ARCHAEOLOGY AND THE STUDY OF MATERIAL CULTURE: SYNERGIES WITH CULTURAL PSYCHOLOGY

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ABSTRACT. Human cognition does not rest upon individual minds alone, but is distributed across persons, things and time. Archaeology, the discipline of things par excellence, has much to offer to researchers interested in cognitive processes. The material world is crucial in processes of enculturation and cultural transmission, in shaping daily experience and perceptions, and in orienting action. In this chapter, the concept of material culture is examined as it is commonly understood today in archaeology and material culture studies. Furthermore, the diverse roles of material culture in relation to cognition are examined through specific examples from prehistoric, historic and contemporary societies.

KEYWORDS Material culture, material agency, distributed cognition, built environment, enculturation, archaeological theory.

(h1) PSYCHOLOGY AND ARCHAEOLOGY

Archaeology’s links to psychology are stronger and more diverse than usually acknowledged, although the interest to establish such links has been mostly unidirectional so far: since the mid-1980s archaeologists have been exploring the complex issue of mind and cognition from the material remains of the past—a daunting but certainly not impossible task. On the contrary, psychologists have not been interested in the lessons that might be obtained from archaeology. They may think that since archaeologists work with the material world, they are in a disadvantaged position to access the human mind. Also, they may perceive archaeology as a field far removed from the theoretical debates that affect other sciences, such as anthropology or sociology, which intersect with psychology in several ways. As we will see, neither idea is really true.

The theoretical current known as cognitive or cognitive-processual archaeology is responsible for the psychological turn in archaeology, which has had its greatest impact among those working in the earliest phases of the evolution of humankind (Renfrew and Zubrow 1994; Renfrew and Morley 2009). In fact, the concerns of cognitive archaeologists have been basically centered on evolutionary matters, that is, the development of cognitive skills in human beings: when did abstract thought, aesthetics or the use of material culture as external symbolic storage appear for the first time? The field more akin to cognitive archaeology is not cultural but evolutionary psychology and cognitive science and, for this reason, this approach will not be discussed here. However, also in this case, it has been archaeologists who have approached cognitive and evolutionary psychology, rather than the other way round.
Another meeting point between archaeologists and psychology (rather than psychologists) is learning and the configuration of motor skills: which psychomotor changes have to occur so that an apprentice becomes proficient at making wheel-turned pots or a certain kind of flaked stone tool (e.g., Roux and Corbetta 1989; Stout 2002)? Again, this is not a matter that has to do specifically with cultural psychology per se, but with cognitive science (but see Boesch 1993).

Beyond the evolution of cognitive skills, the truth is that, at least since the early 1980s, archaeologists and psychologists have been sharing more concerns than they may think: identity, personhood and self (Hernando 2002, Fowler 2004), human and social agency (Robb and Dobres 2000), emotion (Tarlow 2000a), perception of the environment (Tilley 1994, Ingold 2000), memory (Jones 2007), distributed cognition (Malafouris 2004) and enculturation (Hodder and Cessford 2004; Stark et al. 2008) to mention but a few.

(h2) CAN ARCHAEOLOGY BE USEFUL FOR CULTURAL PSYCHOLOGISTS?

Perhaps surprisingly, there has been no attempt of convergence between cultural psychology and archaeology. This despite the fact that archaeology—the only science that has the methodological tools to study human beings from 2.5 million years ago to the present—can contribute to cultural psychology by increasing the number of cultures and cultural contexts at the disposal of the psychologist. Archaeology’s potential contribution to cultural psychology does not end there—rather, it starts there. The gist of archaeology lies in its being the science of material culture par excellence, the discipline of things (Olsen 2003: 89), and material culture, as Latour (1991) said of technology, is society made durable. The main aim of cultural psychology is to understand how the mind is affected by culture. Traditionally, visions of culture as proposed by anthropologists have emphasized its immaterial side (ideology, institutions, myths, kinship) and, likewise, visions of psychological process as developing on a disembodied mind have predominated in psychology (Cole 1998: 118). This disembodied image of culture and mind has come under attack during the last decade and today many researchers agree in that human beings do not create and live culture in an ethereal, ideal void. Their lives and thoughts are inextricably entangled in a material world. As a matter of fact, almost everything in the cultural lives of human beings could be considered material culture, since there are very few—if any—activities that are not materially mediated in one way or the other—even singing or storytelling implies materiality: at the minimum, a technique of the body (Mauss 1973).

Besides, the particular aim of cultural psychology is closer in one sense, at least, to archaeology than to anthropology. According to Shweder and Sullivan (1993: 508) “Cultural psychology is the study of constituted or compiled experiences (what Geertz has called ‘experience-near’ concepts) in contrast to explicated experiences (‘experience distant’ concepts)”. Material culture is all about constituted experiences: there is nothing closer to experience than materiality. In recent years, interest among cultural psychologists in material culture has increased (Valsiner 2009: 22-24), a fact that has to be related with an awareness of the importance of objects in culture. For Michael Cole (1998: 144) artifacts, due to their simultaneous material and ideal nature, are the fundamental constituents of culture, which in turn is fundamental in shaping cognitive processes. It would be unfair to forget, though, that one of the first psychologists to point out the relevance of material culture—or tools—was Lev Vygotsky himself. “The most significant moment in the course of intellectual development—writes Vygotsky (1978: 25)—which gives birth to the purely human forms of practical and abstract
intelligence, occurs when speech and practical activity, two previously completely independent lines of development, converge”. Practical activity, for Vygotsky, was characterized by the use of material tools. Furthermore, he considered practical intelligence in children as prior to independent speech, given the existence of this practical intelligence in primates as well.

However, the difference between humans and apes is the capacity to make complex tools by the former, which implies a developed anticipatory cognition. I am not referring here to the use of non-modified tools (such as twigs or stones) among primates or to the debate on primate cultures (for this see C. Boesch this volume), but to the making and use of secondary tools (such as retouched flakes). The first lithic industries of 2.5-2 million years ago, although apparently rough, imply a complex and elaborate thinking that goes well beyond the abilities of chimpanzees (cf. de la Torre 2004). Interestingly, though, as Vygotsky already noted, this sophisticated practical intelligence exists before the appearance of speech. In this sense, it is worth noting that for archaeologists, evolutionary biologists and philosophers alike, one of the defining characteristics of human beings is the capacity to make and use composite tools. Other elements, such as a developed speech and symbolic capacity come later. However, Vygotsky was right at pointing at the relevance of studying practical intelligence and the use of signs together, instead of as two separate phenomena. He did not just encourage the study of both signs and things as intertwined, but considered them equally important: “speech and action are part of one and the same complex psychological function, directed toward the solution of a problem at hand” (Vygotsky 1978: 25). The elaborate operations involved in the production of early stone tools are not possible without some process of signification which is absent in apes. These operations comprise two elements that according to Christopher Boesch (this volume) distinguish humans from primates: the persistence of cultural traits for extended periods of time (bifaces, for instance, used for over a million years) and the presence of non-adaptive cultural traits: there is more than one way of making a lithic point—technical diversity here indicates a cultural logic that goes beyond pure adaptation.

Archaeologists, who work with the material results of past human activity, are in a privileged position to explore practical intelligence. This is by no means restricted to the period before the appearance of speech, inasmuch as in Homo sapiens sapiens non-verbal behavior continues to play a paramount role. A final quote from Vygotsky leaves clear the importance he conceded to tools as an inextricable part of what is to be human: “The entire existence of an Australian aborigine depends on his boomerang, just as the entire existence of modern England depends on her machines” (Vygotsky and Luria 1993: 74). Things make people.

In this line, my main concern in this chapter will be to show how materiality shapes the lives of human beings, mediates their relation with the world, directs their actions, triggers or inhibits feelings, educates them in the social environment and participate in cognitive processes, such as memory and learning.

(h1) MATERIAL CULTURE, MATERIALITY, DISTRIBUTED COGNITION

Psychologist and neuroscientist Merlin Donald wrote: “we cannot have a science of mind that disregards material culture as we cannot have an adequate science of material culture that leaves out cognition” (Donald 1998: 186). This is widely acknowledged in archaeology and material culture studies today. The question at the moment is not as much whether mind and materiality are related, but how to envisage that relationship.
This relationship is better perceived as symmetrical: we should avoid understanding either mind or materiality as having the leading role. It is more an issue of subtle and ongoing adaptations between the two (Boesch 1993).

Cognitive-processual archaeologists, those who most explicitly draw upon psychology and cognitive science in their work, have tended to view material culture as a form of “symbolic storage” (Renfrew and Scarre 1998), following Donald’s concept of “exographic storage” (see below “Memory and material culture”). Written texts and signs are well known forms of exographic storage, but things can be used for coding information as well. They help us remember past events, historical episodes or myths, sometimes in a very explicit way, such as the decorated sticks of the Maori, that allowed them to remember long genealogies, or the _churingas_ used by Australian aborigines, wooden plaques encoding the history of a totem (Rodríguez Mayorgas 2010: 42-45). In other cases, the relation between artifacts and information is less similar to textual transmission. Artifacts can store and convey non-verbal information about economic and political status, age, gender, ethnicity and personal identity (Wobst 1977; Ames 1984; Schiffer and Miller 1999). Cognitive-processual archaeologists have not been the only ones in exploring the capacity of things to transmit meaning. Actually, it was post-processual or interpretive archaeologists who first draw attention to the fact that material culture is meaningfully constituted (Hodder 1982, 1986) and, as such, can be decoded. Although cognitive-processual archaeology relies upon cognitive science and interpretive archaeology is based on hermeneutics and semiotics (Hodder 1994; Preucel 2006), the truth is that differences are not as great as one might think. In both cases, material culture is perceived as something external that is loaded with meaning and manipulated by human actors (or minds).

**H2) TOWARDS A SYMMETRICAL APPROACH TO MIND AND MATERIALITY**

Since the early 1980s, many archaeologists and anthropologists have called attention to the importance of things in determining culture and have criticized the oblivion to which the material has been subjected (see an overview in Olsen 2006). In recent years, some of them have insisted that objects are not just important, they have agency as well. They are not passive containers of culture. Thus, Chris Gosden has noted that it is not necessarily the mind that imposes its form on material objects, but very often just the opposite: things shape thoughts (Gosden 2005: 196). Anthropologist Alfred Gell (1998) also remarked that material objects, and in particular art, have agency. Nevertheless, saying that artifacts have the capacity to affect people does not really imply a transformation of the ontological perspective on the relationship between mind and matter. As Knappett (2002: 98) has pointed out “in acknowledging that objects can be agents and agents can be objects, a dualism between objects and agents remains”. A more radical stance, and a real break with previous perspectives, came during the last decade with the debates on the limitations of Cartesian or—more generally—modernist dualisms. Archaeologists, like practitioners from other disciplines (e.g. Butler 1993; Latour 1993; Descola 2005), have critically examined the divides established between present/past, individual/collective, subject/object, culture/nature, material/immaterial and mind/body. Following the principle of ontological symmetry defended by Latour (1993), Law (1991) and Callon (1991) and other proponents of Actor-Network Theory in science and technology studies, some archaeologists argue for a “symmetrical archaeology” that considers things and people as fundamentally inseparable (Olsen 2003, 2007; Shanks 2007; Webmoor 2007; Witmore 2007). This is a
radical change with regard to previous theories that espoused the primacy of human actors over things and the separation between humans and objects.

However, similar views have been defended by other scholars within cognitive science and cognitive archaeology (Knappet 2002, 2005; Knappet and Malafouris 2008). Andy Clark (2008: 13), for instance, insists that we have to abandon the image of ourselves as disembodied, reasoning engines and goes as far as to suggest that “certain aspects of the external world... maybe so integral to our cognitive routines as to count as part of the cognitive machinery itself” (Clark 2008: 15, author’s emphasis). In turn, Lambros Malafouris (2004: 57) emphasizes that human cognition is embodied, situated, extended, enacted, distributed and mediated, as opposed to the ethereal and independent mind of earlier cognitive archaeologists, which projected itself onto the material world. Like symmetrical archaeologists, he considers that the relationship between the world and human cognition is one of “ontological inseparability”. To illustrate his point, Malafouris (2004: 59) resorts to the potter’s wheel: “the cognitive map of knowledge and memory may well be extended and distributed in the neurons of the potter’s brain, the muscles of the potter’s body, the ‘affordances’... of the potter’s wheel, the material properties of the clay, the morphological and typological prototypes of existing vessels as well as the general social context in which the activity occurs”.

The material turn of the last decade has made us more aware of the inseparability of people and things and the relevance of the material world in shaping our cultural and psychological experience. If cultural psychology is the study of “the way culture and psyche make each other up” (Shweder and Sullivan 1993: 498), then taking the material side of culture seriously should be a must for cultural psychologists. In the following section, we will see which are the main characteristics of material culture as it is currently understood.

(h1) TEN POINTS ON MATERIAL CULTURE

Material culture is used to think in both an explicit and in an implicit way (Henare et al. 2007; Knappet 2005). Cognitive processes are distributed among people and things. As cultures vary, so do the particular relations between of individuals, groups and objects in any particular culture. Although cognitive scientists often take into consideration technology alone and more specifically explicit cognitive technologies (such as computers or navigational devices) (e.g. Hutchins 1995; Dror and Harnad 2008), cognitive processes are distributed also among other, less technically complex, things. If we bear in mind that, for human beings social orientation is as important as spatial orientation, we can consider, for instance, that mausolea, which simultaneously help us remember, mourn and know about social classes, are important navigational devices implied in social cognition. On the other hand, even from the point of view of spatial orientation we do not have to think extremely sophisticate machines: a broken branch that allows a hunter to find his way in the tropical forest is also a cognitive device. In this sense, Coman et al. (2009: 126) rightly consider that to understand the navigation of a blind person, a researcher must take into account the mechanisms of the brain and the nervous system on the finger tips, but also “the nature of the cane—its length, rigidity, graspability, and so on”. Objects, then, are also involved in our cognition in an unconscious way in daily practice. We think through things even when we do not think about them. In fact, as Martin Heiddeger (2002: 13-14) noted, it is precisely when we do not think about things that the thingness of the thing is working best:
“The equipmentality of equipment consists in its utilit. But what about this utility itself? In understanding it do we already understand the equipmentality of equipment? In order for this to be so, must we not look out for the useful piece of equipment in its use? The peasant woman wears her shoes in the field. Only then do they become what they are. They are all the more genuinely so the less the peasant woman thinks of her shoes while she is working, or even looks at them, or is aware of them in any way at all. This is how the shoes actually serve. It must be in this process of usage that the equipmentality of equipment actually confronts us”.

The cognitive role of common artifacts is even more important in those societies that have not other means of transmitting information and preserving memory apart from oral communication (Kus and Raharijaona 1990: 23).

As the example of the cane of a blind person shows, things are not something that merely interacts with our minds and bodies. Material culture is an inherent part of ourselves, of our own physical existence. Consider bodily ornaments, clothing, body modifications, hairstyles, but also glasses, microscopes or audiphones, who have become part of ourselves as sensory prostheses (Witmore 2006: 281). It is not only our mind that is extended through things (Clark and Chalmers 1998), but our entire body. We are material culture (Webmoor and Witmore 2008) or, as Donna Haraway (1991: 149-181) argues, cyborgs, “hybrids of machine and organism”, a mixture of technology and biology that blurs the distinction between nature and culture. This is not just the case of postmodern humans, but of every hominid since at least 2.5 million of years ago, when the first stone tools were made (Knappett 2002: 98).

We are material beings immersed in a material world. We may say that we are thrown (Heidegger’s Geworfenheit) into a material world, or even better, as Tim Ingold (2009: 5) eloquently puts it, we live “in the throwing”, as this is better described as a fluid process. The world, then, is not just a blank, neutral scenario for human dramas to unfold, a source of problem-specifying inputs (Clark 2008: 16) or something to be fashioned by thoughts which emerge in a separate sphere of mental activity (Thomas 1998: 155). It is something deeply enmeshed in our lives. The active materiality of the world is fundamental for understanding human beings: as Ernst Boesch (1991: 334) has eloquently remarked:

“It is the permanence of things that provide individuals with a cadre permitting the building of over-situative action structures. Thereby, they provide the conditions for those constancies in I-world-relationships without which the construction of identity would be difficult to conceive”.

We cooperate actively in the making of the material world that surrounds us, but making things makes ourselves simultaneously. A potter is constituted through her making pots, a basket maker through his making baskets. Making things affects sensorimotor skills (Boesch 1993; Roux et al. 1995; Crown 2001; Stout 2002) and, more importantly, perceptions of oneself, society and the world, as the teaching of technical processes incorporates social information and attitudes that are not strictly oriented to technical ends (Dobres 2000; Wallaert-Pêtre 2001).

Yet making artifacts is only part of the constitution of the self in relation to materiality. Subjects are made through the use of things as well (Miller 1987), especially in those cultures where handicrafts have vanished and technological knowledge is socially very restricted—for example, in industrial and post-industrial societies. In the modern world, we construct our subjectivities through the consumption
of fashion (Boesch 1991: 321-324; Roche 1996), homes (Miller 2001a), vehicles (Miller 2001b), food, art, and many other things. Furthermore, the way we abandon and destroy material culture is also part and parcel of our identity (e.g. Marcoux 2001). Although destruction might be particularly characteristic of the modern world, it has always played a role in culture. The first agricultural communities of the Balkans destroyed their houses purposefully after a certain period, in what was in all probability a ritual cycle (Stevanovic 1997, see below). The Malanggan of New Ireland (Küchler 2002, see below) leave their elaborate funerary carvings to be slowly destroyed by the elements (as opposed to our emphasis on monumental preservation). This is related to conceptions of death, for sure, but also to a peculiar experience of what to be human is. It has been recently argued that different types of structural forgetting are specific to different social formations, and that late modernity is characterized by massive oblivion based on superhuman speed, megacities, consumerism, and perishable urban architecture (Connerton 2009). In the same vein, it can be said that late modern subjects cannot be understood without their intimate relationship with the continual and massive destruction of things and the environment (González-Ruibal 2008). One the defining characteristics of the 20th century has been the proliferation of artifacts purposefully designed to bring destruction on a large scale and aimed at civilians. The concept of the mass destruction of cities shaped a peculiar psychology in the industrialized world even before cities were actually destroyed by bombers. The abolition of time and space brought about by modernity created at the same time a hitherto unheard-of sensation of extreme vulnerability (everybody, everywhere can be annihilated), which was further spread by the nuclear menace of the Cold War (Escalona 1982).

In sum, it is the whole life cycle of things and people (from birth to death) that is ineluctably intertwined and this implies looking simultaneously at how people use (and discard) things, and how things use (and destroy) people. However, the relationship between consumption and destruction is more ambivalent than one may think. We have to bear in mind that the destruction of objects may turn out to be liberating: iconoclasm has often played a revolutionary role in the history of humankind. We only have to remember episodes such as Luddism (the destruction of machines by enraged workers in the early days of the Industrial Revolution), or the destruction of the Berlin Wall. Likewise, consumption can become alienating and create dependencies where there was none, a fact well known in situations of culture contact.

**Material culture has agency.** This is perhaps one of the most widely agreed tenets in current archaeology and material culture studies (Gell 1998; Olsen 2003; Gosden 2005; Knappet and Malafouris 2008), but also among psychologists: this is what “active externalism” is all about—the capacity of the environment to act upon us (Clark and Chalmers 1998: 8-12). We could even argue that culture at large has agency thanks to material culture. “Culture, reminds Valsiner (2007: 255), regulates action... It opens some possibilities for acting, thinking and feeling, while simultaneously closing others”. For its very physical nature, materiality is in a privileged position to regulate social and individual action. It promotes, inhibits or sets the pace of certain actions and operational sequences. A particular kind of key, for example, can force us to close a door in a way that no human actor ever could (Latour 2000). A pot with a handle forces us to hold it in a particular way and throwing a spear involves a different bodily gesture than using a bow and an arrow. A mosque imposes a bodily behavior and a mental attitude. Wearing a toga and wearing trousers preclude and allow different sets of actions and prescribe a different bodily hexis. In sum, objects impose on us the necessity that is inscribed in them (Boltanski 1990: 141). They order and orchestrate our
behavior and, in doing so, they play the role that Durkheim recognized to supra-individual social norms inscribed in collective consciousness (ibid.).

Cognitive processes are not just distributed through people and things; they are also distributed through time (Cole and Engeström 1997: 19). Past actions and events can condition the future actions and events. Yet time is embedded in things and **things have their own temporality**, which does not have to coincide with human time (Olivier 2008). Actually, the temporality of things is entangled with human temporalities in manifold and complex ways. Things are made in the past and conceived for the future: in this way, they abolish the radical divide between past, present and future (Witmore 2006; González-Ruibal 2006a). For this reason, the material environment has an outstanding capacity to exert an influence in people, long time after their creators have passed away (Cole and Engeström 1997: 9). They continue to guide our actions and participate in our cognitive processes even when the original meanings of those artifacts have been deeply transformed—the plan of a Roman city, for example (Olivier 2008).

Something of the deep and more abstract meaning of things, however, may still work in the present in an unconscious manner. The complex ways in which temporality is woven into the fabric of past objects has attracted the attention of scholars outside the discipline. It is well known the case of Sigmund Freud in the realm of psychology, but many others have found inspiration in ruins: Walter Benjamin, Alois Riegl and Georg Simmel are three of the best-known examples of thinkers of ruination. It is the combination of a particular temporality with the blurring of nature and culture that has elicited more investigation (Simmel 1959: 260; see also Hetzler 1988). This simultaneous collapsing of nature and culture, present and past bewilder modernity, but not necessarily other rationalities and time perspectives, where this Cartesian boundaries are less clear (cf. Descola 2005). Meaningfully, the perception of ruins is tightly linked to notions of landscape that developed in northern Europe after the 16th century (cf. Simmel 2007). Our fascination with ruins speaks volumes, then, about the peculiarities of Western mind in more than one respect. The “fascination of patina” (Simmel 1959: 262), on the contrary, does not seem to be a Western prerogative, as Alain Schnapp (1996) has proved: the ancient Chinese, for example, already showed a keen interest in the ruins of their ancestors and valued ancient artifacts for their historical and aesthetic qualities. Ancient bronze vessels from the Shang Dynasty (mid-2nd millennium BC), achieved extraordinary prizes among collectors and antiquarians, centuries before Western-style archaeology arrived to China.

Sometime **material culture carries codified symbolic information** (Wobst 1977; Schiffer 1999) and it is often designed to be communicative and representational (Hodder 1994: 395): the choice of clothes, for example, transmits information on ethnic (Wobst 1977) or social status (Hodder 1994: 395). Thus, we not only live immersed in a material world, but also in a material world that is full of, even saturated with, meaning. The advantage of material meanings is that they are always at work. They do not normally need to be activated to transmit information (like a myth that has to be told or a story that has to be read from a book). Following the Peirceian terminology (see Preucel [2006] for an archaeological take on the subject), we can say that material culture can be iconic, indexical or symbolic. A wedding ring is an example of a material symbol (Knappet 2002: 103-104) whose explicit meaning is conventional. Icons are another category of material signs that are clearly conceived to transmit coded information. Titus’ triumphal arch in the Roman Forum (FIGURE 1), for instance, is to be read as a commemoration of a specific military victory (the conquest of Jerusalem by the Roman army) and for that reason has a well-structured and accessible iconographic program that combines images with written text. Very often, artifacts carry at the same
time iconic and symbolic information: Titus’ arch does not just transmit an iconic message of military victory, it is also a metaphor (a symbol) of imperial power. And in some cases the indexical, symbolic and iconic are combined: consider the First World War memorials that incorporate actual elements from the war (such a rusty bomb shell), symbolic representations of the nation and iconic representations of soldiers.

However, most objects are not symbolic in the same way as a text: the relationship between material culture and meaning is seldom completely conventional and arbitrary. Unlike verbal symbols, material ones bear a direct material relation to their referents (Beach 1993). This is because most artifacts are actually better understood as indexes than as symbols (Knappet 2002: 104; Jones 2007: 19). An example of an index is the young breasts modeled in mud that the Gumuz women of Ethiopia use to decorate their granaries (FIGURE 2). There is a relation of contiguity, typical of indexes, between the breasts (representing human fertility) and the granary (representing the fertility of the fields). Furthermore, this indexicality brings the whole body into play, blurring the distinction between human and non-human materiality: by modeling breasts on mud, Gumuz girls are extending the surface of their bodies beyond their anatomic limits. As indexes, the meaning of material culture is not just produced by social convention, but also through pragmatic understandings of the material world—the relationship between the breasts and the fertility of the fields is based on a real connection between two reproductive processes.

This is related to another point: the relationship between material culture and practice (Hodder 1994: 396). Most of the time, material culture works through the evocation of sets of practices that are not discursively perceived and that, sometimes, cannot be put into words. A roof-tile is not meant to consciously represent anything, to convey any explicit meaning (as Titus’ triumphal arch or even the Gumuz granary). But this does not mean that they are not meaningful. They are enmeshed in cultural practices and systems of meanings that involve other artifacts, ideas, memories, bodily gestures, speech acts and built spaces: a kitchen knife may not have any powerful symbolic meaning attached, yet the (culturally-mediated) associations it can bring to mind are many and varied. They are certainly not the same if the knife is in a kitchen, at an airport control, or flashing in a dark alley. As archaeologists insist, context is vital to understand things. Context and things together allow us to behave in practice. Material culture is therefore tightly related to practical knowledge that allows us to act in specific domains of action (Hodder 1994: 398).

Starting from the concept of material culture outlined above, I will address now four main concerns of archaeology and psychology where it is possible to see how the discipline of things can contribute to the project of cultural psychology: personhood, emotion, space and memory.

(h1) SELF AND PERSONHOOD
The last decade has witnessed an important debate in archaeology concerning the idea of personhood in prehistoric and historic times. For a long time, the issue of how persons are constituted as such was undertheorized in the discipline, as opposed to history and anthropology. The panorama started to change in the 1980s, with the import of postmodern interests in individual agency and identity, and by the 1990s many archaeologists were looking for individuals in the past (e.g. Meskell 1999). The post-processual take on personhood came under severe criticism in the early 2000s due to their anachronistic nature. Critics point out that by trying to find individual agents in other cultures, the highly individualized late capitalist person is being projected onto
past societies, which are thus perceived as amalgamations of self-conscious individuals endowed with fluid and changeable identities in constant negotiation (Casella and Fowler 2005). The interest in particular individual lives came along with the introduction of the postmodern politics of identity (age, class, race, gender, sex, nationality, ethnicity) in the discipline, that further fragmented prehistoric and historic identities along postmodern lines (Díaz-Andreu et al. 2005). Although post-processual archaeology has been relevant in expanding the research agenda and in pointing out the relevance of identity and personhood, the approach has resulted in a transformation of all past societies into a sort of distorted mirror image of our own late modern existences.

Archaeologists like Felipe Criado (2001) and Almudena Hernando (2002) were among the first to call for a more critical exploration of selfhood in the past, drawing upon anthropological and historical theory. They emphasized the collective and relational nature of prehistoric concepts of personhood, and idea that was later independently developed in the Anglo-Saxon archaeological tradition (Fowler 2004). British archaeologists relied on Melanesist anthropology and particularly in the work of Marilyn Strathern (1988) to support their perspectives on prehistoric personhood. Strathern contends that the Melanesian person is not individual, but “dividual”, multiply constituted through relations with other persons. Besides being dividual, members of Melanesian societies are also partible. They are composed of different substances that are inherited from the parents or acquired through kinship and affinal relations. In certain contexts, such as marriage, ceremonial exchanges and death, persons can be decomposed: they give away parts of their selves in the guise of pigs and other valuables. But the bodies themselves are conceived as decomposable, too: people can detach from parts of their own bodies as well as attach to themselves parts (or substances) of other peoples’ bodies. Relational identities have also been described as fractal and permeable (Fowler 2004), as opposed to the bounded and indivisible self of modernity. Currently, there is a widespread belief in archaeology that self-identity is either relational (most prehistoric societies), and suspiciously similar to the Melanesian self depicted by Strathern, or individual and well-bound (historical and, especially, modern Western societies). This dual schema reminds the independent/interdependent distinction proposed by Markus and Kitayama (1991) and is sometimes perceived in too radical terms. LiPuma (1998) considers that we have to take into account elements of individuality in the construction of the self among non-modern societies and, likewise, elements of relationality (or dividuality) in societies with highly individualized persons. For Hernando (2008: 68), both relational and individual identities have at least one thing in common: they are both fantasies, creations of the human mind whose aim is to neutralize the anxiety that would cause the true understanding of the powerlessness that defines our relation to the world. And what could be better to give an appearance of solidity to a fantasy than material culture?

Materiality is deeply involved in the construction of both relational and individual selves. Societies where relational forms of identity prevail tend to produce homogeneous objects and styles that underscore the shared identity and relations between members of the society, whereas individualistic societies normally produce a proliferation of distinct artifacts and categories of artifacts in order to satisfy a myriad of tastes that are enmeshed in complex social strategies (Bourdieu 1984). Nevertheless, even in collective cultures there are people that tend to develop more individuality than others. Ritual specialists in segmentary societies, for instance, tend to use a very peculiar material culture and wear extravagant clothes and adornments (Devlet 2001). We have to understand this not just as a mere symbol of status or a materialization of mythologies, but also as an index of the more individualized self of the ritual specialists,
which leads them to channel their need for differentiation through the use of artifacts. Actually, following a symmetrical approach, we could say that extraordinary objects and apparel are indistinguishable from the ritual specialist’s self: the shaman or diviner is a very particular cyborg within a society of more homogenous cyborgs. Similarly, even in highly individualized societies, there are material elements that reinforce the ties between different members of the community and for this reason have a very important psychological role. In the case of late modern Western society, we can see this in the urban tribes that resort to the same clothing and items to create a sense of belonging among their members.

(h2) RELATIONAL IDENTITIES

Relational identities were prevalent in the world at least until the 16\textsuperscript{th} century AD. It was probably not before the 20\textsuperscript{th} century that the individual self has come to dominate globally. Relational identities are characterized by a series of material markers, some of which explicitly encode information about the identity of a particular community, whereas others are of a rather unconscious nature. Among those objects that explicitly encode social information, we may consider bows and arrows (Wiessner 1982; Pétrequin and Pétrequin 1990). In many cultures, arrows have an assertive character, that is, they express personal identity, craftsmanship and taste. However, they also convey, in a very explicit way, information about the identity of the group to which the person who made the arrows belongs. Thus, the Ye-Ineri, an ethnic group from Irian Jaya (New Guinea), make different arrows depending on age, function of the arrow (war or hunting) and personal ability. However, it is still possible to distinguish easily a bundle of arrows from the Ye-Ineri group and a bundle of arrows from the Tangma community. Whereas in a society where independent selves prevail there are scarce limits to personal innovation, among the Ye-Ineri and Tangma, despite an apparent liberty, the limits are very well demarcated. The boundaries for personal creativity are enforced in daily practice, through moral sanctions and social disapproval that do not necessarily imply explicit verbal condemnation. A way of curtailing personal creativity in a society of interdependent self is not buying, exchanging or accepting in ritualized occasions (or accepting grudgingly) those artifacts that clearly deviate from the norm.

Some artifacts and technical knowledge in societies of interdependent self are so crucial in promoting identity that they can be considered technologies of the self, following Michel Foucault (1988), but instead of an individual self, what they help create is a collective one. Unlike items that bear explicit ethnic information (such as bows and arrows), technologies of the collective self are often unconscious or, at least, beyond verbal discourse. A good example is the technology of food consumption. This technology includes artifacts, body techniques, and operational sequences. Changes to the technology of food consumption often implies dramatic transformations in society and identity: James Deetz (1996: 86-87) has equated the evolution from communal vessels to individual dishes in North America during the 17\textsuperscript{th} and 18\textsuperscript{th} century and the evolution of independent selves from collective ones—a phenomenon that has its correlates in the organization of domestic space and refuse disposal. The relevance of the technologies of food consumption for shaping a collective self is clearly visible among many Sub-Saharan communities. The case of the Komo is telling. They are a highly egalitarian small-scale society of slash-and-burn agriculturalists, who live in villages of less than two hundred inhabitants in the Sudanese-Ethiopian borderland (Theis 1995). As in other neighboring groups (James 1988), community values are continuously enforced in daily life. One of the mechanisms for buttressing a communal identity is the working party: a family calls relatives and neighbors to lend a hand with
the harvest or the building of a hut, and, in compensation, provide food and beer. The artifacts and the body gestures employed in these rituals are essential for the perpetuation of relational selves (FIGURE 3): everybody forms a circle and drinks from the same big pot using straws, giving their backs to the outer world and their faces to neighbors and relatives (González-Ruibal et al. 2009: 60). A sense of solidarity is extraordinarily reinforced in this way.

Relational identities are also expressed in the way the dead are treated. It seems logical that if persons are considered partible and decomposable, their bodies are too (Jones 2005). Burials from Europe and the Near East during the Mesolithic (that is, the period of the last hunter-gatherers before the emergence of agriculture in the Old World) often keep only disarticulated bones (Verjux 2007), because the human remains were buried after a period of exposure to the elements or because the bones were dug up and reburied again. These practices continued with the first agrarian communities in the period known as Neolithic (Thomas 2000). Some egalitarian societies still practice, or practiced until recently, secondary burials. That is the case of the Uduk of Sudan (James 1988), who used to dig out one or more of the bones of a recent tomb, anoint them with red ochre and return them to the grave, a ceremony that was meaningfully called “Settling the Grave” (James 1988: 131). The idea was to make sure that the spirit could make a complete and clean break from the body (ibid: 127). The skull, in particular, tends to receive a differential treatment in many cultures. Modified and decorated skulls abounded during the late Mesolithic period in the Levant (Kuijt 1996) and this practice in well known from ethnographic contexts in areas like Melanesia (Zegwaard 1959). Ian Kuijt (1996) interprets skull removal and other mortuary practices (such as lack of grave goods) in the Near East as part of the strategies developed by complex hunter-gatherers and incipient agriculturalists to limit the accumulation of power and authority.

As people are perceived as inseparable from the collective in relational cultures, tombs are often collective. The skeletons of different people appear mingled together and sometimes it is difficult to refit individual bodies (Fowler 2001). Sometimes, even animal bones appear mixed with human remains: this probably means the relational self included relations with non-humans as well (Descola 2005). The treatment of the deceased was a very straightforward way of transmitting ideas of the self and community in the broad sense. There seems to be a tendency among those societies where corpses and bones are manipulated not to hide away the event of death, as opposed to societies with only one death ritual. In fact, many of the rituals of excarnation, dismemberment, burial and reburial of bones were attended by the entire group and sometimes parts of the dead were ritually consumed (Conklin 1995; Boulestin 2009), which is the most powerful way of showing a sense of community.

(h2) INDIVIDUAL IDENTITIES

The strong development of individuality in the West since the 15th century comes hand in hand with an extraordinary increase in the number and variety of artifacts through which new, diverse and often conflictual selves were channeled and constituted: gardens (Leone 1984), houses and headstones (Deetz 1996), portraits (Burke 1995), and even toothpicks (MacLean 2009). Some of these items are used in a communicative manner, to consciously display personal and social taste and status—that is, as symbols: clothes, silver or chinaware (Goodwin 1999; Schneider 2006: 206-207). In other cases, things become intrinsically related with the self in an unconscious manner—this is the case of toothbrushes and other items of personal hygiene and bodily care (Gaitán 2005), as well as writing and reading materials (Hall 2000: 80-83). Both categories of artifacts
are related in that they have to do with ideas of care (physical or psychical) and they are therefore crucial in fostering and cultivating the individual self. In this sense, they are technologies of the self (Foucault 1988; Fowler 2004: 13), but also “core objects”, as Boesch (1991: 333) has called them: “one which, by its usages and ritual connectedness, appears to be vital for the definition of a culture”. A particular technology of the self that develops since the mid-16th century in the context of the Counter-Reformation is the material culture of bodily discipline. Whips, sticks, cingula and clices (Brandão and Nassaney 2008) were aimed at purifying the self by mortifying the sinful body. Although clices were used since Antiquity, their success in early modernity has to be related to the progressive imposition of dualistic ideas that created a divide between mind and body—the first being equated with the self (and soul)—and the increasing importance of the individual person and individual salvation.

It would be wrong, though, to think that technologies of the individual self exist only in modernity or in evolved state societies—such as the Greek and Roman world examined by Foucault (1988). Technologies of bodily care that evince a strong awareness of the individual self developed since the mid-2nd millennium BC in Bronze Age Europe, when razors and mirrors, dress pins and individualized weaponry became widespread among elites (Treherne 1995). Those items were indispensable to constitute individual selves in the midst of rather homogeneous communities.

The difference with modernity is that technologies of the self and individualized material culture become extremely generalized, eventually cutting across social classes, race and gender. In our globalized, late capitalist world, almost everybody wants to be unique. In fact, artifacts in modernity can be a powerful way of holding the self together in disruptive scenarios, such as civil conflicts, wars and dictatorships. Artifacts may help to link one with his or her self prior to the traumatic experience (for example, the handicrafts made by prisoners) (López Mazz 2009: 39-41) or to create a new self, which incorporates (and domesticates) the traumatic experience. This is the case of trench art, the artifacts produced by soldiers in World War I (Saunders 2009).

To summarize, material culture is fundamental in constituting the self as relational or independent—and the whole spectrum between one possibility and the other. A child belonging to a small-scale, egalitarian community will arrive to a homogenous world in which all artifacts look the same and private possessions are minimal: he will associate himself with sameness rather than difference. Through those artifacts (houses, pots or cultivated fields), the child will learn to live in a society where relations among humans and non-humans are more important than individual persons. Furthermore, as the child grows, he will progressively use technologies of the collective self, that is, techniques, technical knowledge and artifacts that make him relate to others and that would constitute his psychical existence as part of a communal body: for instance, weapons and strategies used in communal hunting or spindles and songs in communal weaving ceremonies. In some cases, such as in many societies of hunter-gatherers, private possessions are reduced to almost nil. Everything has to be given away if someone asks for it (and vice versa: one is allowed to use almost everything from everybody). The boy who is born in a community of relational self will never see or make an iconic representation of himself, only idealized representations of Men, Women, Ancestors, Gods and everything in-between. By attending funerals where bodies are manipulated, carved up, buried, dug up and reburied, he will learn to perceive his body as plastic and decomposable, a continuum in the mass of human and animal bodies that populate the world.

If we consider now a girl born in a late modern highly individualistic society, we will see her exposed from her birth to a highly differentiated material world. She will
learn to understand social and group differences through artifacts, but she will also become aware of her own uniqueness as an individual through the use of particular objects and through the consumption choices that she will be compelled to make (Baudrillard 1968: 196-197): toys, clothes, books, cars, DVDs, web-blogs. From her earliest childhood, she will recognize herself in photographs. She will learn that her self is modifiable but not decomposable, both in its physicality, in its social attachments and in its psychic qualities. She will read self-help books or philosophy, sculpt her body in the gym or operate her breasts. Yet there is a limit to what an individual can become even in modern societies: prisons, reform schools and asylums are institutions that model the deviated self through all kind of material and immaterial tools (Foucault 1975; Casella 2007), which, again, are aimed at the individual person—individual cells, solitary confinement cells, psychological assistance.

(h1) EMOTION AND MATERIAL CULTURE

Emotional experience is universal, but emotions are culturally variable, as anthropologists have abundantly demonstrated (Lutz and White 1986; Tarlow 2000a): cultural meanings, experiences and values attached to emotions vary from society to society. According to Richard Shweder (1991: 242),

“To understand the emotional life of a person is to understand the types of feelings (anger, envy, fear, depersonalization, shame, joy, love, homesickness, and so on) felt by that person, the distribution and frequency of those feelings across time and context, the kind of situations that elicit them, the wishes and fantasies that occur with them and the action tendencies set off by them”.

What can be the contribution of archaeology to understand the emotional life of individuals and societies? We have to take into account that emotions are not always easily verbalized, especially overwhelming emotions—what Valsiner (2007: 312) calls “hyper-abstracted and over-generalized higher level total feelings”. Actually, feelings themselves cannot be observed, only indexes of it (gestures, facial movements, heartbeats (Shweder 1991: 242) and indexes are the raw material with which archaeologists work. Besides, emotions are often triggered, oriented or conditioned by the material world (Valsiner 2008).

Emotion has figured prominently in recent archaeological debates (Tarlow 2000a). The basic problem is how can we actually know what other peoples experienced in the past? Unlike ethnographers, archaeologists rarely have the opportunity of an intersubjective experience—or “subjective pilgrimage”, as Valsiner (2007: 311) aptly puts it—with living people. In the case of historical archaeology, this can be somehow mitigated through the use of texts (including personal diaries and letters). For illiterate societies, the problem we face might be deemed insurmountable. We are forced to make inferences based on analogies with similar societies documented ethnographically as well as on our own subjective experience. The latter has been the object of much discussion. Since Christopher Tilley’s seminal book A Phenomenology of Landscape (1994), the philosophical insights of phenomenology have been widely applied to prehistoric archaeology, especially in the British Isles (Brück 2005). Interest in past feelings has led in some cases to subjective excesses and to a trivialization of phenomenological theory (cf. critique in Olsen 2006). However, most archaeologists have avoided both the most objectivist and the most subjectivist positions, adopting nuanced perspectives. Therefore, there are those who, from a relativistic and constructivist stance, stress the enormous difficulty of approaching subjective experiences of people belonging to other cultures (Tarlow 2000a; Brück 2005), even if
basic human similarities across cultures are acknowledged. On the other hand, there are those who emphasize our ability to connect with past senses of place through our own bodily experience (Tilley 1994), although they accept that specific meanings and precise feelings mostly escape the archaeologist.

Admittedly, access to particular emotions of other cultures from material remains alone is extremely difficult and always requires some sort of cultural translation. There is no true immediate experience of the past: in the case of prehistoric societies, we are dealing with people who had a wholly different cosmology and rationality, which deeply shaped their perceptions of the world (Thomas 2004: 216-217; Brück 2005: 54-55). Nevertheless, we can still have some access to past emotions without resorting to texts. On the one hand, the work of cultural psychologists has proved that most basic emotions (such as anger, disgust, fear, happiness, sadness and surprise) appear in most cultures, although they are expressed in very different ways (Heine 2010). After all, there is a shared biological basis that explains human emotion. On the other hand, the physical engagement of the human body with the material world is central to experience and the materiality of the body offers some possibilities of experience and precludes others (Tilley 1994). Thus, cold, heat, hunger or pain—although conceived in different ways and endured to different degrees by different cultures— affect all human bodies and these have limits as to what they can see and interact with from a certain topographical position. Also, the materiality of the landscape itself has not changed much in many cases: the physical environment interacts with physical human bodies in specific ways, irrespective of culture (Tilley 2004).

The important point to bear in mind is that the emotions archaeologists are better able to retrieve are those related to hyper-abstracted and over-generalized feelings—the kind of feelings one has when entering a gothic cathedral, a megalithic tomb or a prison cell. Instead of trying to discern in detail particular emotions, archaeologists are at their best when they explore the material mechanisms that trigger those emotions in different cultural contexts. In which places was greater the investment made in material devices oriented towards affection? Which spaces were more emotionally charged? Those related to collective identity, political power, religion, punishment, individual achievement, life, death, liminal states? Which spaces display more varied devices for triggering sentiment?

If a place is emotionally invested to a high degree, it can help us know the importance of such place in society, as well as the activities related to that place: for example: tombs of children in the West are often overcharged with indexes of affection. It is difficult not to feel moved by some of these tombs displaying a variety of toys, teddy bears, letters, photographs and flowers. This is because children are not supposed to die in an industrialized society, but also because childhood has been marked as a well-defined and valuable period of human life mostly in modernity (Ariès 1987). On the contrary, in many preindustrial societies children tombs are very inconspicuous and in some prehistoric cultures they were not even buried at all (Scott 1999). However, prehistoric or ancient societies should not all necessarily show the same kind of emotional behavior, although some tendencies applied: in her study of the Egyptian village of Deir el-Medina (late 2nd millennium BC), Lynn Meskell (1999) proposed that the death of children was experienced as a painful event, based on the elaborated burials of non-aristocratic children and contemporary texts.

H3) EMOTIONAL FRAMING OF POLITICAL LIVES
Another case has to do with elements of affection in political life. Political celebrations tend to mobilize different kinds of emotions: power is sensuous and corporeal, and not just in premodern societies (Kus 1989; Mbembe 2000; Linke 2006). As Tarlow (2000a: 719) reminds

“Hegemony and authority in social contexts are constituted through such emotional experiences as awe, respect, fear, shame, and guilt, as well as familiarity and security”. ALTHOUGH TECHNICALLY YOU DO NOT NEED TO INDENT QUOTES LIKE THAT, I STILL RECOMMEND IT SO AS TO CAPTURE THE READER’S GAZE ON CRUCIAL POINTS

These emotional experiences are framed by material apparatuses. However, emotion in political contexts varies wildly from culture to culture. To use two opposite examples: Versailles was devised so as to arouse overwhelming feelings of superhuman grandeur, a fact that fits well with a divine conception of power. The place which is known by its address—10 Downing Street—on the contrary, is completely bereft of material devices to trigger emotion—although these may arise for different motivations. This speaks volumes about the conception of power in contemporary liberal democratic societies.

(h2) DEATH AND EMOTION: NEOLITHIC EUROPE AND THE MODERN WEST

Understanding emotion in context, then, helps us to understand culture. In what follows, we will look at a place loaded with emotion—cemeteries—in two different cultural environments: Neolithic Western Europe and Euro-American modernity.

(h3) NEOLITHIC EUROPE

Megalithic tombs were built all over Western Europe by early farmers during the period known as Neolithic, that is, between the early fifth and early third millennium BC. They were the first monumental, collective tombs—the first monuments at all—in most places where they were built (FIGURE 4). During the second millennium BC monumental burials still existed in different places of Europe, such as southern Britain and southern Portugal, but they were erected for individual persons or particular powerful families. Megalithic tombs soon developed into a very complex architecture with immense possibilities to shape and direct emotion. Subtle changes in temperature, texture, darkness and light, sound and visibility configured very particular experiences of community, death, afterlife, and the sacred. Also, the tomb itself was not the only important element for framing social experiences. Tombs were inserted in meaningful landscapes in which other monuments and natural features interacted to create a sense of place (Tilley 1994). During the last decade, there have been many attempts to avoid intuitive approaches to Neolithic emotions. Archaeologists try to provide contrasted accounts of the ways in which “hyper-abstracted and over-generalized feelings” where fostered and enhanced inside tombs and in megalithic landscapes. Regarding landscape, Geographical Information Systems (GIS) have been used to recover the way it was experienced in the past in a more objective manner (e.g. Criado and Villoch 2000; Llobera 2003; Wallace 2007). GIS analyses allow making visible connections, which are unknown or known intuitively, between different monuments and natural features.

Megalithic tombs were open monuments, in which rituals took place and where corpses were being buried, exhumed and reburied in a regular basis. They are excellent examples of “scripted dramatic everyday life situations” (Valsiner 2007: 250) which are crucial in the psychological development of human beings. Overwhelming feelings
were achieved through different means: one of them is the art that covers part of the huge stones (FIGURE 5). Unlike in the modern world, art was not a normal occurrence in the Neolithic. People did not live in an “ornamented world” (Valsiner 2008) as we do. Thus, entering a profusely engraved tomb must have certainly been regarded as a liminal event, an entrance into another world—and it is precisely entrances and passages that are most often decorated (Bradley 1989). Sensations were probably enhanced, at least in some cases, with the use of consciousness-altering substances, which interacted with the images to foster hallucinations and visions (Dronfield 1995a, 1995b). The images—spirals, lozenges, arcs, meanders and curves—are thought to be inspired in the visions themselves. Dronfield (1995b: 547) proved that Irish passage-tomb art is fundamentally “similar to (as opposed to merely resembling) arts derived from endogenous subjective vision”.

However, it is not strictly necessary to consider the use of drugs to explain the way the mind was altered inside the tomb. Songs, sounds, dancing, speech and movement could have been used to provoke an altered state of mind. The issue of sound has received significant attention. Watson and Keating (1999), for instance, analyzed the particular sounds of a stone circle (a sort of sanctuary or shrine) and a passage way-type megalithic tomb. The authors of the research discovered that a single drum was capable of generating approximately 4 to 5 Hz at between 120 and 130 decibels inside a megalithic tomb, a level of exposure that could result in balance disturbance, pressure on the ears, speaking difficulties, vibration, drowsiness and headaches. Also involved in enhancing experience and creating meaning was texture, that involved touching and therefore a bodily experience of the monument (Cummings 2002). In this context, it is worth remembering, with Warnier (2006: 187) the basic role of the skin in the ontogenesis of the human subject: “The psyche is constructed as an envelope by ‘anaclisis’ on the anatomical-physiological functions of the skin”. Here, anaclisis is understood as related to a process by which psychic experiences build upon—or are propped against—bodily motions and emotions. Differences between smooth and rough surfaces in megaliths could have triggered different emotional responses and be imbued with different meanings. Finally, the textures of light must have been very important in the megalithic experience. Light is manipulated in many architectural traditions to orient emotional responses (Bille and Sorensen 2007). Although similar effects to those of megaliths could have been previously achieved in natural spaces, such as caves, by hunter-gatherers (Reznikoff and Dauvois 1988; Waller 1993), the difference is that megaliths were the first explicit attempt at creating and manipulating sensory conditions to affect the subject in an artificial way.

The relevance of megalithic tombs in the social lives of early agriculturalists should not be underestimated. As I have pointed out, these were regular arenas for social interaction (much more than modern cemeteries). The term “tomb” is misleading for us, as we divide the world of the death and that of the living in a very clear-cut way, and try to avoid any contact with the former. In addition, the megaliths were probably used, if not by the whole community, at least by a large part of it, including children and adolescents. Although the most secluded parts of the tomb could have been accessed only by a few, the ceremonies in the necropolises were attended in all likelihood by the entire group. Watson and Keating (1999) proved that sounds made inside a megalithic tomb could be heard outside, emerging from the passage entrance. Megaliths, then, were an essential element in the emotional economy of the early European farmers. The rituals carried out inside and around the tombs were emotionally intense and involved the whole community: actually, they helped reinforce the sense of community—and communitas (Turner 2002). The sensorial qualities of the megaliths enhanced the
experience, and channeled and amplified the emotions. The relation with the deceased and with the ancestors was very close: one literally entered the house of the dead and manipulated the bones of one’s relatives.

(h3) THE MODERN WESTERN WORLD

Quite the opposite is the case of modern cemeteries. Despite cycles of ostentation and restrain in funerary ceremonies, the general trend in European and North American funerals during the 19th and 20th century has been towards the restriction of emotions. For the last hundred years, ostentation in tombs and funerals has been regarded in most Western societies as a sign of bad taste and low or marginal status (Cannon 1994: 440; Parker-Pearson 1982: 104-107). This process has been explained on economic and social grounds—investments in status markers changing from funerary display to other realms to maintain class distinctions. However, there seems to be deeper reasons for this general trend towards more sober cemeteries and rituals: it seems that an excess of materiality in funerary ceremonies and tombs was unconsciously equated with an excess of emotion. And with good reasons: as we saw in the case of megaliths, a redundant, saturated material environment was fundamental in triggering and amplifying emotions.

One of the main differences between modern and pre-modern cemeteries is the prevalence of visual experience and visual codes in the former, in line with the enormous importance conferred to the sense of vision in modernity (Levin 1993). Although hearing still plays a role (choirs, sermons, reading of religious texts), bodily senses are less prominent than in non-modern communities. Tombs are not designed to be touched (much less corpses) or to have a particular sound—and human remains do not smell. The experience of death is sober, clean, individual and introspective. The suburban cemeteries that spread through northern Europe from the late 18th century onwards and particularly the Anglo-American garden cemetery (Tarlow 2000b) played a prominent role in shaping the emotions of death as individually experienced. Garden cemeteries were located in pastoral, suburban locations. This was justified on hygienic grounds, but in fact, it was not only physical dirt and pollution that preoccupied urban reformers, but also the moral and emotional cleanliness that the new cemeteries brought with them (Tarlow 2000b: 227). The isolated tombs and the manicured landscaped had a double effect (FIGURE 6): on the one hand, they calmed down and sifted emotions, fostered introspection and enabled self-reflective attitudes (just the opposite of emotionally-loaded, collective megaliths). On the other hand, they permitted to experience emotions (even the more violent ones that one could not restrain) without being seen by many people, a situation of relative intimacy that could hardly be achieved in overcrowded city churchyards.

Although similar trends toward suburban, hygienic cemeteries existed in southern Europe from the mid-18th century (Calatrava 1991), there are important national differences. Anglo-Saxon cemeteries are much more individual-oriented than Mediterranean ones. In the United Kingdom, the United States and other places with a strong protestant tradition, tombs are individual and situated wide apart in vast cemeteries. On the contrary, in Spain and other Mediterranean countries, tombs are often cramped together around churches, often in multi-niche structures (Tarlow 2000b: 222)—a translation to the material world of a more relational identity within a culture of the individual self (FIGURE 7). Anglo-Saxon cemeteries are spaces for melancholic, individual feelings. Mediterranean necropolises are more appropriate for open,
collective emotions and expressions of family and neighborhood solidarity. According to Tarlow (2000b: 224),

“An appreciation of Protestant virtues of simplicity and nature was a central part of British identity in the nineteenth century. In their own understandings, the Protestant nations were distinguished from their overblown Catholic neighbours by an authenticity of unmediated, pure moral feeling”.

This, however, the more interdependent Catholics would interpret as aloofness and individualistic behavior.

Finally, another element that can be enlightening as to the relation between self, emotion and death in societies of independent self is the issue of memorials. In modern cemeteries, it is the performative act of reading the name of the deceased on a tombstone—an individual act—that provokes the most powerful feelings. Significantly, one of the most successful war memorials ever built is the Vietnam Veterans Memorial in Washington DC (Wagner-Pacifici and Schwartz 1991), in which reading is absolutely essential for unleashing intense feelings. Its success lies in two facts: it commemorates individual lives (the entire monument is a list of names) and it abolishes the difference between past and present (by uttering the name of the dead, people are able to evoke a strong sense of presence). This fits better the modern self than collective, abstract memorials, as those built after the First World War. Whereas in the Vietnam Veterans Memorial the focus is on the individual, in First World War memorials the focus is on collective sacrifice (Winter 1995: 78-116). Unlike other monuments, and due to the controversial and divisive character of the war, the Vietnam Veterans Memorial was actually explicitly designed so as to avoid collective messages and to evoke instead “‘feelings, thoughts, and emotions’ of a variant and private nature” (Wagner-Pacifici and Schwartz 1991: 393). In short, the Washington memorial can be considered the quintessential monument to the dead in highly individualized late modern societies. However, what the memorial achieves in the short term, it loses in the longue durée, a fact that is also eloquent of modern identity: after a few generations, it will fail to trigger intense emotions, when the names of the individual dead fall into oblivion (Wagner-Pacifici and Schwartz 1991: 417-418). This is in opposition to the megalithic chambers: the bones of the remotest ancestors and the newcomers to the tomb were mingled together. Every ceremony held in the megalith was an intense, emotional experience. Individuals did not matter: it was the always-regenerated, cyclical self of the community that mattered. The Vietnam War Memorial will fail to evoke presence in less than a century. The megaliths evoked it for millennia.

(h1) SPACE AND ORDER
The agency of material culture as a framework over our actions is nowhere more obvious than in the built environment (Parker Pearson and Richards 1994): it orients everyday life by offering certain spaces for programmed action, while closing other possibilities (Dovey 1999: 11). Walls, rooms, doors and decorations act as “semiotic blockers” (Valsiner 2007: 68) that regulate the semiotic hierarchies of the dialogical self. The agency of buildings is clearly seen, for example, when we enter a library and immediately start to speak in a low voice (Donley-Reid 1990: 116). It is not only the verbal messages (signs of “Silence” or the librarian’s command) that make us lower the volume of our voice. It is the material environment as a whole that is forcing us to adopt a certain attitude: the quality of light, the books, the curtains and shelves, the texture of the walls and floors. Houses, in particular, are a critical element in every culture and are endowed with an especially powerful agency. They intimately shape our behavior and
experience of the world since our childhood; they give us ontological security by creating predictability and routinization (Giddens 1984); they replicate the cosmos (Preston Blier 1987); help us know our place in society (Donley-Reid 1987), and guide affection (Bachelard 1964). They even shape our bodily memory: “The house where we are born, writes Bachelard (1964: 32), is physically inscribed in us. It is a group of organic habits”. Another important consequence, in psychological terms, of the built environment, is its capacity to affect our modes of spatial reasoning. It seems obvious that the perception of space cannot be the same among a group of slash-and-burn agriculturalists who live in single-celled huts separated wide apart and among people living in square, multi-roomed houses in a cramped city. Susan Kent (1990) has demonstrated that structures become more segmented as social organization becomes more complex and hierarchical. Segmentation of the space increases in parallel to conceptions of intimacy, individualism, political power, religion, and, more generally, with the development of modes of rationality that tend to fragment, divide and sort out the world in specific categories. All these transformations in space and the self are particularly visible in modernity (Deetz 1996).

I will review here two cases that exemplify well how domestic space is deeply inscribed in persons’ minds and bodies: the Swahili house of the Eastern African coast and the Bertha house of Ethiopia. They are not properly speaking archaeological cases: the first one is an ethno-historical study and the second an ethnographic one, but research was carried out in both cases by archaeologists with archaeological methodologies and questions in mind.

(h2) THE SWAHILI HOUSE: HIERARCHICAL ORDER

The Swahili house is a perfect example of how social values are materialized in space and hence internalized through daily interaction with the built environment by those who use it. The Swahili live in the coast of Eastern Africa, from southern Somalia to northern Mozambique, and they are a mixture of native Africans and Arab merchants, who traded in this area since the 8th century AD (Horton and Middleton 2000). Their hybrid culture takes elements from the indigenous cultures and the foreign traders. Swahili houses of the patrician group (*waungwana*) have a rectangular layout and two floors, as opposed to the circular huts prevailing in Eastern Africa. Also, unlike traditional houses in the region, they are substantially built in coral, last several generations and are richly adorned with elaborate geometrical carvings. The possession of long residence in a single place (*ustaarabu*) is considered to be a moral quality inherent to being Swahili—and different from the local “barbarians” (Horton and Middleton 2000: 179). For a start, then, living in a coral house made their waungwana owners feel different (and superior) from the surrounding African communities and Swahili commoners. But also anxious: they were in a minority position in relation to both the African and Islamic worlds and to disenfranchised communities (slaves). The solidarity between the *waungwana* and their fear of the outside was materially expressed in the bridges and internal passageways that connected the patricians’ houses and allowed the Swahili to avoid the street and present a united front towards strangers (Donley-Reid 1982: 65). It is logical that this anxiety was also expressed through rituals related to the boundaries of the house (Donley-Reid 1987: 189) and an obsession with purity. The house, besieged by the polluted city, is the locus of purity par excellence, but this has to be continuously maintained through cleansing, whitewashing, prayer and ritual observance (Horton and Middleton 2000: 183). Purity is a quintessential moral quality of women, too, who are strongly linked to the house (as in other Islamic societies). Women share other moral qualities with the house, such as shame and beauty
In a sense, the materiality of the house determined the woman’s personhood and identity. Inside the Swahili house, the female mind, body and spatial order are bound together.

The house was not the residence of the waungwana only. Female slaves (madada) and concubines shared the home with their masters. The built space was loaded with explicit and implicit meanings and it was used in daily practice to show everybody her or his place within the house and within society at large. Thus, the lower storey—where the slaves lived and slept on the floor on mats—had unplastered and undecorated walls. Slaves were considered unclean and therefore did not need any devices to protect them (Donley-Reid 1982: 66). The dirtiest and less valued part of the house, the kitchen, was also located in the lower floor. The masters lived in the richly decorated upper storey and slept in beds. Within this storey, polluting activities (such as sexual intercourse, childbearing and cleaning of corpses) took place in the most secluded room of the house, the ndani, which was the most lavishly decorated part of the house as well (Donley-Reid 1987: 187-188). Valsiner (2008: 69) notes that the meaning of decoration is often linked with the notion of non-functional or excessive kind of decoration. This certainly applies to the baroquely ornamented ndani—and index of a strong fear of pollution.

The different qualities of the materials employed in the construction of the house, the difference in textures, decorations and furniture, the differential location of the masters and servants’ rooms, all helped to make people internalize through daily practice the social order of the Swahili world. In addition, some ceremonies made social order even more clear and redundant for those who inhabited the house. The ritual kutolewande took place 40 days after the birth of a free-born child (Donley-Reid 1982: 70). The baby was then carried around the house, from the ndani, where he or she was born, to the rest of the rooms in what can be considered a prototypical “social guidance drama” (Valsiner 2007: 233). The mother, the female relatives and the slaves accompany the baby in his or her first tour of the social world that he or she will inhabit. The child is shown the rooms, their function, the artifacts and furniture associated to each room and the people who use them. The tour ends in the entrance door where, if the baby is a girl, she is told that the outside belongs to men only. That will be the limit of her world. Naturally, the ritual is only symbolic for the child, but it helps to emphasize in a powerful way the social order that is reproduced in practice by the household members every day. It also marks the beginning of the slow and long process of enculturation for the child.

(h2) THE BERTHA HOUSE: ORDER WITHOUT HIERARCHY

The Swahili are a deeply hierarchical society and with a complex state religion. The case of the Bertha (González-Ruibal 2006b), who live in western Ethiopia and eastern Sudan is quite different. The Bertha are Muslim, too, but their concern with pollution and purity is very different—and less pressing. They are a rather egalitarian community, with little social differentiation. Like the Swahili, the Bertha are a hybrid people as well, heavily influenced by the Islamic Sudan. The equivalent of Swahili patricians in Bertha land was the Watawit, the traditional ruling class, a mixture of Arab merchants and local women. However, the indigenous element has always had an overwhelming weight among the Bertha and an egalitarian ethos tended to curtail the most visible manifestations of power. The order of domestic space among the Bertha has little to do with the anxieties of the Swahili. However, the Bertha house is also a structuring structure and a faithful representation of the cosmos.
The house itself is much simpler, from an architectural point of view, than the Swahili mansions. Although there are three different types of houses (González-Ruibal 2006: 383-384), they all share some features, such as a circular layout, bamboo walls and thatched roofs. Externally, they are very recognizable, even from afar, due to their particular rooftop (*shimbir*), crowned with four long and thin poles. The rooftop and the long stick planted near the house to protect it against the evil spirits of thunder are symbols of the Bertha identity. They have an “emblemic” use, that is “they transmit a clear message to a define target population about conscious affiliation or identity” (Wiessner 1983: 257). However, the most important material elements that sustain the Bertha’s identity are neither explicit nor representational.

Despite their regional variations, all Bertha houses follow a similar spatial logic, that is deeply imprinted into the Bertha’s mind and that regulates their cultural behavior and their practical understanding of the world (González-Ruibal 2006b: 392-397). As in other vernacular African traditions (Preston Blier 1987), the Bertha house is anthropomorphic: the roof (*alu*) is the head of the house; the space indoors, the stomach (*iyu*); the entrance, the mouth (*ndu*); the poles flanking the entrance, the eyes (*are*, which also means “face”); the rest of the poles are the feet (*khu*), and the rear part of the house the back (*gundi*). This perception of the house as a human body has far-reaching consequences, because it means that the regionalization of the body (Giddens 1984: 124) is transferred to the domestic space, with all its implicit meanings and connotations. Like the human body, the house is divided into two main parts: the front and the back (FIGURE 8).

The front is where all human communication and relations take place: it is the area of the sight (*are, eyes*) and the speech (*ndu* means both mouth and language in Bertha). It is also the place of knowledge (*are p’adiya*, lit. “eye strong”, means “wise”). In front of the house, men gather to drink coffee early in the morning, women chat and care for the small children, men weave baskets and bamboo mats and women make pottery. Rituals and ceremonies also occur in the frontal space: Islamic praying, rainmaking activities, traditional sacrifices, wedding rites, beer drinking in working parties, etc. The space is kept clean by women, who sweep the floor at least twice a day. The rear of the house, on the contrary, is a space devoid of activities, people and artifacts. It is the place of death and dirt, where rubbish is thrown away, where small children were traditionally buried, menstruating women urinate, and rituals related to the exorcism of evil spirits take place. The back of the house is never swept. The same front-back organization is replicated indoors, with clean, social activities taking place in the frontal area (such as sleeping, entertaining guests and making coffee), and dirty ones in the rear area (such as brewing beer and cooking fermented food).

For the Bertha, then, as for the Swahili, ordering the domestic space is not an abstract activity that can be verbalized and rationalized in an explicit way. It basically works in practice. Practical logic enables the organization of “all thoughts, perceptions and actions by means of a few generative principles, which are closely interrelated and constitute a practically integrated whole” (Bourdieu 1990: 86). It has often been said that the organization of space among egalitarian, small-scale societies is much more flexible and less scripted than among hierarchical ones. Yet even egalitarian societies live in a material world that precludes certain actions in certain spaces and favors others. Under the apparent chaos and disorder of the Bertha house lays a powerful order that is no less strict, even if it has fewer rules, than the one enforced by the Swahili house. A Bertha woman would never, ever, make pots behind her house. The relation between back space, dirt and death is heavily imprinted in her mind from her earlier childhood, even if she cannot render those relations explicit in speech.
Both the Swahili and the Bertha house, then, allow knowing the order of the world for those who inhabit them. Furthermore, both houses are concerned with purity and pollution. The difference is that the logic of the Swahili house—as a hierarchical society—is basically concerned with contamination caused by the violation of the socio-political order (masters and slaves, locals and foreigners), whereas the central theme in the Bertha house—as an egalitarian community—is pollution brought about by disturbances in the cosmological order (life and dead, good and evil, society and the Other).

In sum, built space is crucial in the psychological development of human beings within any particular culture. People—and especially political visionaries—instinctively know that. It is not by chance that social engineering has always aimed at changing architecture for changing people’s minds. This was the case with Soviet buildings: Victor Buchli (1999) studied the evolution of the Narkomfin building in Moscow, an attempt at achieving the communalization of daily life by eliminating petit bourgeois domesticity. Nonetheless, other attempts at transforming ways of thinking and behaving through space can be counter-hegemonic. That is the case with the architecture of the Pueblo Indians after the 1680 revolt and the utopian communities of the first half of the 19th century in New England, studied by Robert Preucel (2006). After the Pueblo revolt, the Cochiti leaders of the rebellion founded villages endowed with a double plaza that encoded the cosmological and social principles of the Cochiti worldview, so as to fix and make effective in practice the revitalization discourse, which was critical with the exploitative system of the Spanish empire. Similarly, the followers of Transcendentalism who founded utopian communities relied heavily on architecture to create a new social order—and a new individual—that stood against incipient industrial capitalism and its dehumanizing practices. Culture, according to Shweder and Miller (1993: 512) is “that subset of possible or available meanings, which by virtue of enculturation... has so given shape to the psychological processes of individuals in a society that those meanings have become, for those individuals, indistinguishable from experience itself”. The built space, in any society, goes a long way in achieving that seamless conflation of meaning and lived experience.

### Memory and Material Culture

With the rise of cognitive archaeology in the 1980s emerged the interest for material culture as a form of memory container. Colin Renfrew (1998), one of the main proponents of the paradigm, argued that the appearance of the first agrarian societies (ca. 9500 BC in the Near East) coincided with a new cognitive phase in the development of the human mind, characterized by external symbolic storage employing material culture. This phase (the Neolithic in archaeological terms) would lie between two periods previously described by Merlin Donald (1991): the linguistic and mythic culture of the early *Homo sapiens* and the theoretic culture of literate societies. The materials put to mnemonic uses varied with the development of agrarian societies. Probably, the earliest containers of memory were houses, especially in the Near East (Hodder and Cessford 2004) and the Balkans (Borič 2003). In Western Europe, tombs became the focus of collective memory (Edmonds 1999), later to be replaced by artifacts that were ritually deposited in public ceremonies (Bradley 1990). In places like Mesoamerica and North America, cultic spaces materialized collective remembrance among early farmers and complex hunter-gatherers (e.g. Shady Solís et al. 2000; Pauketat and Alt 2003). More generally, the diversification of material culture with the Neolithic and the appearance of new supports to convey messages (such as pottery, textiles and architecture) and the generalization of old ones (sculpture and painting), certainly favored the storage of
memory. The semiotic world of the first agriculturalists, then, was very different from that of the hunter-gatherers, with its limited amount of human-made symbolic containers. Some of the mnemonic devices developed by early agrarian and sedentary societies developed through time to such an extent so as to evolve into writing: this is the case of the Mesopotamian tablets of the late fourth millennium BC (Rodríguez Mayorgas 2010: 97-103). Other mnemonic devices were very complex but did not become proper writing system, such as the Inca knotted strings (Cole 1998: 168; Rodríguez Mayorgas 2010: 104-107).

H3) BEYOND EXTERNAL STORAGE

The idea of material culture as a form of mnemonic external storage has been under attack from different quarters, including some cognitive archaeologists. Malafouris, for instance, considers the computational model of cognition (based on a process of encoding-storage-retrieval) does not adequately explain the mnemonic role of objects (also Thomas [1998], from an interpretive perspective). Artifacts, writes Malafouris (2004: 57) “remind you, sometimes even force you to remember, without including the content of what precisely is to be remembered” unlike texts or information contained in a hard disk. The most serious objection to the theory of external symbolic storage is that it does not truly consider a dialogical self. It envisions culture (and cognition) as something that takes places in the head and that is projected into a passive world (see above “Material culture, materiality, cognition”). Recently, archaeologists have been more interested in how places and things are suffused with memory and the effect that this has on people (Van Dyke and Alcock 2003; Jones 2007), rather than in the way particular objects or monuments are explicitly codified so as to store specific memories. This is related to the growing interest in the social sciences on collective memory. It is now widely accepted that memory is not something exclusively individual, but socially shared (Connerton 1989), as Maurice Halbwachs (1994 [1925]) proposed more than 80 years ago. In fact, the archaeological record preserves more instances of social remembrance, from monuments to fossilized daily routines, than personal (or group) mnemonic devices. This turning away from the notion of symbolic storage is also related to a wider awareness of the peculiar mnemonic nature of things, as opposed to texts. Things are ontologically closer to what Connerton (1989: 72-73) calls incorporating practices than to inscribing ones. Inscribing practices are devices for storing and retrieving information (books, computers, sound tapes). Incorporating practices imply the intentional or unintentional transmission of information primordially through bodily posture, which is, in turn, tightly interwoven with technology and artifacts (Mauss 1973).

Andrew Clark (2008: 14) comments that certain Alzheimer’s sufferers maintain an unexpected high level of normal, independent functioning. Their success is explained by the use they make of diverse external aids such as labels, memory books, diaries and leaving important objects in open view. This is, for Clark, just an extreme example of the normal use of external aids (computers, compasses, maps). The author, however, like other psychologists and cognitive scientists (Beach 1993; Klumb 2001), focuses on explicit and conscious cognitive uses of material culture, those that are closer to the idea of things as external symbolic storage. Yet we are not able of orienting ourselves just when we use a map, read a history book or write a laundry list. We live in a material environment that is saturated of social meanings and memory traces. Even if we do not want to remember, artifacts force us to. This is because, as Boesch (1991: 331) has noted:
our objectual surroundings establish and environment of meanings, often delicate and intimate, expressing itself even in unreflected banalities ...the lavender sachet in the lingerie drawer, symbolising, without us realising it, the blending of opposing principles, such as the enclosed space and the open air, the civilised and the natural, the daily and the unusual [my emphasis].

This is why we throw away our ex-lover’s possessions, despite not being mnemonic aids proper—and were never intended to be (in the way a grocery list or a knot in the handkerchief are). The lover’s possessions are indexes that remind us of his or her presence, as the lavender sachet brings out memories of nature and openness. The things Clark mentions in his example are (with the exception of the objects put in a visible place) symbols; but material culture, as we have already seen, works more often as an index (Jones 2007: 22-26). There lies the power of things: they keep remembering us other things, people, places and events to which they are associated, whether we want it or not. If we scale up and go from personal cases to society at large, we can get an idea of the important role that materiality plays in shaping collective remembrance, which is in turn crucial for shaping our present (and future) behavior. This mnemonic and prospective power of things is well exemplified in the following examples. As in previous sections, I will resort to both ancient and modern cultures.

H2) KEEPING HISTORY COLD: MATERIALITY AND MEMORY IN PREHISTORIC SOCIETIES

Çatalhöyük, in modern Turkey, is one of the most important early agrarian villages studied by archaeologists (Hodder 2006). In its main phase of occupation, around the seventh millennium BC, it could have hosted up to 8,000 individuals. The village had many mud huts, tightly packed together, with no streets or plazas; people entered their house from the roof. According to Hodder and Cessford (2004: 22), in Çatalhöyük,

“instead of social rules being imposed by centralized authorities manipulating public rituals... the reproduction of dominant groups (elders or lineage heads) was intimately tied to the construction of bodily routines that were repeated in daily house practices over days, months, years, decades, centuries, and even millennia”.

One of these practices was the replastering of walls, which was carried out annually and for up to a hundred years before the house was completely rebuilt (carefully following the old plan). Other repetitive activities, such as sweeping and plastering certain floors or burying people under them, were important in the processes of enculturation through practice, but also in perpetuating in time meaningful, ancestral ways of doing things. Hodder and Cessford (2004: 31) argue that daily practice and memory were inseparable in Çatalhöyük, because social regulations were not simply imposed, but constructed through habituation practices, which, in a non-literate society, play the same role as writing in the construction of social memory. Paul Connerton (1989) has explored this duality through the concepts of inscribing and incorporating practices. The second are particularly characteristic of non-literate peoples. Although Connerton referred basically to bodily gestures and performances, we have to include here the use and manipulation of artifacts as well as the artifacts (including architecture) that shape bodily practices.
The fact that houses follow exactly the same plan for hundreds of years proves their fundamental role in preserving collective memory. It also reveals the prospective qualities of material culture, as technical decisions taken at a certain point in time were still having an effect upon the regulation of society and community life two thousands years later. Sometimes even specific iconic decorations (such as depictions of bulls) were repeated through several phases spanning hundreds of years (Hodder and Cessford 2004: 35), a phenomenon that guarantees the long-term transmission of mythological knowledge. Furthermore, in Çatalhöyük there are some houses whose mnemonic role seems to be more prominent than in others: they have long sequences of occupation, elaborate decorations and many burials. They were formerly interpreted as shrines and today as houses of powerful lineages (Hodder 2006). At any rate, they epitomize the need for preserving memory that is present in every other house and reveal the link that existed between memory and power.

The logic of Çatalhöyük is present in other Neolithic communities in Europe and the Near East. A compelling example is that of the so-called Linear Pottery Culture (LPC), which represents the expansion of early farmers from Hungary to eastern France between 5500 and 5000 BC. Despite its vast territory, the LPC is extremely homogeneous in house form, burial practices and pottery decoration. Jones (2007: 93-105) considers that this homogeneity is related to specific memory practices, which are again clear in the domestic sphere. The long rectangular houses had their doorways oriented towards the previous area of settlement (the LPC people expanded from Hungary towards France), as if remembering their origins, and they preserve the original layout for centuries—“a kind of mythological archetype” (Jones 2007: 103). These material practices, in Jones’ opinion, provided a way of coping with new environments. Cultural memory enabled people to move forward while remaining attached to the past (Jones 2007: 100). I would argue that the memory practices of Çatal Höyük and the Linear Pottery Culture are best understood as mechanisms to “keep history cold”. Jan Assmann (2001: 35) suggests that in all societies there are devices whose purpose is to maintain the “cyclical time of regeneration”. In egalitarian, non-literate communities mechanisms of regeneration prevail, in opposition to what Assman calls the “loci of history”, which account for events and change. The latter are to be found in some state societies, where transformation is perceived as positive, and especially in modernity after the 15th century.

H2) DESTRUCTION AS MEMORY PRACTICE

Material memory is not necessarily based on constructive processes. Destruction can be a positive way of maintaining memories (Rowlands 1993), provided that it takes place in a dramatic, ritualized setting and is regularly repeated. A good example is the destruction by fire of Neolithic mud houses in the Balkans (Stevanovic 1997). Every few years, houses were destroyed and then built anew following the previous layout, in what can be considered as an act of cyclical regeneration. Another case of social remembrance through destruction is the *malanggan*. The people of New Ireland make very elaborate funerary sculptures (called *malanggan*) that take months to be finished and require great skills. The ritual itself lasts a few hours and, after that, the wooden sculptures are left at the mercy of the wind and rain in ritual areas (Küchler 2002). Memory is thus deposited in the technical cycle as a whole, which includes the creation of the statue and use, but also its abandonment and eventual disappearance. Rowlands (1993: 149) describes other contexts in which the destruction of material culture serves to remember, such as the deposits of bronze objects that were ritually buried in Europe during the Late Bronze Age (1200-800 BC), or the famous potlatch of the Kwakiutl
Indians of the British Columbia, in which large amounts of commodities are not only
given away by wealthy patrons, but also burnt and destroyed. The ceremonies in which
artifacts are destroyed, buried or abandoned are, in all cases mentioned, dramatic
enough so as to be deeply impressed into collective memory.

However, destruction can also be an effective way of erasing memory. As we
saw in the section of space and order, people are often instinctively aware of the agency
of material culture in shaping social life. They also know that things transmit memory
and that with memory come certain moral values and cultural predispositions: hence the
widespread phenomenon of damnatio memoriae since Antiquity. The idea is to cut short
forever not just a particular remembrance, but also the possibilities of repetition,
because it is repetition (Assmann’s “time of regeneration”) that makes the past always
present. Thus, the destruction of malanggan, potlatch commodities or bronze axes was
not actually aimed at putting an end to something (those particular things), but to
regenerate something else (society or the cosmos). It is the cycle of production and
destruction that maintains memory in those contexts. The problem is when destruction
itself becomes an end, that is, when the central point is to obliterate a cultural world and
start a new one ex nihilo. The annihilating thrust implies a radical change in the notion
of temporality, from a cyclical time to a linear one, with millennial or teleological
connotations. It is not by chance that revolutionary programs based on destruction often
imply the emergence of linear notions of time (or even the very notion of time): that is
the case with Christianity (Cullmann 1964: 51-60) and modernity. Significantly, the
French Revolution and Fascist Italy simultaneously inaugurated new calendars and tried
to raze previous cultural landscapes (Zerubavel 1977; Bosworth 2005: 201). The
purpose of destruction is to obliterate the old material civilization and the old ways of
thinking which were embedded in it.

This exactly is what is happening in the more traditionally parts of Spain under
the impact of modernity. In Galicia, in particular, the destruction of the traditional
material environment has acquired enormous proportions (González-Ruibal 2005). This
is due to the traumatic character of the process of modernization in the region: hundreds
of thousands of peasants were forced to emigrate to other European countries and North
America in search for jobs. During their stay abroad, Galicians were exposed to a
radically different material culture in places like New York and Buenos Aires. In a
strange and often hostile social environment, their remembrance of their birthplace was
heavily tinged with nostalgia and affection; a highly idealized ancestral homeland
emerged from their daydreaming.

This ideal image suffered a hard reality-check when they returned to Galicia
from the late 1970s onwards. The idealization process was reversed upon arrival and the
birthplace began to be characterized in negative terms, as a backward, oppressive
locale—the source of all moral and material miseries that forced people to emigrate. Yet
it was not enough with destroying in the mind the memory of the cozy traditional home.
The entire cultural landscape had to be shattered and replaced by a new one, free of the
social and mental constrictions that characterized the premodern environment. Using
Sigmund Freud’s terminology, we can say that what the Galicians suffered was not a
process of mourning caused by the disappearance of something that had been loved, but
melancholia, which is marked by ambivalence towards the object (loved and hated at
the same time):

“Just as mourning impels the ego to renounce the object by declaring its
death... each individual battle of ambivalence loosens the fixation of the
libido upon the object by devaluing, disparaging and, so to speak, even killing it” (Freud 2006: 324).

Devaluing and even killing the object that summoned traumatic memories was what the Galicians did. They engaged in a rage of destruction of the old material world: from plows to houses (FIGURE 9). The new material culture exemplify the change from a culture where a relational self prevailed and where memory was communally built and transmitted within the community to a society of independent selves, where individual memories—successful biographies—try to impose themselves in the cultural landscape. Mechanisms to shape and regulate the relational self and preserve memory (traditional clothes, agricultural implements for collective work, vernacular houses) were replaced by monuments to the individual self, material memories of personal triumphs (expensive cars, luxurious modernist houses). Nevertheless, the relationship with the past, as in every melancholic process, is ambivalent. Traditional artifacts are often not destroyed, but just left to decay. Something of the old love prevails and haunts the former peasants.

The Galician case is only an extreme example of the forms of oblivion that are embedded in late modern materiality. For Paul Connerton (2009), late modernity is characterized by a particular regime of forgetting that is enforced in everyday life through the built environment. The scale of human settlement, the production of speed and the destruction of the built environment generate a particular “cultural amnesia” (Connerton 2009: 99). Whereas medieval and early modern cities used to have conspicuous landmarks that created an effect of spatial cohesion and places of gathering that fostered social cohesion, new cities are formless, segregated spaces and, for that reason, unmemorable and unsocial. Besides, the continuous refashioning of the built environment prevents any possible social recollection of shared places. We might say that supermodern cities fail to transmit memory, but we may as well argue that they succeed in creating forgetfulness: Connerton (2009: 125) makes the point that the production of oblivion is intrinsic of the political economy of late capitalism. Cultural amnesia is not produced by accident, but by a necessity of the system—so that we forget where things come from (González-Ruibal and Hernando 2010). The question that emerges from the study of material memory practices in late modernity is: How does living in a post-mnemonic culture affect human cognition?

(h1) CONCLUSIONS AND FUTURE DIRECTIONS

Archaeology works with more cultural variation than any other social science, since archaeological methods can be used to understand all prehistoric, historic and contemporary societies from the beginning of humankind to the present. The possibilities for cultural comparison are almost infinite and differences often emerge when contrasting opposite contexts. However, archaeologists agree that working with the past is just one of the defining characteristics of their discipline. The other, and perhaps more important, is its focus on materiality. In this chapter, I have tried to show the great relevance that material culture has in shaping our perceptions and experiences of the world. Material things are a crucial component of the “extended mind” (Clark and Chalmers 1998) and this fact is enjoying increasing recognition by psychologists and cognitive scientists. As we have seen, Cole (1998: 144) argues that things are the quintessential constituents of culture due to their twofold character, simultaneously material and ideal. Here, I have argued that a third dimension of things has to be taken into account in order to understand their relevance in shaping the social mind: temporality. Things from the past have a continuing effect in the future. Our
experiences are framed by an inherited material environment, sometimes hundreds or even thousands of years old. From this point of view, archaeology is doubly pertinent, because—unlike other disciplines engaged in the study of things—it deals both with materiality and with time. For cultural psychologists and archaeologists it should not be difficult to find a common ground. After all, they are interested in similar phenomena as mediated by culture. The development and constitution of the self in relation to society, the social shaping of emotions, the way the built environment affects human experience and the material frame of memory practices are the four themes that I have chosen to explore in this chapter, due to their meaningful and manifold ramifications.

Cultural psychology could benefit from studying things with an archaeological sensibility, that is, with an understanding of the agency of material culture, its inseparability from human beings and its temporality. Some new lines of research for an archaeologically-inspired cultural psychology that takes things seriously could be the following:

1- The interactions between human psychological processes and material culture beyond cognitive technologies and explicit symbolical objects. Psychologists interested in material culture have often focused on explicit cognitive or mnemonic technologies and artifacts—maps, computers, GPS, compasses. Here, I have tried to show that many other types of cultural objects are involved in both social and spatial orientation and are, therefore, worth of study by psychologists. In fact, other categories of cultural objects, such as houses or cars have been taken into account by cultural psychologists recently (Valsiner 2008: 23). Their point in common is that they are artifacts explicitly inscribed with meaning. The focus is in people openly making statements with objects. Although those studies are certainly an important and exciting line of research, it would be interesting to look at other kinds of artifacts, which are less obviously loaded with meaning. This implies a turn from explicit to implicit meanings, from the symbolic and iconic to the indexical. To make better sense of the indexical, of unconscious traces and practical behavior, psychologists have to span their range of research and include things that do not seem too relevant or meaningful at first sight, things that are overlooked or taken for granted by human actors. Archaeologists know well that every single object counts, no matter how humble.

2- Systems of artifacts involved in psychological processes. Things cannot be understood in isolation or out of context: archaeologists and anthropologist of technology know that we have to explore entire material inventories and their structural relations (Baudrillard 1968; Lemonnier 1992; González-Ruibal 2006a). As signs are only meaningful in relation to other signs, artifacts are only meaningful in relation to other artifacts (including the human body). Thus, cars have to be explored in relation to urban space and houses, but also in relation to late modern technologies of the self, such as weblogs and cloth, and cloth, in turn, has to be understood as related to furniture and cell phones. Real things have also to be confronted with virtual things and with the products of the cultural and moral imagination. How do artifacts that are explicitly encoded with meaning and artifacts that work in practice relate to each other? How do they interact to frame daily experience?

3- The temporality of things. People are born to a material milieu that they have not created but that deeply affect their being. The psychological development of individuals takes place in a cultural landscape saturated of meaningful memory cues, some of them extremely old, some very recent. Does the human mind develop differently in heavily material and conservative historical environments and in landscapes where memory is swept away every generation or not materialized in the first place? How do different memory practices and temporalities of things affect the way people perceive themselves,
society and the world? Thus, whereas Europeans live in cultural landscapes that have grown through accretion of diverse material pasts, the materiality of which is considered important for the present (at least since early modern times), the Buddhist tradition tends to regenerate the past by destroying or altering its materiality, which is not valued, and by rebuilding it anew (Byrne 1995). Also, how do the different layers of time have an effect in people? The issue of time is inextricable from memory: What is the role of material culture in creating and reconfiguring habit, cognitive and personal memory (Connerton 2009: 139-141)? What is the relation between open commemorative practices and unconscious mnemonic traces?

BIBLIOGRAPHY


CAPTIONS

Figure 1. Trajan’s column in Rome. It depicts the conquest of Dacia (modern Romania) by Emperor Trajan between 101 and 106. Material culture here works like a text that can be read.

Figure 2. Decoration of a Gumuz granary in western Ethiopia. An indexical sign that works in practice.

Figure 3. A group of Komo from western Ethiopia drink beer from a common pot in a working party.

Figure 4. A megalithic tomb from Galicia (Spain) after excavation. Ritual activities took place around the mound, in front of the entrance and inside between 3800 and 2700 BC.

Figure 5. A decorated slab from the megalithic tomb of Knowth in Ireland.

Figure 6. Victorian cemetery in Glasgow: isolated monuments to the individual self.

Figure 7. Between the individual and the relational self: a cemetery in Galicia (Spain).

Figure 8. The Bertha house: a structuring structure.
Figure 9. A traumatic breakage with a relational identity: forgetting the past in a Galician village.