

STONE VESSELS AND VALUES IN THE BRONZE AGE MEDITERRANEAN

Andrew Bevan



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The societies that developed in the eastern Mediterranean during the Bronze Age produced the most prolific and diverse range of stone vessel traditions known at any time or anywhere in the world. Stone vessels are therefore a key class of artefact in the early history of this region. As a form of archaeological evidence, they offer important analytical advantages over other artefact types – virtual indestructibility, a wide range of functions and values, huge variety in manufacturing traditions, as well as the subtractive character of stone and its rich potential for geological provenancing. Stone also has wide anthropological and archaeological relevance. It offers a favourable vantage from which to consider concepts of object value and how these might be approached in the archaeological record. In this book, Andrew Bevan considers individual stone vessel industries in great detail. He also offers a highly comparative and value-led perspective on production, consumption, and exchange logics throughout the eastern Mediterranean over a period of two millennia during the Bronze Age (ca. 3000–1200 BC).

Andrew Bevan is a lecturer at the Institute of Archaeology, University College London. His work has been supported by fellowships from the Leverhulme Trust, the Institute of Aegean Prehistory, and the Dr. M. Alwyn Cotton Foundation. He also received the Michael Ventris Memorial Award for Mycenaean Studies.

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For my parents

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1

Introduction



This book examines the role of stone vessels throughout the eastern Mediterranean and over a period of two millennia during the Bronze Age (ca. 3000–1200 BC). This period and region saw perhaps the most prolific and diverse tradition of such objects in human history and their treatment as a group represents an unusual interpretative opportunity. Stone vessels offer important analytical advantages over other classes of material, making them a favourable vantage from which to consider concepts of object value and how they might be approached in the archaeological record. Although comparative longitudinal studies like this one are increasingly rare, they provide a clarity which a narrower focus does not and are the type of contribution to the social sciences that archaeology is particularly well placed to provide. The following discussion addresses why a seemingly straightforward object-based analysis might offer wider archaeological insight, especially with regard to object value. It then goes on to justify the scope and coverage of the book before setting some relevant terms for comparative analysis. Finally, it outlines the main focus of each the succeeding chapters.

Stone vessels offer interpretative advantages over most other classes of material culture for at least five reasons: (1) their virtual indestructibility, (2) the subtractive properties of stone, (3) the potential for macroscopic, petrographic, or geochemical provenancing, (4) their numbers and regional diversity within the Bronze Age eastern Mediterranean, and (5) their flexible range of values and functions. Firstly, stone is one of the most consistently preserved types of material in the archaeological record, matched perhaps only by pottery and with a considerably longer history. Occasionally, the physical robustness of stone vessels can make for a rather bewildering archaeological picture, because it encourages these objects to have long use lives and potentially confusing reincarnations as heirlooms, antiquities, or stratigraphic kick-ups. However, for the most part, their frequent survival in the archaeological record means that we can hope to recover a much more representative sample than metals (that get recycled) or organics (that biodegrade) and, under the right conditions, even use them as tracers to understand the more elusive social lives of other material classes (e.g. through skeuomorphs). Secondly, stone is a subtractive medium which often retains marks from human alteration. Refits of knapped stone debitage are the most well-known and evocative example of this, but ground and carved stone artefacts also preserve informative traces of manufacture, use, modification, and repair. Thirdly, stone can often be provenanced to specific source areas on the basis of visual identification, study under a microscope, or analysis of trace elements. The first of these, macroscopic recognition, is a particularly important property, lending certain stones a prominence both in the past (as fundamentally branded objects) and in the present (as equally branded finds that consistently catch the archaeologist's attention).

Fourthly, stone vessels are not only found in comparatively large numbers in the Bronze Age eastern Mediterranean but also made in a variety of distinctive crafting traditions revealing spatial and chronological variation which is of considerable interest. As suggested earlier, the prehistoric Mediterranean sees arguably the most intensive and diverse outpourings of this type of material culture in human history, linked unequivocally to important large-scale changes such as the move to more sedentary foraging, the spread of farming, the emergence of early state societies, and the Bronze Age intensification of interregional exchange. Finally, stone vessels can have a wide variety of perceived values and functions, not least because different stones have very different working and aesthetic properties and vary tremendously in the location and frequency of their source outcrops. Stone vessels occupy a very wide range of roles, from those used for grinding crops or pigments to cooking pots to lamps and possible fumigatory devices to containers for well-known organic commodities to highly charged and heavily decorated ritual objects. By comparison, and in contrast, metals are often more precious (relatively rare and complicated to process), more heavily commodified (in part due to their convertible bullion value), and susceptible to very different recycling patterns, while pottery is usually more commonplace and almost always of lower value.

More broadly, few other areas of the world offer such a rich setting in which to explore the relationship between material culture and society as does the eastern Mediterranean, and it is no surprise that most of the key anthropological approaches to issues such as trade or early state formation were developed with this area partly in mind or were applied to it at a very early stage. In this regard, the combination of textual sources, a wide range of representational art, and a richly explored archaeological record are both a boon and a curse, challenging us to reconcile three very different types of evidence. For example, both chronologically and geographically, the eastern Mediterranean straddles the divide between areas with written sources and those without. On the one hand, this throws up textual deserts where studying concepts such as value present a greater challenge. On the other, it provides sufficient texts in certain regions to allow written evidence and archaeological interpretation to complement and, if necessary, to correct one another. Many of the subtleties of how materials and shapes were perceived by particular societies may well be best understood with the help of written texts or images, but it would be a mistake to assume that either of the latter sources is wholly unproblematic. Both are partial samples biased by the archaeological robustness of the material on which they were produced and the priorities of the people or institutions by or for whom they were created.

The archaeological material that can be harnessed in an analysis of stone vessels is impressive. In the Aegean, a substantial amount of research has already been carried out and more than 5,000 stone vessels are known from Bronze Age contexts. Elsewhere, there are perhaps fewer than 100 published Bronze Age Anatolian vessels, a slightly greater number of Cypriot examples, nearly 2,000 vessels published from Levantine contexts, and literally hundreds of thousands from Egypt. This skewed distribution reflects some recovery bias (e.g. with less attention having been paid to Anatolia), but nevertheless it offers a broad indication of the relative importance of this class of material culture in different regions. These varying numbers also demand very different analytical strategies, especially for Dynasties 1–4 in Egypt, where a selective approach to the primary evidence is inevitable. Moreover, the ease with which museum collections of stone vessels can be accessed, the extent of published records,

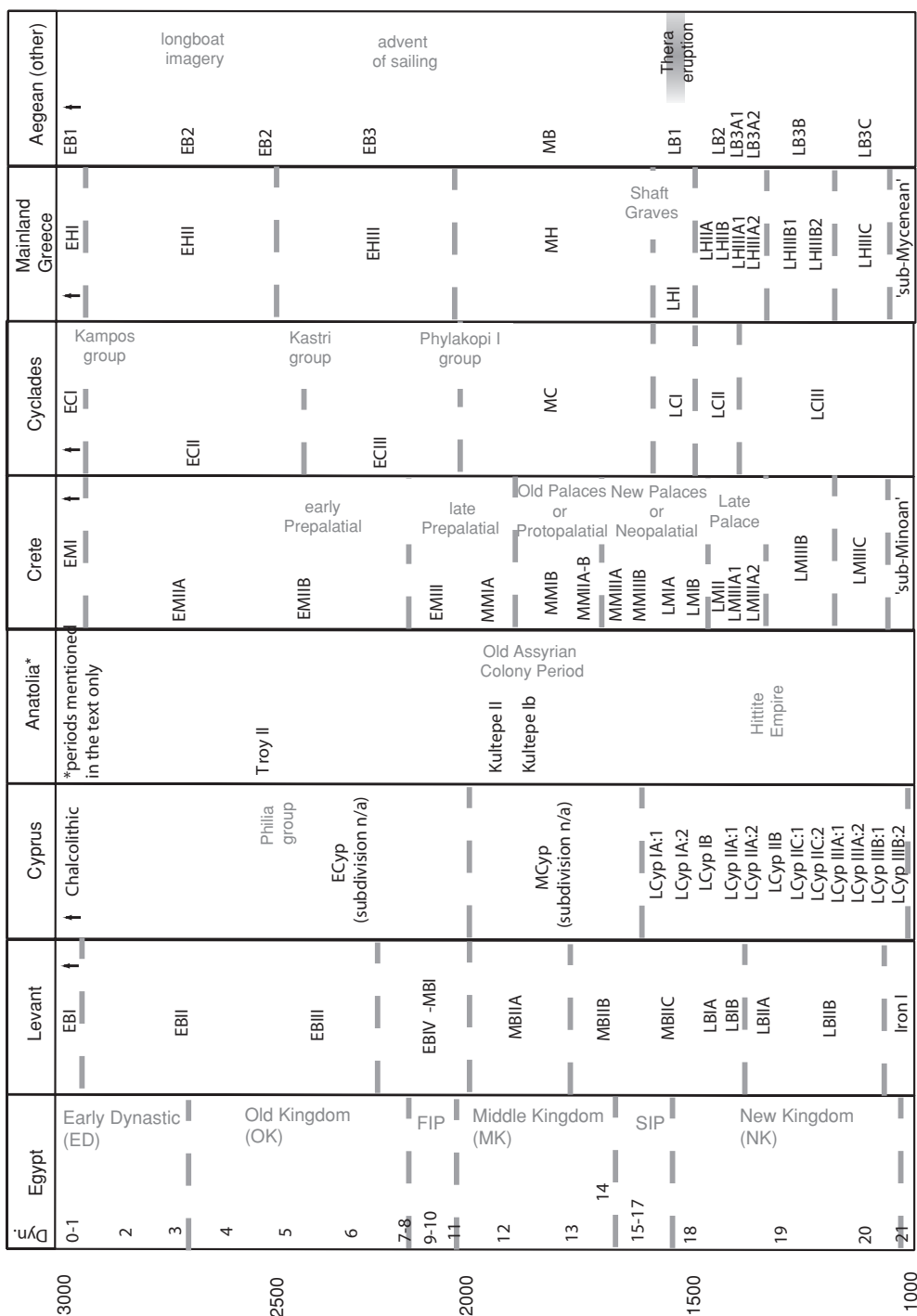
and the depth of existing synthetic or interpretative discussion are highly varied and often biased by the traditional archaeological preoccupations with monuments, palaces, and cities. The approach adopted throughout this book is to be comprehensive and quantifying where possible,¹ to build on existing studies where available, and to balance a broad general analysis with the detailed investigation of a few particularly rewarding contexts.

Comparative Terminology

One awkward result of the emphasis on specialist study in the region is the lack of coherent terminology. The analysis in succeeding chapters crosses several regional disciplinary specialties and draws heavily on more focused typological works. However, for such a broader comparative perspective to be effective, especially in the context of early complex societies (e.g. Trigger 2003), it needs to declare a particular set of terms that are sufficiently broad for general application but do not lose all analytical strength. This section outlines the chronological framework, vessel shapes, stone identifications, and social categories used throughout the rest of the book.

Stone vessels rarely allow the kind of chronological resolution that can be found in pottery. This is partly a result of less intense modern study of their forms and materials but also because of lower levels of surface decoration, the smaller numbers of artefacts produced, and the increased possibility that any given vessel might be deliberately curated for quite long periods before deposition in the ground. So while chronology provides an important analytical framework, it will rarely be appropriate to attempt extremely fine temporal distinctions. A rough correlation of established regional period divisions is presented in Figure 1.1, along with the period and regional abbreviations used throughout the rest of the book. This study follows the Egyptian chronological sequence outlined by Hendrickx (1996, 1999) for earlier periods and by Kitchen (1987, 2000) for later ones. For the Levant, it uses the period divisions suggested by Albright and others (Albright 1949: 84; Mazar 1990: 175, 238, 295). In the Aegean, it follows the Early Bronze Age (EBA) radiocarbon chronology outlined by Manning (1995) but assumes a traditional short chronology for later periods (Warren and Hankey 1989), addressing specific problems of interregional synchronisation (e.g. those raised by the debate over the dating of the Thera eruption: Wiener 2003, 2006; Manning et al. 2006) when necessary. All dates are BC unless stated otherwise.

The individual terms used for vessel shapes have been standardised where possible to conform to more explicit modern definitions (in particular Aston 1994: appendix C), but existing terms have been retained where they refer to particularly well-known artefact types (e.g. alabaster). Summary regional vessel typologies are offered in the appendix, adopting existing schemes where these are broadly reliable and developing new ones where necessary. As with the shape terms themselves, this complementary (some old, some new) strategy has its problems, not least because levels of classificatory detail vary as a result, but it seems more important to conform to an existing consensus where one exists rather than offer yet another alternative. Shapes are frequently referred to in Chapters 5–7, along with their type identifier in brackets (a regional prefix followed by a shape number) to allow easy cross-referencing with the type drawings, short descriptions, and relevant references in the appendix. There remain particularly ill-defined analytical boundaries between straightforward stone vessels and various forms of permanent stone installations, rough mortars, or grinding slabs. None



of the latter are treated in as much detail here although the long-term links between them and more clearly defined stone vessels are an extremely interesting issue and are returned to in Chapter 8.

The study of stone vessels is bedeviled by a lack of clarity when it comes to stone identification. This is nowhere more obvious than in published descriptions of gypsum (hydrated calcium sulphate and, for vessels, mainly the alabastrine variety) and travertine (calcium carbonate, ‘Egyptian alabaster’), both of which have misleadingly been grouped under the label *alabaster* in much of the archaeological literature. Likewise, *steatite* is the most commonly published term for a range of dark-coloured softstones (that all come from the same broad green schist facies), even though in most cases where vessels have been studied by a geologist, the actual material turns out to be either a chlorite-rich rock (hereafter occasionally shortened to the overly specific term *chloritite* for convenience) or a slightly harder serpentinite.² Where it has not been possible to correct traditional terms or problematic identifications, these have been deliberately broadened into a wider classification (e.g. *steatite/chloritite*) and, for Egyptian stones, Aston’s terminology (1994) has been adopted whenever possible. We can also draw upon relatively well-studied evidence for ethnotaxonomies of stone, in both Egyptian (Harris 1961; Aufrère 1991) and Sumerian/Akkadian (Postgate 1997). In fact, these typologies prove to be both subtle and relatively precise, given that they were based on provenance, colour, and working properties rather than any microscopic or geochemical profiling. Even so, one-to-one correlations with our own geological categories are often elusive, arguably less because of gross mismatch (though this does occasionally exist) and more because of the imprecise nature of our evidence.

The discussion in succeeding chapters refers repeatedly to the relationship between stone vessel use and the expression of social identity and status. Some key vectors for variation in object use and value are likely to be age, gender, lineage, social class, and political faction, but many of these will be difficult to identify in the archaeological record (e.g. gender distinctions in the absence of clear iconography or carefully sexed burials). Social class is probably the one most open to analysis. For smaller-scale societies that were still present in many areas at the beginning of the Bronze Age, particularly in the Aegean, neutral descriptions are initially preferred for discussing apparently powerful or influential people over those that might assume too specific an organising principle (e.g. ‘chief’). For the larger, more complex, and palace-based societies whose interactions with each other were often important, we require some generally applicable comparative terminology for discussing social categories, despite the fact that any scheme of this coarseness will inevitably fail to capture many important regional variations. Nonetheless, during the Bronze Age, much of the region was broken up into kingdoms of various sizes and types of territorial organisation. Most of these polities were ruled by kings who often referred to their dominions as a royal household and estate and, beyond this, carefully ranked their relations with other kingdoms, treating some as potential equals and others as vassals. Across society as a whole, we can usually suggest a three-way division amongst a small upper elite group, a larger lower elite, and the wider population which offers us a comparative framework for thinking about the way stone vessels, object value, and status relate to social structure.

While these crude distinctions are useful in a general analytical sense, there is important cultural variation in the sharpness of social hierarchy, the relative size of different social

groupings, and their particular ideological preoccupations.³ Even so, the upper elite was an often volatile and incestuous inner community, usually surrounding a royal family (where we know one exists) and including extended family members, concubines, and the most powerful state and religious administrators. These people sometimes owned impressive rural houses but frequently dwelt in cities, and we see them in close contact with the politics and fashions of the court. There is often a degree of overlap in official roles with courtiers also being administrators, priests, traders, and/or important patrons. Likewise, at this level there were relatively common instances of direct contact between courtly circles, sometimes over long distances, with the exchange of messengers, wives, and palace personnel that encouraged the convergence of elite taste (or, conversely, the conscious expression of difference) over quite a wide area of the eastern Mediterranean. By contrast, the lower elite often held lesser bureaucratic posts and/or appear as powerful figures in certain local or provincial contexts but were generally much less well connected. The rest of the population is by far the largest group, including both urban and rural populations, but their archaeological visibility varies tremendously, depending on recovery bias (e.g. whether survey and excavation beyond the monumental urban structures have considered them directly), textual samples, archival reach, and their varying mobility and material impact within the wider landscape.

Chapter Summary

The structure of this book reflects a compromise between the need to proceed in a sensible chronological and geographical order and a desire to address certain issues more holistically. Chapter 2 looks at theoretical approaches to value, drawing in particular on recent studies of cultural transmission and the logic of social relationships to suggest ways in which a potentially ephemeral property such as value might reveal itself in archaeological recoverable ways. The next two chapters define some practical and analytical parameters: Chapter 3 begins with an analysis of the Mediterranean environment and how Bronze Age people and objects might have moved around it. Thereafter, it addresses the theoretical models through which we have traditionally considered Bronze Age trade, devoting particularly critical attention to the conceptual divisions that have often been drawn between what we construe as modern and premodern behaviours. Finally, it offers a brief summary of the overall evidence for interregional interaction in the third and second millennia BC. Chapter 4 then looks closely at how stone vessels are made, offering a summary of the range of possible manufacturing strategies, the working properties of different stones, common manufacturing sequences, and what departure from these norms might imply in terms of local production priorities. Chapters 5–7 deal with the regional stone vessel traditions found in the Bronze Age eastern Mediterranean. The chapter breaks were chosen because they provide a convenient and necessary subdivision of the bulk of the analysis, but they also reflect important points of large-scale, sociopolitical change. The third millennium is treated in a single block in Chapter 5, though reference is occasionally made to earlier periods where this seems particularly relevant (e.g. the later fourth millennium). Chapter 6 considers the earlier second millennium, a period that sees the emergence of new political, social, and economic structures throughout much of the region, including the Middle Kingdom Egyptian state, increased urbanism in the Levant; Assyrian colonies in Anatolia, and the appearance of palatial society on Crete. Chapter 7 addresses the highly connected world of

the later second millennium and begins at another relatively convenient break in discussion, ca. 1500–1450 BC, with the reign of Thutmosis III and his expansion of Egyptian power into the Levant. This conquest has clear implications for patterns of production, consumption, and exchange and is also roughly contemporary with the apparent collapse of Neopalatial Cretan society. For each of these three chapters, analysis begins with Egypt and continues in an anticlockwise path via the Levant, Cyprus, Anatolia, and the Aegean, which has the interpretative advantage of following both the prevailing movement of Bronze Age maritime traffic (see Chapter 4) and the flow of stone vessel exports from Egypt, the industry with the largest and most extensive foreign impact. Following these detailed regional discussions, the last two chapters adopt a broader perspective once again. Chapter 8 takes a comparative approach to its logical conclusion by briefly considering the roles played by stone vessel industries across the world and throughout human history. It aims to distinguish both smoother cross-cultural regularities (of which several important examples are considered) and those rougher idiosyncrasies specific to the cultural development of the Bronze Age eastern Mediterranean. Chapter 9 ends the book by returning to the theoretical challenges raised in Chapter 2, identifying where the preceding analysis has important insights to offer on the concept of object value and where further research might lead. Value is too resonant a social concept to avoid but too analytically fraught to treat lightly, and it is to the discussion of useful theoretical perspectives that we turn first.

2

Agreeing on Things



*Value is a term that cries out for careful definition. It has a curiously ambivalent semantic power, referring to both tangible and intangible culture, to objects that we think of as commodities and those that we do not, and to meanings that we think of as personal and those that we treat as collective social givens. Indeed, object value arguably inhabits exactly this social space, an interface between what we assume to be objective and what we recognise as subjective (Simmel 1900). This is reflected nicely by the fact that the terms people often use to describe this domain—for example, in English, *value(s)*, *taste*, *worth*—evoke wider social mores, natural sensory skills, or even innate moral rules but thereby often conceal definitions that are potentially vulnerable and up for negotiation (Bourdieu 1994: 99). This chapter considers these rather ambiguous meanings, the way object value may reflect the wider ordering of human relations, and how, if at all, it might manifest itself archaeologically. Some of the issues raised are declared merely to make the analytical preoccupations of Chapters 4–8 more transparent, while others are revisited directly in later analyses, particularly in Chapters 8 and 9.*

Value is not something inherent in things but is a culturally constructed property. The following discussion is interested primarily in object value; intangible things can have value (e.g. a piece of music, an idea, a brand) in a way which floats free of any particular physical object, but it is curious that such value is often most obvious when manifested concretely and objectified in some way (e.g. a recording, a performer, a patent, or a branded commodity). Shared logics about ways of making, exchanging, using, and destroying objects are cultural norms and as such structure people's individual social strategies. These norms can be argued over and modified, but they are also learnt and passed on, both horizontally between people and vertically between generations. They therefore form part of inherited cultural traditions that have a wider evolutionary context and reveal a degree of cross-cultural consistency about which it might be possible to generalise. Because value logics are often grounded in material things, they are partially structured by this physicality. Indeed, if value is to be more than merely an evocative term for archaeologists, its study needs to focus on material variation whose physical or contextual signature we can reasonably hope to distinguish in the ordinary archaeological record.

With this inferential leap in mind, five possible approaches are combined in the following chapters: (1) highly comparative analysis across time and space; (2) contemporaneous comparisons between different types of objects; (3) highly contextual analysis of archaeological deposits where possible; (4) attention to the wider implications of typological variation; and (5) careful combination of archaeological, documentary, and representational evidence. The first of these allows us sufficient investigative scope to address the broadest temporal and

spatial scales at which object value is likely to be influenced, for example, in the form of long-lived cultural traditions or supraregional economic systems. It also encourages us to distinguish the socially and historically contingent features of stone vessel value from those that are repetitive and cross-cultural in their impact. The second approach involves a similarly wide-ranging strategy but seeks to break down the traditional barriers separating the study of specific material categories, wherever such synthesis can be achieved efficiently. The third approach refers to the need to pay particularly acute attention to archaeological contexts where our preservation, recovery, publication, and/or sample size is unusually good. This needs little justification in terms of archaeological practice but can sometimes be sidelined in the search for broad-scale comparisons. The fourth approach is, of course, reflected in the construction of object typologies, a fundamental aspect of archaeological method but given greater significance where such phylogenies are suggestive of the selective pressures and processes of cultural transmission. The fifth and final approach allows us to explore the consistent or contradictory expressions of value present in textual, iconographic, and material records.

Value evokes a whole host of overlapping but potentially conflicting meanings: labour cost, use value, exchange value, added value, social value, moral value, sentimental value, and shock value, to name but a few. At one extreme are traditional economic perspectives such as Marx's emphasis on value as embodied labour-time (i.e. the cost of making or doing something; 1969: 45) or the tyrannical, if often unfairly stereotyped, utility functions associated with classical economics (e.g. Nash 1950). These perspectives tend to assume, either as a theoretical proposition or for analytical convenience, that value can be treated as a rational variable, inherently measurable and universally understood. At the other extreme are valuations construed as inherently personal and sentimental, which only really have meaning for the individual concerned. Ironically, both ends of this spectrum provide models that are almost wholly asocial, whereas in fact value is usually part of wider social norms and crucial to the way people forge and structure their relationships with one another (see below).

Assumptions about object value exist in most artefact-based studies, but the degree to which they are recognised and accounted for varies wildly. For example, arbitrary measures of prehistoric wealth (e.g. the 'scoring' approach used on some cemetery assemblages), art historical speculation about the creative intentions of prehistoric craftspeople, or unmoderated emphasis on the past importance of an archaeologically prevalent indicator such as pottery are all examples where value is undertheorised. However, following a wider reorientation of social science research on such problems, the more theoretically explicit of existing archaeological discussions (e.g. Voutsaki 1997) emphasise the need to move away from seeing value as related to a unique process such as production (prioritised by Marx), exchange (emphasised by Simmel and others), or consumption (often emphasised by anthropologists: e.g. Miller 1995) to one in which this property can potentially be transformed at any of these stages. Revaluation is in fact a very important part of an object's biography (Kopytoff 1986), sometimes seen as a subversive act and subject to strong social sanction but also recognised as a recipe for success. A range of examples are discussed herein, but archaeologists most commonly encounter the ambiguities of revaluation in the spectre of the modern antiquities market and the destructive effect that Western value

determinations and connoisseurship can have on the surviving archaeological record (e.g. [Broodbank 2000](#): 58–65).

Classification and Transmission

A useful first analytical step in understanding this topic is to ask what encourages things to be ascribed high value regularly and in a manner which is sometimes *perceived* as intrinsic by the people who esteem them (Colin Renfrew's 'prime' value, [1986](#): 159ff). For example, the ability of certain things to be recycled (e.g. metals) or reproduced (e.g. certain livestock) encourages their recurrent use as wealth indices and/or exchange media. The durability of objects is another important factor, especially their ability to resist decay, heat, breakage, or wear. The direct effects that objects have on the human senses (e.g. shiny, hard, colourful, textured, melodic, sweet) is another, though there is a balance here between those sensory responses that are evolved propensities and those that are culturally learnt. Finally, the natural rarity of a material or the symbolic potential offered by its provenance (e.g. gemstones from a particular mountain) can be very significant, especially if it can be tied to the preferred cosmology of the consumer in convenient ways ([Helms 1993](#)). Similarly, we might expect groups of materials and products from the same natural landscapes to engender shared values and consistent associations, based on the fact that they will often be acquired, manufactured, and distributed along very similar paths (see Chapter 8). All of these properties encourage certain objects to be valued highly and/or more consistently than others, but the particular meanings assigned to them will nonetheless be formulated in culturally specific ways. For example, objects will be associated with particular epithets and/or adjectives, a periodicity of use (e.g. occasional or everyday), and appropriate human actors, props, or gestures. Their value may be further enhanced by conspicuous acts of added investment (e.g. labour-intensive decoration) or reflected in repeated references by other material culture (e.g. skeuomorphs).

Value is also a comparative concept, one defined between perceived social and physical classifications ([Thompson 1979](#): 7–8). While a fundamental part of this classificatory process is the reification achieved through language ([Tilley 1991](#)), objects can also carry meanings in ways that are not analogous to language ([Chippindale 1989](#); also [Miller 1985](#)), such as those often evoked by their choreography with the human body. Some objects resist convenient classification, but for many, a combination of style, material, and/or habitual function makes them highly recognisable members of a particular category of thing, at least for those with the relevant cultural background. The drive to categorise, and thereby to recognise, is arguably a fundamental aspect of human cognition, but in all such orderings, there is a necessary balance between too much lumping (offering insufficient capacity to distinguish) and too much splitting (leading to a scheme which is confusing and cumbersome to use).

Given that such classifications structure the way individual human actors think and act, it certainly makes sense to try to reconstruct their meaning and understand them as a kind of information system (albeit an imperfect and polysemic one). However, while undoubtedly necessary, such an approach, at best, offers interestingly thick description and, at worst, risks becoming no more than a frustrated ethnography ([Shennan 2002](#): 9). An important complementary perspective which the archaeological record is far better placed to offer is to explore object value over larger spatial and temporal scales, including ones that individuals may not have necessarily been conscious of in the past. For the transmission of such ideas

through time, we can turn to insights offered by evolutionary perspectives on cultural variation which have emphasised the fact that humans receive both a genetic and a cultural inheritance from their predecessors, each of which is subject to descent with modification through time (though potentially by very different mechanisms; Shennan 2002; Richerson and Boyd 2005). However, unlike biological selection, which can operate at the level of the group or individual but for which genes represent a crucial unit of replication, there are no clear and permanent units of cultural inheritance, only more or less discrete packages of decorative motifs, shapes, materials, and wider panoplies of goods and behaviours that can coalesce for comparatively long periods of time or sometimes only briefly.

There are certainly plenty of historical instances of purposeful innovation (i.e. the deliberate creation of new designs or roles for things) or the careful selection between existing alternatives, but a significant proportion of cultural traits seem to be passed on indirectly, through random drift (e.g. the accumulation of minor, random variation in crafting habits or object microstyle), frequency-dependent and/or deliberately conformist copying, or the indiscriminate and blanket imitation of elite individuals (without regard to what specifically makes them successful; Boyd and Richerson 1985). Indeed, were it not for these mechanisms, reinforced occasionally by moral sanction, the rapid turnover associated with cultural variation might theoretically lead to extreme relativism and a complete absence of the sorts of recognisable cultural groupings that are indeed present in the archaeological record (Richerson and Boyd 2005: 203–36). Such regularities may come about by either branching processes of cultural descent or blending processes due to regional interaction or similar environment, and it appears as if both have been important in human history. Likewise, the social conventions associated with object value can be passed on in a variety of ways, which have different implications and follow different tempos. For example, we should distinguish the routinizing impact of everyday activities, from the effects of occasional, more socially charged events, especially given that there is often an inverse correlation between the perceived value of objects and the frequency of their use (Douglas and Isherwood 1979: 83ff). Indeed, for the characterisation of high-value goods, occasional ceremonies are particularly important (Arjun Appadurai's 'tournaments of value', 1986: 20–3), with objects playing a fundamental role in establishing aspects of performance space (off-stage/on-stage, nearby/far away), time (event-related/symbolic), narrative, omission (with objects acting as mnemonics for more complex real-world concepts), and choreography (particularly in relation to the human body; Pearson 1998).

Moreover, both practical skills and broader social logics can be learnt from parents (one-to-one, vertical), acquired from a peer group (one-to-one, many-to-one horizontal), the subject of public polemic (one-to-many, horizontal), or reinforced by the received wisdom of elders (many-to-one, vertical; following Shennan 2002: 42–64, fig. 4). There is often an inertia to social learning, especially by vertical transmission, which can lock people into potentially maladaptive (e.g. in biological terms) or runaway behaviours. The latter are sometimes visible in patterns of escalating and increasingly fine-grained quality distinction or boom-and-bust trajectories of certain types of prestige behaviour (e.g. feasting), with these spirals sometimes identified as harbingers or contributors to wider social collapse (e.g. Miller 1993). Existing elite groups have a lot invested in established status markers and an obvious interest in maintaining the status quo. Investments of this kind encourage those in

power to be conservative in altering their socioeconomic strategies and to portray existing social relationships and value logics as natural or inevitable ('sunk-cost' effects: Janssen et al. 2003). In such situations, change usually occurs only from the outside, on the whim of a particularly eccentric individual at the top of the hierarchy, or after abrupt social or economic collapse when conditions are ripe for human and material *parvenus*.

Social Relationships

Occasionally, we can identify instances where the value of things is relevant only to one individual (e.g. objects with purely sentimental value or an immediate and transitory use value), but usually the term makes better sense as an emergent property, expressed and confirmed through a wider set of social relationships. In this sense, it is at the heart of a more general and long-running debate in the social sciences about the relationship between individuals and social institutions, especially with respect to the structuring mechanisms by which the one constitutes the other (e.g. Giddens 1984).

Game theory provides a useful framework for understanding why individual decision-making is so dependent on social norms. In particular, this branch of research has emphasised how closely tied people's behavioural strategies are to their understanding of what might be called the game conditions. Even so, the rather simple rules used in many game theory models of human behaviour rarely reflect the complex asymmetrical payoffs involved in real-life decision-making. In the latter, rewards and punishments can vary for different individuals (e.g. as a result of their social position), for different types of interaction (e.g. according to the time or place), where the expected number of social interactions is unpredictable (e.g. how often people meet), or where information costs vary (e.g. the knowledgeability of the people involved), all prompting different behavioural equilibria (Boyd 1992). Such features also depend on the structure of social networks, with value logics clearly more malleable for some people than for others (Molm et al. 2001), particularly because their prestige, wealth, and/or social connections make them better known and more likely to be imitated (Appadurai's notion of the 'turnstyle' function of upper elite individuals; 1986: 31). Indeed, many social networks exhibit 'small-world' properties, in which most social relationships are small scale and local, but a few key individuals have wider connections that help to create the sense of a much larger-scale community (e.g. Milgram 1967; Watts and Strogatz 1998). Because social systems represent the aggregate behaviour of interacting human agents, they can often involve strange feedback effects, in which there are regimes of misleading social stability punctuated by occasional, sharp discontinuities (Renfrew 1978; Thompson 1979: 152ff; Kirman 1993; Ormerod 1998). In particular, the disappearance of well-connected people—and we might think at a coarser scale about well-connected communities—can collapse an existing social or economic structure quite abruptly.

What is clear from the more recent of this work on social networks is that people making decisions in such an environment have imperfect knowledge and limited time to inform themselves. Such conditions encourage rule-of-thumb reasoning and we should see many of the social strategies people adopt as falling into this imperfect, heuristic world. Fortunately, there is an increasingly well-founded and interdisciplinary body of theory addressing how people understand, organise, and signal their relationships with each other that moves beyond the mere construction of sociological types and provides a concrete basis for thinking about

the role of objects and the likely selective pressures that might apply to them. In particular, Alan Fiske's description of four structural logics behind social life offers an extremely useful way forward (1991, 2004b). He suggests that individuals implicitly use one or more of four generative grammars for thinking about their relationships with others, emphasising (1) communal sharing, (2) authority ranking, (3) equality matching, and/or (4) market pricing. When people think in terms of the first of these relational models, communal sharing, they usually emphasise membership of a carefully defined in-group (e.g. the family being both an example and common metaphor for the way these relations are framed). Here the key is the creation of a very simple set of us-and-them categories: within the community, there is usually a readiness to perform altruistic acts and a strong sense of common identity. Issues of group purity and intimacy are important, possessions may often be shared at need without any perceived accounting, specific taboo behaviours are sometimes present that reinforce group cohesion, and ostracism is a common mechanism for dealing with conflict situations. In contrast, people use the second logic, authority ranking, when they emphasise ordered differences between each other, in particular, their relative position within vertical social hierarchies, be these based on age, caste, gender, office, or some other index. Rank can also assert itself at different scales within a group (e.g. among kings) or between groups within a society (e.g. nobles and commoners). Notions of obedience to your betters (whether gods, ancestors, or human superiors) are a common feature. The third logic, equality matching, usually implies peer-to-peer or collegial relationships in which the maintenance of balanced contributions is extremely important. Tit-for-tat reciprocity is one dominant feature, with respect both to the way positive social relations are structured and to the types of punishment seen as appropriate for violation of these norms (e.g. an eye for an eye). Turn-taking (e.g. over invitations to feasts) and equal representation (e.g. one person one vote elections) are also common. Repeated interactions between strangers are often best organised by such logics because they can lead to cooperation but are fairly resistant to exploitation (Axelrod 1990; Sigmund 1993). The fourth and final relational model, market pricing, structures relationships in terms of proportions or ratios and can involve a range of calculations associated with cost and benefit or supply and demand. The influence of this latter way of thinking (even on emotionally charged topics such as childcare or love) is particularly obvious in modern capitalist societies, but rather than contrast it too simplistically with a model of premodern, marketless sharing or reciprocity, it is better to see capitalist behaviour as just one very specific expression of a more generic propensity for market-style calculation that is present in most if not all societies (see below and Chapter 3).

At a more abstract and formal level, Fiske's logics imply four increasingly complex scales of measurement, from nominal (in- and out-groups) to ordinal (ranked) to interval (metrically equivalent and hence able to support additive or subtractive concepts) to ratio (metrically flexible and amenable to division, multiplication, etc.). What makes this way of looking at things considerably more insightful than the usual sociological typologies are Fiske's further contentions that, apart from a few null cases where people's social relations with each other are extremely limited or transitory, these are the only four relational models that people use and that such logics are distinct from each other, fundamental in the sense that people use them as building blocks for more complex and culturally specific social relationships and scale-free in the sense that they can apply to the way people think about their one-to-one

relationships, small group identities, and roles within wider society. There is also theoretical and experimental evidence to suggest that they reflect evolved cognitive features, innate to all modern humans but implemented during childhood in a wide range of culturally specific ways (Fiske 2000). Such a complementary scheme, of evolved proclivities and culturally learnt implementations, has much in common with modern theories about language development, as well as about the modularity of the human mind, and strikes an attractive balance between behavioural determinism and cultural relativism (e.g. Fiske and Haslam 2000). The scheme also enjoys an impressive degree of ethnographic and psychological support (Haslam 2004), as well as congruence with a wide range of existing sociological theory, including the similar, if arguably less complete and more firmly typological, distinctions raised by Weber, Piaget, Ricoeur, Mauss, Sahlin, and Douglas to name but a few (also see Whitehead 1993: 11–12). It encompasses both competitive and cooperative behaviours but assumes neither that each logic operates in isolation nor that simpler relational models are eventually replaced by more complex ones. Rather, all four ways of thinking are generically available to any individual but learnt differently in different cultures and applied differently in different social contexts.

Such a perspective has clear relevance to the study of objects: some things, for example, can be bought and sold between two individuals according to a clear sense of market price, be thereafter distributed amongst others according to precedent and rank, then offered out more narrowly within a peer group on a reciprocal basis, and eventually shared without regard to such distinctions within a carefully defined in-group such as a family. Moreover, following a line of reasoning suggested by Annette Weiner (1992), an object can also be deliberately kept out of horizontal circulation during the lifetime of an owner according to any one of these ways of thinking. It can be preserved as an inalienable emblem (e.g. a family heirloom), sometimes with an explicit associated cosmology that ensures that it is seen as somehow equivalent with the people and ancestors in the group (e.g. a Maori feather cloak). In addition or in contrast, it could be kept as a clear sign of rank and the stability of the social order, whose exchange, when utterly necessary, is itself a symbol of the tension present during transitions of power (e.g. the death of a ruler). It can also be curated as an expression of peer-group responsibility, invoking reciprocal social relationships without actually being exchanged as part of them. Finally it can be given a valuation according to a market-pricing model but never actually be commodified in this sense (e.g. in the modern context of insurance) or can be hoarded out of a concern to avoid inflationary spirals.

All of these behaviours make no sense except as inherently social strategies, with implicit reference to other people or groups, even if they often involve acts of keeping that deliberately refrain from engaging in interpersonal exchange. Thus the same person is capable of thinking in very different terms about their relationships with other people depending on context, and the social life of an object can involve numerous diversions from one logic to another and back again (Appadurai 1986: 16ff). An apparently simple but anthropologically famous strategy such as gift-giving can in fact invoke any one of these four logics, from gifts that reflect altruistic sharing within communities to those that express clear ranked social differences to those traditionally associated with Maussian delayed reciprocal exchanges to those such as bribes that reflect market-style calculations (Komter 2001, 2004; also see Chapter 3 on the Amarna correspondence). In individual contexts, some objects are protected from such

diversion by social convention and a certain degree of moral outrage will surround their use according to what is otherwise deemed as an unacceptable logic (Appadurai 1986: 14–15; McGraw et al. 2003). Such enclaving is not restricted to premonetary societies and even something as seemingly promiscuous as the flow of cash can sometimes be confined to specific social spheres, for example, in the context of multiple currencies and ‘black markets’ (Dominguez 1990). Agreed ways of valuing things offer socially sanctioned avenues of competition and cooperation, but because there is room for the relational models that people use to conflict with one another (even inside one person’s head), success can also take the form of semilegitimate acts of diversion from one value logic to another. Excellent examples are the buying or selling of things not otherwise thought to be appropriate commodities (e.g. some but not all examples of trafficking in sacred relics or people, Kopytoff 1986) or the recasting of reciprocal exchanges as ones expressing rank differences (e.g. passing gifts off as tribute). Beyond this realm of semiacceptable negotiation – itself a process that can be quarantined to specific offices of individuals such as traders, prostitutes, and pawn brokers – are acts of more obvious cheating or defection for which a variety of social sanctions might apply.

A further feature of interest associated with these four relational models is Fiske’s suggestion (2004a) that there are distinct and commonly occurring ways in which they are constituted as norms. In this respect, the recognition of these patterns by children, outsiders, or anthropologists is made easier by the presence of extremely common (though certainly not exclusive) ways in which such relationships are expressed. Hence communal sharing relationships are often reinforced by acts of food-sharing, emblematic body modification, physical intimacy, initiation rites, and purity taboos, all of which forge and maintain a strong sense of group communion. The ordered differences of authority ranking are commonly forged and maintained through a sort of social physics that emphasises people’s relative position in hierarchies of space (above/below, in front/behind), time (before/after), size (bigger/smaller), and force (stronger/weaker), with these distinctions revealing an impressive degree of cross-cultural consistency. Equivalence matching logics are usually forged and reinforced by transparent, concrete matching procedures such as turn-taking, random lotteries, overt matching of object sizes or quantities, and/or the use of physical place-holders as reminders of delayed reciprocal obligations. Market-pricing logics tend to be expressed in various types of propositional language (if you do or give this, I will do or give this) and supported by an abstract set of symbols such as contracts, coupons, dockets, weight systems, and, perhaps the most powerful of all, various forms of money. It is perhaps fair to say that for societies where ratio-scale, market-style social logics are very important (e.g. recent capitalist democracies), such representational symbols become increasingly prevalent and abstract. For example, we could distinguish barter-based calculations where the items are physically present for the exchange from those in which independently valuable exchange units are used as a point of reference but are not physically present in all transfers (e.g. pigs or bullion), from increasingly symbolic, but still materially concrete, monetary units (e.g. banknotes or so-called flat money), from purely theoretical ones (e.g. the numbers on a modern stock trader’s screen; Fiske 2004a: 113–14; see also Appadurai 2005). These differences imply an increasingly efficient approach to market-pricing relationships in the modern world but certainly do not argue for an explicit modern/premodern split in terms of behaviour.

A key issue from an archaeological perspective is whether the varying emphasis placed on these different ways of thinking about social relations and the objects associated with them regularly leaves identifiable material traces that we might hope to identify in the archaeological record. More precisely, we deal with static, chronologically blurred patterns and need to build up more holistic and dynamic understandings from the detail of the objects themselves, including their archaeological context or population-scale indicators such as relative wealth or typological diversity. Although we cannot expect exact correspondence, we might hope that where objects are used *primarily* according to a consistent relational logic, their physical attributes (e.g. size, shape, material, and decoration) may be subject to selective pressure over time. For example, when objects are commonly shared within a notionally egalitarian in-group, we might expect that major differences in shape, material, size, elaboration, and quantity will be selected against, because such variability would reduce the potential emblematic qualities of the artefact and would leave room for unwelcome expressions of difference (i.e. people would tend to adopt highly conformist strategies in such contexts; Richerson and Boyd 2005: 162–3). However, exact consistency will be rare because it would imply unnecessarily precise levels of comparison. We might also expect a few distinct, highly recognisable categories of goods, including particularly charged examples such as heirlooms and relics, which emphasise the timeless and ‘consubstantial’ quality of the group (Fiske 2004a: 69–94), as well as those that physically encourage shared group acts (e.g. the proverbial round table and a wide range of other commensal paraphernalia).

For objects that are frequently used as part of ranked social relationships, we might expect both guided and indirect selective pressures encouraging them to mirror the hierarchical divisions present in society overall (Mauss and Durkheim 1963: 83–4). Variations in shape, material, size, elaboration, and quantity will be important factors but carefully organised into explicit vertical grades and occasionally enclaved from widespread use by sumptuary law (e.g. royal monopolies). The vertical flows of such items, as rewards from superiors or tribute from subordinates, often serve to cement the existing social hierarchy. Whole groups of values are likely to be transmitted together as people copy the behaviour of successful individuals indiscriminately and this can lead to both increased competition and to ‘runaway’ patterns of increasing elaboration (Richerson and Boyd 2005: 163–4). For objects that are used in reciprocal and/or equivalent social relationships, variations in shape, material, size, elaboration and quantity of particular classes of object are likely to be avoided or evenly matched. In this respect, there may be selective pressure favouring objects that encourage balanced contributions (e.g. miniature votives), easy matching (e.g. the equipment required of a hoplite), or turn-taking (e.g. a loving cup). For objects primarily involved in social relationships associated with pricing mechanisms and carefully measured ratios, variation in most of these object properties will be actively encouraged, but object types that encourage convertibility and mensurability (e.g. exchange rates, bullion weight, purity) will be preferred. Propositional offerings (e.g. samples), brand mnemonics, and accounting symbols (e.g. logos, labels, seals, and weights) are also likely to be important.

Wealth Measurement

A related approach that may illuminate concepts of value is to consider the logics by which wealth and status are expressed in society, particularly with respect to the priority given to

various forms of accumulation and vertical or horizontal classification. The overall amount of wealth, its material expression and distribution across a population, varies cross-culturally, but in most complex societies it is a heavily skewed property such that the vast majority of wealth and power is monopolised by a small minority. The multiplicative nature of the way wealth flows through social and economic networks also tends to lead to rich-get-richer effects and the persistence of well-defined elite groups (e.g. [Pareto 1982](#): esp. section 964; [Bouchard and Mézard 2000](#); [Bentley et al. 2005](#)). It is therefore important to explore how any given object class distributes itself through the social hierarchy (and, in spatial terms, through the settlement hierarchy), noting when there appear to be sharp thresholds between those who deploy such items and those who do not. In other words, it is useful to consider object value at the population scale wherever this is feasible. Following on from the points made above about the potential correlation between object variation and relational models, we also might look at the varying emphasis placed on three different structuring logics that might be used to measure wealth: quantity, quality, and diversity. Mortuary custom is a good example of an archaeologically recoverable pattern which is amenable to exploring these issues, and several commentators have already highlighted one or more of these three logics as a better way of exploring burial wealth than, for example, arbitrary scoring methods (e.g. [Voutsaki 1993](#); [Quesada 1998](#)). However, the study of such patterns in burial urges particular caution, because it is classic example of a context-specific performance that can have its own specialised paraphernalia and norms, serving to remodel the social arena of the living rather than mirror it in any straightforward manner.

Varying emphasis on quality, quantity, and diversity are part of social logics governing the appropriate classification of objects and the way they are accumulated. Two already well-known variables are the degree to which a society allows or encourages the collection of private property and whether it is acceptable to pass this wealth on from one generation to another. Beyond these, there can be many different types of wealth indexes or prestige markers or just one or two key items (a question of diversity). Each type of item can then be arranged more or less tyrannically into vertical grades of better and worse examples (quality). Finally, there are often very specific rules governing how much or how many of any given item it is appropriate to accumulate or display (quantity). For example, in modern capitalist societies, wealth is often expressed by the possession of a relatively diverse array of personal accessories and modern conveniences (e.g. watches, clothes, cars, stereos, and computers) and for any one of these status objects, there are well-defined quality grades. However, while it is acceptable to collect and store certain types of wealth (e.g. money or clothes), a degree of disapproval, social sanction, or legal intervention can accompany the accumulation of others ([Douglas and Isherwood 1979](#): 90–1), particularly where this is deemed overly ostentatious or maladaptive for the group (e.g. owning 50 cars).

Measuring vertical quality and horizontal diversity distinctions is not without methodological pitfalls, particularly with respect to variable sample size ([Grayson 1988](#)). Moreover, quality and diversity can vary both within and between perceived object classes, making the definition of baselines ('typical' or average examples) and class boundaries (what is or is not deemed part of an object category) very important. Usually, however, amidst a potentially bewildering array of cultural products, there is a classificatory threshold beyond which people no longer feel they are comparing like with like. Quantity usually

involves distinctions made on the basis of size, weight, and number that allow relatively complex ratio-scale comparisons. Diversity, on the one hand, is often equality matched to the extent that having one (or a limited number) of each prestige indicator is often the most appropriate form of behaviour because it encourages formal equivalence amongst peers (see above). On the other hand, sometimes class diversity can be so low that only one dominant wealth index exists, such as cattle or pigs (Evans-Pritchard 1940; Lemonnier 1993). This does not imply that other objects are somehow left completely outside local value regimes, only that they are used less clearly to carry this sort of status-related information.

In contrast, quality refers to linearly ordered, ranked variations. Highly articulated hierarchies of object value, including both real and spurious distinctions, often emerge within the context of elite competition. The types of distinction that are commonly important include colour, texture, taste, hardness, elaboration, provenance, maker, and vintage. Imitation and skeuomorphism are particularly curious features of objects caught up in such quality hierarchies. Imitation can refer to a vast range of phenomena from deliberate fakes to symbolic substitutions to partial and isolated copies of material, style, or technique from one medium to another. The latter allusions are indicators of value and esteem that usually confirm rather than undermine existing valuations. Fakes, however, threaten to short-circuit existing value hierarchies by successfully being accepted as the real thing. In this respect, consumer brands, heirlooms, and sacred relics are often faked because they all act as passports into a specific ranked group, such as a political and social elite or a community of the divinely blessed. Particularly heated debates about authenticity and forgery tend to occur in such an elite climate, where the negotiation of taste is highly nuanced, fakes are common, and social competition is fierce. Indeed, the possession of obscure, sometimes wholly fictitious, skills of quality distinction or discernment is a powerful way of controlling social mobility and vetting *parvenus*. In between these two categories of imitation is the use of models or other symbolic place-holders for real valued objects. These are acts of omission most easily made during transformative rituals such as burial (Pearson 1998), but the wider acceptance of such substitutions (e.g. the degree to which they are believed to involve actual transubstantiation) varies greatly.

This chapter has suggested a practical course through the rather ambiguous meanings of the term value. It has emphasised the fact that object value is often embedded in wider social strategies that are deliberately naturalised by their practitioners, making them seem effortless, timeless, and/or inevitable. It can also be defined and redefined at various stages in an object's social life and is in fact best understood as a social phenomenon, part of the logics through which people think about their relationships with each other. Wealth measurement is a particularly crucial domain where object value is harnessed and we should approach the issue of how it manifests itself archaeologically both by unpacking the contemporary and context-specific norms that affect human decision-making and by considering its wider comparative and longitudinal implications. The following chapters turn to consider the material culture of the Bronze Age eastern Mediterranean: the relevance of the ideas proposed here will hopefully be obvious amongst the detail of substantive discussion and are also returned to more explicitly in Chapter 9.