Tate Modern in London, transformed by Herzog & De Meuron from the shell of the Bankside Power Station, and the Biennale galleries at the historic Arsenale in Venice, created from a complex of disused shipyards, armories and ropeworks. Other cases referred to included the Palais de Tokyo in Paris, a regeneration of a 1930s exposition building; MoMA's PS1 at Queens in New York based on a redundant neo-Romanesque public school; and the Museum for the Present, part of the Berlin National Gallery built inside a nineteenth-century railway station called the Hamburger Bahnhof. What all the examples had in common was an individual and powerful historical ambience: a sense of an abandoned shell of a former life somehow charged with future possibilities.

The peculiar preference for these qualities on the part of museum directors, curators and apparently many contemporary artists begs an obvious question: what is it about the reuse of redundant buildings that these people seem to find so compelling? One theme that often links these reconfigured structures is their connection with processes of production, whether directly as places of manufacture, or indirectly as nodal points in networks of infrastructure such as transport or power generation. Making and presenting art in these industrialized surroundings might therefore be an implicit response to Joseph Stalin's famous suggestion that creative writers and artists are "engineers of the human soul."[1]

More likely, the fascination with places of production may have emerged from a broader debate in museum and gallery design, one described by Tate director Nicholas Serota as the dilemma of experience versus interpretation. In his 1996 Walter Neurath lecture (also published as a book), Serota described a gradual shift in attitudes—from about the 1960s onwards—away from the curator-led model of the gallery as a place of viewing (under the top-down control of institutional conventions of display and interpretation) towards a more artist-led experiential environment where the gallery becomes almost an outpost of the studio. While discussing a number of site-specific pieces by the sculptors Carl Andre, Richard Serra and Joseph Beuys, Serota suggested that:

> *These works also share a feature which has come to characterize the work of many artists of their generation: the sculptures were realized in the place of exhibition itself. The gallery or museum has become a studio, prompting a significant change in the conventional relationship between the artist, the work of art and the curator. No longer can the curator be seen solely as the dispassionate judge of quality, who visits the studio or private collection to select works and to assemble a body of material which will be presented to the public in a museum. Instead the curator is a collaborator, often engaging with the artist to accomplish the work.*[2]

Alongside this burgeoning of site-specific and often installation-based production, there are also many cases where a deceased artist's own studio has been opened to the public as an exhibition space. In this situation the viewer is invited to contextualize the work in a very different way, often as a kind of witness to the artist's own habitual practices—their everyday routines and working methods as well as their sources of inspiration and innovation.

In both cases a notable aspect of the viewing experience is the presence of a temporal dimension, a sense of work having-been-made in a way that accommodates itself to the surroundings, or, in the case of the open studio, work-in-progress that might have been arrested during the process of production. Both of these dimensions of experience—the retrospective backward glance and the speculative forward projection—are also, intriguingly, key elements of a powerful conceptual model of the unfolding of time itself. One of the clearest formulations of this idea comes from within the phenomenological tradition, specifically in the work of Edmund Husserl on the "internal consciousness" of time.[3] Husserl suggested that our everyday notion of the present moment as an isolated instant in time is actually a misleading convention, as it is more precise and ultimately more productive to think of the lived present as a kind of composite of "retentions" and "protentions."[4] In other words there is a temporal thickness or layering that results from the gradual fading of the moment just passed alongside emerging anticipations of the future that is about to come. Rather than conscious memories or plans that would take much longer to bring "on line," these moments of past and future perception are an intrinsic part of the experience of the here and now—vital components of the sense of continuity or flow of experience. Perhaps the best illustration of this is in the experience of listening to music, where isolated sounds make no sense until they are strung together into a melody. It is only then that the rising and falling of

notes begins to create a distinctive audible pattern, which along with a repeated cyclical rhythm gives a piece of music its unique identity—and partly why even a simple melody played in reverse is often completely unrecognizable.[5]

This sense of temporal depth and flow intrinsic to the "lived present" is also partly due to the time delays involved in the operation of the body's neurobiological and sensory-motor processing apparatus. The complexities of these interacting systems coupled with the endless flux of sensory information means that as the neuro-philosopher Daniel Dennett has forcefully explained there is never a moment in experience when we can say that "it all comes together." Dennett even went as far as to posit what he called a "multiple drafts model" of consciousness, in order to explain the presence of a number of partial and sometimes even contradictory versions of reality that seem to be circulating in our awareness at any given moment.[6]

Architectural corollaries to this notion of temporal "thickness" within the so-called present moment remain surprisingly under-explored. Notable exceptions include works addressing the persistence of a sense of history within the material remains of the past. An often overlooked twentieth-century example is *Pleasure of Ruins*, written by Rose Macaulay and first published in 1953.[7] More significantly there were of course a number of influential publications produced as a consequence of the 1960s reassessment of the typically modernist *tabula rasa* approach to the city, including Robert Venturi's *Complexity and Contradiction in Architecture* (1966), Aldo Rossi's *Architecture of the City* (1966), Kevin Lynch's *What Time is This Place?* (1972), and Colin Rowe and Fred Koetter's *Collage City*, which was conceived in 1973 but only published as a book in 1978. Perhaps as a consequence of positioning itself largely in opposition to the prevailing orthodoxy, much of this scholarship could be accused of preoccupation with nostalgia for the distant past. Hence it does not seem to take us very far in explaining the preference of contemporary artists for abandoned spaces, which, while exhibiting the relics of former uses and the historical traces of the lives of others, also seem to suggest that they are somehow pregnant with future possibilities.

FROM VITAL MATERIALITY TO MATERIAL TEMPORALITY

The approach taken here in the search to better understand what I would like to call the material imagination of time in architecture is to consider the current resurgence of interest in the notion of a "vital materiality." Across the human and social sciences over the past five to ten years there has been a discernible shift away from the previously dominant theoretical models: a backlash against the largely poststructuralist preoccupation with inter-textual analysis that has tended to dematerialize the world of things into a flux of "floating signifiers."[8] This earlier tendency could be compared with the effects of modern scientific methods that compulsively dissect and dissolve everyday objects into ever more miniscule sub-atomic elements. The American philosopher Graham Harman—a founder of the so-called "speculative realist" group—has described this as a simultaneous double movement of both "undermining" and "overmining."[9] Objects are either eroded

from below by the atomizing effect of scientific analysis, or dissolved from above by a meta-narrative that describes them as nothing more than the result of their relations—positing them as cultural constructions or effects of social discourse. The consequence of both approaches is to obscure the significance of everyday experience and its encounter with the sheer brute reality of material things.

Harman's so-called "object oriented ontology" tries to imagine a world where objects encounter each other away from the gaze of human beings, or at least where human perception has no special privilege over other forms of material interaction. In fact, according to Harman's description of the "as-structure" of experience,[10] we humans are constantly caricaturing the objects we encounter by taking them *as* something more or less useful to our goals and thereby overlooking many of their other less immediately salient qualities. Likewise even inanimate objects could also be said to grasp each other only partially, according to the particular qualities with which they are able to interact. Thus a fire could be said to encounter only the combustibility of a piece of cotton, or a rock to interact only with the breakability of a pane of glass. This logic ultimately generates a distinctively flat ontology, one that puts human beings on a similar level to material objects.

This position echoes very strongly the understanding of technical systems advocated by Bruno Latour, the French philosopher and sociologist of technology with whose ideas Harman has frequently engaged.[11] Latour has suggested that the difficulty of analyzing technological "objects" is due to their mixing of human and non-human "actors," and the ways in which they throw together complex networks of interacting forces that defy conventional categorization. In much of Latour's writing these confusing hybrids are painstakingly teased apart through detailed empirical case studies of particular technical phenomena. Notable examples include his analysis of Louis Pasteur's discovery of microbes,[12] and the history of an abandoned French mass-transit project.[13] But on a broader philosophical level he has also tried to explain the conceptual difficulty of dealing with technological systems, which necessitates working across the kind of binary categories that are embedded in our everyday patterns of thought. The problem he explains lies at the heart of the "modern project," which attempts to make a series of conceptual distinctions that follow an either–or pattern. An object is defined as either, natural or cultural, mental or physical, living or non-living, animal or vegetable etc., none of which leaves room for the kind of messy and tangled hybrids that technology constantly throws up—such as steam trains, mobile phones, armies or insurance companies. More pressingly in light of current developments in biotechnology such as gene therapy and prosthetics, the blurred boundary between the human and the technological is also impossible to grasp in binary terms.

This notion of a posthuman condition (broadly, the latest phase in the continuing erosion of the traditional humanist subject-centered world view) is now being explored by a number of current thinkers in terms of its broader social and political implications. Latour, in typically candid fashion, has provided a vivid and down-to-earth example of the blurring of subject and object in his patient (and often humorous) analysis of a humble door-closer mechanism. In one of his few essays addressing a specifically architectural theme he shows how even the functioning of a simple laborsaving device like a hydraulic door-closer can involve a complex

interplay of human and non-human agency.[14] Alongside the deliberate devolution of a human ability (closing a door) into the operation of a mechanism, there are also many ways in which the brute materiality of the object can still manage to reassert itself. Whether by shutting too quickly and trapping people's fingers or being too strong for a child to open, the device soon takes on an individual personality, much as if a living concierge were actually opening the door according to the mood of the moment. In all these examples Latour's approach demonstrates the active contributions made by physical materials, questioning the conventional view of matter as dead weight or inertia that once overcome can then be forgotten.

Returning to the theme of the posthuman, but in relation to Latour's idea of material agency, an important new wave of scholarship has begun to emerge in this area written from a broadly feminist perspective. This trend picks up on an earlier preoccupation in the social sciences with the cultural and political status of the human body, a movement initially inspired by Michel Foucault and reaching a peak of interest in the 1980s. This earlier "anti-essentialist" approach attempted to throw into question binary categories such as gender classification, revealing the influence of cultural forces in the acquisition of behavioral norms. This kind of analysis tended to obscure the material capacities of human embodiment as a potential source of individual agency, instead rendering the body as a basically passive victim of the larger forces of social inscription. As Foucault himself has claimed: "power relations have an immediate hold on [the body]; they invest it, mark it, train it, torture it, force it to carry out tasks."[15] But, if this were the case, it would place this notoriously shadowy notion of power somehow prior to embodiment, when in reality bodies must already be implicated in the very processes by which power relations are produced.

Rather than focusing simply on the materiality of the body-as-such this new writing takes up the broader theme of material embodiment in general, but as with the earlier work mentioned above it is driven by an interest in its social and political implications. An important recent collection of this writing is edited by Diana Coole and Samantha Frost, called *New Materialisms: Ontology, Agency, and Politics*.[16] Much of this work contains references to key figures from the poststructuralist canon mentioned already while also making connections back to thinkers from the earlier phenomenological tradition. Drawing on the work of Gilles Deleuze and Michel Foucault, as well as philosophers of technology like Donna Haraway, the political theorist Rosi Braidotti draws attention to the problematic boundary conditions that now exist in relation to the definition of the posthuman. These include the edges of life (beginnings and ends); the edges of the species (cloning and gene-splicing); the edges of the self (prosthetic extensions or medical invasions); and even what this blurring of boundaries might mean for the future definition of the humanities itself as an academic discipline.

In contrast, the writing of Jane Bennett that is also included in the above collection returns to more historical sources for clues to what she calls a "vital materialism."[17] Interested in the difference between the passive and active aspects of nature, she takes from Baruch Spinoza the distinction between *natura naturata* and *natura naturans*—the former refers to nature as a set of fixed and ordered forms while the latter suggests the power of nature as a creative generator of

new possibilities.[18] She relates this idea to the so-called élan *vital* or creative force described in the later work of Henri Bergson although she attempts to avoid the accusation of mysticism often leveled in his direction. Without admitting to a full-blown vitalism she pursues the idea of a "material propensity," a kind of natural tendency inherent in a material that suggests how it might best be employed.[19] Bennett goes on to compare this with the notion of *Shi* found in ancient Chinese thought, as recently described by the French historian François Jullien in a book called *The Propensity of Things*:

> *Shi is the style, energy, propensity, trajectory, or élan inherent to a specific arrangement of things. Originally a word used in military strategy, shi emerged in the description of a good general who must be able to read and then ride the shi of a configuration of moods, winds, historical trends, and armaments: shi names the dynamic force emanating from a spatio-temporal configuration rather than from any particular element within it.*[20]

As with Latour's work mentioned earlier, Bennett takes this "dynamic force" as an incipient form of agency, one that emerges often unpredictably in the operation of a complex technical system. One of her key examples is the North American electrical power network, illustrated most dramatically in the famous cascade of failures that resulted in the widespread blackouts of August 2003.[21] At the same time Bennett also traces some of the sources of the deeper cultural significance of particular materials and processes, in a way strongly reminiscent of Gaston Bachelard's pioneering work from the 1940s on the material imagination of the four elements.

This idea of emergent agency is taken to an even more radical conclusion by Diana Coole, one of the editors of *New Materialisms*, who returns to the later writings of Maurice Merleau-Ponty—specifically his recently published lectures on the concept of nature given at the Collège de France in the 1950s. Referring to the biologist Jakob von Uexküll's idea of the *Umwelt* (broadly, the particular characteristics of an environment with which a given organism is able to interact), Merleau-Ponty described how this idea "rejected the model of the organism as a physical machine animated by consciousness or by some vital spark, describing instead an emergent future-oriented but open organisation that is immanent to the organism."[22] Merleau-Ponty's own suggestion that this "behavioral activity oriented toward an *Umwelt* begins well before the invention of consciousness,"[23] could also now be read in light of the work of Graham Harman referred to above, whose ideas imply the presence of a minimal form of subjectivity in the capacity of material objects to take account of each other's qualities.

Another contributor to *New Materialisms* who also draws on the work of Merleau-Ponty is the political theorist William Connolly. In an essay entitled "The Materiality of Experience" he explores the presence of a time lag in the process of perception, as identified by the neuropsychologist Benjamin Libet in a series of experiments carried out in the 1970s.[24] Libet's findings suggested a roughly half-second delay between the arrival of incoming sensory stimulation and the formation of a perceivable experiential image, whether visual, auditory, tactile and so on.[25] Connolly takes this as support for Merleau-Ponty's idea of embodied

perception as an ongoing sequence of interactions with the world, where the materiality of the body itself makes a key contribution to the characteristic quality and texture of experience.[26] In the time taken for a perceptual image to form, information shuttles back and forth across the body–world boundary, and thus it becomes impossible to say categorically which qualities belong to which. Merleau-Ponty's paradigmatic example of this is the body touching itself, such as when the right hand grasps the left hand and a perceptual ambiguity immediately occurs.[27] He claims this confusion results from the reversibility between the "seer" and the "seen," that is, the idea that in order to experience a world at all we must share in its materiality through the thickness of our own embodiment. In other words, the qualities of the things in the world that we experience through our bodies are, by definition, just what-it-feels-like to experience them.

THE THICKNESS OF EMBODIMENT IN ART AND ARCHITECTURE

Returning to the question I began with, as to why artists and museum directors seem so peculiarly drawn to found spaces, I would like to propose that some of this attraction could be explained by reference to other forms of architectural recycling. There is now a growing body of historical scholarship on the creative use of *spolia*, referring to the practice of removing and reusing constructional elements such as columns, doorways or friezes. While there is evidence of this happening even in Classical times it became more widespread during the Middle Ages, where it seems to take on a similar significance to the Christian reappropriation of Pagan festivals—a move that according to one recent scholar "encompasses both rejection and continuation."[28] Dalibor Vesely has likewise written extensively on the broader significance of the historical fragment, relating it to the origins of the museum:

> *The restorative or symbolic meaning of the fragment can be discerned already in the spoglia (spoils) so frequently used in the Middle Ages—equally in the collections of curiosities of the late Renaissance, or in the cult and poetics of ruins, which reached a peak in the eighteenth century.*[29]

In an attempt to assimilate some of these ideas within a more general theory of reappropriated spaces, Fred Scott in his recent book *On Altering Architecture*, makes a number of important observations. While the reuse of *spolia* involves a dynamic process of juxtaposing fragments brought from different contexts, Scott is more interested in the effects produced by preserving and reusing elements in situ. Likening the process of "intervention design" to the techniques of Synthetic Cubism and Surrealist collage, he also references the sculptural work of Gordon Matta-Clark and his full-scale dissections of domestic spaces.[30] Here Scott also emphasizes the experiential dimension of this kind of opening up of new spatial connections, liberating previously unavailable viewpoints and offering new possibilities of movement: "Such an imposition of a new spatial and circulatory hierarchy will allow the same privileges previously available only to thieves or ghosts, that is a novel view of the original hierarchy, which will now be a relic and memorial of a previous occupation."[31]

Another of Scott's observations that hints at the temporal dimension I have been trying to develop is the comparison of these spatial transformations with the process of transcription and translation. While in broad terms this may indeed involve "the carrying over of the host building from one age to another,"[32] I would like to suggest that the powerful sense of time perceptible in the best examples of creative reuse might actually result from the narrative gaps that appear between the traces of old and new uses. In the most interesting examples referred to earlier where there is a shift from one function to another, a kind of disjunction or contradiction appears between the visual and functional form. On the one hand, there are those "physical propensities" that emerge when a material is being worked, such as the resistance of a block of stone to being chiseled into a building component. These are what give a specific material its particular tectonic qualities. On the other hand, there are spatial and functional propensities that also suggest how a building might be used. Reappropriation of spaces therefore involves a layering of successive phases of transformation, where the building is less a tectonic object and more a series of tectonic events. Each one of these events involves unpredictable displacements that can leave their mark within the building fabric, and a typical sequence would include: transformations from raw material to building component; from building component to finished building; from finished building to inhabited space; from inhabited space to redundant building; from redundant building to re-programmed building; and finally from re-programmed building to re-occupied space. The presence of gaps or displacements between each of these successive layers may be what allows for new possibilities of signification and meaning to emerge, although it is not yet clear how this process of architectural codification takes place.

One clue to the mechanism by which new significations can be captured comes from the work of Merleau-Ponty on the process of innovation in language. To explain this idea he drew a distinction between what he called "spoken" and "speaking" speech, where the former refers to the more familiar and well-worn patterns of conventional everyday language. Speaking speech on the other hand describes the more challenging and rarefied patterns of poetic expression, where we often experience a sense of estrangement from conventional meanings as if the writer is deliberately playing with the possibilities of the language. Sometimes this can literally involve reconfiguring and distorting existing forms of expression as a way of capturing, and to some extent actually producing new levels of meaning, as Merleau-Ponty himself suggests: "It is just this process of 'coherent deformation' of available significations which arranges them in a new sense and takes not only the hearers but the speaking subject as well through a decisive step."[33] Or in other words, in taking up and making do with the limited resources that language offers (a common currency invented by others to satisfy other—albeit related—purposes), we are constantly searching for ways to inflect our speech to suit the unique and fleeting demands of the moment. While language operates on a "deficit and surplus" model, expression will always fall short of the speaker's intention, but there is at the same time an unexpected excess in the historical associations that words carry with them: the sedimented layers of meaning accumulated over years of use will ensure that the speaker also says more than was actually intended. And

thus, in thinking out loud, we are often able to clarify even a half-formed feeling. As Merleau-Ponty pointed out: "my spoken words surprise me myself and teach me my thought."[34] It is this sense of historical excess embedded within the thickness of the medium that I would like to suggest is a key aspect of the richness of potential that found spaces seem able to offer.

In a final effort to better understand these spaces, and in particular why they seem so peculiarly pregnant with possibilities of appropriation, it is useful to see how Merleau-Ponty's ideas might apply to the materiality of other media. A good example is the work of the new media and performance theorist Carrie Noland and her recent book entitled *Agency and Embodiment*.[35] In this text she makes direct reference to Merleau-Ponty's work on perception in her discussion of the multimedia artist Bill Viola, specifically his time-lapse video piece from 2000 entitled *The Quintet of the Astonished*.[36] In this work five actors are filmed performing a sequence of facial expressions, communicating the canonical emotional states of fear, anger, pain, sorrow and joy. By shooting the video at up to 384 frames per second instead of the typical 24, one minute of live action is extended to 16 minutes of viewing time, allowing previously unnoticeable movements to become visible. Viola suggests that this blurs the normally obvious distinctions between one emotional expression and another, while opening up for the viewer's inspection the previously unseen transitions between them. In this way a whole set of ambiguous new expressions becomes available to be assigned to new meanings.

The lesson to be taken from this, as with all the examples discussed, is that the embodied physicality of materials is what puts them beyond our complete control. And likewise it is our own bodily materiality that puts us beyond the reach of power. Whatever our language of expression, whether brain, body or building (new or old), it is the thickness of the medium itself that holds the potential of temporality—the promise of a productive registering of both posterity and possibility.

BIBLIOGRAPHY

Bennett, Jane, *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010).

Coole, Diana and Samantha Frost (eds), *New Materialisms: Ontology, Agency, and Politics* (Durham, NC: Duke University Press, 2010).

Dennett, Daniel, *Consciousness Explained* (1991; London: Penguin, 1993).

Derrida, Jacques, *Writing and Difference*. Translated by Alan Bass (London: Routledge & Kegan Paul, 1978).

Fabricius Hansen, Maria, *The Eloquence of Appropriation: Prolegomena to an Understanding of Spolia in Architecture* (Rome: L'Erma di Bretschneider, 2003).

Foucault, Michel, *Discipline and Punish: The Birth of the Prison*. Translated by Alan Sheridan (New York, NY: Vintage, 1995).

Harman, Graham, *The Quadruple Object* (Winchester: Zero Books, 2011).

Harman, Graham, *Towards Speculative Realism: Essays and Lectures* (Winchester: Zerò Books, 2010).

Husserl, Edmund, *On the Phenomenology of the Consciousness of Internal Time (1893–1917)*. Translated by J. Brough (Dordrecht: Kluwer, 1991).

Latour, Bruno, *Aramis, Or the Love of Technology*. Translated by Catherine Porter (Cambridge, MA: Harvard University Press, 1996).

Latour, Bruno, "Mixing Humans and Nonhumans Together: The Sociology of a Door-closer." *Social Problems* 35/1 (June 1988): pp. 298–310.

Latour, Bruno. *The Pasteurization of France*. Translated by Alan Sheridan and John Law (Cambridge, MA: Harvard University Press, 1988).

Macaulay, Rose, *Pleasure of Ruins* (1953; London: Thames and Hudson, 1984).

Massumi, Brian, *Parables for the Virtual: Movement, Affect, Sensation* (Durham, NC: Duke University Press, 2002).

Merleau-Ponty, Maurice, *Nature: Course Notes from the College de France*. Translated by Robert Vallier (Evanston, IL: Northwestern University Press, 2003).

Merleau-Ponty, Maurice, "On the Phenomenology of Language." In *Signs*. Translated by Richard C. McCleary (Evanston, IL: Northwestern University Press, 1964), pp. 84–97.

Merleau-Ponty, Maurice. *Phenomenology of Perception*. Translated by Donald A. Landes (Abingdon: Routledge, 2012).

Morris, David, *The Sense of Space* (Albany, NY: SUNY Press, 2004).

Noland, Carrie, *Agency and Embodiment: Performing Gestures/Producing Culture* (Cambridge, MA: Harvard University Press, 2009).

Scott, Fred, *On Altering Architecture* (Abingdon: Routledge, 2008).

Serota, Nicholas, *Experience or Interpretation: The Dilemma of Museums of Modern Art* (1996; London: Thames & Hudson, 2000).

Veseley, Dalibor, *Architecture in the Age of Divided Representation: The Question of Creativity in the Shadow of Production* (Cambridge, MA: MIT Press, 2004).

Westerman, Frank, *Engineers of the Soul: In the Footsteps of Stalin's Writers* (New York, NY: Vintage, 2011).

NOTES

1 Joseph Stalin, "Speech at the Home of Maxim Gorky," 26 October 1932. Quoted in Frank Westerman, *Engineers of the Soul: In the Footsteps of Stalin's Writers* (New York, 2011), p. 34.

2 Nicholas Serota, *Experience or Interpretation: The Dilemma of Museums of Modern Art* (1996; London, 2000), p. 36.

3 Edmund Husserl, *On the Phenomenology of the Consciousness of Internal Time (1893–1917)*. Translated by J. Brough (Dordrecht, 1991), p. 11.

4 For a useful analysis of Husserl's account see Maurice Merleau-Ponty, *Phenomenology of Perception*. Translated by Donald A. Landes (Abingdon, 2012), pp. 439–42.

5 A principle that the British composer Mike Oldfield famously exploited to great effect in basing his multi-platinum selling album *Tubular Bells* on the opening sequence of Bach's Toccata and Fugue in D minor played backwards.

6 Daniel Dennett, *Consciousness Explained* (1991; London, 1993), pp. 101–38.

7 Rose Macaulay, *Pleasure of Ruins* (1953; London, 1984).

8 Jacques Derrida, *Writing and Difference*. Translated by A. Bass (London, 1978), p. 25.

9 Graham Harman, *The Quadruple Object* (Winchester, 2011), pp. 7–19.

10 Graham Harman, *Towards Speculative Realism: Essays and Lectures* (Winchester, 2010), p. 36.

11 See, for example, the essay "Bruno Latour: King of Networks," in Harman, *Towards Speculative Realism*, pp. 67–92.

12 Bruno Latour, *The Pasteurization of France*. Translated by A. Sheridan and J. Law (Cambridge, MA, 1988).

13 Bruno Latour, *Aramis, Or the Love of Technology*. Translated by C. Porter (Cambridge, MA, 1996).

14 Bruno Latour, "Mixing Humans and Nonhumans Together: The Sociology of a Door-closer," *Social Problems* 35/1 (June 1988): pp. 298–310.

15 Michel Foucault, *Discipline and Punish: The Birth of the Prison*. Translated by Alan Sheridan (New York, NY, 1995), p. 25.

16 Diana Coole and Samantha Frost (eds), *New Materialisms: Ontology, Agency, and Politics* (Durham, NC, 2010).

17 Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, NC, 2010), p. vii.

18 Ibid., p. 117.

19 Ibid., pp. 60–61.

20 Ibid., p. 35.

21 Ibid., pp. 24–8.

22 Ibid., p. 103.

23 Maurice Merleau-Ponty, *Nature: Course Notes from the College de France*. Translated by R. Vallier (Evanston, IL, 2003), p. 167.

24 William E. Connolly, "Materialities of Experience," in Coole and Frost, *New Materialisms*, pp. 178–200.

25 For more detail on the experiments, alongside discussion of their cultural implications, see: Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham, NC, 2002), pp. 28–31.

26 In reference to Merleau-Ponty the philosopher David Morris has recently described this process as "the crossing of body and world." David Morris, *The Sense of Space* (Albany, NY, 2004), pp. 4–5.

27 Merleau-Ponty, *Phenomenology of Perception*, pp. 94–5.

28 Maria Fabricius Hansen, *The Eloquence of Appropriation: Prolegomena to an Understanding of Spolia in Architecture* (Rome, 2003), p. 260.

29 Dalibor Veseley, *Architecture in the Age of Divided Representation: The Question of Creativity in the Shadow of Production* (Cambridge, MA, 2004), p. 322.

30 Fred Scott, *On Altering Architecture* (Abingdon, 2008), pp. 127–33.

31 Ibid., p. 154.

32 Ibid., p. 79.

33 Maurice Merleau-Ponty, "On the Phenomenology of Language," in *Signs*. Translated by R.C. McCleary (Evanston, IL, 1964), p. 91.

34 Ibid., p. 88.

35 Carrie Noland, *Agency and Embodiment: Performing Gestures/Producing Culture* (Cambridge, MA, 2009).

36 Ibid., pp. 66–72.