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Structural Parameters and Sociocultural Factors in the Economic Organization of North Mesopotamian Urbanism in the Third Millennium B.C.

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Urbanism as an economic system and states as political systems are often closely intertwined, and nowhere more so than in ancient Mesopotamia. The economy of ancient Mesopotamian states was almost by definition an urban economy. The emergence of this system is best known from the irrigated alluvium of southern Mesopotamia, often called the "heartland of cities" (Adams 1981). Cities first developed in southern Mesopotamia in the mid-to-late fourth millennium B.C., with the expansion of the city of Uruk/Warka to urban proportions. However, despite these precocious beginnings, the spread of city-states throughout the southern alluvium is not fully documented until the Early Dynastic period, roughly 2900–2350 B.C. (Figure 5.1). Once established, this pattern of cities and their hinterlands showed remarkable longevity, lasting as an enduring feature and basic building block of the social landscape for literally millennia through major political changes such as the emergence and collapse of empires, foreign invasions, and endemic warfare among the southern polities (Yoffee 1988a, 1988b).

However, the last three decades of research also have revealed that a second—and quite different—wave of urbanization took place across a broad region of the rain-fed agriculture zone of northern Syria, southeastern Anatolia, and northern Iraq beginning roughly in 2600–2500 B.C. (Algaze et al. 1995; Wattenmaker 1998; Weiss 1983; Weiss

et al. 1993; Wilkinson 1994). Despite numerous cultural, linguistic, and economic connections between the two regions, the cities of northern Mesopotamia appear to have had a very different developmental trajectory from that of their southern counterparts. Perhaps the most notable difference lies in the comparatively ephemeral character of North Mesopotamian cities. The northern cities developed later than their southern counterparts and were mostly abandoned within a relatively short interval by the end of the third millennium. By contrast, the vast majority of South Mesopotamian cities continued to be occupied for at least another millennium.

Why did the cities of North and South Mesopotamia have such divergent developmental trajectories? In this chapter I attempt to integrate survey, excavation, and textual data from the past three decades of research to propose a descriptive model of North Mesopotamian urbanism from 2600 to 2200 B.C. I suggest that the differences between the northern and southern polities can be explained through a combination of structural parameters (mainly ecology) and historically contingent aspects of political economy. I am using the latter term in its broadest sense to encompass the relationship between political and economic organization, with the understanding that an economy must be seen as the culturally situated social organization of production, exchange, and consumption. The

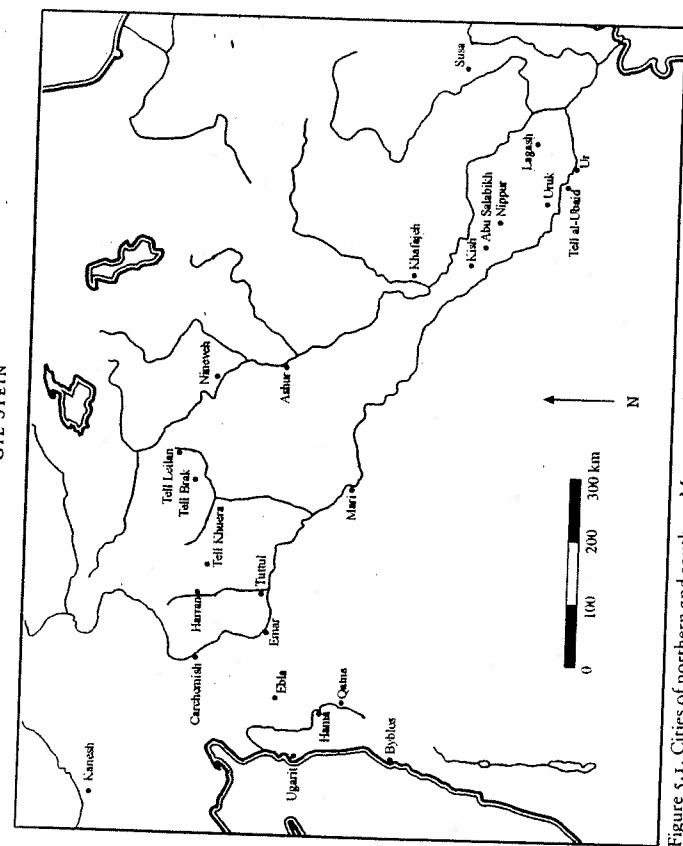


Figure 5.1. Cities of northern and southern Mesopotamia.

character and developmental history of North Mesopotamian urbanism are probably best understood as resulting from a complex mix of environmental factors, social organization, nomadic-sedentary interaction, and agropastoral technology—mainly the productivity, risk, labor requirements, and transportation costs of rain-fed agriculture.

STRUCTURAL PARAMETERS

Environment Context: Rainfall and Risk
The fundamental environmental contrast between southern and northern Mesopotamia lies in the relationship between rainfall and agriculture (Weiss 1986). Southern Mesopotamia—Sumer—is an alluvial plain that receives less than 200 mm of annual rainfall. Agriculture in the south was possible only with the aid of irrigation canals, which developed as early as the Samarran period in the sixth millennium B.C. (Oates 1969). By the Early Dynastic period in the third millennium

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Figure 5.2. Mean annual rainfall and main urban sites in northern Mesopotamia's dry-farming zone.

have had a significant effect on local production... It is likely that five to ten significant droughts occurred during the millennium-long Early Bronze Age" (Wilkinson 1994: 499).

Annual rainfall decreases rapidly from north to south, so that sites in the southern edges of the dry-farming zone were in fact extremely marginal for agriculture, even during "average" rainfall years. The practical limit of rain-fed agriculture is the 200 mm annual rainfall isohyet. Agronomists working in modern Syria recognize a zone of marginal cultivation between 250 and 180 mm, where rain-fed agriculture or dry farming of drought-resistant cereals is possible but extremely risky (Wilkinson 2000b:4). In this zone sheep and goat pastoralism has major economic importance. Many of the larger North Mesopotamian urban sites of the third millennium B.C., such as Tell Brak, Sweyhat,

Khoshi, and Brak, are located either inside or very close to what is today the marginal zone with less than 250 mm annual rainfall (Wilkinson 2000a:5). These environmental parameters clearly played a crucial structural role in the development, functioning, and collapse of the third-millennium North Mesopotamian cities.

The Dry-Farming Urban Politics of Third-Millennium B.C. Northern Mesopotamia
The area known as northern or "Upper" Mesopotamia extends over an area approximately 700 km from east to west and about 200 km from north to south, defined by a combination of topography, water regime, and culture history. This long and narrow region of grassy steppe, grading off toward desert in the south, is bounded by the Syrian coastal mountains to the west, the eastern Taurus Mountains to the north, and the

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Zagros Mountains to the east. The southern edge of this region is defined by the 200 mm annual rainfall isohyet. Northern Mesopotamia includes five subregions: southeastern Anatolia, inland Syria between the coastal mountains and the Euphrates Valley, the Euphrates Valley, the Syrian Jazira (notably the Khabor headwaters region), and the Iraqi northern Jazira.

We have three main complementary data sources for the study of mid-third-millennium North Mesopotamian urbanism. Regional surveys, both intensive and extensive, conducted in the last two decades have given us broad if patchy coverage of a wide swath across the dry-farming zone (for an overview of Mesopotamian surveys, see Wilkinson 2000a). These surveys provide a regional perspective on the growth and organization of these urban polities. Excavations (often accompanied by remote sensing/magnetometry programs) at northern urban sites such as Ebla, Chueira, Umm el Marra, Sweyhat, Banat, Kazane, Tiris, Mozan, Leilan, Hamoukar, Tell Taya, and Tell el Hawa have given us an unprecedented chance to look at the spatial organization of North Mesopotamian cities.¹ Finally, a small number of northern sites such as Beydar, Brak, and Ebla have provided textual records that are invaluable as a source of information on political and economic organization. The most important of these are the royal archives of Ebla, some 15,000 cuneiform tablets recovered from the mid-late-third-millennium palace G on the citadel of Tell Mardikh/Ebla (Archi 1985; Klengel 1992; Matthiae 1980; Watzoldt and Hauptmann 1988).

Interregional comparisons between northern and southern Mesopotamia are complicated by sampling and recovery problems (Wilkinson 2000a:229–230). Massive alluviation in southern Mesopotamia has buried most early sites and small sites while obscuring the true dimensions even of later, large mounded urban centers. Wind deflation also has been a significant factor in damaging early southern sites. In northern Mesopotamia, alluviation is much less of a problem; however, millennia of cultivation and later

occupations of sites have obscured much of the third-millennium B.C. regional settlement patterns. Overall, it is probably fair to say that in both north and south the smallest villages have been either destroyed or buried and the areal extent of the larger settlements has often been underestimated. To some extent, systematic intensive surface collections on the outer (lower) towns of at least the northern cities can make up for this problem. It also helps that many of the third-millennium urban centers of the north were abandoned and only reoccupied on a smaller scale, thereby preserving much of their surface traces reasonably intact. Thus it is still possible to compare the two parts of Mesopotamia, as long as one recognizes that (1) data on urban size may be slightly more reliable for systematically sampled cities in the north and (2) quantitative data on site size and population should always be viewed with a healthy dose of skepticism.

Urbanism

Cities emerged in the dry-farming zone of North Mesopotamia fairly rapidly sometime between 2600 and 2500 B.C. (Weiss et al. 1993:997; Wilkinson 2000a:245), at the transition from "Early Jazira" II to IIIa in the local regional sequence (Lebeau 2000:Table IX), roughly equivalent to Early Dynastic II–IIIa in southern Mesopotamia (Lebeau 2000:Table II). As noted earlier, this is almost 1,000 years later than the development of the first cities in southern Mesopotamia during the middle-to-late Uruk period, and a good four to five centuries after the spread of urbanism across the alluvium in the Jemdet Nasr and Early Dynastic I periods (Figures 5.3 and 5.4). The northern cities seem to have developed through the rapid growth of the 15–25-ha chiefly (?) centers of the early-third-millennium Ninevite 5 period in the Jazira (Schwartz 1987, 1994; Stein and Wattenmaker 1990; Wilkinson and Tucker 1995:50–51) and the smaller centers of the Kurban V period in the Euphrates River valley to the west (Algae 1999:555). The cities of North Mesopotamia seem to have emerged through a process of secondary state development, as

Date	Lower Mesopotamia	Syrian Jazirah	Western Syria
c. 3000	Jemdat Nasr Early Dynastic I II	Early Jezirah 0 I II	Early Bronze I II
c. 2500	IIIa IIIb Akkad Lagash II Ur III	IIIa IIIb IV V	III Ebla IIb I IVa IVb
c. 2000			

Figure 5.3. Correlation of North (Jezirah) and South (Lower) Mesopotamian chronological sequences.

evidenced by the fact that urbanism emerged in this area (1) much later than in southern Mesopotamia (Lebeau 2000), (2) in the context of clear interregional interaction through exchange (Algae et al. 2001:68) and possibly warfare (Weiss et al. 1993), and (3) with ideological models of kingship and technologies of power that clearly emulate South Mesopotamian models (Postgate 1988:113). Despite the close connections with the south, the available evidence suggests that the development of secondary states in the north took place in a context of political independence. Even taking into account a short-lived incursion by Lugalzagesi of Umma into the north (Klengel 1992:25), this region did not fall under the actual political control of South Mesopotamia until the twenty-fourth and twenty-third centuries B.C., as a result of mil-

itary conquest by the Akkadian empire under first Sargon and Naram Sin (Kuhrt 1995:49–51).

The larger unambiguously urban settlements in the Jazira fall in the size range of 50–120 ha (Table 5.1); centers seem to have been spaced about 30 km apart, suggesting an average territorial radius of about 15 km (Wilkinson 1994). Although population estimation is quite difficult (see, e.g., Postgate 1994), the general consensus is that urban population densities in the north were approximately 100–200 people/ha (Stein and Wattenmaker 1990; Weiss 1986; Wilkinson 1994:483), so that the larger cities would have had populations of 10,000 to 20,000, whereas overall population densities in the north (rural and urban combined) seem to have ranged from 29 to 60 people/km² in the

Table 5.1. North Mesopotamian Urban Centers of the Mid to Late Third Millennium B.C.

Site	Size (ha)	Source
Chuera	65-100	Weiss 1983:Figure 11
Qatna	100	Jason Ur, personal communication 2002
Leilan	90	Wilkinson 1994:Table 2
Moza	120	Weiss 1986
Hamoukar	105	Tony Wilkinson, personal communication 2002
Farfara	75-106	Jason Ur, personal communication 2002
Kazane	100	Meijer 1986:Figure 1
Khoshi	90	Jason Ur, personal communication 2002
Hadhail	90	Wattenmaker 1997
Taya	70-160	Kepinski 1990
Tell el Hawa	66	Wilkinson 1994:Table 2
Ebla	56	Wilkinson 1994:Table 2
Hadidi	56	Weiss 1983:Figure 11
Titris	46	McClellan 1999:413
Nineveh	45+	Algaze et al. 2001:23-24
Mohammed Diab	43	Wilkinson 1994:Table 2
Carchemish	42	Wilkinson 1994:Table 2
Brak	43	McClellan 1999:413
Bia	36	Weiss 1983:Figure 11
Sweyhat	31	McClellan 1999:413
Banat	30	Wilkinson 1994:Table 2
		McClellan 1999:413

ment of many sites in northern Mesopotamia is striking and lasted for several centuries, into the early second millennium B.C. It is important to emphasize that no such massive abandonment took place at this time in the irrigation zone of southern Mesopotamia, despite major political changes (such as the collapse of the Akkadian empire, the Gutian invasions, and the emergence and collapse of the Ur III empire).

Textual and archaeological data both suggest that the cities of northern Mesopotamia drew their sustenance from four main sectors of the economy: (1) dry farming of wheat, barley, and lentils; (2) pastoral products—mainly dairy products, wool, meat, and hides

derived from sheep and goat herding; (3) production of textiles (from local wool) and metal goods (from imported copper); and (4) long-distance overland trade (Gelb 1986; Pinnock 1984, 1988; Stein and Blackman 1993; Wilkinson 2000b:6). This diversified economy probably provided an important buffer against the risk of drought-induced crop failure. There can be little doubt, however, that cereal farming and pastoral production were the most important elements in the northern economy.

Agriculture

Wheat, barley, and lentils were the main agricultural products of the northern polities

Early Jezirah	Cultural Horizon			Political Events	Urbanization		
	Western	Central	Eastern		Western	Central	Eastern
0		Post Late Chalcolithic Proto-Ninevite 5				Local Terminal Uruk Proto-Ninevite 5	
I	Late local 'Cyma-recta' bowl horizon	Ninevite 5 cultural horizon				Brak Leilan IIIa-c	
II				Creation of the Kruschlugei	Brak K	Leilan IIId urbanization	
IIIa	Metallic Ware cultural horizon	Leilan IIIa			Extensive urbanization		
IIIb					Concentration of the population and maximal (IIIrd mill.) size of the largest cities		
IV	Ceramic standardization (B-W Kh)	Ceramic standardization (C Kh-E Kh)		Kingdom of Nagar	Decreasing number of settlements Continuing occupation of the largest cities		
V		Post-Akkadian developments		Rise of the Hurrian kingdoms	Hamman Vld	Hurrian cities and kingdoms	

Figure 5.4. Chronology of main social and political developments in North Mesopotamian complex societies during the third millennium B.C.

areas for which intensive survey data are available (Wilkinson 2000a:249). Wilkinson (1994) suggests that 100 ha was an effective upper limit on the size of these urban centers, given the combination of environmental uncertainty and the agricultural and transport technologies of the third millennium B.C. in the north, which necessarily relied on overland transport. More recent survey data suggest that the upper limit may be slightly higher—about 120 ha—but the basic environmental/technological limitation on site size proposed by Wilkinson remains the same.

The cities of northern and southern Mesopotamia differ markedly in their occupational histories during the late third millennium B.C. Basically, the cities of the irrigated south show continuous occupations, whereas

the settlement history of the dry-farming zone shows great fluctuations and discontinuities. One of the most notable of these is the rapid abandonment of most (but not all) of the northern urban centers in the late third millennium, circa 2200 B.C. Weiss and Courty (1993; Weiss et al. 1993) have argued that this abandonment was near universal in the region and that it was due to a combination of severe drought and a major volcanic eruption. Other researchers have shown that although much of the region underwent rapid abandonment, almost certainly drought induced, the process was localized and not universal (Wilkinson 2000a:235). As a result, cities in better-watered regions such as Sweyhat on the Euphrates or Kazane in the Balikh headwaters region continued to be occupied. Although not universal, the rapid abandon-

(Weiss 1983; Wilkinson 1994). The Ebla texts indicate that in the better-watered regions west of the Euphrates, olive and grapevine cultivation also was important (Marthiae 1980; Mazzoni 1988), although these crops seem to have been used more for the production of commodities such as oil and wine than as primary subsistence foods.

The area cultivated and the farming practices used in the agricultural hinterlands surrounding the northern cities can be reconstructed through site survey and offsite archaeology. These lines of evidence suggest that most third-millennium sites larger than 10 ha were surrounded by a zone of intensive cultivation, an intermediate ring of extensive cultivation and pasture, and an outer ring devoted to pasture (Wilkinson 2000b:8). Thin scatters of datable, worn potsherds are consistently found within a 3-to-5-km zone surrounding each larger settlement, dropping off to negligible amounts beyond it. Based on ethnographic analogy and historical examples, Wilkinson (1982) argues that these are the traces of ancient fertilization practices, in which night soil and ashy midden from settlements were spread on intensively cultivated fields. Clearly, transport costs would have limited this practice to the fields closest to the settlements. The hypothesized zone of intensive cultivation closely corresponds to the area of "hollow ways," or remnant roads and pathways that radiate out about 5 km in a dendritic pattern from the urban settlements (Wilkinson 1993, 1994). The hollow ways are thought to have been the paths used to transport agricultural workers to the fields and the harvest back to the city. Beyond the 5-km intensive cultivation zone, more extensive fields were located. Based on analogy with traditional farming practices in this region, it is hypothesized that these areas were farmed using a biennial fallow system (one year of "rest" between crops) to restore nitrates and retain moisture in the soil. The outer ring of cultivation also served as important pasture land for herds of sheep and goats.

Although wheat and barley were the main crops of both the northern and southern ur-

ban centers, the organization of farming differed quite markedly between the two areas. Based on modern agricultural statistics from Syria and Iraq, Weiss suggests that the yields of southern irrigation agriculture were 1.5 to 2 times larger than those of rain-fed agriculture in the north (Weiss 1986:Figures 1 and 2). At the same time, transportation costs in the south were significantly lower because of the availability of the canals and rivers for water transport. By contrast, the northern polities had to use overland transport—wheeled carts or pack animals—to bring the harvested crops from fields to consumers.

Nevertheless, by farming larger areas, the northern polities could produce aggregate yields comparable to those in the south (Weiss 1983). Unlike the south, where suitable land for farming was limited to those areas that could be reached by the canal system, the northern polities had available vast amounts of land for rain-fed agriculture. At the same time, labor and capital costs were lower than in the south because there were no irrigation canals to build and maintain. As a result, any northern polity that had the power to (1) control a large area of land, (2) control a large labor force, and (3) induce or compel producers to provide the surpluses to the central authorities would be able to support both a large urban population and the non-food-producing personnel of a state.

At the same time, the ecology of rain-fed agriculture would have imposed several limitations on the organization of northern urban polities in the third millennium. First, rulers would have been forced to strike a balance between their desire to farm as extensive an area as possible and the costs of overland transport. One partial solution would have been to disperse the farming population as widely as possible in the countryside (see, e.g., Archi 1990:15), so as to maximize production while minimizing the number of mouths to feed in the centers. Second, the urban centers were dependent on their hinterlands for the necessary food surpluses (Figure 5.5) (Stein 1993; Stein and Wattenmaker 1990; Wilkinson 1994) in order to survive even moderate drought years. Finally,

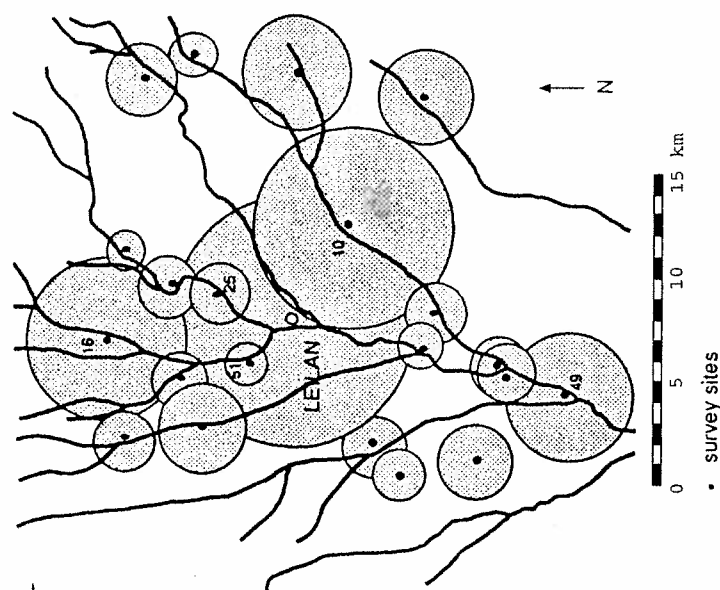


Figure 5.5. Agricultural sustaining areas around the urban center of Tell Leilan, showing urban dependence on rural surplus production.

the dependence on rainfall agriculture meant that the centers could not depend on a reliable revenue stream, as surpluses would have varied widely from year to year, occasionally failing altogether. One would assume that the northern polities attempted to offset this unpredictability through storage, subsistence diversification, and exchange.

Herding

As would be expected in a low-rainfall steppe zone, the herding of sheep and goats played an extremely important role in the economy of the north Mesopotamian urban polities. As a mobile food resource, herds of sheep and goats can adjust to the changing seasonal and interannual availability of water and pasture. Dairy goods and meat provide reli-

able sources of protein to supplement a cereal diet. Herding is an important way to "bank" or store cereal surpluses from good years (Halstead 1993). The surplus can support the expansion of herds, which can then be either consumed or exchanged for additional cereals in years of drought (Sandford 1982). Herding and farming enjoy a symbiotic relationship in which the animals can graze on harvested stubble while fertilizing the fields with their dung. Sheep also produce wool as a valuable commodity for exchange.

Texts dealing with wool and woollen textiles are the most common form of document in the palace archives at Ebla, the most important of the northern urban polities in the mid-third millennium. As Gelb notes, "sheep raising was the mainstay of the local

economy: thousands of sheep were raised, supplying the wool for the production of textiles, the main export product of Ebla. Thus wool was the mainstay of Ebla's commercial prosperity and power. Ebla, as these extraordinary tablets make clear, was an empire built on the backs of simple shepherds" (1986: 158).

Zooarchaeological data from a variety of sites in the Euphrates valley (Stein 1987; Wattenmaker 1987; Weber 1997) and the Jezira support the textual record by showing that during the mid-third millennium B.C. the sedentary pastoral economy shifted from the diversified herding of cattle, pigs, sheep, and goats to a highly specialized economy dominated by sheep and goats (Stein 1988; Wattenmaker 1987, 1998:166-167; Weber 1997; Zeder 1995:29). This intensification is consistent with the emergence of an urban-centered wool-producing economy with the attendant commodification of textiles (Koussoukos 1998; McCriston 1997). The herds of sheep and goats also provided an important complementary food source, mainly in the form of dairy goods such as cheese, yogurt, and milk and secondarily in the form of meat.

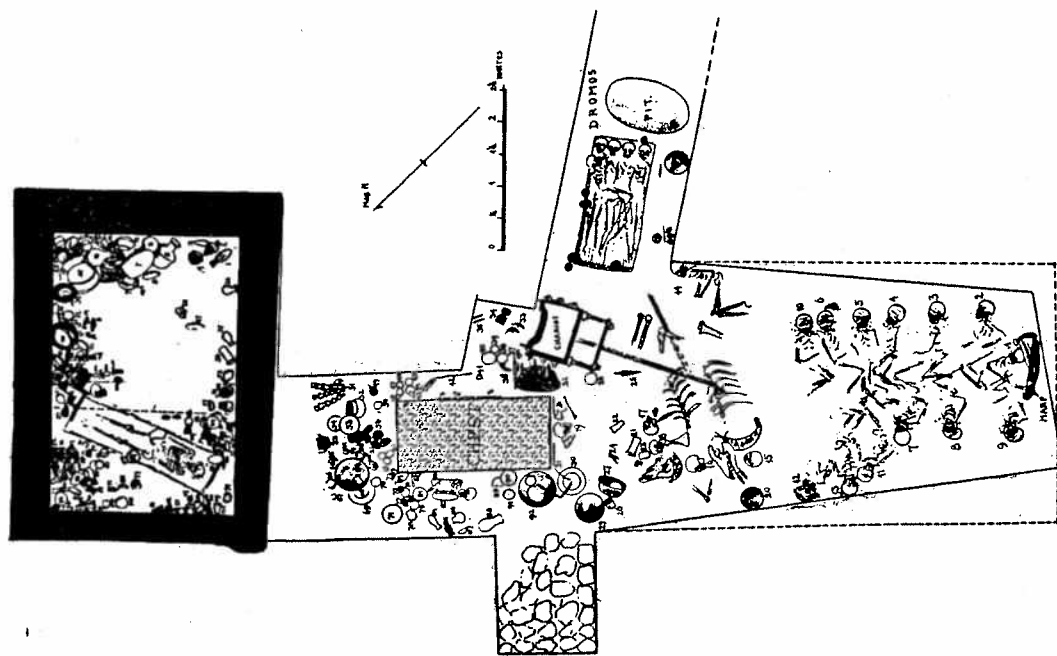
This pastoral economy would have been in the hands of sedentary-based herders in the urban centers and outlying villages, whereas nomadic pastoralists would have been an important economic factor both in adjacent, more arid regions and in the uncultivated interstices between sedentary settlements. Both textual (Gelb 1986) and zooarchaeological evidence (Wattenmaker 1987, 1998) suggests that the herding economy was multicentric. The state authorities clearly controlled large herds, which were often scattered in surrounding villages (Archi 1990). Secondary centers and towns provided the centers with animals and their products as a form of staple finance (Wattenmaker 1998). At the same time, it is clear that many (probably smaller) herds were in the hands of independent sedentary producers (both urban and rural), who raised them for their own subsistence needs (Stein 1987). Recent survey work has revealed a small num-

ber of third-millennium pastoral nomadic sites on the margins of the dry-farming zone (Bernbeck 1993; Wilkinson 2000b:6). Based on what we know from textual references in the very late third (Ur III period) and early second millennia from South Mesopotamia and Mari (Kupper 1957), we must assume that these campsites are the remnants of a much more extensive nomadic presence in the area. We can reasonably assume that mobile herders maintained an uneasy relationship with the sedentary states, trading pastoral products with them in good years and raiding them when drought conditions weakened the cities while stressing their normal grazing lands.

Overall, the available evidence suggests that sheep and goat herding played an extremely important role in the northern polities. This is almost certainly the case in the southern margins of the dry-farming zone (200-250 mm annual rainfall), where a series of large urban settlements (*kranzbu*) consisting of a central mound surrounded by a lower town and a circular "ring" wall could have survived only if pastoralism played the major subsistence role, supplementing cereal farming (Wilkinson 2000a:239). Based on comparisons between mid-third-millennium textual evidence from the southern city of Girsu (capital of Lagash) and the northern city of Ebla, Gelb (1986) suggests that pastoralism played a much more important economic role relative to farming in the north than it did in the south.²

SOCIOCULTURAL FACTORS

It is clear that environmental parameters—specifically rainfall patterns—played a crucial structuring role in the political economy of North Mesopotamian states. However, the divergent developmental trajectories of North and South Mesopotamian urbanized polities cannot be fully explained unless one understands crucial differences in the cultural context and social organization of their inhabitants. In the following sections I examine social organization as reflected in burial practices, kingship, and the role of temples as ideological and economic institutions.



southern Mesopotamia are best known from the Royal Cemetery of Ur (Pollock 1991; Woolley 1934; Zertler and Horne 1998). The sixteen burials described as "royal" were underground, richly furnished, single burials of high-status males and females, usually in massive tombs at the bottom of pits with access ramps (Figure 5.6). Large-scale human sacrifices accompanied a number of these burials.

Recent excavations in Syria show that contemporaneous northern elites had strikingly different funerary practices. The most significant contrast is in visibility. Elites were buried in centrally located, richly furnished aboveground large *tumuli*, or chamber tombs. The most salient example is the White Monument at Tell Banat in the Euphrates River valley (McClellan and Porter 1999; see also Porter 1995). In its final state this *tumulus* reached a size of over 100 m in diameter and 20 m high (McClellan and Porter 1999: 107). Other aboveground elite burials have been found at Jerablus Tahtani (Peltenburg 1999), at the Tell Ahmar hypogeum (Roobaert and Bunnens 1999), and most recently at Umm el Marra (Schwartz et al. 2000). Significantly, at both Ahmar and Umm el Marra these are *multiple* elite burials with two to five adult individuals in the main chamber (the Umm el Marra tomb also includes three babies). These examples suggest that North Mesopotamian elites had fundamentally different conceptions of social identity and the relationship of rulers to the social landscape. Porter (2000) suggests that these tombs represent a form of ancestor traditions or veneration consistent with tribally organized pastoral societies.

Commoner burials show a similar contrast between North and South Mesopotamia (Creekmore 2002). Commoner burials in the southern city-states are almost always single (occasionally paired) burials. These are sometimes intramural subterranean burials, as at Khafajah (Henrickson 1981) and the Kish "Y" cemetery, or in cemeteries, as at Ur and the Kish "A" cemetery. In the north, by contrast, multiple burials are very common in

both intramural and extramural cemeteries (Algaze et al. 2001; Carter and Parker 1995). As with elite funerary practices, northern intramural burials are in visible places inside residential quarters. All ages and genders are represented in these multiple intramural burials. At Tellis Höyük in southeastern Turkey the intramural tombs are located in the center of blocks of residential housing in the lower town (Algaze et al. 2001). Taken together, the burial data are consistent with the idea that northern urban polities differed from the south in that the former placed a greater emphasis on corporate forms of social identity—specifically, the importance of lineage principles and tribal organization in a tribally based society.

Kingship and Political Organization

The main political units in both North and South Mesopotamia during the mid-third millennium were autonomous city-states ruled over by people called *lugal* or *en*—generally translated as "king" (Klengel 1992: 27), although *en* also has the meaning of "priest." In both regions we can see signs of increasing political consolidation as individual polities began to expand their territories through conquest and alliance. Some researchers have attempted to characterize Ebla as an "empire," but this seems unlikely on the basis of the currently available evidence. It is, however, clear that Ebla in the twenty-fourth century B.C. was an expanding state that exercised some degree of hegemony over both surrounding villages and more distant city-states (Klengel 1992:28). This process of polity growth parallels trends in southern Mesopotamia, where the city of Umma under King Lugalzagesi engaged in a major effort at military conquest at approximately the same time.

Northern kings borrowed the ideological trappings and administrative technologies of southern kingship and southern state societies—palaces, cylinder seals, writing, and royal iconography—although all these were translated into local forms and presumably into local systems of meaning as well (Post-

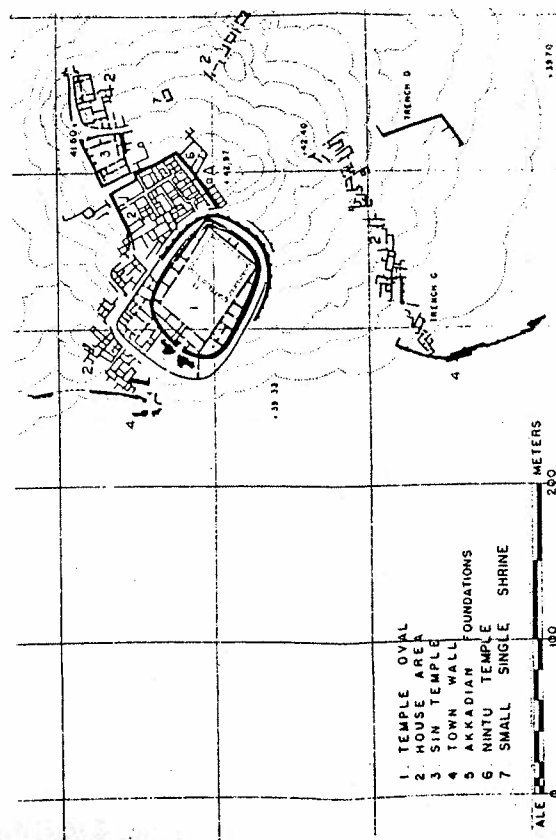
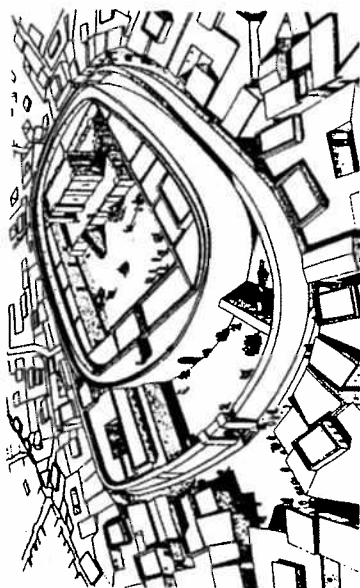


Figure 5.7. South Mesopotamian temples: the temple oval at Khafajah (plan and artist's reconstruction).

gate 1988). The large complex of royal palace G, although only partially exposed, does not seem to mirror the ground plans of South Mesopotamian palaces. Northern kings even adapted the South Mesopotamian cuneiform writing system to write the local northwest Semitic language instead of simply borrowing the Sumerian language wholesale (Archi 1985; Klengel 1992:23).

We also should not assume that the concept of "king" meant the same thing in the north and south. The Ebla palace archives make it clear that North Mesopotamian kings controlled great wealth, large numbers of dependent laborers, and extensive tracts of land (Waetzoldt and Hauptmann 1988). Several lines of evidence suggest, however, that the social and ideological position of North

Mesopotamian kings may have differed from that of their southern counterparts. As noted above, elites were buried collectively rather than individually. Second, it may be significant that North Mesopotamian kings do not appear in monumental or propagandistic art. This contrasts strikingly with the depiction of South Mesopotamian kings on public monuments such as the Stele of the Vultures (Winter 1985). Finally, at Ebla, the predominant polity in mid-third-millennium North Mesopotamia, the textual evidence suggests that the power of the king may have been balanced by a council of elders, in a pattern characteristic of a "tribal type of society" (Klengel 1992:27, 28n). Whereas councils of elders existed in southern Mesopotamia as well (Jacobsen 1943), their authority appears to have been more limited (Yoffee 1995).

Temples

One of the most significant differences between the northern and southern polities can be seen in the ideological and economic role of temples. In the southern city-states of the third millennium two "great institutions" formed the central facts of urban political economy—the palace and the temple (Oppenheim 1977; Postgate 1992). Southern temples were extremely large architectural complexes. The size and central location of temples in the cities mirrored their economic and ideological importance (Van de Mieroop 1997:77) and also reflected the fact that the cities themselves had developed around earlier versions of these institutions. The shrine was laid out on a standardized tripartite ground plan of great antiquity, originating in the Ubaid period almost 2,000 years earlier. The building was generally decorated with niches and buttresses. They consisted of both the shrine (often raised on a platform for greater visibility) and a larger "household," or *oikos*, of the god, with residences of priests, storage facilities, and craft workshops. The temple complexes were extremely large. Thus the famous "temple oval" at Khafajah in the Diyala region of southern Mesopotamia measured 74 by 104 m (Figure 5.7) (Delougaz 1940). At the southern city of

Uruk the enormous temple complexes of Eanna and the Anu Ziggurat dominate the heart of the city (the Eanna precinct alone measures about 330 by 200 m!).

Southern temples were important economic institutions capable of generating large surpluses, providing a source of finance, and creating a subsistence buffer. Their wealth derived mainly from enormous holdings of agricultural land and irrigation works in the surrounding countryside (Powell 1990:14). Other economic activities of the southern temples included vegetable and fruit tree cultivation; control of irrigation waters; management of large herds of sheep, goats, cattle, and equids; freshwater and saltwater fishing; manufacturing of goods from leather, wood, metal, and stone; promotion of long-distance trade; and banking (Postgate 1992:115, 135). The southern temples controlled a large agricultural workforce of "semifree" laborers called *gurus*, in addition to attached craft specialists.

Temples were also ideologically far more important and intertwined with the idea of urbanism in the south than in the north. In the south virtually every city grew up around an earlier Ubaid period temple-centered town (Adams 1981). As a result, in South Mesopotamian culture it was the gods, and not humans, who were the true founders of the cities. As Van de Mieroop notes: "In the third millennium... every city of the south was closely associated with a Sumerian deity; e.g. Nippur with Enlil, Ur with Nanna, and Girsu with Ningirsu. The Mesopotamians thought that the gods had built their cities as their own dwellings.... Each [South] Mesopotamian city was the home of a god or goddess, and each prominent god or goddess was the patron deity of a city.... The connection between god and city was so close that the decline of a city was usually blamed on its abandonment by the patron deity" (1997:46–47).

The central ideological importance of the temples as households of the gods in southern cities is reflected in the tremendous temporal continuity of the physical temple complexes: "Religious sentiments dictated that temples must remain in the same location. Thus many

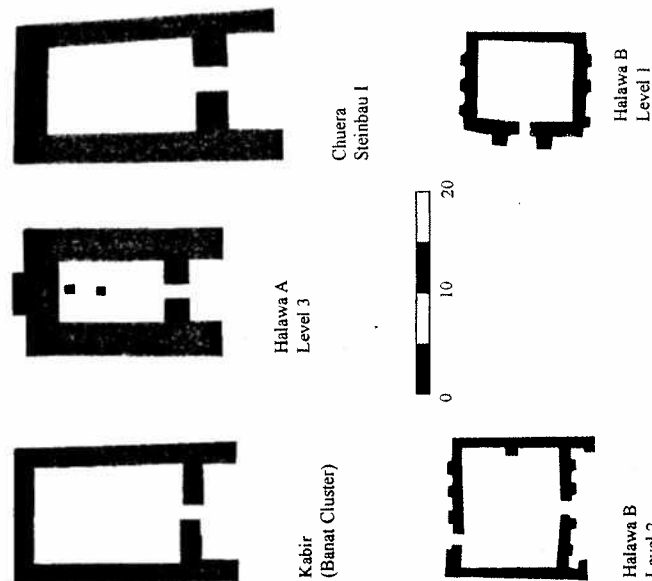


Figure 5.8. North Mesopotamian temples (note difference in scale from southern temples).

settlements were occupied continuously for several millennia starting in prehistory, and the collapse of earlier buildings provided a natural height demarcating them from their surroundings" (Van de Mieroop 1997:73).

Temples almost certainly played a different, and smaller, economic and ideological role in third-millennium B.C. North Mesopotamian cities. The architecture, location, and function of northern temples are quite distinct from those of the south. Northern temples have a single-room shrine, whose walls protrude at two sides to form a porch around the entryway (Figure 5.8). The temple structures are generally quite small—often only 10 by 20 m—and are freestanding, with no associated complex of storerooms, workshops, and priestly residences. The small size, lack of ancillary facilities, and absence of writing or other record-keeping systems all

suggest that temples did not play a major economic role in the northern urban polities.

Although the textual record from this area is quite limited, it is significant that among the 15,000 tablets from the royal archives at Ebla, mentions of temples as institutions are notable in their absence. Northern temples likely had a much smaller social role than their southern counterparts—they were not a "great institution"; instead, the palace appears to have been the primary social and economic sector in the politics of the dry-farming zone. The relatively small role of northern temples probably stemmed at least in part from the history of cities in this region. Unlike Sumer, North Mesopotamian urban centers do not seem to have developed from an earlier base of temple-centered towns.

Given their physical locations within the

farming. Second, the lower transport costs associated with the river and canal systems of Sumer increased this profit margin still further. Finally, the organizational framework of the "great institutions"—the palace and temple sectors—made possible economies of scale in agricultural production.

Economies of scale are particularly important in irrigation agriculture, in which large amounts of land, capital, and labor make possible greater efficiencies in production. In the southern city of Girsu, for example, the Ba'u temple alone controlled more than 45 km² of prime irrigation land; other temples in the city, such as that of Ningirsu, controlled five times more land than the Ba'u temple (Powell 1990:8–9). This does not even take into account the palace's landholdings, which also would have been extensive. By virtue of their size and wealth, these institutions were able to make long-term agricultural investments and absorb risks in ways that individual cultivators could not (see, e.g., Rothman 1996 for a comparison of palace and private decision-making strategies in agriculture in second-millennium B.C. southern Mesopotamia). As a result, the temple and palace sectors were able to pursue strategies of economic maximization (Adams 1978) with a reasonable assurance that they had the capital and labor resources to survive environmental and localized political stresses. The vast wealth generated by these twin institutions (which was at least partially accessible to broader sectors of society through loans) endowed the southern cities with a much higher degree of economic stability than their northern counterparts.

The agricultural base of the northern cities gave lower yields to begin with, had higher transport costs, and lacked the full institutional framework to maximize production in economies of scale. As a result, northern cities could increase production only by fertilizing the fields closest to the cities, farming broader areas, and violating fallow (thereby pushing the cropping regime toward more frequent failure and greater instability). All these strategies were costly, and none yielded returns equal to those in the south.

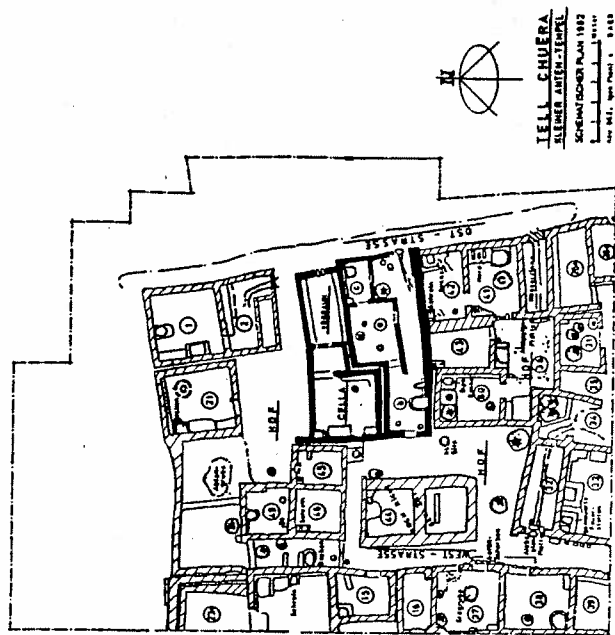


Figure 5.9. Location of northern temples in city neighborhoods: Tell Chuera Kleiner Antentempel.

northern cities, temples held a fundamentally different and smaller ideological role. In contrast with the monumentality, high visibility, and central location of the temples in the south, the small northern temples appear to have been scattered throughout the different neighborhoods of towns such as Chuera (Figure 5.9) (Orthmann 1990:Figure 5), Halawa (see McClellan 1999:Figure 3), and Taya (see, e.g., maps in Reade 1973). This pattern is more consistent with temples functioning as a focus for a lineage or other intermediate-scale, kin-based residential group in an urban setting rather than being a single ritual center for an entire community.

Thus northern temples do not seem to have had the same strong ideological association with cities as in the south. They were not "ideological attractors" to settlement, that is, they were not the initial nuclei around which the northern cities developed. They were

completely overshadowed by the palace sector in both economic and social terms. Instead, northern temples seem to have been oriented toward a much smaller level of social inclusion, that of the lineage in a tribally oriented society.

Economies of Scale and the Wealth of Cities

The clear differences in the institutional role of temples had important economic ramifications for the overall wealth and long-term stability of cities in northern and southern Mesopotamia. Southern cities were almost certainly much richer than their northern counterparts (on the sources of wealth of Sumerian cities, see Algaze 2001b). They were capable of producing and centralizing much larger agricultural surpluses, for three reasons. First, as noted above, irrigation agriculture is almost twice as productive as dry

Northern cities simply lacked the institutional framework and economic resources needed to survive periods of intense drought and the nomadic incursions that would have accompanied it.

CONCLUSIONS: STRUCTURE, HISTORY, AND COMPARATIVE URBANISM IN MESOPOTAMIA

Ecology provides a crucial structuring parameter for the nature of North Mesopotamian cities and their differences from those of the south, but only when combined with an understanding of the contingencies of culture and social organization. The southern cities were richer, more centralized, characterized by more powerful rulers, less focused on pastoralism, less "tribal" in social structure, and more grounded ideologically in the ritual system centered on large, long-lived temples. At the same time, irrigation agriculture provided a far more consistent and predictable supply of grain than did the vagaries of rain-fed agriculture in the north.

The marginal semiarid environment of the north made urbanism a risky business. Given the technology of the time, there was an upper limit of about 120 ha on urban size. The cities were dependent on their hinterlands for food but also had to maintain a dispersed rural labor force in order to produce agricultural surpluses. In times of low rainfall the cities were unable to feed themselves even with rural surpluses. The northern cities attempted to buffer against these problems by relying heavily on herding, by both sedentary and nomads. However, the yields of sedentary pastoralism are quite low, relative to nomadic herding, because of the poor quality of grazing near permanent settlements (Martin 1982). At the same time, the herds of sedentary pastoralists are vulnerable to raiding by nomadic pastoralists. Finally, a reliance on nomadic pastoralists for dairy-based subsistence products would have been risky since pastoralists are notoriously quick to shift from trading to raiding when drought places pressure on their own grazing lands.

Northern cities thus had shaky economic foundations and were vulnerable to both

the direct and indirect effects of periodic drought. However, the relatively ephemeral character of northern polities must also be understood in the context of ideology and cultural values. The historic association between temples and cities, and the central role of temples in the religious and economic life of cities, meant that cities had much more than just a political and economic function as centers of power: "In the [South] Mesopotamian concept of a city two ideas predominated: it was both a religious and a political center. Temple and palace were basic urban institutions, and they were the institutions that defined a city" (Van de Mieroop 1997: 52). Because the northern cities did not grow up around temples, and because the temples were less important as economic institutions in the north, they did not act as "ideological attractors" to bring in large populations, support them, and attract them back if a city was sacked or abandoned.

The North Mesopotamian cities seem to have developed as seats of political power in a marginal environment for agriculture. In this setting, pastoralism and a tribal form of social organization kept the option of mobility open for northern peoples. At the same time, the relative lack of wealth-generating institutions and the fact that urban places lacked the sacred character of southern cities meant that northern cities were subject to strong centrifugal forces. They were hard to maintain and easy to disperse. One might say that northern cities lacked the stability of their southern counterparts because they had only shallow roots in both the economic and the sacred landscapes.

Notes

I am grateful to Gary Feinman for inviting me to participate in the conference on the economies of ancient chiefdoms and states. Initial revisions of this chapter were presented at a colloquium in the Northwestern

University Anthropology Department. I thank my colleagues there for their insightful comments and constructive criticism. This chapter has especially benefited from the comments of Robert McC. Adams, James Brown, Timothy Earle, Gary Feinman, Glenn Schwartz, Tony Wilkinson, and Jason Ur. They are not responsible for whatever errors remain.

1. I am omitting Mari from this discussion of North Mesopotamian urbanism for several reasons. First, this site is located well to the south of the 200-mm isohyet and is thus within the irrigation agriculture zone; available evidence (Margueron 1988) suggests that the site had an irrigation-based economy. Second, urbanization at Mari seems to have taken place in the Early Dynastic I period, c. 2900 B.C. (Margueron 1987), i.e., at the same time as the spread of southern Mesopotamia and some 400 years before the appearance of urbanism in the northern dry-farming zone. Third, urban structure and economy at Mari differ so markedly from those of all other northern urban sites and are so similar to those of southern Mesopotamia that the site is most accurately seen as a remote outlier of the latter area (Margueron 1996).
2. During the Ur III period, after 2200 B.C. in southern Mesopotamia, large-scale state-run herding enterprises are documented at Drehem (see, e.g., Zeder 1994), but centralized pastoralism at this scale is not documented for southern Mesopotamia in the Early Dynastic III–Akkadian periods (mid-late third millennium).
3. It should be noted, however, that we have more house-size data available from southern Mesopotamia than from the north.
4. One exception to this generalization is the "eye temple" at Tell Brak (Mallowan 1947), on the southeast edge of the dry-farming zone. This monumental temple was first constructed in the mid-late fourth millennium B.C. and underwent subsequent rebuildings in the early third millennium (Oates and Oates 1994). Unfortunately, because of the limited extent of excavations in the eye temple and the broken eroded topography of Tell Brak, it is difficult to assess how the eye temple functioned as an institution or what its relationship was to the rest of the site.

Material Resources, Capital, and Power The Coevolution of Society and Culture

ANDREW SHERRATT

This chapter has two goals. On the one hand, it is a discussion of some later prehistoric societies in the Old World and how they were altered by contact with the first urban communities there in the period from 4000 to 500 B.C.; on the other, it is an inquiry into the relationship between social complexity and material culture. The second question arises from the first, for the effects of early urbanization on the surrounding areas originated only in part from direct mercantile or political intervention (which, though impressive, operated over limited distances); such changes also stemmed from the indirect effects of the spread of consumption habits and technologies that were pioneered in urban contexts. Much of the later part of the chapter, therefore, concerns Mesopotamia and the question of how these new modes of material consumption came about. The spread of such innovations, I would argue, had a fundamental effect on large parts of Eurasia, but for historical reasons—both the institutional separation of research activity and the recent distrust of long-distance connections that smack of "diffusionism"—the two areas are not often discussed in conjunction. The whole exercise is therefore an argument for the reintegration of specialist disciplines whose domains have become artificially separated by the growing academic division of labor, especially the distinctions between "society" and "culture" and between "history" and "prehistory" (cf. Wolf 1982). It is

also, to some extent, a reaction against the prevailing modes of interpretation (in many areas of academic discourse but notably in anthropology) of the last 30 years and an attempt to recapture some of the insights of the culture-historical mode of which they were a critique. Although it therefore resembles the kind of approach associated with writers such as Gordon Childe from the first half of the last century, it also is informed by new currents such as cultural studies and world-systems theory—themselves symptomatic of the desire to break out of these constraints in the context of contemporary society and history (Kohl 1987a). Although clearly related to twenty-first-century concerns (in a world of consumerism and globalization), these new outlooks are useful reminders of aspects that have been largely neglected in modern approaches that nonetheless have been very productive, sustaining those recent campaigns of fieldwork that have transformed our knowledge of ancient societies since the time of Childe. This essay is thus offered as an experiment in interpretation that deliberately crosses disciplinary boundaries in its search for answers.

Although this chapter principally addresses the question of how to describe changes in prehistoric Europe during the six or seven millennia between the introduction of farming and the extension of Roman power in the late first millennium B.C., it has been necessary—for two reasons—to make