CHAPTER 26

CERAMICS (AS CONTAINERS)

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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 find, 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 irreversibly 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 1936, 1942: 43–61; Renfrew 2003; see Gamble 2007: 10–32).

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.12 300–7200 BC (e.g. Jordan and Zvelebil 2007) 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. E. 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

that acknowledges the constitutive role of material culture itself in changing notions of what it means to contain, literally and metaphorically.

BODY AS CONTAINER

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What does it mean to contain? From where does this idea derive? Despite containers being one of the most abundant categories of archaeological find, and thus arguably the chief focus for study, the concepts they objectify have rarely preoccupied 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 become 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 artefact, 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 Gimbutas 1989: 22, 52, 191; Perlès 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. J.S. Thomas 1996; Tilley 1996), containment may have a more basic and to a large extent neglected role in the shaping of human intelligence.

To make our case more clearly in this chapter we stress that speaking about ‘containment’ we are not simply 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.

EMBODIED MIND AND METAPHOR THEORY

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The *embodied mind* and *conceptual metaphor theory*, developed especially by cognitive psychologists such as George Lakoff and Mark Johnson (1999), maintains that the body is not just a passive container for the mind but is an active component in its formation. A focus upon embodied cognition treats human conceptual categories as, to a large extent, dependent on ‘the bodily nature of the people doing the categorizing’ (Lakoff 1987: 371), rather than corresponding to inherent objective properties of an external reality. Concepts are constructed on the basis of ‘interactional’ rather than objective properties (Lakoff and Johnson 1980); they derive from ‘our interactions as part of our physical and cultural environments given our bodies and cognitive apparatus’ (Lakoff 1987: 51). This view also finds support in neurobiological research (e.g. Gallese 2005; Gallese and Lakoff 2005).

In embodied mind theory, ‘the very structures on which reason is based emerge from our bodily sensorimotor experiences’ (Lakoff 1987: 386). The implications of

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 schematic’ structure 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; Fauconnier and Turner 1998). As various experimental studies in cognitive psychology have revealed (especially M. 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 (1980) study *Metaphors We Live By*.

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 pre-conceptual structure of their own’ (Lakoff 1987: 303). In other words, abstract conceptual structures that, in contrast to image-schematic structures are not directly meaningful and become meaningful through their association with meaningful image-schematic structures; that is, employing metaphorical projections from concrete to abstract domains.

FROM BODIES TO ARTEFACTS

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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 (1996: 318) 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.

By the same token Clive Gamble (2007) in his *Origins and Revolutions*, 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 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 matter from 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). None the less, 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 (1999) 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. (p. 268)

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 determinant 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: 239), 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,b). 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

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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 2001, 2006). This concern comes from a long French anthropological tradition focusing on gestures (see also Beaune 2000) that can be traced back through Leroi-Gourhan (1964) to the work of Marcel Mauss on the cultural specificity of bodily techniques (Mauss 1973; originally Mauss 1936). 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 (2000) study of *The Feeling of What Happens*, Warnier asserts that no sensorimotor conduct exists without desires and emotions.

So we have the *sensori-affectivo-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 conducts geared to material culture’ (Warnier 2006: 187). This he dubs ‘praxeology’. 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 Warnier’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).

Warnier’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 is sometimes depicted in psychology and psychiatry as the ‘arch-container’ (Anzieu 1995; Warnier 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. Warnier enumerates a basic repertoire of practices, including feeding, breathing, defecating, and being held, that ‘develop at one and the same time both the sensorimotor and the psychic components of containment and its correlates’ (Warnier 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 too are 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 Blier 1987, 2006: 241; Gamble 2007: 98–99). But this is not simply one-way traffic outwards 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 ‘l’homme total’ as a bio-psycho-social phenomenon (Mauss 1973).

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 ‘sets’ and ‘nets’; as technologies move further away from the body and what is proximate, that which is accumulated or layered close by in ‘sets’ may easily become fragmented and separated, finding itself distributed or enchainment 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 ‘tectonoetic 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 Warnier'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

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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; J.A. 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 potentials 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 in preparation). 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 *skeuomorphism* (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 *skeuomorphs* 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 2007). 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 2007). 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 2007). 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. J. 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. A. Evans 1921: 35; J. 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 slips, 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 wishbone 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, corded 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: 171–1781, 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;

Fig. 26.1

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Tomkins 2007b: 21–23), ceramic containers were consumed in very small quantities with rates of deposition estimated at about five to 25 vessels per year (Vitelli 1993: 210; Perlès 2001: 214; Tomkins 2007a: 181). Given evidence for the importance of curation (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 Mièrre 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.

Fig. 26.2

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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 finewares, was widely exchanged, with some vessels travelling distances of more than 200 km from their original place of production (Le Mièrre and Picon 1987; W.K. 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: 584). 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

Fig. 26.3

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: 171–183; Appadurai 1986b: 29–31). 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

Fig. 26.4

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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: 329–330; 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; Evans 1964: 226, fig. 60.6–7). 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 (J. Evans 1964: 236, 238; fig. 61.11, 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 artefactual to the human body and from more literal renderings of single sets of correspondences (skeuomorphism) 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’ or, in Warnier’s (2006: 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 (skeuomorphism), 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 adornments (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 (3100/3000–2650 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 ‘Metallschock’ (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 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 profoundly 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 on containers

in stone and metal, not only by skeuomorphing these vessels (Knappett 2002, 2008; Nakou 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 ‘rhyton’—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

Fig. 26.5

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Fig. 26.6

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Fig. 26.7

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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's 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 discussion of the metaphorical connections with the body, is that in 30% of known cases, pithoi are used for burials (Christakis 2005: 55). 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 their static containment is key, and the Greek word 'rhyton' itself comes from the verb 'rhein', 'to flow' (Koehl 2006: 5). 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

Fig. 26.8

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

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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 from this perspective the history of pottery use is characterized not by revolutions, either at the beginning of the Bronze Age or indeed at the onset of pottery use in the Neolithic, so much as continuity in the ever-present intersection of different materials and technologies, and of different tendencies towards ‘accumulation’ or ‘enchainment’ (Chapman 2000a; Gamble 2007). These intersections and tendencies are not so strongly materialistic that human identity is entirely moulded by them; but neither are they merely the by-products of an overarching quest for human identity that is predominantly cognitive. What we are seeking is an intermediary perspective that pays full attention to material properties, and the particular affordances of ceramic and other technologies, while also attuned to the importance of human relationships in mobilizing these technologies.

We find that the praxeology perspective developed by Warnier (2001, 2006, 2007), when set within the broader context of ‘embodied mind’ and ‘enactive’ approaches (Malafouris 2007, 2008a,b), is a very promising way forward for material culture studies. Taking the techniques and gestures of the body as central allows a more dynamic approach to material culture. Rather than being mired in

arguments over ceramics as a category, we can start thinking much more fruitfully about what and how ceramics mean and do. Hence by focusing on technologies of containing and containment we seek to avoid an essentializing perspective that makes ‘pottery’ or ‘ceramics’ primary, and to allow ourselves, in this case, a much more dynamic and indeed human perspective on the material culture of the Neolithic and Bronze Age Aegean, one that can begin to provide more satisfactory explanations of both continuity and change over space and time.

Author Query

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