Trade and interaction

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Introduction

'Trade' and 'interaction' are commonplace terms in the archaeological vocabulary. They are regularly associated with two sets of interpretations. The first, of certain durable objects found on archaeological sites, as imported and exported commodities. The second, of past people, as traders and travellers engaged in long-distance networks of contact, supply and redistribution. Indeed, these areas of enquiry are generally regarded as vitally important, both to archaeologists who employ them as analytical categories and to the past communities that engaged in them. However, to avoid becoming stale, their meanings and value as key concepts require critical appraisal, particularly in the light of evolving archaeological thinking. This essay therefore has three core aims. The first is to discuss and evaluate definitions of these and related keywords. The second is to provide a critical synthesis of the diverse ways in which successive generations of archaeologists have approached and interpreted these topics, seen in the light of some broader theoretical trends in archaeology and related disciplines. The third is to consider some of the ways in which people in the past may have communicated with each other, through trade and interaction, with particular reference to later prehistoric societies in the Mediterranean region.

Competing definitions

What, then, is meant by the terms 'trade' and 'interaction'? How have their meanings developed? What is their value to archaeologists today? And are there alternative terms?

'Trade' is commonly defined as a commercial type of transaction, between people and places, involving an exchange of commodities for money or other commodities. It is undertaken, in part, to counteract the uneven distribution of essential cultural resources. The term can also refer to a handicraft or business carried out as a means of livelihood or profit (e.g. a carpenter by trade), and to the persons engaged in that business (e.g. tradesman or trader). This type of transaction is characteristic of a capitalist economy, where entrepreneurs and purchasers freely participate in markets to sell privately controlled goods for profit. The term has been widely used by archaeologists, particularly following the work of the great prehistorian Gordon Childe (1925; 1928), who emphasized the importance of trade in the social and economic development of early societies. He saw, for example, the trading of surplus food and manufactured goods for raw materials (especially copper and tin) as playing a key role in the diffusion of technological knowledge between the civilizations of the Ancient East and the outlying tribal societies of Europe.

'Exchange' is a closely connected term. It is firmly established in the language of anthropologists studying the production, distribution and consumption of resources and wealth in non-industrialized societies, and has been widely adopted by prehistorians since the 1970s (e.g. Earle & Ericson eds. 1977; Malinowski 1922; Mauss 1954). It refers to the reciprocal process in which people give and receive something in place of another. That something can be almost anything, ranging from ideas, to marriage partners, prisoners of war, food, livestock, raw materials, manufactured goods, broken objects, foreign currency, services, blows, bodily substances, positions, stories, opinions, and glances. It can also refer to the building or place where such transactions are made (such as a 'corn-', 'labour-', or 'telephone-exchange'). In contrast to 'trade', exchange is characteristically regarded as more than an economic transaction. This is because it highlights the social solidarity established between people, with particular reference to the principles of reciprocity and indebtedness governing gift exchange, often seen in non-monetary societies. It is a form of social communication. Both terms are of fundamental importance to archaeological thought, for they help archaeologists draw together and understand aspects of the social relationships established between people, places and things in the past. They highlight distinctions between commodity and gift exchange, as well as different archaeologists' theoretical perspectives on the nature of past economies and societies. However, it is also clear that they do not represent absolute distinctions.

'Interaction' is a related but broader term, which refers to the action or influence of things and people on each other. In physics, it refers to the fundamental force between elementary particles. In the social sciences, however, it refers to a mutual human action, variously described as a connection, communication or collaboration, whereby two or more people act reciprocally on and between each other. Human interaction can obviously occur on a multitude of social and geographical scales, between neighbouring and more distant people and areas, ranging from individuals to tribes, islands to empires. Archaeologists recognize that it can also involve a diversity of social processes, including the transfer of information or knowledge, the trade and exchange of material goods, warfare and military conquest, and the movement of people (Clarke 1968: 419-20; Hegmon & Plog 1996). Although not commonly used in colloquial language, the term has been widely adopted by archaeologists. This is partly due to the popularity of the concept of 'interaction sphere', originally developed by the American anthropologist Joseph Caldwell (1964). He defined a large scale interaction sphere operating amongst the Native American builders of the Hopewell burial mounds in Ohio and Illinois during the first two centuries AD. Within this, valuable materials and symbolic information were exchanged and adopted by different regional societies. The concept was then extended by American and British archaeologists. Amongst the latter, Colin Renfrew (1986) envisaged the competitive interaction of neighbouring 'peer polities', played out through the symbolism of public monuments, burial customs,

high status goods, and writing. Andrew Sherratt (1995: 24), on the other hand, favours the term 'interactionism', which he defines as an ever-widening series of cultural encounters and an ever-expanding universe of communication lying at the heart of long-term social evolution.

'Connectivity' is an alternative term, promoted by the Mediterranean historians Peregrine Horden and Nicholas Purcell (2000). It refers to the social and geographical interdependence of small-scale, locally-specific, phenomena (including micro-regions, places, peoples, economic strategies, and interactions) with a dynamic network of relations enjoyed by them with the wider world. Such broader relationships are based upon mobility, knowledge, power, co-operation, allegiance, and dependence. It is a strong concept. However, in dealing with the proto-history of the Mediterranean in the first millennium BC, Horden and Purcell mainly restrict its applicability to maritime mobility and economic history. They focus on the seaborne redistribution of local surpluses to feed shortfalls elsewhere, ranging from cash-crops to precious metals, and the special role of islands in this process. They also talk of flourishing entrepôts and ports reflecting wide interdependence, economic migration, colonization, and the establishment of daughter settlements. This focus is unfortunate; for it implies that archaeologists cannot, or should not, deal with the equally important social and ideological aspects of connectivity.

'Communication', a term more commonly favoured by social scientists, may, instead, come to replace that of interaction, as the interests of contemporary archaeologists continue to expand beyond the immediate material remains of the past, to questions about social relations, symbolic meanings, identities, experiences, perceptions, mobility, and languages. 'Communication' essentially refers to the act of imparting or transmitting information and meanings. It is also used to refer to the social dealings between people. In addition, when used in the plural, it refers to the connections, means of transport and routes between places (e.g. by telephone, camel, or sea). In her celebration of the multiple modes of human communicating, the anthropologist Ruth Finnegan (2002) defines communication as a dynamic interactive process, made up of a variety of actions and experiences, created by active participants as they interconnect with each other. To be fully effective, it needs to be organised, purposive, mutually influential, and mutually recognisable. However, in practice it is often less effective and open to alternative interpretations and misunderstandings. Within this incessant, complex and multi-sensory process, people draw upon a wide array of bodily and environmental resources to communicate with others over space and time. These include sounds, smells, movements, touches, and sights, as well as the material things with which archaeologists are familiar.

'Trade' and 'interaction' are, then, a valuable but also value-laden pair of keywords. They are used by archaeologists to refer to the diverse, complex and reciprocal relations engaged in by people over space and time, and are characterized by transfers of information, actions and goods between them. The question of how archaeologists actually study this broad field will be considered in the following section.

Between people, places and things: archaeological approaches to trade and interaction

How, then, have successive generations of archaeologists approached and interpreted trade and interaction, in both method and theory? Three broad schools of thought can be identified, although these should not be regarded as mutually exclusive (Earle 1999). They mirror the three major paradigms in the broader discipline of archaeology. The first is commonly described as 'traditional' or 'culture-historical' archaeology, the second as 'The New' or 'processual' archaeology, and the third as 'post-processual', 'interpretative' or 'anthropological' archaeology.

Colonization and cultural diffusion

Traditional, and especially 'culture-historical', archaeology has been concerned since the late nineteenth century with charting the history of archaeological cultures, defined both as traditional ways of life and as groups of people (Trigger 1989: 148–206). One of its founding fathers was Gordon Childe, but its influence has extended far beyond Eurasian prehistory. Methodologically, it has focussed on identifying, mapping and comparing, over space and time, the distributions and styles of distinctive assemblages of archaeological material. These have been equated with human groups and civilizations, and interpreted in terms of the origins and development of ethnic groups and their related life-ways. More specifically, trade and interaction, as well as cultural change, are described with reference to the diffusion and migration of dominant and progressive ideas and peoples, between advanced and less developed areas. An example of the enduring appeal of this approach to certain archaeologists is provided by the work on prehistoric trade and interaction by Maria Rosaria Belgiorno, director of the Italian Archaeological Mission at Pyrgos in southern Cyprus. She is currently excavating a rare Early-Middle Bronze Age 'industrial' building, destroyed by an earthquake in around 1850 BC, at the settlement site of Mavroraki. Evidence of a wide range of manufacturing activities has been identified here, including the processing of valuable, and mainly imported, materials such as copper, olive oil, wine, perfumes, medicines, and textiles. Belgiorno interprets these findings with reference to the broader culturehistory of Cyprus (e.g. Belgiorno 1995). She describes this in terms of the colonization of the island by successive cultural waves (of emigrants, sailors, fishermen, artisans, and traders), cultural diffusion and assimilation of influences and imports, and the indigenous evolution of Cypriot culture. Archaeological evidence of the latter is claimed with reference to local sailing boat technology, copper metallurgy, wine, and olive oil production.

This kind of archaeological approach usefully focuses attention on the material evidence of imports, exports, and stylistic influences. However, some fundamental criticisms have been levelled at it (e.g. Manning et al. 1994; Shennan 1989). It is based upon a series of questionable assumptions concerning, for example, the equivalence of material assemblages to cultural and ethnic groups, the progressive nature of cultural history, the cultural determinacy of environment and technology, and the long-distance scale of population movements in the past. It is also characterized by a descriptive, narrative, style of history writing, a limited consideration of cultural processes, and a somewhat literal and methodologically inexplicit reading of the archaeological record. Furthermore, its concern with the ancient origins and movements of ethnic groups has frequently led to its manipulation in support of nationalistic and colonial interpretations of the past. In contrast to Belgiorno's culture-history of Cyprus, for example, Natasha Leriou (2002), a Greek archaeologist, has deconstructed the 'established archaeological fact' of the 'Mycenaean' colonization and subsequent Hellenization of the island by numerous immigrants from the Aegean. This has traditionally been identified with reference to Aegean type artefacts, tombs and architectural forms dating to the transitional period between the Late Bronze and Early Iron Ages. Leriou argues that this is a biased view, based upon the questionable equation between artefacts and supposed ethnic groups, and perpetuated by 'Hellenocentric' scholarship since the nineteenth century.

Trade and interaction

The New Archaeology, including the processual approach, criticised traditional archaeological research and explanations, calling instead for greater scientific rigour and optimism regarding archaeological data, method, and explanation. It originated in the USA in the 1960s, being championed there by Lewis Binford and in Britain by David Clarke and Colin Renfrew (Trigger 1989: 289–328). Cultures were now analysed as 'systems'. Attention was consequently devoted to identifying linkages between subsystem 'variables', such as the environment, material culture and technology, subsistence and economy, trade and interaction, social relations and belief systems, and to defining the different processes at work within and between societies. Some of the latter have been evaluated in terms of time and energy expenditure and effectiveness. Research, characterised by the use of quantified data, based on increasingly accurate technical analyses and more explicit theory, has also sought to contribute to the discovery of 'regularities' and verifiable explanatory generalizations concerning human behaviour and long-term cultural evolution.

Archaeological studies of trade and interaction have flourished around the world in close association with this approach, and have been accompanied by a proliferation of major publications (e.g. Baugh & Ericson eds. 1994; Brumfiel & Earle eds. 1987; Earle & Ericson eds. 1977; Ericson & Baugh eds. 1993; Ericson & Earle eds. 1982; Flannery

ed. 1976; Gale ed. 1991; Hårdh *et al.* 1988; Knapp & Stech eds. 1985; Renfrew & Shennan eds. 1982; Renfrew & Cherry eds. 1986; Sabloff & Lamberg-Karlovsky eds. 1975; Scarre & Healy eds. 1993; Wilmsen ed. 1972). The sources of a wide range of raw and manufactured materials used by past societies, including stones, marine shells, metals, minerals, ceramics, and glasses, have been characterized (or 'fingerprinted') using petrological, physical and chemical techniques of analysis. For example, chemical analysis of fragments of distinctive 'Mycenaean'-style pottery, which appear in small quantities at coastal sites in South-East Italy during the Middle Bronze Age, have shown that these mainly represent imported vessels, ultimately derived from multiple sources in the Peloponnese, southern Aegean, and Cyprus (Jones et al. 2002). However, analysis of the ceramic assemblage from the settlement of Scoglio del Tonno near Taranto also suggests that, although a large proportion of the 'Mycenaean' vessels were imports, local potters began to produce imitations of these towards the end of the period. Nodal production and trading sites such as this one have also been identified and studied with reference to questions surrounding their scale, organization, degree of craft specialization, and connections. Distribution maps of exotic goods have been plotted in relation to each other and their likely sources, and mathematical models applied to explain their patterns. The most sophisticated spatial studies, such as those undertaken by the American archaeologist Albert Ammerman (ed. 1985) in relation to Neolithic obsidian exchange networks in the Calabria region of South-West Italy, have even tried to identify the diverse types and forms of materials being transported, their directions of flow, the different quantities of goods found at different types of site, and the scale, complexity, and duration of trading networks. Direct evidence of early means of transport and communication has also been retrieved through new fieldwork. The underwater excavation of the Late Bronze Age Uluburun shipwreck and its cargo, found at a depth of 45 metres off the south coast of Turkey near Kas, is a particularly important example (FIGURE 1 – the Uluburun shipwreck). This project is directed by Cemal Pulak and George Bass on behalf of the Turkish Institute of Nautical Archaeology (Pulak 1998). The boat, thought to be that of an Eastern Mediterranean trader, whose sinking has been dated to around 1300 BC, is made of cedar planks fastened to a keel by mortise-and-tenon joints. Its large and diverse cargo was mostly of raw materials but also manufactured goods. These included 'Canaanite', Cypriot and 'Mycenaean' pottery vessels, some containing resin, other pots, glass beads, olives, pomegranates and yellow arsenic; Mesopotamian, Egyptian and Mycenaean sealstones; fruits, nuts and spices; and other artefacts made of faience, glass, stone, bone, ivory, shell, amber, and wood, including some small balance scales. The cargo was dominated, however, by ingots, fragments and artefacts of metal, including one ton of tin and ten tons of copper. The latter was represented, above all, by 354 oxhide-shaped copper ingots, probably sourced to Cyprus. Anthony Snodgrass (1991: 18), the British classical archaeologist, has estimated that this cargo 'would probably have vielded enough

bronze to equip the entire army of an average Mycenaean kingdom ... some 3,000 swords, 3,000 spearheads, as well as over a million arrowheads'.

Such studies of trade and interaction have also been used to explain the socioeconomic organisation and evolution of past societies, drawing upon the work of 'substantivist' economic anthropologists such as Karl Polanyi and Marshall Sahlins (e.g. Dalton ed. 1977; Polanyi 1968; Polanyi et al. 1957; Sahlins 1972). Their distinction between 'simple' economies, characteristic of kin-based societies subsisting under a 'domestic mode of production', and 'complex' economies, distinguished by markets, specialist craft production and large-scale commercial activities involving a substantial proportion of the population, has been applied to early hunter-gatherer and farming societies on the one hand, and early state societies and empires on the other. More specifically, their classification of economic relationships in terms of 'reciprocity', 'redistribution or pooling' and 'market exchange' has been combined with Elman Service's (1962) neo-evolutionary model of stages of cultural evolution (from band to tribe, to chiefdom and state). This perspective underpinned Renfrew's (1975: 41–3) influential model of different types of procurement and exchange transaction that could be identified and analysed archaeologically. These include: 'direct-access' (where the user travels directly to the source of the material), 'reciprocity' (comprising reciprocal, vice versa, movements of goods between two relatively equal parties), 'down-the-line trade' (where commodities flow across successive territories through repeated reciprocal exchanges), 'central place redistribution' (where geographically diverse goods are appropriated from the members of a group by a central organisation or political leader and then re-divided within the group), 'central-place market exchange' (involving bargaining and price-fixing at a centralized location for commercial transactions), 'middleman trading' (where the freelance trader exchanges with various people but is not under their control), 'emissary trading' (where a leader or group sends a representative to exchange goods with another group on their behalf), 'colonial enclave' (where a leader or group sends emissaries to establish a base in or near the territory of a foreign group in order to engage in trade with them), and 'port-of-trade' (a place specialised in trading activities, outside of the traders' jurisdiction, where traders from a wide variety of political units can freely meet). For example, the American archaeologist Gil Stein (2002) claims that a small 'colony' or 'trading enclave' of ethnically distinct Mesopotamians was established in the North-East corner of a preexisting settlement at Hacinebi Tepe in south-east Turkey in the Uruk period, at around 3700 BC. This site is located in the Euphrates river valley, more than 1,200 kilometres upstream from the Uruk homeland in southern Mesopotamia. Stein argues that the foreigners are indicated archaeologically by the presence of the full range of Uruk material culture in this corner of the site, including Mesopotamian style pottery vessels, wall cones, bitumen, personal ornaments, a conical-headed copper pin, cruciform grooved stone weights, clay sickles, cylinder seals and sealings, and a predominance of

sheep and goat amongst the faunal remains. He also suggests that the Mesopotamians maintained close and peaceful contact with their Anatolian host community, whilst retaining a distinct social identity over an extended period of time. By contrast, the ancient harbour town of Tell Abu Hawam (modern Haifa) in Israel has been interpreted as a 'port-of-trade' by the French archaeologist, Jacqueline Balensi (e.g. 1985; 2004). The site, which is described as an Egyptian-Canaanite foundation by the Roman historian Flavius Josephus, dates to between the second and first millennia BC and lies equidistant between the Nile delta and Cyprus in the eastern Mediterranean. Old and new fieldwork has uncovered an early semi-artificial island with a planned architectural layout, which served as a transit platform with three haven facilities for Late Bronze Age maritime trade. This was associated with large amounts of broken pottery vessels, some local but others imported from the Aegean, Turkey, Cyprus and Egypt, which Balensi describes as examples of 'failed' trade.

The processual approach has also informed archaeological studies of the distribution and consumption of surplus staples, valuables, wealth and power in complex societies in general, and in interregional systems of trade and interaction in particular. These have led to the development of an increasingly sophisticated set of models of 'prestige goods exchange', 'peer-polity interaction', 'centre-periphery relations', and 'world systems', all of which refer to the evolution of complex societies (e.g. Frankenstein & Rowlands 1978; Friedman & Rowlands 1977; Renfrew & Cherry eds. 1986; Rowlands et al. eds. 1987). In the 1970s and early 80s, for example, Andrew Sherratt (1972; 1976; 1982) applied Sahlins' model of 'Stone Age economics' to the later Neolithic and Copper Age of Europe. He argued that, in this period, early copper and gold artefacts, including axes, daggers and ornaments, were established as rare, exotic and aesthetically powerful 'primitive valuables' and 'prestige goods'. Their interregional exchange was competitively controlled by men, who displayed them as symbols of wealth, ascribed status and individual authority. In the second half of the 1980s, Colin Renfrew (1986) went further, arguing that competitive interaction between neighbouring socio-political units ('peer polities') in the Aegean resulted in mutual organizational transformations, which determined the development of the Greek city states and civilization. Such interaction included warfare, competitive emulation, symbolic entrainment, the transmission of innovation, and an increased flow in the exchange of goods. According to the model, these resulted in widespread socio-political change and complexity, identified archaeologically in terms of agricultural and industrial intensification, and the development of monumental buildings, writing and other sign systems, assemblages of high status artefacts, and burial customs. In the 1990s, Andrew Sherratt (1993) then attempted to define the characteristics of a Bronze Age 'world system' in Eurasia, adapting Immanuel Wallerstein's (1974) model of interconnected core states, semi-peripheral areas, and peripheral areas, and the emergence of a capitalist 'world-economy', in sixteenth century Europe. He drew a

distinction between a core Near Eastern area of urban consumers, a Mediterranean periphery that was actively altered by its role as a supplier of raw materials to the core, and a temperate European outer margin that was indirectly affected through the spread of innovations. The formation of long-distance trade routes linking northern and southern Europe, which were related to the expansion of urban-centred trading systems along the Mediterranean, actively intervened in this world system.

The achievements of processual archaeology, which has instilled archaeological research with greater scientific rigour and self-confidence, should not be underestimated. Chemical characterization studies, for example, can be justifiably claimed as a success story of archaeology, adding reliable detail to a generalized picture of the circulation of goods in past societies. However, like culture-historical archaeology, this approach to early economy, trade and interaction requires critical appraisal (e.g. Hodder 1982b; Robb & Farr 2005; Shanks & Hodder 1995; Shanks & Tilley 1987). Although the New Archaeology advocated studying all aspects of cultural systems, in practice most of its adherents have concentrated on ecological constraints, subsistence patterns, trade, and to a lesser extent social organization. Furthermore, 'economy' and 'trade' have been compartmentalized as distinct areas of enquiry, separate from the social. Indeed, they have often been interpreted in simple materialist and functionalist terms as practical activities, undertaken to apportion unevenly distributed resources, and to obtain needed, desired, or superior exotic goods. This reification has, perversely, led to an underestimation of the key role played by the very people who consciously, actively and socially conceived and utilized those resources throughout the course of their lives. It also underestimates the significance of past people's beliefs, values, experiences, and relations, including the dynamic social processes within which trade, interaction and material culture are embedded. The social significance of material culture is also treated simplistically, through loose and static classifications. These include a belaboured opposition between subsistence-related 'utilitarian' goods and 'valuables', 'luxuries' or 'prestige goods', of which the latter are seen to function as 'status symbols' that directly reflect an individual's position in a hierarchical social structure. More generally, the adoption by archaeologists of categories and concepts derived from historically recent societies, including both Western capitalist society and the traditional groups studied by social anthropologists, may provide nourishing food for thought in the interpretation of past societies, but is unhealthy when consumed uncritically (Moreland 1999). This is particularly true of processual archaeology's reliance upon the concepts and categories of the substantivists, which have since been heavily criticized. The British social anthropologist John Davis (1992), for example, has questioned the validity of Polanyi and Sahlins' neat classification of economies into 'simple' and 'complex', and into those based upon reciprocity, redistribution and markets. Likewise, he questions the soundness of Sahlins' definition of a reciprocal economy, noting, for instance, that categories of exchange

such as theft and barter do not fit comfortably into the model. He concludes that reciprocal economies are simply an academic construct, and calls for a more unified theory of exchange. More generally, the substantivists' classificatory scheme can be described as a normative, evolutionary, model, which underestimates the great degree of variety exhibited both within and between different societies with regard to exchange mechanisms, and denies the potential difference of past societies. As the British archaeologist Susan Sherratt (2005) has recently stated, 'The richness and diversity of ancient trade and exchange (including the mechanisms involved), the incentives and ingenuity of ancient traders, and the perceptions and preconceptions of the recipients of traded goods, leave plenty of room for subtleties which have the ability to obliterate clear distinctions.'

Such criticisms seriously undermine the validity of 'down-the-line' and associated 'gravity' models of exchange. In the former, quantities of a particular commodity are seen to decrease progressively with distance away from its source, while in the latter the quantity of a particular commodity found on an archaeological site is described mathematically as a function of distance from the source of the material and as a function of the size of the interacting centres. Both models are based upon the assumption that commodities were acquired from the nearest source, and then moved from person to person, in order to minimize effort and maximize advantage in exchange strategies. These models have been used, for example, by processual archaeologists in relation to the spatial distribution of Neolithic and Copper Age obsidian blades and greenstone axes in the Central Mediterranean region (e.g. Evett 1973; Hallam et al. 1976). On first impression these models seem useful when considering the 'fall-off' patterns of distribution and deposition exhibited by such objects. Italian jadeite axes, for instance, do appear to exhibit a general pattern of fall-off in quantity and size with distance in a southwards direction, away from the major Alpine sources of these rocks. However, on closer examination of the archaeological data on a regional and local level, these straightforward patterns become blurred. More generally, such models are too simplistic, for they fail to take into account the wide range of variables (other than distance from source) that both ethnographic and archaeological studies suggest affected the nature and extent of early exchange networks and their representation in the archaeological record. The size and productivity of particular sources of supply can affect patterns of distribution. So too can the strength of demand for particular commodities. The availability of local materials to exchange against imports, or to use as alternatives, is another significant factor. Furthermore, individuals and communities within a given area participate in different ways and to different degrees in the exchange of particular commodities, in part due to their unequal physical and social access to major supply zones and exchange networks. Different modes of transport and different exchange mechanisms are other variables. Exchange networks and distribution patterns can also change over time. For example, the island of Lipari appears to have replaced

that of Palmarola as the major source of obsidian in East-Central Italy during the Neolithic. In addition, the assumptions concerning the minimization of effort and maximization of advantage in exchange strategies are derived from the mindset of capitalist economics, and are not necessarily applicable to pre-capitalist ways of thinking. Their model can also be accused of underestimating the 'agency' of individuals in the construction of social strategies, the degree to which rules of behaviour can be manipulated, and the existence of conflicts and contradictions between interests. Neither can we be certain that Neolithic objects did always move from source to destination by exchange from person to person.

The social life of things and people

This harsh critique of processual archaeology was publicized by the proponents of 'post-processual' archaeology of the late 1980s and early 90s, followed by 'interpretative archaeology' and contemporary 'anthropological archaeology'. However, they have also built upon its achievements to establish a new kind of social archaeology, focussed on people in the past and their construction of social relations and identity through their complex material world. This has led, in particular, to a more sophisticated theorization of material culture by archaeologists and anthropologists, which impacts directly upon the interpretation of ancient objects of trade and exchange (e.g. Fowler 2004: 53–78; Hodder 1982a; Miller 1994; Munn 1986; Thomas 1991; Tilley 1998). A starting point is to regard cultural material as playing an important role in cultural processes. Cultural objects are 'meaningfully constituted': organised by socially embedded concepts that give them meaning and influence the way in which they are used. They can also play an 'active role' in the production, reproduction and transformation of people and their social values, meanings, and relations. This is because material objects always contain something of ourselves, and are often perceived to be 'embodied' or 'personified' with human-like agency and even sacred power. Interpretative archaeologists have consequently sought to identify the symbolic meanings of material culture, and the conceptual structures by which they were organised and which, in turn, they affected. It is recognised, however, that there is great cultural and personal variability in the ways in which objects are perceived and experienced. Much material culture does not have a specific meaning. Its meanings can be ambiguous, multiple, and even contradictory. Its meanings can also change according to the context in which it is being interpreted. Interpretative archaeologists have attempted to tackle these problems by the use of a 'contextual' and 'hermeneutic' approach to the changing meanings of material culture. In this, the detailed definition of the 'context' of an object is regarded as essential. 'Context' refers here to the interweaving and associations of that object, in particular historical and spatial situations, as well as to the perspective of the contemporary archaeological analyst. In practice, this approach involves identifying the network of patterned similarities and

differences surrounding the object being examined, with reference to its temporal, spatial, depositional, and typological dimensions. It is in this web of associations that the local symbolic meanings of material culture are sought. Following on from this, increasing attention has been placed on interpreting the role and meanings of material culture in the practical and routine experiences of daily life, with reference to the 'theory of practice' developed by the French sociologist Pierre Bourdieu (1977). However, it is acknowledged that there can be no final and definitive interpretative account of the past.

In the same way that material culture is considered to be socially constituted, archaeologists and anthropologists now emphasize the point that exchange is socially embedded. Every society can be expected to have a distinct and culture-bound repertoire of kinds of exchange, each of which will apply to different types of commodity, person, and social situation. Exchanges are especially embedded in the context of personal relations. The nature of the relationship between the people involved in an exchange can restrict the nature of the exchange and the types and quantities of goods involved. Similarly, exchanges of gifts can reflect, maintain and transform the degree of personal relations wished for by the participants, which are tied to status, prestige, power, diplomacy, etiquette, and morality. Anthropological archaeologists therefore recognise that it is essential to pay close attention to the social context of exchange and to the various local meanings of the material things involved in this process. It is particularly important to consider the 'biographies' of the objects of exchange, for the meanings of things are inscribed in their forms, qualities, uses, and historical trajectories. A key text here is Arjun Appadurai's (ed. 1986) interdisciplinary volume on The Social Life of Things. In it, Appadurai highlights three important aspects of commodities of exchange. First, culturally-defined standards (symbolic, classificatory, and moral) define the exchangeability of things. Second, different kinds of commodity can move in and out of a commodity state to varying degrees, ranging from commodities intended by their producers principally for exchange, to things intended for other uses that become commodities, to other objects that become rapidly de-commoditized due to their aesthetic elaboration and specific ritual biographies. Third, the exchangeability of a thing and its career as a commodity depend upon the social context within which it is placed. Marriage transactions, for example, often constitute the context in which women are most intensely and most appropriately regarded as exchangeable. Archaeologists are increasingly combining this biographical perspective with an even greater sensitivity towards the cultural transformation processes that act upon objects, affecting their social value, physical form, and the nature of their archaeological deposition (e.g. Bradley & Edmonds 1993; Chapman 2000; Gosden & Marshall 1999; Schiffer 1987; Tilley 1999: 247–324). This involves considering the changing associations and roles of these objects within different historical, spatial, material, and social contexts. This can be achieved by recreating the

cumulative physical transformation of mobile objects, at the hands of different people, through their socially-determined life-stages of production (birth), circulation, accumulation and consumption (socialization), and destruction (death), paying particular attention to the archaeological 'site formation processes' that affected their final resting places. More specifically, it involves exploring their intimate associations with people and their bodies.

An example of this 'biographic' approach is provided by a study of prehistoric stone axes in the Central Mediterranean region, which develops a model of their later life histories (Skeates 1995; 2002). It is noted that stone axe-blades were gradually reduced in size during their lives as versatile tools and as well-travelled commodities, in which they may have been widely valued as 'strong things'. The majority of these objects may ultimately have been lost or discarded. However, some distinctively small, smooth and visually attractive examples made of greenstone, which were too worn down to be of further use as tools, appear to have been intentionally selected for a new lease of life (FIGURE 2 – miniature stone axes). They might be regarded as 'terminal commodities': valuable objects of exchange that had reached the end of their usefulness, becoming anomalies that no longer fitted standard cultural categories, which were consequently pulled out of the sphere of normal circulation and commercial transaction, and confined to a very narrow sphere of gift-exchange and ritual display (Kopytoff 1986). The solution to the problem of what to do with these distinctive miniature axes, which were too highly valued to be simply thrown away or left as they were, was to transform them, both physically and conceptually. They were polished, and even perforated, to form axe-amulets. These then became even more valuable and symbolically-charged objects of social display, spiritual power and ritual sacrifice, worn on people's bodies as necklaces, and ultimately deposited in overtly ritual archaeological contexts.

Another significant theoretical development, relevant to thinking about past human interaction, has been the focusing of anthropological archaeologists' attention on the human body and its mobility, which social scientists have increasingly come to regard as a dynamic communicative medium of sensory expression and experience (e.g. Fowler 2004; Hamilakis *et al.* 2002; Shilling 1993; Strathern 1996). According to this perspective, the body is socially as well as biologically constructed and reproduced. Biological factors certainly determine its basic physical form. But it is also communicative in terms of the culturally mediated physical forms adopted by it. Facial expressions, gestures, postures, the spaces occupied by it, its reshaping and adornment, the care given to it in feeding, grooming and healing, and its control by the self and others: all vary according to cultural categories, social discourses and the life histories of individuals. Bodily expression is also socially active. It can contribute to the assertion, evaluation, acceptance and challenging of social identities and relations, with reference to embodied issues such as race, gender, sexuality, and status. This embodied mode of communication usually involves the co-presence of the key participants, and their bodily engagement. However, the human body also has a great capacity to move from place to place, aided by communications technologies, to explore and exploit new opportunities, to contact well-known and distant people, and to escape old constraints.

For example, recent archaeological research on the journeys made by past people, both overland and by sea, is beginning to transform our understanding of human mobility, cultural geography, social interaction, and embodied identity in Mediterranean prehistory. The freeze-dried body and equipment of the 'Iceman', found near a high mountain pass in the Ötztal Alps in North-East Italy, have received widespread attention (e.g. Dickson 2003; Spindler 1994) (FIGURE 3 – the Iceman). They date to between around 3350 and 3200 BC. The man was aged around 35 to 40 years. He had longish hair and a beard. His body was ornamented with a marble bead, and tattooed with bluish marks, probably with a therapeutic function. He had suffered episodes of ill health and physical trauma, had an arrowhead lodged in his back, and was spattered with the blood of other people. His extensive range of portable equipment was skilfully crafted from a variety of materials. It included layers of warm clothing, a rucksack, bark containers, a hafted copper axe, a bow and arrows, a dagger, tools and materials for craft-working and repairs, a net, fire-making gear, pieces of medicinal fungus, and a few items of food. Seeds and threshing residues from the lowlands were caught in his clothes. On the one hand, these finds highlight the man's specialized self-sufficiency, mobility, and marginality (Hodder 1999: 138-44). But, on the other hand, they reveal his connectivity to the wider cultural networks and social tensions of the Early Copper Age in Northern Italy and the Alpine region, within which his identity as an adult male was deeply embedded (Skeates 1993). Another example of new, theoretically informed, work on human communication in the Mediterranean concerns early seafaring, seascapes, island identities, conceptual distance, and the power of the exotic (e.g. Artzy 1997; Blake & Knapp eds. 2005; Broodbank 2000; Helms 1988; Horden & Purcell 2000; Knapp 1998; Robb 2001). The Mediterranean, traditionally characterised by accessible chains of islands, peninsulas, natural harbours, and waterways, has been an important channel for trade and interaction throughout most of the human past. Indeed, archaeologists have considered it to have been a crucial element in the spread of agriculture and in the development of early states and civilizations. However, early mariners would have needed significant geographical and practical knowledge and skill to navigate the uncertainties of the sea, with its variable weather conditions, winds, currents, wave formations, reefs, sandbanks, and shallows. Sometimes things went wrong, as evidenced by their shipwrecks. Their chosen routes would have varied according to their personal preferences, experience, destinations, cargoes, desired speed, and boat technologies. They would have had to negotiate a diversity of boundaries – ecological, ethnic, cultural, political, social, religious, and linguistic – as they encountered new people, places and things. The mariners themselves would have been socially and culturally

diverse. They would also have carried with them a complex variety of motivations, knowledges, beliefs, perceptions, identities, loyalties, technologies, objects, and languages. All of these could have been exchanged, retained, transformed or hybridized during the course of each voyage, landing and encounter. Certainly, their interactions and experiences were not purely commercial.

Thinking about the human body and its mobility is also contributing, more broadly, to the emergent interdisciplinary field of 'sensory culture studies' and to an archaeology of perception and the senses (e.g. Houston & Taube 2000; Howes ed. 2005; Jones & Hayden eds. 1998; Rodaway 1994; Tuan 1977). This involves searching for a 'full-bodied' understanding of past culture and of people's experience of the social and material world, taking into account all of the human senses and analysing its cultural construction and significance. Clearly, this perspective needs to be grounded in an intimate familiarity with archaeological realities, and also connected to larger-scale archaeological narratives of socio-cultural processes and transformations. This is now being attempted, in variety of studies that have implications for the ways in which traded goods and human interactions might be considered by archaeologists in the future. They have begun to explore the visual, tactile and other sensory aspects of artefacts. These range from the look and feel of things as raw materials and tools, to people's multi-sensory 'phenomenological' experience of place, in and around past settlements, monuments and landscapes. In prehistoric South-East Italy, for example, people's bodies united a dynamic visual culture, ranging from portable and often decorated artefacts, to installations within sites, to monumental structures in the landscape (Skeates 2005). These sometimes powerful objects, which combined aesthetic conventions with unstable meanings, were actively used by successive generations, across space and time, to perceive the world around them and to reproduce their social lives. Their embodied relationship with art mattered. It helped people to establish personal and collective boundaries, identities and relationships, to acquire and exercise power, to promote ideologies, and to contest them, particularly at times of profound social tension. In addition, these ways of seeing were connected by people's bodies to ways of feeling, smelling, hearing and moving. As Ruth Finnegan (2002: 223) highlights, 'There is tactile communicating with its subtle immediacy of contact; the memory-holding evocations of the olfactory mode; the sonic experiences and resonances of the often underestimated auditory channel; and the multiplicity of visible actions, arts and artefacts.' Archaeologists have hardly begun to explore how people in the past used this vast range of communicative modes to reach out and interact with others.

Conclusion

What, then, can archaeologists say about trade and interaction in past societies? The answer to this question depends greatly upon one's definitions of and approaches to the

subject, as outlined above. An optimistic response emphasizes the wealth and potential of combined textual, visual and archaeological evidence, and the significant achievements of archaeological scientists working in this field since the 1970s. For example, Carlo Zaccagnini's (1977) textual analysis of tablets from the Late Bronze Age palace at Nuzi in northern Mesopotamia, has shed light on the social position of the merchant ($tamk\bar{a}r\bar{u}$) at that site, his role in the spheres of trade and credit, the commercial procedures engaged in, and the commodities most commonly used, including details of their prices, provenance, and destination. Foreign emissaries and exotic goods are also represented on painted frescoes in the tombs of nobles at Thebes in Egypt. In the scenes, which mostly date to the 18th Dynasty, an array of foreigners, some identified as Minoans from Crete, carry their distinctive goods via the deceased to the reigning pharaoh (Wachsmann 1987). The scientific analysis of organic residues in containers is also beginning to reveal previously archaeologically-invisible organic goods, such as oils, wine and resin, transported during the Bronze Age in the Eastern Mediterranean and in Western Asia (Knapp 1991). However, a cautious response to the question emphasizes the limitations of this evidence. For example, in early historic societies in the Mediterranean, the textual, pictorial and even archaeological evidence for trade and exchange was generally produced for élites, and informed by their ideological views of the nature and purpose of such interactions as it affected them (S. Sherratt 2005). And for pre-literature societies, prehistorians can never be absolutely certain that trade and exchange did occur (Hodder 1984: 26), particularly given the growing scientific evidence of continued human mobility after the inception of agriculture (e.g. Price et al. 2004). Nor can we easily distinguish commercial trade from gift exchange in the archaeological record. There is also the perennial concern over just how representative the available archaeological evidence is. Shipwrecks, commercial installations and organic remains are revealing but rare, while imported durable artefacts only tell part of the story. As a consequence, we can never be entirely sure about what things were exchanged for each other, and on what scale, in different cultural and social contexts. Ultimately, this inevitable gap between the surviving evidence and our interpretations needs to be filled by theories about people and social communication. It would be an exaggeration to claim that we now have a robust and integrated archaeological theory of trade and interaction. However, this should not deter us from exploring appropriate questions about the connections between real people, places and things in the past.

References

Ammerman, A. J. (ed.) (1985). *The Acconia Survey: Neolithic Settlement and the Obsidian Trade*. London: Institute of Archaeology.
Appadurai, A. (ed.) (1986). *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press.

Artzy, M. (1997). 'Nomads of the sea', in S. Swiny, R. L. Hohlfelder and H. W. Swiny (eds.), *Res Maritimae: Cyprus and the Eastern Mediterranean from Prehistory to Late Antiquity. Proceedings of the Second International Symposium 'Cities on the Sea', Nicosia, Cyprus, October 18–22, 1994.* Atlanta: Scholars Press, 1–16.

Balensi, J. (1985). 'Revising Tell Abu Hawam'. *Bulletin of the American Schools of Oriental Research*, 257: 65–74.

Balensi, J., Monchambert, J.-Y. and Müller Celka, S. (eds.) (2004). *La Céramique Mycénienne de l'Égée au Levant. Hommage à Vronwy Hankey*. Lyon: Maison de l'Orient et de la Méditerranée.

Baugh, T. and Ericson, J. E. (eds.) (1994). *Prehistoric Exchange Systems in North America*. New York: Plenum Press.

Belgiorno, M. R. (1995). 'Pyrgos in the Early Bronze Age'. *Report of the Department of Antiquities, Cyprus*, 1995: 61–5.

Blake, E. and Knapp, A. B. (eds.) (2005). *The Archaeology of Mediterranean Prehistory*. Oxford: Blackwell.

Bourdieu, P. (1977). *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

Bradely, R. and Edmonds, M. (1993). *Interpreting the Axe Trade: Production and Exchange in Neolithic Britain*. Cambridge: Cambridge University Press.

Broodbank, C. (2000). *An Island Archaeology of the Early Cyclades*. Cambridge: Cambridge University Press.

Brumfiel, E. M. and Earle, T. K. (eds.) (1987). *Specialization, Exchange and Complex Societies*. Cambridge: Cambridge University Press.

Caldwell, J. R. (1964). 'Interaction spheres in prehistory', in J. R. Caldwell and R. L. Hall (eds.), *Hopewellian Studies*. Springfield, Illinois: Illinois State Museum, 135–8.

Chapman, J. C. (2000). Fragmentation in Archaeology: People, Places and Broken Objects in the Prehistory of South-Eastern Europe. London: Routledge.

Childe, V. G. (1925). *The Dawn of European Civilization*. London: Kegan Paul, Trench, Trubner & Co..

____ (1928). *The Most Ancient East: the Oriental Prelude to European Prehistory*. London: Kegan Paul, Trench, Trubner & Co..

Clarke, D. L. (1968). Analytical Archaeology. London: Methuen.

Dalton, G. (ed.) (1977). *Tribal and Peasant Economies: Readings in Economic Anthropology*. Austin: University of Texas.

Davis, J. (1992). Exchange. Minneapolis: University of Minnesota Press.

Dickson, J. H., Oeggl, K. and Handley, L. L. (2003). 'The Iceman reconsidered'. *Scientific American*, 288.5: 70–9.

Earle, T. K. (1999). 'Production and exchange in prehistory', in G. Barker (ed.), *Companion Encyclopaedia of Archaeology*. London: Routledge, 608–36.

Earle, T. K. and Ericson, J. E. (eds.) (1977). *Exchange Systems in Prehistory*. New York: Academic Press.

Ericson, J. E. and Baugh, T. (eds.) (1993). *The American Southwest and Mesoamerica: Systems of Prehistoric Exchange*. New York: Plenum Press.

Ericson, J. E. and Earle, T. K. (eds.) (1982). *Contexts for Prehistoric Exchange*. New York: Academic Press.

Evett, D. (1973). 'A preliminary note on the typology, functional variability and trade of Italian Neolithic ground stone axes'. *Origini*, 7: 35–54.

Finnegan, R. (2002). *Communicating: the Multiple Modes of Human Interconnection*. London: Routledge.

Flannery, K. V. (ed.) (1976). *The Early Mesoamerican Village*. New York: Academic Press.

Fowler, C. (2004). *The Archaeology of Personhood: an Anthropological Approach*. London: Routledge.

Frankenstein, S. and Rowlands, M. (1978). 'The internal structure and regional context of early Iron Age society in south-western Germany'. *University of London Institute of Archaeology Bulletin*, 15: 73–112.

Friedman, J. and Rowlands, M. (1977). 'Notes towards an epigenetic model of the evolution of "civilization", in J. Friedman and M. J. Rowlands (eds.), *The Evolution of Social Systems: Proceedings of a Meeting of the Research Seminar in Archaeology and Related Subjects Held at the Institute of Archaeology, London University*. London: Duckworth, 201–76.

Gale, N. H. (ed.) (1991). Bronze Age Trade in the Mediterranean: Papers Presented at the Conference Held at Rewley House, Oxford, in December 1989. Jonsered: P. Åströms Förlag.

Gosden, C. and Marshall, Y. (1999). 'The cultural biography of objects.' *World Archaeology*, 31: 169–78.

Hallam, B. R., Warren, S. E. and Renfrew, C. (1976). 'Obsidian in the western Mediterranean: characterisation by neutron activation analysis and optical emission spectroscopy'. *Proceedings of the Prehistoric Society*, 42: 85–110.

Hamilakis, Y., Pluciennik, M. and Tarlow, S. (eds.) (2002). *Thinking Through the Body: Archaeologies of Corporeality*. Kluwer Academic/Plenum.

Hårdh, B., Larsson, L., Olausson, D. and Petré, R. (1988). *Trade and Exchange in Prehistory: Studies in Honour of Berta Stjernquist*. Lund: Lunds Universitets Historiska Museum.

Hegmon, M. and Plog, S. (1996). 'Regional social interaction in the northern Southwest: evidence and ideas', in P. R. Fish and J. J. Reid (eds.), *Interpreting South-Western Diversity: Underlying Principles and Overarching Patterns*. Tempe: Arizona State University, 23-34. Helms, M. W. (1988). *Ulysses' Sail: an Ethnographic Odyssey of Power, Knowledge and Geographical Distance*. Princeton: Princeton University Press.

Hodder, I. (1982a). Symbols in Action: Ethnoarchaeological Studies of Material Culture. Cambridge: Cambridge University Press.

(1982*b*). 'Toward a contextual approach to prehistoric exchange', in Ericson & Earle (eds.) 1982: 199–211.

(1984). 'Archaeology in 1984'. Antiquity, 58: 25–32.

(1999). *The Archaeological Process: an Introduction*. Oxford: Blackwell. Houston, S. and Taube, K. (2000). 'An archaeology of the senses: perception and cultural expression in ancient Mesoamerica.' *The Cambridge Archaeological Journal*, 10: 261-94.

Horden, P. and Purcell, N. (2000). *The Corrupting Sea: a Study of Mediterranean History*. Oxford: Blackwell.

Howes, D. (ed.) (2005). *Empire of the Senses: the Sensual Culture Reader*. Oxford: Berg.

Jones, C. and Hayden, C. (eds.) (1998). *The Archaeology of Perception and the Senses. Archaeological Review from Cambridge*, 15.1.

Jones, R. E., Levi, S. T. and Vagnetti, L. (2002). 'Connections between the Aegean and Italy in the Later Bronze Age: the ceramic evidence', in V. Kilikoglou, A. Hein and Y. Maniatis (eds), *Modern Trends in Scientific Studies on Ancient Ceramics: Papers Presented at the 5th European Meeting on Ancient Ceramics, Athens 1999.* Oxford: Archaeopress, 171-84.

Knapp, A. B. (1991). 'Spice, drugs, grain and grog: organic goods in Bronze Age East Mediterranean trade', in Gale (ed.) 1991: 21–68.

(1998). 'Mediterranean Bronze Age trade', in E. H. Cline and D. Harris-Cline (eds.), *The Aegean and the Orient in the Second Millennium. Proceedings of the 50th Anniversary Symposium, Cincinnati, 18-20 April 1997.* Liège: Université de Liège, 193-205.

Knapp, A. B. and Stech, T. (eds.) (1985). *Prehistoric Production and Exchange: the Aegean and Eastern Mediterranean*. Los Angeles: Institute of Archaeology, University of California.

Kopytoff, I. (1986). 'The cultural biography of things: commodities as process', in Appadurai ed. 1986: 64-91.

Leriou, N. (2002). 'Constructing an archaeological narrative: the Hellenization of Cyprus'. *Stanford Journal of Archaeology*, 1.

Malinowski, B. (1922). Argonauts of the Western Pacific: an Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea. London: Routledge.

Manning, S. W., Monks, S. J., Nakou, G. and De Mita, F. A. (1994). 'The fatal shore, the long years and the geographical unconscious. Considerations of iconography,

chronology and trade in response to Negbi's 'The Libyan landscape' from Thera: a review of Aegean enterprises overseas in the Late Minoan IA period'. (JMA 7.1)'. *Journal of Mediterranean Archaeology*, 7: 219-35.

Mauss, M. (1954). *The Gift: Forms and Functions of Exchange in Archaic Societies*. London: Cohen & West.

Miller, D. (1994). 'Artefacts and the meaning of things', in T. Ingold (ed.), *Companion Encyclopedia of Anthropology: Humanity, Culture and Social Life*. London: Routledge, 396–419.

Moreland, J. (1999). 'Production and exchange in historical archaeology', in G. Barker (ed.), *Companion Encyclopedia of Archaeology: Volume 2*. London: Routledge, 637–71.

Munn, N. D. (1986). *The Fame of Gawa: a Symbolic Study of Value Transformation in a Massim (Papua New Guinea) Society*. Cambridge: Cambridge University Press. Polanyi, K. (1968). *Primitive, Archaic and Modern Economies*. Garden City: Doubleday.

Polanyi, K., Arensberg, C. M. and Pearson, H. W. (1957). *Trade and Market in the Early Empires: Economies in History and Theory*. Glencoe: Free Press & Falcon's Wing Press.

Price, T. D., Knipfer, C., Grupe, G. and Smrca, V. (2004). 'Strontium isotopes and prehistoric human migration: the Bell Beaker period in central Europe'. *European Journal of Archaeology*, 7: 9–40.

Pulak, C. (1998). 'The Uluburun shipwreck: an overview'. *International Journal of Nautical Archaeology*, 27: 188–224.

Renfrew, A. C. (1975). 'Trade as action at a distance: questions of integration and communication', in Sabloff & Lamberg-Karlovsky (eds.) 1975: 3–59.

<u>1986.</u> 'Introduction: peer polity interaction and socio-political change', in Renfrew & Cherry (eds.) 1986: 1–18.

Renfrew, A. C. and Cherry, J. F. (eds.) (1986). *Peer Polity Interaction and Socio-Political Change*. Cambridge: Cambridge University Press.

Renfrew, A. C. and Shennan, S. (eds.) (1982). *Ranking, Resource and Exchange: Aspects of the Archaeology of Early European Society*. Cambridge: Cambridge University Press.

Robb, J. (2001). 'Island identities: ritual, travel and the creation of difference in Neolithic Malta'. *European Journal of Archaeology*, 4: 175–202.

Robb, J. and Farr, H. (2005). 'Substances in motion: Neolithic Mediterranean "trade", in Blake & Knapp (eds.) 2005: 24–45.

Rodaway, P. (1994). Sensuous Geographies: Body, Sense and Place. London: Routledge.

Rowlands, M. J., Larsen, M. and Kristiansen, K. (eds.) (1987). *Centre and Periphery in the Ancient World*. Cambridge: Cambridge University Press.

Sabloff, J. A. and Lamberg-Karlovsky, C. C. (eds.) (1975). *Ancient Civilization and Trade*. Albuquerque: University of New Mexico Press.

Sahlins, M. D. (1972). Stone Age Economics. New York: Aldine de Gruyter.

Scarre, C. and Healy, F. (eds.) (1993). *Trade and Exchange in Prehistoric Europe: Proceedings of a Conference Held at the University of Bristol, April 1992.* Oxford:

Oxbow Books & the Société Préhistorique Française.

Schiffer, M. B. (1987). *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press.

Service, E. R. (1962). *Primitive Social Organization: an Evolutionary Perspective*. New York: Random House.

Shanks, M. and Hodder, I. (1995). 'Processual, postprocessual and interpretive archaeologies', in I. Hodder, M. Shanks, A. Alexandri, V. Buchli, J. Carman, J. Last and G. Lucas (eds.), *Interpreting Archaeology: Finding Meaning in the Past*. London: Routledge, 3–29.

Shanks, M. and Tilley, C. (1987). *Social Theory and Archaeology*. Oxford: Polity Press. Shennan, S. J. (1989). 'Introduction: archaeological approaches to cultural identity', in S. J. Shennan (ed.), *Archaeological Approaches to Cultural Identity*. London: Unwin Hyman, 1–32.

Sherratt, A. G. (1972). 'Socio-economic and demographic models for the Neolithic and Bronze Ages of Europe', in D. L. Clarke (ed.), *Models in Archaeology*. London: Methuen, 477–542.

(1976). 'Resources, technology and trade: an essay on early European metallurgy', in G. de G. Sieveking, I. H. Longworth and K. E. Wilson (eds.), *Problems in Economic and Social Archaeology*. London: Duckworth, 557–81.

(1982). 'Mobile resources: settlement and exchange in early agricultural Europe', in Renfrew & Shennan (eds.) 1982: 13-26.

(1993). 'What would a Bronze-Age world system look like? Relations between temperature Europe and the Mediterranean in later prehistory'. *Journal of European Archaeology*, 1: 1-57.

(1995). 'Reviving the grand narrative: archaeology and long-term change'. *Journal of European Archaeology*, 3: 1-32.

Sherratt, S. (2005). 'Rhetoric and reality: aspects of trade and exchange in the ancient Mediterranean', in S. Antoniadou (ed.), *Mediterranean Crossroads Conference*.

International Archaeological Conference on Movements of People and Movement of Cultures. Athens 10–13 May 2005. Unpublished conference abstracts.

Shilling, C. (1993). *The Body and Social Theory*. Oxford: Sage.

Skeates, R. (1993). 'Early metal-use in the central Mediterranean region'. *The Accordia Research Papers*, 4: 5-48.

(1995). 'Animate objects: a biography of prehistoric 'axe-amulets' in the Central Mediterranean region'. *Proceedings of the Prehistoric Society*, 61: 279–301.

____ (2002). 'Axe aesthetics: stone axes and visual culture in prehistoric Malta'. *Oxford Journal of Archaeology*, 21: 13–22.

(2005). *Visual Culture and Archaeology: Art and Social Life in Prehistoric South-East Italy*. London: Duckworth.

Snodgrass, A. M. (1991). 'Bronze Age exchange: a minimalist position', in Gale (ed.) 1991: 15–20.

Spindler, K. (1994). *The Man in the Ice: the Amazing Inside Story of the 5000-Year-Old Body Found Trapped in a Glacier in the Alps*. London: Weidenfeld & Nicolson. Stein, G. (2000). 'Colonies without colonialism: a trade diaspora model of fourth

millennium B.C. Mesopotamian enclaves in Anatolia', in C. L. Lyons and J. K. Papadopoulos (eds.), *The Archaeology of Colonialism*. Los Angeles: Getty Research Institute, 26–64.

Strathern, A. J. (1996). *Body Thoughts*. Ann Arbor: University of Michigan Press. Thomas, N. (1991). *Entangled Objects: Exchange, Material Culture and Colonialism in the Pacific*. Cambridge, Mass.: Harvard University Press.

Tilley, C. (1998). *Metaphor and Material Culture*. Oxford: Blackwell.

____ (1999). An Ethnography of the Neolithic: Early Prehistoric Societies in Southern Scandinavia. Cambridge: Cambridge University Press.

Trigger, B. G. (1989). *A History of Archaeological Thought*. Cambridge: Cambridge University Press.

Tuan, Y.-F. (1977). *Space and Place: the Perspective of Experience*. London: Edward Arnold.

Wachsmann, S. (1987). *Aegeans in the Theban Tombs*. Leuven: Uitgeverij Peeters. Wallerstein, I. M. (1974). *The Modern World System. 1, Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*. New York: Academic Press.

Wilmsen, E. N. (ed.) 1972. *Social Exchange and Interaction*. Ann Arbor: University of Michigan.

Zaccagnini, C. (1977). 'The merchant at Nuzi'. Iraq, 39: 171-89.