Chapter 4

States of mind

Approaching complexity

The complexity of complexity

On the subject of the origin of primary states, in 1977 Henry Wright wrote: 'It is a fundamental problem which, though it cannot have an ultimate solution, serves as a measure against which to evaluate the effectiveness of new perspectives and new methods' (Wright 1977: 379). Within the arena of ancient Mesopotamia there is an unrivalled diachronic wealth of archaeological material with which to address issues pertaining to the development of complex societies. As with the previous chapter's topic, the subject of complexity in ancient Mesopotamia is such a large and diverse field that we can do no more than sample some of the major issues here. Through the millennia of later prehistory and all recorded history, and within the limits of the available, often patchy evidence, we can witness the rise, flux and fall of society after society. Attestations of some degree of complexity appear very early on in the archaeological record of Mesopotamia. As we have seen in the previous chapter, there are credible indications of social and cultic complexity of some sophistication even as early as the first sedentary settlements of human groups in the earliest centuries of the Holocene, at sites such as Hallan Çemi and Göbekli Höyük on the northern fringes of Mesopotamia. We can consider the growth of social complexity in later millennia by studying the material remains of a host of societies that developed within the context of the Mesopotamian past, culminating in the appearance of social and political entities known as states and empires. Empires and their archaeological study will be the subject of the following chapter. For now our main concern is with approaches to the study of complex societies of the later prehistory of Mesopotamia, in particular those of the fifth and fourth millennia BC. The socio-political entities of Mesopotamia in these critical centuries have been characterised in a range of ways, but most observers would agree that we are here concerned with

complex chiefdoms and states, at least. In terms of basic approach to these entities we here agree with Earle (1997: 14) that 'the fundamental dynamics of chiefdoms are essentially the same as those of states'.

As archaeologists, how do we approach these highly various and idiosyncratic entities? Does each ancient state or complex society need to be approached and apprehended solely on its own terms, each of its elements studied, described and analysed in an attempt at its particular history, or are there principles and themes underlying the generation, maintenance, death and regeneration of societies that we can approach by means of the archaeological record? Perhaps we need to begin by defining social complexity, a much-used phrase in archaeology. There are no fixed rules or universally agreed criteria to such an end, but some possible areas of general agreement are proffered below. While we may concur with the statement that 'For less well known states, where texts are absent, perhaps the best definition is the most general and simple, so as to encompass marked historical variability' (Marcus and Feinman 1998: 5), even for those states that do have textual sources considerable flexibility in approach is certainly needed.

Recent studies have laid emphasis on power, control and authority as useful analytical concepts in approaches to past complex societies (Earle 1997). In view of an increasing emphasis on the role of 'society', even within Palaeolithic communities (Gamble 1999), the fundamental dynamics of communities of humans can perhaps be approached by means of certain basic concepts rooted in the nature of all human interaction. In all cases we are concerned with approaching the issue of how groups of human beings address the challenges and opportunities generated by living together in close proximity with variable access to resources of material and non-material type. By 'resources' is meant anything from daily bread to holy blessings, and from precious metals to political charisma. The scale and spectacular material residues of the complex states and empires of late prehistory and early history should not lead us into a belief that pre-state human communities lacked structuring principles founded in issues of power, control and differential access to commodities. Nevertheless, there is a world of difference between a hunter-gatherer band of 25–30 individuals who might occasionally promote an individual to act as a leader under specific circumstances, on the one hand, and an urban polity of 20,000 individuals or more whose control extends over thousands of square kilometres and whose social structure is formalised and hierarchical, on the other. But what is the nature of those differences, and how do we locate, identify and study them in the archaeological record?

Let us begin by defining some anthropological characteristics of complex societies, as broadly defined. Amongst the many studies in recent decades of chiefdoms and states, most include at least some of the following elements in their definitions of societal complexity.

Generally agreed anthropological attributes of chiefdoms and/or states

1 Social stratification, whereby at least two, often more, levels of social status exist, at least one of which can be characterised as an elite group;
2 Settlement hierarchy at the regional scale, involving centralisation of some key activities;
3 Specialisation of activity by members of the community;
4 Cultic and ritual elaboration;
5 Historical trajectories of an unstable and fragile nature, invariably culminating in collapse.

What might be the archaeological correlates, or 'clues' in Kent Flannery's phrase (Flannery 1998: 15), that enable us to discern and study these putative characteristics of ancient complex societies? In a pioneering article, Peebles and Kus (1977) proposed the following elements as archaeological correlates of chiefdoms or ranked societies:

Peebles and Kus' (1977) list of archaeological correlates of ranked societies

1 Ascribed ranking of persons;
2 Hierarchy of settlement types and sizes;
3 High degree of local subsistence sufficiency indicating local autonomy;
4 Organised productive activities, such as monument construction or craft specialisation, that transcend the basic household unit;
5 Society-wide organisation in the form of storage and distribution to deal with perturbations in food supply or climate.

While these features correlate reasonably well with the anthropological attributes listed in the first section, it might help to phrase them more explicitly in terms of what is likely to be encountered in the

archaeological record. The following list of specifically archaeological characteristics is proposed, numbered in order of agreement with the first list:

Explicitly archaeological correlates of ranked societies

1 Monumental constructions, rich tombs, differential distributions of prestige items, palaces;
2 Regional hierarchy of settlement patterns;
3 Craft specialisation within and between sites, storage, exchange within and between settlements;
4 Temples, priests' residences, cultic paraphernalia;
5 Evidence of growth, flux, collapse.

These loosely defined correlates do not constitute a checklist for identifying complexity in the archaeological record, but are simply some suggestions for the exploration of issues of complexity from what are likely to be patchy and indistinct traces of past societies. Before considering two broad arenas of research for social complexity in ancient Mesopotamia, we shall review some of the approaches employed in the study of complexity in recent decades.

Approaches to the study of social complexity

It is what humans do as social animals, how we interact with each other, with contemporary communities, and with our broad environment, histories and gods, that makes for complexity as understood in this chapter. Approaches to societal complexity in the arena of Mesopotamia have come mainly from the academic context of North American anthropological archaeology, often building on and integrating data and interpretations sought and generated through models of both culture history and anthropology. Approaches to complexity in the context of Southwest Asia have been founded on premises that can variously be described as ecological, evolutionary, systemic, processual, comparative, organisational and chaotic, each of these premises situated in issues of wider humanistic and scientific concerns of their contemporary milieu.

Anthropological traditions, rooted in the positivist New Archaeology of the 1960s and the anthropology of Leslie White and Julian Steward

before that, have frequently viewed human societies within a framework of evolutionary development, progressing from simple to complex in a unilinear manner through time (Wenke 1981: 84–7, 111–16). Sometimes this approach has been manifest as a step typology of human society, proceeding from band through tribe and chiefdom to state, so-called 'stage-stops along the road to civilization' (Service 1975: 303; McGuire 1983: 93–5). These often cross-cultural approaches may have an ultimate aim of detecting and delineating general processes, even laws, of development amongst human communities irrespective of time or place. Much of the labour in this area has gone into attempts to define the terminology employed in socio-cultural typologies, often based on broad ethnographic surveys. Criteria employed to define stages of societal evolution have included the size and scale of communities, the nature of social and economic relations between individuals and groups within human communities, and the nature of control and processing of socially significant information. Critiques of evolutionary approaches of the step typology kind have proposed that the complex dynamics of human interaction and development fail to be accounted for or explained by the static, trait-specific strait-jacket of the evolutionist paradigm (Rothman 1994), and that evolutionary studies have so far failed to operationalise their theories into meaningful field and analytical programmes (Yoffee 1979).

But proponents of the step typology approach rejoinder to the effect that its employment is as a heuristic device that does not imply an ineluctable progression of human communities from one simple step to the next more complex step. Moreover, they argue, we should be flexible in assigning human communities to societal categories and we should be ready to adapt those categories as new evidence requires. Above all, we should accept that typologising human communities is no more an end in itself than typologising potsherds or arrow-heads, which can only be worthwhile if the results are employed to tell us something about the ways in which human communities originate, develop and behave (Renfrew and Bahn 2000: 177).

During the 1970s, approaches to the study of states and complex societies were framed within a discourse of systems analysis of the structure and administration of complexity. Leading the way was Kent Flannery, who in 1972 provided a seminal treatment of ecosystemic approaches to complexity in his article on 'The cultural evolution of civilizations' (Flannery 1972; see also Redman 1978: 229–36). Reviewing types of human society, ordered as band, tribe, chiefdom and state, Flannery viewed the human ecosystem as an adaptive mechanism

composed of hierarchically arranged elements, or subsystems, the relationships between which fluctuate as socio-environmental stresses and opportunities arise. At the higher end of the complexity scale, the need to process and distribute information within such a system is clearly paramount, and it is from this point that theories which centre on administrative technology and bureaucracy were developed. In particular, the work of Henry Wright and Gregory Johnson focused on issues of the appearance of pristine states in southwest Iran in the fourth millennium BC, where their emphasis fell on tangible aspects of administrative bureaucracy, such as seals and sealed bullae, as evidence for specialisation and levels of decision-making amongst hierarchically arranged settlements (Wright 1977; 1978; 1998; Wright and Johnson 1975). The fortunate fact that much of this evidence survives in the archaeological record, in the form of tokens, bullae, sealed clay pieces and, later, inscribed tablets, grants a unique advantage to Mesopotamia as a field within which to study the unfolding of these processes and their societal implications. Indeed, we might wonder how states could be approached and identified archaeologically without such administrative evidence, given its fundamental significance within Wright and Johnson's interpretive scheme (Wright 1977: 386; Wright and Johnson 1975: 267). The essential argument is that this increasingly complex assemblage of administrative technology was developed and used as a means of control over the production, exchange and redistribution of goods and services by the state or by elite elements within the state. More recently, finds of artefacts such as sealed clay pieces at sites of much earlier date, including late Neolithic Sabi Abyad and Tell Boueid in north Syria, have suggested the early development and application of this administrative technology in a social and political environment devoid of elite exploitation and redistribution of controlled goods, but instead rooted in low-key personal concerns to secure access to private possessions during periods of absence from a base settlement (Akkermans and Duistermaat 1997; Duistermaat 2002). We therefore need to be wary of the assumption that evidence of administrative technology necessarily attests the existence of hierarchical, stratified social entities.

An early critic of the administrative view of complexity was Robert Adams, who pointed out that the administrative routines of a complex political entity could in no way be taken as fully representative of that complexity in kind or degree. Furthermore, Adams argued, such approaches failed to take into consideration the power and role of cult and religious organisations in the development and spread of

complexity, even when, as in the Uruk period, there is convincing archaeological evidence for their importance (Adams 1981: 76–8). Pollock has commented that the excessive emphasis upon modes of control and administration tends to reduce the role of the state to that of 'a managerial entity' (Pollock 1992: 319), and Richard Blanton's critique of the systems and administrative approach to state-level societies focuses on its avoidance of significant elements within society, such as commercial enterprise, households and urbanism (Blanton 1998: 138).

Valuable anthropological approaches to complexity in fifth-millennium Mesopotamia have been developed by Gil Stein and Mitchell Rothman (Stein and Rothman 1994), whose work is characterised by a concern with the dynamics of interaction between various spheres of past human activity and experience, and with how those dynamics might be manifest in, and recovered and interpreted from, the archaeological record. Rothman, Stein and colleagues have helped shift the emphasis away from terminological debate and rather fruitless critiques of evolutionary theory and step typologies towards consideration of the substantive dynamics of human society. Defining complexity as 'the degree of functional differentiation among societal units', which may be 'households, economic enterprises, political associations, classes, villages, or urban districts', Rothman and Stein use the concepts of economic, political and ideological integration and centralisation as critical in an approach characterised as 'the organizational dynamics of complexity', which aims to explore the ways in which human communities were structured and how they functioned and developed through time in the context of the Mesopotamian past (Rothman 1994; Stein 1994a).

There is an increasing awareness of the fluidity of Mesopotamian societies and of the flexible dynamic between and amongst elements of those societies that might be sometimes in cooperation, at other times in competition, and that may flit in and out of archaeological visibility, with alternating episodes of centralisation and decentralisation (Blanton 1998: 138–9). Scholars of the Mesopotamian past have frequently failed fully to appreciate the nature and representativeness of the archaeo-historical record, assuming that what they see is the whole picture with nothing missing. Historians, in particular, have constructed overarching theories concerning Mesopotamian temple-states and socio-economic systems on the basis of single archives of material, failing to consider issues of how the evidence was generated, how it may have been manipulated, how it may have been changed and distorted through time, or how it might be seen in a totally different light if less visible forms of evidence could be brought to bear on the

problem in question. A realistic and stimulating concern to address these issues has been manifest especially in the work of Marc Van De Mieroop (1999a).

Showing a keen appreciation of the biases inherent in the archaeological record as hitherto explored and recovered, Gil Stein has neatly summarised Mesopotamian complex societies as embodying an ultimately irresolvable tension between the centripetal tendencies of elite power groups and the centrifugal tendencies of other, archaeologically less visible, elements of society, concluding that 'instead of viewing states as all-powerful, homogeneous entities, it is probably more accurate to characterize them as organizations operating within a social environment that, for a variety of reasons, they only partially control' (Stein 1994a: 13). Stein's attempts to redress the balance away from a centrally dominated picture of ancient Mesopotamian societies, with all-powerful temples or palace elites, and to give greater emphasis to archaeologically less tangible elements such as the rural sector or interacting nomadic groups, encourages us to look anew at the structure and development of complexity in the arena of ancient Mesopotamia.

A valuable anthropological approach to the study of complexity in human communities stresses the role of power, control and authority in the processes by which societies become structured and stratified. Based on extensive archaeological, ethnographic and historical researches, the work of Tim Earle, in particular, has situated the rise of complex stratified societies within the context of differential access to, and control of, three sources of social power – economic, military and ideological (Earle 1997; see also Mann 1986). While not necessarily of primary archaeological concern, the driving force or 'prime mover' behind social change is suggested by Earle and others as being biologically rooted in the desire for some individuals to attain prominence as a platform for reproductive success (Earle 1997: 2).

Most recently there has been a hesitant return to a grand-scale comparative approach to the study of early complex societies, or at least those that can be characterised as 'archaic states', in the belief that 'early states as a group do display similarities' (Marcus and Feinman 1998: 7). In the volume *Archaic States* (Feinman and Marcus 1998), authors attempt to take a global view on early states of the Old and New Worlds. The case for comparative study is, however, not obviously apparent. The 'dynamic model' propounded by Joyce Marcus proposes little more than that states go through 'cycles of consolidation, expansion, and dissolution' (Marcus 1998: 60). Furthermore, Marcus' study of

ancient Mesopotamia within the context of her model (Marcus 1998: 76–86) fails to take into consideration the potentially critical role of climate and environment in affecting the trajectory of early Mesopotamian states. Thus the 'valleys' of state breakdown evident in her diagram of state development in Mesopotamia, falling at around 3,000, 2,200 and 1,400 BC, all neatly correspond to episodes of climatic adversity and aridification attested in the environmental evidence from Mesopotamia and surrounding regions (Butzer 1995: 136–8).The potential role of climate as a factor in the history of early states is certainly worthy of some consideration in any long-term survey of states in ancient Mesopotamia.

Gil Stein has recently reviewed, with typical insight, the state of current research into complex societies, ranging from chiefdoms to empires, of the Old World (Stein 1998), underlining a renewed emphasis on how complex societies operate rather than on how they originate. Setting out a twofold approach that combines the integration of archaeological and textual evidence, where available, along with regional studies of differential access to and control of resources, Stein promotes the study of the 'dynamic, fluid nature of power relationships and their longer-term transformations' (Stein 1998: 26). At the basis of these approaches lies an analytical framework within which complex societies can be designated as 'segmentary' or 'unitary', at two ends of a spectrum, according to their degrees of scale, complexity and integration (Stein 1994c).

In the remainder of this chapter we shall examine two major areas of the Mesopotamian past where issues of complexity are to the fore: the nature and development of complex societies in the Ubaid period of the fifth millennium, and the Uruk phenomenon of the later fourth

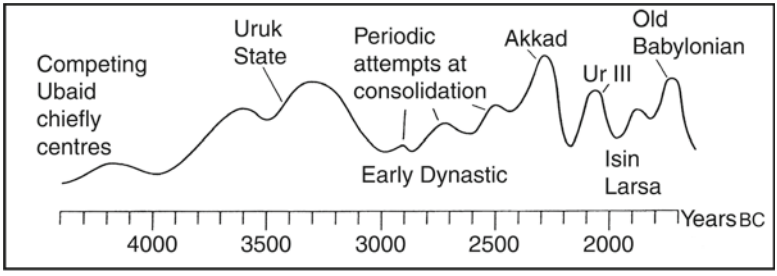

Figure 4.1 Development of states through time in Mesopotamia

Source: after Marcus 1998: fig. 3.8.

millennium. Both these important episodes have received archaeological attention from a wide range of angles, as we shall see.

Complexity in the fifth millennium BC: the Ubaid period

It is fair to say that, despite some important recent studies, Mesopotamia in the Ubaid period remains a poorly understood research area. What do we know of this long, vital episode that in Mesopotamia chronologically spans much of the transition from Neolithic village to Early Bronze Age statehood? Defined originally on the basis of material, including painted pottery, from Eridu and the site of Tell al-Ubaid in south Iraq, the Ubaid period in its earliest phases is little known beyond information provided by the lowest levels of the temple sounding at Eridu and by excavations deep below the modern alluvium at Tell el-'Oueili near Larsa (Huot 1989). For the later Ubaid period, spanning much of the fifth millennium BC, we are better informed by the evidence from a wide range of sites in south Mesopotamia, such as Eridu, Ubaid, Ur and Uruk, as well as from those in other parts of Southwest Asia, such as Tell Abada in the Hamrin region, Tepe Gawra in north Mesopotamia, and Susa in southwest Iran, amongst many others (Henrickson and Thuesen 1989). Within the overall topic of Ubaid-period Mesopotamia we will here examine only a sample of the ongoing areas of research, focusing on cultic structures and pottery.

The significance of the role of cultic structures or temples within human society is critical throughout the later prehistory and the entire history of ancient Mesopotamia and, early Neolithic developments in Upper Mesopotamia at sites like Göbekli and Nevalı Çori aside (see Chapter 3), it is in the Ubaid period that we first gain some idea of the physical manifestations that temples could take in Mesopotamia as well as of their social and economic contexts.

Excavations in the late 1940s at Eridu in south Mesopotamia uncovered a sequence of superimposed temples spanning all the Ubaid period and beyond, each successive temple increasing in size, grandeur and architectural elaboration over its predecessor (Lloyd 1963: 57–64; Safar *et al.* 1981: fig. 3c–d). By the end of the 1,500-year sequence the Eridu temples, probably devoted to the worship of Enki, were built on massive mud-brick platforms and comprised a central open space with altar or offering table surrounded by suites of rooms. Regular architectural features include niches, buttresses, and orientation of the building's corners to the cardinal points of the compass.

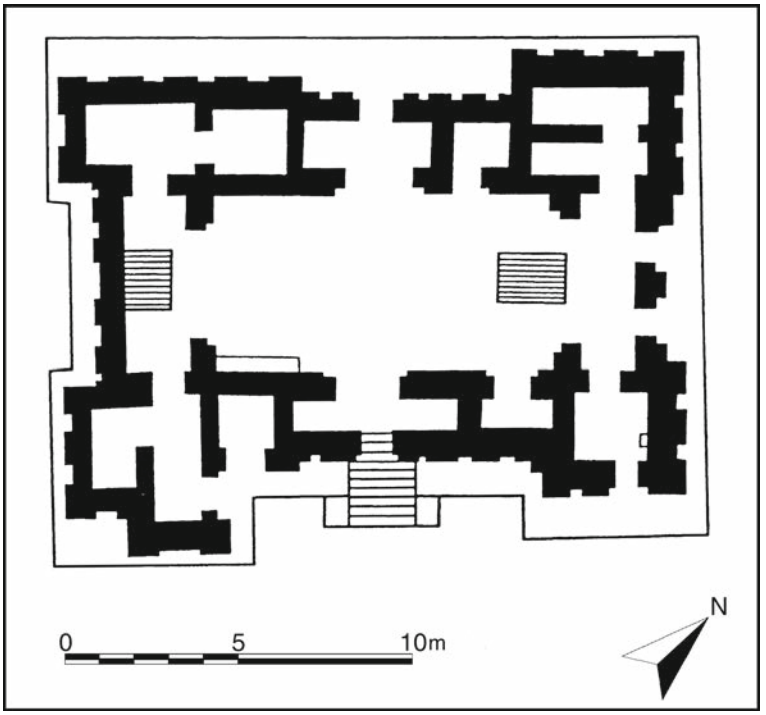

Figure 4.2 Eridu, south Iraq. Cultic building, temple VII
Source: after Safar *et al.* 1981: 88.

The great locational continuity demonstrated by the Eridu temples, their attestation of uninterrupted cultural development in Lower Mesopotamia through the critical centuries prior to the advent of written documents, taken with the Sumerians' own view of Eridu as a source of kingship and one of the first cities to be created after the flood, all argue persuasively for cultural and possibly ethnic (Sumerian?) continuity of occupation of the south Mesopotamian alluvium from a very early date.

Strong similarities in layout, orientation and elaboration of contemporary buildings at Uruk-Warka in Lower Mesopotamia (J. Schmidt 1974) and in Upper Mesopotamia, such as the level XIII Northern Temple at Tepe Gawra (Tobler 1950), moreover, give firm indication of a uniformity of cultural context, presumably manifest in religious creed and practice, across substantial swathes of Mesopotamia, providing a prelude of north/south contact and interaction against which to situate

the evidence of the so-called Uruk phenomenon in the fourth millennium, as examined below.

The presence of lapis lazuli and carnelian, probably imported from Iran and Afghanistan, and the first extensive evidence for the use of stamp seals within a system of control of movement of sealed goods, further underline the cosmopolitan and complex nature of Late Ubaid societies across Mesopotamia.

What more can we learn about wider social and economic issues from the study of Ubaid-period temples? Susan Pollock has pointed out that the artefact assemblages recovered from inside the Eridu temples include items such as food and textile processing equipment that would not be out of place in purely domestic contexts. In addition, objects such as elaborate ceramic vessels and stamp seals hint at supra-domestic activities within and focused on temples of the Ubaid period at Eridu and at Tepe Gawra in Upper Mesopotamia (Pollock 1999: 87–8). It may also be the case that traces of food or textile processing within such

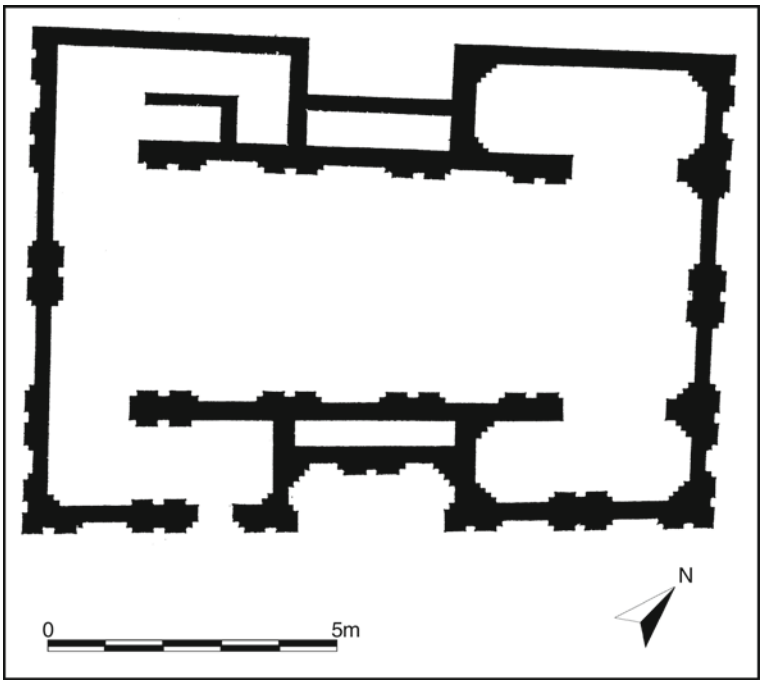

Figure 4.3 Tepe Gawra, north Iraq. Temple of level XIII

Source: after Tobler 1950: 30.

temple contexts relate to activities that might, as archaeological evidence, resemble those of domestic environments but that in fact were transformed through their execution in ritual or ritually mediated contexts. The weaving of a carpet with which to adorn a niche behind a cult statue in a temple, for example, might leave archaeological traces differing little from the traces of weaving a carpet for a domestic sitting room floor, but the social context is completely different. A similar contextualism will apply to evidence for the baking of holy bread or the brewing of sacred beer.

In a stimulating study Gil Stein has proposed that Ubaid-period temples served as agricultural banks or buffers against times of hardship, thus facilitating their own perpetuation as social elements in a long-term atmosphere of stability and ritually mediated control. In these communities the emphasis was not so much on the distribution of wealth, or exotic imports, as a basis for chiefly power, but more on the control and distribution of locally available resources such as agricultural surplus. As Stein puts it:

> the close association between irrigation, socio-economic differentiation, and the appearance of temples suggests that ritual elaboration played an important role in generating and maintaining these economic differences. The particular chiefly strategy of locally-based, ritually generated staple finance resulted in the peaceful spread and long-term stability of small scale chiefly polities throughout greater Mesopotamia in the 6th–5th millennia BC.
>
> (Stein 1994b: 44)

But we need also to consider the occasional presence of beads of lapis lazuli, carnelian and other materials in level XIII at Gawra (Tobler 1950: 192) that do suggest some movement of high-status exotic substances within the community, precursors of the spectacular wealth attested at Gawra in tombs of level X and later (Tobler 1950: 88; Moorey 1994: 88), hinting that Stein's model of low-key, quasi-egalitarian social structure during the Late Ubaid period may not be the full picture. We also need to keep in mind the inevitable partiality of the recovered material record: the discovery of a single wealthy tomb could overturn a theory overnight.

The study of pottery production and distribution in the Ubaid period has led to some important insights into the nature of human societies at this time. Due to its excellent survivability in the archaeological record, its relevance to issues of ancient technology and economics,

and its suitability for typological and chronological analysis, pottery features prominently in the study of the Mesopotamian past. As discussed in Chapter 1, approaches grounded in culture history make frequent and detailed use of pottery as a means of descrying and defining cultures across time and space, while the significance and potential variability of the relationships between pots and people are perhaps not often enough explicitly considered:

> Traditionally, however, archaeologists working in Mesopotamia have treated the material evidence, above all pottery, not in technological or industrial terms, but typologically as the primary means for structuring chronological systems or for establishing the identities and relationships of the political and social groups taken to be defined by material culture.
>
> (Moorey 1994: v)

During the Ubaid period there are several notable developments that have encouraged profitable study of the pottery of the period, beyond the definition of cultural horizons in time and space. As Hans Nissen has argued, there is evidence that by the Late Ubaid period some sort of 'pivoted working surface' or tournette was introduced that greatly facilitated the rapid and large-scale production and decoration of pottery. In particular, the ability to produce painted decoration in simple bands, formed by holding the brush against a slowly rotating pot, allowed mass production of repetitively decorated pottery, as occurs widely over the Ubaid world. The widespread success of this technological innovation needs to be interpreted with caution, however:

> the impression could easily arise that this 'Ubaid horizon' was the external indication of the spread of the 'Ubaid' method of painting to the whole of the Near East from one place as a result of a migratory movement.
>
> (Nissen 1988: 46)

The decline in, and imminent abandonment of, decoration of pottery surfaces by the late fifth millennium in Mesopotamia has been connected by Nissen with a shift to forms of stratified society, where the modes of social differentiation could no longer be adequately expressed through painted pottery (Nissen 1988: 63).

At the same time, we may connect the occurrence of mass-produced, or at least repetitively produced and decorated, pottery in the

Late Ubaid period with the development of an artisan class of professional potters, part of a process of increasing craft specialisation and labour division attendant upon the rise of complex societies. Stein's study of the evidence from kilns and pottery manufacture at Ubaid sites in Mesopotamia suggests that, while craft specialisation was of increased significance by the late fifth millennium, there is no evidence yet for the centralised control by elite social elements over such means of production (Stein 1996: 28). Again, the paucity of our evidence on this topic, particularly from Lower Mesopotamia where the most pertinent evidence might be expected, needs to be kept in mind.

Scientific studies of Ubaid pottery have been of major significance as regards issues of production, trade and society. Judith Berman's work on Ubaid pottery in southwest Iran takes as its basis the assumption that 'ceramic style, techniques of production, exchange patterns, and so forth, are sensitive indicators of aspects of sociopolitical organization, contact with other societies, or cultural change' (Berman 1994: 23). Building on Stein's notion of Ubaid society as composed of simple chiefdoms whose power is based on control over staple commodities, Berman proposes that such a model of locally situated, peaceful and egalitarian communities would lead to the production of pottery that is both stylistically homogeneous and locally produced. Employing the technique of neutron activation analysis as a means of characterising the raw materials used in the manufacture of pottery, Berman examined groups of both decorated and undecorated Ubaid pottery from the Susiana plain in southwest Iran. Her results show that Ubaid pottery in Susiana was indeed locally produced, with plain red wares manufactured on a highly localised scale at individual households or small sites within the region. Black-on-buff pottery, by contrast, seems to have been produced by larger-scale village workshops generally exploiting the same or similar clay sources.

Analysis of the clays used in making a series of elaborately decorated beakers and bowls from the Susa Necropole indicates that these vessels were formed from a wide range of differing clays, suggesting that they may have been brought to Susa specifically as burial gifts to accompany regional elite members brought for burial at Susa (Berman 1994: 28). There thus appears to have been a variety of modes of ceramic production in Susiana during the Ubaid period, none of them under centralised control. Given this variety in the modes of pottery production, we are faced with the puzzle of the great stylistic homogeneity of pottery across the Ubaid world. How can this be? Berman's suggestion is that pottery use in the Ubaid period is rooted principally

in the context of private food preparation and consumption rather than in the public domain of status display, while the simple and repetitive decoration of Ubaid pottery served to reinforce an ideological identity or group membership shared by all participants in the Ubaid world (Berman 1994: 29).

By contrast, Susan Pollock's study of Terminal Ubaid painted pottery from sites of the Susiana plain explores how stylistic representation in the form of painted elements might be related to social complexity. Working on the premise that, as a means of communication between community groups, style is likely to increase in complexity directly with an increase in social complexity, Pollock studies high-class painted vessels of Susa A date, the later fifth millennium BC. Some problems with representativeness of the evidence notwithstanding, she concludes that these vessels were produced for and used by elite groups within a stratified social context (Pollock 1983).

These various approaches to aspects of the material culture of the Ubaid period and their social, economic and political interpretation are steadily exploring and illuminating this otherwise shadowy period, which lasted for many centuries and culminated in the development of socio-political entities that can be characterised as highly complex, to the consideration of which we can now turn.

Kings, captives and colonies: the Uruk phenomenon

During the fourth millennium BC an extraordinary phenomenon is attested in the archaeological record of Mesopotamia and its neighbouring regions. This phenomenon takes the form of dozens of archaeological sites distributed across Lower and Upper Mesopotamia, southeast Anatolia, and southwest Iran, most known only from survey but a good number also excavated. To varying degrees these sites have commonalities of material culture, including architectural plans and elements, distinctive pottery forms, seals and sealings, and tablets of clay with numerical impressions. Study of these sites, their distributions, and material culture assemblages has been one of the most active fields of research and debate in Mesopotamian archaeology of modern times. For, most researchers would probably agree that in the Uruk period, through more or less the entire fourth millennium BC, the first true states appeared. These states, moreover, were primary states, originating in pristine condition on the plains of Mesopotamia. The fact that this process, or complex of processes, only happened once in the

Mesopotamian past, since every subsequent state could look to an ancestral statehood, lends unique significance to the study of the Uruk phenomenon (Pollock 1992).

The nature of the Uruk phenomenon has been most stimulatingly approached in the context of regional interactions between the polities of Lower Mesopotamia, on the one hand, and those of adjacent regions such as Upper Mesopotamia, Iran and southeast Anatolia, on the other. In particular, debate has centred on the issue of the nature of the relationships, in social, economic, political, and occasionally religious terms, between what is seen as the core zone of Lower Mesopotamia, dominated by the city of Uruk-Warka itself, and the outer regions of the Mesopotamian world through much of the fourth millennium BC. A major stimulus in this debate has been the increased volume of archaeological activity in the outer zones of Mesopotamia over the past twenty years or so (summarised in Rothman 2001a). Large-scale destruction of archaeological landscapes attendant upon construction of dams and irrigation projects along much of the length of the Euphrates and Tigris rivers, in particular, has encouraged the excavation of sites yielding significant new information on the topic of regional interactions in the greater Mesopotamian world. Excavations at sites such as Tell Sheikh Hassan, Habuba Kabira, and Jebel Aruda on the Syrian Euphrates and Hassek Höyük and Hacınebi Tepe on the Turkish Euphrates have provided information and stimulated new ways of thinking about early developments in regional control and interaction at the dawn of urban and literate society. Concurrent with the blossoming of archaeological work in the outer zones of Mesopotamia has been a dramatic decline, for modern political reasons, in the scope and intensity of fieldwork within the Mesopotamian heartland of south Iraq, including at the site of Uruk-Warka itself. Present understanding of the Uruk phenomenon is thus now biased toward those areas of Southwest Asia to which, rather than from which, it spread. Once a full return to fieldwork in Iraq becomes feasible, the many research issues generated by the ongoing debate over the Uruk phenomenon will certainly help to structure the conduct of future fieldwork at sites such as Uruk-Warka and elsewhere.

Any study of complexity in Uruk-period Mesopotamia can reasonably start with the city of Uruk-Warka that, during the centuries of the fourth millennium BC, grew in size and importance to be the paramount political and economic entity of Mesopotamia and beyond (Nissen 1988: 96–103). Hans Nissen has underlined the fact that excavations of the relevant levels at Uruk-Warka were conducted a long

time ago, substantially prior to the discovery of Uruk-period sites outside Lower Mesopotamia, and that the excavators, principally historians of architecture, could not have realised at the time the full significance of their findings, especially the pottery sequence (Nissen 2001: 149–50). From modest and poorly understood beginnings in the Ubaid period, the settlement at Uruk-Warka expanded to a size of some 250 hectares with a postulated population of 20–50,000 individuals by the later fourth millennium, and to the phenomenal size of 600 hectares by about 2,900 BC (Nissen 1988: 71–72; 2001: 158, 173). On the basis of calculations of per capita food requirements and availability of suitable agricultural land around Uruk-Warka, Susan Pollock has suggested that the food requirements of the city by the middle fourth millennium significantly exceeded the food producing capabilities of the city's environs and that, therefore, Uruk-Warka must have been exacting tribute from a rural population beyond the city's immediate landscape (Pollock 2001: 195). The political and social ramifications of this postulated relationship will clearly include an element of substantial asymmetry with Uruk-Warka at the top of a steep and highly structured social pyramid.

By the Late Uruk period, Uruk-Warka was four to five times larger than any other settlement in Lower Mesopotamia, and may well have been fortified, if the evidence of seal depictions are accepted as an indication (Algaze 2001a: 32). The region around Uruk-Warka played host to a sudden tenfold increase in settlement density at about 3,200 BC, coupled with the development of a four-tiered hierarchy of settlement, all made possible by increased availability of dry and very fertile land newly freed from constant inundation by an ameliorating climate (Nissen 1988: 66–7). A lengthy programme of survey and excavation at Uruk-Warka has revealed something of the internal complexity of the settlement, dominated by a core of public cultic and administrative architecture in the form of the Anu Ziggurat/White Temple complex.

Hans Nissen has calculated that the construction and maintenance of the Anu Ziggurat/White Temple complex required the input of 1,500 labourers working for ten hours a day over a five-year period (Nissen 1988: 95). These grand construction projects may additionally have served as 'make-work' schemes, keeping potentially idle hands busy and perhaps reinforcing an ideological alignment towards elite ends (Pollock 1999: 180). The construction and use of public monuments are commonly viewed by archaeologists as primarily serving elite ideological ends, but such monuments can also be built and used in ways that convey subversive, non-elite or anti-elite messages. The

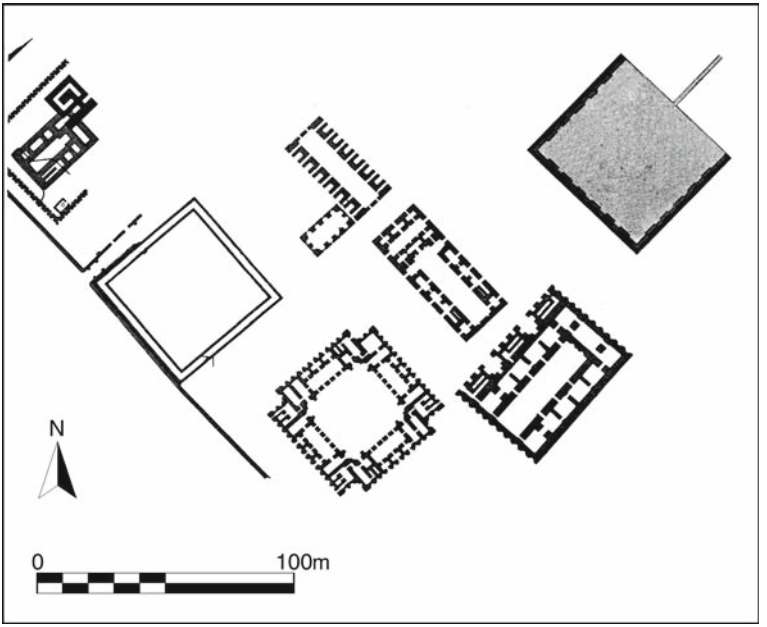

Figure 4.4 Uruk-Warka, south Iraq. Major structures of the fourth-millennium city

Source: after Englund 1998: fig. 6.

conspicuous building of sumptuous mosques throughout modern Turkey, for example, is a social phenomenon arguably situated in non-elite community activity subverting the secular spirit of a ruling political elite. Entire cities, such as Najaf in central Iraq, may be founded and perpetuated on the basis of anti-establishment religious conviction, although such cities are likely to host their own elite/non-elite disparities and divides.

Further evidence of well developed social complexity and hierarchy at Uruk-Warka includes the existence of specialised craft quarters, the earliest convincing iconographic depictions of high-status individuals, perhaps kings, in the media of stone sculpture and cylinder seals (Nissen 2001: 157; Roaf 1990: 61, 71), and glyptic portrayals of human captives bound and maltreated (Boehmer 1999: abb. 16–19). Additionally, thousands of fragments of clay sealings and clay tablets with proto-cuneiform inscriptions attest the overwhelming importance of the city. A survey of Uruk-Warka conducted between 1982 and 1984 recovered surface materials from about 480 hectares of the settlement,

Figure 4.5 Najaf, central Iraq, photographed from 2,000 feet on 30 January 1919

Source: Public Record Office ref. CN 5/2 407.

excluding the fifty or so hectares now severely disturbed by archaeological excavation and spoil disposal (Finkbeiner 1991). Results of the survey show clear areas of, for example, production of carnelian, flint and dolomite objects, supporting the idea of specialised craft areas, although their precise dating is difficult from surface materials. In addition, evidence of specialist metallurgical areas (Nissen 1988: 82), and textual evidence in the form of the so-called Professions List (Nissen 1988: 80; 2001: 156), as well as the practice of writing itself, all underline the trend towards increasing specialisation of labour and social hierarchy by the later fourth millennium BC. As Adams has phrased it, 'In centers like Uruk a highly significant segment of the population must have been given or won its freedom from more than a token or symbolic involvement in the primary processes of food production' (Adams 1981: 80).

Thus, if we look at the material evidence from Uruk-Warka in terms of the early development of literate, urban complexity, it is not difficult to descry an elaboration of power upon the basic tripod of economy, military and ideology, as discussed in the anthropological approach of Earle (1997). The sealings and texts relate partly to economy, concerning themselves principally with the administration and control of agriculture, labour and crafts (Nissen 1995: 800; 2001: 155–6). The seal impressions depict scenes of buildings, prisoners, kings and commodities, readily interpreted within a framework of power in the spheres of economy (herds of domestic animals), military (captives

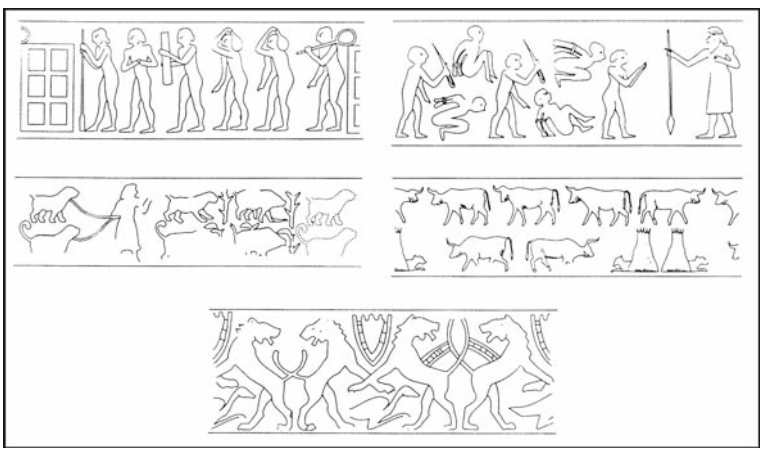

Figure 4.6 Seal impressions from Uruk-Warka

Source after Englund 1998: fig. 9.

paraded before a king), and ideology (cult building facades and cultic paraphernalia).

The architecture of the great complexes of Anu and Eanna reinforces the picture of ideological domination of an extensive population by a high-status elite, perhaps even testifying to the role of Uruk-Warka as a religious capital for all of Lower Mesopotamia (Algaze 2001a: 32). Social and political developments in the Uruk heartland by the later fourth millennium have been enumerated by Algaze (2001a: 34–7) as the appearance of kingship, an involvement of the state in the production and distribution of certain commodities, industrial-scale craft specialisation, state control over labour, and the development of an ideology and practice of legitimation involving writing and an iconography of heroism. Despite the apparent dominance of the city of Uruk-Warka in the fourth millennium landscape of Lower Mesopotamia, the evidence from Adams' surveys is generally taken to suggest the existence of multiple urbanised communities on the alluvium at this time (Nissen 2001: 158), interaction amongst whom generated a self-reinforcing drive towards urban growth, trade and geographic expansion as means of enhancing and sustaining the prestige of competing elite groups (Algaze 2001a).

As mentioned, some of the most exciting debate has been over the nature of relations between the Uruk heartland and the outer zones of Mesopotamia and beyond. We now turn to a consideration of how this issue has been approached by archaeologists in recent years, in the hope that such a study will elucidate how archaeologists deal with a specific research topic that is at the same time rooted in the minutiae of material culture, including styles of pottery and cylinder seals, and of supra-regional significance. A key figure in the debate is Guillermo Algaze, whose surveys and excavations in southeast Anatolia have contributed greatly to the pool of archaeological material relevant to this issue. In a series of publications (Algaze 1989; 1993; 2001a; 2001b), Algaze tackles the issue from the essential viewpoint of political economy. For Algaze the key element is the natural resource poverty of the Uruk heartland as contrasted with the resource richness of adjacent regions, an asymmetry in resource distribution that underlay the asymmetry in political development of the communities of the heartland and the outer zones. In Algaze's scenario, the high-status elite groups of the sophisticated communities of the south craved the luxury commodities present in the territories of less sophisticated societies of the north and east, and were prepared to go to considerable lengths to obtain them, to the extent that their activities constituted the main engine for change

and social development of the Uruk world, a 'momentum toward empire' (Algaze 1993: 114) to be studied as a 'prehistory of imperialism' (Algaze 2001a).

Algaze's argument is that in the Uruk period the Lower Mesopotamian core, including the Susiana plain of southwest Iran, hosted a group of contemporary states, engaging in cut-throat competition for control over the alluvium and over trade routes into the highlands of Anatolia and Iran (Algaze 1993: 115–16; 2001b: 209). Specific outposts or enclaves in the periphery were founded and controlled by individual states of the core, with the location in the core of each state affecting the direction, structure and extent of its outward control. On the basis of this assumed core structure, Algaze prefers to see a modified world system rather than an 'informal empire'. Others have pointed out that 'Our knowledge of a congeries of competing Mesopotamian city-states, however, is practically nil (though theoretically possible) for the late Uruk period' (Yoffee 1995: 287), and posit the alternative view that Uruk-Warka had become in essence the capital of a large territorial state by the later fourth millennium. The evidence for multiple states in the Lower Mesopotamian core comes principally in the form of surveyed settlements found by Adams (1981), with many Uruk-period sites reaching the order of 20–40 hectares (Algaze 2001b: 209). One explanation of the immense size of Uruk-Warka, compared to any other contemporary site, has been suggested by Algaze as the city's function as a religious capital of Sumer through the fourth millennium (Algaze 2001b: 210), partly based on Piotr Steinkeller's idea that the Jemdet Nasr-period city sealings may attest cultic offerings made to Inanna at Uruk-Warka (Steinkeller 2002).

There is no evidence, however, for use of the city seals prior to the Jemdet Nasr period. All the evidence for lists of city names dates to the Jemdet Nasr and later periods, that is immediately after the Uruk period. Furthermore, if Uruk-Warka is seen as the prime cultic city of Sumer at this time, why does its name feature in only fourth place, after Ur, Larsa and Nippur, in the list of city names as attested on evidence from Jemdet Nasr (tablets with seal impressions) and Uruk-Warka itself (a single clay sealing, and at least thirteen Uruk III-type tablets listing city names) (R. Matthews 1993: 39)? Perhaps Ur was the cultic centre of Lower Mesopotamia in the Uruk period, relatively modest though it was in size at that time. The appearance of city lists only *after* the collapse of the Uruk phenomenon around 3,000 BC (although of course earlier instances may one day be found), may suggest that it was the calamity of that great collapse, however it was caused, that encouraged the cities of

the alluvium to cooperate and collaborate in order to defend themselves and their interests in the face of a rapidly changing world. As the evidence stands so far, the appearance of lists of Lower Mesopotamian cities coincides with the fragmentation of the Uruk world into the utterly disparate cultural entities of the early third millennium – Jemdet Nasr/Early Dynastic I in the south, Ninevite 5 in the north, proto-Elamite in Iran – that came to replace the considerable cultural uniformity of the Uruk phenomenon. This critical chronological point likewise applies to the argument by Steinkeller (1993: 109–10) to the effect that the evidence from Uruk III tablets, of Jemdet Nasr date, demonstrates that during this period the Lower Mesopotamian core hosted a system of independent city-states with weak theocratic kings who could not have generated the power and expansion attested in the Uruk period. Again, Steinkeller's evidence here is from the subsequent Jemdet Nasr period, by which time there has clearly been a major breakdown in previously obtaining political circumstances across Mesopotamia and beyond. We need to be cautious in using Jemdet Nasr-period evidence to inform us about the preceding Uruk period.

Steinkeller argues against Algaze's Uruk expansion model on the grounds that

> it necessarily requires the existence, in prehistoric Babylonia, of a political system that possessed the organization, ideology, and economic and military resources sufficient to penetrate, colonize, and secure the control of the whole region affected by the Uruk phenomenon.
>
> (Steinkeller 1993: 109)

Strictly, Algaze does not push the argument that far, since colonisation is not detected by him in all areas of the Uruk expansion, being only one of several possible interaction strategies between core and peripheries. In any case, if the physical evidence in all its variety and richness so far recovered from Uruk-Warka in the Uruk period, reviewed above, does not indicate the existence of a extraordinarily well organised, complex, hierarchical, militaristic and outward-looking state, then it is not clear what further evidence is required to that end. A political entity that can organise 1,500 labourers working for ten hours a day over a five-year period, to repeat Nissen's labour figures for construction of the Anu Ziggurat/White Temple complex, as well as organising and controlling so much else at the same time, and overseeing the earliest uses of writing, can only be an entity of immense presence, power and capability.

An explanation of the primacy of complexity in Lower Mesopotamia during the fourth millennium is sought by Algaze, agreeing with Adams (1981), in 'social and "technological" innovations that were selected for and promoted by the unique geographic and environmental framework of the Tigris-Euphrates alluvial lowlands' (Algaze 2001b: 200). Stressing factors such as the variety and wealth of subsistence resources, high agricultural yields and effective water transport, as well as 'ideational technologies' relating to information processing, Algaze underlines 'the Mesopotamian advantage' in the early development of social complexity (Algaze 2001b: 200). This approach, perhaps to be called environmental opportunism rather than environmental determinism, is in general agreement with Nissen's view of the critical significance of the fertility of the Lower Mesopotamian plains and the need for irrigation as factors in the initial rise of complexity (Nissen 1988: 60–1). On the basis of these factors, Uruk communities of the southern plains could produce far greater quantities of foodstuffs per unit of labour and land than contemporary communities in peripheral regions. In this light, Philip Kohl's view that mid-third-millennium interactions between Lower Mesopotamia and its highland peripheries were characterised by a desire of the urban centres of the south to export, or 'dump', surplus staple commodities (Kohl 1975: 48), may have some bearing on the fourth-millennium dynamic between core and periphery. Kohl sees the core position in the mid-third millennium thus: 'Mesopotamian society was organized for the surplus production of certain staple commodities. Its own internal social structure was dependent upon the existence of foreign or external markets' (Kohl 1975: 48). Interactions between the core and highland peripheries of Anatolia and Iran would then stimulate a range of local developments within those communities, altering their social, economic and political structures in varying ways as opportunities for advancement arose on all sides.

Algaze's approach to the issue of Uruk expansion in the fourth millennium employs as its conceptual framework an adapted version of Wallerstein's world systems theory (Algaze 1993: 7), which stresses the asymmetric nature of core/periphery interactions in the development of complex states. Developed originally in an approach to European colonial expansion in the fifteenth and sixteenth centuries AD, Wallerstein's model is adapted by Algaze and applied to the context of interactions between the Uruk core of Lower Mesopotamia and a periphery comprising principally the plains and foothills of Upper Mesopotamia. Algaze defines three categories of Uruk settlement

within the peripheral zone, 'enclaves', 'stations' and 'outposts'. Enclaves comprise major settlements such as Habuba Kabira, Jebel Aruda and Tell Sheikh Hassan on the Syrian Euphrates and, arguably, Nineveh on the Tigris and Tell Brak in northeast Syria. At these sites rich assemblages of Lower Mesopotamian material culture are well attested in the form of architecture, pottery, cylinder seals and administrative technology, all according to Algaze's argument evidence of direct colonisation by settlers from the Uruk heartland of Lower Mesopotamia. What were they doing there? Algaze argues that the motivation for founding these gateway communities was a desire to exercise control over land and riverine trade routes along which commodities such as metals, semi-precious stones and slaves were brought into Lower Mesopotamia in asymmetric exchange for perishable goods from the south. Furthermore, the need for Uruk communities of the south to process both imported and exported goods into finished products itself acted as an engine towards increasing social and economic complexity, cooperation and interdependence (Algaze 2001b: 205). One feature of these dramatic processes was a new attitude towards human labour, now seen as an exploitable commodity that could serve the interests of high-status groups as well as any other rare commodity. In Algaze's chilling words: 'Early Near Eastern villagers domesticated plants and animals. Uruk urban institutions, in turn, domesticated humans' (Algaze 2001b: 212).

The dynamics of interaction between Uruk colonial traders and the local communities with whom they dealt have provided a topic for lively discussion within the overall Uruk phenomenon debate. Evidence from a range of sites, including Godin Tepe and Tepe Sialk in Iran, Arslantepe, Hassek Höyük, Tepecik and Kurban Höyük in southeast Anatolia, amongst many others, indicates that there was no single pattern of interaction. Furthermore, given that it is now clear that interactions of Uruk communities endured over very long time periods, up to 700 years, there is great scope for development in the modes of interaction between any of the political entities involved in the Uruk world (Wright 2001). Attempts at outright domination by means of settled colonisation may be manifest in the nature and location of enclaves such as Habuba Kabira, but elsewhere the picture is much more one of mutual co-existence with implanted Uruk communities living side-by-side with well established local communities (Schwartz 2001). One aspect held in common by all sites of the Uruk expansion is their apparently contemporaneous collapse. At some time before the spread of pictographic writing, but after the development of numerical

tablets with seal impressions, all the Uruk-related settlements of the periphery were abandoned and an extended period of regionalism set in across the world of Mesopotamia and beyond.

The issue of interaction between Uruk colonial traders and local peripheral communities has been a major focus in the work of Gil Stein, whose fieldwork at the site of Hacınebi Tepe on the Turkish Euphrates has provided the springboard for an alternative view to that propounded by Algaze. Evidence from Hacınebi Tepe has been most conveniently published in a special edition of the journal *Paléorient* (Stein 1999a) with discussion of the broader historical issues in a book (Stein 1999b). Stein has emphasised that the nature of interaction between Uruk Mesopotamians and local communities of Syria, Iran and southeast Anatolia might take several forms, including exchange, emulation and colonisation (Stein 1999a: 15), depending on the specifics of local conditions. At Hacınebi, Stein's excavations have shone unique light on how a small enclave of south Mesopotamians settled within one corner of a local Anatolian town in the middle of the fourth millennium BC, as attested by the presence of Uruk pottery, architectural elements and cylinder seals, all existing alongside, but spatially distinct from, material culture of the local Anatolian community. 'At Hacınebi we appear to have evidence for Mesopotamian colonization and exchange. This exchange appears to have taken place between two encapsulated communities that retained their distinctive social identities, with little or no emulation or transculturation' (Stein 1999a: 19). These distinctions in material culture were maintained, moreover, for up to 400 years of occupation at the site (Stein 2001: 301). Stein's inference is that the local Anatolian community was sufficiently complex and self-confident not to be tempted by acculturation with the small, but long-lived, group of south Mesopotamians whose presence amongst them was dictated by a desire to trade in metals, wood and other commodities of the upland regions (Stein 1999a: 20). According to Stein 'the Uruk enclave at Hacınebi was also economically autonomous in the sense that it produced its own crops, pastoral products and crafts' (Stein 1999a: 20).

It is not altogether easy to share Stein's view of long-lasting, tolerant and economically productive, yet at the same time arms-length and rigidly boundaried, relations between two communities in such close proximity over a time span of at least several generations. Stein's explanation is that 'the foreigners were able to survive and flourish only at the sufferance of the local rulers, most likely by forging strategic alliances with them through marriage or exchange relations' (Stein

1999a: 21), but it is hard to see how such interactions could have flourished without manifesting themselves in the form of some shared traits in material culture between the two communities. Inter-community marriage over a period of at least decades and perhaps centuries might be expected to lead to a blending of material culture distinctions between the two communities. In studying the trajectories and interactions of Lower Mesopotamian and Upper Mesopotamian traditions of glyptic styles through the fourth millennium, Holly Pittman has expressed a comparable sense of bafflement; 'Why then is there virtually no evidence at Hacınebi for the interaction of the two traditions?' (Pittman 2001: 442).

To consider another, later, Mesopotamian example, the existence of enclaves of traders from Aššur living as communities amongst local Anatolian societies in the Middle Bronze Age of the early second millennium BC is best attested by the wealth of textual documentation from Kültepe-Kaneš in central Anatolia, but here the picture is very different from Stein's Hacınebi scenario. While maintaining regular links with families and colleagues in their original homeland, at a distance of six weeks by donkey, the merchant traders from Aššur appear to have adopted almost all aspects of the local material culture, archaeologically distinguishing themselves largely by their habit of keeping written records in Assyrian Akkadian on cuneiform tablets that have survived till the present day (Veenhof 1995). The traders from Aššur clearly took local wives or mistresses, adopted local customs, learnt local languages and blended in as best they could, while at the same time concentrating on their original purpose of engaging in long-distance trade for the sake of their families and community back at Aššur. Many of them died and were buried at Kültepe-Kaneš before they could make the final trip home. Why should this picture be so different from the one conjured up by Stein for Hacınebi?

When Stein talks of a colony as being 'spatially and socially distinguishable from the communities of the host society', with 'artifactual similarities to the homeland' (Stein 1999b: 70–1), these statements have little or no application to the situation at Kültepe-Kaneš. This position is recognised by Stein and explained by him as a result of acculturation by local elites to the material culture of the colonising party (Stein 1999b: 73), but at Kültepe-Kaneš it is the colonisers who have acculturated to local material culture. The broader implication, however, is that such idiosyncrasies of historical process, to which all societies are subject, renders precarious any cross-cultural comparison. On the basis of a Kültepe-Kaneš analogy, for example, we could argue that Uruk

Mesopotamians were present at Hacınebi in the so-called pre-contact phase, but that their material culture identity was not distinguishable from that of the local host. They may have adopted local modes of daily life, local material culture and local means of conducting economic and social relations, and thus have blended in completely with their local hosts. It is for these reasons that Steinkeller's analogy between the Uruk expansion and Old Assyrian trade, suggesting that both were essentially commercial ventures, fails to convince (Steinkeller 1993: 114). The archaeological evidence from these two phenomena is totally different in kind and degree.

One element that needs careful consideration is that of cult or religious devotion. Algaze has hinted that the Uruk phenomenon, although approached largely in economic terms today due to our contemporary biases and interests, might additionally be approached in terms of political and religious ideologies (Algaze 1993: 122; 2001a: 50), and Mitchell Rothman has considered the likelihood 'that religion played roles of sanctification of rule, social integration, and cultural identity in fourth millennium B.C. Mesopotamia' (Rothman 2001b: 360). There might then be scope for an approach rooted in the study of 'the materialization of ideology', to use Earle's phrase (1997: 192), that takes into consideration aspects of surviving material culture, such as architecture, pottery assemblages and cylinder seal scenes, as potential elements within a framework of ideology distinctive to Uruk Mesopotamians (Collins 2000), which were retained and cherished within the physical context of settlement colonialism and other modes of regional interaction. Terence D'Altroy has underlined the possible role of religion, ceremony and corporate architecture within the processes of state formation in Mesopotamia in general, and the Uruk phenomenon in particular. His intriguing suggestion of 'collaborative or competitive sponsorship' by or for religious organisations adds a novel dimension to the possible dynamics of the Uruk phenomenon (D'Altroy 2001a: 467; see also Conrad and Demarest 1984). Clarisse Herrenschmidt has further stressed the significance of social hierarchy and religion as contexts for the early development of writing in Mesopotamia and Elam, particularly in terms of the indebtedness of humans to the gods for maintaining social order (Herrenschmidt 2000: 79–80). In addition, we need to consider the possible roles of newly evolved high-status elite groups in processes of legitimation through ideology, religious and otherwise (Lamberg-Karlovsky 1996: 94).

Stein has at length attempted to repudiate the world systems theory approach to the Uruk phenomenon espoused by Algaze, arguing that

the nature of the relationship between the Lower Mesopotamia core and the Upper Mesopotamian periphery, epitomised by Hacınebi, does not fit the requirements of the world systems approach (Stein 1999b). Stein's conviction is that communities of the periphery were engaged in relations with the core that can be characterised as symmetric rather than asymmetric, a conviction based on such evidence as that for sophisticated craft production in peripheral regions, and for a high level of societal complexity in the periphery prior to any contact with the Lower Mesopotamian core. Using models of distance-parity and trade-diasporas, Stein refocuses the debate on the specifics of regional interaction, suggesting that at Hacınebi and other settlements such as Godin Tepe in west Iran, Uruk colonists from the south were too distant from their homeland and too few in number to be in a position of dominance with regard to their host community.

While appreciating Stein's arguments for a degree of social sophistication in peripheral communities of the Uruk world, it is hard to disagree with Algaze that the sheer scale of complexity attested at the site of Uruk-Warka utterly outweighs all the evidence so far put forward for social complexity in the periphery (Algaze 2001a: 66; 2001b: 227). Furthermore, Stein's tight focus on the evidence from Hacınebi has arguably swung interpretation too far in the direction of the dynamics of interaction at the micro scale, as attested in a wealth of data from that site (although often from contexts of dubious or secondary security). Of course, if we look at how a community of colonists interacts with their hosts at a settlement hundreds of kilometres from their homeland, we may be able to detect or postulate social relations at that site founded in mutual respect and symmetry. But if we step back and look at the global picture, we soon appreciate the strong asymmetry of a social relationship whereby one partner, the core, sends out and maintains over periods of time communities of colonists with specific missions of at least an economic nature to settlements of another partner, in the periphery. By its very nature it is a relationship of asymmetry, unless we can argue that there were colonists from Upper Mesopotamia settled in Uruk communities of the south, for which there is no evidence at all. Taken together, the evidence from both Hacınebi and Uruk-Warka, as epitomies of periphery and core respectively, necessitates an interpretation rooted in asymmetry and domination, however transmuted by distance and time.

One aspect of the Uruk expansion is the degree to which we can detect prehistoric precursors to this phenomenon. During the Ubaid period, examined above, there is plentiful evidence for extensive inter-

actions, admittedly often of an obscure nature, between Lower and Upper Mesopotamia, and beyond, manifest at the least in common pottery technology and styles, and both Algaze and Stein make frequent reference to these precursors. Hans Nissen has recently suggested that the Uruk phenomenon was 'nothing but more or less successful attempts to reconstitute older, fifth millennium Ubaid exchange networks that had been disrupted' (Nissen 2001: 167). The adoption of centralised modes of social organisation at the important site of Arslantepe on the Turkish Euphrates, for example, appears to have its roots well back into the early fourth millennium, when there is evidence for massive public structures employing sophisticated administrative technologies that prefigure those of the so-called Uruk expansion of the mid-later fourth millennium (Frangipane 2001). Prior to the Ubaid period, moreover, we can witness broad regional patterns of interaction and development as characterised by the occurrence of Halaf pottery and other items of material culture across a total area of approximately 1,200 by 900km, some two millennia before the Uruk expansion (R. Matthews 2000a: 85). There is a candidate for an early version of the Uruk colonies on the Euphrates, the site of Baghouz on the Syrian Euphrates, which dates to the sixth-millennium Samarra period. Baghouz may have been founded as a trade colony as a means of controlling movement and processing of Anatolian obsidian on behalf of central Mesopotamian Samarra communities, as suggested by finds of obsidian cores and typical Samarra pottery at the site (R. Matthews 2000a: 76–7). Similarly, Algaze's claim for Uruk colonisation of the Susiana plain in the fourth millennium (Algaze 1993: 13–17) is enriched by reference to intensive interactions between Lower Mesopotamia and Susiana in the preceding Ubaid period. Putting the Uruk phenomenon into long time perspective thus helps us to appreciate that the mechanisms for interaction across substantial distances had already been in place for millennia.

It is worth considering for a moment one fundamental plank in the platform of interpretation constructed by both Algaze and Stein in their approaches to the Uruk phenomenon, that of historical analogy. To some extent all archaeological interpretation works by analogy. As Patty Jo Watson says, 'It is simply not possible to dispense with analogies in interpreting the past' (Watson 1980: 57). We cannot directly witness the past and therefore our approach to it will always be by a process of analogy with some familiar thing or process. As archaeologists we are constantly striving to encapsulate the unfamiliar, to 'cage the minute within its nets of gold', in Louis MacNiece's phrase,

through the application of analogies, directly or otherwise. But how do we decide when an analogy is good and when bad? The aim of analogy, strongly deployed by Algaze and Stein, is to attempt to understand an aspect of an unknown society by looking for similarities in the effects of a process within a known society. If activity A within society 1 is known to produce result x, then detectable traces of result x in society 2 may also be the result of activity A. The trouble is that such an approach may take inadequate consideration of the importance of context in determining causal and sequential relationships between activities, results, and archaeological traces or correlates of results. As Ian Hodder says:

> we cannot be sure that the societies being grouped together are really comparable. All that is really happening, in this and in all types of ethnographic parallel, is that information is being transferred from society to society on the basis of similarities and differences.
>
> (Hodder 1999: 46)

Moreover, we *can* be sure that the archaeological histories of any two past societies, that is the specific trajectories through which their historical existences have become manifest in the archaeological record today, not to mention the trajectories of their discovery and recovery from that record, are always going to be idiosyncratic and quirky, thus making any explanation flow from present to past and back to present subjective and contestable. It is sometimes claimed that by employing so-called 'direct historical analogies', drawn from ethnoarchaeological observations of peoples living today much as they are assumed to have done in the past, the power of any particular analogy can be strengthened (Watson 1980: 57), but there is still a major element of uncertainty in any such assumption. In an extensive consideration of the subject, Alison Wylie has supported the use of analogy in archaeology, given the ability to control and discriminate the circumstances of its use and the opportunities for testing the validity of an analogy on a case-by-case basis (Wylie 1985).

In Algaze's 1993 book, the historical analogies come from such widely disparate contexts as the Seleucid and Parthian empires, Southeast Asia in the first millennium AD, and European colonialism in Africa in the sixteenth and seventeenth centuries AD, to name only a few (Algaze 1993). Stein's book ranges equally broadly in comparative scope, adopting and applying world-wide analogies from near and far in

time and space (Stein 1999b). Agreeing with Algaze that 'it would be foolhardy to extrapolate indiscriminately into the past modes of social relationships and organization that only emerged as a result of specific, nonreplicable historical circumstances' (Algaze 1993: 127), it is fair to comment that both Algaze's and Stein's books lack a full address of the methodological issue of how historical models may be tested or evaluated against given sets of data. Stein's book includes a chapter, entitled 'Testing the models', that approaches this issue within the context of the Uruk phenomenon, containing as it does a discussion of suggested archaeological correlates of both the world systems approach of Algaze and the distance-parity/trade-diaspora approach preferred by Stein (Stein 1999b: 65–81; see also Flannery 1998).

Nicholas Postgate has briefly considered the Uruk phenomenon in the light of textually attested developments in the subsequent centuries of the third and second millennia of Mesopotamia. Making the point that political and cultural regional spheres need not totally overlap, and indeed may drastically diverge, Postgate stresses the unique significance of the Uruk phenomenon, as 'a diffusion of southern Mesopotamian artifacts or production far beyond any comparable diffusion in the later periods' (Postgate 1994a: 10). The implication is that the extent and intensity of the Uruk expansion, as materially attested in the archaeological record, are such that historical analogies, even from places and times historically contiguous to those of the Uruk, totally fail us. Steinkeller makes a similar point:

> Since the Uruk expansion, as we presently understand it, is a purely archaeological phenomenon, the task of correlating the pertinent material record with the testimony of written sources, and of trying to develop a single scenario for them both, is wrought with great uncertainty.
>
> (Steinkeller 1993: 110)

These admissions encourage us to comment that as archaeologists or anthropologists the task must be to approach the archaeological record above all on its own terms, and not to rely excessively on analogies and analytical procedures imported from other disciplines and areas such as history. The Uruk phenomenon as known to us today is an archaeological entity, and our approach to it must be principally as archaeologists. And if we elect to be archaeologists who are happy not to find or develop 'single scenario' solutions to major issues of the past, but rather to explore multiple, sometimes conflicting, interpretations, in

the knowledge that such is the way that new perspectives and methods can be assessed and improved, to bring us back to Henry Wright's statement made at the start of this chapter, then the returns are likely to be the greater.