for Mike O’Hanlon
DH
In memory of my late advisor James Deetz, whose enthusiasm for studying things, large and small, inspired me and many others
MCB
PART V

STUDYING PARTICULAR THINGS
CHAPTER 23

STONE TOOLS

RODNEY HARRISON

INTRODUCTION: MAKING AS COPYING

The history of stone tool research is linked integrally to the history of archaeology and the study of the human past, and many of the early developments in archaeology were connected with the study of stone artefacts (Odell 2003: 1). The identification of stone tools as objects of prehistoric human manufacture was central to the development of nineteenth-century models of prehistoric change, and especially the Three Age system for Old World prehistory (Stone Age, Bronze Age, Iron Age; see Trigger 1989: 73-79). During the twentieth century, however, a narrow focus upon prehistoric technology meant that the formulation of models that describe the processes by which stone artefacts are produced and discarded has formed the principal goal of stone tool studies. This tradition produced, for example, the analysis of the ‘reduction sequences’ of the steps through which a tool was created from a stone core and Michael Schiffer’s model of five steps in what he termed the ‘life cycle of durable elements’ such as worked stone: from procurement to manufacture, use, maintenance, and discard (Schiffer 1972: 158; 1976). In Schiffer’s terms, once a stone tool was discarded, it moved from ‘systemic context’ to ‘archaeological context’, it became inert, and its abandonment as a tool that was no longer functionally useful represented the end of its efficacy or significance (Figure 23.1). While such models have been very important in contributing to a greater understanding of the social and material processes involved in the production of stone tools, they have drawn attention away from any aspects of the efficacy of stone tools that do not relate to their production and use.
In contrast, in this chapter I draw on concepts derived from interdisciplinary material culture studies to consider the role of the artefact after discard. I suggest that it is impossible to understand the meaning or efficacy of stone tools without understanding their 'afterlives' following abandonment. Where the concept of social agency has recently been mobilized to attempt to explain the efficacy of stone tools, I argue that it is only when we consider stone tools as embodying material agency of their own (rather than remaining passive players in a series of social relations that are entirely determined by human actors) that we will develop new understandings of the role of stone tools and other material objects in both the past and present. In doing so, the chapter aims to complement contemporary metrical studies of the identification of stone tools and the description of their production (see Odell 2000, 2001, 2003; Holdaway and Stern 2004; Andriezky 2005; Clarkson and O’Connor 2006). Such studies make important contributions to archaeological knowledge, but on their own will lead to accounts that focus only upon production, at the expense of consumption, such as those that have been widely discussed in anthropological material culture studies (Douglas and Isherwood 1979; Miller 1987, 1995a, 1998c). Moreover, metrical studies have often tended to privilege a particular attitude to manufacture, in which a mental design is imposed upon the material to create the form of the artefact. Instead of seeing the creation of artefacts as involving the transcription of a design from a previous mental template in this manner, I want to follow the suggestion of anthropologist Tim Ingold that artefact forms 'grow' like organisms, generated from complex interactions between the artefact-maker, their social and natural environment, and the raw materials themselves:

form-making involves a precise co-ordination of perception and action that is learned through copying the movements of experienced practitioners in socially scaffolded contexts. Making, in other words is copying: it is not the realisation of a design that has been copied... Whatever variations may be introduced in the process lie in the dynamics of the making, not in errors of transmission.

Ingold (2000a: 372)

Moving away from the 'mental template' model of artefact manufacture directs our attention towards the network of both physical and social relationships in which things are bound up, and towards practices of making, copying, and repetition over time. In the case of stone tools, such perspectives may be used to probe those aspects of the life histories of stone artefacts that have been most neglected in archaeology: the ongoing influence of stone artefacts after they cease to be 'functionally' useful, and the material agency of artefacts. After a review of the history of stone artefact studies in archaeology, the chapter draws on insights into the material agency of stone tools from two arenas: cultural heritage management, and the study of museum collections. These two fields allow us to consider the interaction between objects from the past, and people (and other objects) in the present. The survival of objects across time periods is what makes archaeology possible, and stone tools are among the most durable of archaeological materials. However, an awareness of such survival or 'residuality' in the contemporary world has not always been well integrated in archaeological analyses, even by those with an explicit interest in the idea of the past in the past (cf. Bradley 2002). Can the meaning and social role of a stone artefact continue to change not only during the course of its 'life history' with each transformation in its cycle of use, but also after it has been discarded? By working through the changing meanings of prehistoric stone artefacts in the modern world, we may also rethink how we study the meaning and material agency of stone artefacts in the past.

A BRIEF HISTORY OF STONE TOOL STUDIES IN ARCHAEOLOGY

The ability to correctly identify humanly modified stone tools forms a fundamental facet of modern archaeology (Odell 2003: 1). As Gosden (1999, 2004b) notes, the
recognition of stone tools as the result of human behaviour was directly linked to the encounters of Europeans with stone artefact using peoples in the early modern period, and the records of colonial encounters with stone artefact producing peoples has become a source for archaeological study in the present (e.g. McBryde 1978; Gould 1980). Stone tools were collected along with other 'curios' in both the Old and New Worlds by amateur collectors, naturalists, and enthusiasts, who were engaged as much as their academic counterparts in the production of a 'historical imagination' (Griffiths 1996: 1), which led to the development of archaeology as a profession. In addition to influencing popular ideas about the human past through their collections, eighteenth- and nineteenth-century antiquarianism can be seen to have contributed to a more sinister uncoupling of Indigenous peoples from the material remnants of their past (Byrne 1998), and concepts of 'otherness', which were integral to the culture of colonialism (Thomas 1994).

The earliest systematic analyses of stone tools were undertaken by antiquarians in the late eighteenth century, such as John Evans in England and France, and William Henry Holmes in the United States (Evans 1872; Holmes 1894; see Lucas 2003a: 67). Evans and Holmes noted the potential of stone tools as chronological markers, and undertook research into the form and function of stone artefacts and their processes of manufacture and use (Andresvsky 2005: 3–4). This early research was dominated by the idea that stone tools represented not only chronological, but also cultural, markers that provided evidence for the evolution of increased cultural diversity. Holmes' work was particularly influential in highlighting the process of tool manufacture, especially in his suggestion that crudely shaped bifaces represented tools in earlier stages of the production process rather than simply poorly made tools (Odell 2003: 3). Despite this, it was not until the late 1930s that Alfred Barnes (1939) published the now commonly accepted criteria for distinguishing humanly modified stone artefacts from naturally fractured stone, which derives from his study of the edge angles produced by human processes of stone fracture and a comparison with the edge angles of stone fractured naturally.

An important concept that came to dominate stone tool research throughout the twentieth century was developed by the French archaeologist André Leroi-Gourhan, who was concerned with documenting the chain of processes by which raw materials were selected and transformed into cultural artefacts. A student of anthropologist, Marcel Mauss, during the 1930s he drew on his teacher's discussion of 'techniques' as socially transmitted aspects of the habitation and combined them with the work of early archaeologists such as Holmes to suggest a more process-oriented approach to the study of technology. In La Geste et La Parole, Leroi-Gourhan (1964: 164) coined the term *chaine opératoire* and defined it in terms of 'techniques [that] involve both gestures and tools, organized in a chain by a veritable syntax that simultaneously grants to the operational series their fixity and their flexibility' (cf. Schlanger 2005: 27). This process-oriented approach was seen as having major implications for the study not only of individual technologies, but also of societies and technical processes at a variety of spatial and chronological scales. The concept of the *chaine opératoire* was further developed by Pierre Lemonnier (1986; 1992), who drew a distinction between 'strategic tasks' (fixed operations that cannot be altered in timing or sequence without sabotaging the entire process) and 'technical variants' (flexible choices that are arbitrary in terms of the outcome of the *chaine opératoire* but that nonetheless have cultural or social implications). The idea of the *chaine opératoire* was also implicit in the stages of stone tool production suggested by Schiffer in the 1970s and discussed earlier in this chapter.

Research on the *chaine opératoire* of stone tool manufacture stimulated an interest in the individual mechanical processes involved in the production of particular stone tools in the past. The 1950s and 1960s saw sustained stone tool reproduction experiments by archaeologists such as François Bordes and Don Crabtree, which informed the subsequent development of reduction sequence analysis (e.g. Bradley 1975) and tool refitting research. Talented together, experimental flint knapping and ideas such as the *chaine opératoire*, reduction sequence analysis, or Schiffer's (1972) stages of production promoted a particular view of the 'life history' of the stone tool, which was related to the manufacture and use of stone tools. The dominant paradigm during this period stressed the close association of stone artefacts' form with function, allowing the role of a stone tool to be 'read' through the study of its morphological characteristics.

Meanwhile, another area of stone tool studies sought to move beyond purely morphological analyses. Serge Semenov's 1957 study *Prehistoric Technology*, which was translated into English in 1964, was influential in suggesting that stone tool morphology did not always coincide with stone tool function (see Semenov 1964). He demonstrated the possibility of the functional analysis of stone tool edges using microscopy through the magnification and recording of the working edges of stone tools, which led to the development of use–wear and residue studies in contemporary archaeology (Andresvsky 2005: 4). The study of microscopic use–wear and residues grew throughout the 1970s and 1980s to become one of the dominant areas of metrical stone tool analysis in archaeology. In an influential paper, George Frison (1968) built on the ideas put forward much earlier by Holmes in relation to Palaeolithic stone axes to suggest that if artefact morphology changed during a stone tool's use life, then stone tool typologies would have to reflect these changes if they are to be useful in determining chronology, site function, and patterns of site use. Frison's work, combined with other developments in the New Archaeology of the 1960s, led to archaeologists perceiving a stone tool's form as dynamic throughout its use. These developments saw a shift away from the correlation of archaeological tool types with prehistoric cultures that characterized culture-historical archaeology, and challenged the widely accepted view that artefact shape was a direct correlate of artefact function (Andresvsky 2005: 5; Odell 2000: 47–48).
describes the ways in which this idea influenced the study of projectile points from the Great Basin region in North America during the 1800s and 1900s. Here, the extent to which reworking of broken projectile points can be seen to have given rise to 'new' projectile point forms, which were represented in traditional typological analyses as separate point forms, had been widely debated.

The study of the exchange, rather than simply the production and use, of stone tools has also been a major area of archaeological research since the 1970s. The increasing use of geophysical and geochemical methods in archaeology has led to developments in determining the source of stone used in the manufacture of stone tools. This has then led to a greater understanding of trading networks and the circulation of both stone tools and stone raw materials in prehistory, for example in the study of the wide-ranging trade in obsidian for the production of stone tools in the European Neolithic (e.g. Torrence 1986). Ethnoarchaeological studies have been important both in allowing deeper insights into technological processes of stone tool manufacture (e.g. Gould 1986) as well as the meaning of stone tools within the societies that manufacture them (e.g. Jones and White 1988). For example, Bradley and Edmonds (1993) documented the changing nature and context of the production and exchange of stone axes, which was based on a study of one of the largest sources of raw materials for stone axe manufacture in Britain.

George Odell (2000, 2001) has suggested that the systematic study of stone tools in the last two decades of the twentieth century focused on two main areas, procurement (understanding the pursuit and trade of raw materials) and technology (understanding the various processes that contribute to the production of stone tools). This involved research on the areas of artefact classification (including stone tool typology, debitage analysis, use-wear and residue studies), the study of behavioural processes (including subsistence strategies, risk minimization, and trade) and conceptual approaches (models that help archaeologists explain their data, including approaches that foreground gender and aspects of design theory). Despite this proliferation of methods and approaches over the 1980s and 1990s it is possible to say that throughout the twentieth century, the formulation of systems that described the processes by which stone tools were produced and discarded in the past had formed the fundamental goal of stone tool analysis.

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**Agency and 'Interference'**

The emergent interest in symbolism, ideology, and individual choice that accompanied the development of interpretive archaeologies during the 1980s and 1990s (e.g. Shanks and Hodder 1995) stimulated the development of new conceptual approaches and a new-found interest in the symbolic aspects of stone as a raw material (e.g. Ingold 1991; Sinclair 1995; Tilley 2004). About the same time, a new interest in stone tools as markers of gender also emerged (Gero 1991; Sassinian 1993; Dobres 1995). However, due to the widespread adoption of a semiotic approach to emphasize artefacts as a series of signs, critics (e.g. Dobres 2000; Dobres and Robb 2000b; and more generally Thomas 1995, 1996) noted that such approaches tended to downplay the experience of those who made, used, and consumed stone tools. This new focus on meaning produced an effective rift between those studies concerned with the technical aspects of stone tool production and those that focused on stone tools as symbols.

In an attempt to shift the paradigm in stone artefact studies away from the split between symbolic and technical aspects of stone tool manufacture and use, several researchers began to employ the concept of 'social agency'. The relationship between human agency and historical structures was developed by Pierre Bourdieu (1990; see also Robbins 1991) and Anthony Giddens (1982, 1984). Bourdieu argued that practice was conditioned by the *habitus*, a system of historically produced structuring dispositions. The *habitus* varies between individuals, and action mediated by the *habitus* is instinctive and regulated (Robbins 1991). Bourdieu utilizes the metaphor of a sport, where players have a 'feel for the game' that equips them to pursue conscious strategies (see discussion in Last 1995): 'One's feel for the game is not infallible; it is shared out unequally between players, in a society as a team' (Bourdieu 1990: 86).

Anthony Giddens developed the theory of 'structuration' to account for the same problem. The concept of structuration is similar to the *habitus* in that it describes the set of conditions that intervene between structure and practice to allow the reproduction or transformation of that structure. Social practice (or agency) and social structure are linked dialectically. Structures form a medium for practice by both enabling and constraining it, while at the same time they are the outcome of human agency and are reproduced or transformed by it (Shanks and Tilley 1992: 128). It is the high degree of routine in practice that ensures continuity in action. Both change and stability are outcomes of the reproduction of social practice. Agents generate power through being able to mobilize both material and productive resources—power 'is generated in and through the reproduction of structures of dominance' (Giddens 1984: 258). Social change tends to occur at the 'time-space edges' between different sets of routinized structures and practices (Last 1995: 152).

In her study of *Technology and Social Agency*, archaeologist Marcia-Anne Dobres (2000) drew on the work of Anthony Giddens and Pierre Bourdieu to describe the ways in which technologies entail social relationships and engender meaning. For Dobres, it is human agents and their social relations that are central to the everyday reproduction of their social conditions. People experience technology and material culture as physical arenas within which interactions, both material and social, occur as they undertake practical or material action. Hence both people and the
material world simultaneously constitute, shape, and are shaped by one another (Dobres 2000: 127).

Technologies are socially constructed practices through which material objects develop their own life histories, taking on a multiplicity of meanings. They are also the means of bodily engagement with the world, and in the process, producers become social products. A recursive process binds together human actors, products, artefacts, landscapes, materials, and meaning—agency and practice are no less the heart and soul of human technology’ (Dobres 2000: 128). Thus, material objects are also involved in the complex web of agency and structure, as conduits through which human actors produce and are produced by their interactions with other agents and the world.

Social agency has been seen as problematic in stone artefact studies, not the least reason being because stone artefacts have often remained apparently static in their form throughout long periods in the past (Wobst 2000; Sassaman 2000). How are we to see the influence of individual social actors and agency faced with an absence of change in technology over millennia? Archaeologist Martin Wobst suggests that this stasis itself should actually be seen as quite remarkable, given, for example, the widespread effort to manufacture stylistically identical stone artefacts using raw materials with extremely different flaking properties. For Wobst (2000: 47), such periods of stasis should be seen as the most socially and politically contentious, as they involve the most effort to maintain and control the habitation by prehistoric peoples (cf. Wobst 1974).

Thus, Wobst emphasizes the ways in which stone artefacts, like other kinds of material objects, could be in the past form reference points in the ways in which humans choose to behave and respond to particular circumstances in the past. The production of artefacts can be thought of as an ‘interference’ in a particular situation, the intentional insertion of a material object into a circumstance that the artefact maker wished to influence or change by doing so (Wobst 2000: 42). We can think about such interferences as being made with reference to both the physical and social world. Indeed, Wobst (2000: 48) suggests that the development of stone artefacts in the Lower Palaeolithic can be conceptualized as establishing the possibility of forms of interference that stressed and expressed social difference, which have remained unresolved throughout human history.

These various ideas about stone artefacts and social agency establish certain parameters for the study of the life histories of stone artefacts, and in particular their ‘afterlives’. I use the term ‘afterlife’ to define the period after which a stone tool ceases to be functionally useful, after which it would mostly usually be discarded, but at which point it may also be curated or subsequently lay dormant before being ‘rediscovered’ at some point in the future. One problem with these studies of social agency in stone tool production and use is that, just like the metrical analyses described above, they tend to focus almost entirely on the experience of production and tool use, rather than on other moments in the life histories of stone tools.

Indeed, the focus on agency in stone tool studies has done little to move beyond the focus on the process of stone tool manufacture, maintenance, and discard embedded in the chain of production and Schiffer’s model of the five steps in the cycle of durable elements. They adopt ideas from the work of Frison and others, which suggest that changes in form relate to different phases in the cycle of stone artefact use. Further, they draw on the work of interpretive archaeologies to suggest that the meaning of artefacts can change according to their passing from one context to another. However, these approaches to agency in the study of stone tools have tended to depict stone tools themselves as largely passive—the agency they describe is purely social agency. In the rest of the chapter, I want to explore some ideas about material agency and the ways in which they might inform our understanding of the relevance of the afterlives of stone tools in both past and contemporary societies.

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**Material agency and the ‘captivation’ of stone tools**

In this section, I want to explore the idea of the efficacy of artefacts beyond production and functional use, with reference to social anthropologist Alfred Gell’s (1992a, 1996b, 1998) idea of ‘captivation’ or ‘enchantment’. The anthropological perspectives on material culture developed by the late Alfred Gell provide a very useful way of thinking through the social efficacy of artefacts. Gell presents a model in which material objects can mediate the social agency of humans, acting as the ‘indexes’ of this agency, as ‘material entities that motivate inferences, responses, or interpretations’ (Thomas 1998: ix). The theory of the ‘art nexus’ describes the mediation of agency by way of a series of ‘agent-patient’ relationships that are described according to four main reagents that are said to exist in the vicinity of objects: artists, indexes, prototypes, and recipients. For Gell (1998: 26), the social relations that surround artefacts can only exist when they are made manifest in the form of actions. Those people or things that perform social actions are agents with reference to those things on which they perform social action, which are known as patients. Drawing on Marilyn Strathern’s (1988) concept of the distributed person in Melanesian anthropology, Gell explains the way in which objects become part of the distributed personhood of the ‘artist’—the person who is considered to be responsible in the first instance for the existence of the index, or art object (cf. Wagner 1991). Thus for Gell (1998: 222–223), humans are not confined to a spatial or temporal framework particular to their physical body, but consist of a spread of biographical events and memories of events, and a dispersed category of material objects, traces and leavings, which can be attributed to a person and
which, in aggregate, testify to agency and patiethood during a biographical career which may, indeed, prolong itself long after biological death.

Gell distinguishes between the **primary** agency of intended and conscious actors, and the **secondary** agency of objects. He uses the gruesome example of the land mines placed by Pol Pot’s soldiers (Gell 1998: 20-21), describing them as components both of Pol Pot’s personhood, as well as objects that function as secondary agents (in the sense in which they are not sentient, so can only initiate agency with reference to another external agent). Gell sees the land mines as not simply tools used by a soldier, but as part of the material index that defines the soldiers’ ‘soldier-ness’. The guns and land mines carried by the soldiers are ‘a part of’ the soldier and act to define the soldier as such. To speak of Pol Pot’s soldiers is also to speak of the weapons, military tactics, and their social context. The land mines themselves do not initiate happenings or actions ‘through acts of will for which they are morally responsible’, but nonetheless are ‘objective embodiments of the power or capacity to will their use’ (Gell 1998: 21).

Discounting an ‘aesthetic’ model for understanding art and art objects, Gell acknowledges the special kind of agency exhibited by particular art objects, which are made with technical expertise and imagination of a high order, which exploit the intrinsic mechanisms of visual cognition with subtle psychological insight, then we are dealing with a canonical form of artistic agency which deserves special discussion. ‘...with artefacts which announce themselves as miraculous creations... their power rests partly on the fact that their origin is inexplicable except as a magical, supernatural occurrence. Gell (1998: 48)

Gell (1998:68) had previously described the concept of captivation in relation to the efficacy of the prow boards of Trobriand canoes as psychological ‘weapons’ in ceremonial **kula** exchanges. He argued that the impressive carvings present on prow boards were considered to be magically potent, establishing a sense of inequality between the exchange partners who were viewing the boards for the first time, and the artist(s) who carved them. While ‘captivated’ by the virtuoso carvings, the trading partners were weakened and engaged in unequal exchanges to the benefit of the artist(s). ‘Captivation or fascination—the demoralization produced by the spectacle of unimaginable virtuosity—ensures from the spectator becoming trapped within the index because the index embodies agency which is essentially indecipherable’ (Gell 1998: 71).

In **Art and Agency** Gell (1998: 69) describes the ‘captivation’ of Vermeer’s painting **The Lacemaker** as embodied by an inability to conceive of the possibility of producing the artwork. While we can imagine how to mix the paint and move brush over canvas, the technical proficiency of the painting defies our imagination, or more accurately, our ability to conceive a resemblance of our agency to the agency that originated the artwork. This is not simply a case of aesthetic impact (Bolton 2001:101), but relates to a ‘blockage in cognition’, which manifests itself at the point when a spectator cannot reconstruct or follow the sequence of steps in an artist’s performance. Captivation is ‘produced by the spectacle of unimaginable virtuosity’ in which the index ‘embodies agency which is essentially indecipherable’ (Gell 1998: 71). As Bolton (2001:101) notes, captivation is ‘a special kind of agency effected through performance, and embodying indecipherability’.

**Kimberley Points as Captivating Objects**

I would like to turn now to how these ideas about the agency of material things, which possess the power to ‘captive’ or ‘enchant’, might be employed to help us to understand the efficacy of stone tools in their afterlives. Figure 23.2 shows a Kimberley Point from the collection of the Pitt Rivers Museum in Oxford, UK. It is labelled with an accession number [1898.75.29], and its accession book entry, dated 1898, identifies it as one of four glass Kimberley Points that were sold to the museum by the collector Emile Clement along with another 109 ethnographic specimens from north-western Australia for which the museum paid £1.00.0.0. It is one of at least 14 Kimberley spear points, most of them made using glass, which

Fig. 23.2 Glass Kimberley Point from the collection of the Pitt Rivers Museum in Oxford, collected by Emile Clement (courtesy of Pitt Rivers Museum, University of Oxford, accession number 1898.75.29).
were obtained by the Pitt Rivers Museum over the period 1898 to 1913. Emile Clement made at least three trips to Western Australia over the period 1895–1900, during which time he amassed a large collection of ethnographic and botanical specimens that he subsequently sold to museums and collectors throughout the UK. We know something of his collecting activities as he published a series of notes and ethnographic observations, along with a catalogue of the objects he collected in a short treatise in 1902 (Clement 1904). While it is possible to understand the social agency involved in the acquisition of glass as a raw material from Europeans within the context of the Australian colonial frontier, the subsequent agency of the toolmaker in producing the tool, and the agency involved in the transactions by which Clement acquired and subsequently sold the point, we might think that its curation within the Pitt Rivers Museum would represent the certain end point of its efficacy as a tool. Lying inert on a dusty museum shelf, surely it cannot be understood to continue to have material or social agency and involve itself in social relations as an actor?

What is clear is that in fact glass Kimberley points did continue to have a form of agency after they were collected and removed from their context of manufacture and use. We can use Gell’s ideas about the captivation of art objects to help us to interpret the agency of stone and glass spear points from the Kimberley region of Western Australia (Harrson 2006). Bifacially pressure-flaked ‘Kimberley’ points were a specialized stone tool form, which only began to be manufactured approximately one millennium before Europeans first settled in Australia in a geographically limited area of Australia’s north west. They appear to have functioned as spearheads, but in the nineteenth and early twentieth century more often appeared in symbolic gift exchanges and in trade with colonial collectors. After Aboriginal people from northwestern Australia began to come into contact with Europeans, these points became increasingly formalized in their shape, grew in size, and became increasingly finely worked at the precise time that their function as spearheads became far less relevant due to the availability of steel and guns (Harrison 2004a). They were increasingly manufactured using European bottle glass as a raw material, which allowed for the manufacture of larger points, but which made them functionally less useful as spearheads. They also appear, contradictorily, to have been made in the greatest numbers on settlements and reserves associated with Europeans, where food rations were being provided, and they would arguably be less necessary as functional spearheads for hunting land game. Within the groups that manufactured them, points (and the manufacture of points) acquired new meanings as symbols of masculine status at the same time that their role as functional spearheads was being diminished (Harrison 2002). Despite the emphasis of collectors and antiquarians on collecting ‘functional’ and ‘Stone Age’ objects, these ‘replicas’ of stone spearheads made using glass were collected widely in colonial Australia, and circulated in large numbers among museums and collectors across the globe. More recently, despite archaeologists’ awareness that the form of these particular large, symmetrically pressure flaked bifacial point forms were related more to the demands of a colonial art market than the functional needs of Aboriginal Australians, they have gained an important space in disciplinary self-representations of Australian Aboriginal prehistory. For example, Australian archaeologists have often used images and descriptions of Kimberley Points to represent Australian Aboriginal stone tool technology in general. This is despite the fact that it is widely known that the large invasive bifaces, which were made for trade with Europeans in the late nineteenth and early twentieth century, were largely an invention for the colonial curio market. Elsewhere (2006) I described the use of the generic term ‘stone tool’ in museum displays of Kimberley Points in Australia. This is despite the fact that this rather specialized form of stone (and more importantly, glass) working technology has relatively little in common with the majority of prehistoric Aboriginal stone tool technology from Australia.

Gell’s ideas about the captivation or enchantment of virtuoso objects help to explain the ways in which Kimberley Points acted as agents in distracting and enthralling both colonial collectors and antiquarians in the past, as well as their continued role in captivating archaeologists in the present. Their apparently mysterious method of manufacture and the extremely fine working of these spear points both metaphorically and physically ‘dazzled’ colonial collectors, but even after their method of manufacture had been discerned, they presented a paradox to antiquarians—a delicately worked glass objet d’art manufactured using ‘Stone Age’ technologies. This clever contradiction allowed them to find a market among those antiquarians and museums who were primarily interested in ‘authentic’, ‘prehistoric’ objects, who might normally have passed them over as souvenirs created for a collector’s market. Not only does such an analysis reveal the ingenious engagement of Indigenous Australians with a late nineteenth-century global colonial curio market, but also the ongoing agency of these spear points themselves as they continue to enthrall and captivate archaeologists and a museum-going public in the present.

BEYOND SOCIAL AGENCY: HERITAGE, POLITICS, AND THE MATERIAL AGENCY OF STONE TOOLS IN THE CONTEMPORARY WORLD

One of the main criticisms of Gell’s model of captivation (see Layton 2003) has been the way in which it minimizes the importance of an individual’s cultural
background in determining their ‘reading’ of art objects. Indeed, much of the subsequent research that has employed aspects of Gell’s model has discussed the ways in which individuals within particular societies are socialized to receive particular kinds of material ‘messages’ as a starting point (e.g. Campbell 2001; Küchler 2002b). Understanding the ways in which an individual is socially conditioned to receive particular messages from artefacts has largely been understood to form a necessary starting point for any consideration of the efficacy or agency of stone tools (or indeed any material object). This idea is also an integral aspect of the approaches to social agency in stone tools discussed above (e.g. Dobres 2000; Wobst 2000).

A recent critique of Gell’s ideas by James Leach (2007) suggests that it is only if we take the direct opposite approach to that suggested by Layton that we could ever allow the sort of material agency that appears to be a part of the concept of captivation or enchantment to be understood. Leach argues that it is impossible for objects themselves to have agency if we assume that all objects are necessarily an index of something else. This notion appears in Gell’s discussion of the abduction of agency, or the mediation of agency by way of a series of agent–patient relationships as described above. Leach perhaps more helpfully refers to this as the ‘artist–author’ relationship, in which the creativity embodied by an artwork (or artefact) is assumed to wholly reside within the artist, and not within a distributed network that might involve the materials he or she uses to create the artwork, and the creative tension of the circumstances within which it is made, or within the artwork itself. He suggests that Gell’s anthropological theory of art should be seen as essentially flawed, as it places primary agency only in the hands of human actors (or ‘artists’ in Gell’s words) who are seen as the ultimate starting point in the chain of agent–patient relationships he describes. It is only when we effectively admit that an artefact or art object might have primary agency of its own, that we can use the distinctive life histories of material objects to generate innovative critical positions and alternate models of the efficacy or agency of stone tools. ‘My objection, then, is to the theory of the abduction of agency and the notion that we should treat an object as an index of something else. I point out that questions about what an object is an index of may obscure something that is very important about the object in diverse contexts’ (Leach 2007: 184).

Indeed, in my own analysis of glass Kimberley Points recounted here, I was unable to move beyond the primary agency of the Indigenous manufacturers of glass points and the trope by which they dazzled collectors (and its effect on contemporary archaeologists) to develop an argument regarding their material agency, which functioned independently of the intention of their makers. In an attempt to move beyond the limits of the artist–author concept and its constraint on the analysis of material agency, I want to consider the persistence of stone tools in the modern world, returning to Australia as a case study of the contemporary social role of stone artefacts, focusing on the function of stone artefacts in Indigenous heritage discourses. Australia provides an appropriate case study as a place where stone tools have developed new meanings and forms of value for Indigenous people in the context of the politics of post-colonialism and heritage. Indeed, my work with contemporary Indigenous Australians who work in archaeological heritage management suggests that for many Aboriginal people, their encounters with stone artefacts forms the basis for a creative reformation of identity and self-knowledge as well as poignant tangible objects around which to make concrete various political debates and issues. At the same time, this case study has the potential to relate to other contemporary settler societies such as the United States, Canada, and New Zealand (Lilley 2000), as well as providing insights that can help us understand the agency of stone tools in their afterlives in the more distant past.

After human skeletal remains, stone artefacts have formed the most important nexus for debates around the repatriation of Indigenous cultural remains in Australia. While some of these debates have been public (Murray and Allen 1993), the return of stone artefacts excavated by archaeologists as part of both research and commercial archaeology has now become relatively routine in Australia under circumstances where Indigenous representative bodies request it. Denis Byrne (2003, 2004) has characterized this activity as a form of ‘archaeology in reverse’ as it often involves the reburying of stone artefacts and other archaeological remains excavated by archaeologists.

Labouring on archaeological excavations as untrained field assistants and being involved in field walking surveys to locate archaeological sites is one of the important ways in which Indigenous people in southern, settled Australia gain physical access to stone artefacts and engage in creative encounters with them. It is also a way for Aboriginal people to engage in the cultural ‘work’ of heritage (after Byrne 2008). Where such work has become more broadly associated with colonialist practices in other countries (e.g. Shepherd 2003), the insistence of Aboriginal people to continue this involvement in archaeological labour has tended to draw it away from criticism in Australia. While criticized by many authors on community archaeology, who have rightly pointed out that the employment of Indigenous community members on archaeological excavations is not a substitute for consultative practices or a collaborative approach to archaeology, the involvement of Indigenous people in the physical work of archaeological heritage management has become a key element of contemporary archaeological heritage management in Australia, as it has in other settler societies such as the United States (Smith and Wobst 2005). For the Aboriginal people to whom I spoke about their involvement in archaeological fieldwork, it was clear that the involvement with artefacts in archaeology provided them with a sense of collective identification as Aboriginal people in the present.

Indeed, when I interviewed Indigenous Australians in settled, south-eastern Australia who work in the field of archaeological heritage management, they
appeared to be engaged in a creative re-imagining of their history and culture, which derives from their encounters with stone artefacts in the present. Stone artefacts often hold an intense poignancy for Aboriginal people, not only as symbols but also as physical objects that can provide a material connection with the lives of their ancestors. For example, for descendants of the Muruwari Aboriginal people who used to live on the Dannawan Reserve, a former Aboriginal encampment occupied until the 1930s in western New South Wales, the dead often visit the living in dreams (see further details in Harrison 2002, 2004b, 2005). During site visits, particularly to pre-contact archaeological sites, Muruwari people with whom I worked over the period 2000–2004 would often rub artefacts such as flaked stone artefacts against their skin. Vera Nixon, an Aboriginal woman from western NSW who had been involved in recording archaeological sites with NSW National Parks and Wildlife Service staff, explained: ‘When you’re rubbing the stones over your skin you can get the feel of...you sort of get the feeling of the spirits coming into your skin somehow or another. I dunno, it’s a strange feeling, but it’s a good feeling’ (Vera Nixon, 18 November 2003). A belief that an ancestor’s spirits are associated with the objects that they used during their lifetimes structures people’s interactions with the remains of the former settlement. Josie Byno, Vera’s sister explained further: ‘When we go and visit the place and see the artefacts that they used to use and the fire there, the oven...we get very emotional. Not only that, there is a special feeling in the air that surrounds us. We can feel that spiritual feeling wherever we go, and we know that they are with us’ (Josie Byno, 18 November 2003). While it is important for people to be able to touch and interact with the artefacts on site, it is considered dangerous to remove them. People who do this are tormented with bad dreams or sickness. In contrast, just being at the site and touching its artefacts is considered to make Muruwari people feel physically healthy. Arthur Hooper (at the time in his seventies), who lived at the site in the 1940s, noted that ‘ever since I’ve been coming out here, doing a little bit of work for people, I’ve been feeling really great. I’m really happy to see the old place again. And my feelings—inside me it’s a very glad feeling, I have no worries about anything else. No aches and pains. I just walk around the place for hours and hours without getting tired’ (Arthur Hooper, 18 November 2003). Archaeological sites, such as Dannawan, hold power and fascination for Indigenous Australians as places where local traces and memories persist, challenging and actively assisting in the creation of the past and present. The mutual involvement of people with stone artefacts and other archaeological traces of the past, which both evoke and create collective memories, provide creative opportunities for imagining and connecting oneself with the ancestral past, and building a sense of collective political and social identity in the present. Importantly, Aboriginal people conceptualize these artefacts as having agency of their own, which is independent of that of their makers, allowing them not only to act as a nexus between object and spirit worlds, but also to influence the body and minds of people who encounter them in the present (Figures 23.3 and 23.4).

Many Aboriginal people whom I interviewed about their work in archaeology felt creatively engaged with stone artefacts, and spoke of them as exhibiting their own forms of agency. For example, an Aboriginal woman I interviewed in 2004 who had been working with archaeologists in Armidale, NSW spoke of being able to spot artefacts that the archaeologist couldn’t see while they were undertaking a field walking survey as she ‘heard the artefacts calling to me’. She had been visiting local archaeological sites for years, not for their traditional associations or to undertake the sort of cultural work that anthropologists would normally identify as the obligations of Aboriginal kinship with the natural world, but to fossick for artefacts with the family and to swim and fish. She spoke of finding a favourite archaeological site that she would often visit. She was driving home one day and it was as ‘if the place was calling to her, and when she got out and walked around, it was like being home’. Others spoke of the importance of working with archaeologists and other Aboriginal people as archaeological labourers, and the ways in which this allowed them to develop a sense of identity in spite of their sense of dislocation from their traditional culture.

Fig. 23.3 Arthur Hooper, Vera Nixon, Josie Byno, and Dorothy Kelley on a visit to the archaeological site at the Dannawan Reserve, New South Wales, Australia (photo: R. Harrison 2002).
rediscover and draw on the power of these same older stereotypes that represent Indigenous Australians by the material traces of their past to objectify themselves. In relation to archaeological heritage, this has been particularly visible in Indigenous self-representations within settler societies in Australia (e.g. Lilley and Williams 2005; Lilley 2006) and elsewhere (Fischer 1999; Kuper 2003; Clifford 2004), where Indigenous people have adopted what might be considered to be a rather conservative or old-fashioned association between race, culture, and material artefacts to represent themselves in the modern world.

The term ‘strategic essentialism’ was developed by Gayatri Chakravorty Spivak (1996: 214) to describe circumstances under which it may be advantageous for minority groups who hold quite disparate characteristics and ideals to represent their identity as a group in a simplified or stereotypical manner, either as part of a strategy to undermine these same stereotypes by drawing attention to them in a way that deconstructs them, or one that allows people to achieve particular outcomes when grouped in such a manner. Strategic essentialism could be understood as a form of performance in which minority peoples ‘play up’ to the stereotypes that they have been subject to as part of colonial domination or state control.

As Denis Byrne (2003: 77) notes, Aboriginal people in southern, settled Australia have responded to a sense of being made invisible in a colonized landscape by expressing a sense of fundamental connection to the many thousands of archaeological sites and stone artefacts spread across the country. In doing so, they express a certain level of identification as a group, at the level of an Indigenous ‘nation’, which would never have been the case in the past. In a sense, such a position is a surprise to Byrne, who notes the awareness of Aboriginal people with the ways in which an identification of ‘real’ Aboriginal people with stone artefacts and the past has allowed them to be effectively controlled and objectified by the state’s programme of archaeological heritage management. Byrne has argued that the emphasis in cultural heritage management in Australia on the protection of archaeological sites has been driven by a desire by settler Australians to dissociate a heroic and authentic ‘Aboriginality’ from contemporary Aboriginal people. However, the fact the Aboriginal people so closely associate with stone artefacts suggests a strategy. Byrne compares this complicity of Aboriginal people with state-directed archaeological heritage management with Spivak’s (1996: 214) notion of ‘strategic essentialism’. This complicity has, Byrne (2003: 78) argues, meant that to some extent, Aboriginal people ‘have to play up to white expectations and produce performative versions of traditional culture when this is what white people want to see’. He suggests that archaeological sites with physical remains, such as stone artefacts, have been chosen because they are visible places that, at the very least, remind broader settler society of the historical presence of Aboriginal people in a landscape from which they have been excluded.

For the vast majority of contemporary Aboriginal and settler Australians who live in large urban centres, the sense of being dislocated from the past is extreme,
Jeremy Beckett, in commenting on nostalgia and its relationship with place in Indigenous oral historian Myles Lalor’s history, notes that for Aboriginal people in southern,settled Australia in the period 1950–1970, ‘the emphasis was on the present, while the past was a source of unease and embarrassment rather than empowerment’ (Beckett 1996: 331; see Lalor 2004). Beckett suggests that for Lalor and his generation, self-identity, which had traditionally derived from the connections between groups of people and place, had to transform itself in the light of the widespread forced removal and dislocations of Aboriginal people from their homelands. He sees in Lalor’s oral history a refusal of nostalgia, in its sense of longing for lost places, by asserting his sense of self and an emergent collective sense of Aboriginality through a narrative that emphasizes social connections over spatial ones. However, the 1970s in Australia saw a changed political climate and the emergence of a revival of the past as a key source for the creation of a collective sense of identity for Aboriginal people. Transformed once again, Aboriginality was expressed through connections to the past, emphasizing the subaltern histories of particular places in the physical Australian landscape and national imaginary. This creation of a national collective Aboriginal identity by Indigenous Australians themselves reclaimed and subverted the State’s creation of Aboriginality as a racial, rather than cultural collective. The fragmentary remains of stone artefacts had come to represent a poignant memorial to lives once forgotten, buried, and then subsequently both physically and metaphorically excavated from the dustbin of history.

For many Indigenous people, involvement in archaeological excavations not only allows an active physical engagement with the stone artefacts and other physical traces of their past, but represents a way of performing and realizing Aboriginal identity and community (cf. Anderson 1983; Appadurai 1996, 2001). As Amit and Rapport (2002) note, modern forms of trans-local community are often formed by common interest groups who emphasize their sense of shared experience in preference to their shared histories (cf. Gupta and Ferguson 1997; Amit 2002). Denis Byrne (2008) points out the cultural ‘work’ of heritage, in this case the excavation and interaction with stone artefacts through untrained archaeological field labouring, is the ‘glue’ that people use to create a sense of community and locality in the present. Aboriginal people who are employed on such excavations fill a particular role, as ‘consultants’ and members of a ‘local community’ who are being consulted over ‘their’ heritage. In southern, settled Australia, like many other areas within the major Anglophone settler societies where Indigenous people have largely been denied access to those local places that form their homelands, such radically localizing forms of performed identity provide a rare opportunity for the development of a sense of shared community. While archaeologists have generally perceived the communities with which they are expected to consult as relatively fixed entities, it is clear that they are created dialogically through this process of consultation and the new fields of social relations formed around stone artefacts and other archaeological remains, as much as they exist independently of it. For those Aboriginal Australians involved in this creative engagement with them, stone artefacts have become symbols of local community as well as the (literal) foundation stones for new forms of Aboriginal nationalism in postcolonial Australia (see also Lilley 2006).

Conclusions

The discussion of the meaning of stone tools in contemporary Australia has demonstrated the latent efficacy of stone tools long after their discard once they have ceased to be functionally ‘useful’, as well as the importance of understanding the afterlives of stone tools. This has also raised questions about the ‘afterlife’ of stone tools in the past. The memory of the manufacture of particular stone tool forms, as well as encounters with older, discarded stone tools would potentially have impacted continuously on the production of new stone tools by stone artefact producing peoples in the past. In the same way that stone artefacts exercise a form of material agency in contemporary Australia, which is entirely removed from the agency of the artist/author who produced them, encounters with ancient discarded stone tools in the past must also have enacted forms of material agency. These interventions might have taken the form of the continued production of stone tool forms that were associated with the archaic past in an attempt to maintain the habitus as suggested by Wobst (2000), or the creation of new tool forms in reaction against them. However, we should not assume the only interventions were those that derived from people themselves, but instead allow for the possibility that stone artefacts might have generated creative engagements of people and objects, which were entirely independent of those intended by their makers.

This chapter has considered the contribution of interdisciplinary material culture studies to understanding the political power and material agency of stone tools. Drawing on theories of social and material agency and Gell’s discussion of the captivation of art objects, I have suggested that the meaning and social role of a stone artefact changes throughout the course of its life history with each transformation in its use cycle, and more importantly, that stone artefacts continue to have material agency and do social ‘work’ even after they have been discarded. The particular contribution of Gell’s work is the way in which it suggests a structure for understanding and conceptualizing the ongoing influence of prehistoric objects both in the past as well as in contemporary social relations. However, we need to go beyond Gell’s focus on the primary agency of human author–artists to acknowledge forms of material agency that stone artefacts and other objects might hold, which are independent of them. The challenge for modern stone tool studies is to
consider the ways in which we might undertake research in which stone tools and other forms of prehistoric material culture are viewed as embodying material agency rather than remaining passive players in a series of social relations that are entirely determined by human actors.

**Note**

1. I use this term to refer to Aboriginal people in those parts of Australia who experienced the earliest and greatest disruption by European invasion. The extent and nature of cultural and physical dislocation experienced by Aboriginal people in Australia was extremely variable across the country, but in general terms, Aboriginal people in northern and central Australia were able to maintain a physical presence within their country for much longer, and experience a lesser disruption to their traditional lives than did Aboriginal people in south-eastern Australia.

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**CHAPTER 24**

**THE LANDSCAPE GARDEN AS MATERIAL CULTURE: LESSONS FROM FRANCE**

CHANDRA MUKERJI

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**Introduction**

Landscapes or built environments contain distinct lessons about material culture and human life. Land that shows the effects of human activity is material culture, but is often less clearly bounded than other cultural objects and more vividly intertwined with nature. It exists everywhere that the earth and social communities meet: fields opened by deforestation, piles of sludge in the ruins of old manufacturing centres, empty lots in cities, windmills along a ridge, leaking sewer pipes with plants feeding off the effluent, fields of bulbs for commercial sale, trails in national parks, seashores lined with tourist hotels, or grand formal gardens full of sculpture, fountains, and plant collections (Stilgoe 1985, 1988, 1994; Cronon 1996). These meeting places of nature and human labour are, like other forms of material culture, created for social purposes and designed (at least at the beginning) to have value. Over time, they are either maintained in their original form, or transform (grow, degrade, age)
into new ones. In either case, they contain physical memories of human hopes, desires, limits, abilities, and powers.

While most of the examples explored in the following pages are mainly (but not entirely) derived from early modern French landscape history, the principles about the built environment hold for many other places in the Western tradition. Focusing mainly on one site simply helps to demonstrate the local specifics of landscapes and their history, while also pointing to more general patterns of material governance.

THE LANDSCAPE GARDEN AS MATERIAL CULTURE

Studies of the built environment as a form of material culture stand at the intersection of landscape history, colonial history, sociology, political science, and science studies. In landscape history, there have been a number of schools of thought, touching on this issue. Many books analyze the cultural significance of gardens through literature. John Dixon Hunt and Claire Goldstein, among others, have used poetry in particular to address the problem of treating mute landscapes as culturally ‘voiced’ (Hunt 1986, 1991, 2003; Hunt and Willis 1988; Laird 1999; Goldstein 2000, 2008; Hunt et al. 2002). As many gardens were historically designed around literary metaphors or were praised in their period in poetry, this approach makes sense, but it also often obscures the complex socio-political relations that allow some people to put poetry into gardens and force other people off the land.

In response to the limitations of this literary tradition, Ann Bermingham famously wrote about the social privilege expressed by English landscape gardens with their rolling lawns, tranquil lakes, and glasshouses filled with rare exotics (Bermingham 1986). She argued that these gardens were explicitly ‘leisurely’, expressing the excess wealth of those who did not need to till the land to live. They were gardens of empire, too, with botanical collections that displayed political reach. British leisure was a product of colonial work, and this socio-political reality was embedded in English gardens.

More recently, scholars have tried to blend social and cultural history to explain gardens. Michel Conan at Dumbarton Oaks encouraged this type of work in young scholars, such as Elizabeth Hyde, Mirka Beneš, and Dianne Harris (Conan 2003, 2002; Beneš and Harris 2001; Harris 2003; Conan and Dumbarton Oaks 2005; Hyde 2005). They all treat landscapes as products of the people who commissioned them, developed them, or supplied them with flowers, dreaming cultural dreams but also living in historical moments defined by social relations. Particularly when they draw attention to relationships between houses and gardens, these scholars highlight the continuity of gardens with other forms of material culture.

John Stilgoe and William Cronon have expanded the definition of landscape to consider as built environments an array of spaces where land and human communities meet. They draw attention to the subtleties of the interactions between shores and ports, trees and electrical lines, paths and woods, cities and fields, combining documentary history and field studies of places to do so (Stilgoe 1971, 1991, 1998, 1994, 1998; Cronon 1991).

Scholars interested in colonial botany and engineering also have contributed to the study of landscapes as material culture. Londa Schriebinger, Judith Carney, Timothy Mitchell, Richard Drayton, and Kapil Raj look at trade, botany, agriculture, infrastructural engineering, and gardening as material forms that mediate between colonies and colonizing countries, producing distinctive landscapes of power (Drayton 2001; Carney 2001; Mitchell 2002; Schriebinger 2004; Schriebinger and Swan 2005; Raj 2005). Colonial domination, according to these scholars, has not been simply a matter of social domination of people, but also domination of the earth and its flora and fauna. Europeans have often justified colonization as well by their more rational (Western) understandings of nature and more systematic uses of it.

In sociology and political science, Sharon Zukin (1991), James Scott (1998), Patrick Joyce (2003), and Patrick Carroll (2006) have looked at the built environment and its socio-political significance, too. Often using ideas from Foucault as their guide (Burchell et al. 1991), they have studied the social practices and significance of built environments from cityscapes to the countryside. Sharon Zukin (1991) famously analysed urban spaces as ‘landscapes of power’, emphasizing their materiality and the social dynamics that gave them form and that they served. James Scott (1998) studied a set of utopian projects of landscape ‘improvement’ that had dystopian effects, arguing that engineered landscapes have been active and often destructive parts of political relations. Patrick Joyce (2003) has looked at how the built environment not only symbolizes and facilitates surveillance, but also provides tools of self-governance (with water systems, sewers, and the like) that enrol populations into relations of power. Patrick Carroll (2006) draws attention to the countryside where land reform has been an important political activity, dependent upon and serving science. All these studies point to the centrality of landscapes to power, knowledge, and governance.

Scholars in science studies have added to this intellectual mix by focusing on the importance of ‘non-human actants’ in social life. Bruno Latour, Michel Callon, Karin Knorr-Cetina, Geof Bowker, and Leigh Star have all studied the power of infrastructures, pointing to the silent, unrecognized and routine ways they can define social reality (Callon 1986a, 1998; Bowker and Star 1999; Knorr-Cetina 1999; Latour 2000b; Knorr-Cetina and Preda 2003). They explain how keys, trains, computer networks, trading markets, and databases—ubiquitous and uncontested
elements of material life—construct the order of things. These modest forms of material culture gain their power precisely because they are unquestioned ways of organizing people. This approach to studying infrastructures, common in science studies, has been more often applied to material culture than landscape history (Appadurai 1986a; Mukerji 2003), but has had a powerful influence on some of the work in colonial history and sociology that treats landscape as an important part of social life.

Still, why focus on landscapes? What is to be gained by placing the built environment at the centre of material culture analysis?

The landscape is at the heart of human life—a site of ongoing experiments in survival and betterment. Landscapes are models of human governance of things. They are demonstrations of human power vis-à-vis the non-human world. As cultural constructs, serving a range of human hopes, fears, and determinations, they exemplify how we make the earth serve our purposes, how we define what we need, and to what extent we succeed or fail in pursuing material interests. Working on the landscape depends on and is generative of natural knowledge, so landscapes provide evidence of collective knowledge and uses of the earth, and define the logistical bases of collective life (Figure 24.1).

The gardens of Versailles built in the seventeenth century under Louis XIV provide a good example of the socio-cultural importance of landscapes (Adams 1979; Mukerji 1997). The royal garden was a tool of politics, a demonstration of not only the king’s glory but also the material techniques of territorial governance. The park was designed to be a microcosm of the kingdom as a whole, suggesting the order and abundance the regime was bringing to all of France. The gardens symbolically joined disparate parts of the realm into an elegant single design, too. They were made up of geometrically formed and organized garden beds and groves of trees each organized around a particular theme (Adams 1979; Hazlehurst 1980). These areas of the garden were like the different provinces of France with boundaries of their own. One was even named the parterre du Midi, referencing both the south side of the chateau and the southern region of France. The park, in this way, helped naturalize the centralization of power under this regime with the beauty of the gardens and the wealth of plant life (Mukerji 1997; Hyde 2005; Goldstein 2008) (Figure 24.2).

The park also carried military messages about French power in its engineering. The garden of Versailles had magnificent waterworks, complex terracing, and large bronze statues—all technically difficult engineering used for building fortresses. Terracing was the most important form of military engineering in this period of siege warfare, where fortresses were built with complex systems of raised battlements and deep ditches to arrest invaders. The main terrace behind the chateau at Versailles not only had battlement-style walls, but also contained grand cast bronze statues. These were signed not by the artists who designed them, but the men of the arsenal who cast them. They were symbols of the French ability to cast large metal forms, such as the cannon used by the French army (Mukerji 1997; Goldstein 2008).
Western gardens as material culture of power

The garden at Versailles was not unique, but rather part of a turn to gardening and landscape management that developed in the period when territorial engineering was gaining importance in politics. The great gardens of Italy were developed in the period when Renaissance city-states began to make use of the engineering sophistication of the period to improve their economic or strategic situation (Tomasi 1983; Woodward 1996; Mukerji 2002a). Canals were cut through the plains of Lombardy, rivers were 'improved' with locks, and swamps drained for agriculture. It was in this context that members of great families in Italy commissioned gardens with technological marvels (Belidor 1753; Thacker 1979; Hazlehust 1966; Mariage 1990; Béné and Harris 2001; Conan 2002).

The formal gardens of France were in part derived from Italian precedents, and similarly, expressed engineered power. With their refined artificiality, both Italian and French gardens emphasized human intervention in the natural world, and the power of engineering. Both types of gardens were organized geometrically, and flowerbeds were set out formally to express the orderliness of nature, as it was becoming known to science. Like the heavens, these earthly paradises followed fundamental mathematical laws, and natural orderliness was associated with intelligent social domination. But in France the royal gardens were public, and stood for France rather than a particular family. And the gardens had more elaborate engineering, demonstrating the efficacy and tools of territorial governance (Belidor 1753; Hazlehust 1966; Thacker 1979; Mariage 1990; Béné and Harris 2001; Conan 2002).

English landscape gardens with their rolling lawns and naturalized landscapes eschewed formality, but embodied many of the same social themes. Beautiful English gardens were also 'improved', but not by formal means. They were representations of a poetical, idyllic nature, nature restored not to its underlying mathematical order but its perfect naturalness. These landscape gardens, like their Italian predecessors, gained significance as markers of high rank, but the new eighteenth-century leisure class showed its importance with leisure land (Bermingham 1986; Hunt and Willis 1988; Laird 1990). Glasshouses were the most important area of technological innovation for these gardens both for practical and political reasons (Hix 1974). By helping British gardeners to be good stewards of tender plants from colonial areas, they legitimated colonial domination at the same time that they served botanical and horticultural learning. The controls for heat and humidity in glasshouses were refined to provide adequate shelter for sensitive plants, creating microclimates that often were associated with the geographical sources of plants. As the colonies grew and trade in plants expanded, so did the glasshouses. They became giant glass and steel structures almost reaching the scale of railroad stations, creating worlds unto themselves, and places for people in England to 'travel' to the tropics (Liger d'Auxerre 1706; Bradley 1720; Hix 1974; Bermingham 1986; Hunt 2002) (Figure 24.4).

Even this brief sketch of the history of Western gardens helps show how gardens emerged as an important genre of material culture in Europe. In each case, the gardens were emblems of power, but more than that, too. They not only symbolized but experimented with relationships between Western societies and the natural world.
It is comforting to study material culture like a silver spoon because it can seem to be wholly a product of human design. But gardens never hold that illusion—at least for those who do the gardening. Weather affects gardens independently of people, freezing beloved specimens this year, killing others through drought the next. The landscape, then, reveals the centrality of nature to human communities, the desire for government of things, the cultural dreams that shape the countryside, the forms of power exercised over it, the knowledge of nature derived from activity on the earth, and the limits of the environmental controls that people invent.

By looking more closely at the cultural formation of landscapes in France, we can see more precisely, how these general processes have worked out on the ground. France had a geographical location and peculiarities of landscape that influenced its cultural development. At the same time, the accretion of built environments there also installed into the countryside memories, intellectual approaches to land, symbolic forms, and material techniques that provided continuities in both the landscape and culture in France over time.

**LANDSCAPES AND MATERIAL CULTURE STUDIES: BASIC SIMILARITIES**

Studies of material culture generally focus on both the meaning and materiality of things, and landscape studies are no exception. Just as it is not unusual to hear that the vital significance of a chair, for example, does not lie in the wood or plastic used to build it, but rather in our understanding of it as a place to sit, read, write, eat dinner, or play with children, so we hear, too, that gardens are not just collections of trees, shrubs, flowers, and water, but embodiments of poetry and philosophical commitments. Similarly, cities are arrangements of buildings and spaces with histories and purposes, shaped around ideas and ideals of urban design.

Still, a chair is not the same if it is called a throne or a park bench, and it matters whether it is made of granite or from wood from an endangered tree. Things designed by human hands communicate, but like any form of communication, the medium matters. It may not be the message, *per se*, but it makes a difference. The chair—understood through its materials—has significance not only to those who use it, but also to the people who quarry the stone or cut timber in the rain forests of Brazil. Both those who sit on the chair/bench and those who provide raw materials for it are connected culturally by those who fashion chairs or design the parks that need benches. Networks of people are (at least in part) linked through things—including landscapes. As we fashion, use, view, trade, and move material objects, we communicate. Objects embody memories and possibilities for social life. The materiality of social life matters in complex ways, and landscapes help us see it (Appadurai 1986a; Miller *et al.* 1996; Latour and Weibel 2002, 2005).

**HOPES AND AMBITIONS**

As much as pragmatic considerations may drive people to farm or garden, and devise ways to store the products they grow, desire also plays a part in uses of land. There are powerful utopian cultural threads in the Western world that animate both urbanization and gardening, and have been integral to the formation of modern built environments.

Krzysztof Pawłowski (2003) has described one tradition of material utopianism in the south-west of France. Round enclosures were built there from the first to the tenth century for the collective storage of farm products. These Pawłowski named *circulades* Languedociennes. Originally erected around the rich valleys of the Aude and Hérault Rivers, *circulades* were not narrow towers like silos, but wider and more open spaces—more the size of a plaza—surrounded by a wall with storage space inside. These were not human habitations, but in times of trouble, peasants would join their goods and seek safety behind the defences (Figure 24.6).

The river valleys where the *circulades* were erected were full of good farmland and agricultural goods. During the Roman Empire, this was the heart of the Narbonnaise, a thriving centre of ancient Gaul rich in population, goods, and structures from arenas, bridges, roads, and canals to aqueducts and harbours. The empire fell, but the farming remained vibrant so pirates came to the area expecting to find something to steal. There were no physical barriers from the Mediterranean along these rivers, so raiding was easy (Pawłowski 2003). These valleys also became the sites of an early and major pilgrimage route, connecting the Mediterranean to
Toulouse and the roads to Campestella on the Atlantic Coast of northern Spain. Bandits followed pilgrims into the area, and added to the unusually high flow of traffic through this region that made the farms here both relatively rich and more vulnerable to plunder.

The *circulades* constituted built environments to control the losses of peasants farming the region. They also were designed as perfectly measured circles—important Christian symbols. It would have been easier to make them square or rectangular, so the choice of form was significant. The circle represented perfection, so it was used extensively in Celtic books of the gospel, like the Books of Darrow and Kells, to identify the sacred. The circle was also repeated in medieval maps, where it described Creation as a pure form. To Christians of south-western France at the end of the Roman Empire, putting the gifts of creation (the harvests of their rich valleys) into a circular walled structure would have made sense on multiple levels. The *circulade* was an Eden for goods given to them by God. People lived *outside* this perfect world, too, in the appropriate place for descendants of Adam and Eve. The *circulades* and their uses enacted sacred truths by giving the landscape its form. They embedded utopian hopes into an engineered place (Figure 24.6).

Eventually, Pawlowski tells us, these structures became sites of habitation. Families decided to stay in them even after threats subsided, perhaps attracted by the conviviality of the settlements. The result was a set of towns with a distinctive form, addressing the problems of living in that particular landscape and protecting it symbolically as well as physically with round walls (Pawlowski 2003).

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**Moral reform**

Another moral constellation became even more important to landscapes in France from the turn of the seventeenth century. It was called *mesnagement* gardening, and
was a form of land management designed to restore nature to the perfection of Creation. This philosophy of land reform started to develop during the wane of religion, when towns were multiply sieged, and structures and infrastructures destroyed, leaving them in need of reconstruction (Mukerji 2002c).

Hopes for rebuilding the countryside echoed biblical dreams of restoring Eden—returning the landscape to the perfection of Creation. Good stewardship could bring both prosperity and calm after a period of warfare and poverty. This conception of governance also suited humanist scholars. One of them, the publisher Charles Estienne, wrote one of the early menagagement books, L’Agriculture et La Maison Rustique (Estienne 1606). He argued that those willing to approach agriculture with a studious attitude and purposeful discipline could produce the abundance that had sustained the civilizations of the ancients and was implicit in the first act of Creation.

The Huguenot naturalist, ceramicist, and garden writer of the late sixteenth century, Bernard Palissy, connected rational land use practices with moral self-improvement and the exercise of dominion. Working on the land was a way to make the earth more abundant and a spiritual exercise in itself (Palissy 1531, 1588; Palissy and La Roque 1557). Soul and soil were fundamentally linked.

During the reign of Henri IV, Olivier de Serres not only elaborated land management techniques, but transformed menagagement ideas into a more overt political philosophy. He argued that rational estate development implied making the best use of the existing natural tendencies of a property by deciding through reason and surveys where to plant trees, cultivate gardens, lay roads, and set up mills. Serres described, in other words, ways of constructing a domain to improve the abundance and value of estate lands, and generalized the principle of good governance to the political administration (Serres 1600; Serres and Goffe 1571).

Religious utopianism and belief in human ability and duty to restore nature to a more edenic form, then, gave land improvement a particular Christian significance in Western societies based on the linked ideas of stewardship and dominion. Taming wild nature was a spiritual duty and a utopian goal that was required of princes as well as gentlemen and their labourers.

**Natural Knowledge**

The importance of natural knowledge to French landscapes was illustrated in the gardening books written by these authors. They developed detailed accounts of how to improve soil, bring water to a home or garden, lay out roads, sow seeds, protect melons from frost, and store grain. Drawing on Dutch sources as well as their own experiments in horticulture to explain how to do it, they emphasized the value of growing some of the new species of plants that just in this period were being imported into Europe (Serres 1600; Groen 1669).

The role of knowledge in land management also had a spiritual dimension: working the earth was a way to reveal its secrets, and know the Creator who made it. In stewardship terms, studying the earth was a sacred act, a bond with the Creator. Successful efforts to improve the earth revealed truth, demonstrating an understanding of God’s Works. This was possible because God had made men in His image, capable of knowing His design. So, seeking natural knowledge was a spiritual, practical, and intellectual activity (Serres 1600; Palissy 1531).

While some of the knowledge of botany and horticulture affecting French landscapes was recorded in books and used by learned readers to improve their estates, other natural knowledge used in negotiating relations between communities and countryside in the sixteenth and seventeenth centuries was tacit knowledge or vernacular knowledge. Because they worked the land, many peasants developed deep local knowledge of the worlds they lived in. They may not have had the vocabulary to give authority to their understandings, but they still developed conceptions of topography and hydrology, for example, that were locally more sophisticated than formal knowledge of these fields.

Peasant knowledge of the continental divide in Languedoc, for example, was quite complex. Both structures and stories marked the line between watersheds in terms of the movement of water and wind long before the divide was located on maps with geographical measures. For example, the seuil de Besançoins by Graissens and the seuil de Naurozau were both known points de partage or places where the waters parted. When it rained at Graissens, people said water flowed in both directions. At Naurozau, the same phenomenon was described in a local legend. The spot was marked with a pile of boulders that, according to myth, had been brought up from the underworld by giants who were doing an errand for the devil. As evil henchmen often were, these giants were clumsy. Somehow, they lost hold of the boulders, and in a fright, dropped them in a pile. Where these evil-saturated stones landed, water fell in both directions. This was the seuil de Naurozau (Mukerji 2002b).

On the Lauragais ridge that rose up from Naurozau, the winds were strong, so windmills dotted the landscape, marking the divide. No geographer was needed here to locate the continental divide by measuring elevations. The wind indicated where the physical impediments were fewest between eastern and western Languedoc, and peasants made note of it when placing their windmills (Figure 24.7).

Surprisingly, the divide was also marked in a spiritual way with Virgin shrines, or small statues of the Virgin over church doors. Apparently, the Virgin had been venerated on this ridge for centuries because the plague had stopped in these hills—a miracle that was attributed to the sympathetic Virgin. Presumably, the plague, carried by rats and notoriously spread in boats, did not cross the divide that
Fig. 24.7 Windmill in Lauragais, France (photo: C. Mukerji).

split watersheds. Plague and miracles as well as windmills, then, marked and characterized the geography of the region, producing a landscape that was deeply cultural and a social life attentive to geographical variations.

**Horticultural Knowledge and Material Technique**

The turn toward land management and engineering in early modern France was partly a result of the new interest in ancient Rome. Although histories of the Renaissance usually point to the importance of texts to the revival of the classics, ruins from Rome were numerous and widespread in southern France, and held fascination for humanists who wanted to improve the present using the wisdom of the past. The famous humanist scholar from Aix-en-Provence, Peiresc, was best known for his exquisite scholarship about ancient texts and extensive correspondence with other humanists, but he also was an avid amateur archaeologist of local Roman ruins. He sketched famous places like the Pont du Gard, where a three-tiered aqueduct crossed a deep river valley, and some not-so-famous ones at Fréjus where the disbanded soldiers of Caesar’s army in Gaul had built their own aqueduct and town. His notebook of sketches added to his knowledge of Roman history and culture. The landscape was for him and other humanists a ‘memory palace’, containing evidence of classical abilities (P. N. Miller 2000).

Classical ideas about landscape were also put into print in early modern Europe. Authors from the late Empire, many of them of high rank, wrote treatises about estate management and the logistics of farming, construction, gardening, and winemaking that served as models for the later management literature (Long 2001). These authors not only described how to manage a farm, but also how to stabilize the goods it produced, dedicating rooms or outbuildings on their estates to do it. Foodstuffs that would spoil naturally were processed to maintain their nutritional value, and stored in special environments to sustain their usefulness through the winter. Columella even described the proper modes of preparing the floors and walls of a storeroom:

As to the part [of the villa] devoted to the storage of produce...[rooms] on the ground floor may take care of liquid products for the market, such as oil and wine, while dry products, such as grain, hay, leaves, chaff, and other fodder, should be stored in the bins. [The granaries...should be reached by ladder and should receive ventilation through small openings on the north side, for that exposure is the coolest and the least humid...[The storehouse should have] a vaulted ceiling, and [all] its earthen floor, before it is covered over, dug up and soaked with fresh and unsalted loes of oil and packed down with rammers...[It should be] overlaid...with a pavement of tiles...and all the joints of the walls and floor built up with a layering of tile, for usually when buildings develop cracks in such places they afford holes and hiding places for underground animals.

_Columella_ (1946: 69, 71)

Using estate lands in an informed way was both an intellectual activity and an act of power by powerful men. Domination depended on material management of the landscape, and this remained the case in Western gardens from the Renaissance.

The early plant trade in Europe provided another stimulus for gardening experiments. New materials were imported from afar, addressing and furthering interest in botany, horticulture, pharmacology, and gardening. The importation of tender species necessitated the design of new built environments to protect rare and vulnerable plant materials. Although seeds and bulbs were relatively stable commodities, imported plants posed massive problems of transport and warehousing.

Market gardeners, plant collectors, and nurserymen alike in the early modern period experimented with microclimates to raise seedlings and bulbs. Sometimes they simply covered garden beds with cloth and lath structures to protect delicate, tender seedlings outdoors. They also made cold frames, glass lanterns, and hot houses, experimenting with different types of ‘housing’ for plants to force vegetables and fruits to grow out of season, or to allow foreign plants to survive on
European soil. The result was a model of governance in the garden with microclimates and specialized housing for plants (Groot 1669; Hyde 2005; Liger d’Auxerre 1706; van Oosten 1703; de la Quintinie 1692; Stearn 1961).

Gentlemen collectors also often sought out exotics, and became particularly concerned about acclimatizing and propagating new plants. They had orangeries to fill with tender trees, and experimented with hothouses and cold frames. Collectors had the money for construction and land for building microclimates. So they experimented with sunken gardens, surrounding a planting area with stone retaining walls that functioned as solar collectors. Some covered their beds in sunken gardens with lath and fabric to impede pests and retain heat. Most used cloth rather than glass (except at Versailles) because the latter was too expensive and rare for many nurserymen, market gardeners and individual collectors (Groot 1669; Quintinie 1692; Liger d’Auxerre 1706; van Oosten 1703; Stearn 1961; Hyde 2005).

With these inventions, gardens and estates had new structures to use for taming wild nature and exercising dominion. They had ways to control pests, ways to force plants in the spring, ways to disperse or collect heat, and ways to create built environments more favourable to their desires.

**TERRITORIAL GOVERNANCE**

The result of all this moral, social, and material experimentation in the countryside was a distinct form of land management, a way to rule over the earth to serve human ends. During the seventeenth and eighteenth centuries, then, French royal gardens drew on these traditions, making landscapes crucial elements of French political culture just as state territoriality became the goal of government.

While fortresses were constructed around the perimeter of France and forests were being surveyed for reforestation, formal gardens were laid out at Versailles and other royal residences as symbols of territorial domination and exemplars of orderly land management. They demonstrated and experimented with the French capacity to control natural resources and use them for advantage. In this context, the collection and display of rare and exotic plants took on strategic significance. Colonial botany became embroiled in state politics, too, as finding exotic species, learning their uses, collecting their various names, sending them to France, displaying them in botanical gardens, and comparing them systematically constituted practices of power as well as of natural history (Paskvan 1971; Mukerji 2005).

Imported plants had a small but important role in the military articulation of state boundaries as well. Trees were needed for fortress construction and shipbuilding, so they were essential for defending state borders. Need for timber was the impetus for forest reform, and why importations of new species of trees and the development of techniques for transferring large specimens into French gardens became exercises in military management as well as horticulture. The botanist Pierre Belon brought plane trees into France, and Jacques Cornuti sent tree specimens from Canada to the Jardin du Roi that he thought might be useful for the reforestation of France (Cornuti 1635; Paskvan 1971).

These traditions of land use provided material techniques and moral rationales for the park at Versailles, giving the grand park enormous cultural power and political significance. Promenades in the gardens became important to the king because they were effective diplomatic vehicles, displaying his power as a wonder to behold. He wrote the itineraries, choreographies of experience, defining where the visitors should go, where they should look, how they should turn and walk, and what they should see (Thacker 1972). The garden was meant to impress visitors as much as the coliseum in Rome or the Pont-du-Gard arches, demonstrating a superhuman power over the earth.

The gardens also made the valley behind the chateau at Versailles aesthetically French. The gardens resembled the interior of the house, marking the landscape with political signs and defining it as the material culture of the state. The garden beds were made to look like oriental carpets, and the cloths worn by courtiers were embroidered with parterre designs. The land of France and French nobles were aesthetically aligned through the garden, and met there in divertissements orchestrated by the king.

The fountains of Versailles also helped to convey the spiritual legitimacy of the regime’s material order. Most had circular reflecting pools that brought images of the heavens down to the earth. They contrasted with Italian fountains that tended to have a pyramid of nested reservoirs that drew the eyes of visitors from the lowest reservoir up to smaller ones and then the heavens. In contrast, the fountains at Versailles mainly sat on the earth, using circular forms to frame images of the sky as icons of perfection (Mukerji 1997) (Figure 24.8).

The statues in the centre of these pools also spoke to the peace and abundance brought to earth in this reign. For example, the fountains of the seasons depicted spring laden with flowers, autumn was full of wheat, and winter rich with shellfish. These were the fruits of proper land and resource management. They spoke to the material efficacy of the regime and legitimated the state’s intervention into the French countryside. They also mirrored in art the natural abundance of the garden beds and forest rooms that were carefully kept that way by royal gardeners.

Landscape in this context was both a form of material culture and a place of power that was modified to produce a more powerful regime. These gardens showcased the traditions of knowledge, cultural purposes, and political requirements of the period, embodying the human purposes and natural processes of the world beyond. ‘Improved’ landscapes on both sides of the garden walls showed the efficacy of period methods of material governance.
The example of French gardens helps to make the point that the landscape itself was enrolled into social relations, and made a powerful form of material culture. It did not just express or symbolize power, but demonstrated the techniques of making the material serve social life. The garden of Versailles was cultivated with the techniques used on country farms; it was a genealogical inheritor of the management tradition of material governance, using land more productively to serve God and men. The garden of Versailles was a land of leisure, so the earth did not need to grow food, but France was presented in statuary as a golden land of abundance to legitimize the king with symbols of his good stewardship.

**Material order**

Social regimes are material and political orders—built on landscapes as well as social hierarchies. The countryside they incorporate provides evidence of the technical, cultural, and political stakes and tools that define regimes (and their weaknesses). The landscape gardens in France dramatized and illustrated a material order, legitimating human domination over nature with ideas of human dominion over the earth and its creatures. Dominion, of course, was never realized on the ground, yet its pursuit and representations were made enduring techniques of power.

The gardens of Versailles were not only demonstrations of political might, but also repositories of historically cultivated ways of living in the natural world. In this, the royal park was like most forms of material culture. But it was a laboratory, too, for experiments in using nature to serve a socio-political order. It explored as well as demonstrated how to use the earth more productively, or make it politically more effective. Human powers were formalized on the ground under refined and controlled circumstances that could never be fully generalized, but nonetheless became an inspiration in Western culture that has, since that time, served to direct and plague our relations to the natural world.
CHAPTER 25

BUILT OBJECTS

DOUGLAS BAILEY
LESLEY MCFADYEN

INTRODUCTION

This chapter presents two bodies of work, both of which take an interdisciplinary approach to the study of buildings from Neolithic Europe. The first connects archaeology to theories in architectural history, while the second creates links between archaeology and art. Our intention is not an extensive review of Neolithic architectural studies. Instead, we work through four ideas about architecture that we offer as disconnected propositions. There is no easy narrative for this chapter, just as there is none for the living built environment of the past or the present. Our proposal is that archaeologists step away from accepted and comfortable knowledges of architectural form and interpretation.

The aim of this chapter is to work through four case studies from our work on prehistoric European architecture. The case studies illuminate four propositions, which are offered as provocations for further work on architecture in archaeologists but also by anthropologists and other social scientists and humanities scholars whose work engages architecture. If there is a common theme to the chapter then it is dissatisfaction with the ways that archaeologists have responded to the record of the architectural past that they discover. The propositions and case studies are shared efforts not only to disable current thinking about architecture but also to provide examples of more exciting ways that architecture can be engaged.

The chapter begins with an examination of long barrows from Neolithic Britain (from the fourth millennium cal BC), investigates building as practice, and then argues that we will benefit from thinking about such ancient architecture in terms of "quick architecture." The second case study shifts the investigation to eastern Europe and the early Neolithic (6000-5000 cal BC) practice of making and using pit dwellings. The argument redefines these features by focusing attention not on their potential functions (be they economic or ritual) but on the processes of cutting surfaces and intervening into the landscape. The third case study looks again at the British Neolithic record and examines the role that gaps and disjunctions play in the sequences of evidence and phases of activity. The proposal is that interruptions and breaks in sequences have an equal (and perhaps greater) importance to architectural continuities than do more obvious stratigraphic continuities. In the final case study, again from south-eastern Europe, we propose that much traditional archaeological analysis of buildings has been misdirected, having paid greatest attention to microdetails of construction technique and records of activity. The alternative that we argue for is that we step back and try to see buildings as specific objects, particularly in ways similar to those of some Minimalist artists of the 1960s and 1970s who worked through issues of meaning and unintended consequence. Together, these apparently disparate case studies provide an argument for an alternative to the traditional study of architecture by archaeologists, but also by anthropologists and other social scientists.

PROPOSITION 1

Architecture is often seen as the most significant piece of material culture in archaeology and anthropology because it is considered to be grounded in context and rooted to the spot. It is treated as a super artefact: architecture is understood as the social blueprint by which societies organize themselves (Buchli 2003). Plan drawings are often implicitly read as blueprints in archaeology. Architecture in these archaeological accounts is depicted as one thing, as one clear-cut built object. It is drawn and written as a thing that is thought about as an idea, that idea then being translated into material form, that material form then being used.
The contradiction is that excavation often reveals the fact that architectures have several phases of construction and that these cannot be understood in sequential terms.

Neolithic long barrows, building as practice and quick architecture

One of us (Lesley) has focused most of her research on Neolithic long barrow sites in southern England questioning the idea of treating such monuments as a straightforward architectural object—the remains of a building that existed in the Neolithic, and that needs to be explained today. The overall excavation plan of the long barrow at Ascutt-under-Wychwood, Oxfordshire is presented in Figure 25.1. The plan aims to show a Neolithic design process, in which a barrow was constructed in a series of rectangular bays on either side of an axial alignment, as a one-off. The plan depicts the infilling of a structural framework with material from quarries or flanking ditches, and then the subsequent use of the building as a tomb for the dead (Benson and Clegg 1978; Darvill 2004; Benson and Whittle 2007).

Fig. 25.1 Excavation plan of the Ascutt-under-Wychwood long barrow, Oxfordshire (from Benson and Whittle 2007).

The plan conveys a concept of architecture that exists as one object, even when its form should be described and understood to have come about through several phases of activity. The primary phase of barrow construction was in 3780–3700 cal BC. The secondary phase of barrow construction was in 3745–3670 cal BC, but what is important is that the deposition of human remains occurred from the initial phases of construction onwards. The dead were incorporated into a construction site and not a finished tomb; there is no straightforward or sequential story here of construction and then use, contrary to the architectural object portrayed in the plan.

The call is for some critical questions. In the early Neolithic, did people build a hardbound architectural object with clear-cut conceptual parameters in mind, which were based on the presumptions of a trajectory from design (with its beginnings in thought) to an end product (finishing in a physical object)? Did they understand architecture as some thing that was made only once, that was built for a reason, and that it was used or occupied for that purpose (Rendell, 1999, has critiqued this simple and straightforward story of the built world within architectural history)? This object-led view ignores the fact that it is difficult to differentiate among kinds of practice at long barrow sites (for example, between the ways in which evidence for occupation and barrow construction are intertwined) and that it is difficult to pinpoint when the construction of a long barrow starts. Construction events extended over several generations. We might therefore think of the dead being incorporated not into finished buildings but into building sites. Thus, the point that archaeologists continue to recognize as the end product in these site histories should be best understood as the point at which they were abandoned, when they were no longer effective as a medium (McFadyen 2007b).

Our intention here is to show how a focus on practices-of-making engages the material and historical conditions of early Neolithic life in a better way, how such a focus wrestles with the variability of the evidence (and remains open to changes in a site's ongoing history), and how this focus gives architecture its context.

Architectural historians such as Diane Agrest (1991), Beatriz Colomina (1988), Jonathan Hill (1998, 2003), and Jane Rendell (1998) have sought to reveal the key elements and structure (and weaknesses) of the traditional story of architecture by presenting a more complex, changing, and non-linear account of architecture as practice. For example, Hill (1998) has written of the use of a building as a creative activity and as a form of construction itself. Such work questions the conventional focus in architectural history upon the actions of architects. It questions the idea that only architects make buildings, and it demonstrates how an object does not become any one end product or take any final form.

This thinking in architectural history holds significant potential to inform the interpretation of prehistoric monuments. It demonstrates how accounts of architecture might begin after a building was built, exploring the ways in which structures are occupied (Hill 2003). What is important about these writings is their emphasis on architectures as spaces that are always in the process of being
made. For example, Jane Rendell (1998) has described how the top floor of a terraced house in Clapham, London was dramatically changed through home improvement plans and Do-It-Yourself projects. This work unbalances our understanding of the one-sided nature of architecture–user relations, which assume that buildings are used only in one preconceived way, as if architects freeze their original building plans. In addition, this work describes a more flexible practice of building that does not have any single fixed point of inspiration. Rendell describes how her partner undid the compartmental ordering of the house's rooms, each of which had been assigned a distinct activity such as sleeping, cooking, or having a bath.

The bath sat in the centre of the roof space. The roof space was bedroom, workroom and living room, and many other places all at once. From the bath you could look up into the sky, and down into the toilet, or directly onto the stove, beyond it to those eating at the table, and further through the window into the street.

Rendell (1998: 240)

In such accounts, the conventional story of order is undone and the knowledge of architecture is understood through a different kind of assembly, where building work is ongoing and open to the rhythms and routines of occupation. The distinctive thing about this work, and perhaps its most useful link to archaeology, is that it focuses upon material things, rather than architects' ideas.

The focus upon the ongoing nature of building practice in such architectural studies is significant for archaeologists seeking to account for those parts of the evidence that, on the face of things, simply do not make logical sense. Parts of the construction process at long barrow sites were very complex—more so than was necessary for structural soundness. This kind of practice can be described as "quick architecture" (McFadyen 2006, 2007a, 2007b). This means that if you write about the physical practice of building, and think about the speed of different building techniques, then you can engage with what this does to people as they build.

At Ascott-under-Wychwood, high up in the build of the upcast mound of the barrow (i.e. not set in the ground but used in the upper levels of the unstable matrix of moulded material), people started to use large, thin stone slabs, turned up on to their sides. For example, between what the excavation report provisionally termed Bays 9 and 13 (Benson and Whittle 2007: 97–100), the axial alignment was made of a double row of stones (slabs that were 0.40 m long, 0.03 m wide and 0.50 m high) (see context 60 in Figure 25.2). 'Bays' are traditionally considered to be stone walls that supply the structural framework in barrow building, but what we hope to show is that these 'bays' do not stand up and that they are dependent on the materials that are dumped on either side of the stone. These slabs were not set in another feature, and were not fixed steadfast, but were propped up, one after the other, and then almost immediately pinned on either side by dumps of yellow sand with small limestone rubble to the north (context 17) and larger limestone rubble in a sandy matrix to the south (context 40). Upon excavation, the sand and rubble were found to have been directly pressed up against the stones, and from the
The contours of these dumps of material (the shape that these held in the section), it was possible to deduce that they had been pushed against the stonework on either side, concurrently from both directions.

This technique of setting pieces of stone on edge did not create a partition or structural element from which to build out from; instead, the stones would have been precarious and unstable and thus needing to be placed, propped, and then held in place with the rapid deposition of dumps of material on either side (Figure 25.2). Many of the pieces of stone were set against wooden panels, but the panels were not tied to wooden stakes that cut into the earth. Wood had not been used as shoring or scaffolding in this part of the build; instead, wood was as precariously pitched, as was the stone. Both stone and wood elements would have required dumps of material on either side of them to hold them in place. Setting stones and wood on edge created the need for future work: if that need went unsatisfied then the whole project would collapse.

We can imagine the intense and entwined movements of people and things, propping each other up: some people holding the stonework in place, others packing sand and rubble around them, smearing the bodies of those acting as props. Before the sand and rubble could act in a stable way on the build (and thus leading to materials standing on their own), people and materials were caught up in the matrix of construction.

This way of working had its own momentum. People could not stop and put things down. People would have had to prop up stonework with their bodies and hands, or would have had to jam wooden panels in place with their bodies while other materials were dumped against those junctions. Momentarily, people became labour and scaffolding at the same time. Material connections between people and things became evident when people were involved in this kind of building practice. While constructing and building in this way, people were acutely aware of how they were making their world.

To build in such a way, by setting materials on edge, was to employ a building technique that changed matter. Stone was no longer solid and structurally independent; instead, it became precarious in its placement and dependent on other materials and people’s help. These building techniques also affected the builder; they made people acutely aware of themselves and their relations with other people and other things. Such practices of making created very demanding and very direct articulations of things and people who became caught up in each other.

By understanding Neolithic architecture as an ongoing practice, rather than a completed object that needs to be explained, we can highlight the dynamic ways in which materials are assembled together and the temporality of that practice that are of importance. We can understand archaeological materials as a medium of action in the past, rather than as objects or patterns that are set in a record, and to focus upon practices of building rather than ascribing a fixed set of traits to a built object.

This approach brings us close to approaches within material culture studies that focus upon ‘thinking through things’, describing the close relationships between things and concepts (Elmore et al. 2007b). A focus upon Neolithic practice does not just yield new and different understandings of architecture; it suggests new dimensions to thinking about people as they build, and about the construction of their identities.

**Proposition 2**

In the archaeological study of prehistoric architecture, a routine differentiation distinguishes durable, substantial structures, built on top of the land surface from short-term, small, dwellings that are constructed by digging a pit into the ground. Interpretations of group mobility, economy, and social complexity follow this distinction. The proposal made here is that archaeologists could refine (perhaps even transform) their understandings of pit houses and of the place of pit houses in prehistoric communities if they thought about pits not in terms of function or economy, but in terms of the particular processes involved in pit digging (i.e. of cutting and intervening in surfaces, and of negative space), especially as these processes were engaged in the late 1960s by some Land Artists.

**Neolithic pits in south-eastern Europe**

One of the most secure components in the classic definition of the Neolithic in south-eastern Europe is the establishment of a sedentary life-style based on the adaptation of walled built environments, from 6500 cal BC in northern Greece and somewhat later to the north in temperate eastern Europe. This is a vital checklist item for the culture-historian and the generalizing prehistorian: it is also a source of much (productive and welcome) thinking about the social and political significances of buildings, houses, and villages in early agricultural communities (see overviews by Tringham 1991a, 1991b, 1994, 1995; Stevanović 1997; Bailey 2000, 2005a). Overshadowed by the more substantial studies that reconstruct the architectural materials and methods of Neolithic houses and villages are the investigations of pit houses and pit dwellings. Pit houses are most often read as evidence for emerging sedentism and a shift from mobility (Figure 25.3). There has been little critical attention directed at these pit features. One of us (Doug) naively assumed in his earlier writings (Bailey 1999, 2000) that pit features represented pit houses.
existing reconstructions (such as those popular in the study of the Neolithic), which focus on economy or degrees of mobility, represent only one possible understanding of this record of activity.

What if the pit dwellings' primary, secondary, tertiary, or later uses and purposes are not their only, nor even their primary, significant dimension? Undoubtedly, these pit features had primary functions—as rubbish pits, houses, shelters, ritual depositories, building material sources—and the people who dug out these pits, placed objects into them, filled them in, and covered them over did so with very particular intentions. Nevertheless, we could understand pit dwellings/structures as interventions (the pit) into surfaces (the ground). The consequence would be that we would need to examine the act of digging as an act of intervention into the ground in terms of the consequences of adjusting ground surface and of creating negative space. This focus would raise different questions from those of conventional archaeological studies: not 'How should we describe the material assemblages that a pit contains?' or 'What can these assemblages tell us about ancient activities?', but 'What are the unintended consequences for Neolithic people of digging, using, experiencing, filling, forgetting (or remembering) such features?' The shift in approach would be from a search for a social meaning to a consideration of the affordance that comes from digging-as-intervention.

Archaeological questions usually seek information about the number of flint scrapers in a pit, or about the type of economy, or the degree of community mobility, or the ratio of wild cattle to domestic pig bone. Such questions seek patterns in evidence that can be read as proxies for patterns of prehistoric behaviour. In this tradition, standard (and entirely valid) questions guide professional and rigorous research strategies: How can the material contained in each pit help us to determine community mobility/sedentism? What is the lifetime of a pit feature (a year, a season, a month, a week, a day, an afternoon)? Did people 'live' here in one place for one season, for two, or for many? Were these pits used at the same time (and do they thus represent a set of contemporary activities that were carried out by a sizeable group of people)? Does each pit and its contents represent a single set of spatially and socially restricted activities, and thus is each pit chronologically distinct from all others? Similar types of questions seek to understand patterns of deposition and taphonomy: Are there any stable relationships between pit contents and primary actions? Is the record-as-excavated nothing more than a jumble of secondary and tertiary (and beyond) traces of intentional activities or are they the unintended consequences of disconnected events? All of these questions are legitimate and important and need to be asked and answered. Though they are the accepted basis of the archaeological project, they follow a traditional relational logic and seek the answers that make us the most comfortable. An alternative is to set aside those questions, and in doing so, to open up fresh ground in which we can tackle record and behaviour.
Double negative

In winter 1969–1970, Michael Heizer and a team of workers used heavy construction core, dynamite, backhoes, and bulldozers to excavate a quarter of a million tons of rock and sand from the edge of Virgin Mesa near Overton in the state of Nevada in the American Southwest (Figure 25.4). The trench that they dug was 300 m long, 10 m wide, and 15 m deep. Running along the edge of the mesa, it cut a long rectangle of empty space across a small canyon. The resulting intervention into the landscape, Double Negative, was one of many works by Heizer (and others) that art historians now group under the category Land Art (Heizer 1991; cf. Crane 1982; Brown 1984; Whitney 1990; Celant 1997). Double Negative was created out in the open, away from the built environment, far from cities and populations, and specifically beyond the reach of museums, galleries, collectors, and auction houses, as was most Land Art (Andrew Dickinson White Museum of Art 1970; Kastner and Wallis 1998; Beardsley 2006). Works such as Heizer’s Double Negative stimulate us to think about two issues that are critical to the archaeology of pit features and pit dwellings: the human physical engagement with ground and its surface, and the paradoxes of creating negative space.

In Double Negative, as in much of his work, Michael Heizer was drawn to the ground and to its surface. Heizer’s medium is the earth and he works this medium as if it were a membrane (Celant 1997: xvii). As Heizer himself put it, ‘My personal associations with dirt are very real. I really like it, I really like to lie in the dirt’ (Tomkins 1972: 48). Heizer is the son of the late Robert Heizer, an archaeologist who taught at University of California at Berkeley, but there are no clear references to the archaeological in Double Negative, although in other works, such as Elevated, Surface, Depressed and Displaced/Replaced Mass, Michael Heizer played with the ideas and consequences of moving stone from its source to distant places of consumption (Dietz 1984: 77).

This active relationship with ground is the link between Heizer and other provocative Land Artists (e.g. Richard Long, Dennis Oppenheim, Robert Smithson, Robert Morris, William Bennett) as well as other people who were wrestling from the late 1960s to the present with similar concepts, such as surface and perforation (e.g. Gordon Matta-Clark and his building dissections). As Germano Celant advises, once we have thought through these works by Heizer and his contemporaries, we recognize the inadequacies (or the inaccuracies) of speaking about human behavior in the context of landscapes (Celant 1997: xxiv), and we meet a freshness of perspective for thinking about ground. In thinking with Land Art, we can come to recognize the limitations of restricting our archaeological discussions to terms of function, economy, and sedentism.

Through the transformation of the ground surface, Land Art manipulates and releases our perspectives on ground and thus on one of the primary dimensions along which we measure our existence. Ground is that relationship providing the most authoritative sense of who we are, where we are, and what is our position relative to others (Kastner and Wallis 1998: 12–13). In creating new elevations, forms, and locations, works of Land Art, such as Double Negative, change the potential, weight, impact, and presence of existing landforms. As Kastner (1998) argues, this process adjusts one’s perceptions of the panorama, where panorama is taken in its traditional sense (i.e. the visual) but also with respect to other fields (the political, social, cosmological, temporal, and corporal). Adjustment of field (of the viewed and the viewer) relative to panorama has significant effects on people (doing, digging, looking, touching, inhuming, and exhuming). A good example is Maya Lin’s Vietnam Veteran’s Memorial on the Mall in Washington, DC. In designing the monument, Lin specifically played with ideas about appropriate relationships between people and ground. By placing the monument below ground surface, Lin achieved several things. First, she adhered to the design brief that the monument provides a refuge from the noise and distractions (of traffic, tourists, and city) of the National Mall. Secondly, she intensified the intimacy of the encounter of mourner and monument (and thus of the mourned). Thirdly, and unintentionally (one assumes), she stimulated a debate/outrcry from those who implicitly assigned negative and dishonourable values with below-ground positions.

In this way we begin to think about the parameters of visual (and auditory, olfactory) sensory reference of person to ground, and particularly of the position of spectator/listener/smeller relative to panorama: to raise/lower the ground or to
raise/lower the spectator is to manipulate and adjust relationships. Critical issues emerge: of distinguishing a view from above (a totalizing panoramic gaze, a sense of looking at something) from a view from below or from ground level (an invitation to participation and to community) (Kastner and Wallis 1998: 90). These are sensory relationships of power and hierarchy. The physical adjustment of the characters and the conditions of these relationships has important, often unintentional, consequences. What are the unintended consequences of new perspective(s) and panoramas? Do consequences unbalance existing relationships? Is this unbalancing abrupt or is it subtle? Does the creation of new panoramas undermine the authority of a mono-perspectival understanding of being? Are alternative, potentially conflicting perspectives thus brought into play? By manipulating, altering, perforating, and transforming ground surface, works of Land Art, such as Heizer’s Double Negative, cut into the never absent connection of person to his or her environment. In these terms, the affective potential of Land Art is substantial; it transgresses, attacks (Kastner and Wallis 1998: 73), perforates, punctuates, dissects, cuts, refashions, and overturns a fundamental dimension of our being.

By thinking with Land Art, we begin to confront pit dwellings in unusual ways; significance rests in their potential to transform ground and thus to adjust relationships of people, objects, and places. Yes, early Neolithic pit features were used as source pits for building material, as shelters, as storage facilities, and as refuse depositories. As important as these functions were however, the proposal here is that the most significant consequences of digging, using, and filling any of those pits are in terms of their subtle alterations in Neolithic senses of being via the ground.

Relations to ground and adjustments or alterations of panorama and perspective are potent characteristics of Land Art. While with Double Negative Heizer offers an example of these characteristics, he also works with another theme, which is at the core of much Land Art and is of relevance for our attention to Neolithic pit activity: the paradox of creating negative space. By dissecting the ground surface, by subtracting and removing mass, weight, and density, with Double Negative Heizer created a transparent and invisible structure. Heizer defined a space in the ground, which had a power and a force that was disproportionate to its emptiness (Celant 1997: xxvi). Kastner calls Double Negative a monument to displacement, a sculpture that is created not by solid mass but by void. There is nothing there but it is still sculptural (Kastner and Wallis 1998: 29, 54). This sort of work has implications that move well past function and economy; Double Negative engages the metaphysical and mingles with the impossible: the literal impossibility of a double negative (i.e. a positive produced by negation) (Kastner and Wallis 1998: 228). To push these paradoxes even further, Double Negative has been called the ‘presence of an absence that is the absence of presence’ (Taylor 1991: 17). By removing and creating emptiness, Heizer has provided a stimulus to thought in a most unusual and complex manner: something that comes from nothing.

By thinking through Land Art like Heizer’s Double Negative, we are forced to think beyond the usual conclusions and interpretations both of art as cultural product and of pit features as shelter or rubbish site: the former is artistic work that cannot be bought, owned, collected, exhibited, and sold; the latter is a hole into which people dumped the leftover bits of their meals, or defecated/urinated, or placed (with precision) intentionally fractured fine ware vessels. We are forced to consider the potential for the unintentional consequences of pits when we understand them as interventions into life’s essential surfaces.

To move forward in our thinking we need to address the act of digging as a physically intimate collaborative effort, as a physical event, in many ways like the ‘quick architecture’ of long barrows described above, as well as an opportunity (perhaps not otherwise possible) for conversation, shared experience, and argument. We must think about the consequences of inserting a break (the pit) in an otherwise continuous surface (the ground). It is also important for us to consider the potential that such an adjustment and alteration provides for new panoramas: of looking down from ‘old’ ground level on to people and objects resting/standing on a ‘new’ ground, of looking up and out from the former to the latter, or of bringing people together into the (new) shared perspective (located down-and-in or up-and-out). Finally, we will benefit from thinking around the deeper metaphysical levels of manipulating our fundamental physical connection with the world, from thinking through the consequences of altering our literal grounding of bodies to place.

So, how can we understand the Neolithic pit features that we excavate in southeastern Europe? As semi-subterranean dwellings? There is no reason that they could not have served as short-term shelter. As storage or rubbish pits? Quite possibly, though it is just as likely that they served other functions. As pits dug to access materials needed for building, potting, or body painting? Certainly, though this may only relate to a single event within more complex use-lives. However, regardless of the intended functions of these pit features, archaeology is also capable of attending to the unintended consequences of intervening into ground and or creating, and eventually closing, negative space. Thinking in these ways would not produce the comfortable answers that can find easy support in quantifications of pit contents or stratigraphic matrices of depositional units. Among other things, the answers will bring us face-to-face with an unintended reconsideration of the practice of archaeology as a protocol for its own pit digging—the trench, sondage, and excavation unit—and with its own modern justification for intervening into ground and for creating negative space.
PROPOSITION 3

Excavation often shows that prehistoric architectures have several phases of construction and that these cannot be understood in sequential terms. In this proposition, we engage with some of this evidence in order to write about the gaps and disjunctions between phases of activity, and the implications of signs of transformation over time.

Time, practice, and disjuncture

The relationships between time and practice also require examination. In the opening proposition, we discussed the speed of the practice of building and the idea of ‘quick architecture’. But practices do not just make time, they can also interrupt time. The architecture and work of Bernard Tschumi is of particular importance here. In 1982 Tschumi won a competition to construct Parc de la Villette in Paris, one of the Grand Projets initiated by President Mitterrand. Later, in his architectural writing Tschumi described how he approached the competition by seeking to create ‘a structure without centre or hierarchy, a structure that would negate the simplistic assumption of a causal relationship between a programme and the resulting architecture’ (Tschumi 1996: 193). The Parc de la Villette project was not composed of parts in a seamless arrangement, but involved a practice of making in which three autonomous and unpredictable fragments reacted with each other and thus created disjuncture.

It is at this point that we want to lay some groundwork for Proposition 4 (see below) where we suggest that archaeologists have been transfixed by the internal details, the composition, of Neolithic houses. We want to foreshadow this alternative proposition that houses are only of interest when we start to think about them in terms of external relations (i.e. to think of the object’s articulation of space), but here we want to look at the temporality of Neolithic practice. There has been much debate in prehistoric studies about early Neolithic occupation in southern Britain, in particular when dealing with the relatively ephemeral evidence for timber structures. Prehistorians have sought to define the number and location of timber structures on particular sites, variously describing structures as timber halls or as rather less substantial structures of postholes (Darvill and Thomas 1996; Armel 2003). These approaches focus on the structural details (what we call the internal details) of a Neolithic house as a thing that constitutes a particular physical location, and as a thing that is fixed in time in a static contemporaneity. An alternative is to explore the different temporalities that emerge from the longer activity at a site, but understood as a relationship where activities are autonomous and unpredictable fragments that react with each other, rather than as ordered series of event after event.

At Ascott-under-Wychwood, there is evidence for a connection between the occupation of timber structures and the construction of the barrow. The archaeological record shows how timber structures and a midden feature became entwined with the construction of the barrow (McFadyn 2007b: 348–349). There were two timber structures at Ascott-under-Wychwood 3810–3810 cal BC before the barrow construction 3760–3700 cal BC (Figure 25.5), and these were a part of a larger area of occupation, which was indicated by the distribution of worked flint (Benson and Whittle 2007: figure 2.7), characteristic of general ‘domestic’ activity (Cramp et al. 2007: 310). A concentration of cores, knives, scrapers, retouched blades, and burnt pieces was recovered from the midden (Benson and Whittle 2007: figures

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Fig. 25.5 Plan of timber structures at the Ascott-under-Wychwood long barrow, Oxfordshire (after Benson and Whittle 2007).
indicating perhaps a propensity for the pick up of tools during the second half of the fourteenth century cal BC or the thirty-ninth century cal BC. There was a series of hearths, one of which had been cut by a pit. The pit had been backfilled with large parts of young pigs, a large number of burnt flakes, and unburnt sherds of pottery (McFadyen 2007: 350).

The stratigraphical sequence indicates that there was an accumulation of midden material around the timber structures, which seems to have been contemporary with the occupation of these structures. There was then a gap in activity (after the structures had gone out of use), followed by the formation of a large accumulation of midden material over the features. In both phases of midden formation, a large number of flint tools as well as abraded fragments of pottery and animal bone were present. The material was 'more typical of pots which had been broken elsewhere, or which had suffered some further disturbance (perhaps trampling) before being partially collected for deposition' (Barclay and Case 2007: 278) rather than representing the in situ breaking of a vessel. Most of the animal bone was highly abraded, and was recorded as 'rolled' or 'weathered' (Mulville and Grigson 2007: 240). The post-breakage histories of the pottery and animal bone suggest that there may have been other gaps in the occupation of this site.

Bernard Tschumi (1996: 212) has argued that 'event' and 'disjunction' are both a part of architecture. 'In architecture such disjunction implies that at no moment can any part become a synthesis or self-sufficient totality; each part leads to another, and every construction is off-balance, constituted by the traces of another construction.' Tschumi's argument is significant in our interpretation of the archaeological sequence at Ascott-under-Wychwood, which indicates that there was a period of activity, a gap, and then another period of activity. Such gaps were a material record of people who were no longer present. They were a central part of the architectural process: a part of the way in which people built and occupied the site of Ascott-under-Wychwood. It would be wrong to understand the contexts in which these actions took place as simply a series of progressive activities that produced construction events that were separated by gaps.

Time was not marked out simply as a clear succession of events but instead was interrupted by significant gaps and delays that were then followed by practices of making. Early practices generated time-gaps between events in constructions; thus, we need to consider what these conditions might be saying about mobility and how these people went about living their lives. If people were living mobile (rather than sedentary) lives at this time, as Alasdair Whittle (1990) and Joshua Pollard (2005) have argued, then should these various and non-continuous activities be considered as a part of architecture? If disjunction is also a part of that practice, then these kinds of sites always have a disconnection and at elsewhere. The force of action goes out and on in the world; this is how space comes to be distributed. We need to develop an approach to these sites that is created through departure and dispersal (Deleuze and Guattari 1977: 133), as well as one that considers the nested quality of a location and staying put (Ingold 2000a).

Alex Gibson (2003) has argued that the concept of Neolithic settlement should look beyond the evidence for built structures, that we can no longer afford to fix our sights on house plans, and that we must study all evidence for how Neolithic people went about living their lives. One might add to Gibson's argument the observation that the nature of this wider range of evidence is also telling us something about a distributed practice in the Neolithic. What this means is that we are not dealing with the distribution of a series of independent homes, defined in terms of their number and location; these sites have to be understood in the way in which they connect together. For a mobile population, occupation lies in the relationship between sites and not in the sites in themselves. Living in the Neolithic was on a scale that cannot be confined to the level of the site. The temporal gaps and practices described above were also a part of other long barrows and pit sites, as well as the fills of pits at causewayed enclosures.

How did Neolithic people feel about living in this way? Traditionally, prehistorians have argued about what is (or is not) a house by comparing plan upon plan (for example, Darvill and Thomas 1996), and argued that these homes have always been structured around centres. Here a Neolithic house is viewed as a thing that constitutes a particular physical location, and as a thing that is fixed in time in a static contemporaneity. An alternative to this approach is to start to think about sites as fragments of distributed practice, and engage with the reckoned nature of the evidence. At times, people took with them everyday things (e.g. flint nodules, pots, and animals), thus making themselves at home through objects. Within this set of conditions, the location is not fixed but the objects that people live with are. A framework through which to understand this way of living is that of the 'mobile home'. At other times their practices of making involved leaving things behind or not clearing things away (e.g. flint tools, broken pots, and fragments of animal bone, as was the case with the material in the back-filled pit and the midden at Ascott-under-Wychwood). So sometimes life was characterized by the things people did not carry with them: this kind of dynamic generates the possibility of return. In the Neolithic, rather than people understanding house and home as a building in a central place, perhaps people were constantly pulling the inside out. Therefore, at Ascott-under-Wychwood the abandonment both of wooden structures (which would be the focus for a later phase of midden deposition) and of ceramics and animal bone (left to weather on the ground) is of significance. In both cases, the interrupted and non-continuous fragments of activity are parts of the conditions of living a mobile life in the Neolithic. Event and disjunction make the Neolithic home mobile.
PROPOSITION 4

The archaeological study and interpretation of architectural form from the prehistoric past remain central parts of how the distant past is understood and how social organization and structures are reconstructed. Almost without exception, analysis focuses on ever increasingly refined details of architecture, from macroscopic analysis of wall paintings to micromorphological investigations of floor-plastering sequences to chemical description of mortar recipes to DNA analysis of cereal grains persevered in oven remains. The proposal here is to step back from this increasingly tight focus on individual elements of architectural structure and its contents, and, as an alternative, to think about buildings as coherent objects themselves, especially with the intellectual stimulus of particular works of late twentieth-century Minimalist Art.

Neolithic houses in southeastern Europe

Archaeological studies of Neolithic houses in southeastern Europe have avoided two fundamental questions: Why are these buildings similar in appearance (Figure 25.6)? Why do these buildings occur in aggregations? Instead, archaeologists have looked at building and settlement composition, and the material and political interiors, of Neolithic sites. Increasingly fine-grained and minute internal details of Neolithic houses and villages have been traced: we have sought answers in the precise patterns of artefacts, residues, traces, and social contexts.

But what if none of what we have discovered about Neolithic houses matters? Perhaps it is unimportant what happened inside Neolithic houses, how a Neolithic house was built, abandoned, or destroyed, or whether a Neolithic house represents a social unit such as a household? And what if Neolithic building morphology and aggregation are interesting only when we see them as uninteresting? Perhaps Neolithic buildings are of interest only when we step away from the accepted questions and methods that seek compositional interpretation or explanation; Neolithic architecture becomes interesting only when we stop focusing on the building itself and on its internal components; Neolithic buildings are only of interest when we start to think about them in terms of external relations, from the eyes of the spectator?

Primary structures

In spring, 1966, Primary Structures: younger American and British sculpture opened at the Jewish Gallery in New York. The show gathered together work made by a group of artists who shared a common approach to material objects and to space.

Fig. 25.6 Assorted house plans from the late Neolithic of Bulgaria.
and a common philosophical commitment to the abstract, anti-compositional material object (Meyer 2001: 13–30). *Primary Structures* contained seminal Minimalist pieces including important work by Donald Judd, Sol LeWitt, Robert Smithson, Robert Morris, Dan Flavin, among others.

Robert Morris showed two identical, grey, three-dimensional L-shaped forms (Untitled, 2 L-Beams; 1965–1967) (Figure 25.7): extravagantly large objects with arms over two metres long, making the pieces taller than most visitors to the installation. 2 L-Beams was a strangely stimulating piece. Morris had placed the two L-shapes in conflicting positions: the first securely on the floor with its long arm running along the ground and its short arm standing straight up perpendicular to the floor; the outside tip of the right angle of the second pointed upwards, with the ends of the two arms of the L pointing down like legs, supporting the teetering shape with only a small area touching the ground.

Although identical in size, form, and colour, the objects’ different positionings made them appear as different forms: one was solid and stable; the other was balanced precariously, ready to topple. Viewers were faced with a paradox: two objects that were the same but which appeared not to be. The result was a tension between the two pieces (same or different; different or the same) and between the pieces and the gallery visitor (I see the same thing but in different ways). Minimalists were especially successful in creating and positioning identical three-dimensional objects in ways that confronted viewers with apparent contradictions: for Morris’ Ls, the implicit contradiction was, ‘it is the same but it is not the same.’

The Ls stimulated the spectator through the contradiction emerging from the repetition of a right-angled, three-dimensional L-shape, as well as through the objects’ size and positioning: they forced spectators to consider things and places beyond the pieces displayed. Like the pieces of many of his colleagues, Morris’ Ls were environmental: they focused the viewer’s eye not on the object itself but on the object’s articulation of space. Where traditional sculpture was self-contained and attracted the viewer’s gaze towards it and then into its component (usually representational) parts, Minimalist art activated the space beyond and around the piece itself.

Minimalist art’s environmental stimulation and activation of extra-object space brings the spectator and the piece of work into a shared space; powerful perceptual relationships emerge across and within the space that traditionally separated spectator and object. Critically, the meaning that emerges out of Minimalist art rests not in a formal analysis of object contents or their internal relationships. The only meaning available comes from each spectator’s experience with each object. Thus, Minimalist art does not engage the viewers in the same way as traditional representational art engages them (LeWitt 1969).

Looking at traditional representational art (e.g. a sculpture bust), spectators make series of rational decisions about what is depicted, and meaning comes from those decisions: this is a nose and not an arm, this is a man’s face and not a woman’s. We are trained to approach Neolithic houses in a similar manner: this is a rectangular, two-room structure and not an oval pit. This house has walls made with 10 cm diameter wooden posts (and not stone or mudbrick); the walls are covered with 17 layers of alternating white and red plaster (and not with 5 layers of brown and black plaster). The structure in the corner of the inner room is a grain silo (and not an oven); the silo is in the inner room (and not the outer room). And so on, and so on, until we understand the house within our understanding of the Neolithic.

American artist Sol LeWitt suggested another way of putting parts together, and thus of making objects engage spectators; it was a way that followed a logical, as opposed to a rational, sequence of decisions, in which each part was dependent on the previous one. In LeWitt’s terms, a sequence has a logic to it and if a spectator engages that logic, then there is no need for decisions, questions, or answers. This logic is non-rational and viewers do not need to think; it is not even a way of thinking. Logical things just are (Colpitt 1990: 58).

Minimalist art was logical. It offered sequences of visual and physical stimuli that did not need thinking about. If viewers did start to think about a Minimalist object or sequence in a rational way, then they became lost. If they started asking...
questions, they became frustrated: when they think that they have located a possible answer, they are angry because there is no way of determining the potential accuracy of their answer. A good example of this logic is Carl Andre's Lever (1966), a sequence of 137 firebricks placed in a line along the floor. People who read this work in a rational way, quickly become irritated: if they ask rational questions about each brick (seeking answers before moving on to the next brick), they find that there are no decisions to be made: no questions and no answers. People who approach Minimalist art expecting a rational experience end up asking the minimally most futile questions. What does it mean? I can't see that it means anything. Why can't I understand this work? They end up with a traditional answer: because it isn't art.

In the wake of the suggestions that LeWitt's works made on the logical sequence of Minimalist art, there follows the rejection of the rational reference and representationality that is at home in traditional art and that seeks answers in internal elements and their composition. Thinking with Minimalism, we reject the importance of internal composition and its rational decisions, and we are forced to focus on the object and on notions of objecthood. Minimalist artists created objects that were non-representational, which offered no illusions of rational representation, but which, at the same time, were real and palpable, that occupied space. For Minimalists, objecthood was three-dimensionality without the illusion that accompanies representation. Minimal art is not imitation; there is no illusion to a something else, or a somewhere else. The work sought to be non-referential.

The critical thing is not what a Minimalist object alludes to: it is its shape. The shape is the object; it is the whole thing and there is nothing else. Minimalist objects are simple and single, but also repetitive and modular shapes that have no internal meanings or rational relationships (Judd 1965). Thus, the cube became the ultimate, basic, and most standard empty shape. It has no referential components to distract spectators: by looking inside, one finds nothing to be seen but the inside of the cube; looking outside finds only the cube. There is nothing there. Furthermore, a cube is solid and stationary; it does not go anywhere and thus does not take the spectator anywhere with it. Environmentally, the cube might push the spectator away from the object, but the cube itself remains immobile and does not accompany the viewer. Of all shapes, it is the most basic, the most standard: the only thing that a cube represents is well... a cube, and if that is all then it is not representational at all.

For Minimalism, the cube is interesting as an object simply because it is uninteresting. The cube is empty of anything but itself. Hollow and empty, it directs the spectator outwards and away from itself. If there is meaning, then it is somewhere else. It might be in the person looking at the cube. It might be in the relationship between the position of the cube and the spectator. It might be anywhere else but it will not be in the cube. Even more importantly, the cube has the extraordinary power of making explicit its empty hollowness. By surrounding empty space with solid areas, the cube creates emptiness, surrounding but not filling the space within. Thus, in a sensationally, apparently contradictory, physical fashion, the cube creates negative volume, an emptiness that is environmental, a manifestation of emptiness that pushes the spectator away into thinking about anything and everything except the cube itself.

With Minimalist objects we became interested not in the thing itself, but in the external arrangements, repetitions, and series orchestrated by the artist. With Carl Andre's linear series of bricks on the floor (e.g. Lever, 1966), the interesting thing is not the bricks as identical objects, but the way that Andre arranged and repeated the identical units. Arranging identical units in logical series Andre (and Morris inter alia) imposed an order that operated beyond each physical object itself. Along with the environment, repetition of form, and attention to the specific object, the serial ordering of objects was a powerful tool of the Minimalist artists. The imposition of a serial order to specific-object arrangement was more than a method; it was an attitude that subsumed a work under the order and the repetition of form (Bochner 1997).

The perception of serial work has important consequences for spectators. Without internal relationships, content, or sets of rational decisions, viewers consume Minimalist objects more easily. Less perceptual work is required. Where rational work had to be chewed over, through sequences of decisions, questions, and answers, Minimal work slides right down in one logical gulp. Such simplicity brings an unexpected impact to the spectators' role(s). Identical-forms-in-series may have been more easily taken in, but they do not sequentially reveal the object or its meaning. In fact they do the opposite, pushing the spectator away, to think and look elsewhere; they frustrated meaning. Thus, Minimalist work increased the spectators' workload: there is no easy visual path to understanding or meaning. In fact, there was no particular meaning at all, only sets of tensions and the stimuli to think. Among these tensions is the realization that the individual specific objects are less important than the systems within which they exist and are arranged. The individual objects do not really matter at all; the important entities are the ordered sets of objects. Arrangement becomes the end; individual form becomes nothing more than the means.

Minimalist art and Neolithic houses

Thinking about Minimalist art helps us with our investigations of Neolithic houses, of the formal similarities of the Neolithic built environment, and of the aggregation of Neolithic buildings into villages. There follow three proposals. First, we should think about Neolithic buildings as anti-compositional and non-referential. Their importance lies not only in what they contain or in how each building in a village
was constructed. If we accept this, then most interpretations of Neolithic buildings and building morphology—ours included (Bailey 1990, 1999, 2000)—only offer a portion of a full understanding of a building. In fact, we may wish to reject (as the anti-thesis of meaning) our existing schemes and attitudes about the Neolithic built environment. The second proposal is that we should think about Neolithic buildings as empty spaces, as negative volumes, and as the manifestations of hollowness. The third proposal is that we should think about Neolithic buildings as environmental, in the Minimalist sense.

In these terms, therefore, Neolithic buildings positioned people in space, not simply in as architecture choreographing movement or social relations, but in the sense of specific objects pushing spectator/villager/visitor away from the building and its contents. By working from these perspectives, one consequence is that we turn Neolithic spectators away from the individual components of a particular building design or form; Neolithic people find themselves looking at and living among logical series where repetition of a common form pushes them to think away from the house and its contents. critically for our understanding of the past, the importance of Neolithic buildings may not rest only with their interiors and our analysis of their contents. These buildings were/are specific objects: physical, palpable but not representational or illusory. Their shape is their meaning, but only when their shape is taken as a specific object. They are anti-compositional (and not rational); thus, they will not repay rational investigation based on rational questions seeking rational answers.

What was a Neolithic building during the Neolithic? It was an object that forced people to think externally about themselves in relations to others, which slid down without chewing, like a Big Mac, something that was accepted without thinking. Furthermore, the meaning of aggregations of Neolithic buildings may not be found in the sum contents of individual structures. We can now ask another question: What is a Neolithic village from a Neolithic perspective? In the terms proposed here, the answer is that a Neolithic village is both a serial order of specific objects and a single specific object. At yet a further step away, a Neolithic village is just one specific object within a longer serial order of villages across a landscape, up a river valley, across a region, and through a sequence running for hundreds and sometimes thousands of years.

The value to be found in using terminology and ways of thinking that comes from Minimalist Art may not be that they present us with new information or that they reveal new meanings. We are not suggesting that they do. Ideas such as serial order, the specific object, serial repetition, and environmental engagements between spectator and work push us away from the search for a single, closed meaning of the Neolithic built environment. This is not a house. This is not a household. This is not a place of shelter. This is not evidence of privacy and social inequality. This is not a village. The challenge will be to see if the perspective elaborated here can work alongside the current knowledges, methods, and accumulated understandings of Neolithic buildings and villages that we have become so proficient in developing. This is the provocation, but so, we suggest, were the houses and villages of the Neolithic.

Conclusions

Our four propositions present diverse arguments. Proposition 1 uses a direct engagement with the archaeological evidence in order to present a critique of the idea of architecture-as-object rather than archaeology-as-practice, and to put forward the idea of ‘quick architecture’. In contrast, Proposition 2 uses analogies with Land Art to move away from the internal details of the archaeological evidence, in order to explore how to work with what the past is not, with absence, and with the negative. Proposition 3 focuses on the nature of the archaeological evidence in order to consider the forms of time that emerge from tracing archaeological sequences. Proposition 4 uses ideas from Minimalist Art to call for thinking through the range of external relations to the archaeological record.

Regardless of these differences in focus, together these propositions seek to disrupt the widely accepted archaeological understanding of Neolithic buildings as straightforward projects, both in the prehistoric past and in the interpretive present. In Propositions 1 and 2, we focus on Neolithic architecture as a physical practice: as quick architecture or as interventions into surfaces. Proposition 3 looks at how architecture can be constituted through disjuncture as well as through practice, exploring what the gaps in archaeological sequences might tell us about mobile life in the early Neolithic of southern Britain. Proposition 4 looks at houses as objects that are bound up in external relations, using analogies with modern art to explore the consequences of looking through the eyes of the spectator and of the environmental impact of serial, specific objects, where ‘environment’ is understood in the terms of the Minimalist artist.

Together, our four propositions call for the unlearning of how we look at archaeological evidence of houses, building, and architecture, and our case studies seek to explore this potential in practice, to assist archaeologists in getting closer to an affective understanding of how past peoples understood their worlds. We hope that these four propositions from the European Neolithic will offer to scholars of different periods, regions, and disciplines, examples of unexpected alternatives to the traditional investigation of architecture and the built environment.
CHAPTER 26

CERAMICS (AS CONTAINERS)

CARL KNAPPETT
LAMBROS MALAFOURIS
PETER TOMKINS

INTRODUCTION

What makes 'ceramics' a particular category of thing worthy of special attention? For an archaeologist, two different answers might normally come to mind. One is purely pragmatic: ceramics are very often one of the most abundant categories of archaeological finds, for example in the later prehistory of the Near East and Mediterranean, and thus any archaeological analysis of material culture is bound to encounter ceramics sooner or later. A second answer is more conceptual: ceramics are considered a key feature of human material culture because of what they are taken to represent in economic, technological, and evolutionary terms. The innovation of taking the plastic medium of clay and marrying it with pyrotechnology to create irrevocably a resilient object—usually in the form of a container, but also sometimes in other forms, such as figurines—has frequently been assumed to mark a revolutionary (Neolithic) stage in the development of modern human thought and practice, forming with agriculture and sedentism a trinity of epoch-changing innovations (e.g. Childe 1928, 1942: 43–61; Renfrew 2003; see Gamble 2007: 10–33).

Neither of these answers, though, is particularly satisfactory. Quantity alone is unconvincing as a motivation for academic study. Equally, the traditional idea of a Neolithic/pottery revolution is no longer sustainable in view both of the deep pre–Neolithic history of ceramic production among mobile hunter-gatherers (c.13,000–7,200 BC, e.g. Jordan and Zvelebil 2010) and the long delay in the Near East between the development of agriculture and the adoption of pottery (Hoopes and Barnett 1995: 4–5).

Even more tellingly, material culture is not just for archaeologists. How might a socio-cultural anthropologist, for example, react to the idea that ceramics constitute a notable category of material culture? Or a sociologist or geographer? We suspect that the response would be quite different and not altogether positive (e.g. Leach 1973). In an ethnographic setting, why should a pot be marked out for special attention, rather than a basket, a mat or a stone tool or, for that matter, a can of coke or pair of jeans? Would it not be more worthwhile in such a context to examine categories of practice, perhaps 'cooking', 'containing', or 'sheltering'? In such a framework, the focus would fall on ceramics as containers, first and foremost, to be considered alongside other kinds of containers such as baskets, gourds, and metal vessels.

We are inclined to adopt this approach for two reasons. First, we believe that to treat 'ceramics' as containers first, and as a technology of fired clay second, actually offers a rather different perspective on the innovation of pottery in Europe and Asia during the early Holocene, and indeed on its subsequent trajectories during the Neolithic and Bronze Age (see Gamble 2007). Secondly, it is in line with the spirit of the present volume to see the territory of 'material culture studies' as spanning both past and present, and hence not the privilege of any particular discipline. Thus our perspective draws upon ideas from socio-cultural anthropology and elsewhere concerning the category of 'containers' and practices of 'containing' while also adopting an archaeological approach that is long term and 'developmental'. We begin by reviewing ideas from cognitive psychology on the role of the body in providing metaphors of 'containing', with the work of George Lakoff and Mark Johnson, as well as Ed Hutchins, featuring prominently. While material culture does play some role in their thinking, our approach demands more explicit attention to artefacts and the qualities of the material world as experienced by the human body; for this we turn to the work of anthropologists Tim Ingold and Jean-Pierre Warnier. Further theoretical development is provided from the 'material engagement' perspective within archaeology (Renfrew 2001; Malafouris 2004), as well as related work in archaeology by John Chapman (2000a) and Clive Gamble (2007). Armed with a theoretical framework for approaching containment, we consider some of the evidence for the earliest ceramic containers from the Mesolithic and Neolithic of the east Mediterranean, as well as continuing the story of the development of containers through to the Bronze Age. What this approach allows us is a more dynamic perspective on human practices of containing, one.
BODY AS CONTAINER

What does it mean to contain? From where does this idea derive? Despite containers being one of the most abundant categories of archaeological finds, and thus arguably the chief focus for study, the concepts they objectify have rarely occupied archaeological thinking, with a few recent exceptions (e.g. Tilley 1999; Gamble 2007). ‘Containment’ may well be the ‘function’ offering archaeology one of the most important sources of archaeological data and windows into the prehistoric mind, society, and culture; but very little is known about the cognitive, experiential, and evolutionary grounding of the concepts embodied in each and every container. Naturally, as we said, ceramics as a category encompass more than just containers, and containers can certainly be found outside the category of ceramics. Yet, one cannot fail to notice that once ceramics were first introduced, with the advent of sedentism in Europe and the Near East, they became associated with two major forms of ‘containment’. The first form is of course that of a pot or a vessel. Here the association with containment is obvious at the functional level. The second is that of clay figurines. Here the association with containment is less direct but equally powerful, realized through the semiotic relation of these objects with the human and animal body, i.e. the biological container par excellence. Although these two major categories of artefacts, pots and figurines, often receive different archaeological treatment, the first as belonging to the realm of the functional and mundane and the latter to that of representation and symbolism, we suggest that a more focused view may reveal that they are more closely related than is often assumed. We argue it is not simply the knowledge about the properties of clay and fire that link these objects but a new way of thinking about the body that these objects bring forth. And it is this new understanding, i.e. the body as container, that the many examples of anthropomorphic vessels from that period exemplify (e.g., see Glimbutas 1989: 22, 52, 191; Perles 2001: 264–267). In what follows we shall be arguing that there is more to this blending of pots and bodies than meets the eye, and that in addition to the usual archaeological assumptions about the social and symbolic role of Neolithic containers as a new technology of meaning in the construction and communication of social identity (e.g. Thomas 1996; Tilley 1996), containment may have a more basic and to a large extent neglected role in the shaping of human intelligence.

EMBODIED MIND AND METAPHOR THEORY

To make our case more clearly in this chapter we stress that in speaking about ‘containment’ we are not just concerned with or referring to the physical capacity of a clay vessel to contain, e.g. to hold a liquid, but rather with the interactive properties, possibilities, or affordances that emerge because of the vessel’s ability to contain (Knappett 2004). Containers are not simply vessels but action possibilities that bring forth new forms of mediated action, agency, and material engagement, both in terms of use and manufacture (Knappett and Malafouris 2008b). It is precisely at this elementary level of mind–body–world interaction that the significance of containment can be found. Containers, very simply, are important because they introduce a different topology—a surface around a void (Read and van der Leeuw 2008: 1965). Put in terms of the embodied mind and conceptual metaphor theory (CMT) that we shall turn to discuss now, containers are important because they afford the enactive realization of the container ‘image-schema’. That is, of, an image-schema that consists of (1) a boundary that demarcates (2) an interior from (3) an exterior. This may seem a trivial observation to a modern observer surrounded by and moving in and out of containers, perhaps hundreds of times each day, but it was certainly not trivial when ceramic technologies were first introduced in the Neolithic.

But let us take one step at a time, and start by taking a closer look at what the embodied mind theory is all about.
such a position are far-reaching, shaking the heart of the objectivist foundation of traditional cognitive science. From such a stance, embodiment is the condition for meaningfulness (Lakoff and Johnson 1999). This point is crucial for our purposes here and, as such, it is worth raising two further related questions. The first question concerns the exact nature of these preconceptual bodily experiences that define the way humans make sense of the world. The second relates to how abstract or higher-level cognitive operations can be explained in terms of this preconceptual structure.

Addressing the first question, George Lakoff and Mark Johnson jointly introduced the notion of ‘image schema’ (cf. Lakoff 1987: 459–461; Johnson 1987: 19–21). An image schema is a recurring dynamic pattern of our perceptual interactions and motor programmes that gives coherence and structure to our experience. In particular, according to Lakoff and Johnson, image schemas: (a) are directly meaningful preconceptual structures, which arise from, or are grounded in, human recurrent bodily movements through space, perceptual interactions, and material engagement, and (b) integrate information from multiple senses and operate beneath conscious awareness, prior to and independently of other concept modalities. Thus image schemas should have the following qualifications: they must be: (a) pervasive in experience; (b) well understood and well structured; and (c) emergent and well demarcated (Lakoff 1987: 278).

Tackling the second question, concerning the relationship between preconceptual ‘image schematization’ and ‘higher-level’ cognitive processing, embodied mind theory suggests that in domains where no preconceptual structure is directly available on the basis of experience, humans import such structure by way of metaphor (Johnson 1987; Lakoff 1987; Lefebvre and Turner 1993). As various experimental studies in cognitive psychology have revealed (especially Turner 1987, 1991; Lakoff and Turner 1989), an extensive system of metaphorical mappings underlies human thought processes, structuring some of the most basic categorizations that humans conventionally employ in conceptualizing the world. Based on these observations, embodied mind theorists have situated metaphor at the very centre of human cognition, especially since George Lakoff and Mark Johnson’s study Metaphors We Live By (1980).

For CMT the word metaphor refers to a cross-domain mapping in the human conceptual system, that constitutes the basis of understanding and meaning construction (Johnson 1987). More simply, metaphor is the crucial vehicle that enables the human mind to apprehend the many ‘domains of experience that do not have a preconceptual structure of their own’ (Lakoff 1987: 301). In other words, abstract conceptual structures that, in contrast to image-schematic structures are not: (a) directly meaningful, become meaningful through their association with meaningful image-schematic structures; that is, employing metaphorical projections from concrete to abstract domains.

From bodies to artefacts

How can the ideas of embodied mind theory and CMT help with answering our initial question about containment? Where does the notion of containment come from? Given what we discussed above the answer that immediately comes to mind is deceptively simple: the human body. In particular, the idea of containment, like many metaphors through which humans understand the world around us, stems from the body and from the basic experience of being.

As the human body not only has a longer ancestry than the manufacture and use of containers, but also can be directly experienced and understood in itself as a container (with the skin as the boundary between inside and outside), the primacy of the ‘body container’ over the ‘artefact container’ would seem beyond doubt. Grounded upon our image-schematic understanding of what it means to live through a human body, it seems perfectly reasonable that, starting with the experience of the human body, interiors will be mapped on to interiors, exteriors on to exteriors, and boundaries on to boundaries. This is a basic assumption implicit in the work of Lakoff and Johnson (1980), and adopted by most archaeologists working on this theme, such as Chris Tilley (1999) and Clive Gamble (2007). For example, as Tilley characteristically remarks in his Ethnography of the Neolithic.

A connection between pots and bodies is clear in the occurrence of face pots, or pots with eyes, at the tombs. Smashing a pot with a face is metaphorically like smashing and destroying a human body, or more specifically another container, the skull. It is the rim or orifice area of the pots that are particularly elaborated through decoration and a major context for the deposition of these pots is in the entrances, or orifices, to the dolmens and passage graves. The pot is a container of fluids and substances which enter it and flow out of it, with the decoration on its surface, acting as a skin... The symbolic parallels I have drawn out between pots and bodies may not have been unnoticed by Neolithic populations.

Tilley (1996: 318)

By the same token Clive Gamble in his Origins and Revolutions (2007), although explicitly emphasizing the ‘material basis of human identity’ when discussing his proposed division of the material world into ‘instruments’ and ‘containers’, overlooks the ways in which these objects themselves shape rather than reflect a new understanding of human experience.

Although the above suggestions make good sense of many cultural manifestations of the phenomenon of containment, we should not deny the possibility that artefact containers, rather than just the body, may themselves be the source domain of metaphorical mappings, rather than the target. Human thought is not only embodied, but also situated in a complex material environment with which the human body constantly engages. To illustrate this more fully, we need to highlight
an important drawback that lies at the heart of the embodied cognition framework and metaphor theory.

The embodied mind theory of Lakoff and Johnson, by grounding cognition in bodily experience, has undoubtedly made a successful step towards resolving the unhelpful mind–body dichotomy. Nevertheless, what this step implies for the proponents of embodied mind theory is simply an expansion of the ontological boundaries of thought (res cogitans) rather than the dissolution of those boundaries altogether (Malafouris 2004, 2008a). In this approach, material reality remains external and epiphenomenal to the cognitive structure. This has two major implications for our understanding of the relation between embodiment and material culture as well as the nature of metaphorical projections as these can be seen to operate beyond the linguistic realm.

The first implication is that the active role of material culture in mediating and enacting metaphorical projection is neglected; artefacts are not considered integral to the cognitive process. The second is that the various means for intervening in the environment, like language, artefact, gesture or ritual, etc., are homogenized, rather than allowing for their quite different properties and possibilities for metaphorical and integrative projections. Chris Tilley made note of this misconception in his *Metaphor and Material Culture*. He distinguished between the operational properties of metaphor in mind and metaphor in language, observing that ‘solid metaphor cannot be reduced to a series of linguistic metaphors’ as they are not materialized substitutes for them (Tilley 1999: 270). Nonetheless, Tilley maintains the internal/external dualism found in the work of Lakoff and Johnson, from whom much of his approach to metaphor derives.

Materially enacted metaphors present no text-like propositionality as in the case of their linguistic expressions. They do not simply communicate meaning but, actively doing something, they objectify sets of ontological correspondences. Instead, Tilley suggests that the artefacts work as prompts to perform processes of conceptual mapping between them. Perhaps the most common case is the perception of shared parts or elements such as bodies and pots and houses having openings or orifices or being containers, thus permitting them to be linked, or shared aspects of physical structure . . . sharing the same shape or form. (Tilley 1999: 260)

Once we accept this, the most interesting questions, as Tilley observes, are those to do with the way in which human cognition becomes articulated to produce particular kinds of metaphorical links within historically determinate and determined social circumstances (Tilley 1999: 35). Indeed if metaphor is, as CMT would argue, ‘as much a part of our functioning as our sense of touch’ (Lakoff and Johnson 1980: 236), and if preconceptual structure is to be accepted as the experiential foundation of an embodied human mind, then both metaphor and preconceptual structure have to be placed and analysed upon the concrete support of material culture. In fact, it can be argued that none of the ‘image schematic structures’ (discussed above) can be experienced outside some context of material engagement. In such contexts of situated action, though, the boundaries of the embodied mind are not determined solely by the physiology of the body, but also from the available constraints and affordances of the material reality with which it is constitutively intertwined (Knappett 2004, 2006; Malafouris 2004, 2008a, 2008b). Thus, we need to develop an approach to containment that builds upon the insights of embodied mind theory and related perspectives, but which moves out into the material world and includes it as part and parcel of the processes of cognitive metaphor. We can achieve this by drawing on recent work in both anthropology by Jean-Pierre Warnier and Tim Ingold and in archaeology by Clive Gamble and John Chapman.

**SITUATED METAPHOR: BRINGING MATERIAL CULTURE IN**

As socio-cultural anthropologist Jean-Pierre Warnier asks, ‘is not material the indispensable and unavoidable mediation or correlate of all our motions and motor habits? Are not all our actions, without any exception whatsoever, propped up by or inscribed in a given materiality?’ (Warnier 2001: 6). Warnier’s perspectives are significant here because he does not only link the body and material culture: he also develops a consistent and insistent focus on the meshing of the *techniques* and *gestures* of the body with material culture (Warnier 2000, 2006). This concern comes from a long French anthropological tradition focusing on gestures (see also de Beaune 2000) that can be traced back through Lévi-Gourhan (1964) to the work of Marcel Mauss on the cultural specificity of bodily techniques (Mauss 1973; originally Mauss 1935). There are all kinds of gestures through which human identity is performed and constituted, and most involve movement, except perhaps for some static gestures, like holding one’s breath (Warnier 2006). Movement demands perception, which takes place through the seven senses: the five familiar ones, to which are added proprioception and the vestibular sense of gravitation and spatial orientation (Warnier 2006: 186; see also Berthoz 1997). To movement and perception, Warnier adds a third dimension: using neuroscientist Antonio Damasio’s study of The Feeling of What Happens (2000), Warnier asserts that no sensorimotor conduct exists without desires and emotions.

So we have the sensori-affective-motor conducts (Warnier 2006: 187) of the subject as key, and Warnier takes the significant step of adding material culture to the equation; though he is quick to point out that integrating material culture in
this way was a step already taken in the 1920s by Schilder, with his concept of the 'bodily schema'. Taken together, this creates a schema of 'sensori-affective-motor conduct' geared to material culture' (Warner 2006: 187). This he dubs 'praxiology'. This fits with a much broader 'enactive' theory of perception (e.g. Noë 2004), and is also consistent with the 'embodied mind' perspective already outlined; however, it does emphasize the integration of movement, gesture, and material culture rather more explicitly. The emphasis in Warner's approach of movement, technique, and gesture can serve to avoid the division of the material world into basic categories, such as 'artefacts' and 'landscapes' (Gosden 1999: 152).

Warner's discussion of containers requires a fluidity that allows for the shifting of scales between the human body, clothing, pottery, houses, and even whole kingdoms. Ingold's (2007a: 45) use of Gibson's tripartite scheme of medium, substance, and surface is similarly fluid (Gibson 1979). For example, we can readily see how containers have surfaces that can exclude some media (e.g. air), while containing others (e.g. liquids). Furthermore, containers might be made of various kinds of substances that can achieve containment in a range of ways; compare, for example, skin, basketry, clay, metal, and plastic. The different technologies of containment may enable or constrain different kinds of practices, and, in this chapter, we should of course consider the particular affordances and constraints of pottery as a technology of containment.

Thus, we need to look at the particular ways in which certain gestures and materials come to express ideas of containment. Even though the human skin sometimes depicted in psychology and psychiatry as the 'arch-container' (Anzieu 1995; Warner 2006: 187), the variety of practices and technologies of containment suggest the human body might experience containment in ways not derived purely from the body. Warner enumerates a basic repertoire of practices, including feeding, breathing, defecating, and being held. 'containers may be, and the same time both the sensorimotor and the psychic components of containment and its correlates' (Warner 2006: 188). The performance of such activities means that the concept of the body as container is dynamically constituted by universal processes; and yet significant cultural differences can exist in how these processes are performed. In practice the human body frequently supplements itself with other kinds of surfaces that 'contain', working outwards from clothing, to objects to dwellings. These are also likely to be comprehended using bodily metaphors: the opening of a building will be understood in relation to the orifices of the body, and the wrapping of the body in garments will relate to the conception of the skin as a surface (see Filler 1987: 2006: 241; Gamble 2007: 98–99). But this is not simply one-way traffic from the body: practices and gestures performed on buildings, pots, and clothing may act back on the body, changing ideas and practices of bodily containment in the process. The variable character of technologies of containment from one society to another underlines this sense of a two-way process back and forth between the body and the environment. Part of the complexity of this relationship means, however, that we cannot gloss it as solely 'social'; bodily gestures and technologies are psychologically and biologically grounded too. Mauss described 'lhomme total' as a bio-psycho-social phenomenon (Mauss 1957).

Therefore, the image-schematic structure of containment, far from a fixed and universal embodied experience, presents a variety of forms and cultural instantiations. Although there may be a tendency in cognitive and social science to grant primacy to the human body, the idea of the body as a container may well be the emergent product of human interaction with containers and the bodily practices that surround them. This would mean that a deeply entrenched metaphor of the body as container might have originated in the extensive engagement of humans with the use and manufacture of containers, ceramic and otherwise. In other words, it can be argued that the relatively unstructured target domain of the human body becomes experientially grounded via containing technologies. Thus a body can be understood as the metaphorical container of a soul or spirit; a mental category can be understood as the container for an idea; and even mathematical relations like those of the Venn diagrams may take on meaning in the same way (Lakoff and Núñez 2000). From such a perspective, one can see how such macro-scale events as sedentism might have significant implications in terms of their capacity to restructure central aspects of human experience and by extension human conceptual architecture.

Accepting the idea that different cultural instantiations exist, we need to give fuller attention to the role of different containing technologies. These include technologies of the body, such as scarification and tattooing, as well as clothing, textiles, basketry, wood, clay, stone, metal, and plastic containers. The various practices of skin and beyond skin have been approached recently in archaeology in slightly different though complementary ways. John Chapman (2000a; Chapman and Gaydarska 2007) has differentiated between 'accumulation' and 'enchainment' as two technological means that humans employ in their use of material culture, with different spatio-temporal reaches. This has been critiqued and adapted slightly by Knappett (2006) who differentiates instead between layering and networking as two ways that humans extend beyond the body, Gamble, in a similar vein, and drawing on both of these approaches, talks of 'nets' and 'nets'; as technologies move further away from the body and what is proximate, that which is accumulated or layered close by in 'nets' may easily become fragmented and unconnected, finding itself distributed or enmeshed in 'nets' (Gamble 2007: 139–152). These approaches highlighting the varying levels of connection between the human body and material culture can all be seen as part of the broader inquiry into the various ways in which humans engage with their material worlds, encapsulated in what has been termed 'material engagement' (Malafouris 2004; see also the idea of 'tecto-morphic awareness' in Malafouris 2008a). Thinking in such terms helps us to understand the enactive role of material culture in human practices and identity in broad terms, but we need to work through specific examples to push the debate.
forward—and here we will examine the role specifically of pottery containers. There is certainly scope for pursuing these ideas in ethnographic contexts, which is precisely Warner's (2007) approach as he examines the role of pots and bodies as containers in the expression of kingship in Cameroon. However, we shall focus here upon archaeological material, addressing the development of technologies of containment over the long term.

**Containers in the Mesolithic and Neolithic**

In considering the first appearances of pottery in the Near East and south-east European Mesolithic and Neolithic, we might assume that pottery is a revolutionizing invention: an engine of social evolution, transforming people's capabilities and propelling them towards the modern world. This view lies at the heart of social evolutionary models of adoption that emphasize the superior performance of ceramic containers for storing, cooking, or serving food, and how these properties transform adaptive potential and create the possibility for socio-economic growth (e.g. Childe 1942: 44-45; Brown 1989; O'Brien et al. 1994; Hayden 1995; Rice 1999: 2-14). Such models exhibit a preoccupation with rational economy, retrodicting pottery as a fully formed technological complex in the assumption that its properties and potential would have been as accessible and compelling to people of the past as they are to a modern materials scientist. A characteristic assumption made by such approaches is that once pottery appears other, older containment technologies become marginalized or disappear (e.g. Childe 1942: 45).

An alternative approach would view the relationship between technology and people in more dialectical terms, as a process of mutual determination, in which technology reacts to rather than revolutionizes its social context. Innovation is a multistage process, beginning with invention in discrete centres of origin, followed by a wider dispersal along existing social networks (Edgerton 2006; Knappett and van der Leeuw nd). Usually, therefore, the decision to innovate is a straightforward question of adopting or resisting externally sourced bodies of knowledge and practice. In the case of the earliest ceramic containers, the decision to adopt or resist will not simply depend on the advantages perceived as accruing to this particular form of containment technology, but on wider sets of contextual criteria.

While the archaeological record has long been understood to be but a fragment of the totality of the past (e.g. Childe 1956: 12), the temptation to allow it to structure archaeological enquiry has often proved hard to resist. Pottery is invariably treated as a separate material category and its study has become a disciplinary specialization within archaeology. Exploration of the context in which pottery was made, used, and discarded generally proceeds along temporal and spatial lines. However, if we extend our understanding of context across surfaces and between substances, a much broader and more complex universe of containers in leather, basketry, wood, stone, and metal, comes into view alongside the ceramic. However dimly perceived and poorly represented in the archaeological record, the usage of non-ceramic containers stretches back millennia before the inception of pottery and continues alongside it up to the present-day (Gamble 2007: 194-204). Occasionally ceramic studies have broken free to acknowledge the existence of metaphorical links with a wider non-ceramic container context, usually in obvious cases where the surfaces and forms of ceramic containers are recognized as mimicking those in other substances, a phenomenon known as semeiomorphism (e.g. Childe 1956: 12-14; Vickers and Gill 1994: 105-153; Hodder 1998: 64-69). Rarely, however, does the recognition of these linkages impact upon how pottery is contextualized and understood (but see, for example, Vickers and Gill 1994). This is a pity, a missed opportunity even, because the interplay of metaphor between container substances is far more profound and, at times, subtle than the current focus on the more literal semeiomorphs might imply. The plasticity of clay imbues ceramic technology with a Protean ability to take on the appearance and form of any container, while the physical and chemical changes wrought by firing grant it a durability in the archaeological record. Through this unique combination of plasticity and durability, pottery allows us glimpses into the non-ceramic container worlds of the archaeological past, albeit through a ceramic lens or filter. A challenge for archaeological ceramic studies, but one all too infrequently met, is to find ways of adequately exploring the broader context of container usage and explaining the contingent nature of the metaphorical links between different container substances.

Our earliest window on to this world of containers comes with the first appearance of ceramic containers, produced by hunter-gatherers in eastern Russia, China, and Japan around 12,300 BC (Kuzmin 2006; Jordan and Zvelebil 2010). Once viewed as an independent centre of origin, unconnected with the origins of pottery in the West (e.g. Moore 1995: 40-46), more recently East Asia has emerged as the origin point in a westward chain of successive pottery adoptions, which reached the Near East in the late eighth millennium BC (Jordan and Zvelebil 2010). Thereafter its dispersal into Europe becomes entangled with that of agriculture: an entanglement highlighted in conventional models of the European Neolithic.

Early pottery contexts within this east-west dispersal are characterized by a wide variety of forms and sizes, but share the same production sequence and often similar technological features, such as a preference for organic tempering (Jordan and Zvelebil 2010). From a purely ceramic perspective, where the typology and technology of early pottery is viewed as a discrete techno-complex evolving under its own internal logic, this pattern poses certain problems of interpretation. Where
did the typological variability exhibited by early pottery originate? How can the successive westward adoption of pottery be understood as a dispersal, when its form and usage in neighbouring regions often seems so utterly different (e.g. Kuzmin 2006: 368-389)?

The earliest pottery in the Aegean region of the Mediterranean is typical of this trend in manifesting a range of different forms from its first appearance (c.6500/6400 BC; e.g. Evans 1964: 196). Such typological complexity has been conventionally explained by postulating the existence of an earlier, simpler stage of ceramic invention and typological development, which has then been placed either locally in the poorly documented Initial Neolithic phase that precedes pottery use (c.7000-6500 BC) (e.g. Vitelli 1995: 60-61; Perlès 2001: 64-97) or externally in one or more underexplored regions further east (e.g. Evans 1921: 35; Evans 1968: 271; Weinberg 1970: 583). However, the continued absence of evidence to support the existence of such an experimental stage makes this a highly unsatisfactory explanation.

If, however, one approaches the problem from a broader container perspective, it becomes possible to decouple typology from technology. The dispersal of early pottery can thus be recast, more simply, as the dispersal of a technology or body of technical knowledge and practice, while early typological complexity and variability may be understood in terms of the influence of pre-existing traditions of non-ceramic container usage and variation between these traditions through space. For example, the forms adopted by the earliest pottery from the site of Knossos (Crete) appear to have been entirely determined by two separate, pre-existing container typologies in wood and basketry, each with specific sets of perceived properties and meanings (see Tomkins 2007a). Thus the dark polished surfaces, thinner walls, and flat bases of a range of small- to medium-sized bowl types imitate a class of wooden (tableware) containers suitable for the serving of food and drink (Figure 26.1). The deliberate use of non-calcareous dark-firing alp, polishing techniques that simulate wood grain, and a series of carved handle-types are more specific indicators of wood skeuomorphism (Figure 26.2). In addition, the relatively long and heavy wrist-handle type, found on a type of dipper or ladle, presupposes structural properties that are present in wood but absent in ceramic, where such handles consistently break at their narrow point of attachment. Conversely, a second group of medium to large ceramic vessels, characterized by globular, semi-closed forms, rounded bases, strap handles, and occasionally, cored decoration would appear to imitate a class of basket containers, intended for use on an uneven surface and suitable for storage, transportation, and cooking (Figure 26.3; Wengrow 2001: 171-178, for similar such examples from the Near East).

Recognition of the influence of this wider world of non-ceramic containers also helps us to understand certain other aspects of early pottery use. During the earliest phase of ceramic use in the Aegean (c.6500/6400-6000 BC; Perlès 2001: 98-112; Tomkins 2007a: 21-23), ceramic containers were consumed in very small quantities with rates of deposition estimated at about five to twenty-five vessels per year (Vitelli 1993: 310; Perlès 2001: 314; Tomkins 2007a: 181). Given evidence for the importance of curing (e.g. drilled mend-holes; Tomkins 2007a: 182) such low rates of deposition imply a production output that was lower still. Technological studies of early pottery in Mediterranean Eurasia have consistently noted high interest (measured in investment of time, energy, and skill) in the forming and especially finishing of containers (e.g. Vitelli 1995: 60), but have generally failed to find clear evidence for the deliberate manipulation of ceramic properties to enhance efficiency, output, or performance (Björk 1995; Le Mière and Picon 1999). Put simply, the quantities and qualities of early ceramic containers suggest they were specifically created to
be used only on a restricted, probably ritual basis, as high-value versions of a range of non-ceramic containers whose superior resistance to stress continued to recommend them as the daily containers of preference.

Consideration of the role of early ceramic containers in exchange adds further to this picture. A series of petrographic studies in the Near East, Aegean, and west Mediterranean have independently demonstrated that early pottery, especially fine wares, was widely exchanged, with some vessels travelling distances of more than 200 km from their original place of production (Le Miètre and Picon 1987; Barnett 1990; Tomkins et al. 2004). Comparative analyses of form and finish support these conclusions; with large zones of stylistic similarity the rule for the
earliest phases of ceramic use in the Aegean (e.g. Weinberg 1970: 984). The scale of these long-distance interactions is far in excess of the local networking required to ensure demographic viability and would appear to reflect a deliberate and highly energetic social strategy, in which distance (social, geographical, cosmological; see Helms 1993; Barrett 1998) is a key resource in the negotiation of status. Distant social relationships and their entangled objects may be understood in terms of the accumulation of 'symbolic capital' that might be deployed in order to define identity and negotiate status (Bourdieu 1977: 171–83; Appadurai 1986b: 29–41). The choice to adopt pottery may well have been bound up with this process, the high value of ceramic containers making them obvious candidates for deployment in such networking. Nevertheless, analogous networks may be envisaged stretching back into the pre-ceramic past, involving non-ceramic containers and tools (Gamble 2007: 97–110). More than passive signifiers of meaning, such objects play an active role in enacting metaphorical projection, serving as material proxies for the body (Warnier 2006: 193–194; Gamble 2007: 107–109), which, when exchanged, extend bodies and identities through time and space. In the case of ceramic containers, the centrality of their role in ritualized occasions of food consumption, above all group commensality, meant that they were an especially effective vehicle for the conversion of distance into status, serving as cues for the telling of self-aggrandizing stories of acquisition or illustrious container biographies (Tomkins 2004: 48–50; 2007a: 192–193). In this way it may be suggested that the key factor mediating in favour of an adoption of pottery in the late Mesolithic and Neolithic periods in the Old World was not a far-sighted appreciation of the long-term revolutionizing potential of its technology, but the more immediate and unthreatening appeal of its more basic properties. The plasticity of its substance ensured continuity, allowing traditional, socially sanctioned categories of container and container consumption to be reproduced with a high degree of conformity, while its different properties in relation to other container substances defined it as a separate and more valuable container category, which might then be deployed as a means of negotiating value in people and practices.

The burnished or polished monochrome surfaces that are such a notable feature of the very earliest pottery to appear in the Near East, Anatolia, and the Aegean, would seem to reflect a fairly literal rendering of the surfaces of containers, in substances such as wood and basketry. However, in each region this phase is followed by one where certain ceramic forms start to carry a heavier decorative burden of painted or incised motifs. From the late seventh millennium BC, this explosion in decoration represents the exploitation of another property of ceramic containers, namely the ease and effectiveness with which their surfaces may be altered in order to represent additional layers of meaning or emphasis. In many such cases, the forms and decorative elements continue to reference containers in other substances. For example, David Wengrow (2001: 171–181) has argued that Halaf and Samarran painted pottery in the Near East draws heavily upon traditions of decorated basketry. In other cases, however, forms and motifs suggest a new source domain, that of the human body. For example, at Knossos the transition to the Middle Neolithic (c.6000 BC; Tomkins 2007b: 23–27) witnessed the appearance of a new tableware form, the flat-based mug, usually decorated with incised triangular motifs filled with punctuated dots or pointillé (Figure 26.4). Incised and/or punctuated decoration also appears on some ceramic figurines, usually female if gender is explicit, and has been interpreted as representing clothing, tattooing, or scarification (Ucko 1968: 239–230; Mina 2008: 121–130). A metaphorical link with the body is reinforced by rare examples of flat-based mugs that have the upper torso and head of a figurine moulded on to their rim (Figure 26.4).
The decoration on these ceramic containers and figurines is incised using a similar tool, probably a class of bone needles, and filled with white and more rarely red colorants, raw quantities of which also occur (Evans 1964: 236, 238; fig. 6.11, 13; pl. 60.1–2). The links in tool and technique between a specific type of ceramic container, ceramic figurines, and the (female) body imply that material inscription paralleled corporeal inscription, probably marking moments of transition in the female life cycle when new identity or status was achieved (cf. Wengrow 2001: 174–177, for the Near East).

More specifically, cases where flat-based mugs form the lower part of the upper torso and head of a figurine seem to suggest that the form of such vessels referenced the lower part of the female torso, specifically the pelvic region and womb, as the source and container of human life. Further hints in this direction are the preference for an incised triangular motif filled with (pointillé) dots on the exterior surface of flat-based mugs and the use of incised triangles to render female genitalia on figurines. More speculatively, the white colour of the calcareous residue that is frequently encrusted on the interiors of flat-based mugs, but no other vessel form, may carry with it a reference to semen. In this way a series of metaphorical links are made between the surfaces and form of ceramic figurines and flat-based mugs, on the one hand, and, on the other, the skin and form of the female human body.

In this example, the decorative explosion in early pottery may be connected with an extension to the range and complexity of the ontological correspondences that are objectified by ceramic containers, shifting from the purely artifactual to the human body and from more literal renderings of single sets of correspondences (skeuomorphisms) to a freer, more complex layering or mixing of metaphors. The flat-based mug form represents a mixture of metaphorical linkages to different container source domains, combining a dark polished, flat-based (tableware) form, suggestive of wooden tableware, with strap handles, suggestive of basketry, and forms of adornment and inscription that reference the female body, particularly the pelvic region.

Stepping back from this point, the implications of a broader container-based perspective to pottery extend in different chronological directions and into different domains of archaeological practice. Looking backwards it becomes clear that we need to engage more actively with earlier, pre-ceramic phases of container use such as the Mesolithic and aceramic Neolithic (Gamble 2007: 110). One way of doing this is to take a fresh look at archaeological typologies of early pottery, which though created primarily to answer questions of chronology and cultural affiliation, have the potential to serve as windows on a wider and older world of containers and its intersection with the ceramic. Such effort is necessary, if only to prevent us from mistakenly spinning a surge in the visibility of technologies of containment, occasioned by the adoption of ceramic technology, into a 'container revolution' on, in Warner's (2000: 193–194) words, a major shift in the 'domestic technology of containment'. Looking forwards, we would prefer to reserve such language for contexts where regimes of production are of sufficient intensity, quality, and output, and levels of ceramic use and discard are sufficiently high as to suggest that pottery has encroached upon or even replaced other container technologies in daily consumption. Such conditions would appear to have been first met in the Aegean during the Bronze Age, when pottery comes under the influence of new regimes of value and consumption and a new range of containers in metal and stone.

Containers in the Bronze Age

Although a wide range of container types are employed in the Neolithic, those in ceramic are foremost in quantity and diversity. Ceramic containers facilitated further changes, principally through extensive 'enchainment' in assemblages across space and time; as prehistorian Clive Gamble (2007: 272) puts it, 'this form of container had in turn the almost infinite potential for further divisibility and reproduction, just by making more pots'. We can follow the story through into the Bronze Age, charting this substantial growth of ceramic assemblages, the continuing significance of inter-media associations (skeuomorphisms), and hence the impossibility of understanding ceramics in isolation from the broader range of material culture.

From the beginning of the Bronze Age in the Aegean (c.3100/3000 BC; Warren and Hankey 1989; Manning 1995), we see the addition of metal and stone to the repertoire of container technologies. Although copper and silver objects first appeared during the later Neolithic, these were not containers, but, in Gamble's (2007) terms, instruments, such as adorns (e.g. pins, beads, pendants) or tools (e.g. awls, axes) (Zachos 2007). In the case of Crete, evidence for ceramic skeuomorphism of sheet metal vessels, in the form of rivets, tubular loop handles, and grey and red polished surfaces, began in EB I (3100/3000–2560 BC). But it is not until EB II in the Aegean that the use of silver and bronze containers really took off, part of what has been called 'Metallischeck' (Schachermeyr 1955; Renfrew 1972: 338; Nakou 2007). Although stone vessels were very occasionally made during the Neolithic, their incidence increases significantly from the start of the Early Bronze Age (Bevan 2004).

Metal and stone introduced new properties and hence new possibilities for socio-material expression. Metal has the plasticity and solidity of ceramics (varying with the involvement of heat), but could also be recycled by being melted down, thus enabling it to function as a form of currency and an index of wealth in a
pre-monetary economy. Furthermore, metal, and to a lesser extent stone, differs
profundely from clay in the extremely uneven distribution of their raw material
sources. Whereas clay is more or less ubiquitous, sources of specific stone types and
metal were very restricted: Crete, famously, has no metal resources to speak of.
Metal and stone are also more resistant to shock than pottery. These properties
mean that metal or stone containers (or instruments, for that matter) are much
more likely to have impressive ‘back stories’ in terms of their production and
circulation. All of which factors served to define metal and stone containers as new
high-value container categories, thus usurping the previously unassailable position
enjoyed by pottery during the Neolithic.

Relegated to the middle register in a hierarchy of container substances, Bronze
Age pottery developed in two different directions. One involved taking off containers
in stone and metal, not only by skeuomorphing these vessels (Knappett 2002, 2008;
Nalou 2007), but also by developing increasingly complex and technically
demanding chaînes opératoires, both of which come together in high-value pottery
styles, such as the polychrome painted Kamares Ware, produced on Crete during
the Middle Bronze Age (Figure 26.5; Walberg 1976; Faber et al. 2002; Day et al.
2006). At the same time, the quality, output, intensity, and efficiency of pottery
production was increased to the point that pottery was able to rival traditional
daily technologies of containment, such as wood and basketry. In this regard one
might single out the use of the wheel for manufacturing an increasingly wide range
of pottery vessels during the Middle Bronze Age (Knappett 1999), and the
development of the conical cup in the latter part of that period as a mass-produced
vessel used in a whole variety of settings, both domestic and cultic (Figure 26.6;
Gillis 1990). Unsurprisingly, pottery continues also to skeuomorph containers in
basketry and wood, for example (Knappett 2002, 2008).

We might also look at particular categories of container that emerge in the early
Bronze Age and remain in use, more or less, throughout its duration. One of these
categories—a storage vessel known as a ‘pithos’ (Figure 26.7)—is found almost
exclusively in ceramic form, while another—a ‘ceremonial’ vessel with two open-
ings known as a ‘rihyton’—occurs principally in ceramic, metal, and stone, the
ceramic examples frequently skeuomorphing the form and decoration of the latter
two substances. These can be seen as two particular technologies of containment,
the former aimed at containing large quantities over relatively long periods, and
the latter was designed for containing small quantities over short periods. The
pithos is a type that had its origins in the ceramic storage vessels of the later
Neolithic, increased notably in size during the Bronze Age and has continued in
one form or another up to the present day (Cullen and Keller 1990). A recent
typological study of Minoan pithoi has identified 122 different forms (Christakis
2005). The majority (60%) of those treated in Christakis’ study are from storage
areas in palaces and houses, and many are capable of holding hundreds of litres of
solid or liquid commodities. What is of further interest, given our earlier discus-
sion of the metaphorical connections with the body, is that in 30% of known cases,
pithoi are used for burials (Christakis 2005: 58). Again, as with their use for storing
agricultural produce, we can see how pithoi were destined for long-term storage of one kind or another.

The rhyton, however, clearly works on quite different timeframes: containment is inevitably followed very quickly by release. The ‘flow’ of liquids rather than the static containment is key, and the Greek word ‘rhyton’ itself comes from the verb ‘rhein’, ‘to flow’ (Koehl 2006: 3). The vessel has in common with many vessels a primary opening, but then has a smaller, secondary opening, often a perforation in the base of the vessel (Figure 26.8; or in the muzzle in the case of animal rhyta). This suggests that a user would have filled the vessel with a finger over the narrow opening, and then in a particular gesture (perhaps in a ritual setting) would have released the finger thus allowing the contents to flow out of the container. The earliest rhyta belong to Early Minoan II and the latest to the end of the Bronze Age. Though less long-lived than pithoi, they are far more diverse morphologically. Some of the earliest are anthropomorphic and zoomorphic, in the form of birds or bulls in particular (Koehl 2006), thereby further emphasizing the connection between bodies and vessels as containers (albeit containers allowing matter to flow freely both in and out). Rhyta are also found in a wide range of materials, in contrast to pithoi; they occur in ceramic of course, but also various kinds of metal (silver, gold) and stone (e.g. serpentine, chlorite, limestone, breccia), as well

as ostrich eggshell, faience, and various composite types combining some of the above materials (Koehl 2006).

**Conclusions**

The pithos and the rhyton are just two categories of container from the Aegean Bronze Age. We might also have chosen a number of others, such as tripod cooking pots, conical cups, or beaked jugs, all of which are extensively used as containers, in their differing ways and with their distinct affordances. The technologies and assemblages of containment in the Bronze Age are complex and varied, but we should resist the temptation to interpret pottery in isolation from other container substances. There is always a wider container context that is just within reach if we look for references to it in the form and appearance of ceramic containers. Judged
CHAPTER 27

MAGICAL THINGS: ON FETISHES, COMMODITIES, AND COMPUTERS

PETER PELS

When are things magical? From a sceptical secularist point of view, they are never magical by themselves: they require the intervention of human intentions, since something material only becomes wonderful or out-of-the-ordinary for human beings. Yet, things are also only perceived as magical when they exert agency beyond or against human intentions—when, rather than being passive, inert, and merely material, they do something to us. This, in a nutshell, is the problematic of magical things, taken as comprising fetishes, amulets, charms, icons, relics, commodities, and a host of other objects that behave themselves as subjects. On the one hand, a modernist way of thinking argues that such things ought not to move people, since authentic and rational human beings, instead of being controlled by things, are supposed to be in control of themselves and the matters around them. On the other, the need for concepts like ‘commodity fetishism’ indicates that everyday life in modern societies is often determined by the contrary: by people losing control of themselves through being awayed by the things their society offers. Thus, while magical things themselves are of all ages and cultures, the problematic of magical things seems to be a typically modern one.
This chapter focuses on this problematic, for without this focus we cannot reach an understanding of magical things—or the relationship between magic and materiality—in general. My aim is to use three modern categories of artefact—the fetish, the commodity, and the technology—to understand our (modern) uses of ‘magic’ in relation to materiality. To do so, I will start in the nineteenth century to outline how magic became divorced from materiality in Euro-American thought. This brief theoretical diversion will then allow me to use the fetish as an exemplification of the modern European understanding of magical things—as objects that, as agents, are not supposed to exist, and that fall under a regime of simultaneous fascination and iconoclasm. The understanding reached by the impossibility of the fetish can be extended to our own everyday lives by zooming in on the magic of the commodity (or ‘commodity fetishism’)—to show that a certain fear of the object that behaves as a subject is both affirmed as well as denied in consumer society. Lastly, I hope to show through a reflection on the early popularization of the computer how the modern problematic of magical things plays out even in contexts where people embrace rather than fear the autonomously acting object. Throughout, I focus, by diverse means, on folk theories current in modern life, in a largely anthropological effort to show that our attempts towards understanding materiality may be better served by an adequate recognition of folk theory on magic than by some, often illusory, academic striving towards theoretical rupture with our often enchanted everyday lives.

**MAGIC AND MATERIALITY**

Modernist discourse—especially as it emerged in the ‘academic science of magic’ during the Victorian period (HanekeBrigitte 1996)—has positioned magic in three dominant and mutually contradictory ways: first, it portrayed magic as the antithesis and supplement of modernity, defining the latter in the process; secondly, it delineated certain typically modern objects and routines as magical, raising doubts about the extent to which they are properly ‘modern’; and thirdly, it denied the materiality of magic by implicitly but exclusively focusing the problematic of magic on problems of human subjectivity (Pels 2003: 4–5, 30). This explains why modernist discourse on magic never defined it in any satisfactory sense: if ‘modernity’ needed ‘magic’ as a supplement, defining itself by what it was not (and vice versa), the closure of a definition was impossible to achieve. At the same time, it shows why the vast majority of attempts to define magic concentrated on abnormal or marginal subjectivities: if modernity was to be characterized by the rational calculation of the value of material goods or facts of nature—by capitalism and/or science—then the definition of magic had to derive from some non-rational form of valuation. Some of the sources of such modern valuations—the church, religious belief—were embattled but powerful presences in modern life. Hence, magic was mostly defined and modernized by relatively young and secular modes of subjectivity like psychology and poetics.

This historical moment is best illustrated by the ‘fathers’ of the science of magic, the anthropologists Edward Tylor and James Frazer, who both thought that magic ought to be explained primarily as mistaken belief—an error of psychology. (Other, more sociological dematerializations of magic occurred later, but cannot be dealt with here—see below.) Their social evolutionism dismissal of magic as a previous stage of human development that did not properly belong in modern society—a ‘survival’—was ambivalent. While Tylor sometimes allowed for a universal mythopoetic or ‘analogic’ consciousness to exist next to archaic survivals of magic, he was also worried that the latter survivals would turn out to be ‘revivals’ within modern Victorian society—as the hype of the spiritualist séance seemed to suggest. Frazer worried that Victorian civilization would turn out to be merely a thin crust easily rent by the slumbering savage forces of human nature, and his work did, against his intentions, indeed stimulate a number of occultist revivals in the late nineteenth and early twentieth century (see Frazer 1911: 335–6; HanekeBrigitte 1998; Pels 2003: 9–11; Tylor quoted in Stocking 1971: 90). The modernist effort to define and dismiss magic defeated itself by, first, having to define magic in universalist (because modernist) psychological or poetic terms, and secondly, then having to explain why this universalism did not apply to modern society—or, when it did apply, having to admit that modern magic exists but to deny that it characterizes modernity. Contemporary currents of Victorian ‘re-enchantment’ such as the celebration of the ‘magic of monarchy’, the discovery of the unconscious in art, literature, and psychology, and the emergence of spiritualism and modern occultism compounded this conundrum.

In retrospect, what stands out in this period of European thought is the tendency not to think of magic in terms of material items, except in classifications that reduced objects to exotic items of display in ethnographic museums, where they still exerted the fascination that Western people had long felt for fetishes and rarities (but as items of horror more than of awe or wonder). This tendency became particularly dominant after Tylor, in particular, redefined primitive religion away from ‘fetishism’ (which made explicit that primitives held certain untranscended materials in awe—Comte 1840) towards ‘animism’ (in which even primitive religion started from the primacy of the spiritual). The tendency to downplay the materiality of magical items was not significantly changed in the twentieth century, because the intellectualist and functionalist theories that described magic and witchcraft were relatively uninterested in magical matters, while the more relativist theories that drew these theories in doubt around the 1970s were still predominantly spiritual or idealist. While a marginal anthropologist like Alfred
Wallace could, around 1870, still argue that certain material manifestations (such as a hopping table) proved that the spirits of the sance were real (Wallace 1896 [1874]), even self-confessed magicians in the twentieth century (such as Aleister Crowley) claimed that magic was a primarily (voluntaristic) psychic phenomenon (Crowley 1987 [1904]). While such psychological dematerializations of magic passed into popular culture, a certain ‘sociological dematerialization’ of magic took place in the early twentieth century under the influence of functionalist theory (Malinowski 1915, 1948; Evans-Pritchard 1937; Mauss and Hubert 1972). Especially Mauss and Malinowski’s more pragmatic approaches introduced interesting and important novelties in the modernist theorizing of magic, but did not (yet) result in more appreciation for magic’s materiality (for an overview, see Jelsma 2003). An approach that would do justice to the materiality of magic could only start to appear at the end of the second millennium, and it required, both literally and figuratively, a return of the fetish.

Fetishes

While the 1980s and 1990s saw a broader resurgence of anthropological interest in fetishism (Ellen 1988; Apter and Pietz 1993; Spyer 1998), some of the most profound insights into the magic of materiality and the materiality of magic came from a series of path-breaking essays by cultural historian William Pietz (1985, 1987, 1988, 1993, 1999). His analysis takes us several steps back from Victorian modernism. Pietz’s writings demonstrate that the fascination that the fetish has exerted on people since the seventeenth century is, at least in part, rooted in the mercantile alienation of objects from their contexts that characterized this period of ‘scientific revolution’, yet has endured into the nineteenth century and (I would add) into the popular culture of the twentieth and twenty-first century. From its emergence in the context of Protestant capitalism and the hegemony of the rational calculation of the value of things, the fetish was subsequently marginalized by Enlightenment taxonomies, becoming an anomaly in nineteenth-century anthropology and religious studies, its ethnographic museums, and later psychological reasoning. Throughout, however, the fetish retained a position of significant otherness out of proportion to the relevance modern people allotted to it for their own lives and practices—a position based on the fact that it defined a subject from whom the modern self wanted to strictly differentiate itself. Part of the argument of this section will therefore be that the fetish cannot be understood unless we position it against the background of the history of modern object categories—not a history of things, but a history of the (proper) definition of things. We shall see that the fetish emerged as a thing compelling worship from deluded people, signifying a form of agency that the Victorian reformulations of magic referred to above subsequently denied.

One might summarize Pietz’s genealogy of the fetish—and the novelty of his approach—by saying that he described the fetish as a novel category of objects expressing a material trade relationship between Europeans and Africans that emerged on the West African coast, that was subsequently turned into the definition of an irrational state of mind exclusively characterizing Africans. The novel category of objects designated by the pidgin word fetiso emerged in Portuguese West African trade and probably referred to a (sub)category of objects that comprised both Christian objects (such as rosaries) as well as African amulets, and that identified the wearer of these objects as a middleman in that trade. Since these middlemen did not leave an account of their work, the process can only be reconstructed on the basis of the ethnographies left by their successors: the Dutch Protestant traders who ousted the Portuguese from the ‘Gold Coast’ in the course of the sixteenth century. These ethnographies suggest that fetiso referred to something radically different from the Portuguese feitiço (‘charms’)—the word from which it was derived. Removed from the medieval Christian doctrine of idolatry, which treated material objects as merely passive media for the relationships between spiritual agents (the context of feitiço), fetiso could raise ‘the essential problem of the fetish’: that of the social and personal value of material objects themselves (Pietz 1987: 35). When Dutch merchants such as Pieter de Marees and Willem Bosman witnessed the use of fetisos as, for example, means to take oathes that ensured permanent and reliable trade relationships between relative strangers, the political and economic importance of fetisos added to the already existing confusion about value in a situation where, for example, gold was exchanged for ‘trilles’ such as beads (Pietz 1987).

These Dutch merchants turned their confusion about the proper value of objects in West African trade into a judgement on the basis of the Protestant, mercantile valuation of normal and abnormal exchange. The fetiso was generalized into the ‘fetish’, defined as an object valued by Africans (quasi-Catholic) ‘capricious fancy’ and opposed to the rational (Protestant) merchant’s appreciation of technological and commercial value (de Marees 1987 [1602]: 39; Bosman 1697 [1705]: 154; Pietz 1988: 111). Anything that took Africans’ fancy or struck them as out of the ordinary—from a stone on the road or a cheap bead to a piece of gold or an elaborate piece of marine technology—could, according to this early modern theory, become a fetish. Moreover, the worship of ‘fetish’, in this theory, also implied an assessment of African politics, because such generalized caprice could only be tamed by the fear of the fetish, fed by a class of ‘fetish priests’ who had similar if perverted interests in mind as did the European traders themselves (Pietz 1987: 39–41; 1988: 127). Bosman’s (1697 [1705]) representation of African life in his New and Accurate Description of the Coast of Guinea reached a broad audience in Europe, and was
modified by its translation into the European doctrine of ‘fetishism’—a materialistic cult incommensurable with Christian categories, conceived as the worship of haphazardly chosen material objects believed to be endowed with purpose, intention, and a direct power over the material life of both human beings and the natural world (Pietz 1987: 106)—especially by Charles de Brosses’ De culte des dieux fétiches (1760).

While the career of the fetish since its emergence and popularization was, as we shall see, highly complex and contradictory, two things stand out in most circumstances in which we find it. First, the fetish usually poses the problem of the agency of the material object—the object behaving as subject. Secondly, its emergence is usually and paradoxically accompanied by the alienation and desecration of objects. The problem and its origin in alienation are related through the Protestant ethic, which assumed that the value of a human being is defined by his radical distinction from and superiority over material goods (Keane 2002). Even a worship in material goods smacked of Catholic Popery—let alone a worship of objects—and this condemnation of the material side of religion betrayed the Protestant dogma that all material goods should be subject to human intention and/or manufacture (see Latour 2002). This iconoclastic mentality appeared in the emergence of the fetish when Pieter de Marees, for example, declared that the things that some of his African trading partners valued so highly were, in actual fact, ‘trinkets’ (cranevye)—worthless trinkets (de Marees 1802: 72; Pietz 1987: 41).

They were, of course, trinkets in relation to commodities with a higher exchange value. The ‘facticity’ on which De Marees and Bosman built their iconoclasm was capitalist; it was rooted in the alienation of objects from their contexts of origin by global trade. But global trade produced other alienated objects as well, including some more familiar ones that also threatened the Protestant primacy of the human mind over material objects. The rarity, for example, despite the fact that it is often regarded as the prototype of the museum object, can perhaps be better compared with the fetish and (strangely enough) to the positivist modern fact. Sixteenth-century Europeans collected rarities because of the sense of wonder they called up in the viewer, but their quality of being marvellous was precisely as systematic as the ‘capricious fancy’ that the Protestant merchants perceived in the Africans’ selection of fetishes. Fetish and rarity are so much alike that it is not difficult to see that European folk theory implicitly posited the latter as a positive version of the former—and indeed, minbezi (the so-called ‘null fetishes’ from Congo) were, like modern fetishes, often included in European collections of rarities (Pels 1998: 110—see the conclusion). That implied, however, that rarities, while inspiring the Scientific Revolution’s anti-scholastic sense of factuality on the one hand (Daston 1994: 165–2), could, like fetishes, also call up the fear of the Protestant for unruly and undomesticated material goods on the other. Insofar as mercantile aesthetics appreciated the rarity positively, it also allowed such objects to act as subjects, doing things to people.

It comes as no surprise, therefore, that such unruly early modern objects had to be domesticated further—had to become ‘facts for’ a more encompassing modern understanding—first by the Enlightenment’s taxonomic fervour (epitomized by Linnaeus botany) and then by the nineteenth-century’s preoccupation with evolutionary or developmental order, both, in the end, being materialized by the emergence of the modern museum (see also Poovey 1998). Never mind that the fetish and the rarity were some of the first manifestations of the ways in which modernity produces its own magical things: taxonomic classification and developmental order (not to forget the valuation of self-owned labour—see below) soon marginalized them in the leisurely space of consumption (and the ‘fancy-fair’) or in the educational shrines of the museum. Or so it seemed: for even in the serene isolation of the museum halls—those temples to the Protestant primacy of mind over matter—the fetish could still exert some of its unruly magicality, and subject people to its influence.

The fetish stirred trouble even under the regime of European taxonomy and evolution or progress. In European popular culture, the classification of the fetish as magical and hence irrational, and the evolutionary argument (already embryonic in the Protestant merchants’ work) that magicians use fetishes for fraud, were derived from nineteenth-century anthropology—but always against the

Fig. 27.1 ‘Kill the white man! Him violated fetish!’ The fetish in modern European popular culture: Herget’s Kuitje in Afrika, 1947 [1931] pp. 25 and 27 (Dutch edition). © Herget/Moulinart. The comic strip Tintin has long been regarded as racist despite the fact that the author toned down its colonial character in the 1947 edition.
background of alienation and desecration, whether of the missionary or the
museological kind (Figures 27.1 and 27.2). It pays off, however, to look at some
missionary and museological examples more closely. When, for example, the
fetish reappears in a context seemingly most hostile to it—the pages of a Roman
Catholic missionary journal published in the Netherlands in 1951—one discovers a
strange agency. The photographs of the ‘king’ or grand-féticheur and the ‘fetish hut’,
made by a missionary in Senegal, are somewhat drab and unremarkable, and need a
caption to bring out their interest (Figure 27.3). They are situated, however, in a
remarkable way: they do not illustrate the message of the text, but seem to have been
included as if they carry an interest or fascination by themselves (a common
procedure with exotic photographs, at least in Dutch Catholic journals: Pels 1999:
55–66). This can be rationalized, of course, by the fact that the missionary journal

Fig. 27.2 The fetish in modern European popular culture; Herge, Het Gebroken Oor,
1945 [1937], p. 3 (Dutch edition). © Herge/Moulinsart.

Fig. 27.3 The fetish in missionary propaganda. Page 166 from the Bode van de Heilige
Geest (‘Holy Ghost Messenger’) the propaganda journal of the Congregation of the Holy
Ghost in the Netherlands (vol. 47, no. 12 [1951]). The caption reads ‘Father Henk
Govers, C.S.Sp. has arrived, together with his camera, among the still very primitive
people in the Oussaye area (Senegal, A.O.F.). His mission area is still full of fetishism
and other primitive practices. (1) The King of Oussaye; one can hardly judge from his looks
that he is also head-magician and grand-féticheur of the area. (2) A burial-ground of
fetishes in Oussaye. Father Govers has already found scores of these huts. (3) A hut of
fetishes, that accommodates pigs’ jaws and palm-wine pots, apart from other objects
that we cannot mention here.’ Note that the text of the article next to the photographs
is unrelated: it is an account of the Holy Ghost Fathers’ mission in Amazonas, Brazil.
Commodities

If the previous section argued that the early modern attempt to conjure the fetish away met with limited success, its nineteenth-century redefinition as a category for the discussion of the magic of commodities and capital—understood as something negative, a misplaced devotion—further boosted its career. Critiques of consumption could range from the general fear (rooted in, among other things, the Protestant anxiety to put mind over matter) that the materialism evoked by the fetishized commodity would inhibit people’s moral and spiritual development. Such criticisms were most famously epitomized by the miser Scrooge of Charles Dickens’ *Christmas Carol* (see Dickens 1843) and below). Beyond such (“spiritual”) folk theory, critiques of consumption extended to the materialist argument that the commodity concealed the physical work that went into its manufacture, making relations between people appear as relations between things (most famously argued by Karl Marx 1867: 86) in the first chapter of

*(Capital)*. These imaginations posited the materiality of the commodity as both magical and suspect, capable of leading people astray. Interestingly, however, after the materiality of things in general was brought back to anthropological attention in the 1980s—coinciding with Pietz’s rehabilitation of early modern folk theory’s emphasis on the fetish’s untranscended materiality—the critical idea of commodity fetishism was sometimes completely dropped. For example, sociocultural anthropologist Daniel Miller’s later studies of consumption and commodities (e.g. Miller 1995) came to mention fetishism only as an ‘academic and colloquial prejudice’ about consumption (Miller 1998c: 128), despite his earlier acknowledgement that an ‘obsessive concern’ with material goods ‘describes an actual condition in modern life’ (Miller 1987: 204). In contrast, rather than dropping or downplaying the notion of commodity fetishism, this section of my argument asks whether such prejudices and obsessions do not indicate that the magic of commodities takes up a more distinct, elaborate, and complex place or phase in modern understandings of value than Miller’s celebration of consumer choice allows.

Today, the most persistent modern labour to turn commodities into independent agents occurs in advertising. But commodity fetishism was, of course, older than that. It came out, for example, when in 1843 Charles Dickens made the Ghost of Christmas Present show Scrooge the contrast between the enjoyment of Christmas consumption and the children of Want and Ignorance (Figure 27.4).

*The poulterers’* shops were still half open, and the fruitrees were radiant in their glory. There were great round, pot-bellied baskets of chestnuts, shaped like the waist-coats of jolly old gentlemen, lolling at the doors, and tumbling out into the streets in their apoplectic opulence. There were ruddy, brown-faced, broad-girted Spanish onions, shining in the fatness of their growth like Spanish friars; and winking from their shelves in wanton sinness at the girls as they went by, and glanced demurely at the hung-up mistletoe.

Dickens 1843: 89–90

And so on. In *A Christmas Carol*—that early Victorian charter for capitalist sociability—the fetishized commodity emerges in all its still-life seduction. However, it does so only to be tempered by devotion and familial love, both symbolized by the unselfish generosity that, in the end, Scrooge the miser learns to extend to family and employee alike. Dickens thereby epitomized the folk theory that the fetishized commodity may be enjoyed innocently—but only when joined by its opposite: the gift that expects no return. The Dickensian magic of the commodity emerges in the context of a specific cultural sequence, one based on the expectation of the consumer that the acquisition of the commodity will lead to a phase in which she can direct its disposal beyond individual consumption—turning it, for example, into a gift to others. Two decades before Marx identified the commodity in terms of its capacity to conceal the agency of the labouring subject, Dickens set the magic of commodities to work to reveal the consumer’s sovereignty to decide on enjoying them himself or turning them into gifts for other, sometimes more needly,
consumers. The magic of the commodity—the agency it exerts on humans—may well be indulged in, but above all (says Dickens) when its capacity to transform a bundle of social relationships, of redefining the subject as both consumer, family member, and philanthropist, is maximized. The crux is that advertising—rather than merely enhancing the aura of the product—tries to maximize the capacity of things to transform social relationships. What haunts every form of modern advertising is that it is dependent on a choice that is both social (conformist, materialist) and antisocial (individuating, spiritualist) at the same time.

In other words, while the commodity's magic relies, on the one hand, on alienation (i.e. its capacity to appear divorced from human relationships at the moment of its purchase), it also depends on the various ways in which it can be deployed by a 'sovereign' consumer on the other. Like people, commodities have histories; like people, they do some things better than others; like people, their performance changes from one situation to another. In advertising, this implies that the ingredients of the social relationship in which magical capacity is being maximized—the product, its performance, and the subject desiring either or both—change in relation to each other. Turning to popular culture again, we see, for example, that in Dorothy L. Sayers' Murder must Advertise (1939 [1933]), the relationship between product and performance initially takes centre stage. Most discussions among the employees of the advertising company in which Lord Peter Wimsey tries to solve a murder revolve around the best words to describe margarine ('better than butter and half the price') or sedatives ('Nerves need Nutras'). Even more, the discrepancy between product and performance is what boosts sales (dyspeptic Mr Copley is best at selling foodstuffs, while Miss Meteyard is good at writing copy for anything but women's goods); yet it makes advertising 'an awfully immoral job' at the same time. Later in the novel, however, Lord Wimsey devises the Whifflet Campaign, boosting a cigarette brand through handing out coupons for Whifflet weddings, Whifflet houses, or Whifflet holidays ('If that's what you want, you can Whiffle for it'); a 'brand' image more usually associated with the advertising of the second half of the twentieth century. Then again, Miss Sayers drew on her extensive advertising experience when she indicated that in Pym's Publicity, all sexual innuendo in advertising texts was declared taboo—an impossible suggestion in, for example, the United States of the 1950s (as we shall see).

Perhaps an even more important difference between the magic of pre- and post-World War II advertising lies in the definition of the desiring subject. For Miss Sayers in 1933, 'the wealthy... buy only what they want when they want it'; the desires of Lord Peter Wimsey and his fellow Oxbridge colleagues at Pym's Publicity are based on 'plain use values. The 'vast superstructure' of the advertising industry, as she argues, was not built on them, 'but on those who, aching for a luxury beyond their reach and for a leisure for ever denied them, could be bullied or wheedled into spending their few hardly won shillings on whatever might give them, if only for a
moment, a leisurely and luxurious illusion' (Sayers 1959 [1933]: 196). Advertising gave rationality for the upper class and 'phantasmagoria' and 'Cloud Cuckooland' for the workers. How different this is from the subject imagined by the advertisers denounced in Vance Packard's The Hidden Persuaders (1958), who 'see us as bundles of daydreams, misty hidden yearnings, guilt complexes, irrational emotional blockages' and, not least, sexual yearnings (1958: 4). In Packard's book—one of the great US bestsellers of 1958—the class opposition of pre-war British advertising has vanished, and is replaced by a conspiracy of (middle-class) social scientists, psychologists, and advertisers against the (equaly middle-class) American public. Together with science fiction novels, such as The Space Merchants (Poll and Kornbluth 1953), it even helped generate the urban legend of subliminal advertising (the myth that movies and other advertising channels were laced with hidden messages, subconsciously urging people to consume)—a paranoid vision of consumerism very much at home in the atmosphere of the Cold War.

Packard's 1950s advertisers thought they needed to generate a product that was not so much determined by 'product benefits' as by the needs with which it could be associated. This implied a disarray for the consumer as a conscious agent: as the journal Advertising Age put it, '[i]n very few instances do people really know what they want, even when they say they do' (quoted in Packard 1958: 8). It also implies that the material use-values of the product became less important: 'The cosmetic manufacturers are no longer selling lanolin, they are selling hope . . . We no longer buy oranges, we buy vitality. We do not just buy an auto, we buy prestige' (Packard 1958: 5). 'What makes this country great is the creation of wants and desires, the creation of dissatisfaction with the old and outmoded' (Packard 1958: 18). Among the professional anthropologists (talking 'symbols') and psychologists (talking 'motivations') who wrought this magic of modernity, Ernest Dichter, a pupil of both Sigmund Freud and Paul Lazarsfeld before the war, stands out as having boosted the idea of the 'personality' or 'image' of the product appealing to the 'hidden desires and urges' of the consumer. Dichter's 'soul of things' was a decidedly vulgar Freudianism, as his explanation of the success of the 1950s Esso (later Exxon) campaign 'Put a Tiger in your Tank' shows:

A gas tank is mysterious and dark like a womb. It can be fertile or sterile. The hose of the gas pump resembles you-know-what. Rational? Who cares? The symbol of power, of virility, of strength, goes through the oddly shaped nozzle into the receptive womb and gives it power and strength. It worked practically around the world.

Ernest Dichter (quoted in Bennett 2005: 31)

This fine example of propaganda for sexual fetishism signifies—together with the scandal caused by Packard's book—less a scientific discovery of hidden dimensions of consumption than the successful popularization of a psychoanalytic (and somewhat paranoid) culture, as David Bennett (2005: 23) argues in his essay on Dichter. Equally interesting is the fact that even the advertising 'agent' doesn't really understand what he is doing, for as Dichter continues: 'I want you to realize that I am as amazed as the infidels are. How can such a contrived mixture between sexual allegories, mysticism, and caricature symbolism result in millions of dollars of very unassuming cash through increased sales?' (quoted in Bennett 2005: 33). I recall that, as a Dutch 3-year-old, I was indeed excited when my mother pulled up next to the Esso pump, but on my part that most likely had more to do with the Esso Tiger's combination of strength and cuddliness than with any premature sexual identification with an oddly shaped nozzle. This may remind us of the fact that the consumer's 'obsession' takes diverse forms, and that the materiality of the Tiger's (or the nozzle's) image was a polyvalent bundle whose meanings were not exhausted by the subject of sexual desire. It may be even more important to note that this turns the magic of commodity into something not completely comprehensible even to modern sorcerer/scientists such as Dichter—something that they may have in common with their non-modern colleagues (see Taussig 2003 and below).

Even during the 1950s, the triangular network between product, performance, and consuming subject characterized by Dichter's psychoanalysis already contained the seeds of a new phase in the magic of advertising, perhaps best symbolized by Dichter's campaign for Mattel's Barbie doll—who was never sold as a doll but as a person, in the hope that both daughter and mother would mould the former's personality on Barbie herself (Bennett 2005: 16). Through the intervention of the 'counterculture' in the 1960s, marketing strategy shifted yet again, away from the psychoanalytic subject haunted by repressed desires, towards the 'cool' consumer exemplified by the happily unmarried adolescents of whom Barbie was an early ancestor. Norman Mailer's 1957 juxtaposition of the young 'hip' hedonist to the all-too-adult 'square' provided the template for such an 'infantilization' of the consumer (Mailer quoted in Frank 1997: 12; Barber 2007). The countercultural desire to set oneself against a dull, materialist, or politically suspect generation was hijacked by business culture and mainstreamed into 'an essentially agonistic cult of style worship' characterized by the brand (Andrew Ross quoted by Frank 1997: 30). The brand marks the magical capacity of 'the construction of consumer subjectivity' as such: the desire to be different, rather than the desire to be different through using a specific product. The 'Pepsi Generation' that was created in the 1960s was, as Thomas Frank puts it, the 'un-segmentation' of identity focused on youth that preceded all subsequent attempts to fuse being and having in a single (often textual or visual) symbol of 'being different' (Frank 1997: 24). The Nike Air Pegasus sold in 1985 exemplified the political economy of product and performance in this brand image: $10 materials, $1.66 labour costs, and $2.83 overhead leave a more than $45 margin of profit and advertising costs on the retail price of $70 (The Observer, quoted in Vreeswijk 2001: 79). A Dutch advertiser wistfully stated that 'people in America' have killed for a Nike shoe, showing that a brand 'can take on the size of a religion' (Vreeswijk 2001: 63). 'Performance' costs have definitely outstripped 'product' costs in this example.
that marketers have to continue to believe their work has some effect in the real world. The frequency with which marketers acknowledge their own lack of understanding of successful marketing processes (as Dichter himself acknowledged) is only surprising when we forget that magicians in general forge their self- understanding on the basis of an oscillation of faith and scepticism (Tausig 2003). Both magician and marketers play with our credulity, but they only do so because we allow them to—because we like them to do so. We will understand much more about the magic of things once we realize, on the basis of the previous discussion, that the concealment of the social relations they effect is not just a denial of the labour relations that went into their production (as Marx would have it) or a denial of the trading relations that brought them to their point of purchase (which Marx failed to stress)—but more importantly, that it is a denial of the social relationships and the history that turned them into positive representations of a certain product capacity, need, or subjectivity. Thus, the magic of commodities cannot simply be subsumed under the generalized human trait of realizing cultural being through things (as argued by Miller 1998: 169). There is more involved, if only because the object points to (or reveals) something for somebody just as much as it points away from (or conceals) something else. (More about this indexical aspect below.) This can, finally, be understood once we look at modern things in a context where their agency is celebrated, rather than being subject to fear—computer technophilia.

Technologies

Computer technology is one of the few and most important social fields in which the term ‘magic’ is consistently applied to modern innovations that were hitherto associated with its opposite: rational technology. This departs from most modern conceptions of magic in two important ways. Understandably, computer aficionados rarely use ‘magic’ to refer to their favourite pastime in a derogatory way, as based on mistaken or irrational beliefs. Equally self-evident, their uses of ‘magic’ are focused on a material thing—a box wired with gadgets, chips, and batteries. This understanding of the magic of the computer is itself part of a folk theory—one suspiciously close to a techno-deterministic and hence fetishized way of looking at the world. Its comparison of magic with technology may provide us with an alternative to earlier theories—equally modern, if sometimes less ‘folk’—that points the way to more profound understanding of magic and materiality in general.
Steven Levy's *Hackers: heroes of the computer revolution* (2001) first appeared in 1984, the same year that the science-fiction writer William Gibson coined the word 'cyberspace' and provided hackers with their first fictional hero in his widely acclaimed *Neuromancer* (Gibson 1984). Both books can be seen as harbinger of the computer revolution in the 1980s, providing it with myths of origin as well as with an image of a future to which the new technology could be attuned (although Gibson's future is far bleaker than Levy's). Like radio and television in previous eras (the 1920s and the early 1950s, respectively), this was a technology that had not yet settled as a new social form (cf. R. Williams 2002 [1974]: 32). Marketers were still trying to determine how the personal computer, catapulted on to the market by the Altair in 1975, the IMSAI in 1976, and the Sol in 1977, could best be turned into a consumer electronic, and hesitated to proclaim openly the goal for which these machines, joined by the Apple II, were now predominantly used: for hobbyists fiddling with their own computer languages and writing their own programs, and above all for the rapidly booming computer game industry (Haddon 1988). Levy's book was one of the publications that turned hackers into heroes by providing them with a 'hackers' ethic' and outlining three path-breaking generations to mark the stages of technological innovation (as in any heroic history of technology)—until the 1980s, when 'Computer Liberation' (as an influential book of the early 1970s had it) was subverted by marketers and commerce (Levy 2001: 424). Written on the cusp of a peculiar moment in the history of the technology—just before the popularization of the graphics user interface by the Apple Macintosh in 1984, and the spread of the World Wide Web in the early 1990s—Levy's book is a good medium through which to analyse this technology's folk theory of 'magic'.

Levy did, indeed, varnish his heroic stories with the metaphors of magic and wizardry, and although he provided many of these glasses himself, the number of quotes from his heroes indicate that this was not just his own gloss, but a sense of wonder shared by the different generations of computer aficionados he describes. The words 'magic' (or 'magician', or 'magical') and 'wizardry' recur throughout the book; on average on every sixth page.1 As Levy (2001: 129) described the 'Golden Age' of computer hacking at the MIT artificial intelligence lab in the 1960s, 'Art, science and play had merged into the magical activity of programming, with every hacker an omnipotent master of the flow of information within the machine.' This shows the two most prominent tropes by which the computer was linked to magic. First, the wonder at the impossible capacities of the 'magic machine that had intelligence', as hacker Steven Dompier put it, and whose agency turned programming into a 'magical activity'. Secondly, the heroic image of the computer hacker as the 'omnipotent master of the flow of information' who could therefore be seen as a 'wizard': Both tropes are united by the image of the computer as a machine for 'protec magic' (Levy 2001: 433), a shape-changing tool generating worlds of its own, and they thereby highlight the mediating role of this machine. But they also play upon two somewhat contradictory registers of magic:

the imagery of omnipotence and wizardry, emphasizing control; and the imagery of wonder and amazement, emphasizing lack or loss of control in the face of the powers of the machine. Even more confusing, the two registers sometimes seem to coincide.

The appeal 'master magicians' or 'wizards' most often seems to apply to the world produced by computer software or those proficient in its manipulation. It generates something akin to the Romantic deification of the creative genius, admiring the fact that machines have been created that 'can make you do anything you can think of' (programmer Margot Tommervik, quoted in Levy 2001: 390), or celebrating that 'by manipulating a world inside a computer, people realized that they were capable of making things happen by their own creativity. Once you had that power, you could do anything' (game designer Ken Williams, quoted in Levy 2001: 337). The finished software product alone could generate such feelings. Showing the Sol, one of the earliest personal computers, on a television show, the TV host Ted Snyder (a 'technical illiterate') was completely hooked by the 'feeling of power' that playing a shooting-aids game gave, and it gave him a sense of what it would mean when you could use such a machine 'to actually create' (Snyder quoted in Levy 2001: 243). 'Wizardry' in computing, therefore, was not far removed from the omnipotence experienced in the computer game itself, that allowed one, as the sales line of Richard Garriott's immensely popular game Ultima 2 put it, 'to travel throughout the solar system, be seduced in a bar, meet prominent people within the computer industry, cast magical spells at evil creatures, and grow to wield the most powerful magic known to man' (Garriott quoted in Levy 2001: 381).

In contrast, those command-line and hardware hackers and computer aficionados who created the possibilities for the materialization of that separate realm, or who discerned a kind of liberation in spreading computer literacy beyond the world of the expert 'wizard', tend to emphasize—at least in Levy's book—a more humble way of realizing human potential vis-à-vis the computer. Even at MIT, hacker Peter Samson's view that the 'magical appeal' of programming lies in the fact that your effort to 'fix a behavioral problem' results in 'exactly an image of what you meant' one discerns the awe at the capacity of this machine that allows you to do just that. This ambivalence is also apparent in Levy's celebration of the 'magic machine' that could produce an early game like Spacewar, that first provided the space in which later software hackers would locate their omnipotence (Levy 2001: 58, 65, 142, 206).2 Countercultural hackers or their promoters saw, in the computer, a 'magic box' that, miraculously, made 'weird-type people sit in kitchens and basements and place all hours of the night, soldering things to boards to make machines go flickety-flock' to become 'adventurers in a new land' just like the early American pioneers (in the words of Les Solomon, the editor of *Popular Electronics*, who first publicized the Altair PC). Steve Dompier, hacker of the Sol PC, was flabbergasted by 'that first magic where this machine talks back to you and
does mathematics incredibly fast' and recorded everybody's awe towards it 'for the first four of five months until they understood it really wasn't intelligent' (Donnigue quoted in Levy 2001: 190–1). 'Magic was the only word that these hackers and promoters of hacking could think of when imagining a future in which, in Ted Nelson's words 'T[he] dinky computers are working magic enough. They will bring about changes in society as radical as those brought about by the telephone or the automobile' (Nelson quoted in Levy 2001: 267).

The retrospective truth of Nelson's prediction does not, of course, deny that this is technodeterminism in its everyday guise (and it should not make us forget that, despite the view of computer aficionados, there are many modern people who criticize it). It is based on a form of fetishization that is quite close to that of modern magical objects discussed previously (Pfaffenberger 1988: 242). In relation to the problematic of magical things in modernity, the crucial point to make is that, in relation to the computer, we find little trace of the 'fear of objects supplanting people' (Miller 1998c: 169). Instead, in the case of computer technology, the fetishism is welcomed. In our discussion of modern magical objects, we come, in a sense, full circle. The fetish is the stereotype of the modern magical thing: it denotes that objects can behave as subjects, but is haunted by this prospect as a result. The commodity stands in a painful relation to the fetish, being constantly threatened by it, but—as Dickens and the twentieth-century marketers discuss above bring out—often building on its capacity to transform social relationships at the same time. Finally, the technology is more often allowed to exert its magical transformations on us, showing the full extent of modern magic—but reminding us at the same time that the neglect of the materiality of magic has often blinded us to the fact that the more profound understanding we can gain of magical things in general might not come from the, so-called pre-modern, fetish, but from the modern engagement with technology instead.

CONCLUSIONS

Let us end, therefore, with a (supposedly) non-modern magical thing. Sociocultural anthropologist Alfred Gell recorded an interpretation of the nkisi, the famous Congo 'nail-fetish' that brings out its material being. The nkisi can act as an arbiter in judicial procedure, punishing those who lie on oath by the power that it has accumulated. The power partly comes from the actions of an occult expert, who has helped to ingest the (memory of) power of a proficient hunter into a tree; the power from the tree, subsequently turned into sculpture, is activated when a nail is driven into it, to initiate a judicial procedure. The nail-fetish thereby becomes 'the visible knot which ties together an invisible skein of relations'. It is not a symbol, 'for these relations have produced this particular thing in its concrete, factual presence; and it is because these relations exist(ed) that the fetish can exercise its judicial role' (Gell 1998: 62). In this interpretation, it is the visible presence of the abductions of agency that give the nail-fetish its power that allows it to be an agent in the first place. In other words, the distributed agency of which all magical things are an indication or index is here not denied or feared, but put to an explicitly acknowledged use (just as some hackers transfer human agency to the computer). Magical things, therefore, seem to become all the more magical in modernity precisely because such a distribution of agency is ruled out as a possibility—as the result of a series of reworkings of, among other things, a Protestant intellectual heritage. The modern assessment of materiality may become less magical and painful, and probably make us feel more akin to those who use nail-fetishes or their equivalent, once this distribution of agency is accepted as a normal aspect of human life and its engagement with artefacts and technologies. I do not think, however, that that will fully 'undermine magic as an analytic' as Wiener (2007: 46) hopes, for how else will we continue to discuss our experience of objects behaving as subjects?

Notes

1. Using the 'search inside' facility on Amazon, one finds 34 entries for magic, one for magician, nine for magical, 30 for wizard, and 10 for wizardry; 84 items across 944 pages.

2. Spacewar spread from MIT to the Stanford Artificial Intelligence laboratory, where even the food-vending machine was named after a bar in that paradigm of magic, J. R. R. Tolkien's Middle Earth, and cloned the Tolkien-inspired 'Adventure' game in the process (for its earliest celebration, see Brand 1972).


CHAPTE 28

AFTERWORD: FINGS AIN'T WOT THEY USED T' BE: THINKING THROUGH MATERIAL THINKING AS PLACING AND ARRANGEMENT

NIGEL THRIFT

Placing Vases: Depending on the style of the vase, set it on a Japanese table of appropriate size, using bronze in the winter or spring, porcelain for the summer and winter. Vases for the reception hall should be large; those for the studio should be small. Value bronze or ceramic, and hold gold and silver cheap, avoiding those with ring handles or which come in pairs. Flowers should be eneaciated and curious; they should not be over-complicated. If using a cut branch, then it must be selected to be curious and antique. If there are two then their relative heights must be suitable. It is particularly important to have no more than one or two varieties, since too many gives the appearance of a wine shop. This does not apply to a small vase with an arrangement of autumn flowers. In placing flowers do not burn incense with the windows closed, lest the smoke blight the petals. This is particularly the case with narcissi. Nor should flowers be placed on a painting table.

From Wen Zhenheng's Treatise on Superfluous Things (1650–1657), cited by Clunas (1997: 44)

INTRODUCTION

In 1762 Oliver Goldsmith (2006 [1762]) used the figure of an imaginary Chinese mandarin traveller, Lien-chi Akangi, to parody the customs and mores of eighteenth-century London. Prominent among the mandarin’s epistolary observations was Londoners’ obsession with the getting of goods (and his susceptibility to their methods of selling them). Clearly, Goldsmith was not writing with much in the way of knowledge of Chinese culture since, if he had been, he would have realized that Chinese culture was similarly preoccupied. Since the latter part of the Ming dynasty, consumer goods had been circulating among not just the elite but many other segments of society, often in much the same way as in the supposed heartlands of the consumer revolution like England and the Netherlands. In a masterly series of works, Clunas (1991, 1997, 2007) and Brook (1998) show that market mechanisms and networks of information were in place to allow a growth of mundane and luxury consumption that in places was on a par with that of Europe: brushes from Anhui province, ceramics from the great potteries of Jingdezhen, books compiled in many locations. Here was a proto-consumer culture that had moved a long way beyond the bazaar.

As if to underline the main tenet of Dipesh Chakrabarty’s Provincializing Europe (2000), a unitary historical time simply serves to underline Western notions of the centrality of ‘modernity’ that the historical record immediately belies. For the historical record shows that in most places at most times there is a fascination with goods, at least on the evidence of trade routes that we now realize to have been more extensive at an earlier date than had heretofore been understood (e.g. Cunliffe 2008). In other words, people have always been intent on adding use and magic to their lives by acquiring goods. In a later period in which the economic formation commonly called capitalism holds sway, diagnoses of the desire to acquire
have been legion. Marxists like to talk of commodity fetishism. Eco-moralists like to talk, simply and straightforwardly, of greed and waste. But there are other accounts. For example, inspired by the practice of potlatch, Bataille wanted to account for the power of excess energy through the notion of 'general economy', arguing that this excess energy was channelled into lavish expenditure. The lack of scarcity is a theme taken up by more recent authors too. For example, Sloterdijk (2007: 346), reverses Gehlen's emphasis on lack of means, arguing instead that we now occupy a time of excess in which waste 'is the primary civic duty'. But the need to condemn almost always returns. Thus, Sloterdijk, along with authors, such as Zizek and Bauman, is convinced we have transited to a time in which we inhabit a public form of privacy that will drag us down into mediocrity, able to choose consumer obsessions but not much else, thus echoing the standard critique of the ultimate venality of consumerism.

But, though I would certainly not want to argue the case for unlimited expansion of the acquisition of goods, not least because of the catastrophic environmental consequences, I would want to argue for the assertion of a basic aesthetic impulse in human being that drives our love of things as much as the self-milling mill of production aesthetics as a biologically endowed proclivity, our evolved species characteristic. Of course, things are useful means of getting things done. But even the simplest of tools often turns out to have many ways of being produced—they are ordered to at least certain aesthetic norms, which are often abstract and abstracted. One thinks of Gell's famous paper on the fish trap: was this device a matter of art or utility? One thinks of all the forms of plaeting, binding, and knitting, and the way these lattices produce contrasting forms: 'for example, in Baroque emblem construction as well as the wrapped funerary effigies of New Ireland in the Pacific Ocean where the body emerges from the firework' (Stafford 2007: 21). And one thinks of the power of the bare line, repeated over and over again on so many goods (Ingold 2007c). People delight in looking at things, in touching things, and generally in getting to grips with them. That contact makes them feel good. Their enjoyment is real and it is not derived from some other source. It is not epiphenomenal. It follows that people want to enhance their sensory surroundings, to shape time and space by populating them with objects, whether this be in the form of the decoration of temples or the most mundane of domestic spaces. This basic aesthetic impulse—artistics as a behaviour—has been written about at length by many writers from different disciplines in varied ways. But one thing we do know, it is not a one-sided relationship in which we simply project our concerns on to things. Things draw and hold us too. They become a means through which we gain not only sustenance but also comfort, whether it be from CD collections, vintage Fisher Price toys, or stamps (Miller 2008). And, in turn, we can see this quality of what might be called the craft (and sometimes it really is a craft) of generalized connoisseurship, mixed with sometimes selective, sometimes all but random accumulation of all kinds of goods, as an aspect of evolution just as important as other putatively critical milestones like tool-use:

along with gaining better control of the means of subsistence by the use of material technology, humans took an additional remarkable and unprecedented evolutionary step. They gilded the lily, making sure that their technology 'worked' by deliberately reinforcing it with emotionally satisfying special elaborations and shaping. Thus, in the history of the human species, it is not only the development of language or the invention of technological 'means of production' that has made us anomalous or unique. Our invention and application of what might be called the 'means of enhancement' or 'means of refinement'—for an infinity of possible objects and occasions—is equally impressive and equally deeply engrained in human nature.

Dissanayake (1995: 95)

In other words, perhaps our relationship to things has what might be called a musical quality, which we forget at our peril. Music has, of course, routinely been degraded as evolutionarily peripheral and even non-adaptive (Pinker 1997) but it keeps stubbornly reappearing as a quality we cannot reduce to something else, including in the history of evolution (cf. Mithen 2005). Perhaps the aesthetic quality of things has the same kind of resonance, one that can be ignored but only with dire consequences for the power of our explanations. Things may not just talk to us, sometimes they sing.

**Material culture regnant**

This Handbook demonstrates how the study of material culture has come of age. From being the preserve of a few hardly souls working in disconnected island communities—the social and economic history of consumption, ethnographies of contemporary consumption, the anthropology of goods, such as clothing and pottery, material culture studies in archaeology—it has become the stamping ground of many. Why that should be is, I think, entirely understandable. To begin with, there is the sheer profusion of things in many contemporary societies. We live in the culture of Novalis' self-milling mill where things populate the world in ways undreamt of in earlier cultures. For example, the number of passenger vehicles in the world is currently estimated at 622 million, up from 500 million in 2000 and a mere 53 million in 1950, and still climbing year on year. In turn, the profusion of such things generates its own population ecologies. Five come immediately to mind. To begin with, there is the domain of the second-hand. And it is a vast domain, ranging from used car yards through charity shops to a considerable...
part of the economy of poorer communities. Then, there is repair and maintenance (Graham and Thrift 2007). Cars, for example, need repair and maintenance; and this repair and maintenance is carried out in culturally specific ways, from the vast repair shops run by some car dealerships to the large number of small repair shops to the kind of informal operations exemplified by Australian Walpurni bush mechanics. And, this is before we get to the general practice of tinkering with objects that typifies so much human life. Then, there is waste. The spectacular sight of barges of rubbish moving up the rivers or of ships loaded with metals for recycling is but the tip of an iceberg of waste dumping and recycling, which is truly global in nature, connecting American computer users with Indian villagers, and vice versa. Finally, there is an ecology of litter to be reckoned with. Litter has become an integral part of the landscapes of many countries, populating roadside verges, blowing along the street, migrating across the oceans. It is hardly a new phenomenon. Even in 1950, the British propensity for littering was rampant: the Manchester Guardian decried "the accumulation of cartons and large rags of newspaper and miscellaneous wrappings, which lie about for days on end" (R. Lee 2000). At the time, it was reckoned that about half a million bus tickets were dropped on the streets every day. The nature of the detritus may have changed but, otherwise, plus ça change.

But this is not all. Things have now become a key part of worlds. That was always true in the sense that the layout of things has always been a powerful point of a culture’s propensities and dispositions. But what has changed is that landscapes are now fashioned by things in much more active ways. This is not some new version of commodity fetishism but rather what the Italian operario Marxists call ‘worlding’, a situation in which the determinate relationship between subjects and objects is replaced by a set of spatio-temporal sequences, hybrid networks, which distribute subjects and objects in knowing ways so as to harness affective flow. In a sense, everything becomes furniture bent to this task. In the same spirit, these worlds are predicated upon producing continuous engagement with various things so that the commodity appears increasingly as a process rather than a thing that is fixed in time (Thrift 2005b, 2007; Lash and Lury 2007; Klingman 2007). Often they depend upon the granting of a good deal of freedom to the consumer in order to produce new forms of affective energy—and new products. Consider only the enormous artefactual-cum-affective force produced by the public intimacy of Western ‘women’s culture’ in all its forms, a culture that uses commodities to fuel practices, such as giving and loving and complaining and being in pain, which is both a commercial colossus and a resource, an unfinished event that has all kinds of ‘juxtapositional’ possibilities (Berlant 2008).

Finally, and relatedly, we have become knowing about things in unparalleled ways. The outbreak of reflexivity concerning material practices in the academic sphere, in which all manner of methods allow the erstwhile savant to knowingly observe the knowing—sometimes in ways that seem to mimic the self-absorption to be found in so many blogs and Facebook entries—is simply an echo of the corporate and consumer practices of ‘knowing capitalism’ in which expertise about things is sought out and incorporated into the process of commodity production (Thrift 2005b, 2007; Savage and Burrows 2007). Even archaeological methods are being transferred into the present as investigators increasingly treat material culture as the deposition of an instant (Buchli and Lucas 2001b).

No doubt it is possible to argue about the effects that the sheer profusion of things has had on us. We certainly don’t need to overdramatize it. As Cohen (2006) points out, quantity of things is no guide to how they are used: contrast what to us seems like the clutter of many Victorian homes with the spare quasi-modernist mien pursued in the homes of many consumers today, all around the globe (Jacobs and Cairns 2006). Rather, the move to prioritizing the material in material culture ‘explicates’ a series of processes by formalizing knowledge that was formerly informal. I will pull out just three of these processes of explication to produce the outline of a body of knowledge, which seems to me to be central to any ‘thing talk’. They are not exhaustive or exclusive but hopefully they make the point that, to use the title of the old Lionel Bart musical, ‘frings ain’t wot they used t’ be’.

THREE PROCESSES OF EXPLICITATION

First off, social and cultural theory is taking things into account in a way that it only did sporadically before, as many papers in this collection attest. To begin with, the idea of a divide between humans and things now looks like a relic. Things do not need to be chaperoned by human beings to have presence or force (Harman 2005).

Many accounts have emphasized this point, dating from before phenomenology. But it has now become something of an orthodoxy. So, at the very least, things are counted as material prostheses to the human body, extensions that allow human beings to become more alive. One thinks of the long line of devices that have extended the representational functions of the hand, for example: stylus, brush, pen, keyboard, mouse, touchscreen, and so on, and the new languages that have arisen from their deployment such as writing and software, sometimes still replete with deictic traces. Equally, one thinks of all the devices that have extended the human capacity for movement: shoe, wheel, cart, coach, train, car, plane. Then things can have their own force, which acts back. Things come alive, prodding us into action in unforeseen ways. One thinks, for example, of the way in which stage props like the handkerchief, the skull, the fan, and the gun are gradually acknowledged as actors in their own right, able not just to haunt the imagination but do things that are pivotal to action (Sofer 2003). Or, on a more
time working with things—anthropology, archaeology, art and performance, geography—now seem just peculiarly fitting to the times. For they redefine the empirical in ways that have become increasingly pressing for all disciplines, moving towards both natural science and arts models simultaneously.

Then again, things are producing a politics that had been little thought of or practised before. Once things are granted symmetry as elements of gestalt networks, then it becomes interesting to think about how the art of politics needs to be defined in a non-reductive way. This is not just a case of understanding the ways in which things (like meters) allow different modes of engagement with issues, such as sustainability and green living, important as these undoubtedly are. Rather it is about turning object-centred practices into sites of public involvement. In turn, that allows all manner of questions to be asked. What is a democracy of hybrid networks? What gets to vote and how? Indeed, can ‘humans’ vote? How would a parliament of things be constituted? And so on.

Secondly, the fact that things reflect cultures in very different ways has become more and more explicit. It hardly needs me to document the vast explosion of work that has set out the very different use of things in different cultures and the way that this use reflects everyday life (Brewer and Trentmann 2006). This book provides ample evidence of that proposition over and over again. But there is more to it than that: the motivating principles and dilemmas and the dreams of different cultures are often constituted through the clash of things and their dispositions. Let me expand.

To begin with, think of the religious landscape of Reformation England and the force of an iconoclastic aesthetic made flesh through a very different form of visual culture, one that swept away the old visual culture of late medieval Catholicism (Duffy 1997). Think of the elaborate decoration and the complex sounds and smells that made up so much of what constituted the liturgy for ordinary people up to that time—the conventions and contents of lay prayer; the relation of orthodox religious practice and magic; the Mass and the cult of the saints; and the lay belief about death and the afterlife—all expressed through objects nostalgically recalled in the years after the destruction of so much of this way of life. Equally, think of the aesthetic of modernism and its impact on popular taste which still exists in muted form in the domestic spaces of so many people, yet alone in large-scale architectural projects that seem unable to escape its spell. Yet this aesthetic varies from culture to culture in both its reception and practice, and in turn, these practices can travel back and forth, producing new subjectivities (Bayart 2007).

Such contemplation leads, in turn, to the general issue of how things are described in different cultures. For what seems clear is that the weight of description of things varies among different cultures in radical ways. The prose of things varies according to the means of description available and the emphasis placed on particular elements of these means. Note that I am not suggesting that all description has to pass through spoken and written language (which can, in any case, vary
massively in its content and syntax). Description can also take place simply through the work of imposing form on materials and the ways materials resist that embrace, as authors as different as Simondon, Flusser (1999), and Stiegler have pointed out. (Indeed, so far as Stiegler is concerned, this process explains our consciousness of time.) And it can also arise out of the ways in which objects are placed in hybrid networks so as to give them more or less power and 'objectivity' (Daston and Galison 2007). In turn, description can undergo sea changes. Consider Wall's account of the transformation of description in eighteenth-century England in which the rewriting of descriptions of things signals a whole new attitude to what counts as acceptable description:

experientially, to technologically new ways of seeing and appreciating objects in the ordinary world, through the popular prostheses of microscope, telescope and technical analysis; economically, to the expansion of consumer culture in the increasing presence and awareness of things on the market, in the house, in daily life epistemologically, to the changing attitudes toward the general and particular, the universal and the individual; and, narratively, to the perception and representation of domestic space.

Wall (2006: 2)

To round off the account of this second process off, it is also possible to think about how persons can be thought of as things by different cultures. Putting it this way can sound as though one is sanctioning a reduction of the human to a cipher, with all the consequences that became clear over the course of the blighted twentieth century. But there is another way to think this issue through, the kind of approach championed by authors such as Roach (2007) and Marilyn Strathern (2004). For example, Roach shows how Western embodiment is constructed from a confusion of 'surfaces' (itself a problematic nomenclature), which vary historically and have all kinds of implications. Bodies are the sum of a series of surface characteristics, often summed up in a brief glance: the flash of a hat, dark glasses, and a particular bodily stance may be what we see and how we come to judgement. This makes these living effigies' clothes and accessories, hairstyle and the skin, and all manner of other characteristics that occupy the boundaries of the body, into powerful supplemental but still telling cultural signposts, which have the look and feel of things: props that are themselves performances. Thus Roach shows how modern charismatic celebrity is often simply an aggregation of these surfaces, a kind of living, not-living brand. But the point is more general than the name, the face, and the scandal of celebrity. These surfaces vary enormously among cultures and it might be better to treat them as things, rather than falling back on standard humanist motifs.

Thirdly, and relatedly, there is the continuing explicitation of things as existing in many registers at once as well as the processes that become possible because of this, both simple and complex fact. To begin with, and most simply, we can think of things as communicating not just in the visual register but across every sense (understanding that the senses are themselves cultural-biological amalgams). Thus, as Smith (2007) and many others have pointed out, we communicate with things in many registers at once, an insight that is only heightened by the advent of 'intelligent' materials that can respond much more subtly to users (Kühler 2008), materials that are able to feel personalized and personalize feel, whether these be surfaces, sounds, smells, or what have you: each individual can exist in an increasingly modulated environment. But this is surely a subset of a larger development that I have already referred to as worlding, the production of environments (or atmospheres as Sloteirikk would have it) that can catch and modulate affect. I wrote earlier of the musical side of things, which is wrapped up with their ability to trap or generate affect through a certain extravagance that we are biologically constituted to respond to. Producers now play to these moods by constructing carefully designed climatisations that perform object desires. One thinks of modern malls and shops as the primary instruments of object desires, carefully edited spaces within which attention can be focused on things through the medium of things by playing to minor affects, such as envy, and major affects, such as love, using increasingly sophisticated knowledges of the spatial disposition of things. That is but a small part of the affective grip of things. Think only of the immense emotional investments now made in the home as a space for depositing goods. Recent industry-oriented books on the home act as primers for amplifying passions: home is literally where the heart is. Homes, and the things that constitute them, are about addressing basic emotional needs.

Bathing, for example, becomes a key sensuous moment, akin to that found in the true bathing cultures of the world: the Turkish bath, the Japanese onsen, the Scandinavian sauna. And bathing is a good metaphor for what is being aimed at.

To bolster this statement and to understand the general aim of this process more fully, let me move to another kind of bathing experience, that provided by the garden. Chandra Mukerji (this volume, Chapter 24) takes as her example gardens that have an iconic status, those gardens with explicit messages to impart. But such gardens are few and far between, even the most formal of them. Only a few landscape gardens and almost no domestic gardens contain truly iconographic programmes and even those are frequently meant to be evocative or polysemic rather than programmatic (Ellkins 2008: 70). Rather, gardens' effects are ambiguous and largely semiconscious, based on a different kind of grip that often resists the illusion of an observing subject: 'the object isn't bound by our attention: it binds us' (Ellkins 2008: 68). To put it another way: 'If I step into a bath I am going to warm up and perhaps gardens have that kind of control over our responses. On the other hand, it might be better to say that the reverie of gardens is only an inducement to a kind of thought that is often dormant in our professional prose' (Ellkins 2008: 71).

The mention of the semiconscious refers us immediately to the work of writers, such as Gabriel Tarde, whose geography of mimetics has, as I have argued elsewhere, more significance than it has often been given credit for. Spaces are increasingly designed as trails of statements laid out in the form of dispositions of things, rather like a
form of music, making statements that we feel and respond to through long and involved chains of semiconscious mimesis, which constantly echo back and forth. This diagramming of emotions through the medium of things is now moving from being an art to becoming a science.

CONCLUSIONS

Let me end where I began—with China. It is a truism that China has been passing through a moment of binge consumerism. What sometimes looks like a middle class orgy of brands and a general consumer boosterism seems to be going on apace, one which to listen to most commentators has been invented anew by consumer naifs. But look deeper, and we can see something much more interesting. First, and most obviously, the history of China shows an alternative timeline in which the early invention of printing, minutely modularized production, and sophisticated consumer knowledges produced an early consumer sensibility among a part of the population; the printer of Wen Zhenheng could have come from the pages of House and Garden. Secondly, it is quite clear that the Chinese have forged their own consumer sensibility, as the work of Davis, Schein, and others shows only too well, one that engages with what we might stereotypically call a Western formation of desire but only in the broadest and most nuanced sense (see Rofel 2007). Thirdly, and most importantly, the per/ce/ption of goods still carries elements of an older tradition of thinking about materiality, which is becoming better and better known—through a general interest in Eastern philosophy, through Heidegger’s appropriation of Eastern thinking, and through the uncanny echoes between certain Eastern and Western traditions of thought, as found in writers as diverse as Leibniz, Whitehead, and Latour. In particular, there is the absence of clarity and distinctiveness in Chinese thinking about the empirical. In contrast to many other traditions, Chinese thinking is—absolutely, if you like—relational, intent on pursuing a logic of influence through ‘the eternal silence of processes’ (Jullien 2007: 131) without the massive investments and reinvestments in meaning typical of the Western tradition. When Roland Barthes arrived back from China, he argued that he had found a society with no signs but what he was actually witnessing was a cultural emphasis on the potential, the virtual, the in-between, and on process generally that can be realized in a great number of ways, in a great range of concrete objects (Jullien 2000, 2007a, 2007b). It seems to me that it is towards this vision of a kind of nourishment of and by things as they unfold in time that we are now all heading, each in our own ways: a transformation of description that takes up a model of something like music, one might even say.

NOTES

1. Goldsmith does mention the shops of Pekin and Chinese governance in a way that shows he had more than just a passing knowledge of China. At the time, the general appetite for things Chinese, for Chinoiserie, objects made in China specifically for the European market, for things that mimicked Chinese style, such as chairs and clocks, and for books such as Willet Dapper’s Atlas Chinensis (1671) (a style bible full of elaborate observations by an author who, nonetheless, had never been to China) must have sensitized him to that country’s culture (see Markley 2006).

2. I take the term from the work of Peter Sloterdijk.

3. I have tried to show the enormous reach of consumer industries, such as hairstyling, in modern economies in Thrift (2008).

4. Equally, we could dip further into the vast edifice of women’s culture: a circulation of dreams and things that has been brought into existence since the sixteenth century (Berlant, 2008).

5. Incidentally, gardens have become one of the great consumer industries on a world-wide scale (see Lees 2002).