Households and the Emergence of Cities in Ancient Mesopotamia

Jason Ur

The world's first cities emerged on the plains of Mesopotamia (modern Iraq and Syria) in the fourth millennium BC. *Attempts to understand this settlement process have assumed revolutionary social change, the disappearance of kinship as a structuring principle, and the appearance of a rational bureaucracy. Most assume cities and state-level social organization were deliberate functional adaptations to meet the goals of elite members of society, or society as a whole. This study proposes an alternative model. By reviewing indigenous terminology from later historical periods, it proposes that urbanism evolved in the context of a metaphorical extension of the household that represented a creative transformation of a familiar structure. The first cities were unintended consequences of this transformation, which may seem 'revolutionary' to archaeologists but did not to their inhabitants. This alternative model calls into question the applicability of terms like 'urbanism' and 'the state' for early Mesopotamian society.*

At some point during the fourth millennium BC, farmers and herders in Mesopotamia (modern Iraq, northeastern Syria, and southeastern Turkey: Fig. 1) began to concentrate in large, densely occupied settlements, the best known of which is Uruk (modern Warka). For millennia previously, since the start of sedentary life in the Near East, settlements had, with a few exceptions, rarely exceeded a few hectares in size (e.g. Adams 1972, 741–2); now places like Uruk and Tell Brak exceeded one hundred hectares of settled area (Finkbeiner 1991; Ur *et al*. 2007). Contemporary with this demographic expansion, monumental architecture, specialist-produced status-marking goods, record-keeping devices and mass-produced pottery appeared, which have been interpreted as signifying a new complex and centralized form of sociopolitical organization, i.e. the state. On these empirical bases, archaeologists have interpreted the record of the Uruk period as the beginnings of urbanism as a settlement form, and the state as a political structure.

Although interest in the demographic aspects of urbanism and the state has waned in favour of functional approaches (Feinman 1998), this study considers the basic question of why inhabitants remained in growing settlements, or chose to move into them. For the great majority, whose lives revolved around agriculture and animal husbandry, urban living had substantial disadvantages. Nucleation necessitated a greater commute to and from field and pasture, so for these urban residents, the earlier arrangement of small and dispersed villages was a more efficient spatial pattern. Ethnohistoric studies of traditional villages show that intra-settlement conflicts are common and are resolved by fission, in the absence of other social mechanisms (Bandy 2004). The demographic threshold for such division is remarkably consistent cross-culturally (Bintliff 1999, 528). Any model of urban origins must explain why individuals embraced or tolerated this non-ideal spatial patterning, what mechanisms overcame the tendency to fission, and why they accepted hierarchy and inequality.

The origins of social complexity in Mesopotamia have remained a topic of lively debate amongst archaeologists (e.g. Algaze 2008; Forest 2005; Pollock 1999), despite two decades of suspended fieldwork by foreign researchers. Given the importance of events in fourth-millennium Mesopotamia (labelled as the Uruk period in southern Mesopotamia and the Late Chalcolithic period in the north: Table 1) for the subsequent development of social complexity throughout the Near East, and indeed for the comparative study of social evolution globally, such an active field of study

Cambridge Archaeological Journal 24:2, 249–68 © 2014 McDonald Institute for Archaeological Research
doi:10.1017/S095977431400047X Received 8 Jun 2013; Revised 8 Mar 2014; Accepted 4 Apr 2014

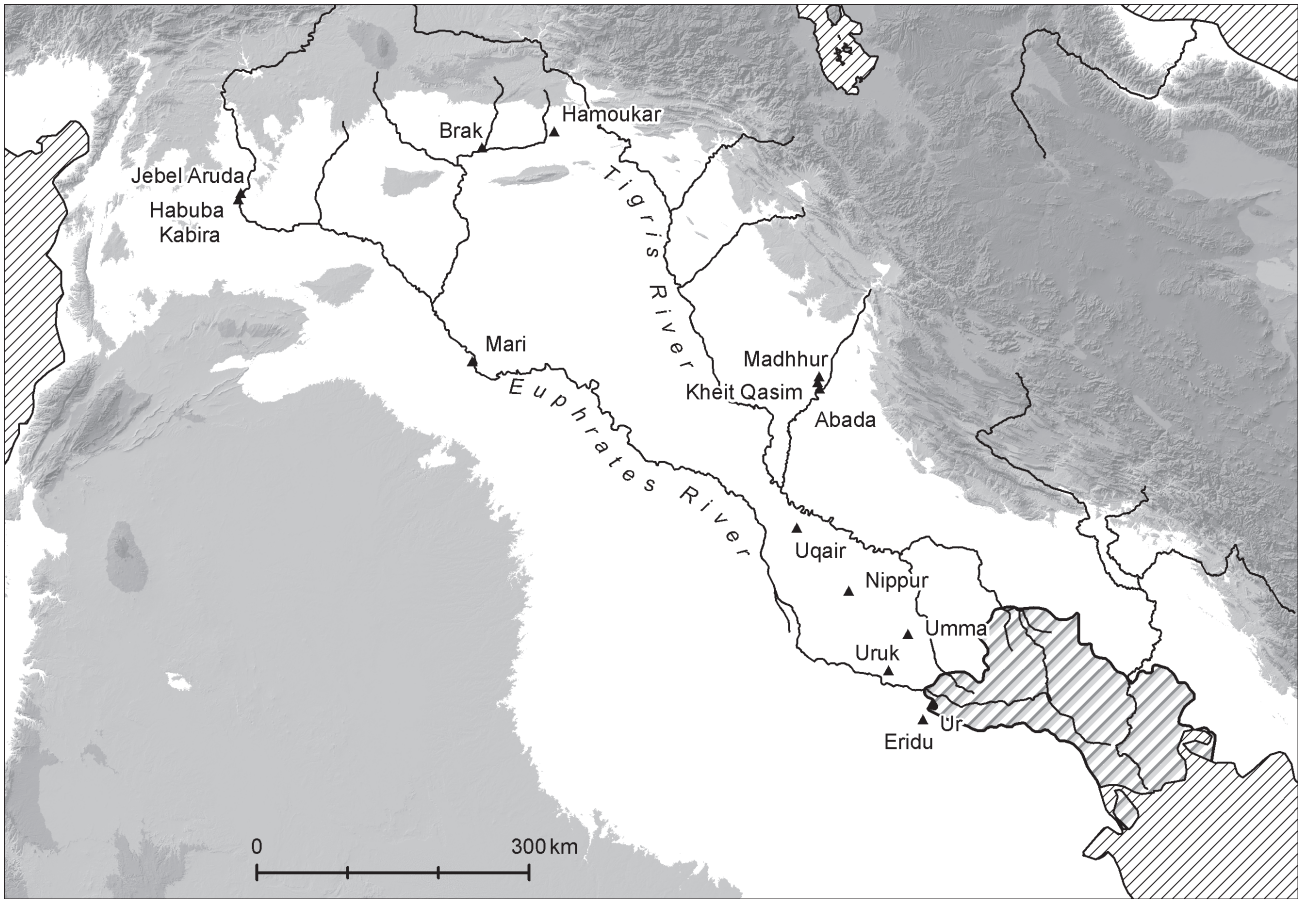

Figure 1. *Mesopotamia, with locations of sites mentioned in the text.*

is a good sign. However, the inability to test these models in the field against new data, combined with an inadequate data set, has meant that these models compensate for their empirical shortcomings via reliance on a set of assumptions from neo-evolutionary theory which have achieved the status of 'factoids' through unchallenged repetition in the archaeological literature (Yoffee 2005, 7–8). Commonly recurring factoids for fourth-millennium Mesopotamia include an unproblematic radical social change from predominant kinship organization to a class-based structure; an urban state that was qualitatively different from what preceded it; and the emergence of a rational bureaucracy as an adaptive solution to social and economic problems.

These models reconstruct fourth-millennium Mesopotamian society in ways remarkably similar to our own, especially in terms of class, administration and economic motivations. Later historical phases of Mesopotamian society, themselves reconstructed in our modern (Western) image, are uncritically projected backwards into the fourth millennium, resulting in a certain timelessness to ancient Mesopotamia that is strangely familiar, and therefore understandable (Bernbeck & Pollock 2002, 182).

The present study offers an alternative model of Mesopotamian urban origins. It advocates an approach that does not restrict meaningful social action to a few elite individuals. By examining the rich historical record of later Mesopotamian society, it is possible to identify an underlying structure that endured for millennia: the household as a structuring metaphor at different scales (Schloen 2001). Households and their place in urban structure have become a research topic of interest in Mesopotamia (e.g. Keith 2003; Stone 1987; 2013), but with a few exceptions these studies have considered households in later cities rather than their roles in urban origins. The proposed model assigns to actors motivations based on emic understandings of how institutions and relations between individuals were to be organized; it replaces functionalist models of ancient rational bureaucracy with an indigenously rational model based on the metaphoric extension of the household. Rather than bureaucratic offices that existed independently from the individuals who occupied them, it assumes a

Table 1. *Mesopotamian archaeological and historical chronologies, 5000–1000 BC.*

Cal. years BC	Archaeological periodization: North	Archaeological periodization: South	Historical periodization
5000			
	Ubaid		
4500			(Prehistoric)
4000			
	Uruk	Late Chalcolithic	
3500			
3000	Jemdet Nasr		
			Early Dynastic
2500	Early Bronze Age		
			Akkadian
			3rd Dynasty of Ur
2000			Isin-Larsa
	Middle Bronze Age		
			Old Babylonian
1500			
	Late Bronze Age		Kassite
1000			

network of relationships between individuals that required constant maintenance. It was therefore highly unstable, dynamic and nonlinear (van der Leeuw & McGlade 1997).

This study assumes that broad social change is more likely to stem from a creative transformation of an existing structuring principle, in this case the household, than from the revolutionary replacement of an existing structure with a completely new one (Beck *et al*. 2007; Sewell 2005), for example class replacing kinship. Far from the adaptive outcome of problem-solving deliberations, the enormous urban agglomerations at Uruk and Tell Brak were the unintended outcome of a relatively simple transformation of a social structure. It is only 'revolutionary' (e.g. Childe 1950) to outside observers of the *longue durée*; to the actors themselves, this transformation fit neatly within existing understandings of the social order.

To support this model, this study first considers briefly structure and agency in archaeology, and then how specifically these concepts have been incorporated into models of early Mesopotamian urban society. The first appearance of cities in the fourth millennium BC occurred in prehistory, so it is necessary to review sociopolitical organization in the late third millennium BC, a time for which written records are plentiful. This discussion will provide an endpoint for the historical sequence of change which included the structural changes of the fourth millennium BC. The model will be considered against the archaeological record with an architectural case study. Finally, I consider the implications of this new model for the nature of social change, and whether it is appropriate to characterize early Mesopotamia as an urban state.

Agency and structure in archaeological approaches to early complex society

It is non-controversial to understand societies as composed of individuals who act to realize their own goals, according to their own understandings of their place in the world and their own culturally constructed logics. Nonetheless, it is necessary to be explicit, in reaction to ecosystemic models in which etically-defined elements of society were conceptualized as reified entities that possessed motivations and agency. In Mesopotamian scholarship, such reified entities have included the temple, the state, cities, various ill-defined subgroupings (e.g. the 'public sector') or the entire society itself. Under such conditions, change must be either exogenous (for example, climate change, warfare or external trade) or non-social (population pressure). Individual agency, when it is incorporated at all, has almost always been restricted to kings powerful enough to bend society to their political wills, a situation that has resulted from the importance accorded to royal inscriptions and the uncritical way in which they are sometimes synthesized.

Dissatisfaction with ecosystemic models (Brumfiel 1992; Yoffee 2005) has led to attempts to locate agency in smaller social units whose interactions were often characterized by competition and conflict (Brumfiel & Fox 1994). In an attempt to free individuals from acting out social norms mindlessly, archaeologists have adopted and modified aspects of the social theories of Bourdieu and Giddens, in which social structures and human agency exist in a recursive relationship (Bourdieu 1990; Giddens 1984; see reviews in Dornan 2002, 305–8; Parker 2000; Sewell 2005). Structure does not exist independently from human actors but is continually created by their

actions; in most situations people act subconsciously according to these structures but often are aware of them and can creatively manipulate them for social purposes. Within this dynamic recursivity lies the possibility of endogenous social change. Humans can deliberately alter their structures but are not wholly free to do so; most often changes involve the creative reinterpretation of existing structures reapplied to new situations. History and prior conditions are therefore particularly relevant (Sewell 2005).

Structuration and practice are hardly new concepts in anthropology (Ortner 1984), and agency approaches are now common in archaeology (Dobres & Robb 2000; 2005; Dornan 2002; Johnson 1989; Roscoe 1993). Indeed, such an approach might be better called a 'worldview' (Cowgill 2000, 51). The basic tenets of an agency approach are widely accepted: people are not unthinking automatons who merely react to external stimuli but rather are fully involved in the reproduction of the social structures within which they exist. Individuals are aware of these structures and can creatively manipulate them, although they are constrained and only exceptionally can recreate new structures out of whole cloth. Increasingly archaeologists are employing such an approach to address neighbourhoods and planning in ancient cities (M.L. Smith 2003; M.E. Smith 2007; 2010).

An agent-based social model requires some assumptions about the motivations of prehistoric individuals. In the past, as in the present, all individuals have agendas that they strive to advance (Roscoe 1993, 114). Sometimes these motivations are assumed to be highly militaristic (e.g. Flannery 1999), but more often they focused on social advancement and the accumulation of prestige (Clark & Blake 1994; Hayden 1995). Clark and Blake's model postulates the near universality of 'aggrandizers', individuals who engage in the 'self-interested pursuit of prestige, or competition for followers, using a strategy of competitive generosity' (Clark & Blake 1994, 21). Such individuals go about attaining this goal not by coercing others but by convincing them that following them is in their best interests. Accumulation of wealth and material is not the primary goal, but control over resources is an important part of aggrandizement, as they can be redistributed to potential followers. The social indebtedness that comes with the inability to reciprocate (Mauss 1990) is the basis for assembling followers.

Social structures are therefore inseparable from actors, who continuously recreate structures through their actions. The point where structures are reproduced is where the possibility for endogenous and intentional social change arises, brought about by knowledgeable actors who creatively manipulate these structures in pursuing their goals. Even the most socially adept individuals are still largely constrained; radical change is far more likely to take the form of the transposition of an existing structure into a new context in which it takes on new meanings, rather than a wholesale replacement of one structure by an entirely different one (Sewell 2005, 141). For this reason, prior conditions and local historical trajectories are important variables (Johnson 1989, 207), and we must be critical of processual models of social change that purport to be universally applicable.

This structuration-based agency approach has significant consequences for the predictability of social change. Societies are (and were) highly dynamic. Not every action will result in new structures, but every action has the potential to do so. Change can be a bottom-up or emergent phenomenon. While an individual may act for a specific short-term purpose, the long-term consequences of those actions cannot always be foreseen by the individual (Bell 1992; Dornan 2002, 319–21; Giddens 1984, 8–12, 293–7). For this reason, agency-based models can attempt to explain change but not to predict it.

As a reaction against neo-evolutionary approaches, agency-based models recognize the importance of indigenous social formations, the variability of which is lost when all are categorized into evolutionary typologies. For example, anthropologists have had particular success in taking native terminology at face value with regard to societies that use indigenous definitions of 'the house' as a template for the structure of society (Beck 2007; Carsten & Hugh-Jones 1995; Joyce & Gillespie 2000; Lévi-Strauss 1982). 'House societies' often have both kinship and territorial components and cannot be accommodated within evolutionary typologies. Some aspects of a house societies approach may be applicable to Mesopotamia. David Schloen's (2001) survey of native social organization across the ancient Near East suggests that social action revolved around the maintenance and extension of the household. After reviewing several current models for Uruk society, with particular attention to how they incorporate the motivated actions of individuals, I will discuss Schloen's 'Patrimonial Household Model' and how it demonstrates a pervasive indigenous motivation to aggrandize the household.

Models for early urban society in Mesopotamia

The outlines of Mesopotamian prehistory, which stem from a century of excavation and field survey, remain vague. The earliest phases of human occupation of the plains of Mesopotamia, the Ubaid period

(*c.* 5500–4000 BC) and earlier, were characterized by small and homogeneous villages, rarely larger than one or two hectares. In northern Mesopotamia, a low-density agglomeration around Tell Brak coalesced into a 130-hectare metropolis by the middle of the fourth millennium (Oates *et al*. 2007; Ur *et al*. 2007). By the end of the millennium, a great expansion had occurred in the number and scale of settlements on the southern Mesopotamian plain (Adams 1981). Most strikingly, by 3100 BC the city of Uruk itself covered 250 hectares (Finkbeiner 1991). The ceramics used to identify Uruk sites are undecorated and mostly wheel-made, but also include coarse mould-made 'bevelled rim bowls'. Both stand in contrast to the painted and hand-made ceramics of the Ubaid period, and signal the appearance of new forms of specialization in craft production.

Most of what is known about the internal organization of Uruk period settlements in southern Mesopotamia comes from the site of Uruk itself, which has been excavated by German archaeologists since 1912 (for a critical review see Nissen 2002). Excavators uncovered several hectares of monumental structures in the core of the city, constructed and decorated on a scale previously unthinkable (Eichmann 2007). In debris dumped into the remains of these structures were over 5400 clay tablets, inscribed with a pictographic precursor of the later cuneiform writing system (Englund 1998). Also recovered in this disturbed context were many thousands of clay sealings impressed by cylinder seals and also new forms of artistic expression. Despite the great importance of this time for the evolution of urban society, exposures of the Uruk period elsewhere on the plain have been remarkably few and almost all limited to isolated monumental structures (e.g. Lloyd & Safar 1943; Safar *et al*. 1981).

Despite the unevenness of the archaeological data for this critical time and place in world history, archaeologists have constructed a range of theories regarding the origins and operation of Uruk society. Many existing theories are explicitly focused on the origins and operation of the state (following Wright 1977), but all consider the appearance of cities and can therefore be discussed together.

The new features of Uruk society are often viewed as successful adaptations to environmental or demographic conditions. For example, Hans Nissen attributes the rise of the Uruk state and its successors (his 'Early High Civilization') to a combination of rapid immigration into the Uruk area, at the same time that former marshlands were replaced by lands suitable for agriculture. Urban society was the solution to the 'problems' of high population density and high agricultural productivity (Nissen 1988, 66–9).

The managerial benefits of the state and its manifestation in urban settlement hierarchies feature in several models, the most prominent of which define the state as a society with specialized administrative bodies that controlled the flow of information (Johnson 1973; Wright 1977; Wright & Johnson 1975). In this view, cities were the outcome of information processing hierarchies; hence the state preceded urbanism. In Wright and Johnson's southwestern Iranian case study, multi-tiered settlement hierarchies signified the development of administrative hierarchies. State information-processing institutions are depicted as efficient and centralizing, overseeing the production and distribution of luxury and staple products alike. The extent of labour administration is said to be revealed by the wide distribution of bevelled rim bowls, by which central institutions distributed cereal products to dependent workers (Goulder 2010; Johnson 1973; Nissen 1970, 136–8; Pollock 2003).

A related vision of Uruk society sees the city as a result of a tributary economy (Bernbeck & Pollock 2002; Pollock 1999; 2003). Most households were able to produce most or all of their own needs. However, expanding urban institutions, especially large temple households controlled by non-producer elites, placed demands for surplus on their dependents. Large temple structures show little evidence for productive activities, which suggests that they were provisioned, probably by producers elsewhere in cities and also in rural satellite settlements, and that their controlling elites were freed from the need to perform any productive activities of their own. According to Pollock (1999, 80), increasing tribute demands encouraged urban growth, as these rural producers migrated into cities to escape from debt.

Other models emphasize economic growth. In Algaze's models (2001; 2008), the engine for urban growth was trade, at first internal but later external, in a developmental sequence covering a millennium. The richness and diversity of the southern plain would have encouraged specialized production of goods for which that region was advantaged, and ultimately a chain of competition spawned large cities with their economies of scale. High agricultural productivity and low-friction waterborne transportation in southern Mesopotamia would have enabled such growth (Algaze 2001). This model assumes that social responses, in the form of economic adaptations, ultimately drove the 'Sumerian Takeoff' (Algaze 2008). Other approaches have stressed new social aspects, especially increasing stratification. Particularly important for these models is the relationship between man and the gods. For example, a new class of elites may have monopolized this critical interface, and derived

much of their authority from this privileged role (Forest 1996). Simultaneously the importance of kinship declined, which in turn allowed for new extra-familial interactions, including economic ones (Forest 1996, 157–8). Ultimately, this model argues, these social changes were forced by increased population density (Forest 2005, 201–4).

Rather than the sheer weight of population numbers, another influential model proposes that increasing social stratification led to the state, which then resulted in cities (Adams 1972, 735). Increased stratification occurred alongside a shift away from kinship to a society based on class and residence as new 'disembedded' and functionally specific institutions emerged (Adams 1966, 79–84). Kinship was, however, almost certainly hiding behind the terse language of the administrative tablets and probably continued in rural hinterlands (Adams 1966, 85–6, 250). Ultimately urbanism did prove adaptive, especially as a way of minimizing the risks of water unpredictability, but only after these supra-kinship structures had developed (Adams 1981, 243–4). In Adams' view, the primary beneficiaries of urbanism were a limited number of elite households, rather than society as a whole (1981, 111–12).

While diverse in their emphases, several commonalities run through these models of Uruk urban society and origins. Most predominantly, they are functional: urbanism (and the state) was adaptive or solved a social or environmental problem. Whether the entire society (Algaze 2008; Wright & Johnson 1975) or only a subset (Adams 1966; 1981; Pollock 1999) benefited varies among the models. Forest's model even envisions stratification as a society-wide adaptation to the problem of population growth (2005, 204). Many assume an optimizing economic rationality, explicitly in Algaze's application of Wallerstein (Algaze 2005) and Paul Krugman and Jane Jacobs (Algaze 2008). These models assume a radical transition to a bureaucratic organizational structure, in the Weberian sense of the term (Weber 1978). Most adopt an ecosystemic approach, wherein relationships are defined between bounded groupings, variously conceived as social classes, the town, the city-state or society as a whole. These units are presumed to have held unified motivations, most often economic, and to have acted in unison. Internal conflict is only rarely included, and when it is, it occurs between reified 'elites' and 'non-elites' (i.e. along hypothesized class boundaries). When individual agency is considered, the only motivated actors are powerful elites at the top of the social hierarchy. The assumption exists, however, that 'cities' competed with each other toward shared economic and political goals, frequently without discussion of what new social mechanisms would have allowed such consensus of purpose despite new forms of stratification.

Finally, these models tend to disregard emic social understandings and the enduring significance of pre-Uruk structural conditions. More recent approaches attempt to make later developments contingent on earlier political (Wright 2006) or economic (Algaze 2008) events, but these processes are generalized, rather than specifically tied to local history.

This critique might seem inappropriate for an essentially protohistoric time period, but many of these models have their basis in reconstructions of Mesopotamian society of the mid to late third millennium BC, a time from which abundant textual sources on sociopolitical structures are available. As will be argued below, the native terminology found in these later texts, which stresses the importance of household and kinship, is almost always disregarded as ideological superstructure masking the real underlying conditions, which are assumed to be class-based and bureaucratic.

Indigenous understandings of Mesopotamian sociopolitical organization

To hypothesize an emic understanding of sociopolitical organization for the Uruk period, it is necessary first to consider the situation of early historic Mesopotamia of the later third millennium BC. Written documents appear by 3100 BC in Mesopotamia, making it, alongside Egypt, the world's earliest literate civilization. Our understanding of these earliest records is rudimentary but steadily improving. By the second half of the third millennium, written genres had expanded to include letters, legal texts, proverbs and literary texts.

Despite this rich written tradition, the emic understanding of sociopolitical organization is often downplayed, especially in neo-evolutionary interpretations. Terminology of the two most common languages, Sumerian and Akkadian, is often translated with words that have strong connotations in Western political and economic systems, based on the assumption that more literal translations would be only reproducing metaphorical or ideologically charged propaganda that obscured, deliberately or otherwise, the true nature of Mesopotamian society. As a result, Mesopotamian scholarship often adopts anachronistic assumptions about kinship, class, rationality and bureaucracy in the late third millennium BC, which are then projected backwards into late prehistory as the initial condition of Mesopotamian urban states.

This study will also investigate urban origins through the lens of its third-millennium descendant. An oft-repeated bit of excavation trench wisdom states that one should work from the known to the unknown, and direct historical analogies are, all other things being equal, more reliable than those separated by greater space and time. For this reason the late third millennium must be briefly reassessed, based on recent syntheses of indigenous terminology for social and political structures. In particular, I shall consider a particularly durable structure found throughout the ancient Near East: the patrimonial household (Schloen 2001).

The state, kinship, and the patrimonial household in third-millennium Mesopotamia

The third millennium BC in southern Mesopotamia was the classic period of city-states (Van de Mieroop 2007). The plain was overwhelmingly nucleated, with up to 78 per cent of inhabitants living in urban settlements of 40 hectares or more (Adams 1981, 137–9). Incredible social stratification had developed, best illustrated by the wealth of the royal tombs at Ur. The constellation of city-states was a resilient pattern but was periodically unified, first under the kings of Agade (the Akkadian period) and again under the kings of the 3rd Dynasty of Ur (the Ur III period). Starting with the city-states of the Early Dynastic III, cuneiform writing in the Sumerian language was used, especially in the context of large institutions like palaces and temples. In the Ur III period, for example, an estimated 120,000 clay tablets have been recovered, mostly through illicit excavation from the early twentieth century AD (Molina 2008, 20). This abundance of textual material enables detailed reconstructions of chronology, history and society. When these reconstructions are used for reconstructions of the preceding Uruk period, they require a critical examination, especially with regard to how they regard indigenous terminology.

Before considering what such terminology can tell us about how the Mesopotamians understood sociopolitical structure, it is useful to consider what is absent. A wide array of concepts frequently found in archaeological literature cannot be found in contemporary cuneiform documentation. Most prominently missing is a term for 'the state' itself (Emberling 2003, 261). Specific rulers, on the other hand, were frequently mentioned, either by personal name or by title. A term for 'palace' existed, but in the original Sumerian it is literally the 'great house' (e_2-gal, borrowed into Akkadian as *ekallum*). An abstract entity with the properties assigned to the state by neo-evolutionary approaches simply did not exist in the ancient Mesopotamian written tradition. This absence is rather telling, since the large majority of texts are assumed to stem from what are commonly labelled as 'state' institutions, such as palaces and temples.

Despite the emphasis on administration and bureaucracy in early state models, the concept of an office, which exists independently of the person occupying it, is also not present in Sumerian or Akkadian. No general term for 'office' or 'officer' may exist, but administrative roles with various 'official' or religious (and often both) duties certainly did exist. The inappropriateness of the office and bureaucracy concepts are apparent under closer examination, when it can be seen that the individuals ('officials') who filled these roles attained their positions by virtue of kinship proximity to elites, and retained them through continual maintenance of those relationships (Garfinkle 2008; Michalowski 1987; Schloen 2001).

If bureaucracy was an unknown concept, what then was the structural basis for urban solidarity? The significance of kinship in Uruk and later Mesopotamian society is debated, but even those who recognize its continued importance into the third and second millennia BC agree that it was a hindrance to social complexity (e.g. Yoffee 2005). Often it is suggested that kinship remained important mostly in rural areas (Adams 1981, 250; Van de Mieroop 1997, 102–6).

To the contrary, kinship, in the metaphorical but meaningful form of the household, remained a durable organizing principle long after the first cities. This observation was first made by Max Weber, who recognized that polities in the Near East and Egypt were run as royal households, headed by a patrimonial ruler who treated it as his own personal property. These *oikoi* (singular *oikos*), as Weber called them, were not capitalistic in motivation; rather, they were entirely focused around the want satisfaction of the patrimonial ruler and were essentially self-sufficient (Weber 1978, 381). Weber's patrimonial state is the opposite of the rational bureaucracy assumed by many earlier models. 'In the patrimonial state the most fundamental obligation of the subjects is the material maintenance of the ruler, just as is the case in a patrimonial household; again the difference is only one of degree' (Weber 1978, 1014). In a patrimonial state, 'offices' are flexible and without fixed boundaries.

> Powers are defined by a concrete purpose and whose selection is based on personal trust, not on technical qualification … In contrast to bureaucracy, therefore, the position of the patrimonial official derives from his purely personal submission to the ruler, and his position vis-à-vis the subjects is merely the external aspect of this relation (Weber 1978, 1029–30).

Weber wrote at a time when knowledge of ancient Near Eastern languages was still rudimentary, but nonetheless his understanding has proven to be remarkably accurate. The standard study of social structure (Gelb 1979) shows the predominance of household organization at multiple scales. The Sumerian term e_2 could designate a building, ranging in size from a single room to a palace or a temple, but it could also designate a family or a household; with regard to the latter,

> the term 'household' extends in meaning to cover social groupings ranging from a small family household living under one roof to a large socio-economic unit, which may consist of owners and/or managers, labour force, domestic animals, residential buildings, shelter for the labour force, storage bins, animal pens, as well as fields, orchards, pastures, and forests (Gelb 1979, 3).

The Akkadian word for house, *bītum*, had exactly the same semantic range (Renger 2003). For Gelb, this Weberian *oikos* organization pertained only to large-scale 'public' households, most typically those of the palace and temples; alongside of them, and presumably subsumed within them, were 'familial households' which were much smaller and kinship-based. Nonetheless, this distinction is absent in the native terminology, which used e_2 or *bītum* for both (Gelb 1979, 4–5). Despite its firm grounding in the textual record, Gelb's *oikos* model has been largely overlooked by archaeologists, with a few notable exceptions (Maisels 1990; Pollock 1999).

In fact, the household was an almost universal structuring metaphor in the pre-Iron Age Near East. In a wide-ranging synthesis, David Schloen (2001) has examined the use of household and kinship terminology in ancient textual sources throughout the Bronze Age. Societies were structured as a series of interrelated and nested households that varied in scale from nuclear families to institutional households (many of them with a religious component, i.e. 'temples') to the entire polity, which was either the household of the king or of the main god of the its capital city. In Schloen's 'Patrimonial Household Model', these vertical and horizontal connections between households are not disembedded, as in a bureaucracy. Political organization depended entirely upon the maintenance of personal relations between the king (the 'father' or 'master' in both Sumerian and Akkadian) and the heads of sub-households ('sons' or 'servants'). As a result, here were real limits to centralized authority:

> The effective power of the ruler is diluted by his need to exercise authority through subordinates (and their subordinates), whose 'household' domains are smaller in scale but similar in structure to his own. As a result, all kinds of private economic activity and jockeying for political and social advantage can take place beyond the ruler's direct supervision. What looks at first glance like an all-encompassing royal household reveals itself, when viewed from another angle, to be a complex and decentralized hierarchy of households nested within one another and held together by dyadic 'vertical' ties between the many different masters and servants who are found at each level of the hierarchy (Schloen 2001, 65).

Such an arrangement was inherently dynamic. Through such 'jockeying', the subordinate households could remove themselves from an existing hierarchy and reassert themselves in a different order. The 'local rules' of patrimonialism were recognized at all levels and strongly emphasized at the uppermost level, but the need for continual renegotiation of the vertical ties meant that the social order was in a constant state of flux. It is better described as segmentary (Schloen 2001, 72). At each level, the household was structurally identical, whether it was a single residence, a large temple institution, or the entire kingdom. The king was master of his household in the form of the kingdom, and could distribute its resources, in exactly the same way that the patriarch was master of his house. In this sense, the public–private dichotomy is anachronistic. Types of social action are better conceptualized as actions in service of a greater household ('public') and for one's own immediate household ('private': see Garfinkle 2012; Schloen 2001, 266; Steinkeller 2004). While some see a rationalized bureaucratic organization hiding behind this household and kinship terminology, there is no other reality to which we have access; these terms are not 'false ideological masks for "real" economic and political interests, or, more positively, simply as lubricants of the social machinery' (Schloen 2001, 46, 265). These metaphors can be used to distort, but this would not be possible if they were not deeply meaningful to those who would be fooled.

Schloen's model has been criticized for disallowing alternative institutional models (see e.g. Stone & Kemp 2003). In particular, critics have noted the existence of assemblies that hint at consensual decision-making that does not fit well within Schloen's hierarchical model. Such a critique may prove to be valid, but at present very little is known about the composition and operation of assemblies. In the early second millennium, however, they appear to have had little decision-making authority, but rather were an arena for debate and negotiation (Seri 2005).

These criticisms aside, as will be argued below, it is remarkably useful for understanding the both the pinnacles of Bronze Age urban centralization and its fourth-millennium precursors.

Bureaucracy or patrimonialism in the Third Dynasty of Ur

The Third Dynasty of Ur (Ur III, *c.* 2100–2004 BC) is generally considered to represent the apex of the centralized bureaucratic state, and it is often used as a model for essentially prehistoric urban polities in the Uruk period a thousand years earlier (e.g. Algaze 2008; Liverani 2006). To the contrary, it is a particularly strong example of the large polity organized on the principle of the household. Unlike previous studies, it does not serve as a model for Uruk society, but rather as a demonstration that strongly centralized political power need not require the abandonment of kinship.

The many thousands of cuneiform texts reveal that the 'state' (better considered to be the extended royal household: Michalowski 1987; Steinkeller 2004) closely administered certain economic aspects of its estate, especially income from the formerly independent city-states which now comprised the provinces (Sharlach 2004). Its many administrative interests included its sheep and goat herds, the creation and maintenance of the irrigation infrastructure, and the distribution of a variety of goods to dependent specialist craftspersons and labourers (for an overview, see especially Sallaberger 1999).

With close examination, however, the Ur III polity fits well within a household-based model. Its well-documented involvement with animal management, for example, appears to have been almost entirely extractive. The day-to-day animal management was left to the herdsmen, whose interface with the royal administration was at the point when surplus animals were turned over to it; only these moments were recorded in the ledgers (Adams 2006). Likewise, the cutting and maintaining of irrigation canals was an important royal duty. Missing, however, is any indication that the royal household had any involvement in their actual operation, which was beyond its concern (Rost 2010). Although it is often assumed that the names on the 'ration list' administrative texts (Gelb 1965) are permanent 'employees' or full-time dependents of the state, they were grouped by kinship and spent most of the year working outside of it, presumably for their own households (Steinkeller 1987; 1996).

Evidence for rational bureaucracy is similarly fleeting. For example, inscriptions reveal the names of five generations of city governors (Sum. ensi) and chief administrators of the important temple household of the goddess Inanna (Sum. ugula e_2-^{d}Inanna) in the city of Nippur, an important religious centre. In both cases, these 'officials' were lineal descendants, and both lines originated with a single individual, who was the chief administrator of the Inanna temple household (Zettler 1984). Thus the administration of the city and at least one of its major temples was the purview of a single household. A similar kinship arrangement characterized the administration of the city of Umma (Dahl 2007), and other examples of important local families administering large households come from other provincial cities (Michalowski 1987, 59). The power of some of these families was clearly independent of the king. The family of temple administrators at Nippur, for example, continued after the political collapse of the Ur III dynasty (Zettler 1984, 9).

Further evidence for the personal nature of these relationships comes from cylinder seals, which were granted by the kings to high-ranking elites in the service of the royal household. These seals were inscribed with the bearer's name, his title (or 'office'), and designated him as the servant (Sum. $arad_2$, Akk. *wardum*) of the king (Steinkeller 1977; Winter 1987). When a new king ascended to the throne, each received a new cylinder seal, which designated him as the servant of the new king. This new seal was granted even if the bearer's title or rank was unchanged. If authority were derived exclusively from some position in a bureaucratic hierarchy (i.e. an office), there would be no need for a new seal. The new inscription stresses the personal relationship, which was the true basis of the seal-bearer's authority (Schloen 2001, 265).

The king of Ur and the heads of other large households often created and reinforced these personal relationships through marriage (Michalowski 1987, 58–9). Such marriages were a tool for expanding the kinship-based royal household. The Ur III kings intermarried with the royal families of independent and vassal kingdoms on their frontiers, such as Mari (Michalowski 2004). The result was a web of family connections within the empire and beyond it. When faced with the seemingly logic-defying diversity of recipients of various goods in an offering list, Piotr Michalowski (2006, 59) explains that

> … the Ur III kings pursued a vigorous patrimonial extension of familial ties across their borders, and it now seems that most of the rulers on the frontier and beyond were linked by marriage to the house of Ur. The kings of Mari, Simanum, Anshan, Sikri, Zabshali, Adamshah, Marhashi, and other places were either descended from the family of Ur-Namma [the founder of the Ur III dynasty], or had either daughters-in-law or wives from Ur. Therefore, it could be argued that all of the people listed in these offering lists are, in reality or symbolically, members of the same extended royal family, or their intimate courtiers and representatives.

The network of households that comprised the 'patrimonial state' of Ur should be placed toward the

centralized end of the continuum. At other times, political organization devolved into smaller entities. During most of the third millennium, the southern plain hosted small polities based in a single major city that were unable to expand their control beyond them. Intra-urban conflicts between institutional households are not described in terse economic documents or propagandistic royal inscriptions, but it is highly likely that the city-states themselves went through phases of political decentralization as well. The strength of the patrimonial household model is that its principles apply at all of these scales. Indeed such flexibility was probably responsible for its durability.

These observations allow for some generalizations about agency and structure in later third-millennium BC Mesopotamia. In inscriptions, only elite actors appear to be involved in the creation and maintenance of large households. It can be safely supposed, however, that actors at all levels of the social hierarchy were similarly motivated with regard to their own more modest households, and that they built relationships with others toward the goals of provisioning their households, sustaining its members, and where possible extending them (Ur & Colantoni 2010). Such goals required the constant renegotiation of relationships, and as a result, the nested arrangement of households in Mesopotamian society was highly dynamic. A rigid social hierarchy, which one might derive from an uncritical reading of royal inscriptions, was the projection of an ideal situation by the ruling elites who benefited most from its arrangement at any given time, and who would have the most to lose from its restructuring. In reality, just as the heads of urban institutions might strive to improve their lot with the king via gifts and intermarriage, the royal household had to maintain the loyalty of households such as the governors and temple administrators at Nippur.

Mesopotamian society of the later third-millennium BC was characterized by a dynamic structure of households of various scales. The hierarchies of nested households were based on personal ties and were therefore prone to breakdown or reordering upon the deaths or replacements of household heads, or when individuals failed to maintain relationships. This dynamism is most visible between the largest households, when city-states were merged into larger polities by particularly successful rulers, and when they collapsed back into autonomy under locally powerful households. At all times, however, identical (but historically invisible) restructuring was occurring within cities, neighbourhoods, clans and lineages. Whenever suitable textual records can be found, these structures were not bureaucratic but patrimonial, even at the time of greatest centralization under the kings of Ur.

Houses and households in the Uruk period

These conclusions for the later third millennium have major implications for our understanding of the time of urban origins in the fourth millennium. The Uruk period falls after a prehistoric phase (the Ubaid period) that was characterized by kinship organization (Byrd 1994; Lamberg-Karlovsky 1999), and before a 'patrimonial state' society at the end of the third millennium BC, hence also based primarily on kinship. Yet many models for the Uruk period assume that a bureaucratic sociopolitical organization developed. Such a radical social change would be unlikely regardless, but it seems particularly so when what followed it was still based in kinship. It seems far more likely that initial urban society was also characterized by a dynamic structure of nested households. This social structure first developed in the fourth millennium BC and was directly responsible for the emergence of urban society at that time. Indeed, the initial metaphorical extension of the household model to encompass a broader range of biological kin, and to even include other unrelated households in a nested fashion, occurred at some point in the Uruk period and was the structural transformation that enabled the first cities to take form and to resist fissioning pressures.

The flaws of the archaeological data set for the Uruk period have been described above, and they present a considerable challenge to any vigorous test of this (or indeed any) proposed social model. Nonetheless, an attempt can be made to evaluate it against the most extensive component: the architectural record.

Houses and households in the Ubaid period

In the millennia prior to the Uruk period, sedentary Mesopotamians existed in small self-sufficient villages that focused on agricultural and animal husbandry. Excavations have been few, but a general model of the Ubaid house can be described. In their ideal form, houses were tripartite, focused on a long roofed central hallway, with smaller rooms connecting to it on either of its long sides (Fig. 2). In many examples, two spaces open opposite of each other at one end of this hallway, giving them a cruciform or 'T'-shape. The central hallway was probably used for meals and other communal activities, but a variety of domestic activities took place throughout the house (Roaf 1989).

Most of these structures are assumed to have been secular and residential in nature, but others have been interpreted as temples, particularly at Eridu (Safar *et al.* 1981). This interpretation stems from scale (larger rooms and thicker walls) and decoration

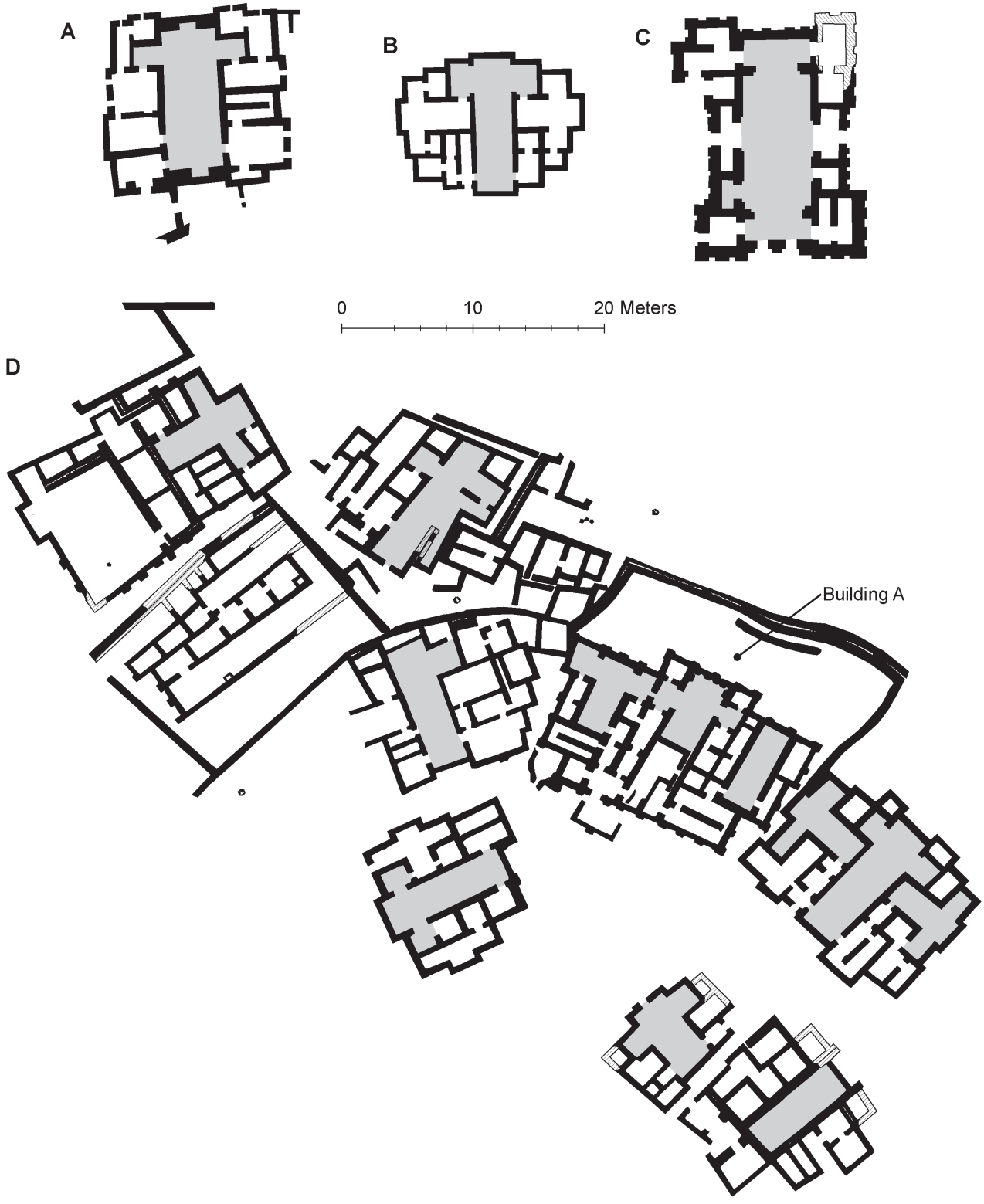

Figure 2. *Ubaid tripartite house structures. Domestic structures at Tell Madhhur (A) and Kheit Qasim (B), the 'Temple' at Eridu (C), and the settlement at Tell Abada (D). Central halls of tripartite buildings are in grey. All plans to the same scale.*

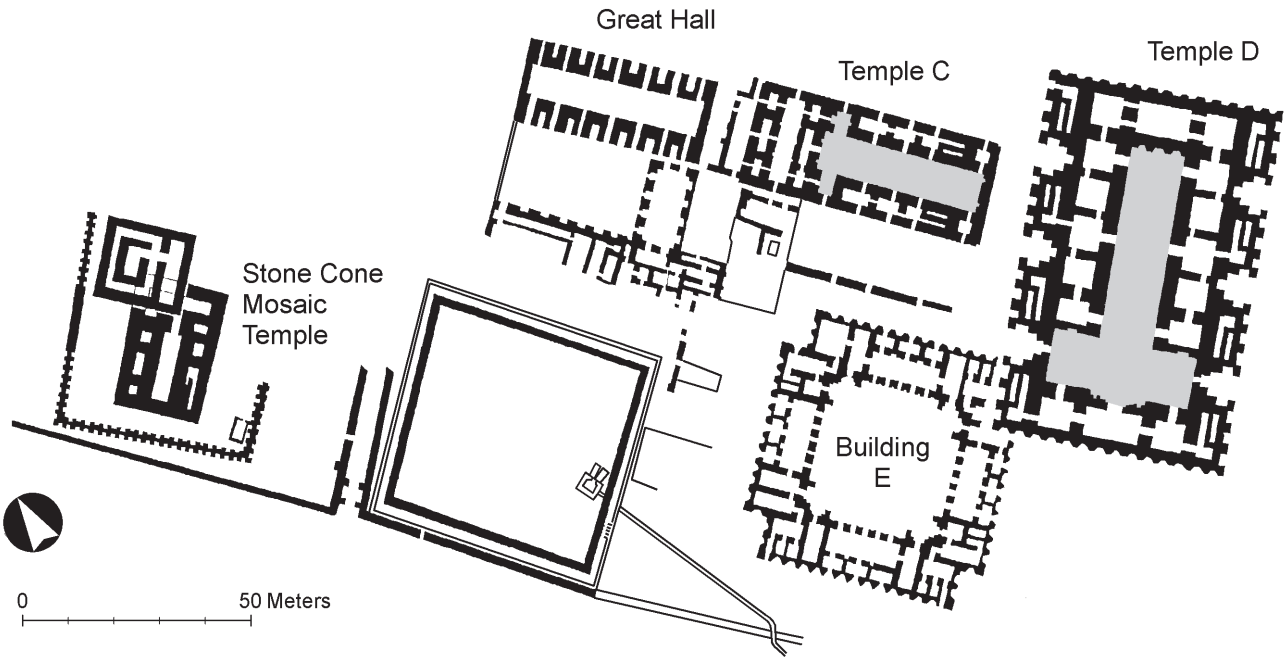

Figure 3. *The Eanna precinct at Uruk,* c. *3100* BC.

(elaborate niching and buttressing on interior and exterior walls), and also proximity to areas known to be sacred in later historical periods. The plans of the 'temples' themselves, however, are otherwise indistinguishable from houses, all of which have the same tripartite plan (Wengrow 1998, 792).

In only a few cases is there evidence for settlement structure, most particularly at Tell Abada (Fig. 2D; Jasim 1989). The houses themselves were surrounded by open activity space, sometimes walled but mostly allowing unobstructed movement between houses. Variation in house size existed; Building A was larger than its neighbours and contained a richer artefact assemblage. Furthermore, Building A and several others were physically interconnected in a manner that suggests extended households.

These large tripartite structures housed extended family households, and have been labelled as *oikoi* (Lamberg-Karlovsky 1999; Maisels 1990, 163–6). The houses show variation in scale and appointments, and in the case of Tell Abada even a nested arrangement, but the social structures of these communities were unable to counter fissioning tendencies; the settlements themselves all remained quite small.

Domestic and temple households in the Uruk period (fourth millennium BC)

At the core of the traditional 'urban revolution' model is the replacement of kinship with new urban institutions. One might therefore expect a similarly revolutionary change in urban architecture. To the contrary, the structures and patterning of the later Uruk period, the supposed culmination of the urban revolution, show remarkable similarities to the preceding Ubaid period. The changes are in degree, not kind, and therefore not revolutionary.

Before considering domestic houses, let us consider the monumental structures that have traditionally been interpreted as temples, and are still described as such in textbooks and general accounts. These massive edifices were mostly excavated in the early twentieth century at Uruk, Eridu and Tell Uqair in the south, and at Tell Brak in the north. The great archaeological synthesizer V. Gordon Childe placed them, and the cities in which they were found, at the core of his model of early urbanism (e.g. Childe 1950; 1952). These 'temples' (Lenzen 1974; Heinrich 1982) were the physical loci of the state, thought to be controlled by 'priest-kings' whose political power was justified by their connection to the gods.

The structures themselves had the same tripartite structure of the Ubaid houses before them, although on a larger scale and with greatly enhanced decoration (Eichmann 2007). The central hall of 'Temple D', for example, measured 55 m × 11 m (Fig. 3); by comparison, the largest central hall at Tell Abada was only 10 m × 3 m. The façades of the largest Ubaid structures were embellished via niching and buttressing, but in the fourth millennium

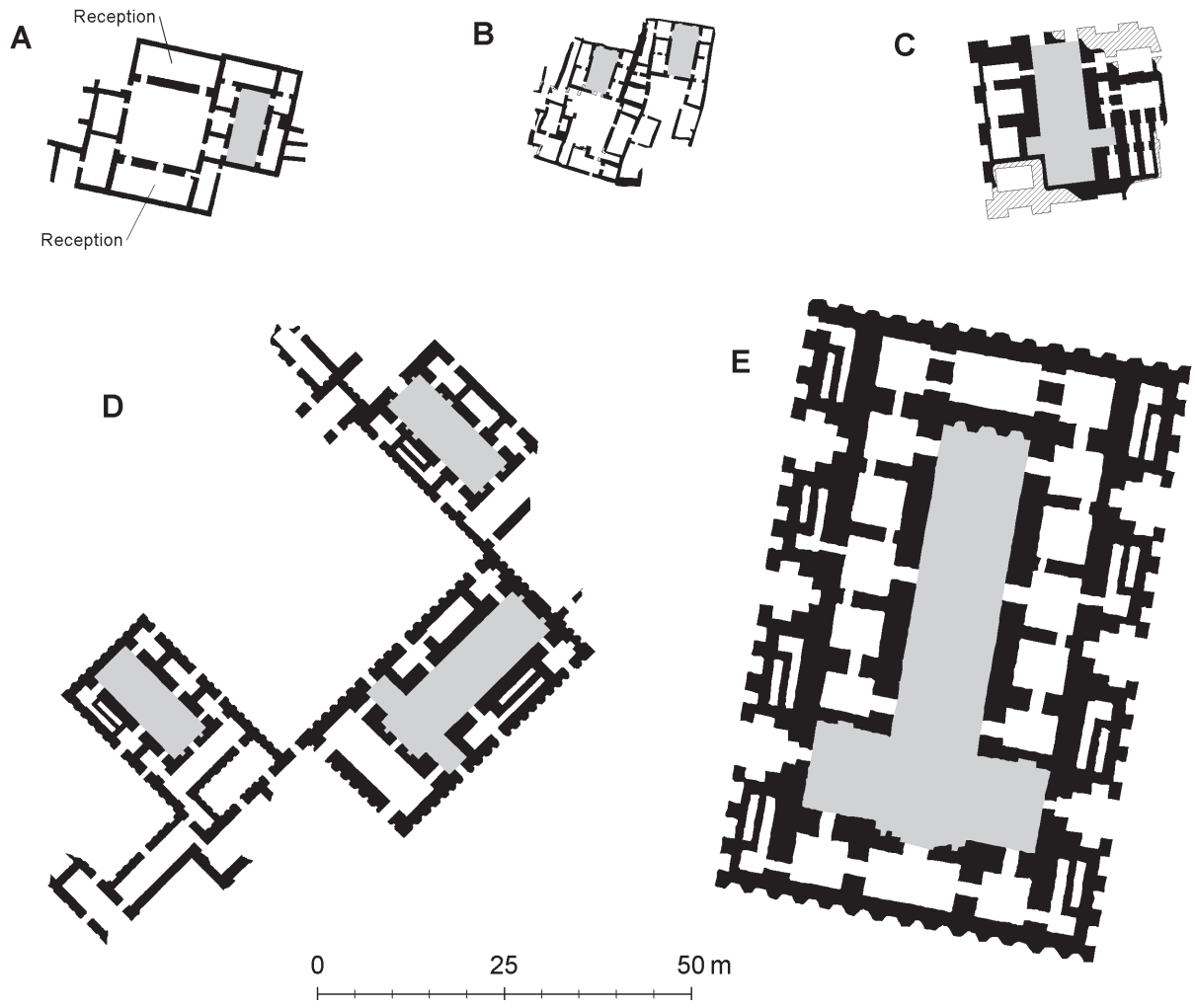

Figure 4. *Uruk houses. Large domestic structures from Habuba Kabira (A) and Hamoukar (B), and monumental complexes from Brak (C) and Uruk (D and E). All plans to the same scale.*

the practice became highly elaborated. Innovations included painted decoration and the use of fired clay nails pressed into interior walls; the painted heads produced elaborate geometric mosaic patterns. Some of the largest buildings had podia in the central hall that are interpreted by some as altars. Many structures had relatively short use-lives and were frequently replaced, but others were rebuilt repeatedly on the same plan and in the same position atop mud brick terraces. The exception to the general tripartite structure is Building E, a square structure with multiple entrances into an enormous central courtyard; this building is completely unique in Mesopotamian architecture.

These largest structures are predominantly from the so-called 'Eanna Precinct' at the site of Uruk (Fig. 3), where excavations have only revealed buildings of this monumentality; in fact, not a single non-monumental Uruk structure has been excavated on the southern Mesopotamian plain. To discuss small-scale domestic houses, it is therefore necessary to consider other sites (Fig. 4). At Habuba Kabira, Jebel Aruda, and Hamoukar (Kohlmeyer 1996; Ludwig 1980; Reichel 2011; Vallet 1996; 1998) 'private' houses of the fourth-millennium feature the same tripartite structure as the earlier Ubaid houses, and are more modest versions of the monumental structures excavated at Uruk and Brak. The largest domestic examples are associated with large external courtyards with thick-walled halls adjacent to them, probably reception rooms for hosting non-residents (Ludwig 1980, 64). In addition to reception rooms, the primary spatial difference between Uruk and Ubaid houses regards open space: in the Uruk period, external open-air activities were brought within the house compound in enclosed courtyards.

The realization that 'private' residential structures were identical in layout to the 'temple' structures has inspired a lively debate on the nature of the great structures; many now conclude that they are secular structures of political elites (Aurenche 1982; Forest 1987a; 1996). Internal podia, which have been interpreted as daises for divine statuary, could just as easily served exalted persons, for example. In later temples, buildings were large but the shrines themselves were quite small, a very different situation from the supposed Uruk temples. The difference between 'house' and 'temple' is therefore one of degree, not kind.

It seems likely that in some cases, tripartite structures were in fact related to the divine. For example, David Oates (1987) identified two building traditions that he labelled as 'high temples' and 'low temples'. The former sat atop large mud-brick terraces and were precisely constructed atop the remains of their antecedents, which were then embedded within the growing terrace. The 'low temples', on the other hand, were reconstructed on entirely different ground plans and did not sit atop terraces. The elevation and spatial conservatism found in Oates's 'high temples' were characteristics of historical temple buildings, and it is likely Oates's two 'traditions' represent the distinction between divine and secular households.

In most cases, however, the recent critiques of tripartite buildings as temples are convincing, and particularly so for the 'Eanna' structures at Uruk. Already in the Ubaid period, the elaborated tripartite structures are best understood as 'prestigious' structures of political elites, on the analogy of the *mudhif* guest buildings of traditional Arab *shaykh*s (Aurenche 1981, 224–5). The Eanna complex of monumental tripartite buildings are an 'exploded' version of the complex around Building A at Tell Abada or the residential house compounds at Habuba Kabira (Forest 1996, 133).

The outcome of the debate over the secular or religious nature of particular buildings is ultimately far less significant than their remarkable architectural similarity. Elite or common, temple or palace, all were constructed from the same tripartite template that derived from the Ubaid house. Archaeologists might label them as temples or palaces, but to the Mesopotamians themselves, they were recognizable as traditional houses writ large. Considered through the lens of architecture, the appearance of early urban settlements coincided with the elaboration and extension of the household, rather than a radical reconfiguration of the social order as predicted by the 'urban revolution' and most social models.

Discussion and conclusions

Urban society in the Uruk period was a dynamic network of nested households. Contrary to revolutionary models, the origins of urban society stem from the widespread acceptance among both commoner and elite of the metaphorical extension of the household to include non-co-resident groups such as lineages, gods' houses ('temples'), and entire cities. The archaeological manifestation of this process was the increase in scale and elaboration of elite houses, which served as anchors for nucleated and demographically large settlements.

With agency placed at the household level, rather than in entities like palaces, temples, or cities, it is easier to understand why members of this pristine urban society were willing to accept what appear to be new forms of hierarchy and inequality. When conceptualized in terms of the small domestic household, inequality seemed as natural as the hierarchical relationship between a father and his sons. With lineages, villages, cities or polities understood as households, collective social action is more understandable than if one must assume a revolutionary replacement of kinship with residence and bureaucracy as the means of social organization. The scale of commonly understood practices changed, but not their character. In this manner, 'those who would be dominated gave shape to the domination, this shape recapitulating "tradition" or at least those elements of tradition imperfectly reproduced through social phenomena' (Pauketat 2000, 123).

This nested household model has ramifications for how we understand class. Many models assume that where inequality was found, so were classes. If, however, classes are defined as groups ranked hierarchically based on economic or social criteria for which the members share an awareness and upon which they form their identity, there is very little supporting evidence. In the third millennium BC, the evidence for classes is ambiguous at best, and societal divisions were more likely to be vertical than horizontal (Stone 2007). Dependents can be expected to advance the interests of their household, so one would expect that lower-order households might support the agenda of larger elite households in matters of taxation, *corvée* labour and warfare. On this basis, 'commoner' or dependent households supported the ascendancy of the larger households, whether lineages, temples or entire cities. These households would identify more closely with the elite household on which they depended than they would with other households of similar economic or social means but outside of their inclusive household.

Several effects of a metaphorical extension of the household would promote population agglomeration and reduce settlement fissioning. Institutional households could serve to adjudicate disagreements that had previously been resolved by out-migration. New or revolutionary forms of supra-kinship organization need not be assumed; traditional forms of patrimonial authority, now enacted on a broader social scale, would serve this purpose. Furthermore, it is likely that the metaphorical extension of the household was accompanied by a similarly hierarchical system of land ownership. A hierarchy of usufruct rights is well known for the early historical periods, wherein all land was theoretically owned by kings, governors or the gods as heads of their households, even if in practice it was held by lower-order households who could pass down usufruct rights (Renger 1995; 2003; Schloen 2001). Because those rights did not include the ability to alienate land, households' mobility was limited. Finally, because of the importance of face-to-face interaction in establishing and maintaining one's position in the dynamic hierarchy, successful and expanding households attracted others to their settlements and retained them, as long as their household (secular, royal or divine) continued to be successful, in the sense of providing for its household members.

What, then, was the trigger that resulted in this social transformation? The most sophisticated existing models suppose that the formation of the urban state was the contingent result of multiple simultaneous processes (e.g. Algaze 2008; Wright & Johnson 1975), but that these were macro-level processes beyond the capacity of any individual agent to effect. It is more likely that this social change resulted from a highly contingent and un-modelable event, in the sense advocated by the social historian William Sewell (2005) and recently applied to archaeological cases (Beck *et al*. 2007; Bolender 2010). Events are creative reproductions of existing structures by purposeful actors that have great social ramifications. Their actions are rarely revolutionary, in the sense of replacement of one social structure with a wholly novel one, but rather the creative transposition of an existing structure with a particular social goal in mind. Indeed, the more revolutionary the social action, the less likely that it will be accepted and reproduced by others, and the more likely that it will be resisted.

Existing models for urban origins assume just such revolutionary change, however. In the case of fourth-millennium Mesopotamia, they assume that new institutions, most prominently 'the state', were invented for the social ends of all or a subset of society, and were then broadly accepted. It seems far more likely, however, that an existing structure, the household, was extended to incorporate households in relationships of dependency that previously could not have existed. The familiarity of the household structure meant that this 'new' formulation could be understood and accepted. The particular circumstances of this event (or events) cannot be described with the existing archaeological data set and probably will never be accessible. This model is thus descriptive rather than predictive.

Although the outcome — the redefined household and ultimately the formation of cities — may seem revolutionary, one should not assume that the initial perpetrator(s) of this socially creative act undertook it with revolutionary goals in mind. Social evolution is often the unintended result of actions that, while undertaken for some specific purpose, were not intended to affect such change. A city envisioned as the unintended result of a non-linear chain of social actions avoids the teleological problems of many models of urban origins (van der Leeuw & McGlade 1997). In the terminology of complex systems (in archaeology, see Bentley & Maschner 2008; Kohler 2012), this process is known as emergence, wherein wholly new structures appear as the unintended result of the rules and interactions of agents within the system (Goldstein 1999; Holland 1998; Johnson 2001). Classic examples include the behaviour of flocks of birds, ants, the stock market and the weather; e.g. local rules produce global order. Cities are no exception (Portugali 2000). In the case of early Mesopotamia, one might envision the motivations of the head of the household (sustain its dependents, expand its membership, enhance its prestige) as the local rules. The head of the innovative household that first managed to encapsulate dependent households and their property within its own did not intend to create a city, but following this event, and the acceptance and replication of the metaphorical household structure, the new rules for interaction between households could cumulatively result in the agglomeration of population at a place such as Uruk. Once an urban settlement had emerged, however, it then could be described, defined, given meaning and deliberately reproduced.

All previous approaches have placed great importance on the environment in the origins of Mesopotamian urbanism. Environmental conditions were certainly important and enabling, but by no means determinant, of Mesopotamian social evolution. For example, in adjacent regions of the Near East where soils were more variable and agriculture depended on rainfall, there were real limits to the demographic growth of settlements under the technological conditions of the Bronze Age and earlier (Wilkinson 1994). The plains of southern Mesopotamia were ideally

suited for irrigation agriculture and low-friction water transportation, which would allow for a more productive and reliable subsistence economy, in turn enabling the non-linear evolution of urbanism in the fourth millennium BC (Algaze 2008). The environment enabled, but cannot be held responsible for the social changes that set the urbanization process in motion (Clark & Blake 1994, 18–19).

With this household social model in mind, we can revisit the fundamental nature of fourth-millennium Mesopotamia. Despite its canonical place as one of the world's first states, some of the most important criteria were absent. States feature the reduction, if not disappearance, of kinship in favour of institutions based on residence and class (e.g. Adams 1966). Furthermore, 'the state' exists as a discrete governing entity within society that operates under rational bureaucratic principles. To the contrary, kinship, in its metaphorically extended form, remained the dominant structure well into the Bronze Age of Mesopotamia, and the ruling household was structurally identical to the households of the ruled. In fact, if one agrees with the critique of the role of biology in traditional anthropological studies of kinship (Schneider 1984), the nested household model does not describe extended kinship metaphorically, but rather it is the indigenous understanding of kinship itself.

Other scholars disillusioned with neo-evolutionary typologies have explored alternatives based on indigenous understandings, similar to the approach adopted here. A particularly vibrant field has exploited the 'House Society' model of Claude Lévi-Strauss (1982; with important modifications in Beck 2007; Carsten & Hugh-Jones 1995; Joyce & Gillespie 2000). The patrimonial household model adopted here for Uruk society shares many similarities with these approaches, most particularly the emphasis on indigenous terminology and the house as a structuring concept.

Fourth-millennium Mesopotamia's status as an urban society is also far more ambiguous than is generally recognized. Uruk, Brak and other sites either defy the most commonly employed definitions for urbanism, or the situation is ambiguous owing to a lack of data. Little archaeological evidence exists for cities as centres for specialized production. Luxury goods have been recovered from excavations but there is no unambiguous evidence for any sort of manufacturing. Uruk's role as a centre for redistribution can be questioned based on recent reassessments of the bevelled rim bowl (Forest 1987b; Goulder 2010; Potts 2009). Uruk was home to political and religious elites and their households, but it is entirely unknown whether such institutions were not present in other contemporary sites. Without knowing what functions its neighbouring towns and villages performed (or did not perform), it is impossible to evaluate Uruk's role as a centre. Finally, social networks were still tightly bound up with kinship; the bureaucratic city was still far in the future.

This situation leaves Uruk, Brak, and other large sites as political and demographic centres; is this enough to confer urban status? In the later third millennium, Mesopotamian cities acted like overgrown villages, or conurbations of villages (Schloen 2001, 197, 287; Steinkeller 2007), and the Mesopotamians themselves used the same word (Sumerian uru, Akkadian *ālum*) for human settlement of any scale (Van de Mieroop 1997, 10). There are many reasons why qualitative assessments based on scale or demography can be criticized (Cowgill 2004), but in the case of Uruk Mesopotamia, this scale transformation, both of settlements and the households that comprised them, was more than just population growth; it heralded the emergence of a new social form that was greater than the sum of its parts, even if it operated under identical household structural principles.

Ultimately, the debate over these semantic issues is far less insightful than the recognition that categories like 'urban' and 'state' must be able to subsume a great deal of variability if they are to be applied to Mesopotamia in the Uruk period. The urban concept retains its archaeological utility if it is envisioned as a set of axes of variability, rather than a type with defined traits (Cowgill 2004). The state concept, on the other hand, is too closely associated with aspects of bureaucratic administration and should not be used to describe Uruk Mesopotamia and its immediate successors. It is more insightful to consider indigenous understandings than to shoehorn them into a modern political construct.

The emergent household-based model of urban society presented here is hypothetical, although to no greater extent than previous models, which are based on the same inadequate archaeological data set. It does, however, avoid some of the major theoretical objections to ecosystemic models, above all by providing motivations to individual households in a way that makes hierarchies and collective actions understandable according to indigenous rationalities, rather than those of modern Western society. Its emphasis on emergence, contingency and unintended consequences avoids the teleology of functional theories, and puts it outside of the consensus/conflict dichotomy. Much has been made of the inadequacy of our empirical knowledge of the fourth millennium BC; as stability slowly returns to the Republic of Iraq, it is hoped that this model will, alongside others, drive

new archaeological research in the direction of these critical questions of social evolution.

Acknowledgements

This manuscript benefited tremendously from the thoughtful comments of Jeffrey Quilter, Robin Beck, Douglas Bolender, Guillermo Algaze, the members of Harvard Anthropology's Archaeological Publications Working Group (Rowan Flad, Matthew Liebmann, Janling Fu and Max Price), and two anonymous reviewers.

Jason Ur
Department of Anthropology
Harvard University
Peabody Museum
11 Divinity Avenue
Cambridge, MA 02138
USA
Email: jasonur@fas.harvard.edu

References

Adams, R.M., 1966. *The Evolution of Urban Society.* New York (NY): Aldine Publishing Company.

Adams, R.M., 1972. Patterns of urbanism in early southern Mesopotamia, in *Man, Settlement and Urbanism*, eds. P.J. Ucko, R. Tringham & G.W. Dimbleby. London: Duckworth, 735–49.

Adams, R.M., 1981. *Heartland of Cities.* Chicago (IL): University of Chicago Press.

Adams, R.M., 2006. Shepherds at Umma in the third dynasty of Ur: interlocutors with a world beyond the scribal field of ordered vision. *Journal of the Economic and Social History of the Orient* 49(2), 133–69.

Algaze, G., 2001. Initial social complexity in southwestern Asia: the Mesopotamian advantage. *Current Anthropology* 42, 199–233.

Algaze, G., 2005. *The Uruk World System: the Dynamics of Expansion of Early Mesopotamian Civilization.* Chicago (IL): University of Chicago Press.

Algaze, G., 2008. *Ancient Mesopotamia at the Dawn of Civilization.* Chicago (IL) & London: University of Chicago.

Aurenche, O., 1981. *La maison orientale, l'architecture du Proche-Orient ancien des origines au milieu du quatième millénaire.* Paris: Paul Geuthner.

Aurenche, O., 1982. À la origine du temple et du palais dans les civilisations de la Mésopotamie ancienne. *Ktema* 7, 237–61.

Bandy, M.S., 2004. Fissioning, scalar stress, and social evolution in early village societies. *American Anthropologist* 106(2), 322–33.

Beck, R.A., Jr (ed.), 2007. *The Durable House: House Society Models in Archaeology.* Carbondale (IL): Center for Archaeological Investigations, Southern Illinois University.

Beck, R.A., Jr, D. Bolender, J.A. Brown & T.K. Earle, 2007. Eventful archaeology: the place of space in structural transformation. *Current Anthropology* 48(6), 833–60.

Bell, J., 1992. On capturing agency in theories about prehistory, in *Representations in Archaeology*, eds J.C. Gardin & C.S. Peebles. Bloomington (IN): Indiana University Press, 30–55.

Bentley, R.A. & H.D.G. Maschner, 2008. Complexity theory, in *Handbook of Archaeological Theories*, eds. R.A. Bentley, H.D.G. Maschner & C. Chippindale. Lantham (MD): Altamira, 245–70.

Bernbeck, R. & S. Pollock, 2002. Reflections on the historiography of 4th millennium Mesopotamia, in *Material Culture and Mental Spheres: Rezeption archäologischer Denkrichtungen in der Vorderasiatischen Altertumskunde*, eds. A. Hausleiter, S. Kerner & B. Müller-Neuhof. Münster: Ugarit, 171–204.

Bintliff, J., 1999. Settlement and territory, in *Companion Encyclopedia of Archaeology*, vol. 1, ed. G. Barker. London: Routledge, 505–44.

Bolender, D. (ed.), 2010. *Eventful Archaeologies: New Approaches to Social Transformation in the Archaeological Record.* Albany (NY): SUNY Press.

Bourdieu, P., 1990. *The Logic of Practice.* Stanford (CA): Stanford University Press.

Brumfiel, E.M., 1992. Distinguished lecture in archeology: breaking and entering the ecosystem-gender, class, and faction steal the show. *American Anthropologist* 94, 551–67.

Brumfiel, E.M. & J.W. Fox (eds.), 1994. *Factional Competition and Political Development in the New World.* Cambridge: Cambridge University Press.

Byrd, B.F., 1994. Public and private, domestic and corporate: the emergence of the southwest Asian village. *American Antiquity* 59(4), 639–66.

Carsten, J. & S. Hugh-Jones, 1995. *About the House: Lévi-Strauss and Beyond.* Cambridge & New York (NY): Cambridge University Press.

Childe, V.G., 1950. The urban revolution. *Town Planning Review* 21(1), 3–17.

Childe, V.G., 1952. *New Light on the Most Ancient East: the Oriental Prelude to European Prehistory.* New York (NY): W.W. Norton.

Clark, J.E. & M. Blake, 1994. The power of prestige: competitive generosity and the emergence of rank societies in lowland Mesoamerica, in *Factional Competition and Political Development in the New World*, eds. E.M. Brumfiel & J.W. Fox. Cambridge: Cambridge University Press, 17–30.

Cowgill, G.L., 2000. 'Rationality' and contexts in agency theory, in *Agency in Archaeology*, eds. M.-A. Dobres & J. Robb. London & New York (NY): Routledge, 51–60.

Cowgill, G.L., 2004. Origins and development of urbanism: archaeological perspectives. *Annual Review of Anthropology* 33, 525–49.

Dahl, J., 2007. *The Ruling Family of Ur III Umma: a Prosopographical Analysis of an Elite Family in Southern Iraq 4000 Years Ago.* Leiden: Nederlands Instituut voor het Nabije Oosten.

Dobres, M.-A. & J.E. Robb (eds.), 2000. *Agency in Archaeology.* London & New York (NY): Routledge.

Dobres, M.-A.& J.E. Robb, 2005. 'Doing' agency: introduc-

tory remarks on methodology. *Journal of Archaeological Method and Theory* 12(3), 159–66.

Dornan, J.L., 2002. Agency and archaeology: past, present, and future directions. *Journal of Archaeological Method and Theory* 9(4), 303–29.

Eichmann, R., 2007. *Uruk, Architektur I: Von den Anfängen bis zur frühdynastischen Zeit.* Marie Leidorf: Rahden/Westphalia.

Emberling, G., 2003. Urban social transformations and the problem of the 'first city': new research from Mesopotamia, in *The Social Construction of Ancient Cities*, ed. M.L. Smith. Washington (DC) & London: Smithsonian Institution, 254–68.

Englund, R.K., 1998. Texts from the late Uruk period, in *Mesopotamien: Späturuk-Zeit und frühdynastische Zeit*, eds. P. Attinger & M. Wäfler. Freiburg & Göttingen: Universitätsverlag Freiburg, Vandenhoeck & Ruprecht, 15–233.

Feinman, G.M., 1998. Scale and social organization: perspectives on the archaic state, in *Archaic States*, eds. G.M. Feinman & J. Marcus. Santa Fe (NM): School of American Research Press, 95–133.

Finkbeiner, U. (ed.), 1991. *Uruk Kampagne 35–37 1982–1984: Die archäologische Oberflächenuntersuchung (Survey).* Mainz am Rhein: Philipp von Zabern.

Flannery, K.V., 1999. Process and agency in early state formation. *Cambridge Archaeological Journal* 9(1), 3–21.

Forest, J.-D., 1987a. La grande architecture obeidienne, sa forme et sa fonction, in *Préhistoire de la Mésopotamie*, ed. J.-L. Huot. Paris: Editions du CNRS, 385–423.

Forest, J.-D., 1987b. Les Bevelled Rim Bowls: nouvelle tentative d'interprétation. *Akkadica* 53, 1–24.

Forest, J.-D., 1996. *Mésopotamie: l'apparition de l'Etat, VIIe–IIIe millénaires.* Paris: Méditerranée.

Forest, J.-D., 2005. The process of state formation as seen from Mesopotamia, in *Archaeologies of the Middle East: Critical Perspectives*, eds. S. Pollock & R. Bernbeck. Malden (MA): Blackwell, 184–206.

Garfinkle, S.J., 2008. Was the Ur III state bureaucratic? Patrimonialism and bureaucracy in the Ur III period, in *The Growth of an Early State in Mesopotamia: Studies in Ur III Administration*, eds. S.J. Garfinkle & J.C. Johnson. Madrid: Consejo Superior de Investigaciones Cientificas, 55–61.

Garfinkle, S.J., 2012. *Entrepreneurs and Enterprise in Early Mesopotamia: a Study of Three Archives from the Third Dynasty of Ur (2112–2004 BCE).* Bethesda (MD): CDL Press.

Gelb, I.J., 1965. The ancient Mesopotamian ration system. *Journal of Near Eastern Studies* 24, 230–43.

Gelb, I.J., 1979. Household and family in early Mesopotamia, in *State and Temple Economy in the Ancient Near East*, ed. E. Lipinski. Leuven: Departement Oriëntalistiek, Katholieke Universiteit Leuven.

Giddens, A., 1984. *The Constitution of Society: Outline of the Theory of Structuration.* Cambridge: Polity Press.

Goldstein, J., 1999. Emergence as a construct: history and issues. *Emergence* 1(1), 49–72.

Goulder, J., 2010. Administrators' bread: an experiment-based reassessment of the functional and cultural role of Uruk bevel-rim bowl. *Antiquity* 84, 351–62.

Hayden, B.D., 1995. Pathways to power: principles for creating socioeconomic inequalities, in *Foundations of Social Inequality*, eds. T.D. Price & G.M. Feinman. New York (NY): Plenum Press, 15–86.

Heinrich, E., 1982. *Die Tempel und Heiligtümer im alten Mesopotamien: Typologie, Morphologie und Geschichte.* Berlin: Walter de Gruyter.

Holland, J.H., 1998. *Emergence: From Chaos to Order.* Reading (MA): Addison-Wesley.

Jasim, S.A., 1989. Structure and function in an 'Ubaid village, in *Upon this Foundation: the 'Ubaid Reconsidered*, eds. E.F. Henrickson & I. Thuesen. Copenhagen: Carsten Niebuhr Institute of Ancient Near Eastern Studies, 79–88.

Johnson, G.A., 1973. *Local Exchange and Early State Development in Southwestern Iran.* Ann Arbor (MI): University of Michigan Museum of Anthropology.

Johnson, M., 1989. Conceptions of agency in archaeological interpretation. *Journal of Anthropological Archaeology* 8, 189–211.

Johnson, S., 2001. *Emergence: the Connected Lives of Ants, Brains, Cities, and Software.* New York (NY): Scribner.

Joyce, R.A. & S.D. Gillespie (eds.), 2000. *Beyond Kinship: Social and Material Reproduction in House Societies.* Philadelphia (PA): University of Pennsylvania Press.

Keith, K., 2003. The spatial patterns of everyday life in Old Babylonian neighborhoods, in *The Social Construction of Ancient Cities*, ed. M.L. Smith. Washington (DC) & London: Smithsonian Institution Press, 56–80.

Kohler, T.A., 2012. Complex systems and archaeology, in *Archaeological Theory Today*, ed. I. Hodder. Cambridge: Polity, 93–123.

Kohlmeyer, K., 1996. Houses in Habuba Kabira-South: spatial organization and planning of late Uruk residential architecture, in *Houses and Households in Ancient Mesopotamia*, ed. K.R. Veenhof. Leiden: Nederlands Instituut voor het Nabije Oosten, 89–103.

Lamberg-Karlovsky, C.C., 1999. Households, land tenure, and communications systems in the 6th–4th millennia of greater Mesopotamia, in *Urbanization and Land Ownership in the Ancient Near East*, eds. M. Hudson & B.A. Levine. Cambridge: Peabody Museum, 167–201.

Lenzen, H., 1974. Die Architektur in Eanna in der Uruk IV periode. *Iraq* 36(1–2), 111–28.

Lévi-Strauss, C., 1982. *The Way of the Masks.* Seattle (WA): University of Washington Press.

Liverani, M., 2006. *Uruk: the First City.* London: Equinox.

Lloyd, S. & F. Safar, 1943. Tell Uqair: excavations by the Iraq Government Directorate of Antiquities in 1940 and 1941. *Journal of Near Eastern Studies* 2(2), 131–58.

Ludwig, W., 1980. Mass, Sitte und Technik des Bauens in Habuba Kabira-Süd, in *Le Moyen Euphrate: Zone de contacts et d'échanges*, ed. J.-C. Margueron. Leiden: E.J. Brill, 63–74.

Maisels, C.K., 1990. *The Emergence of Civilization: From Hunting and Gathering to Agriculture, Cities, and the State in the Near East.* London & New York (NY): Routledge.

Mauss, M., 1990. *The Gift.* New York (NY) & London: W.W. Norton.

Michalowski, P., 1987. Charisma and control: on continuity and change in early Mesopotamian bureaucratic systems, in *The Organization of Power: Aspects of Bureaucracy in the Ancient Near East*, eds. M. Gibson & R. Biggs. Chicago (IL): Oriental Institute, 55–68.

Michalowski, P., 2004. The ideological foundations of the Ur III state, in *2000 v. Chr.: Politische, wirtschaftliche und kurturelle Entwicklung im Zeichen einer Jahrtausendwende*, eds. J.-W. Meyer & W. Sommerfeld. Saarbrücken: Deutsche Orient-Gesellschaft, 219–35.

Michalowski, P., 2006. Love or death? Observations on the role of the gala in Ur III ceremonial life. *Journal of Cuneiform Studies* 58, 49–61.

Molina, M., 2008. The corpus of Neo-Sumerian tablets: an overview, in *The Growth of an Early State in Mesopotamia: Studies in Ur III Administration*, eds. S.J. Garfinkle & J.C. Johnson. Madrid: Consejo Superior de Investigaciones Científicas, 19–53.

Nissen, H.J., 1970. Grabung in den Quadraten K/L XII in Uruk-Warka. *Baghdader Mitteilungen* 5, 101–91.

Nissen, H.J., 1988. *The Early History of the Ancient Near East, 9000–2000 BC.* Chicago (IL): University of Chicago.

Nissen, H.J., 2002. Uruk: key site of the period and key site of the problem, in *Artefacts of Complexity: Tracking the Uruk in the Near East*, ed. J.N. Postgate. Warminster: British School of Archaeology in Iraq, 1–16.

Oates, D., 1987. Different traditions in Mesopotamian temple architecture in the fourth millennium BC, in *Préhistoire de la Mésopotamie*, ed. J.-L. Huot. Paris: Éditions du CNRS, 379–83.

Oates, J., A. McMahon, P. Karsgaard, S. al-Quntar & J. Ur, 2007. Early Mesopotamian urbanism: a new view from the north. *Antiquity* 81, 585–600.

Ortner, S.B., 1984. Theory in anthropology since the sixties. *Comparative Studies in Society and History* 26(1), 126–66.

Parker, J., 2000. *Structuration.* Buckingham & Philadephia (PA): Open University Press.

Pauketat, T.R., 2000. The tragedy of the commoners, in *Agency in Archaeology*, eds. M.-A. Dobres & J. Robb. London & New York: Routledge, 113–29.

Pollock, S., 1999. *Ancient Mesopotamia: the Eden That Never Was.* Cambridge: Cambridge University Press.

Pollock, S., 2003. Feasts, funerals, and fast food in early Mesopotamian states, in *The Archaeology and Politics of Food and Feasting in Early States and Empires*, ed. T.L. Bray. New York (NY): Kluwer, 17–38.

Portugali, J., 2000. *Self-organization and the City.* Berlin & Heidelberg: Springer.

Potts, D.T., 2009. Bevel-rim bowls and bakeries: evidence from Iran and the Indo-Iranian borderlands. *Journal of Cuneiform Studies* 61, 1–23.

Reichel, C., 2011. Hamoukar, in *Oriental Institute 2010–2011 Annual Report.* Chicago (IL): Oriental Institute, 51–9.

Renger, J., 1995. Institutional, communal and individual ownership or possession of arable land in ancient Mesopotamia from the end of the fourth to the end of the first millennium BC. *Chicago-Kent Law Review* 71(1), 269–319.

Renger, J., 2003. Oikos, Oikoswirtschaft. *Reallexikon der Assyriologie und vorderasiatischen Archäologie* 10(1–2), 43–5.

Roaf, M., 1989. Social organization and social activities at Tell Madhhur, in *Upon this Foundation: the 'Ubaid Reconsidered*, eds. E.F. Henrickson & I. Thuesen. Copenhagen: Carsten Niebuhr Institute of Ancient Near Eastern Studies, 91–146.

Roscoe, P.B., 1993. Practice and political centralisation: a new approach to political evolution. *Current Anthropology* 34, 111–40.

Rost, S., 2010. Irrigation management in the Ur III period: a reconsideration based on a case study of the maintenance of the íd-Nina-šè-du canal of the province Lagaš, in *The Empirical Dimensions of Ancient Near Eastern Studies*, ed. G.J. Selz. Vienna: Lit, 211–70.

Safar, F., M.A. Mustafa & S. Lloyd, 1981. *Eridu.* Baghdad: State Organization of Antiquities and Heritage.

Sallaberger, W., 1999. Ur III-Zeit, in *Akkade-Zeit und Ur III-Zeit.* Freiburg and Göttingen: Universitätsverlag; Vandenhoeck & Ruprecht.

Schloen, J.D., 2001. *The House of the Father as Fact and Symbol: Patrimonialism in Ugarit and the Ancient Near East.* Winona Lake (IN): Eisenbrauns.

Schneider, D.M., 1984. *A Critique of the Study of Kinship.* Ann Arbor (MI): University of Michigan Press.

Seri, A., 2005. *Local Power in Old Babylonian Mesopotamia.* London: Equinox.

Sewell, W.H., 2005. *Logics of History: Social Theory and Social Transformation.* Chicago (IL) & London: University of Chicago.

Sharlach, T.M., 2004. *Provincial Taxation and the Ur III State.* Leiden: Brill.

Smith, M.E., 2007. Form and meaning in the earliest cities: a new approach to ancient urban planning. *Journal of Planning History* 6(1), 3–47.

Smith, M.E., 2010. The archaeological study of neighborhoods and districts in ancient cities. *Journal of Anthropological Archaeology* 29, 137–54.

Smith, M.L., 2003. Introduction: the social construction of ancient cities, in *The Social Construction of Ancient Cities*, ed. M.L. Smith. Washington (DC) & London: Smithsonian Institution Press, 1–36.

Steinkeller, P., 1977. Seal practice in the Ur III period, in *Seals and Sealings in the Ancient Near East*, eds. M. Gibson & R. Biggs. Malibu (CA): Undena, 41–53.

Steinkeller, P., 1987. The foresters of Umma: towards a definition of Ur III labor, in *Labor in the Ancient Near East*, ed. M.A. Powell. New Haven (CT): American Oriental Society, 72–115.

Steinkeller, P., 1996. The organization of crafts in third millennium Babylonia: the case of potters. *Altorientalische Forschungen* 23, 232–53.

Steinkeller, P., 2004. Toward a definition of private economic activity in third millennium Babylonia, in *Commerce and Monetary Systems in the Ancient World: Means of Transmission and Cultural Interaction*, eds. R. Rollinger & C. Ulf. Stuttgart: Franz Steiner Verlag, 91–111.

Steinkeller, P., 2007. City and countryside in third-millennium southern Babylonia, in *Settlement and Society: Essays Dedicated to Robert McCormick Adams*, ed. E.C. Stone. Los Angeles (CA): Cotsen Institute of Archaeology, 185–211.

Stone, E.C., 1987. *Nippur Neighborhoods.* Chicago (IL): Oriental Institute.

Stone, E.C., 2007. The Mesopotamian urban experience, in *Settlement and Society: Essays Dedicated to Robert McCormick Adams*, ed. E.C. Stone. Los Angeles (CA): Cotsen Institute of Archaeology, 213–34.

Stone, E.C., 2013. The organisation of a Sumerian town: the physical remains of ancient social systems, in *The Sumerian World*, ed. H. Crawford. Oxford & New York (NY): Routledge, 156–78.

Stone, E.C. & B.J. Kemp, 2003. Review of *The House of the Father as Fact and Symbol: Patrimonialism in Ugarit and the Ancient Near East* by J. David Schloen. *Cambridge Archaeological Journal* 13(1), 121–8.

Ur, J.A. & C. Colantoni, 2010. The cycle of production, preparation, and consumption in a northern Mesopotamian city, in *Inside Ancient Kitchens: New Directions in the Study of Daily Meals and Feasts*, ed. E. Klarich. Boulder (CO): University Press of Colorado, 55–82.

Ur, J.A., P. Karsgaard & J. Oates, 2007. Urban development in the ancient Near East. *Science* 317(5842), 1188.

Vallet, R., 1996. Habuba Kebira, ou la naissance de l'urbanisme. *Paléorient* 22(2), 45–76.

Vallet, R., 1998. L'urbanisme colonial urukien: l'exemple de Djebel Aruda, in *About Subartu: Studies devoted to Upper Mesopotamia*, vol. 1: *Landscape, Archaeology, Settlement*, ed. M. Lebeau. Turnhout: Brepols, 53–87.

Van de Mieroop, M., 1997. *The Ancient Mesopotamian City.* Oxford: Oxford University Press.

Van de Mieroop, M., 2007. *A History of the Ancient Near East, ca. 3000–323 BC.* Malden (MA): Blackwell.

van der Leeuw, S. & J. McGlade, 1997. Structural change and bifurcation in urban evolution: a non-linear dynamical perspective, in *Time, Process and Structured Transformation in Archaeology*, eds. S. van der Leeuw & J. McGlade. London: Routledge, 331–72.

Weber, M., 1978. *Economy and Society.* Berkeley (CA): University of California.

Wengrow, D., 1998. 'The changing face of clay': continuity and change in the transition from village to urban life in the Near East. *Antiquity* 72, 783–95.

Wilkinson, T.J., 1994. The structure and dynamics of dry-farming states in upper Mesopotamia. *Current Anthropology* 35, 483–520.

Winter, I., 1987. Legitimation of authority through image and legend: seals belonging to officials in the administrative bureaucracy of the Ur III state, in *The Organization of Power: Aspects of Bureaucracy in the Ancient Near East*, eds. M. Gibson & R. Biggs. Chicago (IL): Oriental Institute, 69–116.

Wright, H.T., 1977. Recent research on the origin of the state. *Annual Review of Anthropology* 6, 379–97.

Wright, H.T., 2006. Early state dynamics as political experiment. *Journal of Anthropological Research* 62(3), 305–19.

Wright, H.T. & G.A. Johnson, 1975. Population, exchange, and early state formation in southwestern Iran. *American Anthropologist* 77, 267–89.

Yoffee, N., 2005. *Myths of the Archaic State: Evolution of the Earliest Cities, States and Civilizations.* Cambridge: Cambridge University Press.

Zettler, R.L., 1984. The genealogy of the house of Ur-Me-me: a second look. *Archiv für Orientforschung* 31, 1–9.

Author biography

Jason Ur is Professor of Anthropology at Harvard University. He specializes in early urbanism, landscape archaeology and remote sensing, and has conducted field surveys in Syria, Iraq, Turkey and Iran. He is currently leading an archaeological survey in the Kurdistan Region of northern Iraq, and preparing a history of Mesopotamian urbanism.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.