While Origins of the Human Mind by Merlin Donald is recognized as the most coherent statement currently available on the development of human cognitive abilities, it is here criticized for laying insufficient emphasis upon the role of material culture in early human societies. In particular, a phase in cognitive development is proposed intermediate between that of linguistic or mythic culture, characteristic of Homo sapiens, and the subsequent development of theoretic culture, usually utilizing writing, in urban societies. The missing phase or stage is one employing symbolic material culture, and is characteristic of early agrarian societies with permanent settlements, monuments and valuables. It is of particular relevance for prehistoric societies after the Palaeolithic period.

Merlin Donald’s Origins of the Human Mind (1991) may be regarded as the most coherent statement which we yet have concerning the development of human cognitive abilities, set in the broader framework of human evolution, and taking adequate note of the information to be gained from the archaeological record. But Donald’s work is only a beginning. And while it offers numerous penetrating insights, for instance into the role of writing, and in particular the role of alphabetic writing, it also (in my view) has some blind spots. In particular, as I shall try to show, it may be regarded as mentalistic. That is perhaps not a strong reproach in a work devoted to the mind. But there is implied here a dichotomy between mind and matter, which is in part misleading. I shall seek to show that much of the story of the development of human culture and cultures, and with them of ‘mind’ — for it is not altogether clear that the concept of ‘mind’ does more than refer to specific modes of behaviour (including thought) — is inseparable from human interaction with the material world. In particular much social life, perhaps most social life, is mediated by human interactions with things. We live in a world which we have made: it is a world of artefacts, to the extent that it is almost true to say that the world in which most of us live today is an artefact, albeit a complex one. Merlin Donald, who has other valid objectives, does not, I think, sufficiently deal with this material reality of things. Indeed to illustrate what is lacking, it is appropriate to set alongside Origins of the Human Mind another interesting and influential volume, edited by Arjun Appadurai (1986), The Social Life of Things. For here we see the importance of artefacts in the realm of human affairs: their role is symbolic as well as practical. Without them social life and indeed intellectual life could not have developed. So for me this conference was, amongst other things, an opportunity to rectify what I regard as an omission in Donald’s perspective, as well as to celebrate the overall validity of his approach.

The focus of the present volume is deliberately not the question of the origins of Homo sapiens sapiens and our accompanying cognitive abilities: that has been the focus of a number of recent studies (notably Mellars & Gibson 1996; also Mithen 1996). Instead we are deliberately focusing upon the more neglected field of what happened in the field of cognition after the momentous events which led to the emergence of our own species.

I have myself a long-standing interest in these matters: my Inaugural Lecture (Renfrew 1982) was...
entitled *Towards an Archaeology of Mind*, and set out to discuss some of the problems in this field. For as I have argued elsewhere (Renfrew 1989; Renfrew & Bahn 1991, 431–4) it is possible to discern a movement in recent archaeological thought towards what one may term cognitive-processual archaeology, which aspires to deal with some of these issues in a scientific and objective a manner as possible. This aspiration separates it somewhat from the ‘post-processual’ or interpretative approach to the world of symbols and meanings (e.g. Shanks & Hodder 1995), although in reality there is a fair degree of overlap between the two fields. Bell (1994, 305), writing as a philosopher of science, has contrasted the empathetic method of the ‘post-processual’ or interpretative approach with the methodological individualism or individualistic method which he sees as characteristic of cognitive archaeology. I see cognitive archaeology as one of the most interesting areas of archaeological research today (Renfrew et al. 1995; Renfrew & Zubrow 1994).

**The missing phase: symbolic material culture**

In *Origins of the Modern Mind*, Donald (see also this volume) sets out the following very broad sequence of cognitive phases, separated by three major transitions:

Episodic culture, characteristic of primate cognition

(first transition)

Mimetic culture, characteristic of *Homo erectus*

(second transition)

Linguistic or mythic culture, characteristic of early *Homo sapiens*

(third transition)

Theoretic culture utilizing External Symbolic Storage

Donald (1991, 275) notes that mythic culture extended to include all Upper Palaeolithic, Mesolithic and Neolithic societies. While noting the origins of visualographic invention in the pictorial representation of the Upper Palaeolithic cave paintings his attention then shifts (Donald 1991, 285) directly to early writing systems in Mesopotamia, and the only systems of External Symbolic Storage to which he gives careful consideration are writing systems. Although Stonehenge is considered in the treatment of early analogue models (Donald 1991, 338), sapient life and thought prior to the emergence of literacy is only sketchily dealt with:

The complex technological and social developments that preceded writing might suggest the existence of some apparently analytic thought skills that contained germinal elements leading to later theoretic development. However early inventions were pragmatic and generally not far removed from nature; for example, the domestication of animals and plants would not have required more than a recognition, transmitted over time, that certain species were desirable and domesticable for human use. Complex constructional products, such as brick structures and sailing vessels, might be seen as grand elaborations on the ancient toolmaking skills of humans. The social organisation of the first towns and cities presumably borrowed heavily from existing family and tribal structures. These pragmatic developments, impressive as they were, lacked the essentially reflective and representational nature of theory. (Donald 1991, 334–5)

Donald shows illuminatingly how it was the first fully effective phonetic system of writing utilized by the Greeks which allowed them to develop to the full their theoretic attitude by externalizing the process of oral commentary: ‘They founded the process of externally encoded cognitive exchange and discovery’ (Donald 1991, 343).

For Donald, therefore, theoretic thought is to be associated with literacy, and hence with urban civilization and state society. In its fully-developed demythologized and secularized form it is first seen with the Greeks in the seventh century BC.

But what of the long development of culture and society in different parts of the world between the hunter-gatherers of the Upper Palaeolithic on the one hand and the first urban citizens of Sumer or of Mexico? The processes of development were slow and gradual, but many of the changes were profound. Clearly many scholars today would not agree with Donald’s view of the rather rudimentary nature of the changes involved in the origins of farming. Cauvin (1987) for instance, has stressed the symbolic dimensions of the inception of farming in Southwest Asia, and Hodder (1990) has explored cognitive aspects of early farming in Europe.

My central point, however, is that without artefacts, material goods, many forms of thought simply could not have developed. That is clearly true in the field of religious belief, where the distinctions made between deities, for instance, are in part dependent upon the possibility of representing them. But it is
true much more widely than this. One of the lessons in prehistoric archaeology over the past two decades has been the active role of material culture. For material culture is not only reflective of social relations and of cognitive categories: it is to a large extent constitutive of these also (Hodder 1986).

This is clearly so in a purely descriptive sense: the concepts of house (with roof, walls, floor, windows) and furniture (chairs, tables, carpets, lights, cutlery) must clearly be consequent upon the prior existence of such artefacts. But it is true also in an ascriptive sense, where values or qualities are ascribed. For just as the term ‘hot’ cannot have meaning without there being objects which may be so described, so we cannot conceive of values without there being objects or commodities to which value is ascribed.

John Searle in his The Construction of Social Reality (1995, 119) has stressed that what he terms ‘institutional facts’ (facts which can exist only within human institutions) only exist by human agreement, and that in many cases they require official representations, or in his terminology ‘status indicators’ because ‘the existence of institutional facts cannot in general be read off from the brute physical facts of the situation’. Perhaps because he is a philosopher, he thinks in terms of words, whether spoken or written, as the usual form for such indicators. But in reality many indicators take the form of visual symbols, that is to say artefacts. And some of the most important institutional facts are embodied in artefacts and could not exist without them.

As Searle (1995, 37) puts it: ‘Only beings that have a language or some more or less language-like system of representation can create most, perhaps all institutional facts, because the linguistic element appears to be partly constitutive of the fact.’ While this is indeed valid, we can go on to remark that in some cases the material element, and specifically the artefact, is also constitutive of the fact.

Two examples will illustrate this integral relationship between concept, linguistic term and artefact. The first is the whole field of measurement, which we may discuss with weight, by way of example. The term ‘weight’ is meaningless unless one has objects possessed of mass, and the notion of standardization arises naturally if one has a number of identical objects. In order to measure weight it is necessary to have some balancing device and a reference object which can serve as the unit of measure. In all of this it is clear that the possibility of weighing has to arise from experience with the artefacts of the real world (Renfrew 1982).

The second example relates to value. The notion of a valuable substance or commodity must surely be secondary to the prior existence of objects or materials which are attractive or significant, so that ‘value’ can indeed be ascribed to them by consensus. Value may, of course, be ascribed rather arbitrarily to materials, but without the special materials the concept itself would have little meaning (Renfrew 1986).

There was a long period in the long-term development of most societies when such concepts as these could develop. In general, the rather sophisticated activities for which writing was presumably devised do themselves depend upon the existence of a series of concepts such as these: they are indeed cognitive concepts. But in many cases they are not only mental or cognitive constructs: they are based upon interaction with the real world, and in general upon interaction with symbolic artefacts which operate within the prevailing social world. They are indeed dependent upon language, for it is through language that their ascribed meanings are agreed, made known and passed on. But these symbols have physical existence, and without this existence they could have no meaning, indeed there would be no meaning.

This leads me to suggest that there is in Donald’s evolutionary sequence a missing phase, where the role of artefacts as symbols is increasingly significant. It arises from the Mythic or Linguistic Culture of early Homo sapiens, and is absorbed into and forms the foundation for the Theoretic Culture of the literate citizen. It is the phase of symbolic artefacts or material symbols, of Symbolic Material Culture.

**The phase of symbolic material culture**

It is worth going so far as to make this suggestion more concrete by modifying Donald’s basic sequence in order to include it. The sequence of transitions has now four rather than three major episodes of change. The first two transitions are still genetically based: the shift from early hominids to Homo erectus, and the shift from erectus to sapiens. But Donald telescopes events in squeezing subsequent history into a single transition. To do so ultimately risks favouring unduly the development of writing systems, undoubtly one of the crucial mechanisms of External Symbolic Storage, but hardly the earliest. External Symbolic Storage is one role; it has been suggested, of Palaeolithic cave art, used in effect as a teaching aid (Pfeiffer 1982). Marshack (1972) makes a claim for what is in effect the storage of chronological information in what he sees as the time-structured
engravings on bone of the Franco-Cantabrian Upper Palaeolithic. But it is not until the inception of farming that we see the widespread development of permanent village settlements, and often the rise of consistent burial practices for the disposal of the dead. The household and its contents—as well as the tomb—offer a new range of opportunities for material culture to operate symbolically.

**Revised system of cognitive phases**

Episodic culture, characteristic of primate cognition

(First transition)

Mimetic culture, characteristic of *Homo erectus*

(Second transition)

Linguistic or mythic culture, characteristic of early *Homo sapiens*

(Third transition)

External Symbolic Storage employing symbolic material culture, characteristic of early agrarian societies with permanent settlements, monuments and valuables

(Fourth transition)

Theoretic culture using sophisticated information retrieval systems for External Symbolic Storage, usually in the form of writing, frequently in urban societies.

These phases are not of course simply sequential. We still learn to ride a bicycle, or drive a car, or type as much by mimesis, and by frequent repetition establishing motor sequences, as we do by reason or theory or other language-assisted modes of instruction. Our own culture remains to a large extent ‘linguistic, or mythic’. Even so it may be a valid approximation to suggest that the third transition here may often be equated with the transition to food production, and thus the so-called ‘Neolithic revolution’ of the Old World. It is at this time that so many symbolic categories of artefact are created and come into their own, which are not preserved among Upper Palaeolithic hunter-gatherers. To say this is not necessarily to imply that they are not in use among hunter-gatherer societies today. It is often assumed that modern hunter-gatherers may simply be taken as surrogate representatives of our hunter-gatherer ancestors.

The fourth transition, to theoretic culture, is generally associated with the development of writing, and reached some sort of a climax with the development of the alphabet and its use by the classical Greeks. In a general sense it is pertinent to ask whether this is in general correlated with the development of urbanism. It does not follow from such a generalization that one cannot have theoretic culture without cities, nor that theoretic culture is a feature of all urban societies. But it may not be inappropriate to suggest some relationship or correlation between what is here described as the fourth transition and what Gordon Childe (1956) described as the ‘urban revolution’.

**The past/present paradox**

As an aside, it is worth pointing out that there is something decidedly unsettling about Donald’s evolutionary sequence, which at first sight one imagines as a temporal sequence. But what of modern or recent non-literate societies? Are they not members, like our literate selves, of the most recent phase of Theoretic Culture? Are modern hunter-gatherers still in a phase of Mythic Culture, and traditional non-urban farming societies in one of Symbolic Material Culture? As noted above, Donald (1991, 275) applies the term mythic culture to all upper Palaeolithic, Mesolithic and Neolithic societies: but it is not clear how he could apply a temporal restriction in order to avoid applying the term to all hunter-gatherer societies or to all isolated, egalitarian farming societies, including those of the modern or recent world, in what we sometimes conveniently think of as the ethnographic present. This would imply that the distinctions in question are not in reality chronological ones, but are dependent upon matters of cultural context. Does this of necessity imply a re-awakening of interest in ‘la pensée sauvage’? It is self-evident that one seeks to avoid a return to gross generalizations about ‘primitive thought’ which were so current a century ago, but unless clear and more subtle distinctions are drawn there is an evident risk.

As noted above, however, it is modern archaeologists and ethnographers who perhaps too readily equate modern hunter-gatherer societies with those of our Upper Palaeolithic predecessors. Modern hunter-gatherer societies are the product of forty centuries of sapient evolution, just as much as urban ones. They should not be regarded as living representatives of the Palaeolithic past.
The same question can be posed at a more individual level. What of the non-literate individual within a modern urban culture, where the majority of citizens are literate? Is this person in some Mythic Phase, lacking the practice of theoretic thought? To pose the question invites the response that more 'primitive' modes of thought are still with us. Perhaps that is the right answer, and Donald in his book does indeed explore the consequences of different kinds of educational experiences, in particular in the Middle Ages. But there are some complex issues to disentangle here.

This brings us close to the 'sapient paradox' (Renfrew 1996), whereby we realize that, if biologically modern human kind made its appearance in Europe nearly 40,000 years ago, possessing the same innate genetic abilities as ourselves, then it is the intervening centuries of learned behaviour, and only that, which separates them from us.

**Symbolic material culture as external symbolic storage: the example of prehistoric Britain**

The British case is a good one to choose for the present purpose, precisely because we may rely upon what one might term the 'new British prehistory' for quite a rich discussion. What is needed, of course, is a separate and close examination of a number of independent trajectories of change: Southwest Asia, perhaps, and Mesoamerica, and China. In each case one would wish to see what may be said about the origins of the modern mind in relation to the archaological record there. To what extent may one describe the culture of Ming China as 'theoretic' in Donald's sense? Or that of the Aztecs of Mexico and the Incas of Peru? No doubt few world civilizations would reach the degree of theoretic cerebration displayed by the Greeks. But would not the Chinese or the Maya rank with the Sumerians? These are questions which have to be asked, and some of the answers are no doubt already there for the attentive reader of The Cloud People (Flannery & Marcus 1983) or Science and Civilization in China (Needham 1954).

The discussion surrounding the Neolithic and Bronze Age periods of British prehistory has been particularly rich in recent years, with scholars such as Richard Bradley, Julian Thomas, Nick Thorpe, John Barrett, Colin Richards and David Clarke examining closely the various interpretations which have been offered, while the same may be said of J.D. Hill and other authors for the British Iron Age. These authors, using a variety of approaches, have wrestled with the meanings which may be ascribed to the major monuments which characterize the Neolithic period of Britain.

It should be borne in mind, in the present context, that monuments are built for remembrance. They are often memorials. It is the role of a memorial to serve the memory, often the collective memory. Even in the modern literate age, most memorials do this most effectively without relying very heavily upon the written word. Sometimes indeed they are the means by which memories are preserved which would otherwise be lost. All of this is very relevant to our central theme of 'external symbolic storage'.

It is true of course that a prehistoric monument cannot now tell its story, with chapter and verse of the original myth or narrative or history, quite as effectively as can an Egyptian or Assyrian or Hittite monumental inscription where the deeds of the 'Great King' are set out in cuneiform or in hieroglyphs. But it is probably true to say that even at the time these historic monuments were erected there would have been few who could read the baleful signs inscribed upon them (and almost certainly not the great kings themselves). And of course their explicit detailed message was completely lost along with the understanding of the scripts which were used until the great decipherments of the past two centuries. So it would be a mistake to exaggerate the significance of the written component of the 'external symbolic storage'. The story which went with these monuments would have been well known to their contemporaries, just as the significance of Silbury Hill or the Dorset Cursus in Wessex was in their day. And even if the details were not recalled, the general import (i.e. celebration of the mighty victories of the great king) would have been obvious to all living within the culture in question.

But the language of the symbolic artefacts changes. With the passing of the Late Neolithic fewer monuments were constructed. Special artefacts, often of the new synthetic material bronze, came into prominence. Many of these are familiar from burials, especially from the early Bronze Age. But later, many objects of value were deliberately offered up, sometimes in bogs or rivers. This practice, which at first sight today is difficult to understand, has been analyzed by Richard Bradley (1990) in The Passage of Arms, and again we see that artefacts were being used to fulfil a very special function which could not have been achieved without them.

In Britain it is clear that there was a gradual development of what Searle would term 'institutional facts' in the societies of the day, alongside what may have been the 'brute facts' of material
existence. But while some might be inclined to relegate subsistence mode, for instance, and settlement pattern to the realm of 'brute facts' (i.e. those which exist quite independently of language or any other institution), it is now clear that the transition from hunter-gathering to farming in northwestern Europe was not an automatic one, brought about at once when the relevant domesticates became available. Subsistence mode was in large measure a matter of choice (Zvelebil 1986) and strongly conditioned by the nature of society and the social organization. In human affairs, brute facts rarely have absolute primacy over institutional facts. What is believed and what is agreed, that is to say the perceived reality, is as powerful as what one might today judge to be the real, physical reality.

British prehistory, most would now agree, is as much the story of developing concepts and beliefs as it is of developing technologies and subsistence practices and of demography. These concepts and beliefs were mediated by and often embodied in the structures and artefacts of the day — that is what is meant by the active role of material culture. These artefacts are part of the story. It cannot be understood without symbolic material culture. It may be, however, that in the broader context of study which Donald has set up that we shall come to understand that symbolic material culture rather better.

References


