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Background and Issues

Fourth into Third Millennia BC: The Uruk (LC3-5) and Early Early Bronze (1/2)
Mitchell S Rothman

The goal of our American team excavating at Tilbes Höyük was two-fold. One was to add new information on local development in northern Greater Mesopotamia in the early third millennium BC, a period that is much less studied than the late fourth or the mid-late third millennia BC. The second reason was to test the idea that the end of the fourth millennium marked a major organizational and cultural break, including the collapse of a series of intra- and inter-regional networks of exchange and cross-cultural contact, called the Uruk expansion, that were established at about 3600 BC in Greater Mesopotamia and beyond (Rothman, ed. 2001). In the process we address questions about the roles of smaller sites in urban and non-urban settlement systems.

In regard to the second goal, many researchers subscribe to a theory that the regional and inter-regional structure of the Middle East in the fourth millennium represented a World System (Algaze 1993). This theory, modelled after historian Wallerstein's (1974) analysis of 16th century Europe and its relations with the New World, sees Greater Mesopotamia, the area covered by the Tigris and Euphrates Rivers and their tributaries in modern Iraq, North, Syria, southeastern Turkey, and Western Iran, as a single economic empire. According to the theory, societies of the southern alluvium of modern Iraq, the "core," acted as a colonizing force in societies in the less societally complex North and East Greater Mesopotamia. Complexity in this theory was defined by a degree of political and economic centralization and urbanization (Rothman 2004; Chapman 2003). So, the World Systems theory views Greater Mesopotamia from the view point of the southern alluvium and emphasizes economic and political changes in societies in the South that made them complex enough to be called states. Again, that analytical definition includes variables like urban settlement systems, specialized economies with mass production for trade, centralized political decision-making and control, and social differentiation. It should also include formal, centralized religion as an integrating force and a way to justify the deep changes that were happening culturally and societally (Rothman 2004, 2009).

This perspective in Algaze's theory developed out of Adam's work in the southern alluvium (1981). Adams argued that elements of the agricultural environment of the south tended to agglomerate population into central sites close to the rivers, their source of irrigation water. These central sites were linked by a network of navigable canals for transport. The uncertainty of agriculture production, like the Biblical story of Joseph's dream, created the need for collecting surpluses through tribute or possibly state-owned estates, and storing them. Such estates are documented for the third millennium BC Ur III and early second millennium Old Babylonian Periods (Ellis 1976). Either way central storage of the surplus, and long-term planning for periods of agricultural stress and uncertainty gave the nascent leadership groups an avenue to promote their eventual authority. Given the need for irrigation to drive agricultural production in the alluvium, control of irrigation systems was another aspect of this ecological-societal nexus (Rothman 1987). This set of conditions was the economic and political impetus for the developing political organizations of the southern alluvium (Algaze 2008).

According to Algaze's World Systems theory, the co-evolution of leadership institutions and economics was based on plant and animal products, as well as on the labor that could be bought with surpluses or extracted as tribute. Commodization of goods was only possible in a state milieu (Rothman 2000). Local production and exchange was one foundation of the Southern economy. However, lacking logs for large buildings, metal ores or products, possibly superior wool for the textile industry that was a key export of Southern traders, chipping (flints and obsidian) and ground stone for tools (e.g., basalt for food processing), semi-precious stone like lapis lazuli, carnelian, diorite for display and appropriate grapes for wine were entirely lacking in the alluvium. This system of trade initiated and according to the World Systems Theory controlled by the South we call the Uruk expansion. At the end of the fourth millennium this Uruk expansion system collapsed, according to Algaze's theory.

Parenthetically, this theory remains somewhat axiomatic. The words "state," "chiefdom," and "city" (see below) are replaced with "urban" and "pre-state" with "proto-urban" (e.g., al Quntar *et al*. 2011). Association of complexity with urbanization is another way to address the same issues as do studies of the origin of "chiefdoms" and "states." This is clear in Vallet (2018, 269): "Tell Freres delivers much new evidence that provides insights into the the formation of proto-urban society in Northern Mesopotamia. This process not only transformed a few main sites, such as Tell Brak, into the first cities. It also had a major impact on the countryside, where post-Ubaid settlements were progressively turned into satellite sites for production in regional networks. From a strictly local point of view, Tell Freres is the story of a failure, a failed pathways to urbanism." This has a tone of Progressivism, where there

was only one trajectory of evolution, and not following it was a failure. As if people knew what a city was and made decisions and followed strategies that should lead to urbanism and state-levels of complexity.

To understand the idea of a collapse in the Uruk expansion colonial network means understanding the nature of societal evolution in each area or sub-region in the larger region and of the interactions among sub-regions that feed into the local evolution. Algaze (2008) argues, convincingly, I believe, that the quantity of exotic material from the rest of Greater Mesopotamia appearing in the South means that some system for moving larger quantities of goods had to exist. In addition, evidence (see below) verifies the idea of contact between the southern alluvium and the other sub-regions within Greater Mesopotamia.

However, by the same token, a similar or even greater quantity of these same goods continued to arrive in the southern alluvial cities from the surrounding places after the end of the Uruk Period. New areas like the Gulf and places like Tepe Hissar in northeastern Iran were alternate sources of copper ores. The changes in the third millennium, especially the Middle-Late Early Bronze Age, may reflect a change in the market for copper-bronze metals. The centers of the north like Tell Brak may become a different network of trade than the South. Resources like wood continued, down the Euphrates, but the old networks changed in a way that made the Southern colonies on the Middle Euphrates less viable.

These Southern cities-states by the middle of the third millennium BC would become territorial states and by the end of the third millennium would be political and economic empires (the Akkadians). The same settlements in the South that rose to prominence during the Uruk Period continued to grow in the same places. Demand for these products accelerated.

If the logic of saying that the quantity of imports from outside the alluvium was the impetus for the Uruk expansion, why then would the systems of long- distance trade be said to represent a collapse when at least some of the very same goods that defined the Uruk expansion continued to arrive in the South during the Early Bronze Age just as they had in the previous hundreds of years?

Yet, while a homogeneous culture typified the South, the North and East saw different trajectories of change and different kinds of interaction with the South and each other (see below). As Algaze (2008) points out, many settlements of the Uruk Period (LC 4–5) in the North were abandoned and new ones founded.

How then do we come to understand what was happening and why? Can this pattern be explained by the World Systems theory? Does the nature of evolutionary trajectories in each sub-region suggest that it was a colonial system, a single economic empire? If not that, then what? Does the emphasis, which continues today, on "urbanism" and "proto-urbanism" permit us to understand the role of many settlement types in the dynamics of Northern and Eastern societies during the fourth and third millennia BC?

Addressing these questions will require us to examine how we interpret data and what assumptions are implicit in the theories we archaeologists use to analyze our artifactual remains. Related to that approach is the question of definition. When we use words like "colony," "urban," "trade," "state," what do we mean? In reading the literature, we often clearly do not agree.

Changing Paradigms

All of this inquiry is made even more challenging because of changing paradigms among archaeologists who work there (Rothman 2004, 2017). Algaze and most of us writing in this volume would probably consider ourselves Processualists. This New Archaeology orientation is based on a marriage of American cultural anthropology and archaeology. Its goal is to explain the nature of societal and cultural evolution. Its name derives from the idea that like Lyell in geology, although many of the details of the formations of, for example, mountains vary, underlying their formation were similar processes; for example, upthrust. The task is, yes, to document the changes, but also to see what the processes were as a way to explain why they happened. With archaeologists' problem of lacking so much data that an ethnographer or modern historian has available, more tools are necessary to achieve the goal of explanation. Understanding the operation of ethnographically observable societies and cultures relevant to the kinds of societies we are studying from the past gives us a sense of how societies might work or differ. This does not mean direct equivalence of modern and ancient societies, but more likely analogies that help us form hypotheses about human societal and cultural systems, which are inherently multifaceted. As such, comparison of different cultures presumably in comparable degrees of development is a key tool (Smith 2012; Wright 2005). Processualists adopted the cultural anthropologists Fried (1967) and Service's (1962), schemes of steps in evolution: bands, tribes, chiefdoms, and states. They were necessary to establish whether they were comparing oranges to oranges and apples to apples. It was, however, a focus that many archaeologists misunderstood as their goal; that is, to determine if their sites were part of one of these societal types. Even Processualists found that error to create static types. Julian Steward presaged a lot of the push against this archaeological focus (1955). He complained that those who saw a universal sequence of cultural evolution "evade the awkward facts of cultural divergence and local variation by dealing with culture as a whole rather than with particular cultures" (Steward 1955, 12). He postulated that in most cases multi-lineal evolution was the norm. That is to say, from an analytical point of view, one needs first to understand each separate culture before talking about the effects of cross-cultural interactions. In our case was the entire North and East the same, or was each area faced with somewhat different

challenges or selective forces and different histories? He framed his problem as follows: "cultural ecology is to ascertain whether adjustments of human societies to their environments require modes of behavior or whether they permit latitude for a certain range of possible behavior patterns? Phrased this way, the problem also distinguishes cultural ecology from 'environmental determinism' and its related theory 'economic determinism'" (Steward 1955: 36). Whereas Steward was talking about the relation between the way people produced their food in different natural environments and their core societal organization, I would argue that human societal environments affect the direction and extent of change in organization as much. The more complex the societal order, the more the human ecology comes into play. The life of people living in a state-level society will require people to adjust to different circumstances and different alternatives than those living in more decentralized, consensus-building societies. It will foster different cultural perspectives.

More recently a broadly defined post-processual paradigm has emerged and gained adherents. One school argued that "historical materialism underpins any evolutionary perspective where economic and technical factors are the driving force of change. Instead, the focus should be social values, worldviews, and ritual practices" (Porter 2012, 16). I would argue that as important as those aspects might be, we cannot really understand what the values, meanings of symbols, or rituals meant to prehistoric and even early historic peoples. At most, we can determine how they used symbols, how their behaviors reflect some values that we can tease out of them, always with caution, and what their worldviews might have been. These are, in effect, cultural as opposed to societal characteristics. The two types of characteristics, cultural (mental, symbolic, and historical or traditional) and societal (political, social, and economic, including technology), in fact, are part of the same dynamic whole. However, beginning our analyses by studying them separately and then seeing how they interact has real potential for fleshing out larger shifts. Not only societies but analysis of their many parts is itself complicated.

One implication of this dichotomy is that there are many more players involved in making change than those at the center of society, the controllers of economics and politics or generators of ritual practices and social values. Those inside the inner circles of politics, economics, and culture, are but one set of decision-makers whose actions affect the trajectories of stability and change. The state is, therefore, the whole of a given society, not just those at the top of a hierarchical pyramid (Porter 2012). We see this clearly when we get textual data from the third and second millennia BC. Uruk-Warka had not only the "great household" (é.*gal*) of the rulers, but councils of land owners and citizens (Oppenheim 1977). It was heterarchicly organized (Crumley 1995). This also says something about the centers and other sites in an urban system. We tend to accept that all those we place in the same category—these include cities, towns, villages, and camps—have the same roles in the networks of interaction that make up an urban system. We also make assumptions about of the population size of sites. A bigger site is always representative of more complex society than smaller ones. A bigger site is always more of a city than a smaller site. This may not be true. Different "villages" may have different roles within the same settlement system, even in state-level societies, not only as agriculturalists and pastoralists supplying food and labor to city-centered institutions (see chapter 5a). The centralized functions of cities may vary as well, creating a different picture of their place and of reasons for change.

A second school of Post-processualists is derived from European culture history. Like V. Gordon Childe they define cultures as a collection of artifacts (1950). Rather than culture broadly defined as the mental map that influences behavior, they see individuals as independent actors. "Peoples' actions and representations -'practices'- are generative. […] practices *are* the processes, not just the consequences of processes. Thus they generate change" (Giddens 1977). This is the same as *habitus (*Bourdieu 1977): unconscious knowledge passed down through generations that provides the practical means to enable actors to accomplish individual tasks. Steward presaged this, too, writing, "The expression 'culturally prescribed ways' must be taken with caution, for its anthropological usage is frequently 'loaded.' The normative concept, which views culture as a system of mutually reinforcing practices backed by a set of attitudes and values, seems to regard all human behavior as so completely determined by culture that environmental adaptations have no effect" (Steward 1955, 37).

To the good, this second school reinforced the idea of individual or small groups' actions being one element of the study of changing societies. Also, the assertion that people are not simply acting as some shared worldview demands, but make conscious choices, no doubt influenced by culture but not determined by it, is an important insight. The acknowledgement of agency has been added to the Processualists' toolbox (H. Wright 2007). In my opinion the abandonment by this second post-processual school of any comparative method and a general lack of interest in answering the why questions (Pauketat 2001; M. Smith 2012) is its weakness. Already in 1955, Steward warned against the "fruitless idea that culture comes from culture" (Steward 1955, 36).

Although Steward rejected the idea of biological evolution being the same as cultural, I would argue that the analogy of Darwinian biological evolution is valuable to archaeologists. The terms "adaptation" and "selection" provide a way to capture both the Processualist viewpoint and the better, in my opinion, aspects of the Post-processualist ones.

The Darwinian model proposes that the information that defines individuals' physical structure and to some degree their behaviors is the DNA code in their genes (see

Barton and Clark, eds. 1997). These reflect not only the recombination that occur through sexual mating, but the effect of their environment, again the physical one and for humans also the societal and cultural ones. Particular genes are selected for each individual based on their ecology and individual characteristics. But we tend to look at populations, collections of individuals, that have many common characteristics in our physical bodies and in our behaviors within common environments affected by common histories. Like culture, there is always enough variation that the population statistics present an open-ended set. They are reflected in the adaptations people make to their environment. They are codes that exist but they do not determine all aspects of either the physical or behavioral characteristics of the individual, because the selective process is not a lock that imposes answers on the individual, but provides guidelines within which, in most cases, different alternative responses or new alternatives are possible. This links it to Steward's cultural ecology. Selection works on the individual and permits their own agency to choose among these alternative pathways, given the economic, political, and technical (societal) resources available to them and the guardrails imposed on them by their culture (values, worldviews, religious ritual and myth). The genes of culture then are visible to us as practices, or, I would prefer, behaviors structured by tradition and history, cultural values, environmental, and societal conditions. Adaptations are, as Steward proposed, the attempts to choose among possible alternatives of behaviors or practices. Selection entails the forces that limit possible adaptations. This is Steward's cultural core adaptation to particular environmental challenges of food getting, but also, I would suggest, elements of human environment are equally important. As I wrote above, life within states provides different sets of choices and different kinds of limitations than societies that are egalitarian. The nature of relations among members of the society and their worldviews, values, and religious myths, and rituals evolve. The processes are defined by the similar nature of some selective forces that tend to direct the individual to their final choices. In many cases, these collections of practices and choices converge, selected by their natural and human environments. New cultural elements and societal organizations result.

A different kind of evolutionary steps result (Table 1.1). This I derived from Fiske's (1991) understanding of the structures of social life. For a fuller explanation of it, see Rothman (2016).

So, as an example, the Native Americans of the modern Midwest United States came either from hunter-gatherer or agriculturalist immigrants along the edges of the Great Plains (Oliver 1968). Their adaptations, as well as their values, worldviews, and religious rituals offered a certain limited menu of choices. When the horse became available, they adopted it as their key technology to the exclusion of the older way of life. They adapted to the hunting of their one resource, the buffalo. Many of the choices were selected by the behavior of the buffalo herds themselves. Those herds left the grasslands of the central Midwest and went north or south in the late fall and winter. The Plains Indians did the same, breaking up into smaller bands to hunt the smaller herds. In that process of change all the Plains Indians adhered to that one choice regardless of their background. However, the structures that existed before when they were settled clans of agriculturalists or egalitarian bands of hunter-gathers remained. The hunter-gatherers lacked any formal institutions for control. They did not have police and their councils were informal and consensual. On the other hand, the agriculturalists had year-round police. They developed formal clans and had councils like the Cheyenne Council of the 44. It was made up of two hereditary leaders from each of the 11 bands (usually eldest sons of former clan leaders) and two individuals of status based on Cheyenne values. Those values, including how to establish status, changed from their agricultural past to favor the best

Table 1.1. Elements of Organizational Structures and Adaptation.

Organizational type	Horizontal egalitarian	Vertical egalitarian	Simple ranking	Authority ranking
Integration	Communal sharing (CS)	Equality sharing (ES)	Coordination, ES, CS	Authority, ES, CS
Organizational qualities	mechanical	mechanical and organic	more organic	predominantly organic
Political process	Consensual	negotiated consensual	Limited ranking	Authoritarian/power
Control loci	Individual	sodality/big man	Chiefly	centralized
Social variation	Homogeneous	Homogeneous	Some heterogeneity	Heterogeneous/ hierarchical
Storage	Shared	Shared and some individual	More individual	Centralized and individual
Operating mode	Diffuse	Voluntary cooperation	Situational command	Power
Scale	Small	Small polities wider spread of cultural continuities	Somewhat larger polities, similar wider area of geographical extent	Larger and more dense polities, greatest inter-regional interaction spheres.
Prime selective forces	Natural environment	Raw materials, new technologies, exchange	Increased scale, inter-group (polity?) interaction	Dialectic/ larger scale, intensified inter-group (polity?) interaction

buffalo hunters and the best warriors. The former hunters and gatherers adopted some similar values. Fearlessness in battle was a key one, and the Dog Soldiers were among the extreme version of this. Status was also associated with those who had the most horses. One accumulated horses by stealing them from an enemy group or from Euro-Americans. On the other hand, men who did not want to follow the purely masculine values of the group were given another choice. They could become Two-Spirit People, formerly called Berdache (Jacobs *et al*. 1997). These were mostly men who were a third gender and could take on traditional men's roles or dress as women and take on their roles. Rituals were mostly performed in the summer when the buffalo herds and therefore the bands came together on the Great Plains. New rituals were created for the life of buffalo hunters. The Sun Dance was one of those that set guidelines for hunting and also integrated the society as a whole among many Plains Indian bands when they united in the Spring.

As you hopefully see, the use of this biological analogy offers a way both to describe culture and society in an comprehensive way and to explain possible avenues of change. It will be a key approach used here.

Returning to the case at hand, we look again at elements of the argument for a colonial Uruk expansion and therefore a supposed collapse of that network at the end of the fourth millennium, and a major break in development of the North and East.

Pottery style, function, and the Uruk expansion

Evidence of pottery style is a key element of Algaze's argument for the Uruk expansion. The pottery styles of the southern alluvium were distinct and different than those in the North and East. The appearance of clearly Southern pottery styles in the North are supposed to indicate the presence of Southern colonists. In effect, the argument is based on an idea, long questioned, of whether the presence of pottery style from one place in another equals the presence of people from that place. This is key to the argument because a colony means "an implanted settlement established by one society in either uninhabited territory or territory of another society" (Stein 2005, 10–11). A significant number of residents from the South needed to be living in the North and East for there to be colonies.

What does a commonality of pottery style mean? Post-processualists call them "communities of practice." I think of them more like dialects and languages (Rothman 2014). Like dialects, these common styles tend to exist within networks of frequent communication. Like languages they tend to define whole cultural or national identities. In this case at the regional level, there are different style languages, and within those dialectical differences (Fig. 1.1).

As such, Algaze (1993) considers Susa, Farukhabad, and Choga Mish to be colony sites. However, given the language of their pottery, I think they were simply Southern sites. My conclusion is also based on the similarity of the environment in which they were located. Like the southern alluvium city-states, they seem to have built their societal organization on grain production and activities that surplus can be used for. As Paulette (2016, 85) writes, "In Mesopotamia, grain was king, or, to put it more accurately grain made kings. As we learn in a Sumerian text known as the *Debate between Sheep and Grain* control over grain could and often was transformed into control over people." There were some dialectical differences between the Susiana sites and those in the southern alluvium such as in the seal designs (Pittman 2001) and some of functions performed there; for example, Susa was a conduit for trade of lapis lazuli coming from Afghanistan in the northeast (Herrman 1968). Still, it was the same language with only a few dialectical differences from the southern alluvial city-states.

Rubeideh near the junction of the Tigris and Diyala Rivers was another Southern site (Killick 1988). Girdi Qala up the Diyala (Vallet *et al*. 2017) could be considered as outside the Southern orbit, based on its ecology, but its proximity to the heart of the southern alluvium is probably reflected in the percentage of Southern styles (69%) found there. Yet, the remaining 31% consists of Chaff Faced Wares and other typical local wares that cross the North and even for a short time extend into the South Caucasus (Sagona 2014).

The only places outside the South where a complete set of Southern pottery existed (the sites with the small circles) were sites in the Middle Euphrates: Habuba Kabira, Jebel Aruda, Sheikh Hassan, Qraya, and El Kowm (Fig. 1.2). Certainly, Habuba Kabira and Jebel Aruda fit Stein's (2002, 14) archaeological markers of colonial sites; their "architecture, site plan, and material culture assemblage are identical to those of another region." They are, in this case, newly created sites, but colonies also could be placed within already existing local sites, in which case there should be evidence of a clear break in the architecture and material manifestations of culture. So, Habuba Kabira and Jebel Aruda fit the characteristics of colonies of the South (see Algaze 1993; Strommenger 2007; Van Driel 2007). Qraya, another colony, sits at the junction of the Euphrates and Khabur Rivers, which flow from the Middle Jezirah where sites like Tell Brak are located (Reimer 1989).

The importance of the Middle Euphrates River is directly related to the acquisition of goods from the North, especially goods like logs for roofing large buildings or building upper floors. The only practical way to transport them is by water. Whereas the Euphrates can be navigated from the north to the south, the Tigris River is navigable in the northern stretch of the river, but it cannot be successfully navigated all the way into the southern alluvium. Presumably, other goods including gold, copper, and perhaps stone could be transported as well on log rafts that were one way to transport the beams by water. These then are what Spence (2005) calls Diaspora networks

more than colonies. In general, two very different types of sites fall within the same term, colony. These include ones where the people relocated to serve as agents in an economic Diaspora interaction, and ones where they are part of a domination of local people perhaps to obtain goods or resources or to pursue a political and military advantage. Perhaps, we need two terms for this condition.

In general, all the sites with triangles in Figure 1.1, the supposed colony sites, were not newly founded in the time of the Uruk expansion. They had some Southern pottery, although usually a relatively small amount compared to the local wares. Virtually everywhere in the North and East where ceramicists have done analyses, the Southern pottery types were made in the sites dominated by local, non-Southern wares (Hacınebi, Stein 2002; Girdi Qala, Vallet *et al*. 2017; Samsat Algaze 1995; Tell Brak and Jerablus Tahtatani, Goulder 2010; Hassek Höyük, Helwing 1999; Godin Tepe, Blackman 2011, etc.).

The presence of Uruk pottery in Northern and Eastern sites must indicate some contact and awareness of the other societies. There are also some Northern types in the South (Rothman, ed. 2001). But, it does not mean that actual Southerners lived there. Southern styles may be used by developing local leadership as another sign of their status. As Stein (2005, 15) writes, "Trade, emulation, and the presence of trade colonies should leave different archaeological signatures." Can all the sites with triangles in Figure 1.1 be colonies?

At Godin Tepe, most of the Southern types were fine wares: four lugged jars, droopy spout jars, fenestrated stands, vertical sided bowls, and cylindrical tumblers (Rothman and Badler 2011, Table 4.4) with ties to Rubeideh and Khafaje in the Diyala. The fenestrated stands also existed at Arslantepe, and continued into the Early Bronze Age "Chief's House" (VIB1). This is interesting because the existence of Southern types on the map in the central Western Zagros appear as a narrow vector up the Diyala and Saimmareh Rivers that connects to the Karkeh River (Rothman and Badler 2011, Fig. 4.17). Stein makes a good case for a section of Hacınebi to have been occupied by trader/colonists (1999). The pottery in one section is all

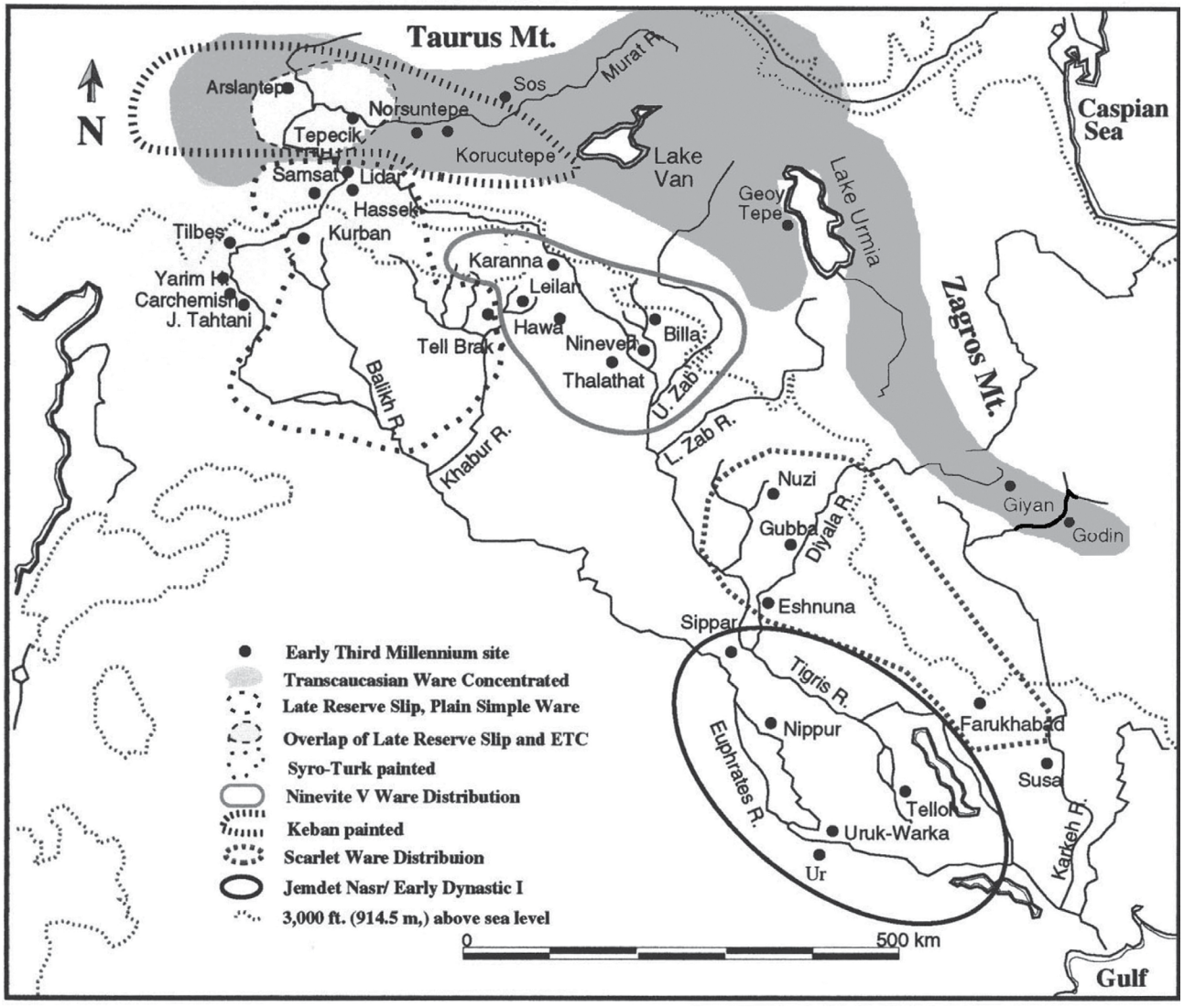

Figure 1.1. Greater Mesopotamia pottery style zones in the fourth millennium (Rothman).

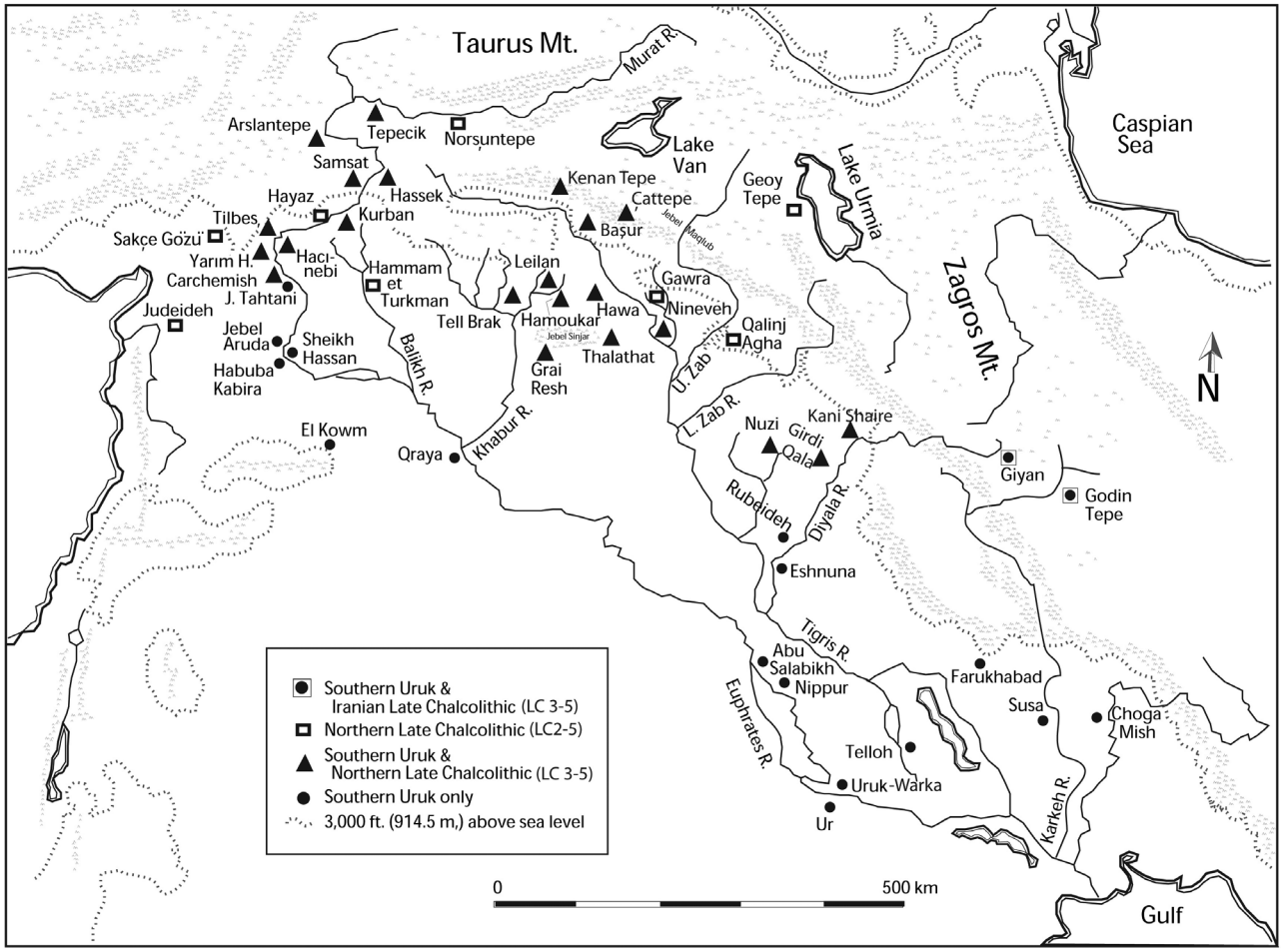

Figure 1.2. The Uruk expansion (Rothman).

local, but across a wall into another neighborhood it is all Southern. Further, the Southerners appear to have been using clay sickles. To do that in an area with easy access to chipped stone blades makes no sense, but represents a practice or tradition of Southern culture. The Southern pottery, at least so far published by Stein (2002, Figs. 9, 10, and 11) includes Beveled Rim Bowls, small high-sided bowls, conical cups, cooking pots, and storage pots. Some of the high-quality serving or special function pots found at Godin are present at Hacınebi, but most are not. At Hacınebi the pottery type looks like a more practical set of pottery used for everyday life. At Godin, on the other hand, the Southern pottery mostly looks like a limited special function set of pots, symbolic more than practical.

The function of the non-local pottery may be a good indicator of what the cultural meaning of these Southern pots in Northern and Eastern was. The meaning of Beveled Rim Bowls, for example, may be over-weighted in our analysis of the cross-cultural connections. Anyone who has ever held a Beveled Rim Bowl or its Northern precursor, a Wide Flower Pot, knows how crude they were. The advantage of Beveled Rim Bowls is that people with no potting experience or skill can make large numbers of them quickly. I have come to agree with Goulder (2010) that, at least in the South, they most likely were made as bread molds, although they were used for other tasks like mixing bitumen (Rothman 2002). The idea of giving workers a bowl of grain seems rather inefficient. Perhaps a bowl of grain porridge, which was a common food for millennia. Bread is easy to distribute, and early beer recipes from Southern cuneiform texts often used bread and sweeteners like dates as their basic ingredients (Paulette 2024). The distribution of Beveled Rim Bowls is extremely wide geographically. Similar forms continue for millennia. On survey in the Susiana Plains in 1974, I saw what I at first thought were Beveled Rim Bowls on clearly Sassanian sites.

Also, the Southerners seem to have shared their technology along with some specific pottery types. This is fast-wheel technology, marked by string-cut bases, which appeared at Godin Tepe and other sites.

Our primary interest in pottery style is as indicators of their information sharing like languages and dialects. However, not all information is of the same type and travels in the same way. Technology can move in different ways than elements of identity or emulation for status. Some claim that a fifth millennium BC ‘Ubaid expansion existed like the Uruk expansion, again marked by particular pottery styles, especially painted designs. Stein and Özbal (2007)

question a pots-equals-people formula for the 'Ubaid. In part, the typical 'Ubaid pottery is decorated as it is because of the introduction of the tournette or slow wheel. The potter can hold a brush and turn the tournette creating the familiar 'Ubaid designs (Nissen 2001). Most of the pottery at their site, Zeidan, in Syria, however, was purely local. Similarly, if pottery types like fenestrated pottery stands have a ritual meaning, they, too, may spread in ways different from other cultural symbols. Think of the distribution of symbols like the Christian cross. These symbols are not distinctive to specific cultures, but they spread across cultural boundaries.

One of the claims made by those who accept the World Systems Theory is that the collapse of that system of the fourth millennium saw a radical change in the third millennium. The supposedly balkanized style zones were new to the third millennium. Pottery style zones as dialect areas appeared after the Uruk. To the contrary they have been there since the beginning of the LC1. Baldi (2012) examined the Coba bowls in the North and found that variations in the style boundaries of these functional types mark the same basic areas as the Early Bronze Age Plain Simple Wares in the western, Euphrates River area and Ninevite V wares in the eastern, Tigris River area. They mix in the mediating zone occupied by Tell Brak in the middle Jezirah (see Middle Jezirah below).

In general, pottery style and the symbolic language of seals, wall paintings, etc. do indicate a knowledge of other areas of the larger region. This knowledge most likely came from economic and technical exchanges. The view that all of this derived from Southerners' push into the "periphery," a push where they created the structure and controlled all the players is one version. However, is there evidence that, in fact, Northerners and Easterners were developing indigenous complexity and what we see was that they were open to outlets outside of their local area for goods they were already producing (see below)? This kind of trade would have given locals the means to accelerate the development of leadership groups in the North. Once created, the symmetry of trade could have made it look like a collapse, but it was actually a re-orientation toward local power centers.

This will require us to look at other issues with the World System Theories and then at each sub-region's evolutionary trajectory.

World Systems Theory

The use of World Systems theory, created to describe the 16th century AD, for this ancient time of the earliest state societies has its own limitations.

One of the elements that made the 16th century World System described by Wallerstein possible was the use of military force. Without it, one has to wonder why locals would be willing either to accede to the wishes of a foreign group or would allow foreigners to enter their territory to extract resources without their permission. The use of military force certainly existed in Mesopotamia. The Ur Standard of about 2500 BC shows troops on one side and on the other side is a bald-headed man in flounced shirt alongside side other bald-headed men with simpler skirts (Lloyd 1961, Figs. 46 and 47). Below is a parade of people bringing what presumably is booty from their military victory. Texts and images from the Akkadian empire of the late third millennium make it clear that their kings conquered neighboring sub-regions and colonized them with garrisons that extracted tribute. Evidence of violent confrontations came from Tell Brak in the LC 2/3 in the early to middle fourth millennium (McMahon *et al*. 2011) and Hamoukar in the LC3 (Reichel 2006). There were indications of violent raiding and destruction at LC1 and Early LC2 Tepe Gawra, Levels XII and XIAB (Rothman 2002). That does not mean that the source of the assaults was from the South. Some were earlier than the beginning of the Uruk expansion. The problem for southern alluvial states is distance. To project force and maintain control over distances one would take a month or more to reach is difficult. Stein's Distance-Parity model proposes that the farther away in terms of travel an area is from the "core" the less power it can project; "A decline in core control over interregional exchange, causing a shift from asymmetric to increasingly symmetric conditions of exchange between the two areas" is how he describes it (Stein 1999, 62).

Yet, for Wallerstein (1974: 349), "World-economies then are divided into core-states and peripheral areas. I do not say peripheral *states* because one characteristic of a peripheral area is that the indigenous state is weak, ranging from its non-existence (that is, a colonial situation) to one with a low degree of autonomy." That is to say, the core is highly developed both in terms of its economic structure and its political system. The peripheries are quite under-developed and lack governmental sophistication to either retain some control over economic activities in their polities or to rebuff intrusions from the core. Therefore, the polities in the periphery do not increase their political complexity under domination, according to this model. The, I believe, accurate claim that Arslantepe was a primate state in the North (Frangipane 2010) is a counter argument against Wallerstein's theory as stated (but see "Upper Euphrates" below), as is Hacınebi, Tell Brak, Tepe Gawra, etc. (also see "Middle-Upper Euphrates" "Ninevite V area," and "Middle Jezirah" below).

Further, according to (Wallerstein (1974: 349), "We have defined a world system as one in which there is an extensive division of labor. This division is not merely functional-that is, occupational, but geographical." The labor in the North could be resource extraction. However, Wallerstein is talking about a colonial system where the colony only extracts raw materials for the core society to manufacture into goods and then sells or exchanges the finished goods back with the colony (see below). For example, lithic blades were clearly manufactured in the north "periphery" (e.g., LC 3 Level VIII at Gawra [Rothman 2002]) with

obsidian collected in the mountains north of Lake Van (Rothman 2002; G. Wright 1969). This includes obsidian blades found in the Reimchengebäude at Uruk-Warka.

According to World Systems Theory, the peripheries are economies dominated by subsistence agriculture and animal husbandry. The societies of the periphery lack technical skill in craft production. That is why no economic development happens in the periphery.

"The semi-periphery [like Habuba Kabira, Qraya, and Jebel Aruda] is a necessary structural element in a world economy. These areas play a role parallel to that played... by middle trading groups in an empire. They are collection points of vital skills that are politically unpopular." The colonies or emplacements from the core are islands of undiluted core culture stuck in the midst of foreign lands. Locals may adopt some symbolic elements from core cultures, but they do so en masse without adaptation to local customs" (Wallerstein 1974: 349). This is a good description of what happened in many places in the LC5.

As Pollock (1992: 329f.) has written, "The prominent current approaches also exhibit some common weaknesses. All are characterized by an emphasis on 'global' .. processes. ..I would contend that such a stance is fast reaching the limits of its utility as a primary guide for research...More specifically, what is missing to a greater or lesser degree in all of the treatments that have been discussed is the recognition of how the broadly conceived social and cultural processes impacted on, were responded to by, and were re-shaped at the 'local' level." Stein (ed., 1999: 11) comes to a similar conclusion, "The final problem with the world systems model lies in its a priori assumption that long distance trade or exchange is the prime mover of economic and social change. The key issue here is not whether exchange takes place between core and periphery, but the degree to which this trade transforms local political economy."

The local adaptations on each side of the exchange interaction therefore can vary considerably, as we will explore below.

The Role of Trade

As part of the application of the World Systems model, the role of long-distance trade in the development of societal complexity in the city-states of the southern alluvium is key to Algaze's model (Algaze 2008).

The question of whether it was asymmetric or more symmetrical will be discussed in the next section.

In either case, what role did this trade play in the adaptation of societies in the southern alluvium and in the steppes and highlands of the North and East? Was trade the cause of the rise of centralized city-states or a consequence of the evolution of these states?

As discussed above, the key characteristic of southern Mesopotamia was the resources it had to survive and thrive in a semi-arid environment, literally a basin of silt washed down from the mountains of the North. This landscape had rich land, irrigation water, some wild and domesticated animals, and labor, that is, people. Properly handled, the productivity of the land was extraordinary, providing sustenance and surplus. Yet it always held risk of not enough or too much water from the rivers, since there was not enough rain to grow their crops. The network of rivers and canals provided a medium to carry the bulk products of the fields. Certainly, this was a major, maybe *the* major part of the southern alluvium economies. It was this set of economic activities that selected the strategies that represented the Sumerian Take-off (Algaze 2008).

Its place in the southern Mesopotamian worldview is evident in the Warka Vase (Roaf 1990, pg. 61), recovered from the temple storeroom of Level III, 3000 BC, at Uruk-Warka. The bottom two registers are grains and domestic animals. On the top are naked men presenting what looks like food made from grain and domestic animals to the goddess Inanna and a human figure usually identified as a king, although one wonders how a head priest was portrayed. There is no sign of any imported goods on it.

The same emphasis appears in the religion of the late fourth millennium. The gods of the southern city-states at this time represent elements of nature and agricultural or pastoral production: Ninlil, "the grain goddess," "Enlil, wind god and god of the hoe," his son "Ninurta, wind god and god of the plow," "Ninazu, the Lord knowing the waters," "Dumuzi the shepard (in later texts, he is called "Dumuzi of the grain," particularly barley beer) and his bride Inanna," in later texts called "the goddess of the communal storehouse," and so forth (Jacobsen 1976, 25). "The fourth millennium, then, … informed ancient Mesopotamian religion with its basic character the worship of forces in nature. … As the most characteristic trend of the millennium we may posit the selection and cultivation for worship of those powers which were important for human survival—powers central to the early economies…" (Jacobsen 1976, 73). Two examples of the earliest buildings called temples were in the 'Ubaid Period at Eridu Level 17 (Safar *et al*. 1981) and Tepe Gawra Levels XIX and XVIII (Tobler 1950). Both have what look like altars in the center of a room. That along with a large central room with easy access from one short side and a place for ablutions are criteria for calling a building a temple (Rothman 2002). However, through level 9 at Eridu the temples are too small for even a small congregation, much like what Rothman (2002) calls a shrine in Phase XI of Level XI/XA at about 3900 BC. The first time a full building with the three characteristics, as well as niched walls typical of public buildings, occurs is Eridu Temple 8, which Safar *et al*. (1981) attribute to the 'Ubaid period. At Gawra, it is in the same Phase XI of Level XI/XA in the LC2 or Early Uruk Period. This is the time when images of shamanistic, bird-headed human beings on seals and sealings no longer are as common (Rothman 2009).

Jacobsen describes the third millennium Mesopotamian religion as one where gods were rulers and the cosmos was a polity, a political entity (Jacobsen 1976, Chapter 4). The presence of small shrines continues in rural sites like Tilbes (see Chapter 6 below). The idea of Redfield's (1956) Great and Little Traditions in religion may be a description of urban versus rural society, relevant to Tilbes (see below). It posits the rituals and beliefs of common folks (Little) versus the formal, centralized religion with larger congregations of worshippers of the state rulers (Great).

So, in D'Altroy and Erle's (1985) useful formulation, these images and myths represent staple finance. That is an economy based on bulk staples, mostly foodstuffs. The other alternative is wealth finance. That is economic activity based on goods, usually crafted and often traded over a considerable distance, that can be used as symbols of wealth. Many of the goods derived from the North and East can be considered wealth finance: metals like copper, gold, silver, semi-precious stones like lapis lazuli. These are often found in graves, especially in the Early Early Bronze Age. This formulation assumes that inequality existed. Only some people and groups had access to the wealth. They are ones Blanton *et al*. (1996) say practiced exclusionary strategies to benefit themselves, as opposed to corporate ones that aim to benefit the larger whole of society. The buildings most in need of the larger imported logs were large public buildings like palaces and temples, which do not really count as wealth finance, but represent those institutions best able to amass wealth.

The importance of long-distance trade of the type involved in the Uruk expansion is two-fold. One is definitely wealth finance. Lapis lazuli, for example, was certainly one such material. It was often used for seals or amulets, and found its way into graves (Rothman in press). The material may have been more significant than the impression on the seals. Copper metal objects, first appearing widely in Mesopotamia during the fifth millennium, seem not to have been used for tools or weapons, but for amulets, pins for closing linen and then woolen clothing and small figurines or amulets (Moorey 1994). By 3000 BC (the beginning of the Mesopotamian Early Bronze Age), metals expanded into use for practical objects from axes and sickles to spears and swords, in addition to items like frying pans. This is especially true by 2300 BC (the Akkadian Period). Tools like axes and weapons like swords and spears ancients put into their graves, so they probably came to be part of a system of wealth finance. Other tools like frying pans and sickles (Speiser 1935, Level VI) may well be part of a staple finance world.

But was long-distance trade a cause of development? As a comparison, Teotihuacan in Central Mexico from about 200–750 AD was a city of commerce, spectacular, centralized religion—the Pyramids of the Sun and Moon along the Street of the Dead that could accommodate 100,000 people for rituals—and administration (Blanton *et al*. 1993). Its growth was to a considerable extent based on making obsidian blades and other craft goods for export. It basically controlled the market for goods whose raw materials came from the Maya area. Estimates are that there were 300 craft shops in the city, and twelve percent of the whole population was involved in the obsidian trade (Blanton *et al*. 1993, 134–135). Clearly, its commercial enterprises made the city, and then the commercial, manufacturing part increased its size to 130,000 people. Even so, the city was not purely centralized in structure economically and politically. It was a city of self-governing neighborhoods (Manzanilla 2016). Running a city of its size required many people doing many tasks. It gave those at its administrative hierarchy the resources to make it a primate religious center. That trade shifted after 600 AD (Feinman *et al*. 2019), and the city began to collapse. The population declined by 80% in a short period of time and by 750 AD, it was gone and the Street of the Dead and its bracketing pyramids were torched in a conscious effort to erase even its religious importance.

Was Uruk-Warka the commercial, ritual, and administrative center of the South like Teotihuacan? It certainly was not a primate center like Teotihuacan or Arslantepe (see below). As Algaze (2008) notes, until we know more about it than the central districts, we cannot know for certain. I would speculate, however, that it was not such a commercial center, and most of the goods arriving from the North and East were part of a wealth finance system restricted to a limited group within the city, not just its newly institutionalized rulers in the palace and temple sectors, but the ruling group along with the head of lineages groups with access to surpluses through their control of land and of kinship obligation to farm. Therefore, we are seeing inequality represented in the distribution of imported goods.

Another apt case may be the Chaco Culture of 900–1150 AD in the southwest United States. At that time the so-called Great Houses at places like Pueblo Bonito in Chaco Canyon were the centers of larger settlement systems (Fagan 2000). They, like Mesopotamia, lived in an environmentally marginal place, full of risk. Like the city-states of southern Mesopotamia, they needed to import logs for building the Great Houses (Guitermann *et al*. 2016). They invested much labor and organization in extensive road building, many kilometers long, and contacts with societies even farther away to bring in cacao, turquoise (from 160 kilometers away near Santa Fe), copper bells, sea shells, and macaw birds, the last from Mesoamerica. Archaeologists recovered many shops making items of turquoise. The macaw birds have remained a symbol of status in the Pueblos today (Watson *et al*. 2016). It looks like this trade was part of a wealth finance system. The exchange networks for finished products of turquoise, for example, may have remained local. The peopling of the Great Houses of Pueblo Bonito happened through migrations from the surrounding countryside (Mills *et al*. 2018), much as the peopling of Mesopotamian cities like Uruk-Warka must have done. The Great Houses became ritual centers as, again, Uruk Warka was. At the same

time, the sites of the Great Houses were relatively small, perhaps no more than 1000 residents in 650 apartments. There were none of the expected archaeological indicators of inequality, such as differential house size, unequal distribution of high valued, often exotic goods, or grave construction and grave goods. This, although there must have been those who coordinated the road building and the trading. Mills (2000) proposes that leadership decision-making and coordination was present, but hidden in an appearance of kinship equality. It was through those kinship ties that the actual leaders acted like the hierarchical decision-makers of Mesopotamian societies. Wills (2000) argues that the presence of many separate decision-making units, clans, actually is more flexible and efficient than a hierarchical system with fewer decision-makers. A kind of wealth finance system through long-distance trade created an avenue for some in non-hierarchical societies to begin the process of gaining some control and centralizing various practices. It was still a more corporate system, however, as Blanton *et al*. (1996) hypothesize.

Pueblo Bonito is not considered a city. The topography of Chaco Canyon and the marginality of its food producing systems limited the possibility of agglomerating greater numbers of people. Perhaps, alternatively, it did not require agglomeration as the cities of the southern alluvium more likely did because of their need initially to be near the river sources of irrigation water. Different selective forces were at play creating different alternatives to decide how to organize society and settlement. Trade alone does not explain it.

So, what then is a city? The Chaco case shows that wealth finance trade may lead to inequality without a large population or hierarchical institutions. It does not take a city to accomplish this. The concept of city has a long, winding history (Rai 2019). One criterion has always been size, physically and demographically, especially compared to other sites in the same locale (Al Quntar *et al*. 2011). The Mesopotamian cities are much larger than the Early Bronze Age II "cities" of the Southern Levant (Greenberg 2002). As Adams (2012, 5) quotes Anderson, "more is different." But different in what sense? A second criteria that al Quntar *et al*. cite relates to the role of a city in their urban system. Blanton (1976) focuses less on the size of cities than on the functions they perform. Cities usually have functions that are not reproduced elsewhere in their urban system. Central administration, centralized religion—the cathedral is in the city even if there are churches elsewhere—, and cultural resources; in modern times, the art museum, the orchestra, the sports teams that play on the national stage, even the popular music venues are in the city. Cities also are usually mediators of manufacturing and commerce (major markets). They are also engines of change. As Redfield and Singer (1954, 58–59) have written, "The city may be imagined as that community in which orthogenic [conservative] and heterogenetic [innovative] transformations of the folk society have most fully occurred. The former has brought about the Great Tradition [religion] and its special intellectual class, administrative officers, and rules closely derived from the moral and religious life of the local culture, and advanced economic institution." The "city… is not to maintain culture as it was...but to create out of the traditional material new arrangements and developments that are felt by the people to be an outgrowth of the old." The city is also a place where different groupings within societies—interaction among the various residents of sites within the urban system, and groups outside it—create new social and political institutions and also a homogenization of some cultural characteristics. As Cole and Wolf (1974:269) write, "the socio-cultural manifestations of the formation of new political groupings... is the result, not of ethnic groups disengaging themselves from one another, but of increased interaction among them... It is a process by which a group.. manipulate[s] some customs, values, myths, symbols, and ceremonials from their cultural tradition in order to articulate an informal political organization, which is used as a weapon in that struggle."

The idea of city does imply greater complexity. The requirements of administering the city and the relations among the sum of settlements in the urban system as they adapt or maladapt to natural and human ecological conditions make it so. It is in this sense that the city is coeval with what anthropologists call a state. Yet a city is hard to define by a set number of occupants. One needs to look at the whole system. "What I am suggesting to consider distinctive of a city is its nature as a spatially based, organic [integrated] system of relations between "specialized" and interdependent components (economic, social, and political [and ritual]) living and operating in close but distinct areas, both within the city itself (quarters, public areas, [ethnic neighborhoods], zones used for various purposes and functions or specialized activities), and in the surrounding territory, thus creating structural links between settlements, their rural landscape, resource extraction, and their management" (Frangipane 2023, 21 [brackets mine]). Not only did Uruk-Warka grow dramatically, so did the occupied hectares of its whole urban system. Yet, cities can take very different shapes not only based on their functions and their size, but on how the whole urban system develops. They also reflect the topography of their region. In Urartian times (900 BC) because of the difficulty travelling in winter in the mountains, they constructed not one but numerous small capitals (Zimansky 1985). In Uruk-Warka, as I wrote above, the city seems to have grown in population by taking people from its rural sector into the city. Tell Brak, the premier city of the North in the LC3–5 and Early Bronze Age, drew in a larger population in its rural landscape. The selective processes that made this happen included the ability in the North to produce enough food to sustain this larger population (Frangipane 2023).

One larger conclusion we drew about Tilbes was that it was not tightly integrated into any city during the Early Bronze Age. It was, as Rainville (Chapter 5), asserts, rural-directed, having some economic relations with larger sites and with the Ebla and Akkadian Empires, and perhaps special relationships with Surtepe, which was not occupied continuously through the Early Bronze Age. However, one

does not get the impression that the centers that existed depended on the population of Tilbes or they on the cities except for getting some specific goods like Canaanean blades (see Matiecicova, Chapter 4) and perhaps pottery. The lack of any seals or sealings indicates such weaker control links.

Like the Chaco Canyon example and Uruk-Warka, the size of the urban system will tend to grow based on local resources in the natural environment. People within the urban system have to create strategies that take the role of the city into account, and therefore they will be affected by economic and political trends in the larger region. One always needs, as I have written elsewhere (Rothman 2001), to understand simultaneously the local and the regional.

Therefore, I suspect that if the same set of facts for the Southern Levant were presented in Mesopotamia, we would call Bet Yerah (Greenberg 2002) proto-urban. It has a major re-organization of the settlement, but there is not a clear urban system. Certainly not growth of overall settlement integrated into Bet Yerah's territory as a polity. We do not see clear evidence of centralized religious rituals, clear evidence of commercial centrality or markets. The assumption that urbanism equals complexity or state society strikes me as a way simply to rename the old Service/Fried nomenclature, as some have simply replaced "chiefdom" with "middle range society."

Among the functions of the center, the city, of an urban system is to integrate each settlement within it. The ability of the leaders of a city to integrate the parts of its urban system will to some degree be measured in the smaller interdependent settlements. Wattenmaker (1998) has demonstrated the power of looking at the village level in her study of mid-late third millennium Kurban Höyük upstream from Tilbes in the Samsat area on the Euphrates. She showed how the activities of villagers and their consumption of manufactured goods were very sensitive to changing leaders and rank in the central sites of their polity. When archaeologists speak of villages, they tend to mean where the food production that sustains the polity occurs and where often more conservative residents hold on to traditions until the changes around them become overwhelming. We have to understand that different polities are organized in different ways, so the roles of each smaller site may vary as the degree of integration and the degree of primacy of city centers varies.

Commonly used by scholars is the idea that settlement systems with sites of two sizes (two-tier) or especially three sizes (three-tier) automatically means the same kind of political and economic organization. Fortunately, the Southern Mesopotamian settlement system includes the kind of three-tiered structured predicted by geographers like Christaller (1966). Therefore Johnson's (1973) use of the three-tiered model to equal three levels of political hierarchy makes sense. But in many cases the assumption by scholars of that equivalence in all cases ignores the size of the sites or more importantly, the functions of the different sites (e.g., Areshian (2007). Not taking both elements into account makes me question the validity of the use of two-tiered or three-tiered settlement size to equal political-economic structure.

In the remainder of this chapter, I will provide the background necessary to contextualize the data and analyses we report here. First, we will provide some background on the fourth millennium BC regionally and specifically in the North and East. Petr Charvát introduces the reader to the regional cultures and mostly political shifts of the mid-late third millennium, also reported on in this volume.

Sub-regions of Mesopotamia from the Fourth into Third Millennia BC

The Southern Alluvium

To set the table for our analysis of the subregions proposed to be in the periphery by Algaze, we look again at the supposed core. It is one the earliest cases of societies to become complex enough in their organization to be considered states and centralized and integrated enough in their settlement patterns to be considered truly urbanized. This occurred during the fourth millennium BC in the southern Mesopotamian sub-region of Greater Mesopotamia (H. Wright and Johnson 1975; H. Wright 1977; Adams 1981; Pollock 1992; H. Wright 1998; Stein 2001). In theory these socio-political changes occurred in the South during the Middle Uruk Period, also called LC3 (3700–3400 BC (H. Wright 1998, Rothman ed. 2001)). By the time such complex polities became more solidified in the Late Uruk Period or LC4 and 5 (3400–3050 BC), evidence suggests that the changes that occurred in the South of the region, the southern alluvium of modern Iraq and southwestern Iran, were coterminous with the formation of economic and potentially political networks throughout the wider region and beyond.

The changes in social complexity in the South were represented by economic, political, social, and ideological factors. The irrigation agriculture of the South was extremely productive. Estimates from early historical records in the later third millennium BC indicate that per acre yields of grains exceeded those of modern industrial farms (Jacobsen 1982). This productivity yielded a surplus for these societies. It also meant an agglomeration of population near the Tigris and Euphrates Rivers from which irrigation water was drawn (Adams 1981). These circumstances gave emerging leaders a series of possible avenues of control. One was the irrigation works themselves (Adams 1981, Rothman 1987), or more precisely the labor involved in digging and maintaining larger canal systems. Another was the provisioning of the cities with meat and other animal products (Zeder 1991). A third was storing grains for the inevitable years of drought or flood.

Craft productive systems were also changing at this time in the South. The fourth millennium saw an increase in

specialized production. H. Wright and Johnson (1975, Pollock 1992) propose that pottery was now made in large workshops in a limited number of locations in Susiana and probably elsewhere. Mass production of many ceramic forms was almost omnipresent in Greater Mesopotamia. The most often cited type, Beveled Rim Bowls, might actually be an exception, because the technique of manufacturing these bowls does not require skilled potters. That may be part of their appeal for stews or bread to serve as rations. Metals, a product of great importance for our discussion, also became available widely as copper or arsenical bronze (Palmieri *et al*. 1993). Tin bronze appears later in the third millennium. The importance of metals, according to Stork (2015), in the fourth millennium is for its utility and according to its weight to re-smelt it for another use. Not until the time after the Uruk does its value get determined by what is taken out of circulation as wealth, often buried on its own or in graves. Precious and semi-precious stones like lapis lazuli were worked into markers of status, found in graves, houses, and palaces. Although largely invisible archaeologically except for tools, cloth-making is often theorized as a major exchange good of the South, based on images in seal designs from centers. Wool or goat hair was a relatively new material for weaving as late as the mid-fourth millennium, because of the slow process of hybridizing sheep and goat for that purpose (Anthony 2007). Later texts speak of sheep with hair or thick wool. It is not clear whether this wool was from local sheep or imported wool. Less discussed among craft activities is building. However, the building and maintenance of large public structures probably was a specialized task involving sizable numbers of workers on a more than part-time basis (Wright 2001).

At the same time that economic systems tended toward greater complexity, core political institutions were evolving. As H. Wright and Johnson have defined it, increasingly political complexity involves increasingly hierarchical leadership structures (H. Wright and Johnson 1975; Johnson 1973). Certainly, all evidence points to an increasing centralization of political authority in the centers of polities, whether city or town. A complex mechanism for political control had evolved out of amulets, that of seals and sealings. Using clay locks on sacks, jars, baskets, boxes, and storeroom doors permitted individuals to control the movement of foodstuffs and raw materials for craft production (Rothman 1994b; Frangipane ed. 2007). This control was accomplished by stamping the locks with the symbols of those with the authority to open them. The system of institutional control is manifested by the theme of the stamps' design or by their artistic rendering (Rothman 1994a, in press; Pittman 1993). Pittman (1993) has shown clearly the nature of state control over foodstuffs in the Late Uruk (LC 4/5) through depiction on sealings of the central storehouses at Susa. At the very end of the fourth millennium and the beginning of the third, the more information-rich technology of writing was first used to keep accounts and control in leadership institutions (Nissen *et al*. 1993). This technology would not be adopted in the North and East for much of a millennium. Here the mass- produced Beveled Rim Bowl and the leaders' role as providers is clearest evidence of the new institutions of leadership. Leaders used surpluses stored in warehouses of the cities to marshal laborers for various functions. The administrative center of the state engaged the loyalty of and helped provide subsistence for its client population in that way.

Ideologically, new temples were built in the central places of polities. These were clearly a focus of religious worship and of political legitimization (Drennan 1976). This aspect, too, drew individuals into central places. It was there that the resources of labor and materials could be marshaled to create such institutions. As I wrote above, cities are the engine of creating new institutional varieties and cultural forms. Similarly, the need to symbolize new kinds of authority was manifest. Items of personal adornment and the decor of central institutions had to reflect the new status of their leaders. The situation, certainly in southern Mesopotamia, could be compared to that of chiefs in Panama (Helms 1979) in one sense. In the search for power, leaders had to show their connection to distant, unreachable places, the realms of the gods or the distant sources of exotic materials.

In sum, a social transformation had occurred when new *kinds* of economic, governmental, and religious interdependence evolved among the people living in close contact in the city-centered polities and urban systems of city and rural settlements in the South. At the heart of that interdependence was the functional "segregation (the amount of differentiation and specialization)" of the members of these networks and the necessary linkage among segments or sub-systems in the functioning of the whole system or network (Flannery 1972:409; 1995). In particular, these increasingly complex systems were characterized by:

1. a very productive agricultural system producing beyond its subsistence requirements,
2. a newly organized leadership with control technology and access to some of the surplus and to craft specialists,
3. a hinterland of individuals supplying foodstuffs, but also taking advantage of ration labor and stored grains, and with sometimes specialized functions of their own,
4. a centralized ideological system that legitimized rulers and probably brought more resources and labor to the center,
5. a system of symbols marking inclusion in the Southern cultural system (the amazingly uniform classic Uruk artifact styles), and marking off different status positions (Pollock 1983),
6. a system of obtaining exotic materials for symbolic and practical uses,
7. a centralization of religious ritual, possibly under the control of the same leadership, and
8. what Algaze calls the "Sumerian Take-off," a geographical area with competing city-states tied together by efficient water transportation ideal for accelerating societal development (Algaze 2005, 2008).

Certainly, the societies of the alluvium had become much more complex during the fourth millennium.

Following the end of the fourth millennium, the sites of the southern alluvium did see changes. Major cities continued to grow. However, the number of rural sites declined (Postgate 1986, Adams 1981). According to Pollock (1999, 117f.), craft goods and possibly food were both produced and consumed in what she called an *oikos*. The *oikos,* written in Sumerian as *é* is a social unit that could consist of extended kin groups or even communal groups. The palace institution was called *é.gal* or the great *household*. This implies that in all likelihood it and the temples had already begun to rely on their own estates rather than getting tribute from the rural sector. Much of that rural population had moved into the cities to become part of the *é.gal,* temple community, or large kin-based social units. Their labor was more important than tribute from outside the city. If Stork is correct, like metals, large quantities of objects made from imported raw materials were more restricted to uses that were not utilitarian and may have been limited to a smaller percent of the population.

What was happening in the so-called periphery, and what does it tell us about the utility of the World Systems Theory, and the appropriateness of calling the end of the fourth millennium BC a collapse?

As I have written above, I consider the newly founded sites along the Middle Euphrates—this includes Habuba Kabira, Jebel Aruda, Qraya, El Kowm, and Sheikh Hassan (Boese 1995)—to be colonies of the South. Whether each was related to a separate city-state of the alluvium, as Algaze suggests, or they were independent centers serving the region, is not possible to determine from what evidence we have. The uniformity of the clays in the southern alluvium makes it difficult to trace the products of particular city-states to these colonies.

The Late Chalcolithic-Early Bronze Age "Periphery"

For the purpose of analysis, the "periphery" can be divided into a number of subregions. To the east is an area that would be typified by Ninevite V pottery in the Early Bronze Age areas of the Tigris River above the Lesser Zab River into the area where the Tigris turns west in what is now southeastern Turkey. A second eastern sub-region is the central Western Zagros. On the west are three sub-regions. In the northernmost part and along the shadow of the Taurus Mountains is Malatya. To its south is the cluster of sites near Samsat on the Euphrates, as well as the area of direct interest in this volume, to the south of the Samsat the stretch from south of Carchemish on the modern Turkish-Syrian border up to the area of modern Birecik. These are areas where so-called Plain Simple Wares were the most common in the early Early Bronze Age. The area between the Samsat and Carchemish sub-regions has not been surveyed, so we do not know much about it.

The Ninevite V sub-region

One of the most discussed and widest exposed sites of this period is Tepe Gawra (Speiser 1935, Tobler 1950, Rothman 2002). The site sits in the piedmont by the Jebel Maqlub, along two former river banks and near springs. It is a land of rich agricultural land and pasture. The nearby passage through the Jebel Maqlub to the highland of what is today Iran connects it to highland summer pastures. Pastoralists from the highland historically wintered their flocks near Gawra. The site was continually occupied from the Halaf period of the late 7th millennium through the 'Ubaid Period and into the LC3 (new assessments suggest that it is LC2, so all pre-Uruk expansion [Stein 2014]). Sterile soil was never reached, and I would bet, if it were, the site would go into the Late Neolithic. Its nearby neighbor is the Neo-Assyrian capital of Khorsabad.

The cultural and societal evolution of the site is one of considerable growth in complexity from the LC1 'Ubaid-Uruk transition, time before the Uruk expansion to LC3, when the trading network just began. Level XII of the LC1 already shows the developing institutions of the site, and its potential for violent competition. A series of large tripartite buildings I interpreted as extended family dwellings (Rothman 2000). They each had access to exotic goods, so show no signs of social differentiation; in terms of organization, typical of horizontal egalitarian society (Table 1.1). Gawra at the time was one of the places along the route of lapis lazuli into Mesopotamia (Herrman 1968). Gawra was also part of an exchange network that went from Tell Brak in the west up the Tigris into the highland at Değirmentepe. This is evidenced by neutron activation of Sprig Ware of the LC1 and Impressed Ware of the early LC2 (Rothman and Blackman 2003). The community was sharing its surplus grain in a silo, controlled by sealings. Other craft goods were stored in rooms by the entry road into the tell and a specialized craft building and sorting bins behind the storerooms. In other words, a staple finance system was already present, as were elements of a potential wealth finance system. However, all evidence from buildings to graves to access of exotic goods paints a picture of a more egalitarian system. There is no evidence of a formal temple, and the images on the sealings indicate that a shamanistic worship was the focus of ritual (Rothman 2009). Mortuary remains were standardized and contained few grave goods (Peasnall 2002). The site ended in fire and assault with bodies lying dead in the entry road.

Gawra was quickly rebuilt in Level XIA/B. By the end of that level its residents built a fortress called the Roundhouse with storerooms filled with grain. Some have misinterpreted a base for stairs to the Roundhouse's roof as an altar. Less clear evidence of craft making for exchange are evident in the part of the mound excavated. No formal temple remained. Mortuary practices were similar to those of level XII (Peasnall 2002). XIAB, too, ended in fire.

Level XI/XA of the early LC2 saw a leap in complex development. Specialized workshops for textile manufacture and woodworking occupied the center of the tell. A building that met all the characteristics of temple occupied the southwest, facing out onto the Jebel Maqlub. A building by its size, architectural layout and contents I interpreted as an administration building. Unlike XII and XIAB, the distribution of seals and sealings was not spread over the whole mound. Rather, it was concentrated exclusively in the temple, administrative center, and the two specialized workshops. There were a significant number of houses. Mortuary remains were like the levels below; that is, fairly egalitarian with limited grave goods (Peasnall 2002). So, specialization in production, presumably in part for exchange, was present. The level meets the definition of Vertical egalitarian organization.

Levels X and IX lacked the craft manufacturing of XII and XI/XA. They now were dominated by temples in the middle of the mound, an administrative building and houses. Most seals and sealings were associated with the temple and administrative building. What changed, aside from a focus on religion, was their burials. Pisé and pot burials, common before, disappeared. Most of the burials were constructed tombs. In them were grave goods made of gold, electrum, carnelian, and dentalia shell (Peasnall 2002). The data suggests a beginning of ranked society.

Level VIII represents another stage in development. The site as excavated has no domiciles. It is dominated by a large temple, an administrative building with a smaller altar, and a central warehouse. Adjoining the warehouse is a building I called the comptroller's house, because it contains pieces of sealings with one half at the comptroller's house and the other at their final destination in the temple, administrative building, etc.. In other words, sealed containers were shipped to the comptroller, who broke the sealing presumably for auditing, and sent the contents and the other half of the sealing to other institutions on the site. This suggests greater centralization. The warehouse had goods that were destined for exchange or trade. Many obsidian blades were among them. The obsidian came from the Supan Dağı mountains north of Lake Van (G. Wright 1969). Whether these finished products were made at Gawra or transshipped through it is not possible to determine, since debitage, if present, was not saved by the excavators. The tombs of Level VIII were among the richest in terms of grave goods. Level VIII was destroyed by a fire so hot it turned mudbrick into baked brick. After Levels XII and XIAB burned, the site was rebuilt quickly. However, after the fire that consumed Gawra VIII, the site was abandoned for the rest of the fourth millennium and reoccupied in the Ninevite V Period. I interpret this as a major attack to disable the site from functioning. Ranked society was fully established. Unfortunately, large-scale terracing of the Level VI occupants destroyed most of the Ninevite V levels.

Nineveh is assumed to be the Habuba Kabira of the Tigris (Algaze 1993). It was, however, founded many centuries before the LC 4/5. It was not occupied throughout the LC sequence but was occupied during the LC4/5 and, unlike Gawra, has typical Uruk pottery. We, in fact, know very little about this period at the site, save for single narrow stratigraphic pit that Mallowan dug in in the late 1920's and early 1930's (Gut 2002). So, we lack any practical knowledge about what percentages of the pottery were Uruk, what functions the site had during that time, or much about any other category of artifacts. We do know that it continued uninterrupted to the Ninevite V levels. In other words, no collapse.

Especially with the new projects in the Kurdish zone of northeastern Iraq, many sites have been excavated. To date most of the publications have focused on pottery chronologies. Among the many sites is Kani Shaie (Fig. 1.2), which was located in the Bazian Basin along the interface between the piedmont and the Zagros Mountains in a spot between modern Sulaymaniyah and Kirkuk. Renette (*et al*. 2024) calls this area part of the east Tigris corridor that runs from the Diyala River to the westward bend of the Tigris River in southeastern Turkey along the Zagros front. It is within the Ninevite V pottery zone. The area has been occupied since at least the Halaf Period of the 7th millennium BC.

Clearly, the Tigridian corridor in the current Kurdish zone of Iraq saw many sites that were occupied before the Uruk expansion is supposed to exist. Most of those either were abandoned or reduced drastically in size. This is basically the situation with Tepe Gawra described above. Kani Shaie is an exception. A small site of maximum 3 hectares, it was occupied from 6000 to 2000 BC (the latter the final days of the Akkadian Empire).

The pottery of Kani Shaie Level VIa and b (LC2–3) show many similarities in shape and decoration to Nineveh and Gawra in or near Mosul, Qalinj Agha (south of the Greater Zab River), Yorgun Tepe (ancient Nuzi, south of the Lower Zab and north of the Diyala River), as well as to Tell Brak and Hamoukar in the Middle (Khabur River) Jezirah steppe land (see below). In Kani Shaie Levels VIb and VII (Renette *et al*. 2021) seem to have a local ceramic dialect. Wide Flower Pots, the same fabric and production technique as Beveled Rim Bowls were among the most common pottery types. In VIa, the first true Beveled Rim Bowls appeared alongside fewer Wide Flower Pots. By Vab "LC4(-5?)" (Renette *et al*. 2021) a variety of Southern Uruk types appear, as does evidence (string cut bases) of Southern pottery production techniques. Beveled Rim Bowls dominate the pottery types. Forms are similar to contemporary Susa and Choga Mish in the Susiana Plains and Sheikh Hassan in the colonized Middle Euphrates, Rubeideh in the western Diyala, and Abu Salabikh in the southern alluvium. So, Kani Shaie certainly classifies as a site with the presence of Uruk types and generally associates with Mesopotamia.

Yet, there are no signs of a collapse. Occupation continued there into the Early Bronze Age (Renette *et al*. 2024a and

b). The transition of LC to Early Bronze Ages shows that some typical LC pots like Beveled Rim Bowls continued into the Early Bronze Level 7. The proposed function of Beveled Rim Bowls in Mesopotamia extending into southwest Iran was for rations, either bread or maybe a porridge. The nature of the society at small Kani Shaie would make that function somewhat questionable. Other signs of societal complexity do not suggest a ration system. BRB's might be a kind of Tupperware, easy to make and versatile in its uses. Other Level 7 pots reflect the Ninevite V style. Unusually, a large numbers of pots were painted (Renette *et al*. 2024, Fig. 5). Levels 8 and 7 of the early Early Bronze Age are notable for a separate area surrounded by a retaining wall. Inside it was what looks like a communal storage facility with the remains of many cylinder sealings. It is reminiscent of large silos like al-Raqa'i in early Early Bronze Age northern Syria (Curvers and Schwartz 1990). Like Kani Shaie, there were also smaller grill type storage units associated with households.

Why did Kani Shaie not collapse? One reason seems to be a lack of control and integration in the Southern state system. Another seems to be a coherent local culture shared in the Tigris Corridor from the Diyala River to the north side of the Greater Zab River. Pottery production, represented in a long-term preference for an F2 kind of vegetal temper, defined a conservative *châine opératoires* (Renette *et al*. 2021). The location of the site could take advantage of limited but rich agricultural soils and pastureland, both fed by adequate rainfall. The other advantage is access to the highlands of modern Iran in the Zagros and Central Plateau. Renette (2016) argues that trade to and from the highlands of the Zagros Mountains and beyond must pass through this area near the pass that would lead to Godin Tepe up the Diyala in what was the Khorasan High Road and would be later called the Silk Road. Certainly, metal ores were moving in from the highlands to the South.

Another pair of relevant sites are Girdi Qala (Fig. 1.2) and Logardan on the north side of the Lesser Zab River. Here southern alluvium Uruk pots appeared before the Uruk expansion (Baldi 2016). The local pottery is the same as late LC2 elsewhere. Archaeologists found local wares beside the Early Uruk pottery. Locals at Girdi Qala used a series of kilns for producing mostly Uruk-styled pottery. Meanwhile at Logardan residents built a fortified "monumental acropolis"—do we use the word monumental and elites too freely?—onto which people ascended via a large ramp. In the LC3 the fortified area was used for various activities. The interior part of the it yielded only Uruk pottery, and the outside part only local styles. Later the outside became a workshop for only Uruk pottery. At Girdi Qala potters continued to produce Uruk pottery. In a later stratum of the LC3, people using only Uruk pottery lived on the northern mound of Girdi Qala. Baldi (2016, 140) rightly questions the assumption that different pottery style automatically means separate communities. "…this simplistic framework represents a completely unsatisfactory historical or anthropological reconstruction of the interaction between the two communities. In fact, the existence of distinct communities in the same area does not mean at all (and indeed makes it very unlikely) that they are separate groups, and segregating their respective work and living spaces does not automatically imply parallel evolutions without mutual integration." I would add that it does not imply that either is necessarily in control. In addition, in my opinion, the over-reliance on pottery style as an independent set of data makes it harder to determine the adaptations and strategies (decision-making) of people living in the same area over time; that is, the practices of people living there. More critical, I argue, were the functions, including of the pots, and how they and other classes of artifacts representing different activities can be mapped onto the architectural and open spaces on the mound.

Again, there is no collapse at Girdi Qala (Vallet, ed. 2018c).

Moving north into the area where the Tigris River turns west and intersects with the Bohtan Su (see Fig. 1.2), a number of sites show connections with Southern Uruk pottery types and production techniques (fast wheel and tempering). Among the most interesting in regard to our question is Başur Höyük (Sağlamtimur and Halkan 2015; Sağlamtimur 2022; Aydoğan *et al*. 2024). The site is among the largest in its area. People occupied it from the Neolithic. During the Late Chalcolithic the earliest levels exhibited local artifact styles like those found in the pre-Contact levels of Hacınebi, Hamoukar, and other sites (see below). In the last phase of the Late Chalcolithic residents built a large wall around the north mound and some of the area to its south. The pottery there consisted uniformly of Southern Uruk forms and styles. A large building was constructed in the northern section. It would seem to fit the definition of a colony, but we really need more detail on a variety of other artifact types and buildings with their contents mapped. One possible role and hence the importance of the site is that it is a gateway site to the Lake Van region from which, among other things, much of the obsidian found in the Steingebäude at Uruk-Warka came. It is also a gateway through the Zagros into the Zagros highlands around the Lake Urmia.

Again, however, there is no apparent hiatus; that is, no collapse, recorded at the mound. Rich cist graves, a temple, and other building of the Early Bronze Age suggest that the site was a ritual center of some kind.

The Zagros Front

Although not really part of Mesopotamia, the Zagros, now in modern Iran, played an important role in the development of Greater Mesopotamia.

We have surprising little new archaeological excavation of note from there. Much of the research after the Iranian Revolution has been in the form of surveys to catalogue sites (Assef Noroozi, personal information). The few

stratigraphic excavations have been small and so mostly they have produced a very limited sample of ceramics and other artifacts. Archaeologists there are doing some new excavation at Susa and Tall-e Malyan, but we have little publication on them yet.

The most notable site in relation to the Uruk expansion is Godin Tepe (Gopnik and Rothman 2011). The site sits by the Gamas Ab River that flows through the Kangavar Valley entering and leaving the valley along an ancient route that is part of the Khorasan High Road. The Kangavar Valley is divided into three geographic units: the valley bottom, Kangavar hill country, and Velishgird upland (Rothman and Badler 2011, Fig 4.41). The site became part of the Uruk expansion theory when Weiss and Young (1975) wrote "The Merchants of Susa." In it they claimed that an enclosed oval wall in Godin VI:1 surrounded a set of buildings at the top of mound near what would have been its center if the Gamas Ab had not eroded away a large part of the mound over time. A problem that Elenderi (2024) exposed was that in going back to all the original field drawings and speaking with the architect that drew the plans for Godin VI:1—Badler and I (2011) made the mistake of largely accepting the original plans—she demonstrates that no such wall existed. The houses in the Deep Sounding extended beyond the putative wall. Also, as Elendari argues, the architecture is not typically Mesopotamian, but Proto-Elamite. There were some Uruk pieces, although they were a very small percentage of the local Godin VI pottery style corpus (Henrickson 1994). An instrumental neutron activation analysis of the Uruk potsherds (Gopnik *et al*. 2016) shows that the all the Uruk-styled pieces were made at Godin or nearby in the Zagros. The presence of a seal from a brick in overlying Godin IV and seal impressions on a few clay tablets (Hallo 2011) suggest a level of control and centralization not known in the region previously, even without the Oval idea. The seal and the impressions on the tablets are in some cases identical to ones at Susa or Uruk-Warka. They are shared by other sites including Tell Brak and Hacınebi in the North. That connection is also shown by the instrumental neutron activation analysis of one sealing at Hacınebi which was from clay in or near Susa (see below).

Contrary to Algaze (1993), Godin Tepe was not a colony of the south, either Susa or the city-states of the southern alluvium. It is clear that its residents were aware of Southern pottery styles and technology of the fast wheel. Godin's place on a primary trade route from the east, and its proximity to copper sources suggests that its inclusion in a broader world had happened in the LC5, even at the time when the Uruk colonies at Jebel Aruda and Habuba Kabira were beginning to fade. It was part of the last stage of the Uruk expansion. If there were any people from the South there, they were few and their role was to encode records of exports moving from the highlands to the South. I (Rothman 2013) and Matthews (2013) see a more likely scenario. That is, that the movement of copper and other raw materials from the Zagros and the Iranian Plateau offered an opportunity to local leaders to expand their roles and their power. Also, a survey indicates a growing population in the southeastern lowlands of Kangavar and opportunities for integrating larger settlement systems in the Kangavar Valley (Rothman and Badler 2011, Fig. 4.41).

The Mahi-Dasht to Kangavar's west saw a greater influence of the southern alluvium (Renette and Ghasrian 2020; Henrickson 1994). In the succeeding Early Early Bronze, when Kura-Araxes immigrants occupied much of the western Zagros, there appeared a kind of cultural barrier between the highlands and the lowlands. Not surprisingly the Mahi-Dasht had almost no Kura-Araxes pottery, while in the preceding LC5 it had significant Uruk presence. Other sites like Giyan and Baba Jan V in Luristan had a similar pattern as Godin: a few Uruk types amid a sea of Godin VI material.

This fairly short episode at Godin Tepe did end with a fire that occurred or was set. I suspect the latter, because like at Arslantepe and Tepe Gawra (see below), there was a period of abandonment afterward. The site was then occupied for a time by a Kura-Araxes immigrants, as was Arslantepe. Thereafter at about 2600 BC people related to Proto-Elamite cultural elements, most likely representing the influence of the highland, Proto-Elamite Awan empire (Rothman 2011), occupied the site for many centuries.

The Norther Upper Euphrates

Moving west we see a somewhat different picture. One important distinction between the Tigris corridor and the Euphrates one is that there are no new colony sites like Habuba Kabira, Jebel Aruda, Qraya and Sheikh Hassan in the east. Nineveh is often proposed as a Habuba on the Tigris (Algaze 1986). However, Nineveh was a long occupied site, not newly founded like Habuba Kabira and Jebel Aruda. Nineveh's pottery, such as we have from the LC5 remains is in part local unlike the Middle Euphrates sites. Not to mention the very small sample we have of pottery and virtually no architecture with comparable sets of buildings.

Part of the reason for this is probably the ability to use the Euphrates River as a key pathway over a very long distance. Certainly, raw materials and goods were moving from the east, but in the slower method of walking with donkey packtrains.

The Euphrates can be divided into three areas: the far Upper Euphrates, the Upper Middle Euphrates, and the Middle Euphrates. The two sites that represent the Northern Upper Euphrates are Arslantepe and Tepecik.

Arslantepe is one of the best excavated of all the sites in the Upper Euphrates zones. The mound is about 4.5 ha. in maximum area. Yet it is an outlier in the sense that it was less affected by the Uruk expansion than many other sites. As Frangipane (2002, 128) notes, "Arslantepe VIA [LC5] pottery also shows its marked autonomy in the repertoires of its shapes, which is much more restricted in terms of

variety and less Uruk-like than the pottery of Hassek Höyük" in the Samsat area (see Fig. 1.2). Archaeologists recovered the few clearly Uruk-like pots side by side with local forms in the temple/palace.

The key institutions that signify Arslantepe's role in the local Malatya area and the broader region are a palace/temple compound. This compound appeared first in the mid-Arslantepe VII, the whole level dated from LC2 to LC4; that is, from about 3900 to 3400 BC. It was primarily a temple. The last and therefore best documented version is Level VIA from about 3400 to 3200 BC. At that later point it was a temple/palace along with other temples, which takes up most of the area the Italian team excavated on the mound.

What the temple/palace indicates is a very active, extensive bureaucracy that controlled a tributary staple finance system. The bureaucracy is apparent in a complex system of clay sealing locks, impressed with seals that permitted them to withdraw staples to pay for various tasks. According to Frangipane (2007), these seal designs can be divided into four hierarchical ranks. In the dumps, excavators found many sealings together in the shape of baskets. This they interpret as material that was audited, put into baskets, and thrown away in the baskets. Archaeologists found some sealings with distinctly Uruk types of images. However, there were only four such sealings out of 225 ones in the temple/palace. In general, however, the use of seals and sealings and their iconography is indigenous to many sites in the north (Pittman 2007). I already mentioned Tepe Gawra above. Another similar case is Değirmentepe not far from Arslantepe on the Euphrates (Rothman 2024). The cultural similarities cited by Frangipane she attributes mostly to the Taurus highlands and the Amuq.

The basis for a claim of Uruk interaction are some pottery forms that appear in Arslantepe VIA (Frangipane 2014, 170). But as she writes, "It is, however, quite evident that this [Uruk] contact never really interfered in the system of governance of the Arslantepe elites, in the management of their central activities and in the specific features of their internal and external relations. In period VIA (Late Chalcolithic 5), even though Arslantepe participated in [sic. experienced] the growth of centralized and redistributive systems that were typical of the Mesopotamian world in the broad sense of the term, it nevertheless exhibited many features of its own which are evidence of the particularity of its autonomous development" (Frangipane 2014, 170). In short, Arslantepe's trajectory has little to do with issues of the supposed World System. Its residents borrowed various technologies of control, like cylinder seals and counting tablets, and also in all likelihood fast wheel potting technology. It may, in fact, be said that the residents of Arslantepe consciously created a cultural difference to protect itself from the Uruk colonies in the Middle Euphrates. In the Darwinian analogy, this means that they were adapting to a very local set of circumstances and the presence of Uruk culture and people in neighboring sub-regions selected little for its ultimate outcome.

As such, Frangipane (2007) herself writes," Arslantepe itself is not a city nor part of an urban system." Surveys in the immediate area have produced no signs that there was a rural component of Arslantepe as the center of a complex societal organization, (Frangipane and di Nocera 2012). The Arslantepe center collapsed and was burned at about 3200 BC. The Early Bronze Age followed, Arslantepe VIB1 and 2, saw an increase in site numbers in its area. Also, initially many of those were not on the plain proper but on its hilly margins. This Frangipane and di Nocera interpret as a change to a more pastoral production system. In 1978 Adams argued that alternating periods of settlement growth and decline was a part of a resilient strategy during periods of political unrest. Personally, given the maximum size of Arslantepe at 4.5 hectares, I cannot see it absorbing large populations. At the same time, there must be more people than those on the mound producing the large grain surpluses passing through the temple/palace institutions. I suspect that between alluviation and agriculture, the rural component of Arslantepe's settlement system has been wiped from our archaeological view.

So, for Arslantepe, "The most significant factor of the Late Uruk [LC4] phenomenon was, therefore, not so much the stimulation of the secondary states under the southern influence as the maximum establishment of that capillary and intense system of mutual relationships between different components based on the capacity of the populations to shift around the territory lying between the Tigris and the Euphrates. This created again one of the forms of cultural homogenization that were the basis and the reason of Greater Mesopotamia" (Frangipane, 2002, 130).

One craft activity that probably had a wealth finance aspect in the system was metallurgy (di Nocera 2013). In VIA metal items including swords and spears occurred in a large room, the "hall of weapons" of the palace. In Arslantepe VIB1, after the burning of the temple/place complex, metal weapons began to appear in graves. That is clear in the "royal" tomb from VIB2. VIB2 is after any remains of the Kura-Araxes cultural tradition disappeared. Residents put swords and spears, as well as hair rings, clothing pins, and an incised diadem in the most notable cist tomb (Frangipane and Palumbi 2007, Fig. 16). The small items appear to reflect personal items from Kvatskhelebi in Georgia (Frangipane and Palumbi 2007, Fig. 17). This draws a parallel to Kura-Araxes and probably Maikop cultures of the Caucasus. Metallurgy continued, perhaps expanded, particularly in VIB2, where a section of a housing block appears to be a metal workshop with all the remains needed to carry out all the steps in the final product from smelting to molding (di Nocera 2013).

The ores had to be imported, most likely from the Egani Maden mines. These ores the local population smelted and formed in molds at Arslantepe (di Nocera 2013). The only places where the molds, slag, and other evidence of metallurgy were found is in one set of rooms in the VIA palace. The wealth aspect appears to derive not from

long-distance exchange of finished products, but from the control of production for local use. The connections with the east including the Taurus sites makes sense as the copper mines are there.

Arslantepe's societal structure and its occupation did collapse at about 3200. Some group burned the palace/temple compound. Who or why is unknown. As Frangipane writes (Frangipane and Palumbi 2007, 247), "But there does not seem to have been any actual 'invasion' of alien groups." After the burning, the institutions, not merely the buildings, seem to have ended after hundreds of years. Palumbi (Frangipane and Palumbi 2007) creates a scenario that increasing use of sheep required specialized pastoral groups with "territorial mobility." There is no direct evidence for this, both because the archaeologists did not excavate contemporaneous areas outside the palace/temple complex in VIA, and they found no sites associated with pastoral nomadism. It remains entirely "hypothetical" in Palumbi's own words. Transhumant and pastoral nomads are also different. Their connection to the Red-Black Ware is similarly not validated. In fact, the Red-Black pots come from two traditions, one Central Anatolian and the other South Caucasian and Taurus-based. From what we know of the Kura-Araxes people who migrated from the east, they were small clans of farmer/herders, not nomadic pastoralists (Rothman 2017).

Level VIB1 after 3200 BC seems to have been a transition during which relations with the highlands to its east and west were prominent. Like Godin IV (Rothman 2011b) and Bet Yerah (Greenberg 2002) Kura-Araxes people seem to arrive after a hiatus following the collapse of the local societal order and remain visible in their wattle-and-daub houses and with their burnished black pottery for not more than two centuries. During that time they build mudbrick buildings. Level VIB2, a walled town, is described by Frangipane and Palmieri (1983: 542) as a time "to resume the earlier Late Uruk tradition," although the effect of such contact, as I have quoted them above was actually minimal. It is actually reasserting the Arslantepe VIA traditions. Significant Kura-Araxes occupation at Arslantepe ended after VIB1. Artifacts from a spectacular tomb in VIB2, discovered over the remains of the palace/temple complex, combined Early Transcaucasian and northern Mesopotamian pottery style, Caucasian metallurgical techniques, and the sacrifice of two attendants (Frangipane 1998). The walled town of Arslantepe VIB2 has parallels to Norşuntepe EB1 and Hassek Höyük EB1.

Hassek Höyük was long thought to be a Southern colony with purely classic Uruk ceramics. However, a recent re-analysis of the ceramics from Hassek indicate that they had a very large local Late Chalcolithic element, and many of the Uruk wares were local copies, sometimes making Uruk shapes with local techniques, sometimes using Uruk techniques to modify local types (Helwing 1999). In other words, this post-Uruk Period is a transitional one with hybridization of Upper Euphrates and highland cultural elements.

The sites of Tepecik, Tülüntepe, and Değirmentepe up the Euphrates from Arslantepe also invested heavily in metallurgy. Archaeologists recovered some Uruk styled wares at Tepecik, although they were isolated in small buildings near the edge of the mound (Esin 1979, 1982). Tepecik did not collapse, either. It had a long, unbroken sequence from the Early Chalcolithic to the Iron Age (Yalçin 2020).

In sum, the remains of LC5 Arslantepe present a generally well-documented case for the evolution of complexity, but not urbanism on the Upper Euphrates. Its end certainly represents a collapse, although given the tangential relations it had with the Uruk expansion, it hardly is relevant one way or the other for the question about the World Systems Theory.

The Middle Upper Euphrates

Whether the network of trade established during the fourth millennium did end ("collapse") or not, what followed? Further, how did trends of the early third millennium create a foundation for the first real urbanization of the north (other than Tell Brak and Hamoukar) in the mid- to late third millennium? The answers to these questions must be found in the early third millennium. Surprisingly little is known of the period immediately after the "Uruk expansion" compared to the periods before or after it. This transition from fourth to third millennium (also called Kurban V, Early Jazirah 0, or Early Early Bronze Age period; see Chapter 2 for a discussion of the chronology and problems with the nomenclature of these periods) remains to be explained.

Aside from the absence of Uruk pottery, the most telling evidence of change was the abandonment of "colony" sites, as indicated in Figure 1.3. Table 1.2 summarizes the results of Algaze's and Wilkinson's surveys north of Carchemish with some updating based on excavations. Two sites nearest Carchemish, Kum Ocağı and Şadi Tepe, both occupied only in the LC4/5 or Late Uruk, were abandoned. Tiladir, a large hilltop mound, first occupied in the LC4/5 and then re-occupied in the transition of Early and Middle Bronze ages about a millennium later was also temporarily abandoned. All three were destroyed in modern dam building operations, so we know little about them, certainly not the size or role of Tiladir in the late fourth millennium. Factoring out those three sites, however, the sum of the remaining sites from Carchemish to Samsat represent actually more hectares than before the fourth millennium. In addition, new sites were added. The continuity and even expansion of settlement was clustered near modern Birecik and Adiyaman to its north, and in areas to the south of Carchemish (Wilkinson 2007).

Further, analyzing the rank size and gravity interaction of the Karababa (Atatürk Dam) reservoir under which Samsat was drowned, Lupton (1996: 85) writes, "The post-contact [early third millennium] settlement pattern in the Karababa area was marked by a significant increase

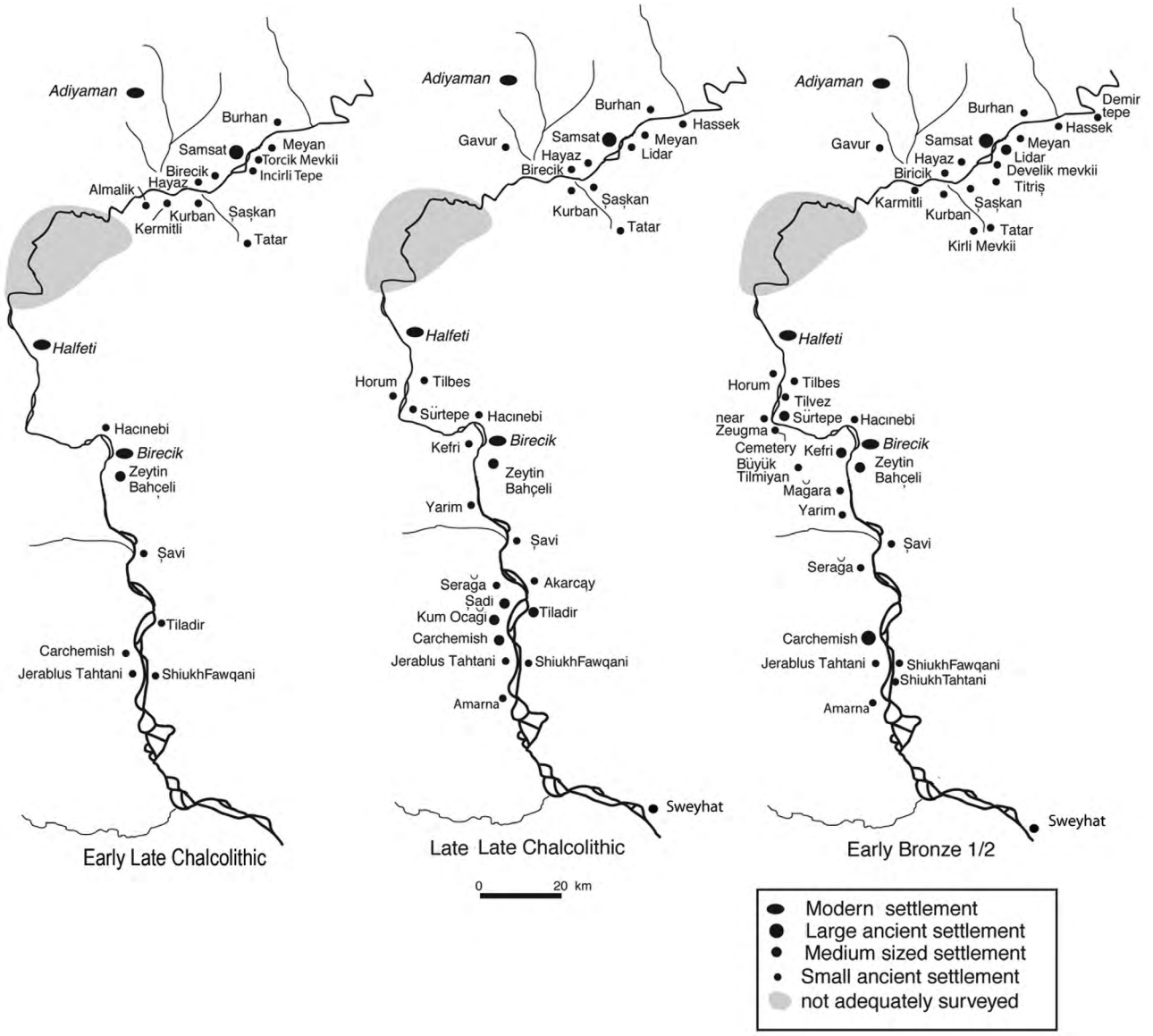

Figure 1.3. Site distribution north of Carchemish in the fourth and early third millennium (Rothman, after Algaze et al. 1994, Fig. 28).

in site density over that seen in the preceding contact [Late Chalcolithic/Uruk, LC3–5] period. The majority of these new settlements were small villages or hamlets, and the overall impression is of a continued low degree of regional system integration. The three-tier settlement structure of the fourth millennium settlement patterns also endures and Samsat remains the one dominant site in the area. . . . Despite these changes the most striking aspect about the Karababa post-contact period settlement pattern is its continued underlying similarity to that seen in the contact [LC 3–5] and pre-contact [LC 2] periods." Samsat "continued to act as a focal point in larger, supra-local exchange networks," "and its basic position in its local area remained largely unchanged" (Lupton 1996:95). This seems to contradict the idea that the withdrawal of southern centers triggered a collapse, either economically or politically.

Still, as Algaze (1999: 546) points out, "... in spite of their small size and non-hierarchical [contra Lupton] settlement structure, the Early Early Bronze Age villages of the Samsat-Lidar and Zeugma [Birecik]-Carchemish portions of the Turkish Euphrates were far from isolated (Fig 1.4). Both areas continued to import a substantial amount of copper from sources in the Ergani-Maden region. . . . The substantial amount of wealth discovered in these [Hassek and Gaziantep] cemeteries in the form of jewelry, copper artifacts, and weapons suggests that Early Early Bronze Age societies in the Turkish Euphrates were acting as intermediaries in trade between Syro-Mesopotamian polities elsewhere and Early Transcaucasian polities in the resource-rich Anatolian Highlands." Since the whole World Systems theory is based on the existence and control of the exchange network, one could only draw the conclusion that a collapse meant the end of the network, which Algaze's quotation seems itself to contradict.

Further, the conception of the Caucasian Kura-Araxes immigrants as a unified society does not fit the data and analysis that scholars have done (Simonyan and

Table 1.2. Hectares of sites in the Upper-Middle Euphrates Valley by Algaze (*et al*. 1994) and Wilkinson (*et al*. 1990).

Site	Algaze (*et al*. 1994) number	Total Hectares	Late Fourth millennium hectares	Early third millennium hectares	Site **	Late Fourth	Early third millennium hectares
Carchemish	85	144	4.0?	4.0?	Samsat	10.0	10
Horum Höyük	10	2.0	1.5	2.0	Lidar Höyük	3.0	3.0
Tilbes Höyük	14	6*	1.25*?	1.25*?	Bozova Höyük	2.5	2.5
Near Zeugma	18	1.75	0.0	0.5	Kurban Höyük	4.0	1.0
Sürtepe	33	7.2	2.0?	3.0?	Hassek Höyük	1.1	1.1
Kefri Höyük	38	3.92	0.0	1.5	Hayaz Höyük	0.5	0.5
Hacınebi	28	3.30	3.3	0.0	Aritkök	0.3	0.3
Tilvez Höyük	34	3.5	0.0	1.0	Grik Tepe	0.2	0.2
Büyük Tilmiyan	40	2.8	0.0	1.25	Toprakkale	0.5	0.0
Zeytin Bahçele	44	2.66	2.0?	2.0?	Karatut Mevkii	2.0	0.0
Mağara Höyük	49	0.32	0.0	0.32?	Site 15 *	0.3	0.0
Yarım Höyük	50	0.7	.5	0.6	Yasilika Höyük	0.0	0.3
Serağa	71	2.4	0.5	0.5	Şaşkan Büyüktepe	0.0	1.1
Akarçay Höyük	72	1.44	0.5	0.5	Burhan Höyük	0.0	1.0
Gre Virike	69	0.8	0.0	0.8	Meyan Höyük	0.0	0.7
Komeçli Höyük	74	2.75	2.75	0.0	Site 24*	0.0	0.5
Şadi Tepe	76	8.0	8.0	0.0	Nevalı Çori	0.0	0.5
Kum Ocağı	80	6.3	6.3	0.0	Birecik Höyük	0.0	0.5
Tiladır Tepe	82	12.2	12.2	0.0	Gavurtepe	0.0	0.3
Şavi Höyük	65	0.4	0.4	0.3**			
Kırmızı Höyük	57	0.7	0.7	0	Totals	24.4	23.5
		232.29 /88.29	45.9	19.52			

* adds in area cut by Euphrates **Wilkinson 1990; (after Lupton 1996: Appendix C).

Rothman 2023). In the early third millennium, a degree of societal and cultural complexity was just beginning in the South Caucasus. Migrants who began to leave the South Caucasus at about 3300 BC would have been small groupings. In fact, in the LC 4/5 the Kura-Araxes societies appear to have drawn a cultural boundary against the Uruk across its territories (Simonyan and Rothman 2023).

In fact, we know that trade did not stop after the abandonment of Habuba Kabira. Trade continued in the early third millennium BC, as amounts of the same trade goods exchanged in the fourth millennium—metals, wood, semi-precious stone, silver, gold, wine, etc.—appeared in third millennium southern cities, towns, and villages. Some of the copper ores could have come into the south from the Gulf (Muhly 1973: 222–226) area, but that source is usually dated to a later period. The multiplicity of exchange goods, and the new and improved metallurgical techniques of the Early Transcaucasians and Maikop people coming from farther north, actually paints a picture far more complex than World Systems Theory provides.

Middle Upper Euphrates

The second Euphrates area was divided into two parts with an unexplored section in the middle (Fig. 1.3). The first part is around the modern city of Adiyaman. At its center is the ancient river crossing at Samsat. Samsat mound is 17.5 hectares in size, larger than Algaze's estimate in Table 1.2 above, with a much larger, walled Roman legion settlement at its base, so more early levels could have been located beneath the Roman town. We never will know. The site was drowned under the Atatürk dam. Surface finds suggest that the LC4/5 remains covered the entire 17.5 hectares of the high mound. Excavations consisted only of a small test trench on the west side of the mound (Algaze 1993). Archaeologists, mostly in surface finds, recovered Beveled Rim Bowl sherds and sherds of a few classic Uruk types. None are in architectural context, so we do not know much about this very important site. They also recovered clay sickles, which would suggest that there was a community of Southerners somewhere on the site.

From a survey point of view, analyzing the rank size and gravity interaction of the area of the northern part of this the Middle-Upper Euphrates in which Samsat was clearly the central place (see Lupton above).

Kurban Höyük (Algaze 1990) presents a case where levels of totally local chaff-tempered wares are replaced by many more Uruk forms and tempers, but the site does

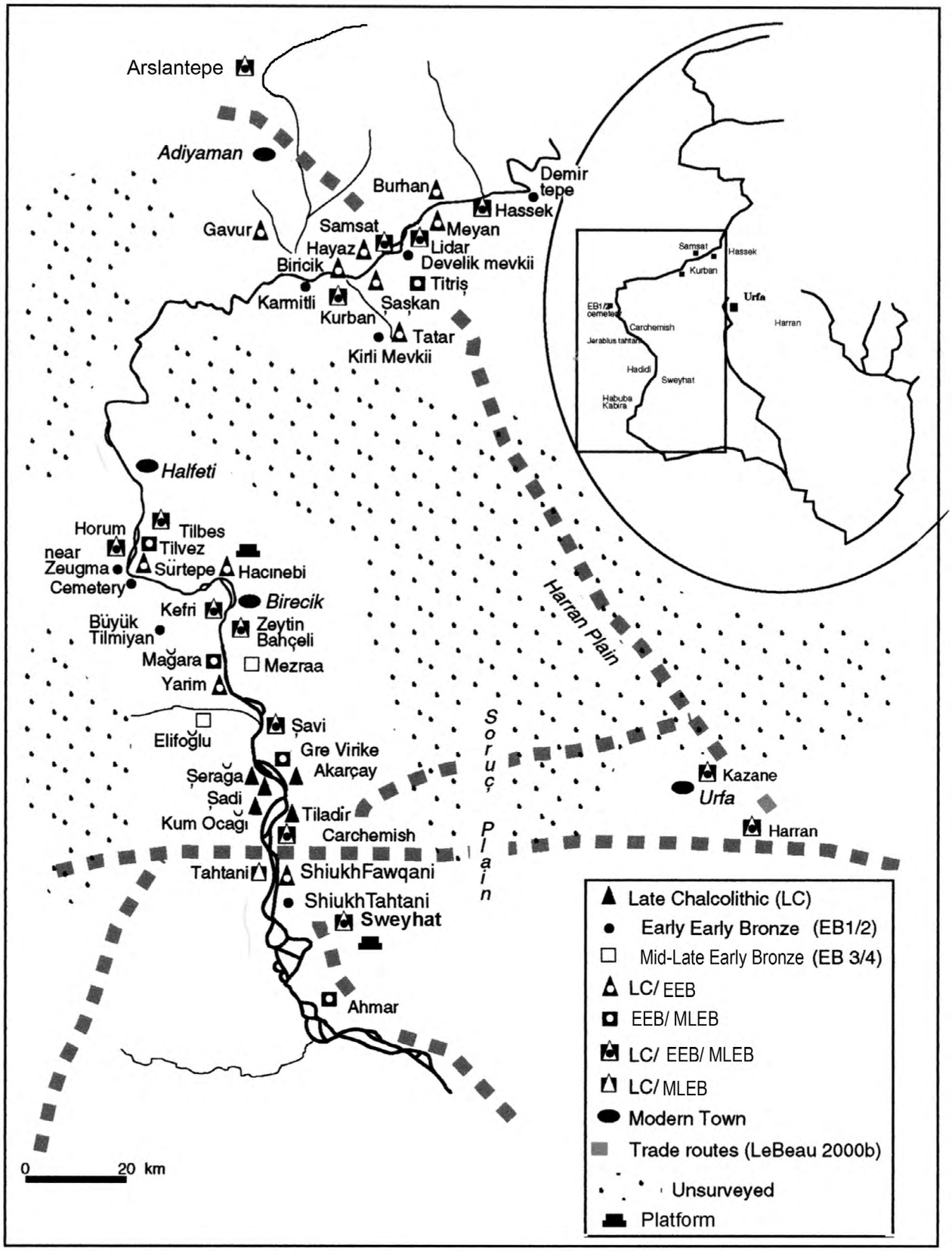

Figure 1.4. Middle to late third millennium BC sites (Rothman).

not get abandoned. With the concentration on pottery style, we do not get reporting of all artifact types and an opportunity to put them into architectural contexts. Without that we lack the information we need to reconstruction the lifeways and practices that represent major aspects of their adaptation. As such we have trouble discovering the selective forces that explain and document those practices.

The second part of the Middle Upper Euphrates is the area in which Tilbes is located. This stretch of the Euphrates went through many changes. The anchor in the south theoretically is Carchemish. Sadly, we know very little about Carchemish in the periods of interest because of the overburden of later occupation.

As Figure 1.3 shows, in the early Late Chalcolithic (LC2) the population of this strech along the river was light. One has to remember that surveys in the adjoining Soruç and Haran Plains are minimal, so sites away from the river may tell a different story. Still, the geology of this stretch tends to cut it off from adjoining areas except near Carchemish, where Tilbashir is located. Hacınebi (Stein, ed. 1999; Stein *et al*. 1996), Şavi Tepe closer to modern Birecik, Tiladır, Carchemish, Jerablus Tatani (Peltenburg *et al*. 1996), and Shiukh Fawqani (Bachelot and Fales 2005) are key sites. Sweyhat is a bit out of this sub-region and is certainly adapting to a different natural environment, but has many cultural similarities (Danti and Zettler 2007). People founded the site in the Uruk/Early Bronze transition (Kurban V).

Hacınebi has one of the best documented, continuous occupation in the LC. Its residents abandoned it before the end of the LC, but it became a favored spot for EB I graves. There are no signs of destruction or any reason the residents were forced to leave (Gil Stein, personal communication). Stein classified two periods, A and B. Hacınebi A is a small (3 ha.), local site. Its artifacts fit the local stylistic characteristics. These include chaff pottery with forms like casseroles and hammer rim bowls as prominent types. The local character of the artifacts continued into Hacınebi B1 and B2 (LC3 and 4). In B2, while most of the excavated area revealed a continuity of local cultural traits, people with Southern cultural material occupied a neighborhood within the site. As I wrote above the presence of clay sickles, as at Samsat, suggest that these people were really from the South. They must have produced their own food, something colonial official in control of a local population would not do. The same conclusion comes from the seeds in dung of the Southerner sheep/goat. The locals' sheep/goat came from near the site, but the Southerners' animals came from some distance away, perhaps from pastoral nomads (Miller 1994).

The site had considerable evidence of craft production. One such craft was metallurgy using raw material from the north and east. Özbal *et al*. (1999, 65) conclude that "the production was developed beyond cottage production and it was produced by specialized workshops." The frequent finds of bitumen in bowls suggests another craft. Both suggest the possibility of long-distance trade in intermediate and finished products.

The presence of sealings and clay bullae with counting tokens inside indicate the existence of some formal control mechanisms. These existed in A and B1 before the Uruk neighborhood was founded. The clays from which residents made the impressed clay locks (sealings) was mostly local (Blackman 1999). A couple of B2 sealings, however, are likely to come from the area of Susa in the southeast.

This community stayed at Hacınebi for centuries over 9 phases of Hacınebi B2, before residents abandoned the site. It was not a fleeting presence. One wonders if the increasing production of metals in the South in the EBI (Moorey 1994) and new sources of ores from the Gulf area and from the Zagros made the site's functions less likely to warrant people staying (see Patterns of Intercultural Connection below). Other possible reasons are discussed above. The overall structure of the site was of a simple ranked type.

Pottery parallels to Hacınebi are found at Zehtinli Bahçe (Restelli 2006: Table 2), as well as Kurban Höyük VI, Leilan VI, Brak HS1 and 6, Samsat XXIV.

An Italian team from Università di Roma "La Sapienza," conducted salvage excavations at Zehtinli Bahçe. The site was founded in the LC3 of the first half of the fourth millennium. As with other sites in the Middle-Upper Euphrates during the LC 4, a great increase in Uruk styled pottery appeared there (Frangipane 2002). The site remained occupied after the Uruk into the EB I and II (Early Early Bronze Age). No seals or sealings are reported from there (Frangipane 2007). The long sequence of LC levels indicate a stable community. The transition to EB I was "hardly perceptible" Frangipane (2007, 129). Buildings were made of the same materials, mostly using the same architectural patterns. The percentage of animal remains continued to be dominated by sheep/goat. That would change in the EB IB (Early Early Bronze Age) to a majority of pigs. These pigs, on initial analysis were killed before they were 12 months old (Siracusano 2002). Sheep in the LC were killed at an earlier age than during the EB IB when pigs seem to have filled a greater role in obtaining meat, while sheep were permitted to live longer. Siracusano interprets this as a more household-based production, because sheep "require more people and a pastoral organization" (Sircusano 2002, 97). I am not sure that makes sense. After half a century of watching sheep production in rural Iran, Iraq, and Turkey, I saw most households with a small herd of sheep/goat. In Iran I watched a 10-year-old who was responsible for moving a herd of ten water buffalo, which are imposing creatures. I would rather suggest that the byproducts most important to people had changed. Perhaps, sheep were more highly valued for wool or milk products. Perhaps, also the climate had changed to such a degree that it selected for different animal production strategies (see below).

Most noteworthy for the LC levels and generally for this and many other sites going into the Early Bronze Age of the third millennium in this area was a lack of sealings or seals. Whereas Hacinebi had quite a few in LC 4/5, Zeytinli Bahçe and also Tilbes yielded none then or in the Early Bronze Age. Frangipane sees the area as going through a radical political crisis. That certainly is true of the more highland zone around Arslantepe, but I am not

so sure the same can be said for the Birecik-Carchemish stretch of the Euphrates Valley. It could well be the influence from the South, including the abandonment of Middle Euphrates sites. Certainly, the presence of more ethnically mixed communities in this area seems to have lessened, but again, could that be called a crisis?

On the other side of the river Surtepe was an eight-to-ten-hectare site. It began in the late 'Ubaid Period. As with Zeytinli Bahçe, its residents abandoned Surtepe after the 'Ubaid Period and re-occcupied it in the LC5 when Uruk pottery styles dominated. It continued into the Early Early Bronze Age (EB I/II). Excavators uncovered a large mudbrick platform of the LC5/EB I transitional (Fuensanta 2007, Fuensanta *et al*. 2021).

Tilbes, the focus of this volume presents a third example of a similar pattern. Its residents founded the site on sterile soil in the late 'Ubaid. Occupation lapsed until the LC5 and continued into the early Early Bronze Age. Unlike Surtepe and Zehtinli Bahçe, the site continued to be occupied throughout the Early Bronze and into the Middle Bronze Age. The Early Early Bronze Age to Late EB will be discussed in detail in the following chapters.

The site of Gre Virike (Ökse 2007) lay south along this corridor of the Euphrates Valley, Residents founded the site in the Early Early Bronze Age (EB IB). As compared to a similar construction at Tilbes (see Chapter 2), Ökse sees the platform as the equivalent to platforms for temples in the South and similar platforms in the North. In part the presence of grain and animal bone and plaster lined basins to him justifies the interpretation. The size of the platforms of, for example, the White Temple at Uruk-Warka or the one at Susa, Period A (Wright 1984) were tailored to the buildings on top. I would suggest that the size of the "platforms" at Gre Virike and Tilbes are such that they covered almost the entirety of the central mound (Ökse 2007, Fig. 6.2). I do not think of a religious nature, but an architectural one for creating a dry base for construction. That is not to say that the platforms at Surtepe, Sweyhat, Tilbeshar, Mozan, Hazna, etc. are not ritual. I suspect they very much are.

Ökse does point out that the labor to produce such a terrace or platform was considerable. It must have drawn workers from nearby small settlements within 20 km of Gre Virike. This is a critical point, although I am not sure what sites he refers to. It implies that societal structures that had been developing in the Late Chalcolithic did not disappear, perhaps they simply narrowed in their geographical extent of and numbers of settlements.

Algaze's (1999) assertion that the Early Early Bonze Age was a time of "ruralization" of settlement may be overstating the case (see Middle Jezirah below).

A major part of the overall change in the number of occupied hectares in the Birecik Carchemish corridor (Table 1.2) is from the area just north of Carchemish. Particularly the sites of Tiladir and Ṣadi Tepe (see Figs. 1.3 and 1.4 above). Archaeologists have not excavated the series of larger sites founded in the LC2 (Algaze 1993; Algaze *et al*. 1994). Ṣadi was covered with obsidian when I saw it in the late 1990's.

Carchemish has long been considered one of the major centers in this area. Historically, like Samsat, it was an ideal crossing place for people and goods from the Anatolian Plateau, the highlands of Iran, and Mesopotamia proper. Still, we know very little about the early periods at Carchemish because of the huge overburden of later period occupations (Falsone and Sconzo 2007). From the original fieldnotes a thick series of levels dated to the Late Chalcolithic exists on the Citadel Mound. For the Early Bronze I-III the only remains are tombs replete with the same sorts of pots found in Tilbes Square E4a (see Chapter 6 below).

In a jut of open plains west of Carchemish the site of Tilbeshar was a long-lived prehistoric mound founded in the Neolithic. It very much mirrored what we know about Carchemish (Kepinski 2007). The site in the early Early Bronze Age became fortified. It was not the only one. Nor is it the first time that sites were fortified with a major wall. Hamoukar (Reichel 2006) had a large surrounding wall in the Late Chalcolithic, and the pock-marks made by hundreds of sling missiles indicate that the reason for it was defense.

In the Early Early Bronze Age at the site, the language of pottery was clearly local. Beveled Rim Bowls—as I wrote above, this form is not a reliable chronological or cultural marker except to acknowledge some knowledge of or contact with the South—existed in the LC5 at Tilbeshar, as did Reserved Slip Wares, although archaeologists recovered more Reserve Slip decorated pots in the Early Early Bronze Age alongside some Beveled Rim Bowls. The majority of the pottery styles reflect the Birecik-Carchemish corridor and interestingly, the Amuq Plain. Is this the beginning of its incorporation into what would become Ebla's sphere of influence?

The later Early Early Bronze Age (2900–2700 BC) saw real change. The defensive wall was not continued. Based on graves, metals became even more important there. As discussed above, this taking of metals out of circulation; that is, not re-smelted and molded anew, indicates a new kind of wealth finance. Kepinski attributes this period to the ruralization proposed by Algaze (1999).

In the middle EB (2700–2500 BC) Tilbeshar expanded greatly in size to 30 hectares on the main mound and the addition of a lower town. She calls this "New Foundations." (Kepinski 2007, 154).

Middle Jezirah

The Middle Jazirah, I believe, has as much to do with adaptations and settlement patterns in the Early Early

Bronze Age Birecik-Carchemish Euphrates River Valley corridor as the south alluvium city-states. Sites like Tell Brak, Hamoukar, Mozan, Leilan, al-Hawa, Bderi, etc. etc. present a picture of growth and change. Here I will concentrate on one of them, Tell Brak.

Tell Brak is certainly the preeminent site of the Middle Jazirah (J. and D. Oates 1991, 1993, 1994; J. Oates 2002; Emberling *et al*. 1999). It has a very long sequence of largely unbroken occupation from the 7th millennium BC (Halaf) to the early Iron Age (1200–900 BC). The site lies on the Khabur River which connects with the Euphrates at Qraya. It is also a major stopping point on the east-west route from the Tigris. As such it connects all points on the Greater Mesopotamian map (see Fig. 1.5). Uruk styles are common in the small sounding of TW11–12. The mixing of pottery languages and dialects there reflects not only its connection, but its likely multi-ethnic composition. The Chaff-Faced pots typical of the Euphrates basin were represented in the Tigris area, but other styles dominated. These style zones, however, were open and fluid. Geographically, central sites like Tell Brak exhibited eastern and western variants (Lupton 1996). The Early Bronze Age western Plain Simple Ware and the eastern Ninevite V ceramic traditions meet there as well. Southern Uruk and later Early Bronze Jemdet Nasr styles appear in its stratigraphic sequence.

The size of the main mound is 40 hectares, although Oates (2002) believes that the effective size in the Late Chalcolithic was more like 65 hectares. Ur (2011) based on survey claims that it grew to 130 hectares in times before the major influence of the South was felt. Compared to the contemporary size of Uruk Warka at 200–250 hectares in the Late Chalcolithic and Early Bronze Age respectively this seems small. However, whereas early Uruk-Warka drew much of its population from the surrounding countryside, Tell Brak saw a growing rural population. The size of its urban system was if not comparable to Uruk-Warks's, it was not in a totally different category of scale.

Tell Brak in the Early Bronze Age seems to have fulfilled one of the central roles of Uruk-Warka, the long-term storage of grain (Hald and Charles 2008). In the LC the storage units were jars in communal storage. In the Early Bronze Age, only barley was stored this way. A centralized storage method with rooms filled with grain was more common. This change in storage from communal to centralized is typical cross-culturally of increasing societal complexity (Manzanilla and Rothman 2016).

From early in the fourth millennium Tell Brak showed signs of centralization in public buildings and a very large temple, the Eye Temple, rebuilt a number of times (Oates *et al*. 2008). It had throughout evidence of control mechanisms in the present of clay locks (sealings) and the seals with which they were impressed. Ur suggests that the site was heterarchically led in the late forth and early third millennia, but the evidence presented above suggests a more centralized system. As Crumley (1995) originally formulated it, sites were not either hierarchically or heterarchically governed, but both occurred at the same time. Her point was that the hierarchical groupings did not encompass the whole system, but those outside it, tended to continue with a more pre-neighborhood or ethnic consensual system.

Tell Brak certainly classifies as a city (J. Oates *et al*. 2008). It had the centralized functions and appears to have organized a dense surrounding system of settlements. As a social structural form, it fits the Authority Ranking type. From the LC1 to the Early Early Bronze Age, it expanded its interaction sphere across the North, became a city and by the middle of the Early Bronze Age, now known in texts as Nagar, it became the center of a city state with relations far and wide (D. Oates *et al*. 2001).

Patterns of Intercultural Connection

The question I asked at the beginning of the Tilbes project and I have attempted to address in the pages above, is whether the World Systems Theory was a way to understand the whole Greater Mesopotamian regional dynamics and local developments in the fourth and early third millennia BC.

First, Algaze is absolutely right that in pursuit of raw materials and goods not available locally the city-states of the southern alluvium reached out to their north and east (and in the third millennium to their south) to obtain them. He is right that to do this efficiently and guarantee a continuing supply, people carrying an Uruk cultural tradition set-up a series of colonies in the Middle Euphrates River area: Habuba Kabira, Jebel Aruda, El Kown, Qraya, and Sheikh Hassan. The docks, storage places, and workshops at Habuba Kabira confirm this. Whether the leaders of the city-states were directly responsible for creating them or not—I am not sure we can ever know this in a prehistoric context—, their connection to the South as their trading partners is evident. It is equally true that the influence on other sub-regions and in some cases actual Southerners were moving to the North during the LC3 to LC5 (late fourth millennium) period. This influence was at its greatest and most extensive in the LC5. In the Birecik –Carchemish corridor along the Middle-Upper Euphrates River Valley, where Tilbes Höyük, the subject of this book is located, the creation of new major sites north of Carchemish (Fig. 1.3) reflected production of goods for exchange, not merely the transport of raw materials. People at Ṣadi Tepe, based on personal observation, were probably manufacturing obsidian blades for trade. Hacınebi was making metal objects. Other sites along the Birecik-Carchemish corridor were doing the same, but the analysis we have certainly indicates that at Hacınebi it was a specialized, workshop production. They needed to obtain their raw materials from the highlands of the Upper Euphrates and its tributary, the Murat River. Alternatively, metal ores were coming from the central

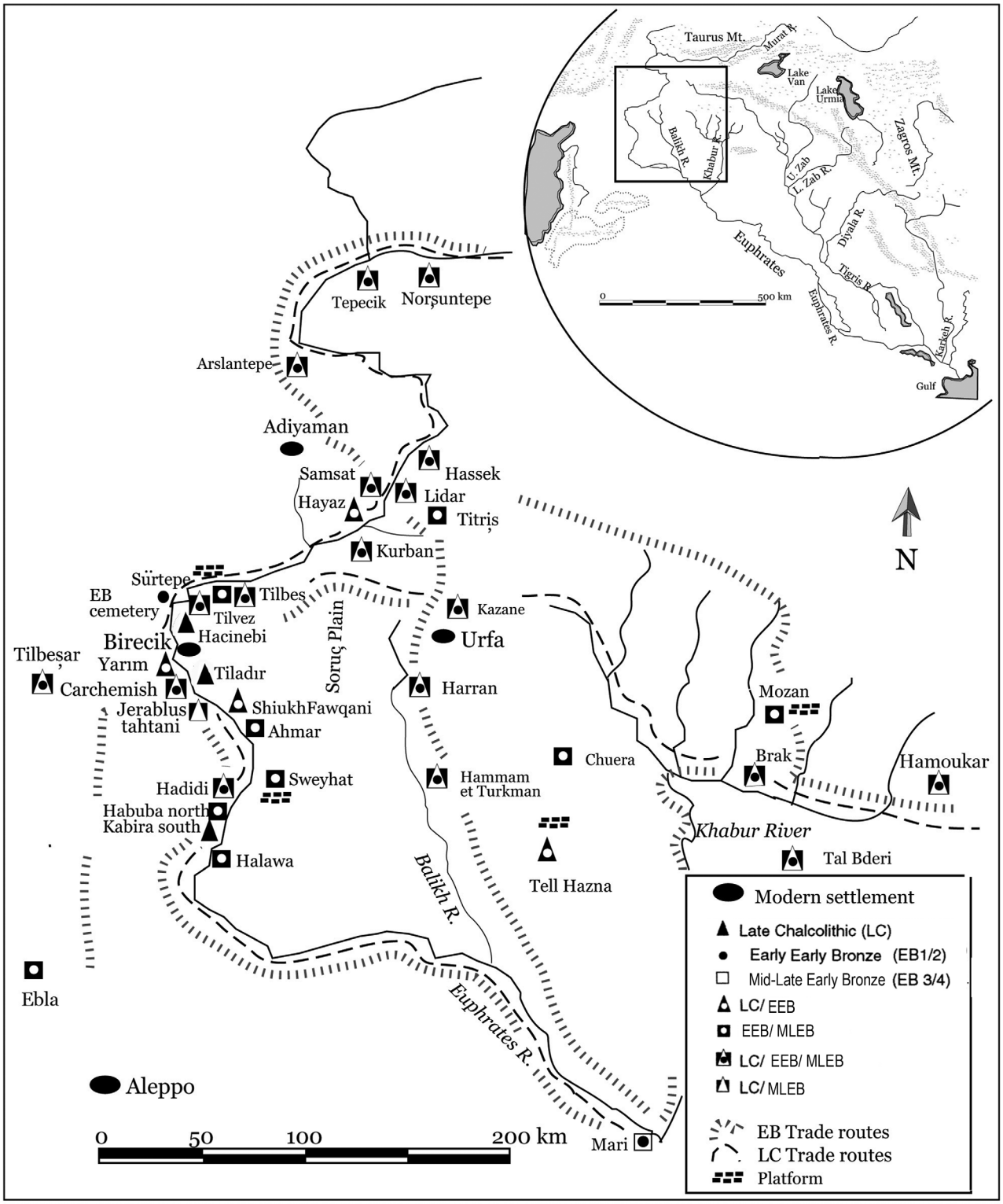

Figure 1.5. Trade routes in northwestern Greater Mesopotamia (Rothman).

Western Zagros. The geographical distribution of local Godin VI pottery and Uruk-styled pottery indicates that people at Godin were part of a system that moved these goods from east to west along a narrow vector that was the Khorasan High Road, later called the Great Silk Road. In some ways this is part of the same process as that at Teotihuacan (see above) where manufacture of obsidian blades with obsidian from various sources served as one key part of its economic functions. He is also right that societies in the North and East after 3000 BC were to some degree re-organized.

However, other claims of Algaze's are questionable or, I believe, wrong. They are wrong in ways that, to me,

makes the World Systems Theory seem less useful as an explanatory model, and adhering to it promotes questionable interpretations. This is unfortunate because many scholars regard the World Systems Theory and the Uruk expansion it implied to be axiomatic. First and foremost among its problems is the idea that pots always equal people. The claim that every use of Southern style pottery of any kind means the physical presence of people from the South does not hold up to scrutiny. In part, like the 'Ubaid "expansion" the presence of certain technical features like string cut bases are more a result of new technology. In the 'Ubaid, it was the slow wheel, and in the Uruk the fast wheel. The latter resulted in string-cut bases. Similarly, the presence of crudely made pots like the Beveled Rim Bowl, which vary significantly in shape across the region, is not a good marker of a southern presence in any case. Its distribution is so wide that clearly this, too, was a kind of technological "advance." As Baldi pointed out (see above), Beveled Rim Bowls existed in the Tigris corridor before the theorized beginning of the Uruk expansion. It was a pot that did not require a skilled potter and could be produced in great numbers. In the South it was certainly used to make bread or porridge for rations. In other sub-regions it may be much more like Tupper- or Correl ware, a cheap easily disposable vessel that can be used for a variety of tasks. That is why at Hacınebi and Tepe Gawra, excavators recovered numerous of these Beveled Rim Bowls or its precursor, the Wide Flower Pot, with bitumen in them. This suggests that they were utilitarian bowls, which were easily made or obtained, so disposing of them after mixing noxious substances was low in cost, measured not in coin, but in effort. These Beveled Rim Bowls continued to be made in the Early Bronze Age. Better made, but probably equally utilitarian, people made bowls with similar size and range of functions in the Bronze Age (Early Dynastic I) across the region. We may be seeing a greater efficiency (and control?) of pottery production in the third millennium. These functional types are not equivalent to actual Southerners in the North or East. Most cases where analysis has been done, all types of Uruk-styled pots were made locally.

Judging whether we are observing actual Southerners, an emulation of styles, or a spread of technology depends in part on which pots were present. At Godin, there were a very limited number of Uruk pottery styles. Among those were the finer varieties, like incised four-lug jars. It is possible that, as at *karum* Kanesh where a community of Assyrian tin traders lived, foreigners simply used local wares. In that case, one would expect to see no Uruk pots, certainly not locally made ones. At Hacınebi excavators recovered a complete set of practical pottery, including cooking, storage, drinking, utilitarian and serving vessels in one neighborhood of the tell. The addition of clay sickles at Hacınebi and Samsat to me signals the actual presence of people from another place. Anyone who is living in an area rich in chipping stone would hardly use a clay sickle unless it was part of their tradition or practice.

A second major problem is the idea that every site with a full set of Uruk-styled and manufactured pottery means a take-over by an organizationally advanced group from a "core" into a disorganized, weak "periphery." This is contradicted by the evidence. If, for example, Tell Brak were "completely taken over," as Joan Oates suggests, in the LC5, where did all the people from an at least 30-hectare city go? There are so many sites with Uruk-related material, some exclusively so in the LC5, that the idea that all of these were controlled by the Uruk leaders in the South or occupied exclusively by Southerners stretches credulity. Certainly, the Southers ability to project military force, often the case in World Systems, was doubtful. In most places there is no sign of violence. Perhaps, as Reichel (2006) suggests, the destruction of Hamoukar, a growing LC city and gateway for east-west trade in the Jazirah, could have been done by Uruk-related people. However, the true colonies at Habuba Kabira, Jebel Aruda, and Hassek Höyük were also burned at about 3200 BC, and not, as van Driel (2007) assures us, by the residents themselves.

Third of the problems is our idea that Greater Mesopotamia was, in effect, a series of discrete, separate societies with clear borders also does not track. As I and others have written elsewhere, populations in that region were always on the move. Borders or perhaps better boundary zones would not be relevant until the mid-late third millennium, when true urbanization evolved broadly in the North, and territorial states evolved. The more contact there is among the various populations, the more likely that hybridization or even adoption of seemingly foreign cultural traditions would happen over time. That so many sites in the North had full sets of Uruk-styled pottery as their major corpus should not be surprising or misread as a take-over. A trip to modern-day Berlin would make one think that all the young people were actually New Yorkers by their style in dress and hair styles. We are talking about most of a millennium. In the Tigris corridor some sites Algaze would include in the "periphery" were manufacturing large numbers of Uruk-styled pottery (see above).

A fourth major problem with the applicability of Wallerstein's model becomes ever more apparent in the idea of that the peripheral societies were weak and hardly benefited from trade. Evidence from Hacınebi, Tell Brak, Hamoukar, Tepe Gawra, and other broadly excavated sites argue strongly for a trajectory toward centralization before the Uruk expansion in the North. These changes led to the development of ranking and in some places hierarchical organization evident in centralization of control over agricultural and pastoral surpluses through storage facilities (staple finance) and audited sealings, coordination and specialization of craft production for trade (wealth finance), social differentiation, and the first inkling of a Great Tradition in religion (communal temple worship and the associated iconography).

Therefore, the idea of a collapse, as I have discussed throughout this chapter does not fit most of our data. The central temple/palace institutions at Arslantepe in the

Upper Euphrates certainly collapsed and were burned intentionally. As I have quoted Frangipane, its excavator, however, the Uruk cultural tradition had little effect on its societal organization. Seal and sealing technology, already part of their practice from before the Uruk expansion, continued, although they adopted another Southern technology, the cylinder seal. But writing was not adopted in the North for a very long time. In fact, many places including sites along the Middle-Upper Euphrates and most sites in the Tigris corridor evolved smoothly and without a hiatus into the Early Bronze Age. As mentioned above the Uruk colonies ended by 3200 BC after a period of decline (van Driel 2007), while many of these Northern sites continued. Algaze's (1999) claim that the North goes through a "ruralization" strikes me as an argument that depends on accepting the World System model. Lupton (quoted above) saw no real change in the structure of settlement or its implication for centralization from the LC 4/5 to the Early Bronze Age in the Samsat polity based on rank size and gravity models. The same population size reported by Wilkinson (1990) fits that conclusion.

If, as I argue, the political basis of the LC 3–5 (Arslantepe late VII and VIA, Kurban VI, Phase 2, Hacinebi B2, Brak TW 12, Uruk-Warka IVB and IVA, etc.) was staple finance, then changes in the food producing sphere would have a significant societal and cultural effects. European feudalism changed dramatically during the Little Ice Age (Fagan 2001). This does not mean environmental determinism, but if optimal conditions for these staple-producing, storing and transporting systems changed, it could not help but select for greater effort in that sphere than the craft-making, wealth finance sphere. As Benati (2018, 124, brackets mine) writes, "Commodified goods circulating in institutional circuits were therefore valued for the exchange-use—i.e., largely as remuneration for labor and as wages for sustaining officials and ranked individuals [and for laborers in the fields and workshops]—rather their use-value, i.e. nutrition." Use-value became more critical at times of environmental stress. Resiliency, as Adams (1987) suggests, often means going back to a smaller, more local, more independent units following somewhat different strategies for subsistence and support.

Yet, as I discussed above, the traditional zones reflected in pottery style have deep roots. As described above, this means a northeastern Euphrates area for certain styles of Coba bowls in the LC 1 and in the Early Bronze Age Plain Simple Wares, as opposed to different styles of Coba bowls in the LC1 and Ninevite V pottery styles in the northwestern Tigris. The Ninevite V painted designs of the Early Bronze Age also clearly and, I would argue, intentionally mirror 'Ubaid pottery designs (personal observation).

In fact, according to Kuzucuoğlu (2018) changes in the climate and environment did happen. She writes, "In the southern Levant humidity starts to decline at 5300 B.C. ...During the 5300–2000 B.C. transition period, the curve shows several rapid and short-lived depletion periods. The most important of these events (i.e., a drop of 200–250 mm in total rainfall), happened at ca. 3100 B.C." In the highland Zagros and Taurus Mountains, given that the Levant indicates a multi-regional but not specifically Mesopotamian one, the drying period was later. Still, according to her, the Euphrates floodplain in the first half of the third millennium BC exhibited "extreme flooding events, continuously shifting channel and increasing slope erosion, dry periods interrupting short humid ones" (Kuzucuoğlu 2018, Fig. 6). Clarke (*et al*. 2016) see a similar pattern from 3300–3100 BC. As Adams (1981) argues, regional climate is less important than the micro-climates where crops actually grow, but such a wide trend must have affected the strategies and the economic focus of institutions at that time. It is perhaps not surprising that among the new small settlement near Samsat, one was founded by a spring, and another by seasonal stream (*dere*) (Wilkinson 1990, 95). Ironically, the areas of the North where rainfall agriculture was practiced may have been hit harder than the southern alluvium which depended on river water. Such drying apparently did not happen in the Taurus whose snowpack fed those rivers.

The geology of the region also selected for different geometries of settlement. The southern alluvium aggregated population into cities because of the use of gravitation irrigation canals (H. Wright 1969) before more extensive irrigation canals would be built later on. The Birecik-Carchemish corridor is, on the other hand, limited by its position in an area between high terraces. Where people founded Samsat and its neighboring sites is where that narrow area opens into a more habitable plain. The same goes for Tilbeshar, which exists in the only place along the Birecik Carchemish corridor where the terrace opens to the west into another open plain. So, the odds of developing an urban system there is small. Even today Birecik and a few neighboring settlements are at most small towns. Algaze (1999) is right that the number of hectares occupied in this corridor dropped significantly after the LC5 into the Early Early Bronze Age. That number represents four sites: Hacınebi, Tiladir, Kum Ocağı, and Şadi Tepe which were abandoned during the LC 4 or 5. Taking them out of the total, the sum of occupied hectares in the other LC sites was less than the Early Early Bronze Age ones.

However, geology was only one factor. What other factors caused some sites to be abandoned? Hacınebi provides an interesting case. It was one of those sites where some degree of societal complexity had been developing for centuries before the period of major contact with southern Mesopotamia. The site, according to Özbal's analysis, was producing metals in specialized workshops presumably for local use and for trade. It was at this time that a community of Southerners moved in and stayed for centuries. Hacınebi was one of few sites in the Birecik-Carchemish Euphrates corridor for which we have published evidence of a formal system of seals and sealings to monitor the production and trade presumably in metals. The site was abandoned at the end of LC4 with no signs of violence. How I currently interpret this is first, that the Southerners

were not emissaries of Southern leaders. Like prospectors in nineteenth century AD America, they were drawn by opportunities available in resource rich places. Their technical skills in organization and, without doubt, their connections to the places where demand was highest in the South were a sufficient benefit to the locals to accept them. Still, they were responsible for producing or obtaining their own food. Could one imagine the members of the British Raj in India out in the fields growing their own grain or herding their own animals? One possibility of what changed was a re-orienting of the trade routes (see Fig. 1.5), along with the possible environmental crisis mentioned above. Pittman (2001) using seal style argues that the Euphrates route was somewhat replaced in the later fourth millennium by a Tigris route that crosses the Jazirah going through Hamoukar and Tell Brak, but then up the Khabur and Balikh Rivers directly toward Samsat. Here the lack of survey and excavation in the Soruç and Harran plains (see Fig. 1.4) limits our understanding. This last leg of the route is later evident in the common use of Karababa painted wares from Samsat to Tell Chuera.

Another possibility is suggested by Moorey (1994). The Southerners themselves became more and more involved with the production of metal goods, lessening the market for the production sites in the North. With the weakening of the Middle Euphrates River colonies and trade routes that bypassed the Birecik-Carchemish corridor, the benefits of Hacınebi waned. This is especially true if the residents on the site could not provide their own subsistence as easily, and the Southerners had no craft to derive a return from its effort. Its residents decided to move on.

This may also have to do with competition with the Iranian metal sources. The Tigris corridor as a whole (see above) tended to continue unabated from the LC4/5 into the Early Early Bronze. Its role in exchange networks into the Zagros highlands is one possible reason. My work with the Kura-Araxes people convinces me that they did not destroy Arslantepe (Simonyan and Rothman 2023). They did draw an artificial barrier between them and northern Mesopotamia in the third millennium (later Early Early Bronze Age, EB II). Because Kura-Araxes people had some degree of control over the areas of the Caucasus and Taurus mountains from which much of the LC3–5 ores were derived, obtaining metal ores might have become more difficult. The third millennium North may have another reason for some kind of economic recession, but not because of abandonment of the Middle Euphrates colonies at least 200 years before.

A re-organization of the societies of the North certainly followed the challenges of the Uruk/Early Bronze Age transition.

Still, I do not see sufficient evidence of a colonial system that encompassed the whole region. Was there really a collapse generally or a number of stories with different trajectories of change, some of which did collapse and others did not. We need a lot more data fully to understand (Rothman and Fuensanta 2003)?

We certainly need to understand more about metal production and trade (see Chapter 4 below). Metals' cultural important may be a key to this. Metals are much less visible in the North during the LC 4/5. This may be because they were too valuable not to re-smelt and re-use. The metals found in wealthy graves in LC2 Tepe Gawra were mostly precious metals, gold and electrum. Sadly, we have few graves of the LC4/5. However, part of the great increase in our collections of metals come from Early Bronze Age graves (see Chapter 6). Not only graves but buried hordes of metals. In other words, metals became a symbol of wealth finance in the early third millennium. The many graves of the Early Early Bronze Age (see Chapter 6 below), as well as ones on the northernmost Tigris at places like at Başur Höyük (see above) tell us of changes in the social meaning of metals and of social roles that would want to signify their status with metal objects. In the South Caucasus half a millennium later, collective graves were replaced by individual graves and then by individual kurgans rich with metal objects after the twilight of the Kura-Araxes cultural tradition and the beginning of the Early Kurgan Period (Simonyan and Rothman 2023). In addition, we see the metal-workers reaching out for new raw material sources. At Zehtinli Bahçe metal-workers used atypical ores with low levels of tin and an absence of zinc (Palmieri and di Nocera 2004).

Another element that I believe we have not paid enough attention to is religion. The structure of temples with their altars in a central room and side rooms with places for purifying ablutions (in my and Jawad's definition for LC2 temples [Rothman 2002]) is almost universal throughout Greater Mesopotamia. Once we have textual documentation, we know that each city-state and then territorial state has their own favorite gods, but the understanding of the gods and their roles, especially in fertility, is universal for this region. Their rituals seem the same. When we tried to find parallels to the shrine at Tilbes, we wound up looking at Beyçsultan in the far west of Anatolia and Tell Barri in the Ninevite V area of northeastern Syria (Chapter 6). The initial mode of communicating ideas, technologies, and goods may well have gone with the practitioners of a new, post-shamanistic faith. One role religion played in the Uruk expansions wide dispersion even into central Anatolia and the central plateau of Iran could have been to create a common cultural language and perception. Another role it probably played was in the period of transition from Late Chalcolithic to Early Bronze times was to provide an integrating principle when the older social order was changing for the smaller polities. In Figure 1.5, sites are marked if they had large platforms in the LC/EB transition. Some of these platforms had evidence of a ritual constructions on their tops. These sites with platforms are distributed in a fairly regular pattern over space. They occur at Surtepe in the Birecik Carchemish corridor, at Sweyhat in the southern extension of this sub-region, at Tell Mozan on the Upper Khabur

River, at Tell Hazna near the Balikh River, and possibly in the Eye temples of Tell Brak. Of course, the White Temple at Uruk-Warka in the Early Dynastic I (early third millennium) was also built on an artificial high mound. As I discussed above not all culturally defined systems will "migrate" in the same way. Religion has a tendency to cross political and ethnic lines. Further, religion in cultures of the ancient past are intimately connected to power. As Helms (1976, 75) writes, "The exchange systems of the pre-Columbian Panamanian elite can also be considered within the context of belief in supernatural qualities or powers expressing inherent personal worth that are overtly evidenced in talents, abilities, and actions… In this perspective the circulation of gold pieces, fine cotton goods, pearls, war captives, and the like along regional and long-distance networks becomes a signification not only of pragmatic chiefly abilities and rivalries but also of the nature and quantities of the sacredness that are inherent in high status and that underlie ("legitimize") and are expressed in, chiefly efficacy… In performing this function, the pearls, gold, and other valuables acquired and displayed by elites also received 'inherent' sacred value themselves."

Of particular importance here is the role of smaller, "rural" sites in settlement system. Tilbes certainly fits that category. How do we assess the adaptations and selective forces at work at such a site? As I wrote above, natural environment is one. Changes in animal utilization (Chapter 3) and floral remains indicate that the changing characteristics of its natural environment altered some of the sources of animal protein and products. This is also evident in a pivot from sheep/goat as the main source of meat to pigs at Zeytinli Bahçe and Sweyhat, described above.

Of course, the human, societal and cultural, environment is also very relevant. When I reviewed the otherwise brilliant book, *Village Ethnoarchaeology*, by Carol Kramer (1982) I objected to her final section. In it she equates a modern village under the Iranian state to a Neolithic village (Rothman 1983). The one, she proposes, is a model of the other. What I objected to was the idea that the state would have no effect on the adaptations and decision-making of "villagers." Both in their restrictions based on control from the hierarchy and the opportunities to expand the polity in which rural populations operated through marketing of goods would change the environment to which villagers adapted.

A task therefore that we always need to do is to determine what roles, defined by functions, each node of settlement fulfills (Kramer 1994), and what the local adaptations and practices there were to meet the villagers' needs and wants. Just because a settlement is small, does not mean it automatically is a village, which we view as a primarily food-producing venue for larger cities. What, for example, does a noble Roman's country estate have in common with other villages? How do we analyze some small sites in the Tigris corridor in the fourth millennium whose primary purpose was to produce pottery (see Ninevite V section above). These do not imply that necessarily each was part of an urban system. It does imply that there were local polities united by a religious center.

Parenthetically, the term "urban," as I wrote about above, has been rather confused in recent scholarship on Mesopotamia and the Southern Levant. An example of this misunderstanding is a discussion of a public building at fifth millennium Hamoukar. The authors state that it is a sign of urbanization. I believe they mean it is a step toward a state society; that is, of the foundation of societal complexity. The term urban has become a proxy for state, and proto-urban for what we used to call chiefdoms. Does proto-urban imply an inevitable movement to urbanism? Not always.

However, as Sahlins and Service (1960, 75) state in their brilliant little book on evolutionary theory and culture, "that cultural system which more effectively exploits the energy resources of a given environment will tend to spread in that environment at the expense of a less effective system." Yet in doing so more dominant systems tend to create a new environment, sometimes the natural one and definitely the cultural one. This tends to increase the likelihood that a retreat to earlier systems becomes ever harder to do, even if the new system proves maladaptive. We see this in the current day. Our growing dependence on fossil fuels to power industry and trade, to rearrange settlement patterns, for technologies of war, perceptions of what we culturally should want and how we measure success, and result in tremendous interdependency globally, are making it difficult to change. This is so even if avoiding those results in changes in global climate that may well collapse our societies.

The city becomes a kind of functioning symbol of the changes that were happening in the fourth and third millennia BC. One role of the city (urban) is to integrate a larger number of people spread over contiguous space (see above). Gawra was certainly a center, but not a city. The center was part of a closed system in which it made itself the only path to relations with groups external to it. The alternative is an open system in which many nodes within the polity have independent relations with the world outside the polity (Rothman 2002; Kowalewski *et al*. 1983). The latter is what M. Smith (1994) calls connectivity. The key variable is interdependency. How much influence does the center have on the rural sector, and, vice versa, how much obligation in goods *or labor* do residents of smaller sites have to centers or cities (see Peltenberg 2007 on labor)? As societies evolve from a center to an urban system to a territorial state, the degree of interdependence grows. That is, the human environment to which people in each settlement have to adapt, and what alternative strategies it is able to take are different than in earlier times. Therefore, as Wattenmaker (1998) has shown for Kurban Höyük in the Samsat urban system during the middle to late EB, the core functions of more rural places often continue despite what is happening at the center of a state or an empire.

However, that changing economic, political, and I would say cultural nexus of the larger unit and the degree of interdependence or integration is key to understanding what choices people in more rural parts of a settlement system made.

In the following section Charvát discusses the place of Tilbes Höyük in an era when the North became urbanized and urban systems were subsumed under territorial states and empires (the last during the Akkadian period of the Late Early Bronze Age).

This was not a period that was the focus of our planning the original project, but is part of the work of the American team, and so is included in our reporting in this volume.

Mid to Late Third Millennium (Middle and Late Early Bronze (EB III and IV))

Petr Charvát

Tilbes and Geography

The cultural background of Tilbes Höyük in the final stages of the third millennium, the Syrian EB III to EB IV (Middle to Late Early Bronze Age, see Chapter 2 on chronology) reflects the essential geographical and topographic situation of the site. Tilbes sits at a crucial point where the Euphrates River flows out of the mountainous tracts of Eastern Anatolia into the alluvial plains of the south. It lies along one of the key river routes connecting Anatolia and Mesopotamia where the river narrows. As a possible docking place, it probably benefited from traffic along the river course and may have supplied most likely agricultural goods to local and more distant centers using the same transport routes.

Ever since the beginning of the third millennium BC, Tilbes is likely to have seen continuous supplies of good-quality Anatolian stone, metals, and wood from the mountains of Eastern Anatolia and goods from areas to the west. For example, supplies of the distinctive striped hornstone Canaanean blades reached the low-lying Syrian and Mesopotamian regions throughout the entire third millennium BC. These were extracted and shaped into half-finished cores ready for transport at the Eastern Anatolian site of Hassek Höyük (Otte and Behm-Blancke 1992: esp. p. 173; Matney and Algaze 1995: 45–46).

Considerable quantities of Anatolian tin must have been exported, most probably also to the plains south of Tilbes ever since the beginning of the third millennium BC (Vandiver *et al*. 1993: esp. p. 298). The same might well pertain to Anatolian gold, of which growing quantities were available at contemporary Ebla down river, as indicated by the decreasing value of gold in relation to silver (Pomponio 1998: esp. pp. 131–132). Perhaps, some of the gold in the famous Royal Cemetery of Ur traveled along the Euphrates past the rooftops and walls of third millennium Tilbes. Commissions of gold might have been supplemented by those of silver, which must have been eagerly sought as considerable quantities of this metal were needed for embellishment of divine statues at Ebla (Archi 1990: especially pp. 102–104).

The word *kabalum,* denoting a kind of bronze, a word perhaps borrowed from Sumerian into Eblaitic and subsequently into Hurrian, may represent a trace left in the region by the Sumerian prospectors who searched the land for its mineral resources (Zaccagnini 1988).

Finally, wood and presumably also other perishable goods, such as meat and other game hunted in the northern steppes, reached the cities of the south at least from the ED IIIA period (middle Early Bronze). This is indicated both by images of northern animals on artifacts of the south; for example, a stag on a lyre from Ur (de Schauensee 1998: 22) and by finds from the "royal" tombs of Ur (de Schauensee 1998, 25): the stag figure carved from box- and pistachio wood. In this regard the increase in the percentage of hunted animals consumed in the Middle and Late Early Bronze may also be an important indicator of economic change (Grantham, Chapter 3, this volume). This increase may be interpreted as a decline in domestic animals or perhaps as a representation of a new economic strategy.

Pre-Akkadian period

The first state to have been interested in securing a foothold in the vicinity of Tilbes was the early Syrian kingdom of Ebla during the palace-G phase, BA IVA, c. 2450–2350 BC (Matthiae 1997: 1; Mazzoni 1999, 611), although Reade (2001: 12) proposes a lower date for its end. At that time, the site of Ab(a)rum, likely to have been situated not far from Tilbes, is referred to in the Ebla documents and known also from later texts. It belonged to the northernmost parts of the realms of the Ebla kings (Astour 1988: 154, map). The find of a storage-jar fragment bearing an impression of a cylinder seal in the Ebla-palace manner at neighboring Tilvez bears out this association (Charvát and Fuensanta 2001, No. 3; parallels: Mazzoni 1992, 25–26, 53, 103–104 and 241, Tav. IV , XI, XXXIII, dating to Syrian EBA IVA; Matthews 1997, 136–137, 145, 171–173, 183 and 190, 118–120 and Nos. 180–238 and 491 date: 24th to 23rd century BC). It makes Tilvez a candidate for a "demesne holding" of the kings of Ebla on Ebla-palace storage jars with impressions of figurative seals (cf. Mazzoni 1992, 25, 66). We know that such economic establishments, directed and managed by officials bearing the *lugal* title (Pomponio 1984; Archi 1987, 40–42; Archi 1993, 467), formed an integral part of the royal holdings of Eblaite kings (Astour 1988: 148; Mazzoni 1999, 614–615; on storage jars and their use at Ebla cf. Archi 1999, 152–157).

The state treaty between Ebla and Abarsil (Fuensanta *et al*. 2023 thinks this is Surtepe) may indicate the political and economic situation of Tilbes up to about the first half

of the 23rd century BC (Astour 1988, 147–148). Abarsil had to open her harbor to Ebla, put at her disposal means of riverine transport (boats), provide Eblaean messengers and officers with food, and remain loyal to the sovereign kingdom. Abarsil also had to give shelter to the traveling merchants of Ebla. Its residents were also obliged to pay taxes, notably one ox and one ram along with one mina and two shekels of silver annually.

This phase of Tilbes Höyük was possibly within the realms of Ebla or it was part of a local polity whose centers owed tribute to the Syrian capital. In any case, it ended with the conquest by the invading army of Naram Sin of Agade (Frayne 1993, 132–135, E2.1.4.24, 136, E2.1.4.27, and 166–167, E2.1.4.2005) or possibly some later ruler. Recent research argues convincingly for a terminal date of the earlier Ebla kingdom at around 2250 BC (Reade 2001, 12–13, on the chronology of Early Bronze Age Syria and Ebla (cf. most recently Mazzoni 1999, 608–611)). The interesting thing is that at Tilvez Höyük there seems to be a gap in settlement between EB IVA and EB IVB, that is, just somewhere around 2250 BC when Naram Sin´s or another king's troops conquered Ebla (Fuensanta, Charvát, and Bucak 2001, 4). The termination of Ebla as a colonial center no doubt had repercussions in its former domain as well. The systemic effect of a small sites' trade with a strong center has already been demonstrated for Kurban Höyük (Wattenmaker 1998).

Akkadian period

Tilbes continued to be occupied in the 24th century BC when the imperial ambitions of the Akkadian kings of Mesopotamia directed their armies into regions along the middle course of the Euphrates River for the first time. The empire´s founder, Sargon of Akkad, is likely to have gone no further than a token subordination of Mari. Yarmuti and Ebla "bowed down to Dagan in Tuttul." In return for his reverence, the deity gave Sargon the respective regions "as far as the Cedar Wood and the Silver Mountains" (Frayne 1993, texts E2.1.1.1. and E2.1.1.2 on pages 12–19, and E2.1.1.11 with E2.1.1.12 on pages 28–31). The local political structures might have survived more or less intact (Westenholz 1999, 38, on contemporary worship of Dagan cf. Pettinato-Waetzoldt 1985). Rowton (1967) places the Cedar Mountain in Eastern Turkey due north of Tilbes, although environmental studies show significant forests in the Middle-Upper Euphrates Valley.

Nevertheless, the imperial strategists of Agade, a state centered on the northern part of the Mesopotamian lowlands, clearly realized the importance of a viable defense line protecting the empire's northern frontier. They must have been aware of possible threats lurking amidst the jagged outcrops of the Taurus Mountain ridges. Beyond the mountain ranges lay an impenetrable and indomitable world. That world opened on the "invasion gateways" represented by the valleys of the Euphrates and Tigris Rivers. They pointed like lighthouses to the opulence offered by the southern civilizations. This impelled the Akkadian administration to establish a series of defensive facilities, embedded in and associated with auxiliary economic, political, and spiritual structures along the empire's northern frontier. Such effort gave birth to a rather grandiose set of settlement structures, which may be perceived as a kind of "*limes Akkadicus*."

The "eastern wing" of this entire structural set is likely to have been traditional settlements along the Tigris River, beginning with Aššur. This traditional seat of a local élite group received a substantial amount of sponsorship from the sovereigns of Agade, starting with Rimuš (Beckman 1998: 1) and Maništusu (Westenholz 1999, 47, cf. also Frayne 1993, 238–239 and 312).

Next came the ancient site of Nineveh, which was assigned a particularly important religious function within the system. The local shrine of Akkadian imperial goddess Ištar was undoubtedly designed to provide supernatural protection to the empire's fortunes in the north. It would also symbolize publicly the power and glory of the new sovereigns. Unlike any of their predecessors, they held wide tracts of the entire Near East under their sway (Frayne 1993, E2.1.4.28 on page 137 for an inscription from Nineveh referring to building of a temple to Ištar, but with the royal name broken off; Beckman 1998, 1). Nineveh was assigned a set of sites and institutions for their maintenance, the outlines of which we are beginning to understand. Those supply stations that provided the subsistence necessities of daily life to the Akkadian inhabitants of the Nineveh settlement cluster are exemplified by Tell Taya (Reade 1997*,* especially. 159). Tepe Gawra VI is likely to have served as a small craft center where specialists in metallurgy and textile industry were set to work for their imperial masters (Charvát 1993, 234–237; Matthews 1997, § 3.2.7, page 45, for a dating into the Akkadian period). Still other sites might have fulfilled the function of storage and congregation points. Tepe Chenchi near Khorsabad attested to this category of auxiliary facilities (Algaze 1989b).

Farther west, the Akkadian frontier seems to have formed a large arc with points at Jebel Sinjar, Jebel Abdalaziz, and Jebel Bishri. The Khabur River served as a boundary line (cf. Westenholz 1999, 47–48, 91). The monumental site, Tell Brak, constituted the "headquarters" of this border zone. Its strategic, but highly exposed situation in a passage between the Jebel Sinjar and Abdal-aziz tells a great deal about the thinking of the imperial planners of Agade. It also shows their knowledge of the local landscapes, but also about their confidence in the strength of the imperial armies and disdain of any possible enemy.

The strategists of the Akkadian army were not the first persons to have set their eyes on Brak. The existence of an Early Dynastic monumental building with an oval plan, burnt down and superimposed by at least one phase of habitation structures (Emberling *et al*. 1999, 9–20), shows that even before the 24th century BC, ruling élites understood the military advantages offered by the

location of Tell Brak. The rather complex chronology of Brak has received a considerable amount of attention as a consequence of a whole series of archaeological excavations, which constitute a part of the history of archaeological research of the ancient Near East. It does nevertheless seem that there is some room for additional thought. Ever since Mallowan´s excavations, the huge building of bricks bearing the name of Naram Sin at Brak has defined the main building phase of the site (Frayne 1993, E2.1.4.22 on pages 125–126; Oates *et al*. 2001).

The new excavations have nonetheless secured evidence for at least one and possibly two building phases preceding Naram Sin´s monumental structure, which may archaeologically belong to the Early Dynastic/Akkadian transitional age (D. Oates J. Oates 1994: esp. p. 173 Table 1 – from ca. 2300 to ca. 2200). Both of these earlier phases were leveling deposits over demolished buildings (Oates-Oates 1994: 167). The excavators also observed that the monumental structures must have taken a considerable period of time to build, as they required several phases to complete, two or three in the case of the temple in area SS (D. Oates and J. Oates 1991, 130; D. Oates and J. Oates 1993, 155). After an age when the monumental buildings had burnt down and stood empty for a time (D. Oates and J. Oates 1994, 172), their ruins were intentionally leveled, leaving a layer of earth which trapped many objects *in situ*. Among those were jewelry and various ornaments left on the floors of the earlier buildings (D. Oates and J. Oates 1989, 202–204). This leveling layer also yielded human remains (D. Oates and J. Oates 1991,130) and bones of donkeys and dogs. Excavators retrieved hoards of copper or bronze tools and weapons, as well as of jewelry, and charred remnants of poplar wood beams, copper or bronze sickles, pins, chisels, a mirror, and a group of gazelle horns from its surface (D. Oates and J. Oates 1989*,* 209–210*;* D. Oates and J. Oates 1991*,* 130–134; D. Oates and J. Oates 1993, 161–162).

The extent of this entire frontier-defense project must have commanded complex investigations of the potential of the local landscapes, as well as a considerable amount of time and energy. This makes it thus unlikely that all the construction work evidenced on the site could have been done in the course of a single king's reign. The commonalities in artifact design of the Upper Euphrates sites and Brak place them chronologically and politically, and speak to the world in which Tilbes functioned.

Just for the sake of clarity, let us refer in brief to the main undertakings of Naram Sin likely to have taken him and his troops as far north as Brak and its surroundings (Frayne 1993, 90–94, E2.1.4.2). Having left Ašimanum (probably north of present-day Mardin) town on the Tigris, Naram Sin and his troops headed due west towards the Euphrates. They received the capitulation of the towns of Hahhum and Talhadum, crossed the river and continued along it towards Jebel Bishri, the Amorite Mountains, where they fought the locals and won. Reaching the sources of the Euphrates and Tigris Rivers and felling trees in the Cedar Forest are memorialized by Naram Sin´s year dates (Frayne 1993, 86, cf. also 140, E2.1.4.29). He gave himself his title "custodian of the sources of Euphrates and Tigris" (Tinney 1995, 4). Note in the report of Miller (Chapter 3, this volume) evidence of heavier, although declining, forest cover along the rivers throughout the third millennium.

A material remain of this campaign might be represented by the famous Pir Hüsseyn stele, the original findspot of which could be some 75 km east northeast of Diyarbakir (Frayne 1993, 128, E2.1.4.24). The site of Pir Hussein was identified on survey by Peasnall and Algaze (2010) between modern Batman and Diyarbakir north of the Tigris. The location of Talhadum is possibly to be sought at a mound called Duluk Höyük some 11 kilometers north of Gaziantep (Frayne 1993, 129–131). Naram Sin might also have campaigned in the Jebel Sinjar mountains and directly on the Khabur River (Frayne 1993, 124, E2.1.4.). Other inscriptions of his refer to a hunting trip to the Jebel Abdalaziz and to carving of his own statue dedicated to Enlil there (Frayne 1993, 126–127, E2.1.4.23). It is interesting to observe that much the same feats are claimed by Naram Sin´s successor, Šarkališarri, who also reached the sources of Euphrates and Tigris and felled trees in the Amanus mountains (Frayne 1993, 191–192, E2.1.5.4 and 192–194, E2.1.5.5.).

The site of Tell Brak has provided a wealth of information on various aspects of everyday life of the Akkadian age, which may be of relevance to our comprehension of what went on at later third millennium Tilbes. For example, evidence exists for transport, in all probability donkey caravans (Clutton-Brock 1989; Clutton-Brock and Davies 1993). Also, the role of hunting appears to have declined as compared to the preceding Ninevite V age (Emberling *et al*. 1999, 29–30–30% of remains [but see Grantham, Chapter 3, this volume]). Akkadian occupation of the Khabur landscapes does not seem to have resulted in extensive clearing of trees intended to put more arable soil at the disposal of local settlers (Butzer 1994, 161). The above-mentioned decrease of significance of hunting must have been from other causes, such as climatic change. It is, however, not to be excluded *a priori* that the lands surrounding Brak were put to extensive use as summer pastures for cattle or sheep/goat transhumance. A parallel is known from the Old Babylonian period when the shepherds of Mari drove their animals to summer pastures around Kahat/Tell Barri near the source of the Khabur River (Charpin 1990: 69–71).

Other sites in Brak's polity no doubt provided everything the regional center needed both for daily life and for outfitting the expeditions that heralded the glory of the two last rulers of the Agade for the millennia to come (for analysis of the Brak "catchment area" cf. Eidem and Warburton 1996). One of the production centers that helped to sustain and nourish Brak was possibly Tell Leilan. This is indicated by the characteristics of the latter site (Weiss 1997, esp. pages 343–344), but also by the slight decrease of the number of sites occupied during the Akkadian period as opposed

to earlier phases. This indicates that intense agricultural exploitation of the region for the provisioning of the imperial establishments required all the arable land that was not strictly necessary for local subsistence (Weiss 1998*,* 127–128, for a similar phenomenon at contemporary Tell al-Hawa cf. Ball *et al*. 1989, esp. page 18, and Wilkinson 1990b, esp. pages 56–61). Tell Leilan is named in one of the inscriptions on seals impressions from Brak (Oates-Oates 1989, 205). The character of contacts linking Brak to faraway Gasur/Nuzi in the Tigris corridor is not immediately apparent but an impression of a seal of a Nuzi administrator was found at Brak (Illingworth 1988, 98; Oates-Oates 1989, 210; Frayne 1993, 240–241).

The importance of Brak in the Akkadian period is borne out by the number of its satellite settlements that rose to one of the three peaks in the site´s history during the Akkadian Period (Eidem and Warburton 1996, 53 and 54, fig. 1a). The operation of auxiliary food producing areas for the major centers of the Akkadian period is illuminated by written sources as well (for Awal and Gasur/Nuzi cf. Dsharakian 1994, for an example from the Diyala region, dating to the early years of Naram Sin´s reign, cf. Visicato 1999). Needless to say, finds of sealings visualizing deliveries of diverse goods to Brak were common (cf., for instance, Oates-Oates 1995; Matthews 1997).

Within the range of sites along the northern perimeter of the Akkadian empire, at least Nineveh and Brak may have housed the *é-uz-ga*, an administrative building or great dining hall, abundantly documented in the Ur III times (Wu Yuhong 1996). Contributions and taxes in kind for the needs of the king and his court were collected in the network of these institutions, which provided Sumerian and Akkadian sovereigns with provisions during the course of voyages throughout their realms.

The question of when this immense undertaking, designed to protect the empire from its northern foes, originated requires some prudent deliberation. I have already pointed to the fact that given his intense engagement in the empire's defense, Naram Sin hardly had much time to build. He seems to me rather more likely to have been leaning on the foundations laid down by his predecessors, Sargon, Rimuš and Maništusu.

Theoretically, the construction of the imperial stronghold at Brak might have started with Rimuš. Excavators recovered a vase marked as Elam booty of this ruler in one of the rooms of the Naram Sin building at Brak (Finkel 1985, 201; Frayne 1993, E2.1.2.15 on pages 65–66; Rimuš´s name is reconstructed but probable; Beckman 1998, 1). Nevertheless, the fact is that we know of many such inscriptions, distributed all over Sumer at Nippur, Ur, Sippar, and Khafajah. There is even one from Aššur (Frayne 1993, 71). Such a quantity makes it possible that Rimuš´s vassals survived their dedicator.

Further evidence suggests the role of the third sovereign of the Akkadian dynasty, Maništusu. In addition to a spearhead of bronze bearing a dedicatory inscription referring to Maništusu by Mr. Azuzu, one of his officials from Aššur (Frayne 1993, E2.1.3.2001. page 82 and 238), a bronze bowl bearing Maništusus's name appeared at Qamishli by Nusaybin in the Khabur headwaters near Brak (Frayne 1993, E2.1.3.7. page 81). This may indicate Maništusu's activities in southeastern Turkey. The site of Aššur has also yielded other inscriptional fragments from the Akkadian age referring to the goddess Ištar (Frayne 1993, E2.0.0.1005 page 312, cf. also page 238) and the city´s name turns up frequently in the economic texts from contemporary Gasur/Nuzi (Frayne 1993, 238). Maništusu's advisors could make him sensitive to questions of security of the empire's northern frontier and indeed, the third king of Agade seems to me the most likely candidate for having brought into being this bulwark guarding the northern routes to the heart of the Akkadian kings' realms (Westenholz 1999, 47). The stele from Nasiriyeh by Ur which bears an unequivocal depiction of a "depas amphikypellon" cup originating from Asia Minor, ascribed until recently to Naram Sin, has been re-dated to the time of Maništusu (Westenholz 1999, 47). In fact, such vessels have been found at Titriş Höyük some 45 km north of Şanlıurfa in SE Turkey, maybe 50 km from Tilbes, a region that was certainly within the bounds of the Akkadian kings' invading armies (Matney and Algaze 1995, 48; cf. also Matthews 1997, 36 under Nos. 10b and 11, for more parallels).

The whole question of dating the onset of Akkadian occupation at Brak requires more attention. Taken together, the elements of style that are usually attributed to the Akkadians developed after Sargon. For example, characteristics of sculptural style peculiar to the Akkadian school emerged only after the reign of Maništusu (Gibson-McMahon 1995, 5). If, then, impressions of cylinder seals of ED style turned up at Brak in primary contexts together with those done in the Akkadian manner (Gibson-McMahon 1997, 10), I believe that this evidence can be used to push the origins of the Akkadian regional administrative center at Brak at least to the earliest years of the reign of Naram Sin, if not to the regnal period of Maništusu. In light of this evidence the other finds of ED-style seal impressions that were found on the interior and courtyard floors need not be excluded *a priori* from the Akkadian period (Matthews 1991; Oates-Oates 1989, 204–205; Oates-Oates 1991, 135–136; Oates-Oates 1993, 164; Emberling *et al*. 1999, esp. pages 14–16). Indeed, they may conceivably date from final ED III right down to Maništusu's age, an opinion to which Stefania Mazzoni subscribes (Mazzoni 1999, 618b sub Brak style, 622a). This means that at Brak, the CH levels 7 and 6 (Oates-Oates 1994, 173) could well belong to the site's Akkadian occupation phase as well. The masonry of the large Akkadian administrative building may demonstrate that this particular edifice was built by Naram Sin. That, but that alone need not define the very beginnings of Brak as a regional and possibly supra-regional administrative center of the Akkadian empire. It could have achieved that status earlier than Naram Sin's reign.

A circumstance worth noticing is not only this emergence of a whole series of defensive structures, but also the evacuation of a frontier zone between the Khabur and Balikh rivers, strongly resembling a creation of a "no man's land" between the Akkadian empire and her western neighbors (see below). The phenomenon in question is represented most conspicuously by the evacuation and abandonment of elite sites occupied in the preceding segment of the mid third millennium (Early Dynastic III, middle Early Bronze) such as Tell Chuera or Til Barsip. On the other hand, smaller sites clearly survived. This is shown by results of the excavations at Hammam et-Turkman on the Balikh. Although it had traces of a violent destruction datable to around 2250 BC (van Loon 1988, 584), the site continued to be occupied and even left evidence of utilization of the Akkadian script (van Loon 1985:, 41 above). The Hammam et-Turkman conflagration took place so close to the date of destruction of Ebla that one is almost tempted to perceive the two as parts of a single military campaign. I thus prefer to see this whole defensive system as a creation of an age before the reign of Naram Sin (perhaps a work of Maništusu).

For the series of military operations that took him to the Amanus mountains as far the Mediterranean coast, Naram Sin must have been depending on the already established local service and supply points. One of the consequences of the existence of this Akkadian "northern bastion" was the destruction of Ebla, probably to be ascribed to Naram Sin's invasions (Westenholz 1999: 47).

What has all this to say about the history of Tilbes? The conquest of Ebla and the ensuing collapse of its territorial power probably liberated Tilbes and its vicinity from its subordination to the Syrian overlords, making it a part of a minor rural polity able to reap the advantages of its geographical position.

The inhabitants of Tilbes are likely to have profited from the establishment of the Akkadian "*limes*." They may have supplied the Akkadian forts, garrison towns, and cities, much as their northerly neighbors at Titriş Höyük had. In its earlier form of a country borough with an adjacent cemetery, the latter site yielded, among other things, an Old Akkadian weight of one *mana* (Matney and Algaze 1995, 48). What commodities the residents of Tilbes provided for the southern empire we can only guess at, perhaps stone, metal, high-quality wood, and wild animals (for Akkadian trade in stones cf. Sax *et al*. 1993, esp. pages 87–88). The fact that the Akkadian-period fashion of using serpentine stone for the manufacturing of cylinder seals did not return until the Neo-Assyrian imperial age (Sax *et al*. 1993, 85) may imply that this mineral came from deposits somewhere in the north of Sumer and Akkad, but this is pure conjecture.

As to the common everyday activities, a good guide has been provided by results of the team of Richard Zettler, who excavated the Syrian site of Tell es-Sweyhat on the Euphrates about 100 km south of Tilbes. Despite some differences in their environmental setting, Sweyhat repeats almost exactly the development of Titriş: after modest beginnings in the form of a rural-settlement-cum-cemetery around the middle of the 3rd millennium BC, it quickly expanded into a full-grown urban center with a central fort, a fortified lower town, and extensive suburbs. The inhabitants of Sweyhat grew wheat, barley, peas, and collected caper berry fruit. Willow, poplar, oak, and various shrubs characterized their environment. Sheep, goats and cattle were herded in the vicinity of the site, but several ecological niches supplied wild game. From the steppes came gazelle and onager, from the woodlands came fallow deer, and from mixed steppe-woodland areas came roe deer. Some 24% of animal bones belonged to hunted species; in terms of weight, this equals 59% of the meat brought to the site. Consumption of pigeon-sized birds is also attested. Traces of unspecified craft production were present in its suburbs (Zettler *et al*. 1996).

Palaeobotanical evidence from contemporary Early Bronze Age sites situated on the Euphrates in North Syria supplement these findings (van Zeist and Bakker-Heeres 1985). The inhabitants of the relevant sites, datable into the interval c. 2400–1400 BC (Tell Selenkahiya, Tell Hadidi as well as Tell Sweyhat), lived by the cultivation of such cereals as emmer wheat, bread wheat (*T. aestivum*), two-row barley, lentils and several kinds of peas (*Lathyrus sativus*, *Pisum*, *Cicer*). The crops, not irrigated and infested with weeds, were obviously harvested by cutting the stalks close to the earth. Figs and vines might have been cultivated, while olives came in as imports. Trees grew by the bank of the river and supplied wood for these sites.

On the other hand, the new situation of the proximity of the imperial frontier had its disadvantages. Tilbes is very likely to have been affected by Naram Sin's troops returning from victorious campaigns. These campaigns were against Ebla and also the mountain zones of present-day East Anatolia, where the Akkadian sovereign boasts of having reached and "taken into custody" the sources of Tigris and Euphrates. In the same context, the cedars felled by Naram Sin's lumberjacks in the Amanus Mountains were very probably carried to the Euphrates not too far from Tilbes to be made into rafts and to continue their journey into the most prestigious building sites and projects of Mesopotamia.

Post-Akkadian period

The period covered by this volume does not extend beyond the Akkadian period, except for a Middle Bronze tomb, possibly not all the way through it. The site was occupied in the Middle Bronze II (Fuensanta *et al*. 2025). Nonetheless, the gradual decomposition and collapse of the northern defensive zone of the Akkadian Empire is instructive in the way it spurred indigenous social developments, in some ways like the immediately post Uruk period. Descending from the East Anatolian Mountains, various

newcomer groups, including the Hurrians were prominent. Local princes quickly took over administrative, political, and spiritual practices of the former, now defunct empire and, in fact, re-aligned the structures of the northern region in accordance with the new facts of the day, using the Akkadian imperial model.

One of the new elite groups took over the Nineveh shrine, re-casting the old Ištar as the Hurrian fertility goddess Šauša, later Šawuška, another deity venerated by regular religious rites here (Beckman 1998, 1). Maništusu´s old temple seems to have been obliterated, but its furnishings were obviously transferred as ornaments and cultic paraphernalia into the new shrine. This, at least, seems to be implied by the current assumption that the magnificent cast-bronze head of an Akkadian ruler, excavated at Nineveh, was discarded much later, after having been mutilated and thrown into the rubbish during the conquest of Nineveh in 612 BC. This is the more remarkable as the formidable Gutians might have played at least some role in this transformation of post-Akkadian Nineveh (on the Gutians cf. esp. Frayne 1991, 397–404).

The entire Akkadian supply and service system is likely to have broken down, and office holders might have set themselves up as independent rulers, undertaking military actions against their one-time colleagues. This seems to be indicated by an inscription of Ititi, a ruler of Aššur who dedicated to Ištar some of the booty he brought back from a raid on Nuzi (Frayne 1993, E2.4.1.1., pages 238–239).

The minor centers that probably supplied foodstuffs to the strongholds of Akkadian power survived this period without major upheavals and crises, as seems to be indicated by the Tell Hawa evidence (Wilkinson 1990b, esp. pages 59–61).

At least some of the exquisite pieces of booty pillaged from the Akkadian establishments on upper Tigris ended up in the hands of residents of the East Anatolian mountain ranges and constituted a challenge to local gold and silversmiths there. The exquisite objects that had once embellished a chiefly household and were subsequently buried at the end of the third millennium BC exemplify the extent of this contact and local reaction. They were found under a funerary barrow at Maikop, north of the main Caucasus range (cf., for instance, Busch 1993, 30–34).

What happened to the ancient stronghold of Tell Brak in the new situation? As discussed above, some Late Akkadian private houses at Brak have yielded Akkadian-inscribed tablets. It is hard to say whether these were relics of Akkadian times or some kind of continuity from the days when the site was an Akkadian fortress center. Much in the same vein, the infilling of many monumental buildings at Brak by a fairly thick leveling layer yielded old objects, many of which were of considerable value. This practice gives clear evidence for sacrificial practices and a cultic "neutralization" of a building. This might have been perceived as a symbol of the ancient, but now defunct power, the potential of which was "re-assigned" to serve new lords.

That new lords were there clearly is indicated by the renaming of Brak as "Nagar" in post-Akkadian times (Matthews-Eidem 1993, esp. pages 205–206). The impression of a cylinder seal found here refers to someone named Talpuš šatili, "son of the land of Nagar" (Frayne 1993, E3/2.7.1, page 460). The name displays a Hurrian etymology and is associated with the inscription of Atal-šen, king of Urkiš and Nawar, who had a Hurrian name (Frayne 1993, 201–202, E3/2.7.2, page 461), as well as with that of king Tiš-atal of Urkiš, written in Hurrian (Frayne 1993, E3/2.7.3, pages 462–463, with photographs of the Tiš -atal inscriptions in Collon 1990, 134 and 135, 3 and 4).

The toponym "Nagar" first occurs in the Ebla texts where a dignitary is named after it (Frayne 1993, 203). In the light of the late Early Dynastic remains from Brak the site may have played an important role as early as the days of the Ebla kings, and its significance might even lie behind the occupation of Brak by Akkadian imperial strategists. Nevertheless, the post-Akkadian age ushers in one very important feature of the position occupied by Tell Brak/Nagar in terms of its power position. The inscription of king Tiš-atal of Urkiš refers to a deity called "Lady of Nagar", Bšlet-Nagar (Frayne 1993, 203). This is a divinity known from an earlier Mari text, and originally it might have represented one of the fertility goddesses of the Ninkhursag type. An Akkadian cylinder seal found at Urkiš may be showing the goddess Ninkhursag (Frayne 1993, 459). In the later Old Babylonian period, however, Bšlet-Nagar embodied not only the sovereignty of rule over Brak itself, but had the power to confer any royal title that was to be legitimate throughout the states of the upper Khabur headwaters (Frayne 1993, 204). The residence of this "Queen Medb, or Maeve" at Brak/Nagar, presiding over the state at the nascent center of Mitanni, illustrates the essence of sovereignty with which the site must have become imbued throughout the Akkadian period.

In addition to Brak itself, the heritage of the Akkadian period conferred an exceptional status on the whole region of the Khabur headwaters. Not far from Brak/Nagar the modern archaeological site of Tell Mozan has yielded remains of the Hurrian city of Urkiš, sacred to the god Kumarbi (Frayne 1993, 457–458; Weiss 1994, 131–133; Weiss 1997, 133–135; Buccellati and Kelly-Buccellati 1997; Buccellati and Kelly-Buccellati 1998). The large quantity of cylinder seal impressions retrieved from the ruins of what apparently was a storage facility shared by the king and queen of this city shows the indebtedness of the Urkiš administration to the practice of imperial Akkadian officials. It also shows the extent to which the Akkadian practice provided models for would-be statesmen and stateswomen from ethnic groups that came into contact with the outposts of Akkadian power. In addition to that,

excavators at Mozan/Urkiš found a school tablet bearing a standard Sumerian professions list, copies of which are also known from Ebla and Abu Salabikh (Weiss 1994, 133; Buccellati and Kelly-Buccellati 1997, 62). This evidence for the transmission of Sumerian wisdom to the Hurrians (school texts and sealings from Brak/Nagar and Mozan/Urkiš) is strong. In fact, Old Akkadian texts registering Hurrian names (but, surprisingly, no Western Semitic ones) have come to light at Mozan (Milano *et al*. 1991, with a review: Glassner 1994a).

The transmission of the Akkadian set of ideas along the northern border of the now defunct empire is thus clear. The newcomers of putative Hurrian ethnicity (cf. on this Beckman 1998, 2, and Westenholz 1999, 96) had taken over Nineveh as the spiritual center dedicated to the cults of a fertility goddess. The imperial majesty of the Brak, seat of Akkadian power, worked towards the emergence of a cluster of Hurrian-directed foci of state building, symbolized by the remnants of the imperial fortress. Brak herself became Nagar, seat of the power-conferring goddess Bšlet-Nagar, assisted by Kumarbi, one of the chief gods of the Hurrian pantheon, taking up residence at Mozan/Urkiš, and the weather god, most probably Tešup, "standing by" at Tell Barri/Kakhat.

It should be apparent that I find it somewhat difficult to agree with the hypothesis of a widespread destruction of North Syria around 2200 BC, caused by environmental factors, especially volcanic eruptions and subsequent desertification (Weiss 1997, 344–345). No indications of this kind can be found in palaeoclimatic evidence (Schirmer 1993, esp. page 390 on slightly higher precipitation levels than today between c. 3000 and 1600 BC, and Yosuda 1997 for evidence of a drier climatic phase in Anatolia dating to c. 1800–1500 BC). Also see Matney and Algaze 1995, 47, and, for a thorough and well-founded discussion, Glassner 1994. In fact, more recent research favors other explanatory models (cf. Westenholz 1999, 58). Leilan might have been abandoned simply because its role primary role as a storehouse for large quantities of grain to supply Akkadian frontier forts ended. The empire's demise made grain disbursements on such a scale unnecessary. In fact, the abandonment of Leilan notwithstanding, the minor settlements in its vicinity continued to flourish (Eidem and Warburton 1996, graphs on 54 Fig. 1b, and page 58).

One of the consequences of the buildup of the new order was the rise of the previously existing city of Uršu to the status of a new capital of the westernmost part of the landscape that I am discussing here. This must have happened in the political vacuum that had followed after Naram Sin´s destruction of Ebla. Uršu was an ancient seat of royal power, which had figured prominently in the texts of Ebla (Astour 1988, 142, map on page 154; Pettinato 1991, esp. pages 106–107 and 136–138). In spite of the fact that the royal palace of Ebla was restored fairly soon, only some fifty years after the Akkadian incursion (Matthiae 1995), the successors to the old Syrian dynasts obviously lacked the power to arrange things in accordance with their designs and had to come to terms with the existing realities.

The entrepreneurs of Uršu must have been quick to grasp the opportunity offered to them by the sequence of historical events, as they appear in Sumerian texts for the first time in the time of Gudea of Lagaš, after Naram Sin's rule. Having decided to build Eninnu, a new temple to Ningirsu, the city god of Lagaš, Gudea took care to procure the best available materials, among which was high-quality wood from "Uršu in the Eblaite mountains." The operation is described in an inscription on Gudea´s Statue B ("architect with a plan"), in fact, a public charter confirming the ruler's obligation to provide for a pious bequest to Ningirsu's temple Eningirsu. The inscription tells how junipers (GIŞ za-ba-lum), big firs (GIŞ ù-suh5-gal-gal), and plane trees (GIŞ tu –lu-bu-um), procured from Uršu were at first bound together to form rafts and, ultimately, made into roof beams for the Eninnu shrine (Edzard 1997, 30–38, esp. pages 31, 33, col. V53–58, page 34 col. VI lines 1–2; Suter 2000, 144 Table III.E.3, and pages 145–146). The site of Uršu was traditionally sought somewhere between Gaziantep and Şanliurfa. Another alternative proposed in specialized literature points to Kazane Höyük, a tell in the Urfa plain (Michalowski and Mısır 1998, 53). Tilbes is very likely to have belonged to the sphere of influence of this new capital, which brought the processes of political decision-making closer to our riverside site. Gudea´s inscriptions thus visualize the third commodity, wood for both prestigious and ordinary buildings of the southern cities, traveling down the Euphrates by the walls of the Tilbes houses.

The post-Akkadian phase of development of communities in present-day northern Syria thus presents a research subject of exceptional historical interest. Far from behaving like crude barbarians, the local leaders, among whom were Hurrians and West Semitic groups, took care to learn the lesson taught by the presence of an imperial frontier. A creative re-structuring of the religious and political "*limes Akkadicus*" established a whole series of new foci of power both spiritual and temporal that shaped developments both in the Anatolian mountain ranges and in the plains and valleys of southern Mesopotamia, Syria, Palestine and Egypt for centuries to come. Ultimately, the results of this process did not fail to find a distant echo in the culture of archaic Greece. But there was also a purely profane and pecuniary aspect of this whole chain of transformations: the position of the middle-Tigris and middle-Euphrates communities vis-à-vis one of the great powers of the day, southern Mesopotamia, re-emerged when predecessors of the inhabitants of northern Mesopotamia faced for the first time the newcomers from the Uruk South. In our landscapes, the pendulum of the relations between the center and periphery swung incessantly between war, diplomacy and trade.

The growth in complexity of the primary urban centers, which housed the residences of leaders, is marked by widespread urbanization of the northern Mesopotamian

landscapes. Such developments are best exemplified at Tell es-Sweyhat (N Syria: Zettler *et al*. 1996, esp. pages 17–25) and at Titriş Höyük (Matney and Algaze 1995). At the end of the third millennium BC, both sites saw a phase of expansion from small rural centers to large-scale urban centers. These centers were laid out with a central quarter and the lower-lying commoners' living quarters areas surrounded by a wall. Outside of the wall were collective cemeteries and extensive, open suburban areas. In these new urban strongholds, some production activities might have been concentrated outside the ramparts in the open areas, and at least some of the dead were buried in "family" tombs under the courtyards of individual houses or house complexes. Similar developments characterize other nearby Syrian sites, such as Selenkahiyeh near Meskene/ Emar, especially during its phase IV (van Loon 1979, esp. page 111; van Loon 1978/79, esp. page 170) and Hammam et Turkman on the Balikh river (van Loon 1988, esp. pages 584–586).

In trying to identify the causes for urbanization and the prosperity that accompanied it, I believe that external causes are unlikely to have played any discernible role. We have seen how eagerly the new elites of the post-Akkadian age grasped the opportunity to learn the lesson of imperial administration that was offered to them by the Mesopotamian frontier facilities. I rather assume that during the last two centuries of the third millennium, all the ingredients of success were present in northern Mesopotamia. The local populations were far enough from the borders of the Ur III empire not to fear imperial armies, enslavement, and abduction into Akkadian and Sumerian cities.

On the other hand, two factors favored the local developments: the presence of elite groups who had learnt how to direct a supra-regional political entity, and the opportunity to reap the benefits of trade with the distant Sumerian empire whose specialists must have been constantly on the lookout for materials unavailable in the South: metals, good stone and good wood. The demand for these products, as in the fourth and early third millennium was to be met in northern Mesopotamia. This, I think, is the root of the success of northern Mesopotamian urbanism of the terminal third millennium BC.

It is thus no wonder that the overall peace and prosperity at the end of the third millennium BC brought to the Mesopotamian scene a host of mountain dwellers leaving their homes to move closer to regions offering handsome benefits from trading with the mighty empire of the South. In the last century of the third millennium BC, the generalized movement of mountain populations towards the south is well discernible archaeologically. Cases in point include such sites as third millennium Tarsus (Parzinger 1993, esp. page 276 on EB III on the site).

At Tilbes, this phenomenon could well account for the presence of northern elements of material culture. Anatolian parallels for our "Burnt Building" of Middle EB (see M. Schwartz, Chapter 6 below) accord very well with observations of analogies between Tarsus (EB III) and Beyçesultan VII-VI and Troy V (Parzinger 1993, 276, Tarsus 12–9 m).

Questions and Structure of the Volume
Mitchell S Rothman

In the all of the foregoing, lying behind the various theories, are some key questions we will be asking of the material from Tilbes. These are based on knowing what was happening at the site and what that tells us about its role within its local and regional networks of interaction (see Schwartz and Falconer 1994 for an overview of the roles of rural settlements in larger polities). What were the adaptations (behaviors and practices) that the residents made, strategies they employed, and what forces were selecting for them?

Specifically, we will be seeking the following sorts of information. How do the strata of Tilbes coordinate with the periods discussed above? The answer to this question involves a history of our excavations, and dating, absolute and relative. That, again, required us to create a pottery typology. This is described in Chapter 2.

Once the dating was established, we turned to what life was like. The residents of Tilbes were not an isolated community. They were part of some larger polities and no doubt networks of exchange and contact that extended beyond their locality. To understand what was happening at Tilbes and what part it played in its polity and beyond, we need to ask first what its residents produced and how that represented the functions of the site.

First, every site needs to feed itself. Potentially, its residents after taking care of their subsistence may want and be able to produce enough surplus for tribute or exchange. In Chapter 3 Miller will discuss what we know about the agricultural regime. A second part of their subsistence was animal protein and by-products. Were the animals domestic or wild? For what outcome did they manage their animals? Were they more interested in their meat or byproducts like milk and cheese or wool for fabrics, etc.? Were the animal producers from the population of the town or nomadic pastoralists? Grantham will report on that in Chapter 3. The production of goods is also critical. As discussed above, metals were a critical resource of the North. Chapter 4 presents the analysis of metal objects in a broad context of the Upper Euphrates. Also described in Chapter 4 are lithic tools and pottery making. What do these productive activities tell us about how the residents of the site fit into local and more distant networks of interaction?

How were such activities organized? Cataloging the artifacts and placing them back in their original activity areas is among the most powerful tools to determine the activities of each household and institution. Ideally, we have multiple contemporary places to compare. That is not

the case here, because of the limited time we had to work. Still, there is information to be had. That information is aided by the micro-analysis performed by Lynn Rainville. Chapter 5 contains this analysis. Were there differences in status or specialization in what households produced? Did certain households have more access to imported goods than others? Was there a change over time in the sorts of products the residents had access to, as Wattenmaker discovered at Kurban Höyük (Wattenmaker 1998)? These issues will be discussed in Chapter 5.

The economy is always important, but so is ideology. Tilbes yielded an unexpected and unusual mid-third millennium BC shrine, as well as two stone-lined shaft tombs, pots burials, and pit graves. What do these ideological products tell us about the way the local peoples saw their world and each other? This is the topic of chapter 6.

In chapter 7, we change the perspective from the broader regional one down to the residents' actual behavior in adapting to their circumstances, politically, socially, and economically. We will as much as is possible tie all the information analyzed throughout Chapters 2–6 together to see what patterns they will make and what reasonable conclusion we can make from our limited sample.

As I have written above, Tilbes was a limited excavation of only one small site. Ultimately, to get nuanced answers to the questions we asked, other publications and more work needs to be done by our colleagues along the Birecik-Carchemish Valley. The sites that have been excavated need to be published in full detail.

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