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CAMBRIDGE WORLD ARCHAEOLOGY

THE ARCHAEOLOGY OF SYRIA

FROM COMPLEX HUNTER-GATHERERS TO EARLY URBAN SOCIETIES (*c.* 16,000–300 BC)

PETER M.M.G. AKKERMANS
National Museum of Antiquities, Leiden
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The Johns Hopkins University

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PREFACE

This book was written to fill the need for a synthetic discussion of the results of recent archaeological fieldwork in Syria. Because of the overwhelming abundance of data as well as their respective research strengths, the authors divided the material chronologically between them. Thus, Akkermans wrote chapters 2–5 and Schwartz wrote chapters 6–11; the introductory and concluding chapters were jointly written. The order of the authors' names on the title page is alphabetical.

Both authors wish to express their immense debt to the Directorate-General of Antiquities and Museums, Syria, which encouraged and supported the extensive research discussed in this volume. We offer this book as a tribute to our Syrian colleagues and friends, who have been extraordinarily helpful both personally and in the cause of archaeology in Syria.

Akkermans would like to thank all those colleagues who helped in the preparation and writing of this book. Essential information or illustrations were supplied by Sytze Bottema, Eric Coqueugniot, Hans Curvers, Henri de Contenson, Kim Duistermaat, Fokke Gerritsen, Frank Hole, Tatsundo Koizumi, Bertille Lyonnet, Miquel Molist, Andrew Moore, Yoshi Nishiaki, André Numan, Bruce Schroeder, Danielle Stordeur, Ingolf Thuesen, Akira Tsuneki, Tony Wilkinson, Aslihan Yener, and Hisham E. Yazigi of Syria Shell. Marc Verhoeven and Olivier Nieuwenhuyse read drafts of chapters 2–5, and offered valuable criticism and encouragement. Mikko Kriek prepared the maps in this book with his customary skill, as well as all drawings in chapters 2–5. Ans Bulles and Glenn Schwartz corrected the English in chapters 2–5. Gratitude also goes to colleagues of the National Museum of Antiquities in Leiden, the Netherlands, for their encouragement and advice. Last but not least, Ilse van Pinxteren is thanked for all her patience and ceaseless support throughout the years of study and writing on behalf of this book.

Schwartz wrote much of his section of the book while on leave in Berkeley, California. Therefore, he would like to acknowledge the help and support of David Stronach, Anne Kilmer, Marian Feldman, Cathleen Keller, Wolfgang Heimpel, Ronald Hendel, Sanjyot Mehendale, Carol Redmount, Yvonne Rosby, David Stewart, and many other members of the Department of Near Eastern Studies at the University of California, Berkeley. Their warm hospitality and provision of a workplace is hugely appreciated, and the production of this book

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Both authors wish to thank the anonymous reviewers for their comments and suggestions.

In this book, the spellings of site names are generally those employed by the excavators.

1

INTRODUCTION

The past thirty years have seen remarkable changes in the archaeology of Syria. Because of the region's rich archaeological heritage, the intensified demands of rescue archaeology, and the exigencies of contemporary politics (in particular, the inaccessibility of Iran and Iraq), Syria has become a prime focus of Near Eastern fieldwork. Numerous multinational projects have generated a continuous flow of extraordinary results, but the very scale of these results has inhibited any attempt to synthesize them. With this book, we attempt to rectify this situation.

While the ancient Near East provides information on a vast array of human societal changes, the archaeology of the region has traditionally utilized two grand issues as its basic framework: the Neolithic transformation and the emergence of urban societies. We adopt these major changes as the main foci of our book as well, and we begin our discussion, therefore, with the Epipalaeolithic groups that provided the springboard to the emergence of sedentary, agricultural societies. Because of our research interests and training, we terminate our study with the end of the Achaemenid Persian period, reluctantly conforming to the traditional separation of the pre-classical from the classical Near East. Although this division is in many ways arbitrary, it can be asserted, at least, that the establishment of Hellenistic Greek political sovereignty precipitated drastic changes in language, writing systems, political structures, and material culture.

A diversity of important issues, momentous in their significance but often intimidating in their complexity, characterizes the time span under review. For the Neolithic period, Syria provides some of the earliest evidence in the world for the onset of sedentary and agricultural life, a salient contribution to our understanding of how and why this phenomenon occurred. In the late Neolithic, private property, social inequality, and economic specialization become increasingly apparent, paving the way for the development of urban societies. When complex societies emerge, their trajectory provides a useful contrast to the well-known paradigm from southern Mesopotamia; indeed, in some periods more data are available from Syria than from southern Mesopotamia itself. In this study, we consider the first three to four millennia of urban life, with the ebb and flow of political complexity, the development and disintegration of ever larger states, and finally the absorption of the region into vast multiregional empires.

Syria is often styled a "crossroads of civilization." Located at the intersection of major traffic routes of the eastern Mediterranean and Near East, the region was traversed by caravans and military expeditions moving between the economic and political poles of the ancient Near Eastern world, from Egypt to Anatolia, from the Mediterranean to Mesopotamia. This raises the question: is Syria a discrete geographical or cultural entity? We would answer both yes and no. On the one hand, Syria manifests a geographical and cultural autonomy distinct from southern Mesopotamia, Anatolia, and Palestine. The rainfall-farming plains of the Syrian interior provide a counterpoint to the irrigated alluvial plains of southern Mesopotamia and to the highland plateaus of Anatolia. Syria's rainfall-farming plains tend to support larger-scale populations, communities, and political units than those of Palestine[1] and Lebanon, with their diversified topography and agricultural valleys of limited size.

Nevertheless, it must be conceded that there is often significant geographical and cultural overlap between Syria and its neighboring regions. Most significantly, the dry-farming plains of northern Iraq and southeastern Turkey are not easily distinguished geographically or culturally from the Syrian Jezireh (upper Mesopotamia), especially in the late Neolithic, early urban, and Mitanni periods. We attempt, therefore, to incorporate discussion of relevant evidence from neighboring areas when appropriate. But our main focus will be Syria, and our discussions of northern Iraq or southeastern Turkey will be representative rather than exhaustive.[2]

The physical environment

Given limitations of space, we provide here only a brief introduction to the Syrian natural environment and refer the reader to the classic study by Wirth for further details.[3] In Syria, the climate is characterized by dry, hot summers and cool, rainy winters, with regional variability as described below. In the west, Syrian geography is defined by parallel chains of mountain ranges extending north–south (fig. 1.1). The northernmost range is the Amanus, in what is now the Turkish province of Hatay. To its south are two parallel north–south ranges, the Jebel Ansariyah to the west (1575 m maximum elevation) and Jebel Zawiyah

[1] Although the term "Syro-Palestinian archaeology" is commonly employed by archaeologists in the southern Levant, it is rarely used by specialists in Syria itself.

[2] Our main focus is on research conducted under the supervision of the Directorate-General of Antiquities and Museums in Syria. A number of valuable general studies can guide the reader further, including catalogues of exhibitions of Syrian antiquities (Weiss, ed., 1985; Rouault and Masetti-Rouault, eds., 1993; *Syrie: mémoire et civilisation* 1993; *Syrian-European Archaeology Exhibition* 1996; *En Syrie aux origines de l'écriture* 1998; Matthiae *et al.* 1995; Fortin 1999b), bibliographies (Anastasio 1995; Lehmann 2002), and a survey of political history based on the written evidence (Klengel 1992).

[3] Wirth 1971.

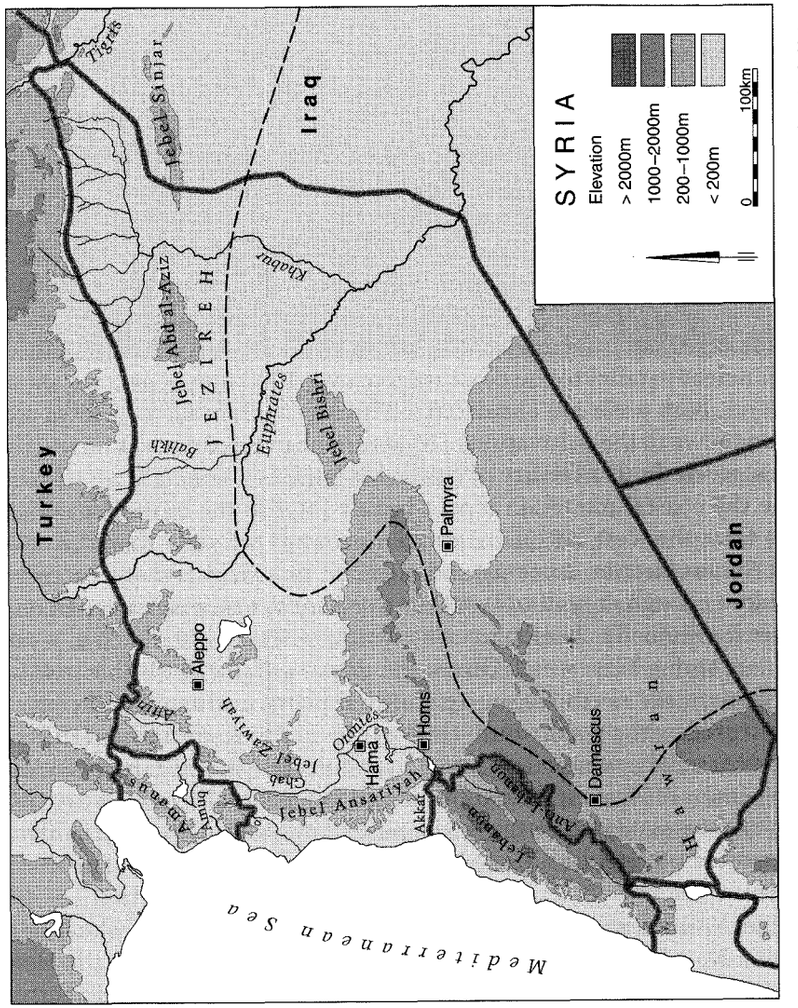

Fig. 1.1 Syria, geographical details. Dashed line represents 200 mm mean annual rainfall in the present-day.

to the east, with the Ghab depression situated between them. The Homs (or Akkar) gap separates those two ranges from their counterparts to the south, the Lebanon and Anti-Lebanon (2700 m max. elevation) ranges, primarily in present-day Lebanon. Between the Lebanon and Anti-Lebanon mountains lies the Beqa'a valley.

The gaps between the mountain ranges are strategic and agriculturally significant zones allowing access between regions. Separating the Amanus from the Ansariyah and Zawiyah ranges is the Amuq (Antioch) plain, watered by the lower reaches of the Orontes river. A small gap through the Jebel Ansariyah is located east of Ras Shamra, but more significant is the Homs/Akkar gap between the Ansariyah/Zawiyah and Lebanon/Anti-Lebanon ranges. Given its considerable extent, the Homs gap provides the easiest access between the Mediterranean coast and the Syrian interior.

A narrow littoral, the Mediterranean coastal plain is bounded on the east by the Lebanon, Jebel Ansariyah, and Amanus ranges. Relatively humid, the coast now receives an average of 600–1000 mm annual rainfall and was originally wooded. Also forested prior to the onset of human-induced deforestation, the mountain ranges parallel to the coast receive over 1000 mm of average annual precipitation. Both areas are characterized by Mediterranean terra rossa soils and are conducive to the cultivation of Mediterranean crops such as olives, figs, and grapes, given the availability of cultivable land.

Because the coastal mountain ranges largely impede the movement of precipitation from the west, the plains to the east are much drier than the coast. The west Syrian interior, sometimes designated as a semi-arid steppe, nevertheless enjoys enough rainfall (200–400 mm annually) to support a dry-farming agriculture traditionally characterized by winter wheat cultivation (i.e. winter planting, late spring harvesting). Olives and grapes are also cultivable in much of this region. In the north are the agricultural plains surrounding the city of Aleppo, bisected by the north–south flowing Qoueiq river. Further south is the upper Orontes valley, whose dry-farming agricultural capabilities engendered the urban centers of Hama and Homs, occupied for many millennia like Aleppo. In the regions west and southwest of Aleppo are limestone plateaus that historically supported olive groves; here the "Dead Cities" of the Byzantine period are located.

The major river of western Syria is the Orontes (Nahr al-Asi), which originates in the Anti-Lebanon mountains and proceeds north through the Homs gap past Homs and Hama. Although the river is unnavigable, it can furnish water for irrigating gardens and orchards (cf. the celebrated water wheels (*noria*) of Hama). The river twists to the west and makes its way between the Jebel Ansariyah and Jebel Zawiyah mountains, creating the marshy but fertile Ghab depression with its alluvial soils. Northeast of the Ghab is another agriculturally prosperous enclave, the Rouj basin (fig. 1.2). Continuing north into the Amuq plain, the Orontes makes one last curve to the west and passes

Fig. 1.2 Rouj basin, western Syria.

between the Amanus and Jebel Ansariyah to reach its final destination in the Mediterranean.

To the south, the Anti-Lebanon mountains inhibit the movement of precipitation to the east, resulting in the dry steppe north of Damascus. Damascus itself, however, is situated in the al-Ghutah oasis created by the waters of the Barada river, originating in the Anti-Lebanon. Often dubbed the "oldest continuously occupied city in the world," Damascus could easily share the title with Aleppo or Hama, reflecting both the early appearance of urbanism in Syria and its relative stability over the *longue durée*. Unfortunately, the massive accumulation of settlement deposition in such long-lived centers has made investigation of their pre-Hellenistic remains decidedly difficult, with a few exceptions like the Hama citadel. South of Damascus is the Hawran basalt plateau, a region of substantial fertility owing to the decomposition of its volcanic rock, with the Jawlan (Golan) region located to the west.

Across the Euphrates river in northeastern Syria is the upper Mesopotamian plain, extending into northern Iraq and southeastern Turkey. Also known as the Jezireh (Arabic "island," because of its location between the rivers), this region is a relatively flat semi-arid steppe (200–600 mm average annual rainfall) traversed by the Tigris and Euphrates and by the latter's tributaries the Balikh and Khabur (fig. 1.3). The rainier parts of the area, largely situated in the north near the Turkish frontier, have traditionally supported a dry-farming regime based on winter wheat. Currently serving as a breadbasket for the rest of the country, the broad expanse and high annual precipitation

Fig. 1.3 Upper Khabur plains of the Jezireh, wadi Jaghjagh.

of the upper Khabur "triangle" can produce yields sustaining a large human population.[4]

The valleys of the Euphrates (fig. 1.4), Khabur and Balikh are amenable to irrigation, particularly in their lower reaches. However, the Euphrates, creating a fertile alluvial valley incised into the dry steppe, was probably not used for irrigation upstream from Emar (modern Meskene) in pre-Roman times.[5]

In southeastern Syria we find the driest part of the country, a semi-arid steppe or desert with an average rainfall below 200 mm per year. Agriculture is largely impossible here, with the exception of irrigation courtesy of underground water sources at the desert oases of Palmyra and El Kowm. The region sustains enough plant life to support herbivores, however, and it has traditionally served as grazing land for mobile pastoralists.

Given the environmental constraints of the area, site formation processes have regional peculiarities requiring comment. Most important is the use of mud for architectural purposes, a frequent practice throughout the Middle East. Most typically, mud was shaped into mold-made, sun-dried bricks (Arabic *libn*) (figs. 1.5–1.6); in the Bronze Age and later, bricks were sometimes kiln-fired or baked, but fuel requirements made this an expensive practice. An alternative form of mud architecture is *pisé* (Arabic *tauf*), where wet mud was packed into the desired shape rather than being formed into bricks. Whether a building was constructed of bricks or *pisé*, its roof was usually made of wooden beams and thatch unless a mudbrick dome was constructed.

[4] Weiss 1986. [5] Wilkinson 1998; van Zeist and Bakker-Heeres 1985: 283.

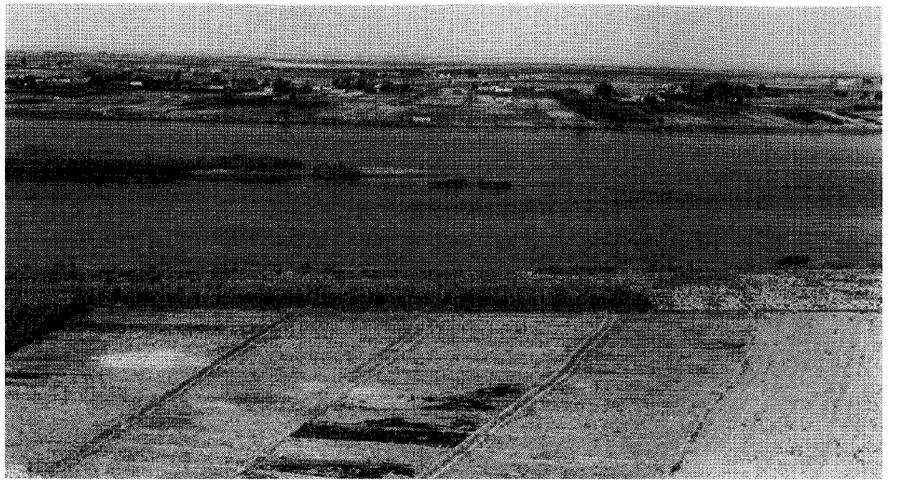

Fig. 1.4 Euphrates river, upstream from Mari.

While mudbrick or *pisé* are the most common architectural media in the Syrian Jezireh and throughout Mesopotamia, the greater availability of stone in western Syria allowed for its integration into local architecture. Particularly frequent was the use of stone boulders or cobbles for wall substructures, with courses of mudbricks laid on top. Occasionally, buildings were constructed entirely of stone.

Because of the ubiquity of mud as an architectural component, living sites in the Middle East have characteristically taken the form of mounds (Arabic *tell*) (fig. 1.7). Mud structures were often abandoned after one or two generations because of their inherently fragile nature or infestation by vermin; alternatively, they may have burned in a natural or human-induced catastrophe. In either case, people tended to level the walls of the abandoned or damaged structure, fill in the enclosed space with dirt, and build a new structure above. This process, conducted over many generations, together with the continual disposal of trash into the open or temporarily abandoned areas of the settlement, resulted in the gradual elevation of the site and the formation of a tell. Some sites with very long occupational sequences or many levels of imposing buildings could attain as much as 50 meters in elevation.

The development of Syrian archaeology

Since a review of the development of Syrian archaeology up to 1980 is provided by Matthiae,[6] we shall offer only a brief sketch of preeminent trends prior to

[6] Matthiae 1981.

Fig. 1.5 Mudbricks being molded.

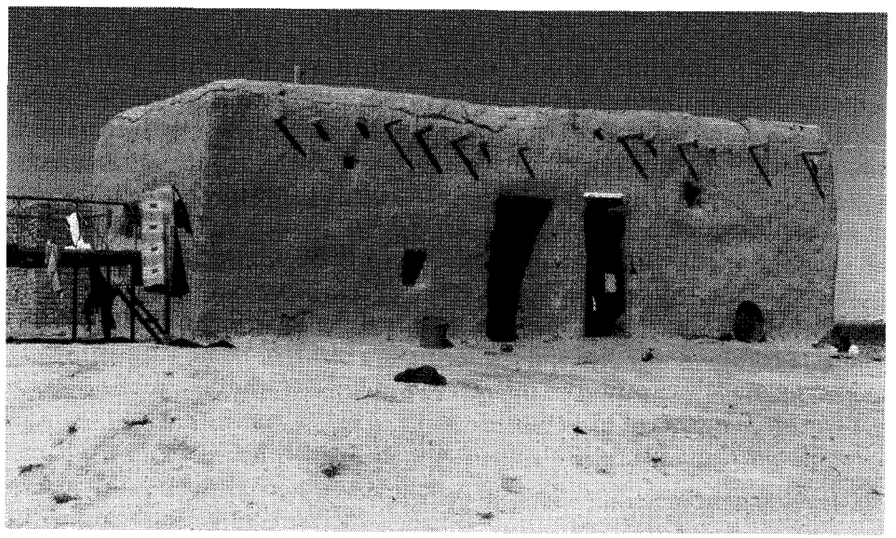

Fig. 1.6 Mudbrick house.

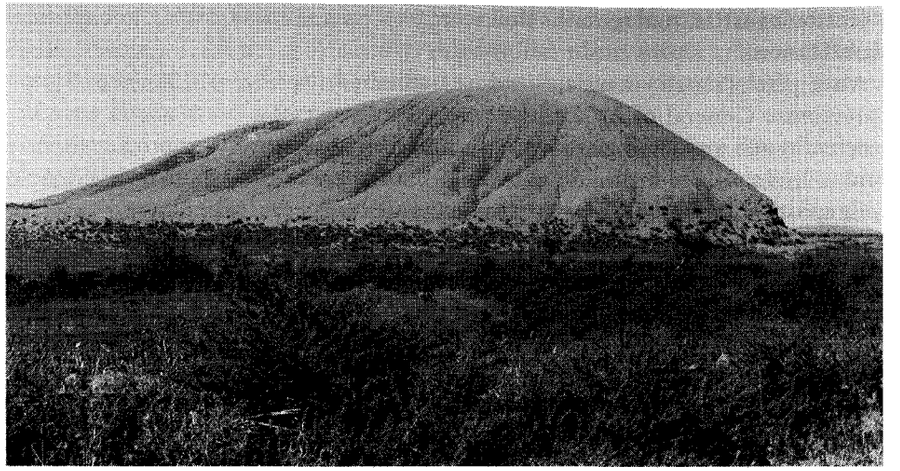

Fig. 1.7 A large tell (Sahlan, Balikh valley).

that date. Archaeological fieldwork was begun in the Middle East in the mid-nineteenth century by scholar-adventurers associated, to a greater or lesser extent, with European colonialist aspirations in the region. At first, the main focus was on Mesopotamia, home of the Assyrian, Babylonian, and Sumerian civilizations, and on Egypt. Syria was relatively neglected, ostensibly owing to the absence of conspicuous large-scale monuments or historically attested literate civilizations. Indeed, one of the earliest explorations of pre-Hellenistic Syria focused on Assyrian remains: A.H. Layard, the British excavator of the Assyrian capitals Nineveh and Nimrud in northern Mesopotamia, supervised brief excavations at Arban (Tell Ajaja) in the lower Khabur valley in 1850 in search of Neo-Assyrian monumental sculpture.

In the late nineteenth and early twentieth centuries, Iron Age sites in Syria attracted attention in their own right because of the extraordinary examples of monumental sculpture discovered on their surfaces. Two major German projects were inaugurated: Zincirli (ancient Sam'al, now in southeastern Turkey), directed by Felix von Luschan, and Tell Halaf near the source of the Khabur, directed by Max von Oppenheim. Von Oppenheim's discovery of an attractive variety of prehistoric painted pottery at Tell Halaf also awakened interest in pre-urban periods in Syrian archaeology. Competing with the Germans for influence in the waning Ottoman empire, the British excavated a third Iron Age capital, Carchemish. Work was conducted by D.G. Hogarth, C.L. Woolley, and T.E. Lawrence, soon to become famous as "Lawrence of Arabia." The excavations conducted in this early phase of Syrian archaeology were often meticulous with respect to the recording of architectural data, but paid scant

attention to artifactual remains that were not of significant artistic or historical significance.

After the French mandate was established in the 1920s, the Syrian Directorate-General of Antiquities was established, and excavations were begun by French archaeologists at numerous sites. Attention was predominantly paid to large tells identifiable with well-known ancient cities that could yield epigraphic remains, such as Mishrife (ancient Qatna), Nebi Mend (ancient Qadesh), Arslantash (ancient Hadatu), and Tell Ahmar (ancient Til-Barsib). But of greatest significance were the long-running projects initiated at Ras Shamra (ancient Ugarit), begun in 1929, and Tell Hariri (ancient Mari), begun in 1933. Both sites have been excavated with very few interruptions until the present day.

British archaeologists reentered the scene in the 1930s when Iraq became relatively inhospitable. Woolley excavated Al Mina and Alalakh in the coastal region, while Max Mallowan, often working together with his wife Agatha Christie, explored the upper Khabur plains. He first excavated a prehistoric/early historic sequence at Chagar Bazar, then exposed fourth- and third-millennium monumental structures at Brak. American participation began with the University of Chicago's investigations in the Amuq plain, then part of the Syrian mandate. The Iron Age city at Tell Tayinat was excavated, and excavations were conducted at older tells by Robert Braidwood. At the citadel of Hama, a Danish expedition exposed Iron Age monumental architecture and a long sequence extending back to Neolithic times.

World War II brought a halt to this period of heightened activity. After the war, Syria won her independence and a new archaeological era began. Now completely under Syrian supervision, the Directorate-General of Antiquities inaugurated excavation projects at sites like Tell Amrit and Tell Kazel on the coast, under the guidance of seminal figures such as Adnan Bounni and Nassib Saliby. International participation in Syrian archaeology was also welcomed, resuming slowly but steadily in the 1950s. Excavations at Ugarit and Mari took up where they had left off, and German excavations directed by Anton Moortgat commenced at the third-millennium urban site of Chuera in northeastern Syria. British, French, and Danish excavations were begun as well; particularly significant was the Italian project inaugurated by Paolo Matthiae at Tell Mardikh (ancient Ebla) south of Aleppo in 1964, which would provide the most revolutionary results of a pre-Hellenistic site in the post-war period.

A proliferation of fieldwork occurred in the late 1960s with the onset of the era of salvage archaeology in Syria. The Syrian government announced plans to construct a dam on the Euphrates near Tabqa and solicited international assistance in excavating sites threatened with submersion. Numerous institutions from a variety of countries responded, and the results of this first major salvage operation were formidable. New data were produced on the earliest Neolithic settlement in Syria (Mureybet, Abu Hureyra), a hitherto

unsuspected Mesopotamian colonial enclave dating to the fourth millennium (Habuba Kabira, Jebel Aruda), third-millennium urban centers (Hadidi, Sweyhat, Halawa, Selenkahiye), and second-millennium cities yielding numerous cuneiform written documents (Emar, Munbaqa).

The scale of international participation in Syrian archaeology has continued to intensify in the succeeding decades. Salvage projects have involved multinational participation at numerous sites in the area of the middle Khabur dam south of Hasseke (inaugurated 1984), the Khabur dam area northwest of Hasseke (inaugurated 1985), and the Tishrin dam on the middle Euphrates (inaugurated 1989). Major projects at sites not threatened by development were undertaken by institutions from the USA (e.g. Ashara, Leilan, Mozan), the UK (Brak, Nebi Mend), Italy (Barri, Afis), Germany (Sheikh Hamad, Bi'a), France (Bassit, El Kowm), Belgium (Abu Danne, Umm el-Marra), and the Netherlands (Bouqras, Hammam et-Turkman, Sabi Abyad). Syrian-led fieldwork projects have been conducted at numerous sites (e.g. 'Ain Dara, Sianu, and Sakka), and diverse joint ventures are increasingly common (e.g. Ras ibn Hani, el-Kerkh, Qaramel, Mishrife-Qatna, Asharne, Umm el-Marra, Emar, Beydar, Arbid, Chagar Bazar, Hamoukar).

The intellectual and theoretical context of Syrian archaeology has largely been dependent on prevalent attitudes in the archaeologists' home countries and their modifications through time. In earlier decades, migrationist and diffusionist explanations of culture change were common, with racial variables not infrequently cited. Historic period archaeology tended to function as a discoverer of texts and monumental architecture. In the mid to late twentieth century, processual and post-processual approaches exerted some influence, especially on American and British researchers, but Syrian archaeology has primarily consisted of a mélange of differing European, American, and local archaeological traditions.

Methodologically, in recent decades we find increasing employment of analyses utilizing natural science data such as geomorphology, archaeobotany, and faunal analysis; consistent employment of such analyses is less frequent in Bronze and Iron Age sites than in those of earlier date, however. Climate change and its relation to human society has been a much-debated issue in recent years; while methods for ascertaining ancient climate are steadily refined (e.g. pollen analysis, geomorphology), there is still much ambiguity in the interpretation of their results. Remote sensing (e.g. magnetometry, resistivity) has been utilized to ascertain the distribution of sub-surface architecture at Bronze Age sites such as Munbaqa, Sweyhat, and Chuera (see fig. 8.15). Syrian archaeology has also partaken in the recent developments in materials analysis such as lead isotope and trace element analysis, while microstratigraphic analysis is in its formative stages.

On the regional level, archaeological survey has played an increasingly important role. The first systematic survey might be identified as Robert Braidwood's

study of the Amuq plain in the 1930s,[7] in which 178 sites were located and their occupations dated by virtue of surface materials. Subsequent surveys were less rigorous, their focus usually being on the identification of promising sites for future excavation. This pattern began to change in the 1970s with the inauguration of the Tübingen Atlas project in the lower Khabur valley and the Qoueiq survey in the Aleppo vicinity. Recent projects, influenced by the work of Robert McC. Adams as well as surveys in the western hemisphere, have aimed at a more careful assessment of site size and temporal distribution as well as more sophisticated interpretations of regional developments.[8] An additional development is the introduction of offsite archaeology by Tony Wilkinson, who investigates areas between sites, studying the distribution and interpretation of features like ancient roads, irrigation canals, and sherd scatters.

Ethnoarchaeology, while generally appreciated, has been only fitfully practiced,[9] which is unfortunate given the rapid disappearance of much traditional material culture and behavior in Syria. The frequent similarity of ancient architecture or tools to present-day counterparts in Syrian villages has often led archaeologists to infer the function of ancient objects from present-day analogues. While such analogies are not necessarily inappropriate, they often imply a belief in a "changeless Orient" that may be deceptive given the numerous cultural, ideological, and historical developments the region has experienced. As with all ethnoarchaeological work, hypotheses derived from present-day analogues must be tested against the ancient data. Archaeologists must also guard against facile use of present-day functional categories like "temple," "palace," "kitchen," "storeroom," etc., since the ancient use of space is likely to have been frequently multifunctional.

Chronology

Although we do not intend to provide a detailed review of the many complex problems regarding absolute and relative chronology, a few comments are necessary. For prehistoric periods especially, radiocarbon (carbon 14) dating has contributed enormously to our understanding of absolute chronology since its inception in the 1950s. However, many factors affect the concentration of 14C in both living and dead organisms, leading to major discrepancies between radiocarbon age and true calendar years – in some cases, as much as 900 years. Therefore, radiocarbon results must be corrected or calibrated to convert them to calendar ages on the basis of known-age materials like tree rings. Jacques Cauvin was the first to apply calibrated radiocarbon dates in Syrian prehistory in a systematic manner, and we adhere to this practice for prehistoric as well

[7] Braidwood 1937.
[8] Weiss 1986; Stein and Wattenmaker 1990; Curvers 1991; Bernbeck 1993; Lyonnet 1998; Schwartz *et al.* 2000a.
[9] E.g. Aurenche 1984; Kamp 1982, 2000.

as historic periods, although calibration is not always as straightforward as we would like.[10] All radiocarbon dates in this book are calibrated, based on the curves presented by Stuiver and Reimer.[11] While encouraging progress has been made on the use of dendrochronology in Anatolian contexts, this procedure is still in the formative stages of development in our region.

For the late third and early second millennia BC, we retain the conventional use of the "middle" chronology, dating the fall of Babylon to the Hittites at 1595 BC. Although some scholars have recently called for the adoption of a "low" chronology, dating the fall of Babylon to *c.* 1500,[12] we feel that there are still too many uncertainties to justify departing from conventional dates.

A note on relative chronology: there is an all too frequent tendency for archaeologists working in Syria to use Mesopotamian (Uruk, Early Dynastic I–III) or Palestinian (Early Bronze I–IV) chronological terms or periods. In general, this is an ill-advised practice, since the material culture types that define those periods in their home regions are usually not widespread in Syria, or, if they are common in Syria, may have been popular in slightly earlier or later time periods than in the adjacent regions. Therefore, we have attempted to rely on local sequences for our chronological discussions, and we also refer to new attempts to establish local periodizations, particularly in the fourth and third millennia BC.[13]

[10] Cauvin 1994. See also Schwartz and Weiss 1992.
[11] Stuiver and Reimer 1993.
[12] Gasche *et al.* 1998; Reade 2001.
[13] Matthiae (1981) defined a local Syrian periodization for the Bronze Age, dividing it into Protosyrian, Old Syrian, and Middle Syrian periods, but this approach has not yet been widely embraced.

2

HUNTER-GATHERERS AT THE END OF THE ICE AGE

Some 18,000 years ago, in the most severe phase of the last Ice Age, the population of Syria was very small and very sparsely distributed. Only the mountains northwest of Damascus and the Syrian desert appear to have experienced significant occupation by human foragers. While it is generally assumed that wetter and warmer conditions in subsequent millennia facilitated the movement of people from the more favorable western hilly areas to the desert belt to the east, population density remained low. In some preferred locations there were large seasonal aggregations; in others, few or no people at all. To make a living, people moved around in small groups and exploited different resources at different times of the year, as they had done in the preceding Upper Palaeolithic period for many tens of thousands of years. They shared a hunting-and-gathering way of life and used stone tools not so different from those of their Upper Palaeolithic ancestors; hence, the communities of this period are generally labeled 'Epipalaeolithic'.

Between *c.* 16,000 and 10,000 BC, two different Epipalaeolithic assemblages or culture groups occupied portions of Syria: an earlier group designated the Geometric Kebaran and, after *c.* 12,500 BC, a later group termed the Natufian. The identification of the two groups is based primarily on the stylistic and technological characteristics of their stone-tool industries – that part of the material culture that is most often preserved – but also on variables such as site size, distributions of occupation, and patterns of mobility.[1] The Geometric Kebaran assemblage emerged out of the earlier Kebaran tradition, named after the coastal cave-site in Palestine where it was first identified. Kebaran deposits are primarily found at very small sites in the coastal mountains of Palestine, but they also have been infrequently observed in central and southwestern Syria.[2] Because the phase subsequent to the Kebaran is characterized by a lithic industry that differs from its precedessor in the predominance of trapezoidal and rectangular blades and bladelets, it is termed *Geometric* Kebaran. Sites of the Geometric Kebaran period are similar to Kebaran occupations in size and nature but have a much wider distribution, extending from the plains of northern Syria and eastern Jordan to the deserts of the Negev and Sinai in the southern

[1] See the discussions on terminology and definition in Bar-Yosef 1981; Goring-Morris 1987, 1995; Henry 1989; Byrd 1998.
[2] Cauvin *et al.* 1997.

Levant. In this era, humans maintained a hunter-gatherer way of life similar to that practiced throughout the Palaeolithic. But at the end of the Epipalaeolithic, Natufian groups set in motion a series of significant changes in the forager lifestyle, which may have been pivotal in the development from mobile hunter-gatherer communities to sedentary agricultural villages. Although the Natufians were still hunter-gatherers, they began to live in permanent settlements characterized by substantial architecture and a rich and diverse material culture. They intensively exploited local resources and laid the groundwork for the eventual emergence of farming villages in the Neolithic period. A new world was in the making.

The late glacial setting

Although a grasp of Syria's environmental history is vital to an understanding of cultural developments at the end of the Ice Age, relevant data are still very fragmentary. The cold appears to have been at its peak some 18,000 to 20,000 years ago, when average global temperatures were some 8–10°C lower than today. Glaciers probably formed in the mountains of the Lebanon and Anti-Lebanon, and the snowline there and in other ranges was lowered by at least 1000 m. Sea level in the Mediterranean dropped 100–120 m below the present level, substantially increasing the width of the coastal plain south of Lattakia by at least 5–15 km. In the interior, reduced evaporation rates due to the low temperatures allowed drainage basins such as the lake east of Damascus or Lake Lisan to accommodate more water than they do at present. Although arid conditions prevented basins such as those at El Kowm and Palmyra from being filled, the occurrence of extensive, shallow marshes is not unlikely in those facilities.

The reconstruction of conditions after *c.* 16,000 BC, when global temperature began to increase and the glacial regime gradually came to an end, mainly derives from pollen investigation in two areas: the Ghab valley in mountainous northwestern Syria and the marshy Lake Huleh region in upper Galilee.[3] Remarkably, the data from the two areas indicate clearly opposing trends. The Ghab valley, through which the Orontes river flows, currently represents an environmental divide with well-forested mountains to the west and a predominantly open steppe to the east. According to the pollen diagrams, the Ghab region was characterized by open woodland – mainly deciduous oak – when the glaciers in the northern hemisphere reached their maximum extent and average global temperatures were at their minimum. A severe aridity after *c.* 15,000 BC led to a considerable contraction of the oak forest and the rapid

[3] Niklewski and Van Zeist 1970; Van Zeist and Woldring 1980; Bottema and Van Zeist 1981; Van Zeist and Bottema 1982; Baruch and Bottema 1991; Bottema 1991.

extension of steppe. About 11,000 BC, a re-expansion of forest seems to have begun in association with an increase in precipitation.

A completely opposite pattern has been established for the Huleh valley, about 300 km south of the Ghab, where the succession was from an open steppe to deciduous oak woodland by *c.* 15,000 BC. Between 11,500 and 10,500 BC, a renewed expansion of steppe and desert vegetation at the expense of the forest occurred, with conditions almost as cold and dry as in the full glacial period some 7000 years earlier. An improvement took place at the onset of the Holocene in the tenth millennium BC, when the pollen record reflects a re-expansion of the forest, although the woodland never regained its former extent. One explanation for the differences between the Ghab and Huleh regions may be that Levantine environmental conditions at the end of the Ice Age varied considerably from region to region; another that the diagrams from both regions are out of phase with each other owing to dating errors. Generally, most pollen data and other botanical remains from sites in Syria and Palestine seem to favor the Huleh sequence rather than the Ghab diagram.[4]

Deep sediment cores taken from the major lakes in the northern highlands – Turkey and western Iran – generally show very low arboreal pollen values in late glacial times. The evidence indicates a dry, cold setting, covered by steppe vegetation (principally *Artemisia*) and restricted stands of oak–pistachio forest in more favorable locations. The conditions for tree growth began to improve considerably at about 8000 BC, when an increasing humidity allowed for an expansion of forest in eastern Turkey and northwestern Iran, with a peak between *c.* 6300 and 4300 BC.[5]

Foragers of inland Syria

The archaeology of the Epipalaeolithic foragers is well documented in the southern Levant with its many dozens of occupations, but far less is known about the cultural sequence in Syria, where only a handful of sites have been located. To some degree, the small number of settlements in Syria reflects the state of archaeological investigation, with vast regions virtually unexplored or with prehistoric sites deeply buried below alluvial sediments, invisible to the modern archaeologist. However, the small number of sites also may reflect the prehistoric reality, indicative of very low population densities or a reluctance to exploit the vast, dry plains.

Simple foragers: the Geometric Kebaran groups

Distributed over a wide geographical area, the Geometric Kebaran communities exploited diverse parts of the landscape between *c.* 16,000 and 12,500 BC.

[4] Moore and Hillman 1992; Henry 1989:72–3 and references therein; Leroi-Gourhan and Darmon 1991; Tchernov 1981.

[5] Van Zeist *et al.* 1975; Bottema and Woldring 1984; Van Zeist and Bottema 1977; Bottema 1986, 1991:723.

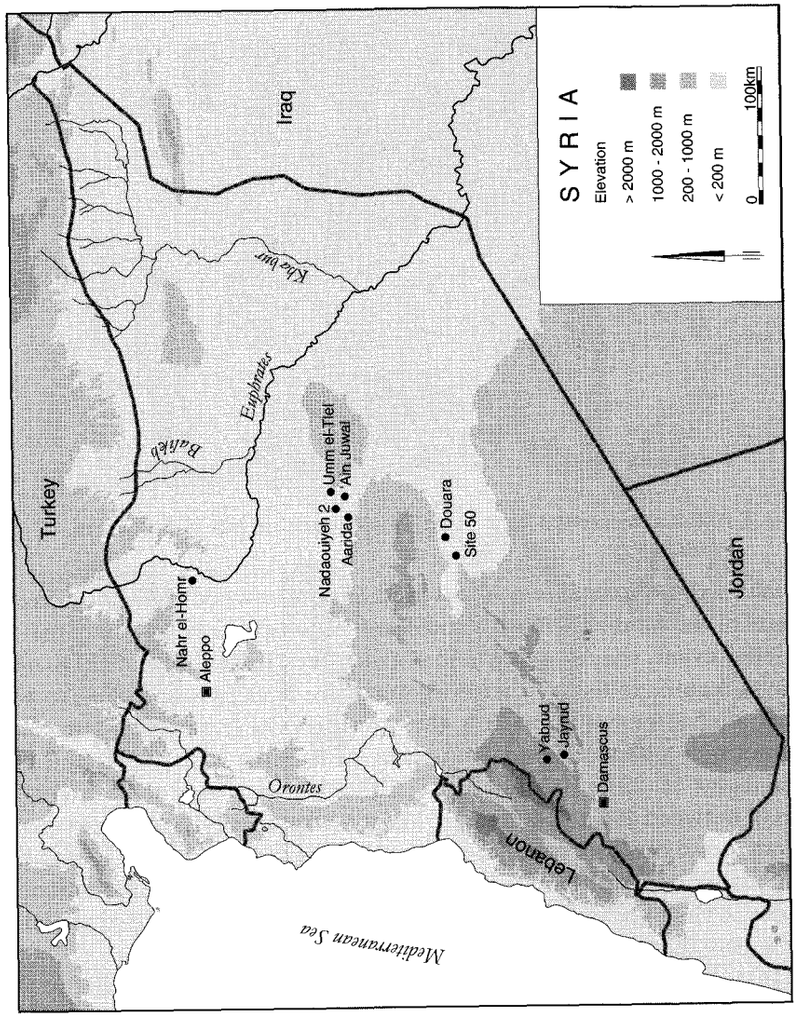

Fig. 2.1 Syria in the Geometric Kebaran period, *c.* 16,000–12,500 BC. Location of the principal sites discussed in chapter 2.

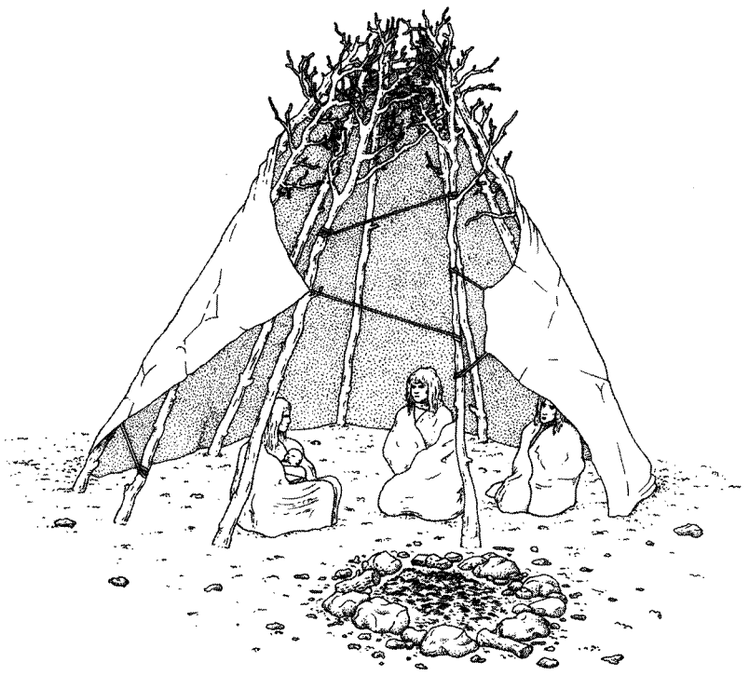

Fig. 2.2 Artistic reconstruction of an Epipalaeolithic hut of hides and branches.

People inhabited the coastal plains and Mediterranean woodlands but also occupied parts of the semi-arid steppes and deserts such as the Negev and Sinai in the southern Levant, the Azraq basin in northeastern Jordan, and the El Kowm and Palmyra regions in Syria. The settlements are usually found close to water sources, such as perennial springs, the interfluves of drainage systems, and small, sometimes seasonal, ponds and lakes. Most sites were very small and ephemeral (some 15–25 to 100–150 sq. m), although there were some larger occupations of between 400 and 600 sq. m. What seem to be even more extensive settlements (up to 6000 sq. m) in areas like the Azraq basin in Jordan and the El Kowm oasis in central Syria often consist of successive occupations over long periods of time rather than a single large site. At no time were there large numbers of people in any one place.

People frequently moved from one small temporary camp to another in the course of an annual round. The small size of the occupations and the shallow depth of their deposits indicate that the camps were not in use for long periods of time. On the basis of the age-profile of gazelle remains, it has been suggested that most sites of this period in the southern Levant were inhabited for just a single season, either during the dry spring/summer or during the rainy fall/winter.[6] While residing at such sites, people may have camped in the open

[6] Lieberman 1993.

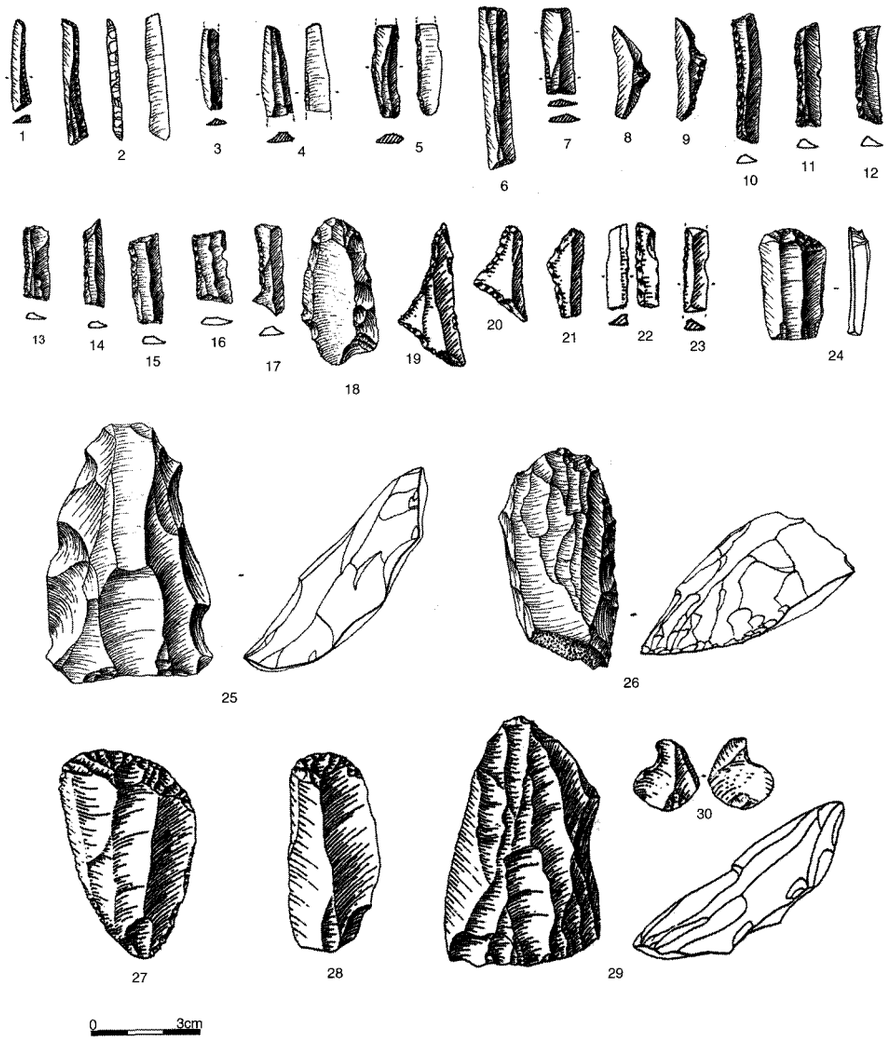

Fig. 2.3 Geometric Kebaran lithic tools from 'Ain Juwal (nos. 1–9, 24–5), Nadaouiyeh 2 (nos. 10–17, 26) and Aarida 8 (nos. 19–23, 27–30).

air or perhaps took shelter in huts of hide or of grasses and branches (fig. 2.2). A semi-circular structure stood at the site of Umm el-Tlel in the El Kowm oasis, and semi-circular stone foundations, pavements, and postholes have been found west of the Jordan river at places like Ein Gev III, Haon II, Lagama North VIII, and Kharaneh 4.[7]

The small groups shared a lithic technology and tool kit predominantly based on the production of blades and bladelets, with an important component of

[7] Goring-Morris 1987:141 and references therein.

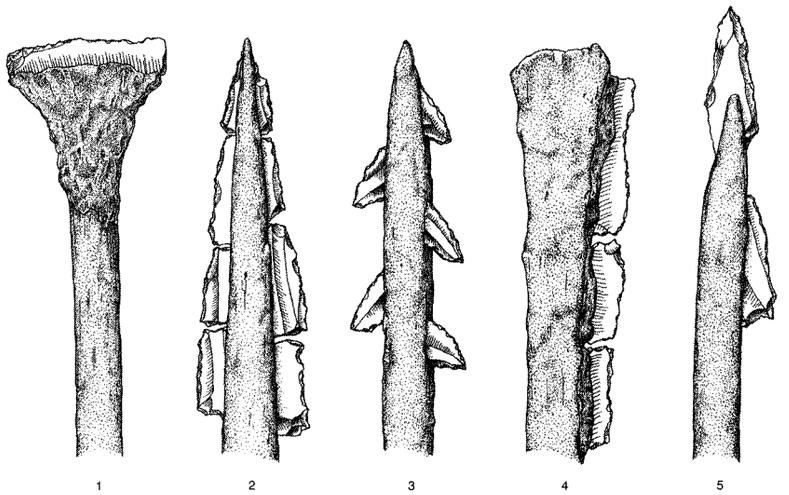

Fig. 2.4 Various ways in which microliths may have been mounted as arrow points (nos. 1–3, 5) and reaping knives (no. 4).

geometric microlithic flints in the shape of trapezes, triangles, and lunates (fig. 2.3).[8] Microliths were probably inserts in composite tools: set in rows or mounted singly at the top, they were employed as points and barbs for spears, javelins, and arrows (fig. 2.4). They may also have been applied in reaping knives, set end to end in the groove of a wooden or bone shaft and hafted by resin or bitumen.

The composition of the stone-tool assemblages often varies from site to site, with some sites overlapping and others differing considerably. Such variation may be a matter of chronology – not all sites were occupied simultaneously and tools changed in the course of time – but it may also reflect different activities or stylistic preferences. In any case, the shallow and minimally stratified deposits at most sites do not allow for the recognition of any sequence of long-term trends in lithic development.

Little is known about other aspects of material culture. Moving frequently from place to place resulted in limitations on property and on the use of items difficult to transport, encouraging the use of highly portable tool kits. Stone bowls and grinding equipment as well as marine shells used as ornaments have been found occasionally at sites in the Sinai and Negev, and one of the earliest examples of pictorial evidence from the Near East was discovered at Umm el-Tlel in the form of a small flat piece of limestone with a crosshatched engraving.[9]

[8] Bar-Yosef 1981; M.-C. Cauvin and Coqueugniot 1988; Henry 1989.
[9] Muhesen *et al.* 1996.

In Syria, the distribution of the Geometric Kebaran occupations is largely restricted to the Anti-Lebanon hills in the southwest and the desert in the interior. Relevant sites are primarily known from the finds on their surface, usually specimens of stone-tool assemblages. Excavations have been rare and limited to small exposures. One excavated site is Nahr el-Homr, located on the bank of a small stream near the Euphrates in the middle Euphrates (Tabqa) region. A sounding at this small station less than 200 sq. m in size yielded a clay deposit over 2 m thick that probably accumulated as a result of seasonal inundation. The deposit contained numerous lithics but no traces of occupation surfaces or buildings. It is assumed that the site was intermittently used in the dry periods of the year.[10] Another excavated site is the rock shelter of Yabrud III, one of three caves located within close distance of each other high in the mountains in southwestern Syria (fig. 2.5). The shelter contains a series of Epipalaeolithic deposits over 2 m thick, one of which (layer 3) has been assigned to the late Geometric Kebaran period on the basis of the chipped-stone assemblage.[11] The excavator has suggested that the small cave, with its floor of 35 sq. m, could only have been used for camping in summer in view of the harsh conditions in the mountains from late autumn to early spring, when snow and a bitter cold of minus 10–15°C commonly occur.[12] People may have come to Yabrud III to hunt or to exploit the abundant sources of good-quality flint in the vicinity. Although foragers were few and far between, the discovery of more sites might be predicted in the hilly area if the scale of research is intensified. A survey in the Qalamoun region near Mallaha-Jayrud, about 60 km north of Damascus, has already produced a small open-air station about 100 sq. m in size (Jayrud 8), located on an outcrop near the former lake of Bahret al-Mallaha.[13]

A notable exception to the scarcity of sites is the concentration in the El Kowm oasis some 100 km northeast of Palmyra in the Syrian desert. The El Kowm area must have been an advantageous niche for foragers, offering an array of essential resources including an ample supply of water in the form of numerous springs and a shallow lake, rich hunting grounds, and sources of flint suitable for tool production. Closely investigated by archaeologists over the past decades, the region has yielded a dozen sites within a zone 12 km wide north

[10] Boerma and Roodenberg 1977; Roodenberg 1979.
[11] See Rust 1950, who gave the name "Falitian" to the layer 3 lithic assemblage, and M.-C. Cauvin 1981 and M.-C. Cauvin and Coqueugniot 1988, who considered Rust's Falitian as a synonym of a series of very late Geometric Kebaran assemblages in Syria.
[12] See Rust 1950:10. Rust also points out that living in caves is tiresome and unpleasant. He and his team tried to camp in one of the shelters at Yabrud but were forced to leave after a few days, since the cave was infested with insects at night. Similar information comes from the ethnographic record: the Hadza of northern Tanzania occasionally stay in rock shelters to protect themselves from the wind or heavy rains but otherwise try to avoid them whenever possible; they say that the caves are uninhabitable because of the vermin they contain. See Woodburn 1972:194.
[13] M.-C. Cauvin *et al.* 1982.

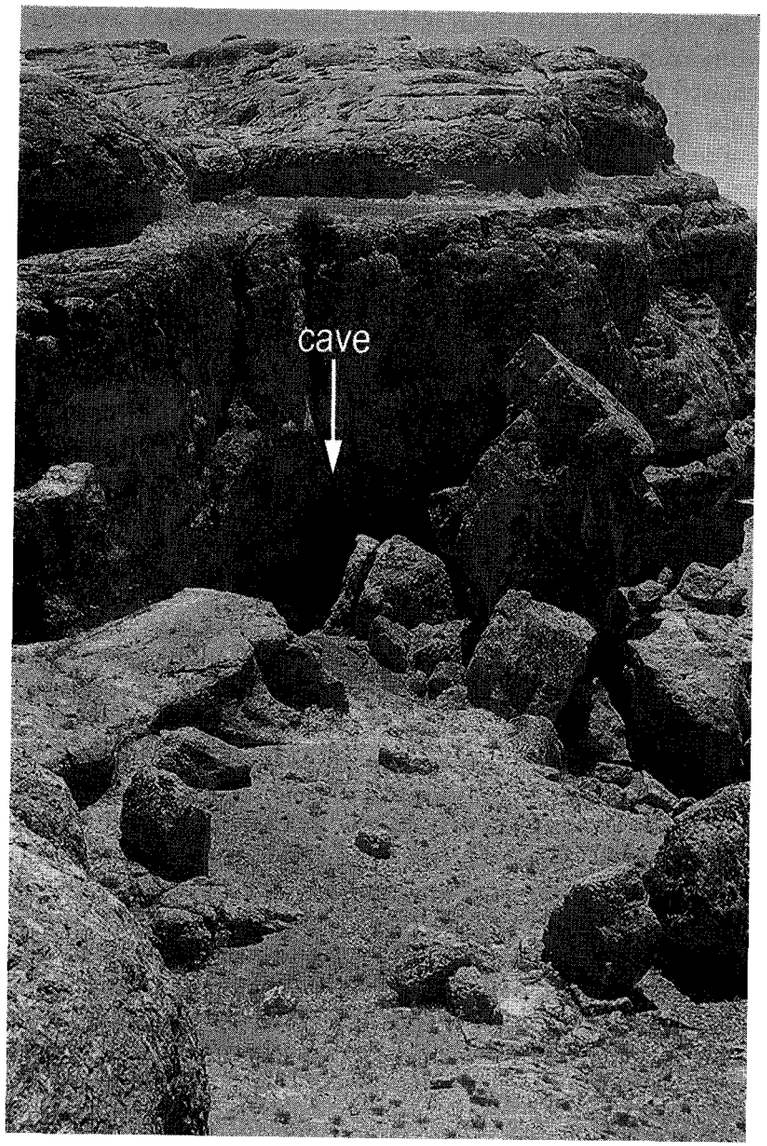

Fig. 2.5 The small cave of Yabrud III high in the Anti-Lebanon mountains in southwestern Syria.

of the modern village of El Kowm.[14] All were open-air occupations; the many rock shelters in the mountains surrounding the oasis have not yet produced evidence of occupation in this period. Sites like 'Ain Juwal, 'Ain Bikhri and Qubeiba represent small, single-phase occupations with discrete scatters of worked flint over a few hundreds of square meters at the most. While the occupation at the nearby natural mound of Aarida may seem larger at first sight, with a lithic spread of over 5000 sq. m, the site consists of a series of smaller stations between 500 and 1200 sq. m that were not occupied simultaneously.

A few sites seem to have been more than a simple *halte temporaire* where a small group of hunters stopped for the night, butchered their kill, or manufactured their tools; instead, they give evidence of more extensive habitation and prolonged use, perhaps over a period of weeks or even months. Umm el-Tlel 2 covers at least a quarter of a hectare and consists of three successive levels on top of a dune formation. A unique find in the lowest level III was the small, semi-circular structure measuring about 5 by 2.6 m and built of light, perishable materials on a limestone foundation – the earliest building uncovered in Syria thus far. An oval hearth full of ashes had been sunk into the floor in the center of the house. Another important site is Nadaouiyeh 2, similar in size to Umm el-Tlel 2 (about 2500 sq. m), with a distinct concentration of lithic artifacts in its center. At Nadaouiyeh 2, three very small soundings revealed shallow deposits about 30 cm deep, including traces of a small and slightly sunk hearth, probably the focal point of gathering and daily life. Similar single fireplaces between 0.45 and 1.50 m in diameter have been found at other sites like Lagama North VIII in the Sinai, where the hearth was surrounded by a series of postholes at regular intervals, suggestive of a kind of shelter.[15]

Elsewhere in the Syrian desert, the history of occupation is still poorly known, with the exception of several sites located near Palmyra like the cave of Douara I and the open-air Site 50.[16] Perhaps there was a series of cultural 'enclaves' at favorable locations across the desert, linked to each other through a broad network of foraging routes.

Increasing complexity: the Natufian communities

Our understanding of the demise of the Geometric Kebaran groups in Syria is clouded. Some researchers believe that the Geometric Kebarans were absorbed by other groups establishing themselves in the region, whereas others – probably more correctly – refer to a fundamental transformation of Epipalaeolithic society *c.* 12,500 BC.[17] At this point, a new cultural assemblage made its

[14] Cauvin *et al.* 1979; M.-C. Cauvin 1981; Cauvin 1987/8; M.-C. Cauvin and Coqueugniot 1988.
[15] Cauvin 1987/8; Molist 1987/8; Molist and Cauvin 1990; Molist *et al.* 1992; Muhesen *et al.* 1996; M.-C. Cauvin 1981; M.-C. Cauvin and Coqueugniot 1988, 1989; Bar-Yosef and Goring-Morris 1977; Goring-Morris 1987:141.
[16] Fujimoto 1979. [17] See e.g. Goring-Morris 1995:161; Henry 1989:152.

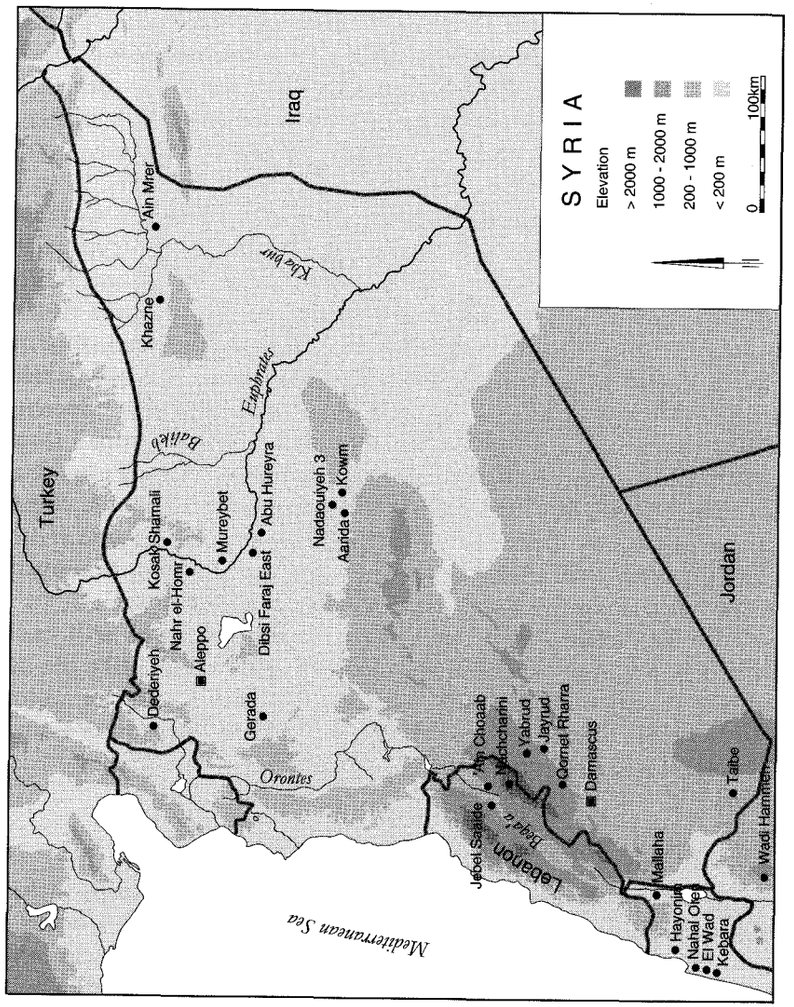

Fig. 2.6 Syria in the Natufian period, *c.* 12,500–10,000 BC. Location of the main sites discussed in the text.

appearance throughout Syria and the Levant: the Natufian, named after its initial discovery in Shukbah Cave in the Wadi al-Natuf in the Judaean hills. The Natufian ushered in a series of profound changes in the forager lifestyle, although the transition was a gradual process over many generations rather than a sudden break with the past. While people remained food collectors and hunters, they intensified their endeavors and perhaps even controlled wild species to some extent. Although there is no clear proof for plant cultivation or animal herding, people were not necessarily ignorant of the possibilities.

In the Natufian period, ample evidence suggests that people lived at selected places for longer periods of time – in short, that sedentary life had begun in earnest. A possible reason for this is the increasing abundance of wild resources made available by the amelioration of the climate, with the result that people no longer needed to range over large territories to meet subsistence requirements. Settlements with substantial architecture and extensive storage areas, thick cultural deposits, very high artifact densities, and associated cemeteries became increasingly common. In Palestine, sites like Nahal Oren and 'Ain Mallaha were approximately 2000 sq. m in extent, containing clusters of circular or semi-circular, stone-built dwellings 2 to 6 m across. Circular, semi-subterranean houses were also present at Abu Hureyra on the Euphrates, with wood used for construction rather than stone.[18] In addition to houses, some sites had storage pits, occasionally coated on the interior or lined with limestone slabs, reducing the uncertainties and risks of fluctuation in the seasonal food supply.

Both the considerable investment in architecture and the depth and diversity of cultural deposits at many sites are suggestive of long-lasting occupation. While it is not completely certain that these sites were occupied year-round, evidence of commensals of man such as house mice, rats, and sparrows has been taken as proof of permanency at Hayonim Cave in Palestine, as has the variety of local foodplants at Abu Hureyra in Syria. Similarly, evidence for the multi-seasonal hunting of gazelles may reflect continuous occupation at many Natufian sites in the southern Levant.[19] But there still were many ephemeral hunter camps or special-purpose stations of a mere 15 to 100 sq. m, probably in use for a single season or less.

Given the wide range of landscape and diverse resource distribution, there can be little doubt that patterns of settlement and subsistence varied considerably among the regions of Syria and the Levant during the Natufian. However, the apparent shift to increased sedentism is pivotal to the Natufian and, more importantly, appears to have preceded early food production. The Natufian data show us that when people first settled in extensive and permanent villages, they still relied on a subsistence economy based entirely on gathering wild plants

[18] Perrot 1968; Cauvin 1978; Bar-Yosef 1991; Valla 1995; Edwards 1991; Moore 1975.
[19] Bar-Yosef 1981:401, 403; Hillman *et al.* 1989; Lieberman 1993.

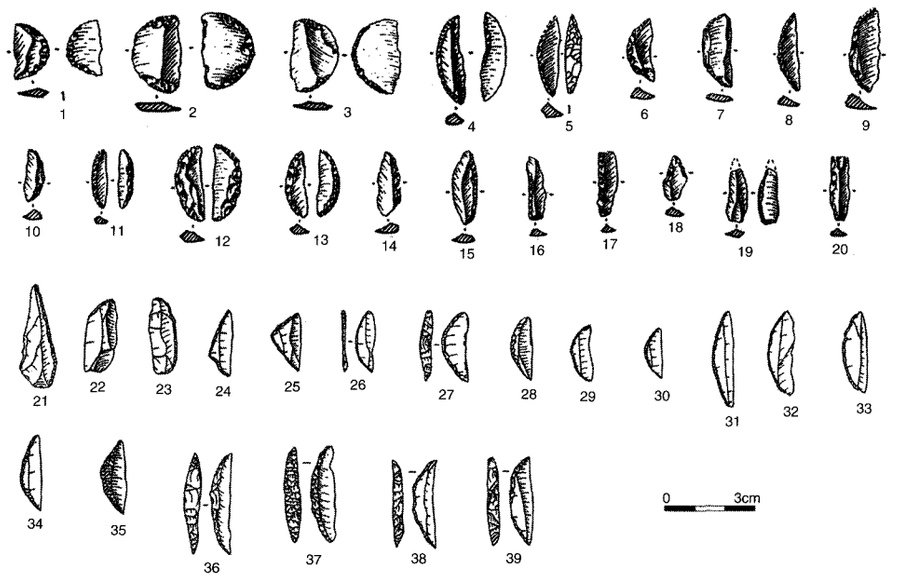

Fig. 2.7 Natufian microliths from Jayrud 2 (nos. 1–4), Jayrud 3 (nos. 5–20), and Abu Hureyra (nos. 21–39).

and hunting animals. But plant and animal domestication was soon to come, and we may conclude that a sedentary lifestyle, coupled with hunting and gathering, was a prelude to the appearance of the earliest farming communities of the ninth millennium.[20]

Natufian people employed a wide range of material culture. While chipped stone was still predominant, the Natufian is most noted for its elaborate worked bone, numerous ground-stone tools, and *art mobilier* rarely seen before. From a technological point of view, the lithic assemblages are highly standardized, but from a typological perspective the flints are very diverse because of their use in specific activities or because of local stylistic preferences. The lithic industry is characterized by extensively used multiple-platform cores, short but wide bladelets and flakes, and geometric microliths, with lunates predominating by far (figs. 2.7–2.8). Microwear studies from sites like 'Ain Mallaha and El Wad in Palestine and Mureybet and Abu Hureyra in Syria have made it clear that these lunates probably served as arrowheads in composite tools, mounted either transversely or as barbs. Characteristic, too, are the small but persistent amounts of sickle bladelets that often bear a silica polish and wear striations associated with the cutting of (wild) grasses and cereals.[21] These bladelets had been hafted in split limb bones that were sometimes engraved or sculpted in

[20] Binford 1968; Flannery 1969; Wright 1971.
[21] Anderson-Gerfaud 1983, 1991; Unger-Hamilton 1983.

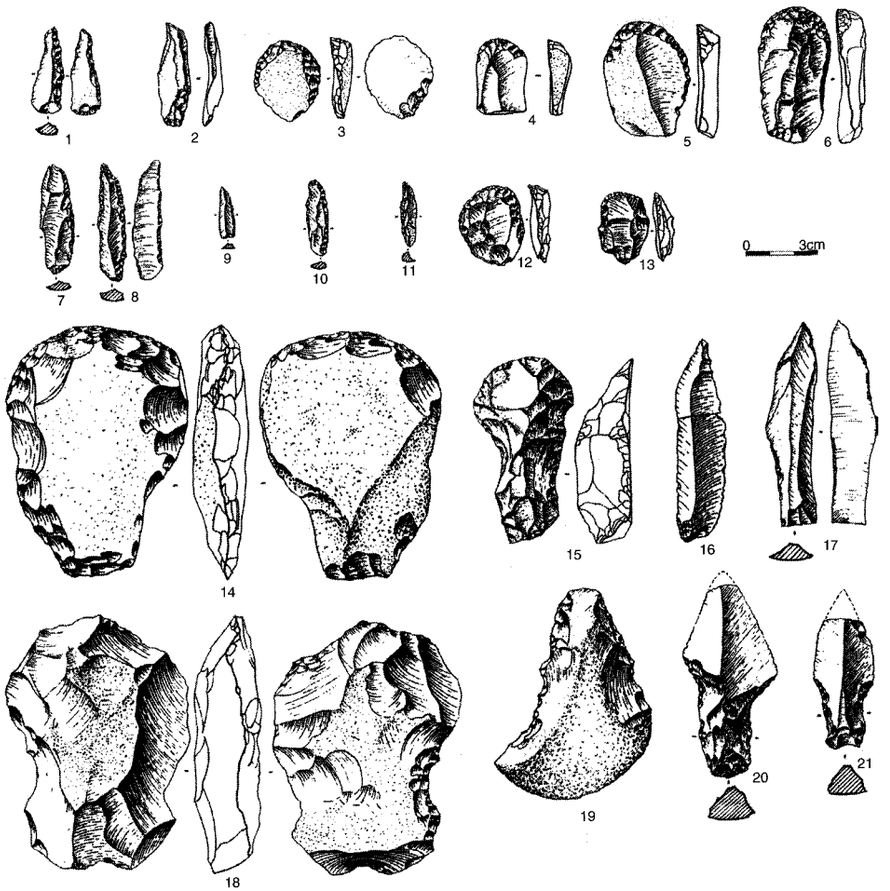

Fig. 2.8 Late Natufian blades, scrapers, and other lithic tools from Jayrud 2 (nos. 1–6), Jayrud 3 (nos. 7–14), Jayrud 9 (no. 18), and Mureybet IA (nos. 15–17, 19–21).

the shape of deer or goat, as shown by the finds in the caves of El Wad and Kebara near the Mediterranean coast. There were many other worked-bone items linked to a whole range of activities, such as barbed points for hunting, hooks for fishing, and slender awls for weaving or skin-working. The ground-stone inventory is diverse and elaborate, particularly at the larger camps, and includes large and small mortars, stone bowls (often engraved), grooved whetstones, querns, grinders, and pestles sometimes ending in a naturalistic rendering of an animal hoof or exhibiting ochre stains. The abundance of ground stone may in part be due to an increased dependence on wild cereals, but may in part also have resulted from a greater permanence of settlement, lessening the need for portable utensils.

Beads and pendants made of bone and shell (dentalia) were incorporated into objects of adornment, such as elaborate headdresses, necklaces, and bracelets, sometimes still adhering to skeletons in burials. These were innovations in material culture possibly tied to the explicit expression of status, ranking, and prestige – social constructs that would have changed society radically in the long run. On the basis of the uneven distribution of grave furniture, some degree of ranking has been hypothesized from the hundreds of burials in the southern Levant, but the issue is still subject to much debate and controversy.[22] Sites of this period in the southern Levant also produced a few objects of art unrelated to utilitarian tools but perhaps linked to ritual and ceremony, such as small animal figurines, incised pebbles in the form of human heads, and a calcite figure of a couple in coitus.[23]

On the basis of developments in the lithic industry, settlement patterns, and other variables, the Natufian can be divided into an early and a late phase, although there are many local variants. The early stage, dated *c.* 12,500–11,500 BC, is best known from excavations in the Carmel and Galilee areas in Palestine, but sites of this period also occur in the Anti-Lebanon highlands of southwestern Syria and in the El Kowm oasis in central Syria. The rock shelter at Yabrud III north of Damascus had a small early Natufian occupation over 35 sq. m with numerous lithics as well as ground-stone tools, bone awls, and beads made of marine shell. The site seems to have been used only in spring–summer; the high altitude – 1400 m above sea level – and associated cold probably precluded winter occupation. Epipalaeolithic sites are known to exist in the vicinity of Yabrud III, and Natufian material is reported from Mugharet al-Abde, 1 km north of Yabrud at an altitude of 1400 m. Another temporary occupation is Jayrud 2, a small open-air station at a much lower elevation in the nearby Qalamoun region. Similar small and short-lived stations have been found in the El Kowm area in the desert at Nadaouiyeh 3, Aarida 7, and the base of Tell el-Kowm I. Generally, the pattern of settlement in Syria in the early Natufian is little different from that of the preceding period, characterized by low population density, small group size, and dispersed, fluctuating occupation.[24]

Change began in the late Natufian period, after 11,500 BC. Some regions appear to have been abandoned, such as the El Kowm area, perhaps in association with the deterioration of local climatic conditions, forcing people out of the fragile, semi-arid environment.[25] In other regions like the middle Euphrates valley, new settlements were founded. Located in close proximity to one another on the banks of the Euphrates was a series of occupations of differing

[22] Wright 1978; Henry 1989:197–210; Belfer-Cohen 1995. No Natufian burials have been found in Syria so far.
[23] See for example Noy 1991; Boyd and Cook 1993.
[24] Rust 1950; Copeland 1991; Cauvin *et al.* 1979, 1997; M.-C. Cauvin 1981, 1991; M.-C. Cauvin *et al.* 1982; Byrd 1989.
[25] The region seems to have remained devoid of people until the seventh millennium BC (see chapter 3).

size at sites like Abu Hureyra, Mureybet, Dibsi Faraj East, Kosak Shamali, and Nahr el-Homr. It appears that they were not all occupied simultaneously, given developments in the lithic assemblages. In this region, people utilized low terraces at the edge of the flood plain, situated at the divide of the riverine and steppic environments. Such a location afforded a good view up and down the river as well as a wide range of accessible environmental niches. Sites here varied in size and character. The lithic scatter over an area of about 100 by 30 m at Dibsi Faraj East has been interpreted as the remains of a seasonal camp, advantageously located on a high gravel platform jutting out into the Euphrates flood plain, well above the maximum flood level but still within reach of the river. A similar gatherer or hunter station has been assumed for Nahr el-Homr north of Dibsi Faraj East, where a small sounding revealed a sequence of alternating alluvial sediments (indicative of regular flooding) and occupation levels with lithic artifacts resembling those of Mureybet IA–B (see below). The few Natufian stone tools found in mixed contexts at Tell Kosak Shamali may represent yet another small occupation, although deeply buried underneath much later deposits.[26]

Much more impressive were the finds at Abu Hureyra and Mureybet – relatively large sites that have long, though not always continuous, prehistoric sequences and contain a variety of different-sized buildings. The Natufian settlement at Abu Hureyra on the west bank of the Euphrates, *c.* 11,000–10,000 BC, has been exposed over an area of only 49 sq. m on the lower northern part of the mound, below 3 m of the much later Neolithic occupation debris.[27] The extent of the settlement is unknown, but it may have been substantial given the meter-deep deposit divided into three phases. The excavators assume that the village measured 0.25–0.5 hectare, with a population of 100–300 persons.[28] The lowest level, 1A, is characterized by shallow depressions interpreted as semi-subterranean structures for working and dwelling (fig. 2.9). Larger examples dug 0.7 m into the natural soil measured 2–2.5 m across. They were joined together, and people could pass from one hollow to another through an opening in between (fig. 2.10). Smaller pits about 1 m in diameter were adjacent to the structures. Surrounding the hollows were arrangements of postholes, also found in the centers of the larger examples; the wooden poles (now decayed) sunk into the holes probably supported walls of brushwood, reeds or hides.

[26] Wilkinson and Moore 1978; Boerma and Roodenberg 1977; Roodenberg 1979; Nishiaki *et al.* 1999; Nishiaki 2001a. See also Olszewski 2000:149–52 on the relative dating of the sites along the middle Euphrates.
[27] Moore 1975, 1979, 1991, 1992; Moore *et al.* 2000. There has been much discussion of the geographical range of the Natufian, particularly whether the sites in northern Syria should be termed Natufian or not. For example, Moore believes that, while there were certain general similarities, Abu Hureyra and the other contemporary occupations nearby have little to do with the Natufian of the Levant but instead represent a distinct Middle Euphrates culture group. See Moore 1991:286–9. However, most researchers prefer to include the sites within the Natufian and assume that any differences mainly reflect the diversity in environmental settings, modes of subsistence, or local stylistic preferences at this time. See Hours *et al.* 1973; M.-C. Cauvin 1980, 1981, 1991; Byrd 1989; Henry 1989; Cauvin 1994.
[28] Moore *et al.* 2000:489.

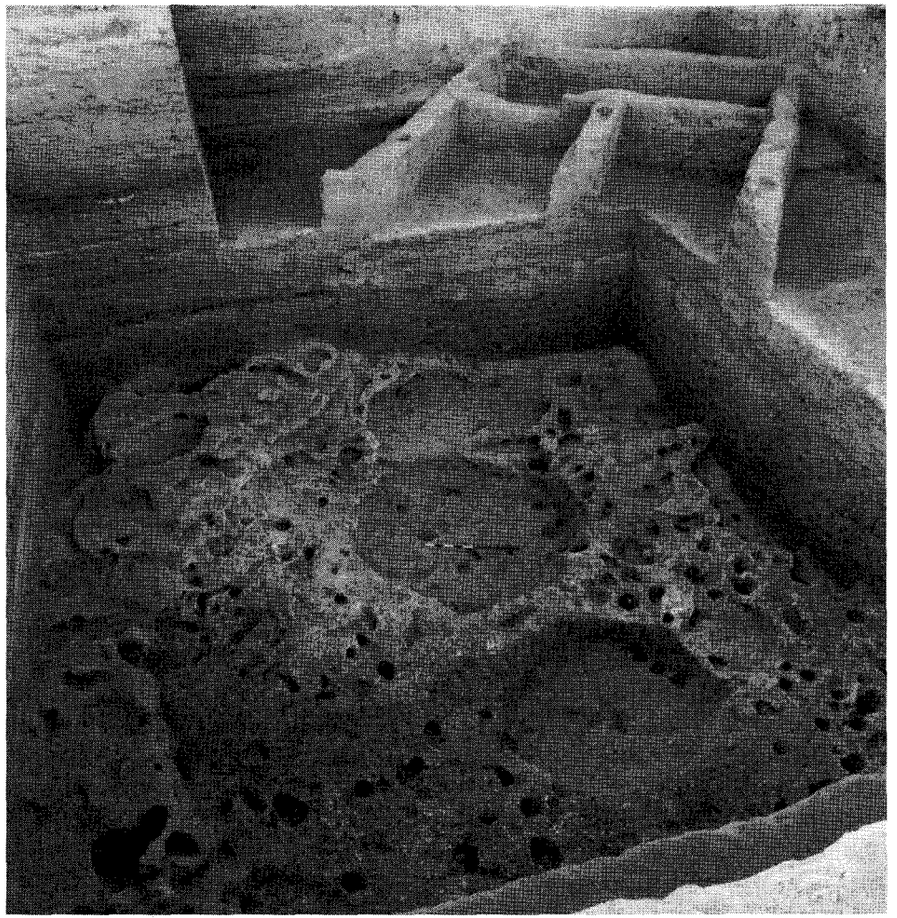

Fig. 2.9 The remains of pit dwellings and associated postholes at Abu Hureyra, *c.* 11,000 BC. A mudbrick house of the overlying Neolithic settlement has been partly removed to expose the earliest cultural deposits at the site.

Outside the pits was a burnt area covered with ashes that probably represents the remains of many hearths in nearby unexcavated areas. In the later phases 1B–C, pit dwellings were presumably replaced by free-standing timber-and-reed huts, whose deposits contained thin, trodden floors, hearths, postholes, and scatters of flint tools and waste. In the Natufian period, people stayed at Abu Hureyra for a very long time, although it is not certain whether this implied continuous settlement or occupation at regular intervals. A wide range of activities was carried out, as implied by hunting weapons in the form of microliths, a range of flint tools for cutting and scraping, and ground-stone querns, pestles,

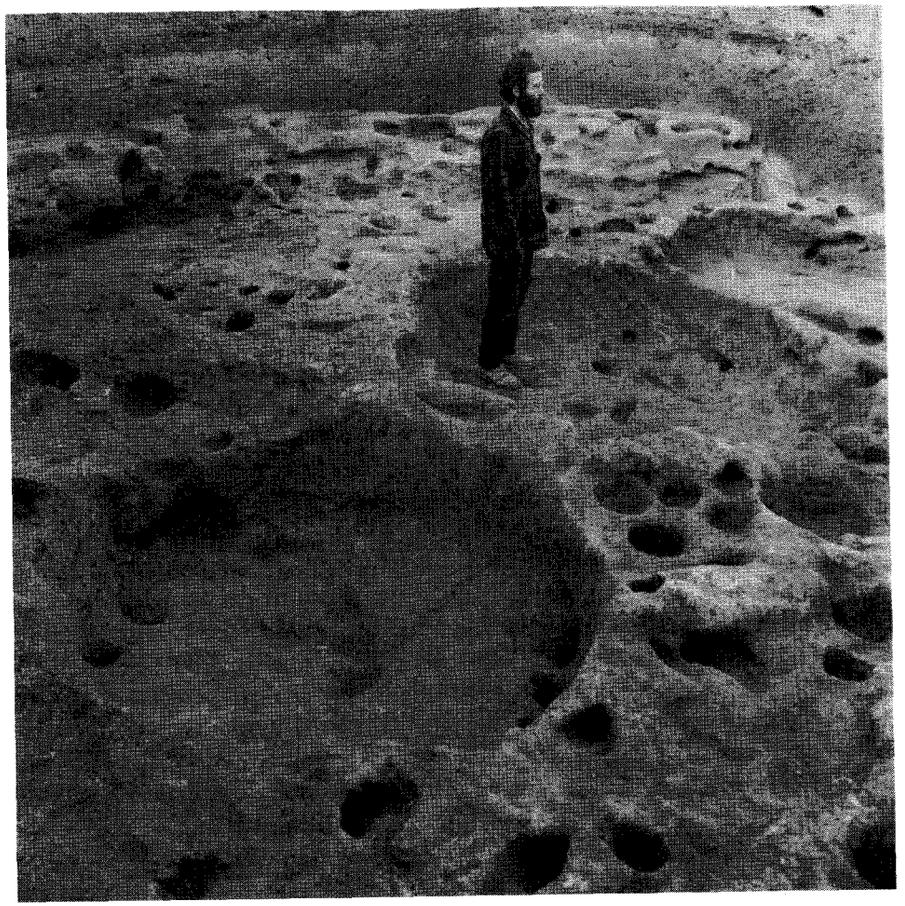

Fig. 2.10 A series of joined pit dwellings at Abu Hureyra, together forming a larger complex for living and working.

and mortars (some stained with red ochre) for the processing of plant foods. This was probably not the inventory of a temporary camp, and botanical analyses also suggest a year-round occupation.[29]

Settlement at Mureybet on the east bank of the river began later than at Abu Hureyra, at the very end of the Natufian period. The lower phase I is divided into two subphases, of which the earliest, IA, is considered to be late Natufian, whereas the later, IB, is designated early Neolithic. However, the stratigraphic order shows no hiatus, and the material-culture inventories are virtually identical, except for some al-Khiam arrowheads in the upper phase. Dated to the end of the eleventh millennium BC, the phase IA settlement was exposed in a

[29] Hillman *et al.* 1989; Moore *et al.* 2000.

very restricted area (8 to 17 sq. m, depending on the layer) on the lower southern slope of the mound,[30] and the extent of the occupation remains unknown. There were no architectural features noted other than shallow, roughly circular fire-pits, the largest 1.50 m in diameter and 0.60 m deep. The interiors of these pits contained ashes, charcoal, and fire-cracked stones, as well as burned animal bone. Also observed was a horseshoe-shaped oven with a wall of small pieces of limestone covered with mud. Similar ovens occurred in the next phase, IB, in association with a circular, semi-subterranean house 6 m in diameter built of mud-plastered stone walls still standing up to 50 cm. As at Abu Hureyra, the site inventory is suggestive of a prolonged stay and a diverse range of domestic activities. Use-wear analysis has shown that some flint pieces were used for the reaping of wild cereals, others for the cutting of reeds or the working of hides.[31] People had adzes for chopping wood and small stone vessels and mortars for the preparation of food. They also worked shell and stone for ornaments, as shown by a grooved pendant and an engraved pierced disk.

Sites of the late Natufian period have been found in other parts of Syria, but the evidence is still meager and usually restricted to lithic scatters on the surface. Surveys in northeastern Syria have produced a series of discrete lithic scatters around the modern brackish spring of 'Ain Mrer, as well as two small cave sites above the spring of Bir Khazna on the north side of the Jebel 'Abd al-Aziz, with the lithics on the thalus outside the shelters, but there still is much uncertainty on the date of these occupations. A number of "Mesolithic" occupations are reported for the region near Deir ez-Zor.

Uplands were also exploited, as shown by the small camp sites in the hills of western Syria like Gerada in the Jebel Zawiyah north of Hama and (possibly) Dederiyeh on the Afrin. A field reconnaissance near Mallaha-Jayrud in the Qalamoun region has yielded at least three late Natufian stations up to 2400 sq. m in size at an altitude of 800 m on the shore of the now-dry lake of Bahret al-Mallaha. A small-scale sounding at one of these – Jayrud 1 – produced part of a circular building founded on stone. This mountainous region, already intermittently inhabited in much earlier times, must have provided an attractive setting to prehistoric people, with abundant resources of flint and an ample supply of water facilitating rich pastures of grasses and wild cereals and attracting all kinds of game. A small cave site has been located at Qornet Rharra, an isolated, steep rock overlooking the upland plain of Sahl Seidnaya. A long but narrow sounding laid out in one of the cavities and on the plateau in front of it revealed thin deposits of mixed origin: a small lithic assemblage of Natufian affiliation was found intermingled with Neolithic materials and pottery of much more recent date. The rock shelter apparently repeatedly attracted the attention of people in different eras.

[30] Cauvin 1972a, 1979; M.-C. Cauvin 1980, 1991. [31] Anderson-Gerfaud 1983, 1988, 1991.

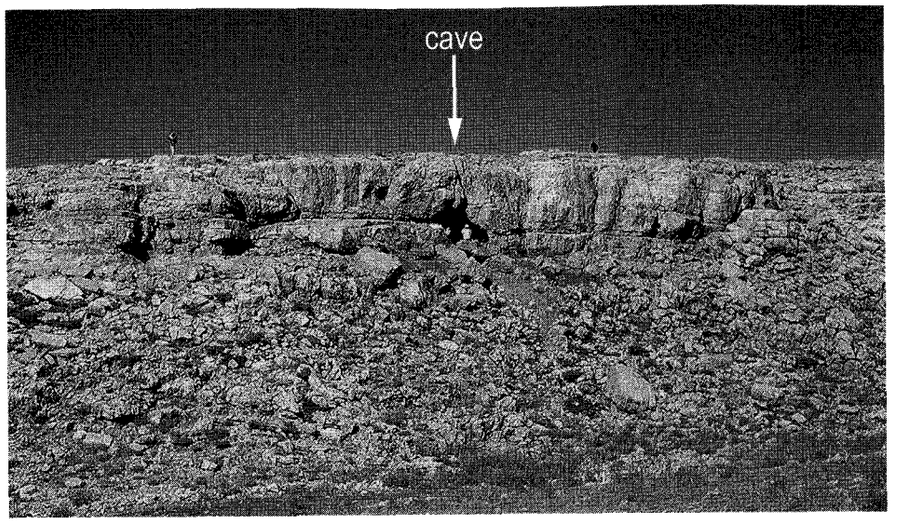

Fig. 2.11 The cave of Nachcharini in the Anti-Lebanon mountains.

Other shelters were found high in the Anti-Lebanon and in its western foothills across the border in Lebanon, as in the caves at Nachcharini and 'Ain Choaab. Located on a rolling plateau in a remote part of the Anti-Lebanon 2100 m above sea level (the present-day tree line), the use of the Nachcharini cave by Natufian hunter-gatherers was probably restricted to spring and early summer because of the harsh environment (fig. 2.11). Another small Natufian station is 'Ain Choaab, one of many caves and shelters in the mountains along the eastern edge of the Beqa'a valley. On the opposite, western margin of the Beqa'a is the open-air 0.25 ha site of Jebel Saaïde (also known as Saaïde II), located on a ridge with a commanding view of the surrounding countryside. Soundings revealed an *in situ* burial that may have formed part of a larger graveyard. In the absence of recognizable architectural features, the main occupational residue consisted of chipped stone, limestone and basalt milling equipment, and worked bone and shell. The people at Jebel Saaïde appear to have hunted animals such as aurochs, lynx, red deer, gazelle, and many species of aquatic and migratory birds. The surroundings of the site would also have offered a variety of habitats and plant resources for easy exploitation.

There also was a late Natufian occupation at Taibe in the Hawran plain of southern Syria. Two soundings at this small site about 100 sq. m in area provided evidence of four levels of occupation within a deposit about 4 m deep, but there was no trace of architecture. A few grinding tools and sickle blades indicate that people were involved in the gathering and processing of wild plants for food, but they also hunted gazelle and, to a lesser extent, aurochs, equids, and small ruminants. Strategically located between two promontories on top of a basalt

outcrop, Taibe offered hunters an ideal view over the surrounding plain without being seen themselves.[32]

The exploitation of the wild

The late glacial foragers made use of a wide and diverse environment. They did not exploit their surroundings in a random or haphazard manner but used great skill and an exhaustive knowledge of the natural world, the habits of the game, and the seasonal changes in resource distribution. Plant foods probably constituted the most significant part of the forager diet, although the evidence is still meager owing to matters of preservation. Exceptional is the small camp site of Ohala II in Galilee, where layers over 20,000 years old yielded some forty species of plants with edible seeds or fruits, including wild barleys and wheats.[33] Spectacular, too, were the finds at Abu Hureyra on the Euphrates, where over 150 edible seed and fruit species along with a long list of non-food plants were identified in the late Natufian phase, *c.* 11,000–10,000 BC. People at the site apparently enjoyed a nutritious and diverse diet. The plants were collected from the wild rather than tended or grown deliberately and were used as food, flavorings, medicines, or dyes. Staples included the grain or seeds of wild ryes and wheats, feather-grasses, club-rush, millets, and shrubby chenopods – all very palatable, easily gathered, and excellently storable.[34] The gathering was seasonal, as one species after another ripened, but we should not simply assume that all plants in the archaeological record are the result of intentional collection. Many species may have been the by-products of wild-cereal harvests or arrived together with scrub and grasses collected for fuel. Woodland clearances were made along the river; this may be concluded from the charcoal remaining from the burning of poplar, willow, maple tree, and tamarisk, and from the common occurrence in the settlement of plants like *Polygonum corrigioloides*, *Setaria*, *Echinochloa*, and *Crypsis*, which do not grow abundantly either in riverine forest or in back-swamp.

Abu Hureyra was advantageously located at the divide between the moist and densely wooded valley floor and the more open steppe south and west, where patches of pistachio grew on terraces along seasonal water courses. People at the site, and at nearby Mureybet as well, abundantly exploited the stands of wild barleys and wheats that probably could be found at a short distance. Although barley was indigenous to the steppe and lowlands of Syria, wild einkorn wheat probably had its natural habitat in more restricted areas like the piedmont of southeastern Anatolia, at elevations between 600 and 2000 m. Einkorn may

[32] Pervès 1948, 1964; Hole 1994, 2000; Poplin and Cauvin 1986/7; Akazawa *et al.* 1995; M.-C. Cauvin *et al.* 1982; M.-C. Cauvin 1973, 1974, 1991; Copeland 1991; Schroeder 1991; Contenson 1966.

[33] Kislev *et al.* 1992. See also Goring-Morris 1995:168.

[34] Hillman 1975; Hillman *et al.* 1989; Moore *et al.* 2000.

have moved into the low-lying open steppe as far as the middle Euphrates at the end of the glacial period, synchronous with an increase in precipitation and an advance of the forest frontier. There is little or no evidence to support earlier claims that people on the Euphrates brought in harvests of einkorn wheat from the Turkish mountains, or that they were involved in the tending of cereals that had been transported from their natural habitat in the hills to a foreign, man-made environment in the plains.[35] Although it was suggested as early as the 1930s that the Natufian people were the world's first farmers, there is virtually no proof of the cultivation of food plants at any Natufian site. People were still food collectors, not agriculturalists.[36] On botanical grounds, it has been claimed that the inhabitants of Abu Hureyra cultivated and domesticated rye *c.* 11,000 BC; if so, they were among the first people anywhere in the world to domesticate plants.[37] However, these early attempts at cultivation seem to have had a restricted impact, since a complete dependency on cultivated staples is not observable in Syria for another 2500 years.

Hunting was also important to the Epipalaeolithic foragers. The animal bone remains recovered archaeologically indicate few changes in the procurement and variety of prey through time and reflect the mix of species available locally. Whenever the opportunity arose, people hunted a variety of animals such as gazelle, aurochs, onager, wild sheep, wild goat, wild boar, red deer, roe deer, hare, wolf, fox, turtle, lizards, reptiles, and birds (fig. 2.12). They caught river fish like gudgeon and sheatfish and collected freshwater molluscs. Only the dog was domesticated *c.* 10,000 BC, probably kept as a pet, hunting companion, or camp guard rather than a source of food.

The most commonly exploited animal was the gazelle. Gazelle bones comprise 40 to 80% of the late glacial period faunal assemblages throughout the Levant. At many sites, hunters specialized in hunting the small antelope, and it is possible that the herds were controlled to some extent.[38] The Persian or goitred gazelle (*Gazella subgutturosa*) is the species most common in Syria, a migratory animal of the open plain found at distinct locations at specific times of the year. Observations made in the area between Damascus and Amman in the early 1900s suggest that the herds reached their maximum size during the dry season in autumn, when they were on the move from north to south in search of fodder along the edge of the Syrian desert. During the wet season, the animals returned north in smaller groups. Another migration route seems to have existed further east, from the Euphrates valley south through the lowland opening east of the Jebel Abu Rujmayn and the adjoining Jebel Bishri, to the

[35] Van Zeist 1970:172; Mellaart 1975:46; Hillman *et al.* 1989; Willcox 1995. Willcox (1995:9, 13) has suggested that the diploid wheat identified at the Euphrates sites as *Triticum boeotium* ssp. *Thaoudar* should perhaps be reinterpreted as *Triticum urartu*, which has recently been shown to have a primary distribution in southern Syria.

[36] See e.g. Garrod 1932; Perrot 1968; Bar-Yosef and Kislev 1989.

[37] Moore *et al.* 2000:397.

[38] Legge 1972; Bar-Yosef 1981: fig. 11; Henry 1989:214–15.

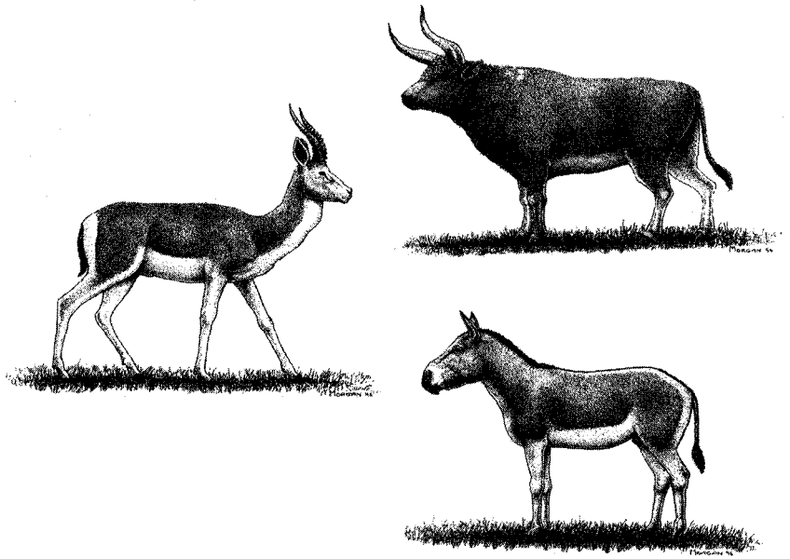

Fig. 2.12 The principal wild animals hunted at the end of the Ice Age: gazelle, onager and aurochs.

basalt desert of northeastern Jordan (fig. 2.13).[39] People in prehistory undoubtedly were well aware of these patterns and ambushed the herds at many points along their migratory routes. The finds at Abu Hureyra, where gazelle bone accounts for some 80% of the faunal assemblage, suggest that the hunt was concentrated in a period of a few weeks in April and May and was a large-scale enterprise, in terms of both the number of animals slaughtered and the size of the hunting parties; the target of the hunt was the herd, regardless of sex or age of the animals, rather than the individual animal. Seasonal mass killings, also indicated at other late Natufian sites in the Levant and continuing into the Neolithic, were primarily aimed at large herds on open land and must have required many hunters to surround and capture the animals.[40] The ethnographic record shows that such mass killings share one simple plan: the herd is driven towards an enclosure or over a concealed pitfall, where it can be efficiently slaughtered. One way to encourage this is to rouse the animals by shouting and stick-beating, another by setting fire to the vegetation.[41]

[39] Legge and Rowley-Conwy 1987:80–1; Bar-Yosef and Meadow 1995:47; Heptner *et al.* 1966; Simmons and Ilany 1975–77; Moore *et al.* 2000:439–40.

[40] Legge and Rowly-Conwy 1987; Moore *et al.* 2000. See Lourandos 1997:65 on large-scale hunting drives by Aboriginal groups in southwestern Victoria, Australia, sometimes involving a human circle 20 to 30 km in diameter.

[41] Keeley 1995.

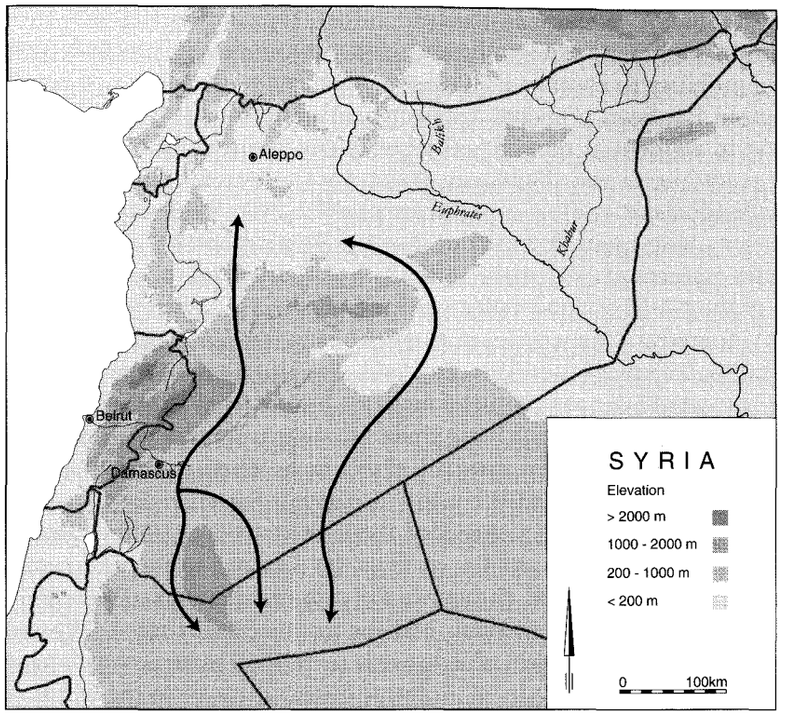

Fig. 2.13 Migration routes of the Persian gazelle in Syria.

Occupation, mobility, and the organization of society

We still know far too little about the typically small and scattered occupations of the epoch to arrive at a thorough understanding of forager life in Syria in the long period from *c.* 16,000 to 10,000 BC. But even with the modest amount of information at hand, it is clear that these communities shared certain characteristics: a dispersal of population, low and fluctuating density of population, small group size, mobility and short-term stay, and diverse, seasonal exploitation of resources. The pattern may have been somewhat different at the end of the period, when there is evidence of prolonged stay and greater permanence of shelter. However, in most cases, people remained mobile and continued hunting and gathering in small groups.

The modern ethnographic record has made it clear that hunter-gatherer mobility is flexible and widely diverse. Some communities shift camp very frequently, a practice that results in ephemeral occupations, little accumulation of occupation refuse, and low archaeological visibility. Others move infrequently and are nearly sedentary at well-placed locations, resulting in larger settlements, permanent buildings, and high archaeological visibility. These

differences should not be taken as absolute; rather, they are the extreme ends of a continuum, and many modern hunter-gatherer groups easily switch from one mode of mobility to another according to need and season.[42]

A distinction has been proposed between residential mobility and logistical mobility. In residential mobility, the entire group moves from one camp to another according to the abundance of seasonal resources. With logistical mobility, individuals or small groups pursue specific tasks while moving back and forth from a base camp that may or may not be permanently inhabited.[43] If we consider patterns of settlement in the late glacial period, it seems that at least some of the Natufian food collectors were engaged in logistical mobility, while their Geometric Kebaran ancestors might be better associated with residential mobility. Logistical strategies often adjust to situations where the main settlement is located near one essential resource but far from another, equally critical, resource; logistical forays bring these far-away resources within reach. People may have stopped moving residentially in areas where resource patches became more widely spaced and the costs of commuting *vis-à-vis* the anticipated returns at the next camp exceeded those of remaining at the current camp. Many factors are of importance, such as the distance to the next camp, the terrain that has to be crossed, the amount of material that has to be carried, the time required to construct housing, and the resources that are anticipated at the next location. In this respect, the decision to become sedentary may have been based on regional, not just local, resource distribution, or in the words of Robert Kelly: "Sedentism can be a product of local abundance in a context of regional scarcity."[44]

The small size of the prehistoric settlements suggests that the number of residents comprised a few dozen people at most. One also receives an impression of short-lived and intermittent occupation at the sites, given the frequently thin depositional strata. Although we know nothing about the social organization of the people living at these sites, analogy with the contemporary ethnographic record may be useful. Caution in the use of modern analogies is required because foragers are immensely varied and their strategies are the result of specific historical and environmental circumstances – there is no such thing as a timeless, ahistorical forager way of life. However, if we wish to identify general patterns in the forager lifestyle beyond the mere description of material culture, analogy is necessary, and the concerns about the dangers of using ethnographic analogies have not yet led to a credible alternative. Meaning is not intrinsic to the archaeological record but is the product of ever-changing reasoning; in simple terms, history is created by us, not given to us.[45]

[42] Cf. Kelly 1995:111ff and Table 4.1. [43] Binford 1980; see also Zvelebil 1997.
[44] Kelly 1995:152.
[45] A view clearly expressed by Richard Gould: "there is no such thing as the final or ultimate interpretation – only better and better approximations of past reality. So, while one cannot expect to know everything about past human behavior, one can know more than is already known. There is no Truth in archaeology; but there are better and better truths as new evidence is acquired and new . . . interpretations are applied to it." See Gould 1980:47. See also for example Trigger 1989:366; Watson 1979, 1980, 1986:446; Wylie 1985; Hodder 1986, 1999; Verhoeven 1999; Kelly 1995:338; Whittle 1996.

Comparative hunter-gatherer ethnography suggests that the organization of society in the late glacial period is likely to have taken the form of a loosely hierarchical structure with three main tiers. In the lowest tier was the small family-based household, rarely exceeding eight to ten persons. In the next tier were larger groups of twenty or thirty to one hundred individuals in which families would have congregated and operated together. It is likely that such groups shared a collective perception of unity and common purpose expressed through decisions related to foraging, patterns of migration, conduct of camp affairs, and maintenance of intergroup relationships. Group membership may not have been for life, and people may have freely shifted from one group to another (e.g. for marriage) and may even have been encouraged to do so to strengthen the relationships between different communities. In their turn, these groups would have been organized into larger networks of at least 250 to 500 people, if only to ensure biological survival. The large networks would also have served to mitigate the omnipresent risks of fluctuation in food resources and to enhance the circulation of goods and information. Simple calculations suggest that the minimum number of sites for an entire social group would have been in the order of eight per season, if we assume that each site was utilized by twenty to thirty people.[46] However, many modern forager groups tend to move much more frequently, and the number of residential localities per season is much larger. The largest groups may have gathered seasonally when environmental conditions and hunting opportunities were conducive to such activity. Such a moment may have occurred with the arrival of the gazelle herds at sites like Abu Hureyra in northern Syria in the spring, the same season when wild cereals and other plants ripened and had to be harvested – times of plenty. This time of annual gathering is often the moment for ceremonies and initiation rites, the reconfirmation of social bonds and allegiances, and the exchange of commodities and marriage partners.[47]

The extent of the territories exploited by the Epipalaeolithic communities is unknown, but in order to meet the long-term needs of survival it must have been extensive – many hundreds or even thousands of square kilometers, depending on the distribution of natural resources and the character of the landscape.[48] It must have included supplies of water, an adequate variety and density of food plants, sufficient grazing facilities for antelopes and other game, locations of firewood, and materials for constructing shelters. Studies of

[46] Cf. Bar-Yosef and Meadow 1995:50.
[47] Binford 1980: Table 1; Gould 1980:68–9; Keeley 1995:260; Kelley 1995: Table 4.1; Lourandos 1997:64–5.
[48] Gould 1980:69; Silberbauer 1981:192–3 and Table 8; Keeley 1995:261 and Table 9.5; Lourandos 1997:36–7 and Table 2.1.

modern hunter-gatherers have shown that they are well aware of the boundaries of their territories, and so undoubtedly were their prehistoric forerunners. Natural landmarks such as mountains and rivers may have been useful in this respect, but cultural signs such as sacred places and burial fields may have had a similar significance.[49] Ceremonies, initiation rites, and group meetings add to the expression of the rights of exclusive use of a territory. The degree to which boundaries were defined and, if necessary, protected may have varied in response to variations in resource densities and population size, and groups may have trespassed on another group's land only during times of excessive drought, depletion of game, or other catastrophes.[50]

The Geometric Kebarans are likely to have exploited their territories on the basis of immediate returns: they probably gathered the required food products in the surroundings of their camps on a daily basis and for immediate consumption. An ethic of sharing food and other goods may have been actively encouraged in a fashion similar to that of many modern hunter-gatherer societies. Sharing has little or nothing to do with sentiments or generosity; instead, sharing is a banking strategy that brings security as it entitles people to a portion of someone else's catch in a time of resource scarcity.[51] Such a strategy also facilitates an approximately even distribution of food among *all* members of the community, tying the group together strongly. However, theory and practice are not always the same: although sets of social rules and sanctions against individual accumulation of surpluses try to maintain the sharing ethic, people often find ways to avoid its demands or to limit it to the family level; there probably never was a fully egalitarian society.[52]

In the Natufian era, food collection took place in the context of delayed-return rather than immediate-return economies, employing a range of strategies based on logistical mobility. There were long-lasting settlements at favored sites from which small task groups probably made forays of several days or weeks, searching for food for much larger groups. There are indications of storage, a growing dependence on the procurement of food in bulk, and the accumulation of surpluses in anticipation of future, seasonal resource shortages.

Although strategies of mobility depend on environmental factors, social and ritual considerations are equally important. Mobility is a social affair, part of what has been termed the "appropriation" or "enculturation" of the landscape: migratory routes may receive physical marks of recognition, the location of settlement may be given ritual significance, and mountains and rivers may enter the cosmological world. The distinction between the practical, economic use of the landscape and its social, ritual use is largely a modern, western

[49] A modern example is supplied by tombs of tribal leaders in the Sinai that are both boundary markers and places of annual public gatherings. See Marx 1977 quoted in Bar-Yosef 1997:179.
[50] See Silberbauer 1981:191, 194; Kelly 1995; Hitchcock and Bartram 1998; Lee 1979:350–1, 355.
[51] Gould 1980:85–7; Kent 1989:7; Kelly 1995:161ff.
[52] Kent 1992; Kelly 1995:165–8; Whittle 1996.

perception. A vast body of ethnographic evidence reveals that daily life in hunter-gatherer societies is wholly embedded within a broad framework of cosmology, mythology, and associated symbolism and ritual. Extensive knowledge of the landscape and its resources is critical in order to have alternatives in case an expected resource is not available; it requires total memorization, which is maintained and passed on from generation to generation through often elaborate ceremonies and initiation rites and many years of intermittent training. The symbolic and ancestral significance often given to landmarks such as rivers, forests, and mountains may emphasize principles of belief, but it may also serve to support more mundane aims, as a means of communication, icon of power, or claim of ownership. Order and meaning are brought to the natural world and the role of people in it.[53] Although there is as yet little or no proof in the archaeological data base that any of the above considerations were of importance to the late glacial foragers in Syria, reasoning on the basis of the modern ethnographic record suggests that the option is, at least, not unlikely.

There has been much speculation on the degree of complexity of the Natufian communities. The greater permanence of settlement, the intensification of food collecting, and (in the southern Levant) the occurrence of objects of art and complex burial customs have all been taken as evidence of an increasing elaboration of society in the thirteenth to twelfth millennia BC and afterwards – a development that turned people, in the words of one famous archaeologist in the 1940s, into "active partners with nature instead of parasites on nature."[54] The distinction is phrased differently today, but it still is of considerable significance in modern archaeology. However, we would infinitely discredit the Kebaran ancestors if we downplayed the sophistication of their society and described them as people with little or no cultural baggage. The main point is that, although scatters of flint are often the sole remnants of life many thousands of years ago, the late glacial foragers were knowledgeable and flexible, shared social values and goals, had ethics and principles of belief, and practiced ritual and ceremony.

[53] Kent 1989; Kent and Vierich 1989; Gould 1980:84; Kelly 1995:150–1; Ingold 1986, 1993; Hodder 1982; Tilley 1982; Zvelebil 1997.
[54] Childe 1942:55.

3

A CHANGING PERSPECTIVE: NEOLITHIC BEGINNINGS

Between *c.* 10,600 and 9200 BC, there was an episode of worldwide cooling known as the Younger Dryas. In this period, the average annual temperature is likely to have fallen as much as 10°C below present-day levels, and the glaciers in the highlands advanced once again, with the snow line some 1200 m or more below its present elevation. The return of the cold and a reduction of precipitation led to an increasing aridity and a dramatic retreat of the forest and forest-steppe ecotone. Syria became a cold and dry environment largely composed of a barren steppe dominated by grasses and shrublets like wormwood, with drought-resistant pistachio and terebinth trees clinging to the banks of local wadis.

The gradual amelioration of the climate in the late tenth millennium BC led to warmer and wetter conditions, and the forest expanded out of its temperate refuges. Although conditions fluctuated through time, a period moister than the present day was under way, including a summer rainy season. The melting of the ice sheets in the highlands and the increase of run-off water led to the rise of the Mediterranean sea level by at least 30 m, causing the inundation of large parts of the coast over a width of 2–40 km. After rising and subsiding for several millennia, the extensive lake in the Damascus basin finally contracted and divided itself into its present remnants – lakes Hijane and Ateibe. Considerable sedimentation and aggradation took place in the valleys of the Euphrates and its tributaries, where marshes and ponds were now common. While the present-day level of the Euphrates fluctuates from low water in late summer to as much as 6 m higher in spring, more episodic, turbulent floodings were a recurrent feature in antiquity. The valley floor was in the steady process of reworking, and the river and its associated subchannels meandered back and forth across the alluvial plain as tributary wadis deposited alluvial fans on the flood plain.[1] In this period, the vegetation along the Euphrates and other perennial streams was much more abundant and varied than today, with dense reed marshes and forests of poplar, willow, tamarisk, ash, elm, plane, and alder.[2] The ample presence of water, food, and shelter attracted a wide variety of

[1] Van Liere 1960–1; Niklewski and Van Zeist 1970; Bottema and Van Zeist 1981:118; Moore and Hillman 1992; Moore *et al.* 2000:73ff; Courty 1994; Sanlaville 1996.
[2] See for example Jammous and Stordeur 1996; Stordeur *et al.* 1997; Wilkinson 1999.

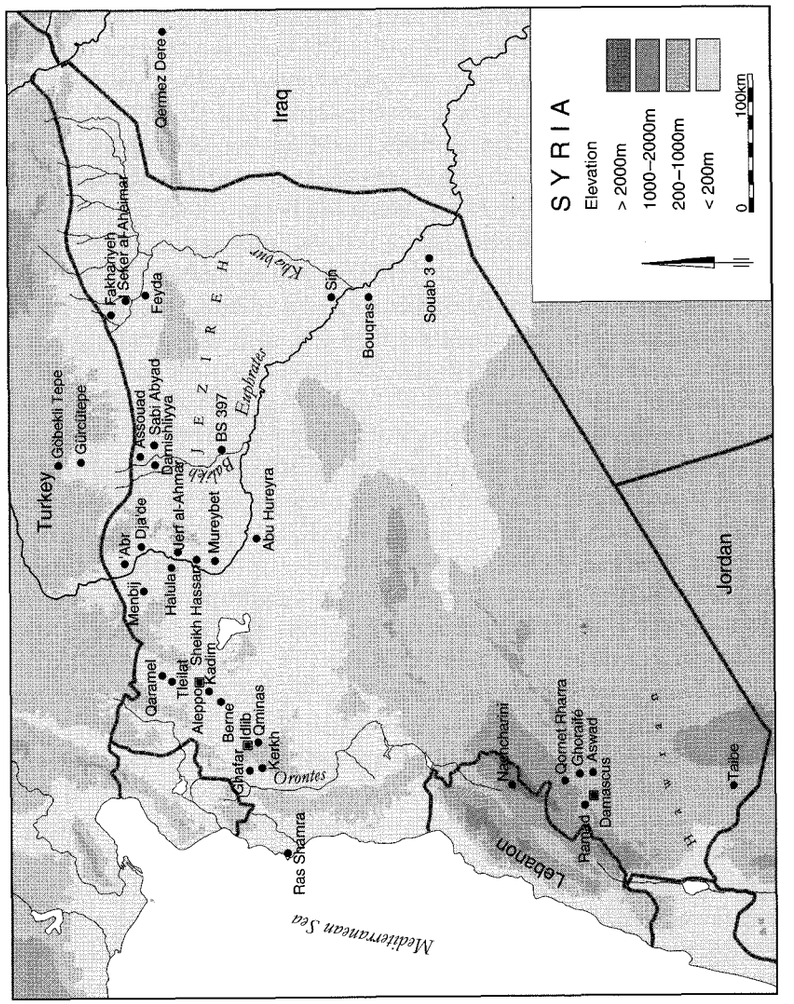

Fig. 3.1 Syria in the early Neolithic, *c.* 10,000–6800 BC. Location of the principal sites discussed in chapter 3.

Calibrated dates BC	Periodization	Damascene, Jordan valley	Western Syria	Middle Euphrates	Balikh	Upper Khabur	Southeast Anatolia
6500	Early PN, Final PPNB	'Ain Ghazal, Ramad III	Amuq A sites el-Kerkh 6 - 1 Ras Shamra VB	Bouqras 7 - 1	Sabi Abyad 11	Fakhariyeh,	
6800				Abu Hureyra IIC	Damishliyya 3 - 7		
7000	Late PPNB	Ramad I – II, 'Ain Ghazal, Ghoraifé II	Ras Shamra VC el-Kerkh 12 - 7	Bouqras 11-8, Halula, Abu Hureyra IIB	Assouad Sabi Abyad II	Feyda, Seker al-Aheimar	Gürcütepe
7500		Ghoraifé I, 'Ain Ghazal, Jericho, Aswad II		Halula, Abu Hureyra IIA, Mureybet IVB			
8000	Middle PPNB						
8500	Early PPNB	Jericho, Aswad IB		Dja'de Mureybet IVA	BS 397		Cayönü, Nevali Cori, Göbekli Tepe
9000	PPNA	Aswad IA Jericho	Qaramel	Sheikh Hassan, Jerf al-Ahmar, Mureybet III, 'Abr			
10,000	Khiamian		Nachcharini	Mureybet IB - II			
10,500	Late Natufian	Taibe	Cerada, Jayrud, Qornet Rharra, Nachcharini	Mureybet IA Abu Hureyra I		Khazna, 'Ain Mrer	

Fig. 3.2 Early Neolithic chronology.

animals, including aurochs, wild boar, fallow deer, and many smaller mammals and birds.

While the western portions of Syria were largely open forest or savannah-like environments, east of the Euphrates was the endless dry steppe of the Jezireh – the natural habitat of grasses and shrubs like wormwood (*Artemisia herba-alba*), yarrow (*Achillea conferta*), and sedge (*Carex stenophylla*), and of large animals such as onager and gazelle. In this region, patches of pistachio woodland probably existed along low wadi terraces, whereas more extensive forests of oak, pistachio, and wild olive grew on the flanks of the mountains of the Jebel 'Abd al-Aziz. Similar forests stood on the flanks of ranges such as the Jebel Ansariyah and the Anti-Lebanon in the west. Pine was found on the lower slopes, oak and cedar occurred higher up, and juniper grew on the high plateaus of the ranges of Lebanon and Anti-Lebanon up to 2800 m.

These were very diverse environments, wholly different from the degraded and disturbed landscapes of today. In the early tenth millennium BC, they were occupied and exploited by many small groups of people who subsisted on hunting and gathering, as they had in the ages before. Foraging usually proceeded on a day-to-day basis, and mobility dictated the organization of society. But as we saw in chapter 2, at least some of the Epipalaeolithic groups were already engaged in a more intensive exploitation of plants and animals and had chosen to settle down in selected areas for long periods of time. The elaboration of this process took place in the period known as the "Neolithic" (or New Stone Age), which began in Syria *c.* 10,000 BC and lasted until *c.* 5300 BC. This chapter concerns the early portion of that time span, which has been divided into two phases ever since Kathleen Kenyon's excavations at Jericho in Palestine in the 1950s: the Pre-Pottery Neolithic A (henceforth PPNA; *c.* 10,000–8700 BC) and Pre-Pottery Neolithic B (PPNB; *c.* 8700–6800 BC). Although the Neolithic is a nineteenth-century concept of European prehistory associated with the presence of pottery, Kenyon's discovery of assemblages having all of the original characteristics of the Neolithic but *without* ceramics led her to add the adjective "Pre-Pottery." Other terminologies have been offered over the decades, but these have received only restricted acceptance.

Until recently, the beginning of the Neolithic was thought to occur with the inception of village farming. We are now aware, however, that sedentary village life began several millennia before the end of the late glacial period, and the full-scale adoption of agriculture and stock rearing occurred much later, in the late ninth and eighth millennia BC. It is now evident that agriculture was not a necessary prerequisite of sedentary life, nor were sedentary settlers always farmers. Communities in the early centuries of the Neolithic period had much in common with their Epipalaeolithic forebears, but the slow transformation of the foraging society into a Neolithic world of agriculturalists and herdsmen was associated with the creation of a new set of social and economic values centering around the house, the dead buried in and around the house,

and the production and storage of staples. Cereal cultivation and stock breeding entailed notions of seasonal reproduction and human control over it, the taming of the wild, and the definition of territory and property, whether in the form of land containing vital food resources or in the form of storable products.

The change in attitude was also expressed in the care and effort given to the house in terms of construction, maintenance, use, elaboration, and replacement. The buildings in the earliest villages generally were circular, semi-subterranean, and single-roomed; they gradually evolved into oval or rectangular, multi-chambered structures with specialized rooms and differentiation between buildings. Walls and floors were plastered and sometimes painted, requiring a considerable investment of effort both in preparation and in maintenance. Hearths and other domestic installations were brought inside the buildings and functioned as the focal points of daily meeting and social contact. Houses were frequently rebuilt in the same place and on the same alignment, suggestive of an attachment to place and a concern with the past and perpetuating occupational rights.

Also emphasizing identity and memory were the figurines, cult installations, and burials situated in and around the houses. Such features were used for the benefit of the family that used the house as a place of ritual and ceremony as well as shelter. In short, the many settlement mounds of this period in Syria and adjacent regions can be taken to represent the new society that came into being in the Neolithic, since they show sustained settlement at selected places, a diverse material culture, an exploration of new materials and techniques, the development of the farming economy, and the rise of a new spiritual order.

The areas of settlement

Syria in the Neolithic was a relatively "empty" world. Mobility was retained in various degrees, and the density of population in most, if not all, regions was very low. With a few exceptions, settlements were small and dispersed, and vast areas experienced little or no exploitation by human populations.[3] At the end of the glacial period, some regions had become totally empty, such as the extensive desert in the heart of the country, apparently unaffected by the increasing humidity experienced elsewhere at the onset of the Holocene in the tenth millennium BC.[4]

Already exploited intermittently in the Natufian period, the region around Damascus was inhabited by Neolithic people from the ninth millennium BC onwards. The earliest documented occupation is attested at Tell Aswad, where a community began *c.* 9000 BC and grew into a substantial village covering 5 ha

[3] See for example Kuijt 2000 for an opposing view. However, his arguments are nearly exclusively based on the handful of very large settlements rather than on the pattern of settlement as a whole.
[4] Besançon *et al.* 1997:18.

within 1500 years. Early villages have also been found at Ghoraifé, Ramad, and Tell Aatné, while more ephemeral occupations of uncertain date occur in the plain of Sahl es-Sahra in the foothills of the Anti-Lebanon, at the rock shelter of Qornet Rharra in the Sahl Seidnaya, at Nachcharini cave high in the Anti-Lebanon mountains, at Neba'a Barada near the spring of the Barada river, and at Taibe in the Hawran. Although excavations have been carried out at some of the larger mounds in the Damascene, they were very limited in extent.[5]

Neolithic settlement along the Mediterranean littoral is known primarily from the small soundings at Ras Shamra, but the presence of many more sites in the region might be predicted on the basis of the surveys carried out farther south in Lebanon.[6] Reconnaissance in the Qoueiq area north of Aleppo and in the Menbij region has located a few very early Neolithic sites, such as Tell Qaramel and perhaps nearby tells Tleilat, Kadim, and Berne. More numerous are sites from later stages of the Neolithic, such as Qminas, Tell el-Kerkh 2, and Tell el-Ghafar in the Rouj basin near Idlib.[7]

Moving to the northeast, we find at least fifteen Pre-Pottery Neolithic settlements in the Euphrates valley. Many more occupations may have been present in this vast basin thousands of square kilometers in size, but they may no longer be extant because of the erosional effects of the meandering river or the steady aggradation of fine sediments washed from the slopes of the plateau.[8] In this region, most sites have been found on the higher river terraces in the area now inundated by the artificial Lake Assad. The stretch of the valley downstream from modern Tabqa seems to contain only a handful of sites at considerable distances from each other, such as Bouqras, Tell es-Sin, and Tell es-Souab 3; the Tishrin region near the Syro-Turkish border also has two or three sites of this period.[9] The settlements were not all occupied simultaneously. Some began very early in the Neolithic sequence, or even before, and had very long sequences, as at Mureybet (fig. 3.3). Others were occupied at a much later time and sometimes manifested short-lived occupations, as indicated by the scatters of flint reported in the vicinity of Abu Hureyra. Although most sites were small, a few sizeable settlements have been noted, like Abu Hureyra (12 ha) and Tell Halula (7 ha), although they were not always inhabited in their entirety.

Another area of sustained occupation was the basin of the Balikh, one of the two perennial rivers bisecting the expanse of steppic landscape east of the Euphrates. The perennial flow of this minor tributary of the Euphrates attracted settlement from an early age. Although the area has a barren appearance in the

[5] Van Liere and de Contenson 1963; Contenson 1985, 1995; M.-C. Cauvin *et al.* 1982.
[6] Contenson 1992; Cauvin 1968:215–319.
[7] The sites may date from either the late eighth or the seventh millennium BC, the latter perhaps more likely in view of the common occurrence of early ceramics. See Matthers, ed., 1981; Sanlaville, ed., 1985; Masuda and Sha'ath 1983; Iwasaki *et al.* 1995.
[8] Cf. Wilkinson 1999; Akkermans 1999.
[9] See the surveys reports: Van Loon 1967; Kohlmeyer 1984; Copeland 1985; Moore 1985b; Geyer and Monchambert 1987.

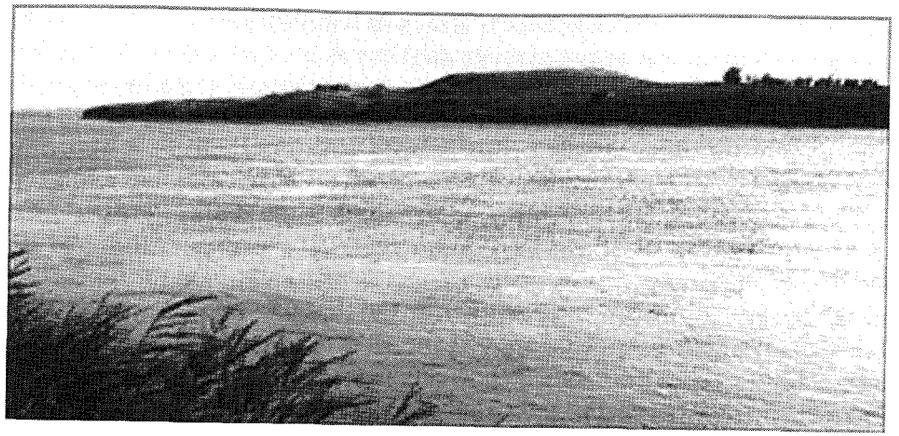

Fig. 3.3 The Neolithic mound of Mureybet on the Euphrates.

present day, it was characterized in antiquity by a highly diffuse river pattern dividing the river water into numerous channels, creating riverine forests and marshy areas. The valley might even be thought of as an oasis in the midst of the steppe. In this region, field reconnaissances have revealed more than twenty small settlement mounds in an area about 100 km long and 5 km wide, most of them situated along the river and its side channels or at the confluences of seasonal wadis. Some of the Balikh sites appear to have served as seasonal hunter-gatherer stations or as lookouts for hunting, but most contain evidence of continuous occupation for long periods, up to 500 years or more. Indeed, sites like tells Assouad, Damishliyya, and Sabi Abyad II attained heights of 6 m by 7000 BC, and subsequent occupation in the late Neolithic added considerably to the size of some mounds. Excavations indicate that these were mainly small villages and hamlets occupied by a few dozen people at the most, although larger settlements were also extant.[10]

The evidence for Pre-Pottery Neolithic occupation in the plains of the Jezireh in northeastern Syria is still remarkably poor. Research in the upper Khabur drainage has yielded only three or four settlements, and excavations at two of them – Tell Fakhariyah and Tell Feyda – have failed to produce any settlement plans. However, investigations recently begun at the extensive cluster of prehistoric sites at Tell Seker al-Aheimar near the modern town of Tell Tamer have already revealed U-shaped ovens and gypsum-plastered floors associated with vessels made of stone and plaster. More ephemeral seems to have been occupation at Khazna I, a small cave on the north side of the Jebel 'Abd al-Aziz, with backed bladelets, burins, and other lithics of the late eighth or early

[10] Akkermans 1989a, 1993.

seventh millennium BC.[11] In the lower, more arid part of the Khabur river valley, no sites of the period have been identified.

It remains to be seen whether the current pattern of site distribution is representative of the degree of early Neolithic occupation in the region. Prehistoric sites may have been deeply buried underneath many of the large Bronze Age settlements or underneath alluvial deposits and sediments carried in by man-made irrigation canals. There is evidence of a steady aggradation of the landscape in the Khabur region, and in many other parts of Syria, which sometimes covered the prehistoric sites with meters of sediment.[12]

The time of settlement

Settling down was a very gradual process that began in different regions at different times. On the Euphrates, the first steps were taken by the Natufian groups in the twelfth millennium BC. Other areas followed suit thousands of years later. For a very long time, sedentism seems to have appealed only to a small number of people. The new villages remained isolated occurrences in a world still dominated by small, mobile forager communities. But by 7500 BC, the proliferation of Neolithic villages and hamlets brought change to the pattern and character of occupation on an unprecedented scale.

Beginnings: the Pre-Pottery Neolithic A, c. 10,000–8700 BC

Evidence for settlement in the earliest stage of the Neolithic – the Pre-Pottery Neolithic A (PPNA) – is limited to a handful of sites. On the east bank of the Euphrates were Mureybet, Sheikh Hassan, Jerf al-Ahmar, and the recently discovered Tell al-'Abr, small occupations on terraces at the edge of the flood plain. To the west was Tell Qaramel, a high mound on the bank of the River Qoueiq north of Aleppo, and Tell Aswad, near Damascus, on the marshy shore of ancient Lake Ateibe. So-called al-Khiam points (notched-base arrowheads) and other lithic material of early PPNA type have also been reported at the surface of Tell Chehab in the Palmyrene foothills east of Homs and in the soundings at Nachcharini cave high in the Anti-Lebanon, west of Yabrud just inside the Lebanese border.[13] Layers of sediment with hearths and ash-filled pits at Nachcharini almost certainly derive from small groups of hunter-gatherers who camped at the site seasonally. The other sites were open-air occupations in favorable parts of the lowlands with abundant water and other resources.

[11] Nishiaki 1992, 2000a, 2001b; Hole 1994, 2000.

[12] See for more details for example Hole 1994, 2000; Wilkinson 1999; Akkermans 1999. The scale and intensity of archaeological fieldwork is also important. So far, considerable parts of Syria have been hardly or not investigated or in a selective manner only, with surveys limited to sites that are clearly visible or located within easily accessible lands.

[13] See Copeland 1991.

Although they had long sequences, it is doubtful that settlement was always continuous at these sites. The evidence suggests periodic abandonment, as at Jerf el-Ahmar, where successive occupations alternated with sterile layers and settlement shifted from one area to another. The absence of architecture in some strata at Mureybet also may have been due to relocations within the settlement. It is likely that the people using these sites remained mobile to a significant extent.

Although excavations were very limited in extent, Mureybet is the classic example of the development of settlement in the Neolithic.[14] Its sequence of occupation starts in the late Natufian period and continues for much of the Neolithic. The Neolithic occupation is thought to have begun with levels IB and II, *c.* 10,000–9500 BC, founded partly on the lower, Natufian, level IA, and partly on virgin soil. However, there is no significant break in the stratigraphy or in the material culture. Although a new element in level IB was the so-called al-Khiam point, a simple arrowhead with bilateral notches and a retouched base, the assemblage remained largely the same as in the Natufian layer.[15] Levels IB–II were characterized by round or oval huts, sometimes semi-subterranean, measuring 2.7–4 m across, and built of *pisé* (packed mud) with a foundation of boulders and disused querns and mortars. Floors were made of a layer of trodden, reddish clay, or of flattened boulders and pebbles set in clay. Although the buildings contained no hearths, circular fire-pits lined with stone and mud were found in the courtyards surrounding them. Gravelled paths facilitated passage through the settlement. Ritual meaning should probably be attributed to the horn cores of an aurochs and the shoulder blades of two additional wild cattle and one wild ass, embedded in a low bench in one of the buildings.

The next phase, Mureybet III, *c.* 9500–8700 BC, resembles the lower occupation in many ways, but some of its buildings shared walls and formed larger agglomerations, in contrast to the earlier discrete houses. Also new was the interior division of the round buildings into smaller compartments for living, cooking, and storage. The best example is house XLVII, about 6 m in diameter, which had a raised "sleeping platform" opposite the entrance and a pathway in the center flanked by three smaller compartments, one of which had a hearth (fig. 3.4). Deposited along the wall of the corridor together with flint and bone implements were the remains of apparent wooden containers or benches. The building had a flat roof simply made of mud on poplar poles, resting on a

[14] See Van Loon 1968; Cauvin 1972a, 1974a, 1979, 1980.

[15] The al-Khiam points (named after the cave of Al Khiam near the Dead Sea) are part of a lithic industry which for the rest mainly consists of backed bladelets and microlith trapezes-rectangles and lunates. The points serve as a chronological type fossil; they mark the period often referred to in the culture-historical terminology as the "Khiamian." The Khiamian has long been seen as the final stage of the Natufian but it is now considered to be intermediate between the late Natufian and the PPNA. Khiamian assemblages are mainly known from sites in the southern Levant. Mureybet is the northernmost Khiamian occurrence so far. See Bar-Yosef 1981; Bar-Yosef and Belfer-Cohen 1992:33–4; Cauvin 1994.

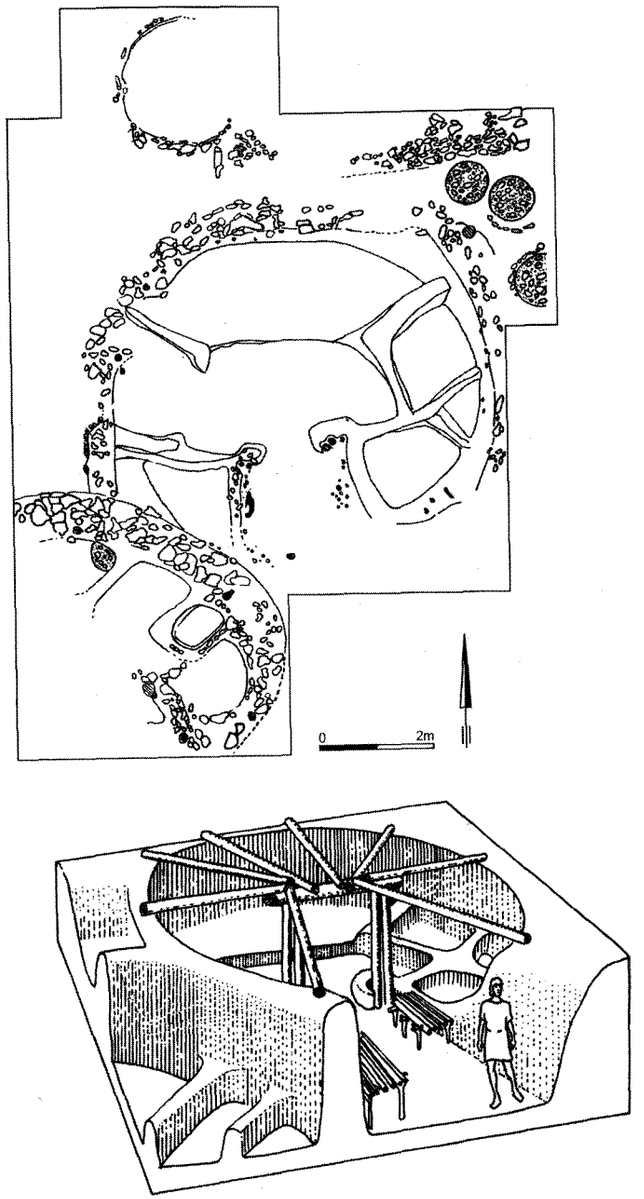

Fig. 3.4 Mureybet III: plan and reconstruction of building XLVII.

series of wooden posts.[16] Two other, much smaller, buildings yielded evidence of wall paintings – the earliest known wall decoration in the Near East. The best preserved painting consists of horizontal rows of chevrons in black and (possibly) red upon the whitish wall plaster. One of these buildings also contained a single human cranium and some long bones underneath an oven, whereas parts of another incomplete skeleton were found in a pit outside.

At the end of phase III, *c.* 9000 BC, a gradual change in house form can be observed at Mureybet. The round or oval buildings were slowly replaced by rectangular structures composed of several small rooms. Walls were built of disused querns and soft limestone cut in loaf-shaped pieces, covered on all sides with red clay mortar and strengthened with wooden poles. One small, square building measuring 3.5 by 3.5 m had been divided into four rooms 1.5 by 1.5 m that were paved with limestone flags. Since no doorways were found at floor level, the rooms must have been accessible from the roof or through an opening high in the wall. One room contained a storage bin, another a sunken hearth with the jaw of a large carnivore embedded in the wall next to it; the horns of wild cattle were used in a similar manner in other buildings. At the onset of the final phase IV, *c.* 8700 BC (marking the beginning of the PPNB period), people at Mureybet had wholly turned to the use of rectangular buildings made of *pisé* and consisting of several small rooms. There were a few primary inhumations below house floors as well as a number of detached human skulls placed on plinths or simply deposited on the floor.

Occupations similar to Mureybet IB–II have not been yet attested at any other site in Syria, but several settlements contemporary or partly contemporary with phase III have been exposed. At Tell Sheikh Hassan, small-scale soundings yielded segments of a rectilinear building with small, cell-like rooms. In a 4 by 4 m trench at Tell Aswad near Damascus, shallow pits associated with fallen mudbricks and reed impressions in clay have been taken as evidence of semi-subterranean huts with a wattle-and-daub superstructure. Excavation at Tell Qaramel north of Aleppo revealed wall fragments and other occupational debris ascribed to the PPNA (Mureybet III) period, although it appears that this earliest occupation was primarily located on the plateau next to the mound, rather than on the mound itself.[17] Another small PPNA settlement was recently discovered near Tell al-'Abr on the Euphrates; while details are yet to be published, results included the exposure of a round house containing a platform ringed with carved upright stone slabs.

Especially significant is the recent large-scale excavation at Jerf al-Ahmar north of Mureybet, revealing a complex sequence of village occupations dated *c.* 9200–8700 BC. The settlement was built over two low natural eminences bisected by a wadi. Occupation began at the eastern mound and included nine

[16] See Cauvin 1979:30, 1994:62; Aurenche 1980, 1982:882–3.
[17] Cauvin 1980; Contenson 1985, 1995; Mazurowski 2000.

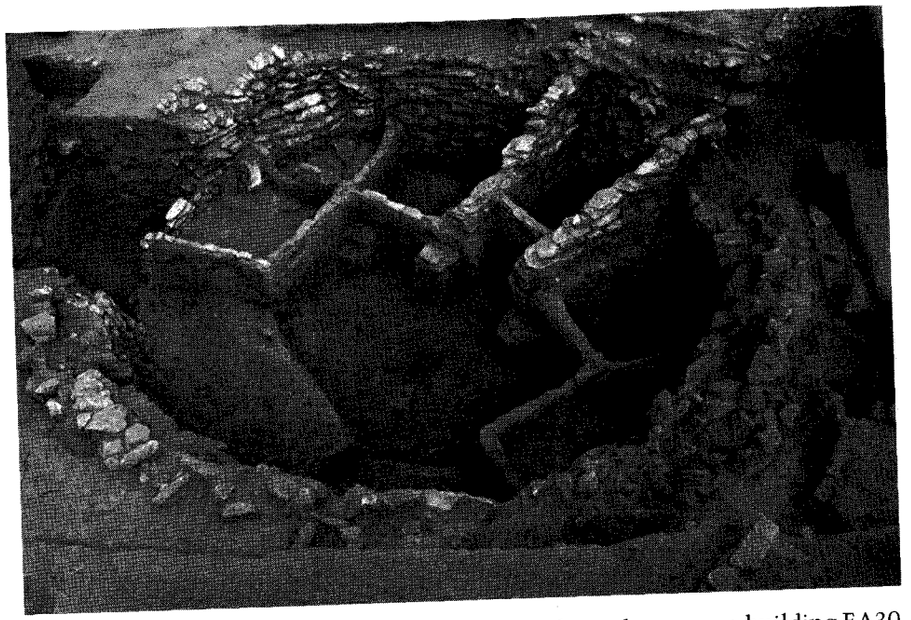

Fig. 3.5 Jerf al-Ahmar, *c.* 9000 BC: the circular, subterranean building EA30 on the western mound.

villages built one on top of the other, spanning a period of *c.* 500 years. At a much later time (perhaps contemporary with the upper level 2 of the eastern site), occupation extended to the western mound, where six building levels have been identified. Part of the settlement on both hillocks was built in terraces, with several semi-subterranean houses located on the slope facing the river. The houses varied widely in shape, from round and oval to elliptical or quasi-rectangular with rounded corners; fully rectangular structures were only noted in the top phase. While many structures were single rooms, others were internally partitioned or progressively enlarged by new rooms added to the earlier ones. Hearths and stone pavements inside indicate that they served as dwellings. The buildings in the later levels often stood together in groups of four or five, and shared a sometimes stone-paved courtyard with large, dug-in hearths and storage pits, where people prepared their food together.

Astonishing were the discoveries in level 2 on the western mound, where about ten multi-roomed houses, some oval and some rectangular, stood on an artificial terrace and were arranged in an arc around a large, round, and entirely subterranean building that had been completely burned. This building (EA30; fig. 3.5), clearly reminiscent of house XLVII at Mureybet, was sunk to a depth of 2.30 m inside a stone-lined trench. Ten wooden poles were embedded in this retaining wall to support the flat roof, made of a wooden framework covered by earth. The interior had been subdivided into six small rooms and two elevated

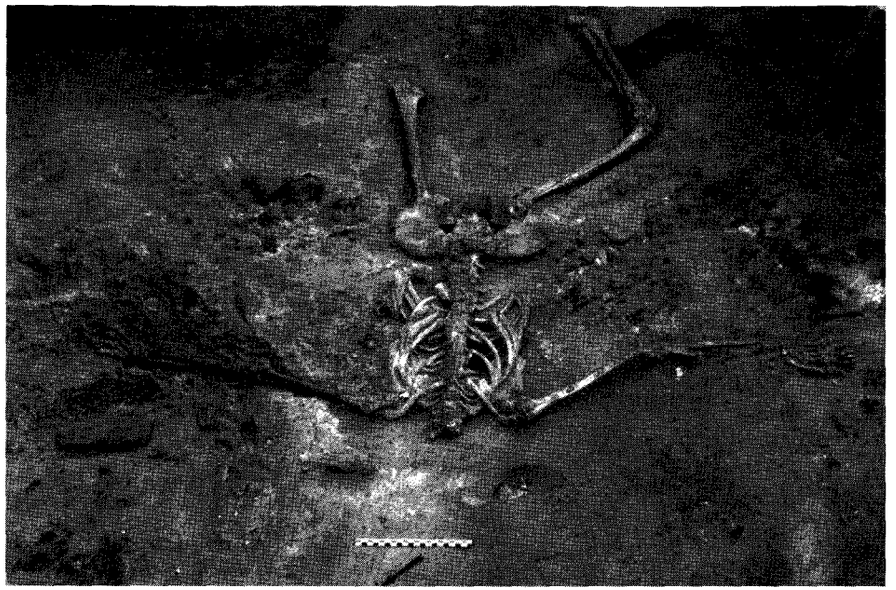

Fig. 3.6 Decapitated skeleton found in the main room of the subterranean building EA30 at Jerf al-Ahmar.

benches. In one of the corners lay a single human skull, while a decapitated human skeleton was found in the central room of the building (fig. 3.6). On the eastern mound, a similar round and wholly subterranean structure was found at the edge of the level 1 settlement. A foundation deposit consisting of two human skulls occurred at the base of a hole into which one of the roof pillars of the structure had been sunk. Perhaps even more spectacular were two other such buildings, although constructed in a different manner, which have been identified in the upper level on both the eastern and western mounds, at the interface of the PPNA and the PPNB periods. The building EA53 on the eastern site is 8 m across and sunk to a depth of about 2 m (fig. 3.7). In this structure, a stone retaining wall set against the side of the pit contained over thirty wooden poles and was thickly mud-plastered. Traces of color suggest that the plaster had been painted. In contrast to the earlier subterranean structures, the interior of this building was not subdivided but was embellished by a bench about 1 m wide set against the retaining wall in the form of an equilateral hexagon, perfectly in harmony with the circular layout of the building (fig. 3.8). A wooden pillar for roof support stood at each angle of the hexagon. The vertical side of the bench had been coated with large polished stone slabs set on edge and decorated over the entire length by a continuous frieze of engraved triangles and, to a lesser extent, undulating or broken lines. Although details are still awaited, such a decorated bench apparently also occurred in the second building of this type on

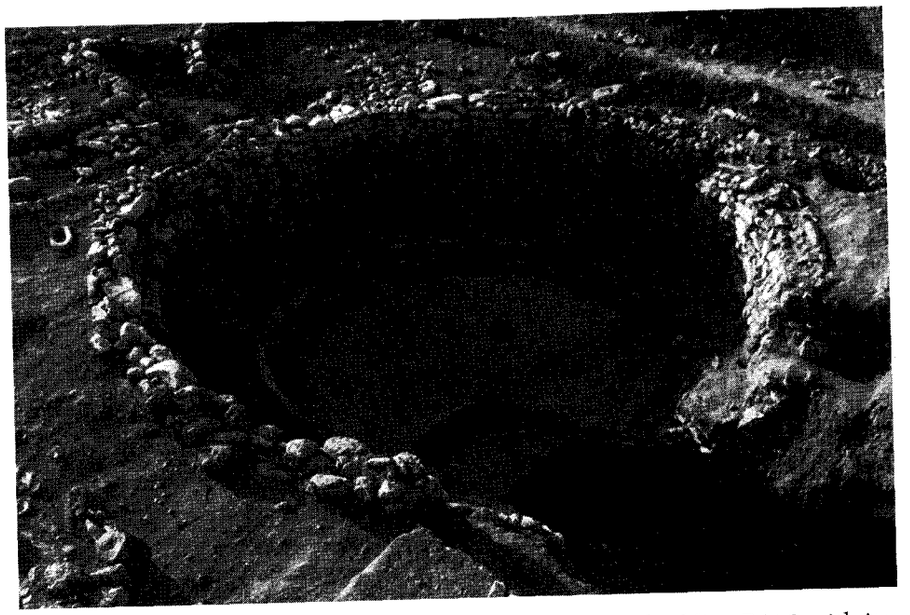

Fig. 3.7 Jerf al-Ahmar, *c.* 8700 BC: the subterranean building EA53 with its bench embellished by engraved stones. The vertical hollows in the circular stone retaining wall originally carried wooden poles for roof support.

the western mound, with the frieze of triangles embellished by human figures and apparent birds of prey on stones and stelae placed transversely to the bench cover.

There can be little doubt that these buildings were of importance in community meetings and ceremony, where the villagers came together regularly and sat on the long benches along the walls. However, ritual was probably not confined only to large structures such as these that were built for the benefit of the entire village. A small round house 4 m in diameter found in level 3 on the eastern site contained the horns and the upper parts of the skulls of three aurochses, as well as the complete skull of another one. Associated with one of the crania was a necklace of sun-dried clay beads strung to either side of a limestone pendant. It is not unlikely that the skulls had been hanging on the wall of the building. While a small fireplace surrounded by pounders and other stone tools suggests that this building was an ordinary dwelling, it must have been invested with considerable ritual meaning for its inhabitants.[18]

The size of the earliest Neolithic occupations is still speculative. Nachcharini cave was slightly larger than 100 sq. m, while Mureybet is said to have covered 1 or 2 ha at about 9000 BC, with numerous small buildings. However, the

[18] Jammous and Stordeur 1996; Stordeur *et al.* 1997, 2000; Stordeur 1998, 1999, 2000.

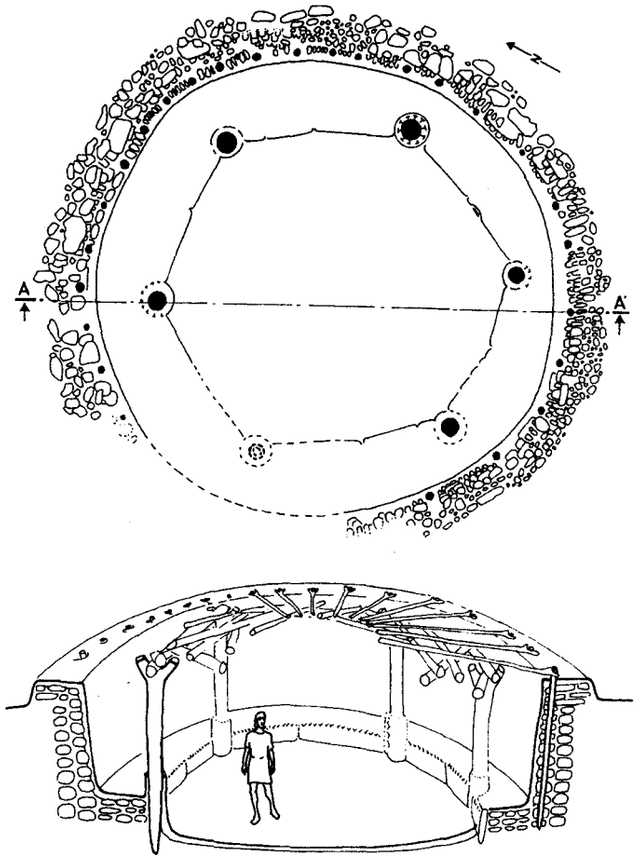

Fig. 3.8 Plan and reconstruction of building EA53 at Jerf al-Ahmar.

preceding occupation was undoubtedly much smaller.[19] On the basis of the distribution of flints found on the surface, Tell Qaramel is thought to have been a large site of 2–3 ha, but the excavator admits that erosion, plowing, quarrying for building materials, and other post-depositional disturbances may have considerably changed the site's original (small) size. Tell Aswad was a large village in later Neolithic times, perhaps covering about 5 ha, but the earliest occupation was certainly less extensive. Jerf al-Ahmar covered an area less than half a hectare, although the occupation in its two components was not always contemporary. Settlement in the eastern area, where occupation seems to have begun, may have included an area of about 2000 sq. m, allowing for twenty

[19] Mureybet IB–II may perhaps be compared with the hamlet of Nahal Oren on the Mediterranean littoral, which gave evidence of a cluster of thirteen semi-subterranean structures built in rows on four benches of a terraced slope, over an area of about 250 sq. m. However, many more huts may have been present, as the site as a whole probably covers about 1000–2000 sq. m. See Noy *et al.* 1973.

buildings at most. Later settlement in the western area, across the wadi, may have been limited to about 250–350 sq. m, and comprised around ten houses in level 2. It is doubtful that all structures were used for dwelling. Some may have been used for storage or other specialized activities.

The site of Jericho near the Dead Sea is often taken as proof of the existence of large settlements with dense populations in the early ninth millennium BC, since it was supposedly built over an area of 2 or 3 ha and had, according to its excavator, a population as large as 2000–3000 persons. However, this figure is highly exaggerated and probably should be divided by ten at least.[20] Jericho provided evidence for a spectacular kind of architecture not yet rivalled at any other Pre-Pottery Neolithic site (Halula on the Euphrates comes closest, although this site is of a much later date; see below). Excavations in the 1950s revealed parts of a stone wall over 3 m wide, which still stood to a height of about 4 m. Along the outer base of the wall was a ditch 8 m wide, whereas on the inside there stood a large tower about 8 m high and 9 m wide at its base, 7 m at its top. The tower seems to have been a solid construction, except for the well-made staircase which led to its roof. Initially considered to be defense structures (giving Jericho the title of "earliest town in the world"), it has been more recently proposed that the wall served to protect the settlement from incidental flooding and that the tower fulfilled a role in public ceremonial activities.[21] The extraordinary features at Jericho tend to overshadow the architectural evidence for this period, which generally seems to include domestic structures of modest size distributed over restricted areas. It can hardly be doubted that population size per settlement was very limited.

The proliferation of Neolithic society: the Pre-Pottery Neolithic B, c. 8700–6800 BC

In the ninth and, particularly, eighth millennium BC, the Pre-Pottery Neolithic B (PPNB) period, the number of sites increased considerably. We know of many dozens of occupations, and ongoing research brings more to light every year. Although Jerf al-Ahmar was abandoned shortly after *c.* 8700 BC, the other formative settlements on the Euphrates continued for some time. In addition, Dja'de al-Mughara was newly founded around the middle of the ninth millennium, and others followed, such as Tell Halula and Abu Hureyra, the latter reoccupied after a probably long period of abandonment following the Epipalaeolithic occupation. They all manifest a further development of local Neolithic society demonstrated by the shifts in architecture and settlement layout, the development of material culture, the gradual implementation of farming, and the treatment of the dead. This period also saw the establishment of settlements in areas previously avoided or little used, although the overall scarcity of earlier occupations may easily reflect the history and nature of archaeological

[20] Cf. Aurenche 1981a versus Kenyon 1957, 1981. [21] Bar-Yosef 1986.

research. In the Balikh valley, for example, site BS 397 is the single, small representative of the early PPNB, but it cannot have operated in a social or cultural vacuum; the presence of other contemporary occupations in the neighborhood may be supposed.

The later part of the PPNB, after *c.* 7500 BC, is widely considered to be the time of significant population growth, often in association with population movements or colonization, but it might perhaps be better characterized as the age of transformation of indigenous forager groups (with little archaeological visibility) into more sedentary farming communities (with high archaeological visibility). Or, in other words, the growth of the number of settlements may reflect a major shift in the degree of sedentism rather than an increase in the number of people *per se*. We should also take into account the fact that not all sites were always used continuously. Nearly everywhere there were either interruptions in settlement or even complete abandonment. Evidently, these vicissitudes in site occupation have important implications for the regional density of settlement and the size of population. Population movement and colonization as the prime incentives in the distribution of occupation may have been of little or no relevance; where would the people have come from and what need might they have had to travel? No site or region was densely occupied in the preceding millennia. Very large portions of the landscape were practically empty. There was plenty of space everywhere at short distance, even in the neighborhood of sites that *did* grow into major, local population centers in the later PPNB, such as Abu Hureyra.

PPNB occupations varied considerably in size, duration, and layout. Some were very small and "flat" or thin, with a few, scattered arrowheads and other flints often being the sole traces of use. Taibe in the Hawran measured about 100 sq. m. Some of the tiny sites in the vicinity of Abu Hureyra barely covered 250 sq. m. Site BS 397 in the lower Balikh valley was somewhat larger, around 0.4 ha at the most, but the deposits were still shallow, some 50–75 cm deep. These may have been camps briefly used by small hunting parties. The numerous small rock shelters and caves in the Anti-Lebanon, the Jebel ed-Douara and the Jebel 'Abd al-Aziz (such as the eight caves at Douara or the shelters at Qornet Rharra, Nachcharini, and Khazna I) probably served a similar purpose (fig. 3.9). Others were factory sites at which flint was obtained and worked, such as the many localities in the vicinity of the caves near Douara and Palmyra. Soundings at Qminas near Idlib, where lithics and other materials were distributed over an area about 200 m across, revealed a number of circular hearth places up to about 1 m in diameter, as well as pits filled with stones and ashes. A few grinding slabs, stone vessels, and sickle blades are suggestive of farming and a more durable stay, although the site cannot have been used for long.[22]

[22] Moore 1975:56, 1981:447, 1989:624; Wilkinson and Moore 1978; M.-C. Cauvin 1973; Copeland 1991; Akazawa 1978:211; Hole 1994; Masuda and Sha'ath 1983; Nishiaki 2000a. See also Zarins 1989.

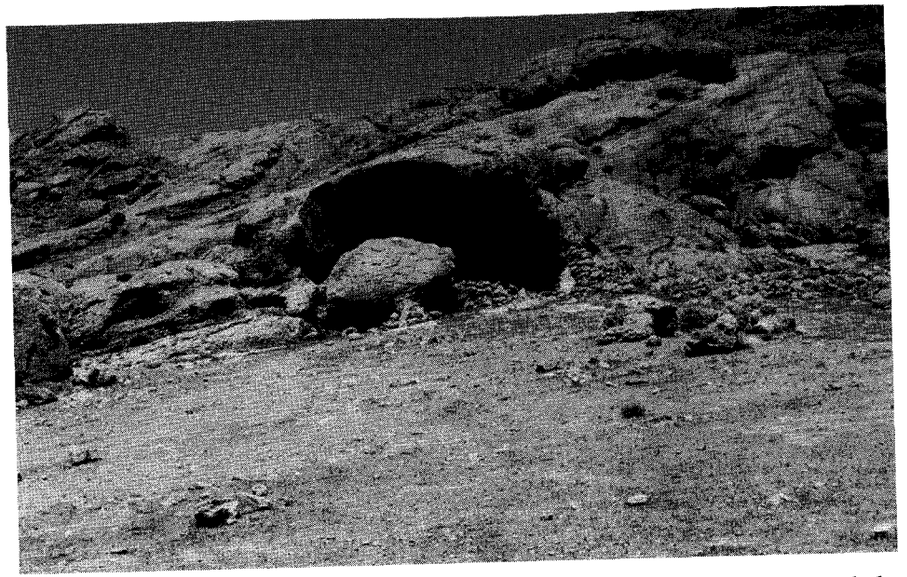

Fig. 3.9 The cave of Douara II, one of the Neolithic camp sites in the Jebel ed-Douara near Palmyra.

Many more sites occur in the form of settlement mounds or tells, with an ordered layout, uniform structures, frequent rebuildings, and repeated occupation over long spans of time. Most mounds were small, in the order of 0.5–1 ha, with the number of inhabitants restricted to a few dozen.[23] There also were a few larger mounds such as Tell Aswad and Ghoraifé near Damascus, each 5 ha in size, and Tell Halula on the middle Euphrates, about 7 ha. Of course, it is not always clear to what extent later occupations contributed to the size of the mounds as we see them today. Bouqras in the (late) Neolithic covered approximately 3 ha and may have had as many as 180 houses; the site is said to have supported 700 to 1000 people. Abu Hureyra assumedly covered an area of almost 12 ha and may have had a population of several thousands. Clearly, some communities were densely populated.[24] But although they are often taken as representative of the Pre-Pottery Neolithic, these large sites were the exception rather than the rule.

[23] See Akkermans 1993:165ff.

[24] See for example Kuijt 2000. Population estimates are usually based on (1) the assumption that population is, on average, proportional to settlement area; and (2) analogy with the size of households in modern traditional communities in the Near East. See for example Adams 1965; Sumner 1972; Hassan 1981; Schacht 1981; Kramer 1982. As a rule of thumb, a number of 200 people per hectare is generally accepted, although studies in Iran have shown that the actual number of people per settlement hectare may vary widely, owing to factors like settlement age and morphology, economic incentives and productive diversity. In regions such as the Kur river basin in Iran, densities ranged from fewer than ten individuals to more than 390 persons per hectare. See Sumner 1972, 1989.

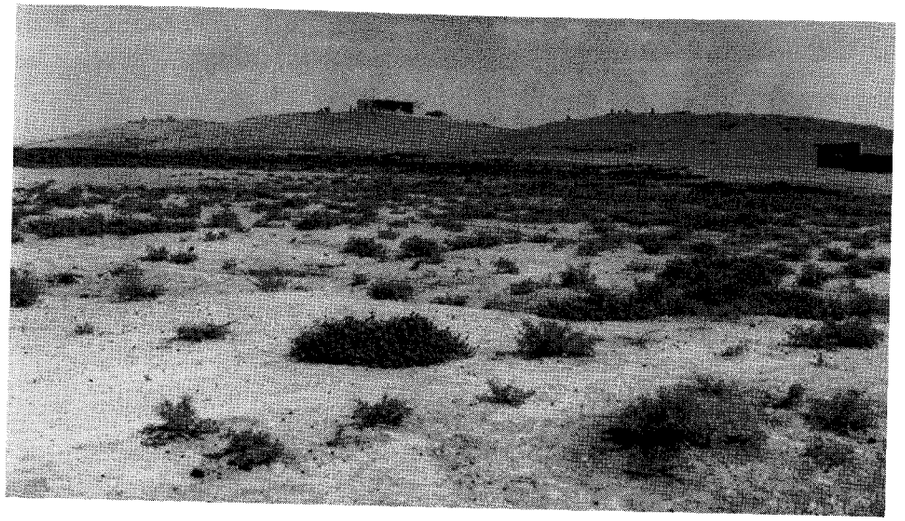

Fig. 3.10 The large Neolithic site of Abu Hureyra on the Euphrates.

Settlements were often isolated in the landscape, located near permanent water sources, but many mounds occur in small clusters of two or more. Examples have been found in the Balikh valley, where the site of Sabi Abyad consists of at least three or four small mounds, at a distance of a few dozen meters from each other. At nearby Tulul Breilat, six mounds formed a circle 500 m in diameter with each of the sites again within a short distance of the others. Continuous use sometimes led to the merging of the separate occupations, resulting in larger agglomerations. People may have used the agglomeration in its entirety, but more often it seems that occupation shifted from one area to another in the course of time. The pairing of settlement may well account for the exceptional size of some sites of this period, such as 12 ha Abu Hureyra (fig. 3.10). At least in part, the clustering must be related to the environment and local resource availability. But it may also reflect social choices. The small single mounds were probably occupied by kin-related groups who passed their property on from generation to generation and distinguished themselves from other families. Any growth of kin relationships would have required new areas of habitation and may ultimately have led to another settlement in the immediate vicinity of the ancestral one.[25]

The nature of settlement layout in the earliest stage of the PPNB is still poorly known. Mureybet IV was excavated over a very small area only, offering some rectangular structures and associated burials. At Dja'de al-Mughara north of Mureybet, *c.* 8100–8000 BC, the prominent features were small, one-roomed

[25] Akkermans 1993:163–5.

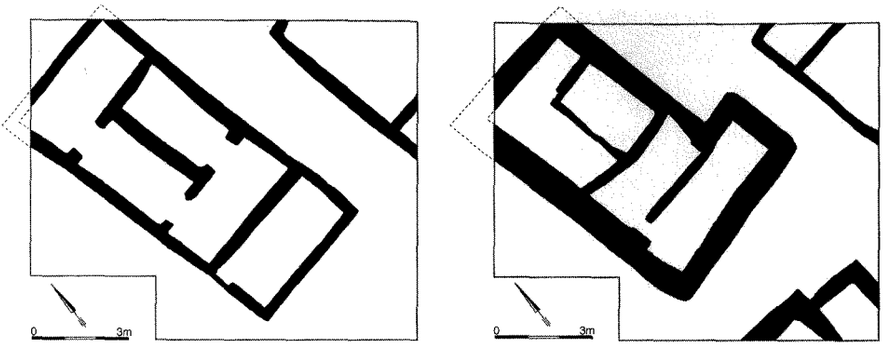

Fig. 3.11 Plan of Neolithic houses at Abu Hureyra.

houses built of *pisé* on a stone foundation.[26] The free-standing rectangular buildings had been repeatedly renewed, suggestive of some permanence of occupation, although there seem to have been less durable shelters as well, attested by numerous postholes. Small storage structures stood in the courtyards. They had a grill-plan foundation, built of low parallel stone walls at close intervals (15–20 cm), probably supporting wooden beams on which the plaster floors were laid. In this way, the floors were elevated and air circulated below, which helped to keep the buildings dry during the rainy winter months. This kind of architecture is unusual in Syria and the Levant but common at sites in the Taurus piedmont in southeastern Anatolia such as Çayönü and Nevali Çori. An extraordinary find was the so-called "House of the Dead," which seems to have been primarily used for burial purposes (see below).

The larger eighth-millennium settlements on the Euphrates are characterized by regularity and order in the pattern of house construction, indicative of the careful planning and organization of occupation. Compartmentalization of the houses is another main characteristic, not only on the Euphrates but elsewhere as well, and may have involved a desire for privacy or the need for space allotted for storage of harvested crops. These were recurrent, long-lasting features. In the lowest levels at Bouqras in eastern Syria were segments of rectangular mudbrick compounds with a large courtyard in one of the corners, surrounded by the L-shaped quarters for living. The rooms often had small ovens or shallow bins sunk in the hard, white-plastered floors, or niches in the walls. A horseshoe-shaped oven is usually found in one of the corners of the courtyard. At Abu Hureyra and Halula, the houses between about 46 and 82 sq. m in area stood tightly together, with small courts and narrow alleys 0.6–1.8 m wide in between. They were built with a single story and were rectangular in plan, although some had additional rooms to make an L-shaped extension or some other rectilinear variant (fig. 3.11). Some buildings were short-lived and

[26] Coqueugniot 1998, 1999.

Fig. 3.12 Remains of house with lime-plastered floor at late eighth-millennium Tell Halula.

were used as quarries for mudbrick after abandonment, but others had been frequently rebuilt in the same place and on the same alignment (up to nine times in one case at Abu Hureyra), suggestive of a long, continuous use of space over many generations by, perhaps, one family. Comprising the buildings were three to five rooms accessible through doorways and narrow portholes with high sills. The central main room measured between 20 and 25 sq. m (side rooms were 4 to 8 sq. m), often including a small rectangular hearth for heating or cooking in the middle. Another oven built of mudbricks stood upon a low rectangular platform against one of the walls. Other common features in the houses were plaster-lined storage bins set against the walls, niches or recesses in the walls themselves, and low platforms at one end of the rooms. The floors were simply finished with a trodden earth surface or carried a hard lime plaster, which also covered the lower parts of the walls; the remainder of the walls had a sometimes white-washed mud coating (fig. 3.12).[27] The production of lime plaster was a major technological innovation in the Neolithic. The process entailed the transformation of limestone into lime through burning, and then, by adding water, into plaster, which, when hardened, had properties akin to concrete. Plaster was primarily used for the manufacture of hard floors that were easy to clean, but it also served a variety of other purposes, such as the molding of domestic installations and the production of sculpture and vessels.

The plaster floors were usually colored black or red by pigments of soot and ochre, or were left plain greyish-white. The surface of the plaster floors was burnished to a shine and was sometimes painted, including an example in the form of a red sunburst on a black background at Abu Hureyra. An area of slightly over 1 sq. m next to the central hearth in one of the late eighth-millennium houses at Tell Halula showed at least twenty-three female figures, varying in size between 14 and 21 cm and painted in red ochre upon the grey plaster (fig. 3.13).[28] Many rooms also seem to have had walls painted with red designs on white, but the evidence is still limited to plaster fragments in building collapse. The rooms with floor plaster were painstakingly kept clean; ashes, food refuse, and other occupational debris were mainly found in the lanes and open spaces in between the buildings.

Halula also supplied evidence of monumental stone constructions, unique in Syria so far, such as the huge retaining wall at least 28 m long and 4 m tall, made of large and carefully laid unhewn boulders (fig. 3.14). The wall, built *c.* 7000 BC or shortly before, bounded an extensive terrace or platform on the eastern edge of the settlement, on top of which stood a large stone-walled building consisting of at least seven long but narrow rooms.[29] These constructions were

[27] P.A. Akkermans *et al.* 1981, 1983; Moore 1975; Moore *et al.* 2000; Molist 1998a.
[28] See Molist 1998b. Painted floors also occur elsewhere, such as at Aşikli Höyük in Turkey, Abu Gosh in Israel, and 'Ain Ghazal in Jordan.
[29] Molist 1998a.

Fig. 3.13 Floor painting in red ochre upon grey plaster, showing female figures. Tell Halula, *c.* 7200–7000 BC.

the result of joint efforts and an organization of labor beyond the reach of an individual or a small group of people; probably, the local community as a whole was involved in works of this scale. Unfortunately we know nothing of the meaning of the terrace. Perhaps it was a focal point of social events or cult practices, but it may also have served more mundane purposes, such as the protection of the steep mound from further erosion.

Excavations at Tell Sabi Abyad II and Tell Damishliyya on the Balikh, dated *c.* 7500–6500 BC, have revealed small occupations less than 0.5 ha in area, dominated by a few mudbrick or *pisé* buildings and relatively large open spaces in between. At first sight, the layout of the settlements seems to have been highly irregular, without any preconceived planning, but this picture is mainly derived from the complex building sequence, with some structures added and others demolished whenever the need arose (figs. 3.15–3.16). At Tell Sabi Abyad II, one building about 7 by 5 m was tripartite in plan with many tiny rooms, accessible through doorways marked by buttresses. Another building consisted of a small courtyard with a number of circular bread ovens or *tannurs*, surrounded in an L-shape by small rectangular or square rooms. The concentration of ovens here and their virtual absence elsewhere in the settlement[30] suggest some sort of communal workshop, where most, if not all, members of the community prepared their food. Other buildings at Tell Sabi Abyad II were more diverse and inconsistent in layout, although each of them seems to have had at least one larger room, probably used for daily living. Although people were small of stature in

[30] Perhaps owing to the use of portable rather than permanent facilities? See Jacobs 1979:188.

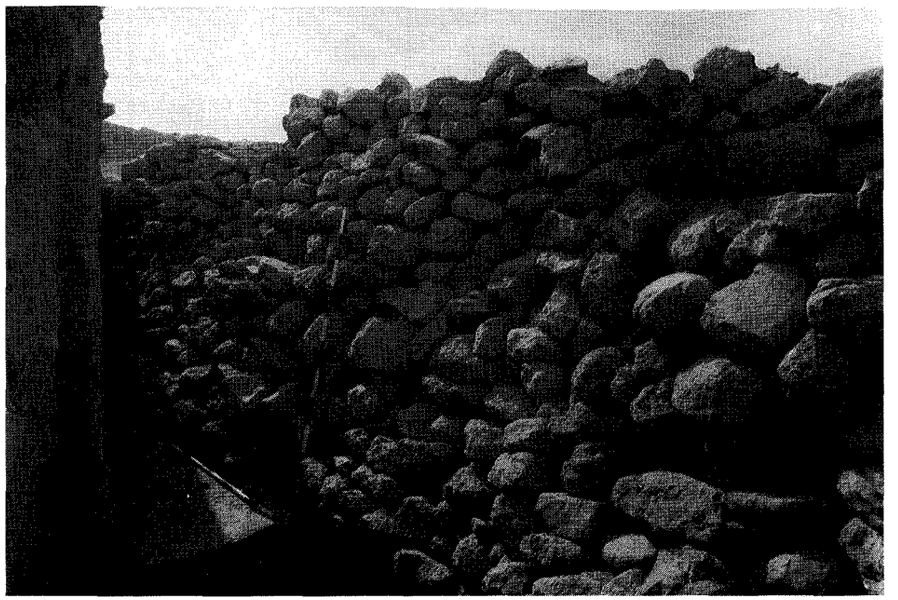

Fig. 3.14 Monumental stone wall at Tell Halula.

this period,[31] many rooms were of such a small size that they cannot have been used for purposes other than storage. The rooms had narrow doorways, sometimes provided with buttresses, low thresholds, or pivot holes, indicating that these entrances were occasionally closed by wooden doors. However, the smallest units had no passages at all at floor level, suggesting that access was either from the roof or from high up in the wall.

A remarkable feature is the large *pisé* platform measuring at least 10 by 7 by 0.6 m and partially lined with gypsum boulders that stood at the northern end of a large open area in the center of the settlement, with the houses encircling this central plaza. A small staircase bounded on either side by *pisé* walls seems to have given access to the platform from the central open area. No architecture appeared on the platform surface, either because it had simply never been there or because it had wholly been eroded. The construction – preparing the *pisé* slabs, bringing in the heavy stones for lining, and the subsequent mud plastering – must have been a time-consuming and labor-intensive enterprise, perhaps including the efforts of the community as a whole. We are still in the dark as to the use of the platform, although it is tempting to assume a public or ritual purpose.[32]

[31] At PPNB Abu Hureyra, the mean female height was about 155 cm and the mean male height about 162 cm, whereas at the roughly contemporaneous site of Jericho the average heights of females and males were 158 and 171 cm, respectively. Cf. Molleson 2000:305.

[32] Verhoeven 1997; Verhoeven and Akkermans, eds., 2000.

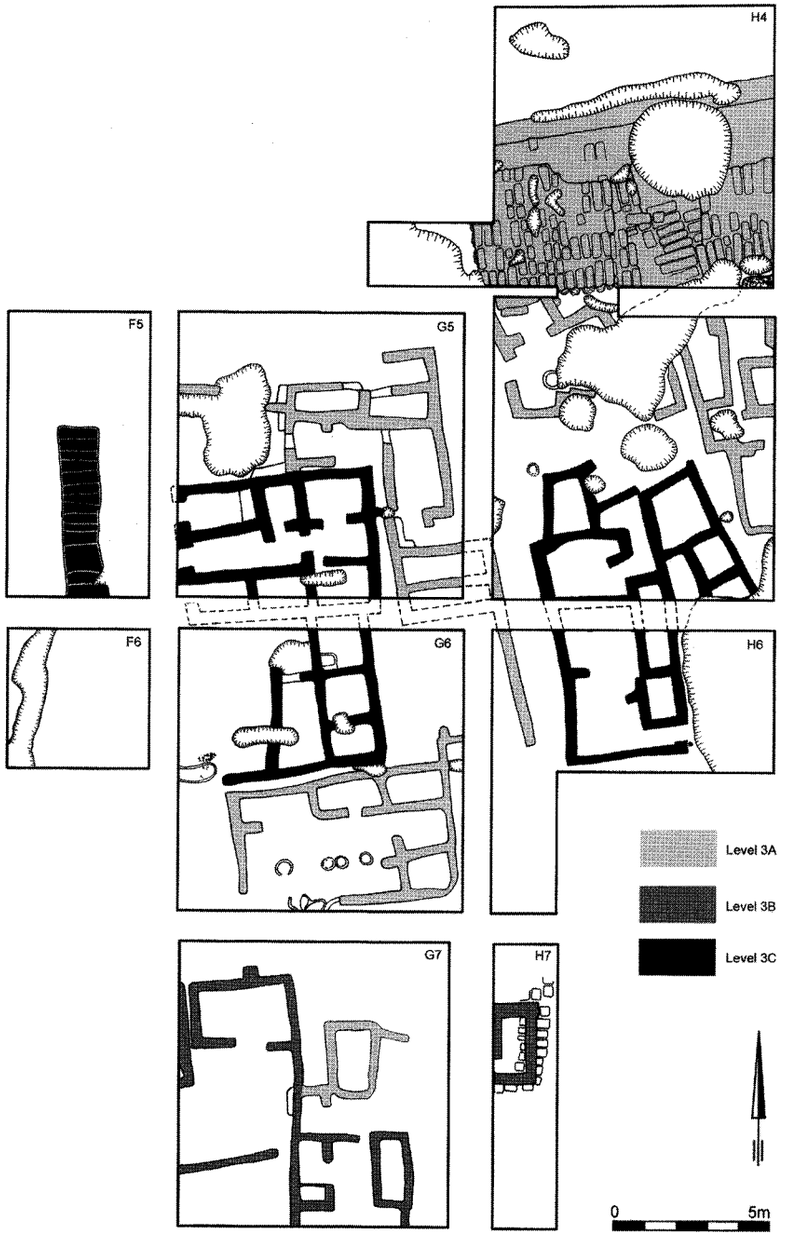

Fig. 3.15 Plan of the settlement at Tell Sabi Abyad II, *c.* 7000 BC.

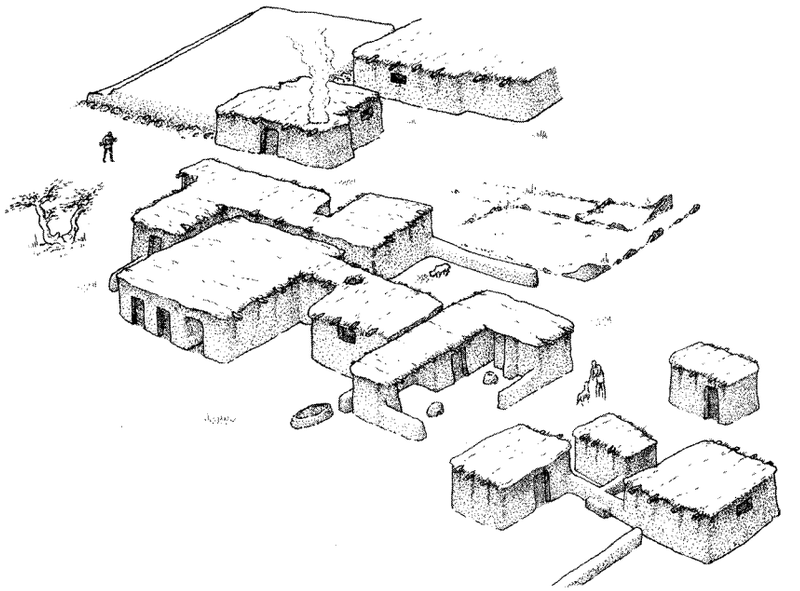

Fig. 3.16 Reconstruction of the Neolithic village at Tell Sabi Abyad II, *c.* 7000 BC.

The layout of settlement at Sabi Abyad II resembles the contemporary occupation at nearby Tell Damishliyya. In one of the lower levels the remains of two irregular, rectangular buildings appeared, repeatedly expanded in the course of time and consisting of a series of small, sometimes white-plastered rooms without any domestic installations. Another parallel with Sabi Abyad II is the evidence for the use of platforms: one of the buildings stood upon a raised surface or foundation of large mudbricks (reused bricks taken from earlier, leveled structures) covered with a mud plaster.[33] Work at another PPNB site in the Balikh valley – Tell Assouad – revealed parts of a small rectangular building with white-plastered floors and walls and several narrow, oblong rooms on the summit of the mound. Two low pedestals along the walls and the find of an ox skull across the threshold of a doorway have been taken as evidence of a shrine, but a domestic role for the building is more likely. A stepped trench on the slope of the mound suggested that the basal levels VIII–VII at Assouad lacked architecture but had pottery, whereas the upper levels VI–I had mudbrick remains but no ceramics. However, it is doubtful that this interpretation is correct.[34]

[33] See Akkermans 1986/7, 1988a, 1993; Verhoeven 1997; Verhoeven and Akkermans, eds., 2000.
[34] Mallowan 1946:124; Cauvin 1972b, 1974b. See also Le Mière 1979:40, who pointed out that sampling procedures may account for the material-culture differences observed in the stepped trench. Mallowan originally ascribed the building on the top of the mound to the sixth-millennium Halaf period but it more likely fits a late PPNB date. See Copeland 1979:269.

Subsistence: foraging and farming

In many respects, the subsistence economy of the earliest Neolithic communities differed little from that of their late glacial forebears. People retained foraging as the basic means of food procurement until the ninth millennium, when they began to adopt the cultivation of food plants and the keeping of domestic flocks of sheep, goats and, later, cattle and pigs. Taking up farming was a decisive step, which had an impact far beyond mere economy and which was to change the world drastically in the long run. Whereas people had lived by hunting and gathering for many hundreds of thousands of years, the transition to the new food-producing way of life was realized within a relatively short period of time; hence the often-used phrase "Neolithic Revolution." Although many hypotheses have been advanced to explain the shift to agriculture, we still do not know why and how people developed control over plants and animals. The original interpretation was that farming was inherently superior to hunting and gathering and would follow automatically once people had the knowledge to do so. This is basically a nineteenth-century Western understanding, which emphasizes human detachment from nature and human superiority over nature, or in the words of Tim Ingold: "[it] is a master narrative about how human beings, through their mental and bodily labour, have progressively raised themselves above the purely natural level of existence to which all other animals are confined, and in doing so have built themselves a history of civilization."[35]

More recent hypotheses emphasize the importance of climatic and other environmental changes, especially during the Younger Dryas interval, *c.* 10,600–9200 BC. In this episode, rainfall declined and the mean annual temperature dropped to a level little different from that of the full glacial some 7000 years earlier. A resulting diminution of wild food-plant resources is said to have forced people to intensify their food procurement through the cultivation of large-seeded grasses and herbaceous legumes – the progenitors of the domesticated cereals and pulses that first appear in the ninth millennium BC. Once set in motion, the process was accelerated by a rise in temperature and humidity at the end of the tenth millennium, providing for an improvement of the environmental conditions conducive to farming and for the elaboration of the new, useful resource. The theories often proceed from the assumption that the foragers' decision to adopt a novel subsistence strategy was one heavy with risks, accepted only under pressure and fostered by an increasing tension between people and resources. Although the more sophisticated of these models tend to include an explicit social dimension, they still imply that Neolithic people were passive, reacting to events rather than bringing them about.

Another frequently cited factor that presumably helped bring about the adoption of agriculture is a steady increase in population, which, either in its own right or in association with the climate change, put further pressure on the

[35] Ingold 1996:14–15.

delicate balance between food resources and people. As populations grew, people came to exceed the number that could be supported by traditional foraging; ultimately, they would have to cultivate in order to ensure an adequate food supply. The intensification of the subsistence economy entailed a reduction of mobility, a build-up of technological innovations, and the establishment of large and increasingly complex, aggregated settlements that evolved into sedentary farming communities. Although it is clear that sedentary settlers were not always agriculturalists, it is held that agriculture was only practiced by people who lived in permanently inhabited villages. According to this view, sedentism is an important precursor to cultivation: by reducing factors such as miscarriages and the interval between births, sedentary life promotes population growth and a consequent search for more food. Even without an increase in population, sedentary groups also tend to exhaust their local wild food supplies, making it necessary for them to extend a greater degree of control over wild plants and animals to ensure good harvests and ongoing access to herd animals. Living together for longer periods of time may also have precipitated social and economic changes and the rise of complex community networks; such phenomena would be facilitated by the production of surplus food supplies through plant and animal domestication.[36]

That there were environmental shifts at the end of the glacial period cannot be denied, but timing, intensity, and duration of the changes are still a matter of scholarly disagreement. Limited data sets and a lack of internal consistency in the results of analyses allow for a range of different models, and militate against pushing the data too hard.[37] The models citing environmental stress or food shortages as the main reasons for the adoption of agriculture are unsatisfactory on other grounds as well. Not only was there a considerable delay in the spread of the farming economy from one region to another (see below), suggesting that the need for change was not consistent, but the carrying capacity of the environment was nowhere approached. Although the archaeological record undoubtedly is far from complete, the evidence for population pressure and an associated severe imbalance is exaggerated, given the handful of very small sites in the period under consideration. People at the dawn of food production lived in dispersed, small groups in an environment full of opportunities, as they had in the ages before.

The complexity of the rise and spread of agriculture is increasingly acknowledged, with developmental patterns peculiar to each region ever more apparent. It is important to realize that farming was neither the production of food according to an economic rationale nor an inevitability imposed on early Neolithic communities by large-scale events beyond their control. Instead, the adoption

[36] See the discussions and overviews by Binford 1968; Flannery 1969; Smith and Young 1972; Cohen 1977; Redman 1978; Moore 1985a; Bar-Yosef and Kislev 1989; Bar-Yosef and Belfer-Cohen 1989; Henry 1989; McCorriston and Hole 1991; Miller 1992; Bar-Yosef and Meadow 1995; Watson 1995; Thorpe 1999; Moore *et al.* 2000.

[37] Thorpe 1999; Sellars 1998:90.

of agriculture was part of the profound transformation of the entire forager society and an adjustment to a wholly different set of societal values and meanings. Recent approaches – favored here – bring the social dimensions in the transition to agriculture to the fore and suggest that it was the product of a shift in thinking which involved new types of settlement, burial, subsistence, and material culture.[38] In this view, cultivation may have increased notions of territoriality that were already developing for many centuries through the greater permanence of settlements.

Economic domestication may have been preceded by social and symbolic domestication at the time of settlement: long before it was extended to plants and animals, the taming of the wild began with the transformation of the house into the *domus*, "home," when the preparation and storage of food, the placement of figurines, and the burial of people in and around the house were all given symbolic meaning associated with nurturing and caring. The house became the metaphor for social and economic strategies, for the control and domination of the wild.

Another possibility is that people began to cultivate crops in response to rivalry for power and prestige: intensification and farming created the surpluses to support alliance-forming feasts and to maintain the associated exchange networks providing exotic status markers. The main point is that people actively brought about the adoption of agriculture, although the communities each may have had different reasons for adopting the new, useful resource. While the original initiative may have been the work of a few groups, the knowledge was accessible to others who may have wanted to farm for their own purposes. Once the change was made, later generations probably carried on the lifestyle of their predecessors without concerning themselves with the reasons for its original implementation.

Domestication may often have been unintentional, the outcome of continuous interaction between people and the wild ancestors of domesticates. However, the process of taming the wild may have been strongly enhanced by many kinds of cultural phenomena and deliberate changes in the relationship between man, plant, and animal, such as the preparation of fields or the act and technique of sowing, harvesting, and storing seeds. The human management of plants and animals often entailed a series of cumulative genetic transformations and changes in morphology as the species became dependent on man for reproductive success. Wild grain is attached to the stem by a brittle joint (rachis) that easily breaks on ripening, after which the seeds fall to the ground. Domestic grain usually has a much tougher rachis, which is clearly advantageous to seed collection by people by means of uprooting or by the use of sickles. The change also enabled the grain to ripen longer and produced better germination,

[38] See e.g. Cauvin 1972c, 1994; Bender 1978; Hodder 1990; Hayden 1990; Thomas 1999; Thorpe 1999.

taller kernels, and a greater yield. There were other mutations, such as the shift to "naked" kernels that could easily be freed by threshing, and the transformation of wild barley with its two fertile rows of kernels into a domestic six-row variety. The animal species under human care were liable to mutation as well, often to the benefit of the domesticator. Among such changes were extended, regular lactation (beyond the needs of the offspring only), the development of wool-bearing sheep, alterations in the size of the animals (domestic species are usually smaller than their wild equivalents), or change in the shape of goat horn cores.

It is still difficult to conceive how and when the process of change was set into motion. Among the factors probably vital to domestication were constraint on the movement of the animals, control over their breeding, and regulation of their feeding. People may have practiced some form of control and selection over natural animal populations long before they became stock breeders in the true sense of the word; herding probably preceded domestication. Although pigs have been claimed to be domesticated at Hallan Çemi in Turkey at about 9000 BC, current opinion is that goats and, later, sheep probably were the first domestic species, between *c.* 8000 and 7500 BC. They are highly social animals, easily tamed and kept in a confined environment to develop a symbiotic relationship with people.

The development of domestication is generally seen as a long-term process in which domesticates were the product of genetic changes over many generations; their recognition in the archaeological record may define the end rather than the beginnings of the development.[39] Since no archaeological sequence shows a clear, continuous transition from the wild progenitor to the primary domesticate, however, there are also claims that the change in form was extremely rapid – a short burst rather than a long process. Experimental study suggested that the change from a brittle to a non-brittle rachis (one of the main characteristics of cereal domestication) may well have been achieved in a mere twenty to thirty years, and certainly within 200 years.[40] Even if we wish to consider domestication as an event rather than as a process, we should not simply assume that the cultural transformation in the Epipalaeolithic–Neolithic transition occurred in an equally rapid manner. Given chronology and culture history as currently understood, it is apparent that the Neolithic way of life developed gradually: Neolithic people clung to a foraging mode of subsistence for hundreds or even thousands of years before fully adopting agriculture and animal husbandry in the eighth millennium. As was the case with the Natufian, many of the Levantine late glacial communities were clearing the path to farming as they exploited wild plant and animal resources intensively and relied more and more upon a sedentary way of life.

[39] See for example the various contributions in Cowan and Watson, eds., 1992.
[40] Hillman and Davies 1990; Moore and Hillman 1992:491; Blumler 1996:37–8.

There is widespread agreement that plants were domesticated before animals in Syria and the Levant. Seed-crop agriculture based on cereals and pulses was practiced on a small scale in the Damascus region and the Euphrates valley in the ninth millennium BC, while stock rearing is likely to have begun several hundred years later, perhaps with animals employed as "walking larder" and security against crop failure. Recently, rye has been claimed to occur in its domestic form at Epipalaeolithic Abu Hureyra, *c.* 11,000 BC, although the claim is difficult to reconcile with the absence of cultivated cereals at Abu Hureyra and elsewhere for thousands of years afterwards. In any case, evidence for the earliest systematic exploitation of domesticated cereals (emmer wheat) derives from Tell Aswad near Damascus, *c.* 9000–8500 BC. At this site, the absence of the wild equivalent of emmer wheat has been taken as proof that emmer was introduced in its fully domestic form, perhaps from the basaltic highlands of the Jawlan (Golan) and Hawran where wild stands of emmer wheat can still be found. The cultivated products were a modest contribution to a diet primarily based on wild plants and animals until *c.* 8300 BC, when the people at Tell Aswad also began to grow barley, field peas, and lentils. In addition, they may have practiced an informal herding of goats, although the identified animals were still morphologically wild (*Capra aegagrus*). In contrast, sheep are nearly absent at the site, occurring in substantial numbers in Syria only by the late eighth millennium.[41]

Although Neolithic people in southwestern Syria had already been involved in a form of incipient agriculture, elsewhere they still relied on the intensive exploitation of wild species. Up to sixty species of wild plants with edible seeds or fruits were identified in phase III (*c.* 9500–8700 BC) at Mureybet on the Euphrates, including sizable quantities of wild einkorn wheat. At contemporary Jerf al-Ahmar, it was barley instead of wheat that was predominantly harvested in the wild, perhaps reflecting local environmental variation or cultural preferences. People also took advantage of a broad spectrum of wildlife, either for the meat, blood, fur, or skeletal parts (for tool production), or for a combination of the above. They used the riverine environment at the foot of their sites, where the dense reed marshes and riverine forest provided ample opportunities for the hunting or trapping of wild boar, fallow deer, badger, wild cat, polecat, beaver, small rodents like mice, rats and jerbils, and dozens of bird species. The extensive open plains to the east and the west of the river were also widely exploited for hunting gazelle, onager, aurochs and, more incidentally, smaller mammals such as hare and fox.[42]

In the northern Levant, the shift from foraging to farming seems to have taken place in the late ninth to early eighth millennium BC, but in a gradual manner.

[41] Flannery 1969; Van Zeist and Bakker-Heeres 1985; Van Zeist 1988; Bar-Yosef and Kislev 1989; McCorriston and Hole 1991; Ducos 1993, 1995; Bar-Yosef and Meadow 1995; Garrard *et al.* 1996; Harris 1996; Hole 1996; Helmer *et al.* 1998.
[42] Ducos 1978; Helmer 1994; Stordeur *et al.* 1997.

While people at places like Mureybet and Dja'de al-Mughara continued to rely completely on hunting and gathering to make a living, the earliest Neolithic settlers at Abu Hureyra and Halula began to practice small-scale agriculture as a supplement to their foraging activities. Sometimes, the remains of the domesticates occur together with those of their wild counterparts, either because the wild stands were still exploited, or because the wild and domesticated forms grew side by side on the fields, or a combination of the two. However, the basal levels at Tell Halula have yielded no evidence for wild crop plants, suggesting that the first settlers at the site brought species such as wheat, barley, and flax with them in the fully domesticated form. Neolithic settlement at Abu Hureyra was associated with the introduction of a range of domestic plants, such as emmer wheat, hulled six-rowed barley, lentils, chickpea, horse bean and common vetch. The latter two species, together with barley, prefer moist soils and may have been grown in the valley bottom. However, parts of the extensive steppe beyond the valley were probably used as well, presumably for the cultivation of wheat, as they are today.

The animal bone in the lowest Neolithic levels at Abu Hureyra and Halula is much the same as in the ages before, including a range of wild species such as gazelle, onager, deer, cattle, and pig. Hunting was still important and gazelle the main prey in mass killings. An elaboration in the hunting method involved the so-called "desert kites," widely distributed in the deserts of Syria, Jordan, Saudi Arabia, and the Sinai, and used until recently. These large stone-built traps were 5 to 150 m across and accessible through a narrow entrance from which stone walls diverged sometimes several kilometers in a V form. The hunters drove the frightened herd through the open end of the V-formed wall structure into the killing enclosure where others waited to shoot the animals. As an alternative, it has been suggested that the enclosures were used not by hunters but by pastoralists as corrals.[43]

Along with the wild species, domestic sheep and goats were also represented, but on a small scale (e.g. 12–14% at Abu Hureyra). A dramatic increase in domestic sheep and goats – up to 65–75% of the sample at Abu Hureyra – took place *c.* 7400 BC, when these animals began to displace gazelles as the main meat source. At the end of the eighth millennium or shortly afterwards, domestic pigs and cattle were also present. The wild ancestor of the domestic pig – one of the most preeminent meat producers – mainly lives in forests and marshes, always close to water sources. The young animals are rather easy to tame, which may have facilitated their widespread domestication. The progenitor of cattle was the now extinct aurochs (*Bos primigenius*), a large and fierce, long-horned animal, no less than 2 m tall at the shoulders.[44]

[43] Helms and Betts 1987; Legge and Rowley-Conwy 1987; Echallier and Braemer 1995.
[44] Hillman 1975:73; Van Zeist and Bakker-Heeres 1984; Legge 1996; Stordeur *et al.* 1997; Helmer *et al.* 1998.

By 7000 BC, farming communities were well established throughout the areas where rain-fed agriculture was viable. The reliance on four principal domestic crops – emmer wheat, barley, lentil, and field pea – steadily increased, and vetch, chickpea and horse bean were also commonly grown in small gardens near the settlements. At some sites, such as Sabi Abyad II on the Balikh, linseed was cultivated in great abundance for the oil in its seeds, the fibers used in the manufacture of flax for linen, or for a combination of the two. Cereals were staples, either eaten as roasted or boiled grains or used in the making of biscuits, unleavened bread, porridge, and gruel, providing main sources of carbohydrates and vitamins B and E. The diet was broadened by legumes and by meat, and perhaps blood as well, from the domestic animals, and supplemented by plants, fruits, nuts, and animals all taken from the wild. Pulse crops, meat, fish, eggs, etc. are rich in proteins and/or fats, carbohydrates, and various minerals such as iron and calcium.[45] The food that people were eating was often hard and coarse. At Abu Hureyra, the teeth of many young adults were severely abraded down to the roots from chewing gritty food and were lost prematurely. Late in the Neolithic sequence, wear on teeth was substantially reduced by the introduction of pottery and the cooking of food in ceramic vessels.[46]

People thoroughly integrated the herding of sheep and goats into their economies, which ensured a regular supply of meat, hides for clothes or tent furnishings, and skeletal parts for tool production. It has been argued that it was not until four or five millennia after the beginnings of domestication that animals were exploited for other 'secondary products' such as milk or wool, although this still is a matter of much controversy.[47] However, it is true that wild sheep do not have long wool, nor do wild animals produce milk beyond what is needed for their offspring. Changes in wool-bearing or lactation could be achieved, therefore, only by continuous selective breeding under human control.[48] People may also have kept animals for the expression of wealth and the creation of social distinctions and barriers, or as a means of storing surpluses on the hoof to counteract the omnipresent risks of crop failure or other

[45] See for example Brothwell and Brothwell 1998. [46] Molleson 2000:308–9.

[47] Ryder 1973:167; Sherratt 1981, 1983; Köhler-Rollefson and Rollefson 1990; Akkermans 1993: 235–9.

[48] Wild sheep have short and stiff hair outer-coats with a short and fine woolly under-coat. From the earliest domesticated sheep, wool must have been obtained only by time-consuming and often irregular plucking, whereas any large-scale procurement was only possible when continuous selective breeding had led to non-molting, long-wooled animals allowing the practice of shearing. In this respect, it has repeatedly been suggested that the earliest textile production in the Near East was based upon the use of vegetable fibers rather than wool. See Ryder 1965:176; Sherratt 1981:282. Likewise, the regular production of milk in large quantities is a result of special-purpose breeding for which we do not have any evidence in the Neolithic yet, although nothing may have prevented Neolithic people from taking milk on a modest scale. Milk and dairy products are useful sources of fat, protein, sugar, calcium, and the amino-acid lysine which is largely lacking in a cereal-based diet. However, not all human populations are adapted to milk consumption (owing to a lactase deficiency, many adults are not able to break down the lactose component of milk). See Sherratt 1981:276–7 and references therein.

catastrophes.[49] Cattle also may have been used for traction (plowing) and transport. Cattle certainly had an important role in symbolic and ritual contexts, although this seems to have involved mainly wild cattle or aurochs (*Bos primigenius*); many of the small figurines found in the Neolithic settlements seem to represent bulls. Horncores of wild cattle were hung on the walls or were embedded in them at Mureybet, Jerf al-Ahmar and elsewhere, and the so-called "shrines" at late Neolithic Çatalhöyük in Anatolia had benches supporting up to seven pairs of horn cores of aurochs, together with simpler brick structures with one pair of horns set on the edge of platforms. At Çayönü, cattle seem to have been slaughtered in rites associated with death, to judge from the traces of cattle blood found on a flat stone "table" in the so-called Skull Building.

Agriculture was probably conducted in clearances near the settlements. Many sites were in regions with extensive plots of arable land and sufficient annual rainfall for dry farming. While an average annual precipitation of 200–250 mm is the minimum requirement for dry farming in the Near East, variables like relief and soil condition are of equal importance and occasionally even allow dry farming in regions with an average rainfall of 150 mm.[50] However, the immense risk of crop failure in such marginal areas requires a form of irrigation to allow a continuous and lengthy cultivation. It is widely agreed that the Neolithic farmers cultivated their crops only in winter, with planting between October and December and harvesting between April and June.[51] Given this schedule, the valley floors of the major perennial streams like the Euphrates were probably avoided because of the risk of spring flooding after the snowmelt in the Anatolian mountains. In such regions, cultivation may have been confined to the higher-elevated terraces and alluvial fans bordering the flood plains. In areas with low annual precipitation, the fields may have stretched along wadis or their confluences, where vast quantities of drainage water passed by during the wet season, contributing to the development of well-watered soils with excellent farming qualities. Other favorable niches included the wetlands near lakes and ponds, as at Tell Aswad and Ghoraifé in the Damascus vicinity, situated near the shores of the former lakes Ateibe and Hijane.

Generally, the area each community needed for farming must have been relatively modest. Most Neolithic communities were very small, housing a few dozen people at the most, and their basic needs for land for agricultural purposes and animal husbandry must have been limited, perhaps comprising an area only a few kilometers in diameter.[52] If we consider that only a limited number of sites

[49] Flannery 1969; Dahl and Hjort 1976:137; Redman 1978:131. [50] Wirth 1971:93, 105.

[51] Originally plants like barley, wheat, peas, lentils, flax, chickpeas, and vetch were all adapted to the winter growing season because they do not tolerate hot, humid conditions. In summer, these crops could have been grown only in regions that were either cool or had a high altitude. See Redman 1978:22.

[52] See for example Akkermans 1993:210–64.

existed in any region at any single moment, it appears that the carrying capacity was never reached and that far more land was available than was required to make a living. As a result, the direct impact of the early Neolithic people upon their environment must have been limited; the extensive, little-used regions farther away from the main areas of settlement were probably left more or less in a natural state and used as hunting grounds of local communities. Ongoing cultivation and more intensified herding, gathering, hunting, and trapping in the vicinity of the villages may have led to exhaustion of the land in some cases, but these effects were probably felt in the long run only, as seems to have been the case at 'Ain Ghazal in Jordan.[53] In most regions, environmental conditions allowed a long and intensive exploitation, as shown by the numerous sites permanently occupied for many centuries.

In the case of permanent settlements, it seems reasonable to assume the existence of territorial claims upon the land sustaining the communities, passed on from generation to generation. The constant clearing and maintenance of the fields, the daily pasturage requirements of the villages' flocks, the ongoing rebuilding of the settlements, the burying of the deceased within the villages or their immediate surroundings, etc., may all have resulted in the creation and explicit recognition of ancestral lands and kin-bound territories. Tim Ingold, Peter Wilson, and others have pointed out that sedentary agriculturalists perceive land and its place in the wider environment in a different way than hunter-gatherers do.[54] Whereas the latter generally conceive their territories by natural landmarks (rivers, mountains, etc.), the paths running through the landscape and the views across it, agriculturalists define territories by enclosing and separating them through ground clearance and preparation. An artificial, substitute environment is created that promotes the cohesion of the communities, often through notions of cosmology and belief. It emphasizes matters of ownership, group identity, and community cooperation at all levels, in their turn facilitating the rise of regional styles in material culture and distinct systems of social and economic organization.

But such a cultural landscape may also have created all kinds of oppositions, such as "cultivated" versus "wild," or "good" (one's own culture, economy, beliefs, etc.) versus "bad" (foreign culture, etc.). It may have embodied competition between groups and the separation of "insiders" from "outsiders," both physically and socially. Access to a particular area may have been denied to groups beyond the local community, giving reasons for dispute and battle. Perhaps significantly, the evidence for physical violence in the Neolithic is scarce but not absent. From the available data, we can cite the skeleton of a young man buried at Abu Hureyra on the Euphrates with a tanged arrowhead embedded in the chest cavity just beneath the ribs, a burial of a female at Nevali Çori in Anatolia with an arrowhead still in its original position between the neck

[53] Köhler-Rollefson and Rollefson 1990. [54] Ingold 1986:154; Wilson 1988:50.

and upper jaw, and skeletons uncovered at Nemrik in Iraq also with projectile points embedded in them. Also indicative of warfare, perhaps, is the recurrence of burnt buildings like the one at Bouqras, including the skeletal remains of at least five children and young adults (including a pregnant woman about twenty-five years old).[55] But in general, it seems that tensions and competition between groups were restricted throughout the early Neolithic. The boundaries between groups had less in common with economic or physical needs and more with social constructions and constraints, some of which were expressed in territorial claims on the physical environment.

The working of the land and the maintenance of the herds must have taken many hours of hard labor each day, particularly during the harvest when work had to be completed within two or three weeks to avoid considerable crop losses.[56] At this time, all members of the community – the men and the women, the young and the old – will have been put to work. In addition, there is evidence for a sexual division of labor. Many of the human skeletons found at Abu Hureyra showed pathologies in the form of vertebral deformities and arthritic big toes, convincingly argued to be the result of carrying heavy loads and pounding and grinding grain in a kneeling position for many hours a day. The strong association of severe stress on knees, wrists, toes, and lower back with female skeletal remains indicates that it was the women of the community who carried out the labor-intensive preparation of the grain and, therefore, were tied to the house.[57] The ethnographic record suggests that women were in charge, not only of processing, but of most tasks associated with the cultivation of plants: preparation of the soil, planting, weeding, watering, manuring, and harvesting. In essence, this responsibility closely resembles the other primary tasks of women, i.e. childbearing and childrearing. So women had at least two sets of offspring to take care of – the plants in their gardens and the children in their homes. It comes as no surprise that it has been suggested that it was women who made the initial steps towards the domestication of plants and who brought plants into or near the settlements.[58] Men would have assisted in the clearing of the land and in other work requiring great physical strength, or participated in the field work during times of stress. Men dominated in the field of hunting, and probably also in stock rearing, since they were not burdened with children and were less tied to their homes.[59] Perhaps hunting was valued more than farming, if only to motivate men to perform the often dangerous task.

[55] Moore *et al.* 2000:288; Hauptmann 1993:57; Kozlowski and Kempisty 1990: 349; P.A. Akkermans *et al.* 1983:365–70. See also Watkins 1992:69.
[56] Dennell 1978:102. [57] Molleson 1994.
[58] Ingold 1996:17; Ehrenberg 1989; Hastorf 1998. See also Haaland 1997:378.
[59] However, hunting is not always exclusively the male domain. There are many examples of traditional societies where women are expert bow-and-arrow hunters, who hunt together with men or among themselves. Collective hunting by both men and women (and sometimes children as well) may also involve nets or fire or stick beating. See for example Estioko-Griffin and Griffin 1981.

Contrary to widespread opinion, agriculture did not improve the quality of life in prehistory, nor was it simply superior to hunting-gathering. There is much evidence that agriculture brought diminishing returns in relation to labor invested: the early farmers had less leisure and more work when compared with the foraging communities. Relying heavily on root or cereal crops, they also had less balanced and less varied diets, and generally were less healthy. Malnutrition and the heavy work load seem to have caused a decline in average life expectancy. Average life expectancy in the Neolithic was at about twenty-five to thirty years at birth, with 50 to 60% of the infants reaching adulthood.[60] Droughts and crop failures may have occurred frequently, particularly in the areas on the fragile boundaries of the dry-farming zone. Occasional cold spells may have decimated the domestic flocks. Famine and starvation would have been the consequence.[61] Other serious (and underestimated) threats were brought by the spread of many parasites out of their original tropical niches, owing to the climatic amelioration at the beginning of the Holocene. Increasing temperature and humidity, and the associated coastal changes (due to rising sea levels), the formation of swamps, and the appearance of lakes and ponds with very little current, all created the ideal conditions for malaria, schistosomiasis, and hookworm. The epidemic invasion of these diseases in the Near East and the Mediterranean region in the early Neolithic may have taken many lives and put considerable pressure on the small farming communities.[62]

The settlements themselves must have been unhealthy environments as well.[63] They were undoubtedly heavily polluted with all kinds of rotting organic matter and human waste, as shown by the abundant occurrence of plant and animal remains and other refuse found in and around the houses during excavation. Whereas mobile groups may decide to leave when their settlements become too filthy, sedentary populations tend to accumulate human and animal waste. The refuse would have attracted vermin, as well as the diseases they carried with them. Flies and mosquitoes transmit fecal–oral infections and other illnesses; rats bring hemorrhagic fevers; wild dogs and other carnivores carry rabies; and wild cats bring toxoplasmosis. Simple wounds or contaminated food also must have claimed many victims. Increasing the spread of infectious diseases and vermin infestation was the permanence of villages and their crowded populations; the diseases became constant rather than incidental threats to health. Fleas, for example, mainly live off sedentary populations and their animals, because their larvae live in houses and stables rather than on the body. The simplest way to control these threats is to leave the infected area, but this is evidently a drastic solution for sedentary agriculturalists. Clearing

[60] Cohen 1977, 1989 and the references therein.
[61] See Wirth 1971:259, 263; Lewis 1987:170ff; Dahl and Hjort 1976:222.
[62] Groube 1996:123–4.
[63] See for example Cohen 1989; Schepartz 1989; Roberts and Manchester 1995.

of the natural vegetation and the farming of the land near ponds and streams with little current may have encouraged the spread of tetanus, malaria, and schistosomiasis. Stock rearing may have been another major source of human disease: tuberculosis can result from contact with infected cattle or through the consumption of their raw meat and milk. Many parasitic worms cycle between humans and domestic animals. The evidence for any of these infections in prehistory is extremely meager, because of poor preservation or because no traces are left in the burial record. Instead, most of our information derives from Egyptian mummies or the many texts of the third millennium and later; nevertheless, an early widespread occurrence of many of the attested diseases is not to be excluded. For example, burials at Neolithic 'Ain Ghazal in Jordan yielded indications of tuberculosis in three instances, and hair combs found at the eighth-millennium cave of Nahal Hemar in Palestine produced evidence for head lice – ectoparasites which may transmit diseases like typhus. One infant buried at Tell 'Ain el-Kerkh in Syria showed traces of porotic hyperostosis, usually caused by iron deficiency anemia or by parasitic infection but which may also result from thalassemia, a genetic anemia common around the Mediterranean locale.[64] The Neolithic was certainly not a Garden of Eden but a world where life was difficult and people knew that they were "forever confronted with the Four Horsemen – death, famine, disease, and the malice of other men."[65]

Material culture

The development of food-producing economies brought changes, not only in the social and economic realm, but also in material culture. Longer-lived settlements supported the development of crafts and new technologies as well as the exploitation of raw materials in regions often distant. New tool kits provided the means for the clearing and cultivation of the land, the processing of the harvests, and the continued procurement of food in the wild. Changing social values and an increasing ritual elaboration were expressed through human and animal figurines and other representations rarely or never seen before.

The Neolithic lithic industries continued the earlier, Epipalaeolithic traditions of tool production for many centuries, as seen in the ongoing use of microlith technology, lunates, and sickle blades. A distinctive arrowhead type diagnostic of the early Neolithic (PPNA) made its appearance in the early tenth millennium: the triangular al-Khiam point, characterized by side notches and a retouched base. Gradually abandoning the microlithic character, the industries of the ninth millennium and later tended to focus on the production of blades that were standardized in shape and size and frequently struck from naviform

[64] El-Najjar *et al.* 1997; Zias and Mumcuoglu 1991; Tsuneki *et al.* 1999:25.
[65] Howells 1962:16.

cores with two striking platforms. The blades were used as sickles or reworked into scrapers, borers, burins, knives, and projectile points. Sickle blades and reaping knives, sometimes finely denticulated, were originally hafted by means of bitumen in crescent-shaped wooden or bone handles, and they usually bear a sheen resulting from their use in cutting reeds, cereals, and other fiberous grasses. A cache of eighty-six blade blanks for sickle elements had been buried under the floor in the corner of a building at Tell 'Ain el-Kerkh in the Rouj basin.

The PPNB assemblages include a variety of notched and tanged arrowhead types, of which the so-called Byblos point is predominant and found at nearly all sites of this period. These relatively large and heavy projectiles have convex edges and generally rounded shoulders leading to a short, tapered tang. Their use must have required tall, strong bows. As an alternative, the largest specimens may have served as javelins or spearheads attached to long shafts. Many arrowheads seem to have been broken during manufacture and were subsequently discarded at the sites or reused as knives, scrapers, or burins with strong, chisel-like working edges. Lithic tool production involved a wide variety of flint, but obsidian (volcanic glass) was used as well. The obsidian assemblage mainly consists of unretouched, parallel-sided bladelets, but tanged arrowheads and scrapers occur as well. In its level 8 *c.* 7500 BC, Tell Sabi Abyad II produced a bundle of fifty-six unusually large obsidian blades, found tightly fitted together and struck from the same core. The occasional presence of small conical or cylindrical cores suggests that at least some of the obsidian was worked at the sites. The quantities of the tools in general and their technological and typological characteristics often vary considerably from site to site. These differences are due partly to matters of chronology or the function of the settlements, partly to the location of the sites in different environments and the associated needs for particular implements. The generally small scale of excavation also affects the size and composition of the samples.[66]

Elongated axes and adzes increased in importance over the course of the Neolithic. They were shaped from large pieces of flint or other stone by bifacial knapping, with the cutting edge formed by transversal blows. They were probably subsequently inserted in wooden hafts. Microwear analyses show that these often heavy tools had been used mainly for the clearing of undergrowth and wood-working and, to a lesser extent, for hoeing. Sometimes they were intensively polished, which added to both their sharpness and their aesthetic appearance.

Large, loaf-shaped ground-stone tools, usually plano-convex in section and made of basalt or coarse limestone, were widely used for the grinding of seeds and nuts into flour. People also had pestles and mortars, useful in the processing

[66] See for example Cauvin 1968; Moore 1982; Henry 1989; Gopher 1994; Gebel and Kozlowski, eds., 1994; Kozlowski 1999; Nishiaki 2000b.

of food and the pounding and grinding of ochre and other pigments. There were also small and carefully finished hemispherical bowls and shallow plates and dishes, usually made of alabaster or colored limestones, although other, harder stones such as basalt and granite were used as well. Several techniques were used to produce the ground-stone tools, including flaking, pecking, pounding, grinding, drilling and incising, or combinations thereof.[67]

A variety of other tool types is also attested. Included among the bone tools are awls, needles, pins, spatulas, and fish hooks, the latter sometimes with an eye for suspension. Ornamental items such as beads and pendants for necklaces and bracelets were produced from sun-dried clay, stone, bone, or marine shells brought from the Mediterranean or the Red Sea. While beads were often cylindrical, some were more elaborate in form, such as "butterfly beads," oval or triangular in shape with a thin cross-section, cut from attractive greenstones or rock crystals. Clay, ubiquitous and easy to handle, was used for the manufacture of beads, figurines, and small vessels. Introduced relatively late in the Neolithic sequence, pottery will be discussed in more detail in chapter 4.

A specific type of container was made of "white ware" or *vaiselle blanche*, a composite of lime and ashes initially soft enough to allow the manufacture of vessels by coiling, but later hardening into a strong cement.[68] First appearing in the late eighth millennium, white ware includes a range of large and heavy rectangular tubs and circular vessels, as well as smaller bowls. The occasional imprint of basket work on the vessels' exterior suggests that at least some were shaped in large baskets.

There can be no doubt that baskets and a range of other organic materials widely circulated in the Neolithic settlements. The small, eighth-millennium cave of Nahal Hemar near the Dead Sea contained fragments of basket bases, parts of mats, woven cloth napkins and bitumen-coated containers made of rope.[69] Traces of woven matting have been found at Abu Hureyra, Tell Halula, Dja'de al-Mughara and Bouqras on the Euphrates. Imprints of basketry in bitumen occurred at Tell Sabi Abyad II on the Balikh, *c.* 7550–6850 BC. Nearby Tell Sabi Abyad I, admittedly of much later date but still Neolithic in character, yielded evidence for the presence of hundreds of baskets in its level 6, *c.* 6000 BC (see chapter 4). Neolithic material culture was much richer and more varied than currently attested in most excavations.

Raw materials for the production of domestic utensils were often found close to the settlements. Along the Euphrates, sources of flint and other useful stones were usually no more than a few kilometers away from the communities. Similar flint outcrops have been found on the terraces bordering the Balikh flood plain, and the remains of both tools and debitage on the surface suggest that flint-knapping occurred on the spot. Several occupations in the Palmyra and

[67] K. Wright 1992:53. [68] Maréchal 1982. [69] Schick 1988.

Douara basins in the desert seem to have served as specialized flint procurement and manufacturing sites, where most of the basic activities such as cortex-peeling and blank production were performed. But primary flint-working was also done at the permanent settlements themselves; for example, Abu Hureyra yielded several instances of "chipping floors," where large quantities of fresh flint waste were found in association with a few finished or partly prepared tools. Other indicators are the small but persistent numbers of hammerstones, cortex or part-cortex flakes, preparation-flakes, and cores for blade production at sites such as Tell 'Ain el-Kerkh and Tell Sabi Abyad II. Many cores were present in level VII at Tell Assouad on the Balikh, said to represent a factory site.[70]

Basalt, limestones, sandstones, and marble are indigenous to many parts of Syria and available for easy exploitation, but stone and other products such as marine shells sometimes had to be brought in from regions far away. The Turkish Taurus piedmont seems to have been the source of many valuable kinds of stone found at sites in northern Syria. For example, the numerous Neolithic occupations in the Balikh valley obtained the much-used basalt either from the Karaca Dag region east of Urfa or from the volcanic area east of Raqqa on the Euphrates; in either case, the distance to the source is about 100 km. Obsidian was another material that had to be imported over many hundreds of kilometers from the Anatolian hinterland; the nearest sources were Çiftlik in Cappadocia and Bingöl and the Lake Van region in eastern Turkey. First appearing at the end of the Natufian, obsidian remained in use throughout the Neolithic, in proportions often very different from site to site. Obsidian formed about 3.7% of the total chipped stone from trench B at Abu Hureyra, 6% to 32% in the various levels at Halula, 6% at Damishliyya, and almost 60% at Sabi Abyad II. These figures are somewhat misleading in the sense that most of the obsidian artifacts consist of very small and often broken blades and bladelets. The supply of obsidian must have been steady and regular in view of its continuous appearance throughout the long Neolithic sequence but very restricted in terms of the quantities involved.[71]

The products that were not acquired locally may have been obtained through exchange networks, with goods traveling over great distances from one group to another. Alternatively, goods may have been procured by direct expeditions or, at the end of the period, when domestic animals were widely exploited, by community herders during visits scheduled in their normal seasonal movements. Nearly all non-indigenous materials or commodities are found in very small quantities at the sites, revealing that the interregional traffic of goods was of low intensity. But exchange may also have included many items rarely

[70] Moore 1975:65; Tsuneki *et al.* 1999:10; Copeland 2000:58; M.-C. Cauvin 1972.
[71] See for example Renfrew and Dixon 1976; Wright 1969; Beale 1973; and Torrence 1986 on the distribution of obsidian in the prehistoric Near East.

preserved in the archaeological record, such as food products, animals, baskets, and clothing.

In general, current evidence suggests that communities of this period were highly autonomous with respect to the acquisition of raw materials and the production of finished goods. The knowledge to do so was locally transmitted in a parent–child relationship; most items required few technical skills and were undoubtedly made by individual households, not by full-time specialists at the professional level. Despite this autonomy, none of the Neolithic settlements acted in isolation. They were part of a wider, loosely organized system of social and economic integration, realized by the sharing of material culture but also by the exchange of marriage partners, the celebration of ceremonial feasts, and the creation of social bonds and alliances. In this respect, exchange was not limited to material items but also included social values and ritual discourse.

Ritual, figurines, and the dead

Ritual and ceremony were ubiquitous in the Neolithic world. The evidence is sometimes spectacular, particularly within the realm of the dead, although Near Eastern archaeology has been less than successful in its attempt to interpret the ritual background beyond the often superficial notions of "fertility" and "mother goddesses." Ritual is formal and repetitive, involving sequential acts of gestures, words, and objects. The intention is to influence spirits and magical forces, but also to give information symbolically about the social order and the relationships between people. Rituals express fundamental social values and norms of behavior, giving order and meaning to the world. An obvious example is provided by rites of passage, which mark points of transition in the lives of individuals, such as birth, puberty, marriage, and death. They convey messages on identity, place, and descent. To a great extent, rituals are expressions of ideology and intend to control the behavior, sentiments, and values of people, for the sake of the community as a whole or of specific groups therein. Ritual easily becomes an instrument of power and manipulation, much more effective in the long run than the exercise of physical force, through the creation of fears about supernatural punishments and taboos that restrict behavior, often in relation to sex, food, death, and sacred objects.

Only a small portion of the dazzling complexity so characteristic of ritual and ceremony has left its material imprint in the archaeological record. Burial practices were widely diverse and included primary inhumations, secondary burials, and charnel houses, as well as plastered or otherwise treated human skulls separated from the body and displayed in public or intentionally buried in clusters. Red ochre and other pigments scattered over skeletons or applied to singular skulls had ritual meaning in graves but also in the embellishment of houses, shrines, and perhaps the human body. There were many small human and animal figurines, perhaps associated with rituals performed by individuals

and within households, and integrated into daily practice. A more public significance should be given to the large statues and busts found at Jericho and 'Ain Ghazal, which probably stood in sanctuaries and served the needs of the communities as a whole. The stone masks with rather frightening appearances found at a number of sites in the southern Levant were worn in dances or ceremonies, or were affixed to posts and walls. There may have been many more masks made of perishable materials that have not been preserved.[72]

The *in vivo* deformation of the human skull by bandages, attested at several sites and over very long time spans, may have had an aesthetic significance. However, it also served ritual aims, given the occasional post-mortem plastering of the deformed skulls and the representation of figurines with elongated heads.[73] Ritual and its symbolic expression may also have included a wide range of objects which seem purely utilitarian at first sight but which were given wholly different meanings in the ceremonial sphere; the meaning of objects is not constant across contexts.

Figurines and statuary

Figurines and statues in stone, bone, clay, and plaster have been found at many Neolithic settlements, although usually in small quantities (fig. 3.17). They are mostly small, stylized figures in human and animal forms; while the body and face are rendered naturalistically in a few cases, the majority are highly schematic. If gender is indicated, the anthropomorphic figures are almost invariably female. The figurines are represented in a variety of postures: some are standing, with the arms sometimes supporting the breasts, whereas others are seated or kneeling, such as the small limestone portrayal of a corpulent, naked woman found at Tell Sabi Abyad II on the Balikh, *c.* 7000 BC. A few small human heads in the form of pendants or worked stone have been found at Mureybet and Jerf al-Ahmar. Suggestive of a regional style in the production and use of statues are the small and stylized limestone human heads with a wholly flattened face which occur only in the Balikh valley in northern Syria and in the adjacent plain of Harran in the late eighth millennium, at sites like Tell Assouad, Tell Sabi Abyad II, and Gürcütepe (cf. fig. 3.17, no. 6). Originally the heads may have been inserted or attached to a body of wood or clay, as parts of composite and perhaps clothed imagery.[74] Animal figurines are usually crudely made of sun-dried clay and are considered to represent mainly cattle, on the basis of the presence of horns and the size of the neck and the body.

Most figurines come from debris layers; consequently, any detailed information on their original whereabouts is unavailable. However, in some cases they were still in primary contexts such as at Tell Ramad near Damascus and 'Ain

[72] Banning 1998:227.
[73] Arensburg and Hershkovitz 1989; Meiklejohn *et al.* 1992; Molleson and Campbell 1995.
[74] Cauvin 1972; Verhoeven 1997; Schmidt 1998a.

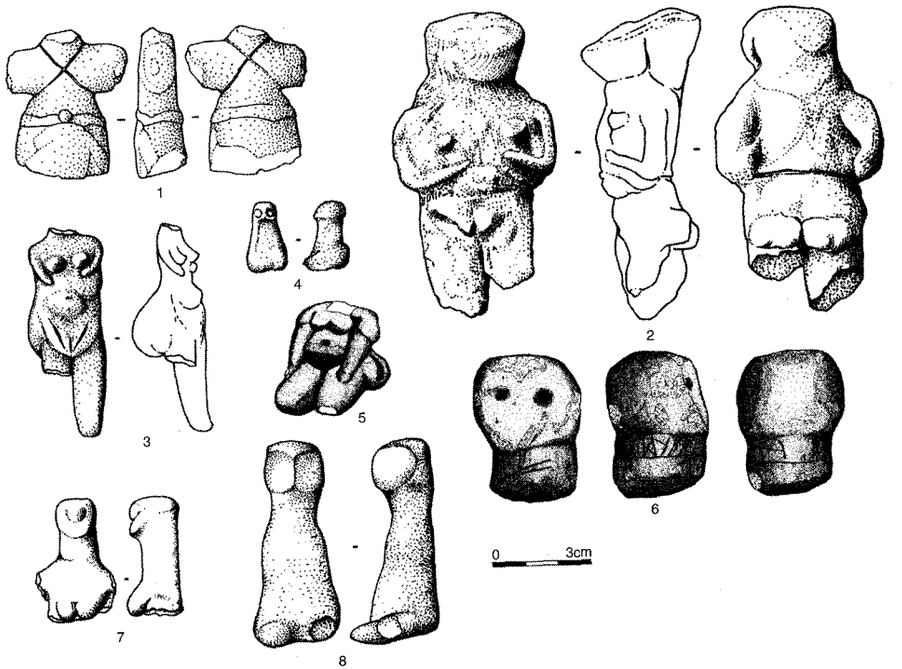

Fig. 3.17 Neolithic human figurines in clay and stone from Dja'de al-Mughara (no. 1), Mureybet (nos. 2–4, 7–8), and Tell Sabi Abyad II (nos. 5–6).

Ghazal near Amman. At Tell Ramad, fragments of three seated anthropomorphic clay statues were deliberately buried in pits along with plastered skulls. It has been suggested that the small statues originally served as pedestals for the skulls.[75] 'Ain Ghazal produced two caches of extraordinary plaster statues, dated *c.* 7700–7600 BC, numbering more than thirty in total and shaped in the form of female busts, two-headed busts and complete human figures up to 104 cm in height. They were made of limestone plaster on a skeleton of twigs, reeds, and cordage; facial features and other parts of the body were rendered by paint in black bitumen. Presumably, the figures were displayed upright in front of walls or in niches. Adornment with separate clothing and wigs or headgear is almost certain, and may have given the statues a realistic appearance. When no longer needed for their original purpose, the statues were intentionally buried in pits, in one instance together with three plastered skulls. Caches of similar figures have also been found at Jericho and, possibly, Nahal Hemar Cave near the Dead Sea.[76]

[75] Contenson 1967:20–1, 1969; Contenson and Van Liere 1966. The small, seated statues were, according to their excavator, headless. The absence of the head and the occurrence of these statues together with plastered skulls led to the conclusion that the statues originally served as pedestals for these skulls. However, it is perhaps more likely that the head *is* present but in a very stylized, cylindrical shape, leveled off at the top. See Strommenger 1985:72.
[76] Rollefson 1984; Grissom 2000. See also Garfinkel 1994.

The cursory modeling of most figurines suggests that the objects had no intrinsic value. They were probably used for a short time span and only for specific occasions, rapidly losing their meaning and value afterwards; hence their common occurrence in debris contexts. Alternatively, the importance of the figurines may have resided in the act of production, not in their use.[77] The distribution of the figurines throughout the settlements indicates that they were in the hands of many persons and integrated in daily practice. Usually small and tangible, they were meant to be taken in the hand and perhaps passed on. They conveyed their messages, whatever these were, in a simplified and often miniaturized form.

The large statues from 'Ain Ghazal and elsewhere differ from the other imagery not only in size and elaboration but also in terms of location and context. The fragile nature of the large statues implies that originally they must have stood in roofed enclosures, protected from the elements. It was only at the end of their probably long lifetime that they were buried in the pits. These statues imply the existence of public structures or shrines, and were probably meant to be seen by the entire community and for the entire community to participate in common rites. Several such sanctuaries seem to have existed at 'Ain Ghazal (although their identification is not without problems) but the most spectacular example has been found at ninth-millennium Nevali Çori in the Taurus piedmont.[78] The small settlement contained several kinds of multi-roomed buildings, some of which are assumed to have been used for living, others for storage purposes. One structure stood apart in terms of layout, construction, and inventory. The square building measured 13.90 by 13.50 m, was entirely built of stone, and still stood to a height of almost 3 m. A corridor or portico with two steps led down to a larger room provided with a well-made terrazzo floor, a large niche in one of the walls, and benches along the interior wall façade. The benches with their flat limestone covering were interrupted at regular intervals by worked stone pillars carrying the flat roof. Two rectangular pillars stood next to each other in the middle of the room. The white plaster on the stone walls showed traces of red and black paint, suggesting that they were originally decorated.

Most spectacular were the large stone statues of humans and birds and the fragments of other sculpture in the form of human heads, torsos, and creatures half-human, half-animal, all found *in* the walls and benches. They are believed to have stood in the building originally but, once broken for one reason or another, they were reused as building material when the entire structure was modified. One of the pillars still standing *in situ* in the center of the building showed a very stylized lifesize, anthropomorphic representation in the form of two arms and hands sculpted in flat relief in the stone. There can be little doubt that this structure was the focal point of ceremonial activity at Nevali

[77] Broman-Morales 1983. [78] Hauptmann 1993.

Çori, where people congregated and participated in what must have been complex rituals, with, perhaps, the ancestors and mythological spirits omnipresent. The gatherings may also have served aims which seem more profane at first sight, such as feasting or the consultation of the community at decisive moments, but all took place within the ritual environment and were associated with considerable ceremonial ostentation. Ritual buildings similar to that at Nevali Çori seem to have existed at Göbekli Tepe, located on top of a ridge overlooking the plain of Harran, some 45 km north of the Syro-Turkish border. Limestone sculptures occurred in the form of lions, birds, and other animals, as well as stone masks and human representations, sometimes shown seated or with animals on the head. Buildings with terrazzo floors contained rows of stone T-shaped pillars between 1.45 and 3.15 m tall, with engraved reliefs showing lions, birds, snakes, and other animals.[79] Buildings such as these had their origins in the late tenth to early ninth millennium BC, in the form of the subterranean structures at Jerf al-Ahmar on the Euphrates.

Figurines have been interpreted in many different ways, often on the basis of ethnographic parallels or historical analogies from widely different areas and lengthy time spans. They are sometimes seen as children's toys, good-luck charms, dolls representing hoped-for offspring, or casual, spontaneous artistic expressions. However, they are mostly included in the realm of the sacred and the mythical and considered to be representations of deities, demons, and spirits. The recurrent naked and preponderantly female figures have been claimed to be portrayals of an all-embracing "mother goddess" or "mistress of animals," related to fertility and reproduction. The many animal figurines and the configurations of cattle horns in buildings are often believed to represent the goddess' male counterpart: the bull. It has been proposed that a Neolithic religion centered around the goddess and the bull emerged in the tenth millennium BC, fostering an ideology that continued as late as the Bronze Age.[80] The goddess perspective is often dismissed as inconsistent, intuitive, teleological, and founded on ideas derived from nineteenth-century perceptions of society and gender, which saw matriliny and matriarchy as the original (but also lowest) social form.[81]

Apart from interpretations of role and *personae*, a consideration of the symbols employed in the figurines may nevertheless offer a glimpse of the conceptual background and ideology of the Neolithic. Several researchers have argued that Neolithic ideology focused on domestication and enculturation of the wild and attempted to gain control of the outside world through ritual and symbol.[82] In the form of figurines and sets of horns, animals were brought into the

[79] Schmidt 1998b, 2000.
[80] Cauvin 1994. See also for example Cauvin 1972c; Mellaart 1967; Schmandt-Besserat 1996, 1998; Banning 1998.
[81] See for example Ucko 1968, 1996; Hamilton 1996.
[82] Cauvin 1994; Hodder 1990; Watkins 1992.

domestic sphere long before they were tamed and herded. The changes in architecture and the occurrence of symbolic constructions in the Neolithic suggest a concern with the redefinition of the house, which was not only the shelter for general everyday activities but also the appropriate place for ritual and burial, for the remembrance and identity of the family within the village community. Building, rebuilding, and use created a sense of memory and place, and provided a constant reminder of the values in society. The female figurines in and around the houses may have had similar implications.

An alternative interpretation associates figurines with ancestors; in this perspective, they served to confirm descent and ancestral ties. In that case, the predominance of female figurines suggests that only women were considered to be suitable ancestors and that descent was reckoned through the female line, resulting in communities that were "matrilineal and probably matrilocal, perhaps even matriarchal in ideology and practice."[83] It may also be the case that the figurines were related to magic, much in the same way as described in the cuneiform texts of the Bronze Age. Still belonging to the sphere of ritual and ceremony, they were perhaps metaphors of the natural and supernatural worlds that bonded people in the pursuit of common goals and promoted a sense of shared identity and descent. They may have been used in specific contexts, such as in rituals associated with birth and death, or in the initiation of the adolescent into the adult world. Meaning was not intrinsic to the figurines but given to them by the people who produced and used them. Their meaning may have differed across contexts but was always interpretative and made people understand; the figurines were memorative, narrative, and authoritative, surviving the spoken word and the passing event.[84]

A range of other items may have been used in a similar way, such as the bone "tally sticks" with regular cut marks at small intervals, or the small and flat, sometimes grooved, stones with incised decorations found at late tenth- to early ninth-millennium Mureybet, Sheikh Hassan, and Jerf al-Ahmar on the Euphrates (fig. 3.18). The stones show carefully incised geometric patterns, sometimes in association with animals, such as quadrupeds, birds, and snakes.[85]

Memories of the ancestors

Recently Andrew Sherratt referred to the numerous settlement mounds of Neolithic southeastern Europe as "the fixed points of human existence, the location of hearth and home, where life had its beginning and end – for the dead were often buried where they had lived, next to the family house."[86] To a considerable extent, this description holds for the Neolithic sites of Syria

[83] Parker Pearson 1999:163.
[84] See for example Bailey 1996:291, 295; Whittle 1996:66; Postgate 1994; Schmandt-Besserat 1996.
[85] Cauvin 1994:68 and fig. 3.19; Stordeur and Jammous 1997; Jammous and Stordeur 1999.
[86] Sherratt 1997:172.

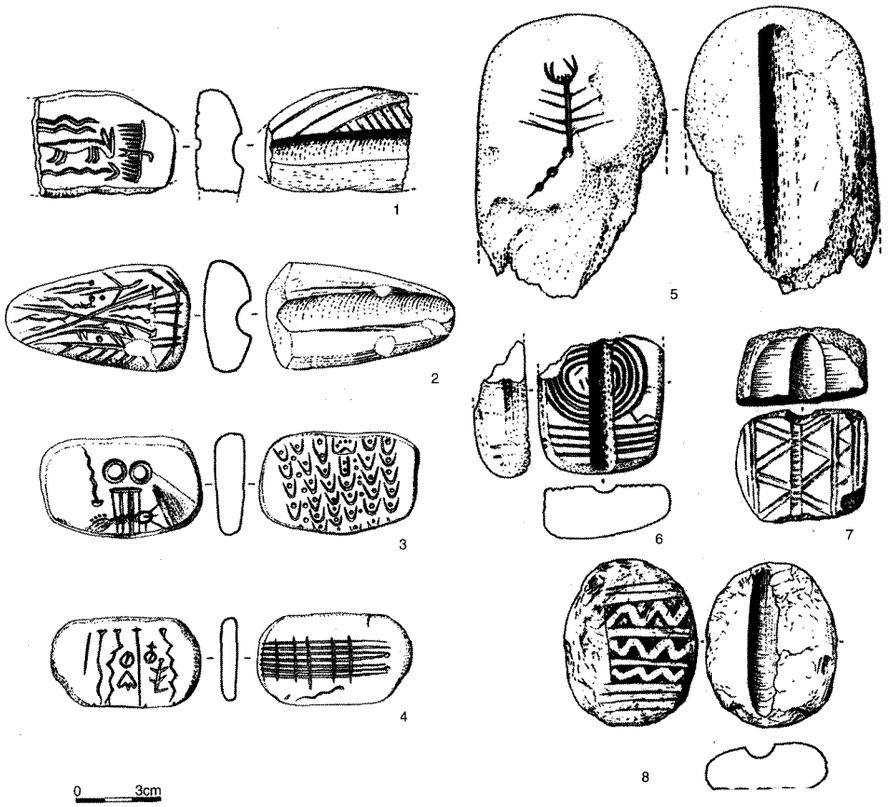

Fig. 3.18 Stones with incised decoration from Jerf al-Ahmar (nos. 1–6) and Mureybet (nos. 7–8).

and the Levant as well. The many burials were distributed within the settlements, at the places where the dead had lived and worked. No separate, formal graveyards outside the areas of occupation have yet been found. The funerary customs were widely diverse. Many sites produced inhumations of men, women, and children (including fetuses) in simple shallow pits in and outside the houses, some of which were abandoned, others perhaps still in use. The graves in the houses were situated near the margins of the living spaces, in the corners or at the ends of rooms, without markers. Some graves contained a single individual in a crouching position lying on one side or seated upright and in perfect anatomical order, indicating primary inhumation (fig. 3.19). There was no preferred side or orientation of the skeletons. Others yielded evidence of secondary interments of individuals without the skull, parts of other individuals' skeletons, groups of skulls, or skeletons and skulls jumbled together.

At Abu Hureyra, Halula, and Dja'de al-Mughara some of the deceased individuals had been wrapped in woven matting at the time of interment, with red ochre occasionally scattered over the corpses. One unusual burial at Abu

Fig. 3.19 Burial of a woman at Abu Hureyra.

Hureyra had been coated in gypsum plaster partly stained red with cinnabar and finally wrapped in matting before the plaster dried. A relatively small proportion of the dead were provided with burial goods in the form of beads and tools of stone and bone – a remarkable difference from the graves of later prehistory when gifts were almost obligatory. One of the dead at Tell Aswad was accompanied by a small clay animal figurine. The few human figurines found in association with groups of skulls in pits at nearby Tell Ramad probably were not grave goods in the proper sense of the word; rather, the skulls and statuettes were cultic objects ritually buried together. Horn cores of cattle and caprines, and caprine jaws, were deliberately deposited in a few graves at Abu Hureyra.[87]

[87] Moore 1975; Moore and Molleson 2000; Anfruns and Molist 1996; Coqueugniot 1998, 1999; Contenson 1995; Garfinkel 1994.

Fig. 3.20 Plastered human skulls from Tell Ramad near Damascus.

The skull was often separated from the rest of the skeleton before final burial took place. This practice was first attested in Natufian contexts in the southern Levant but became very common in the Neolithic, occurring as far north as Nevali Çori in Anatolia and Qermez Dere in Iraq, and as far south as Nahal Hemar cave near the Dead Sea.[88] The earliest evidence of cranial removal in Syria comes from late tenth-millennium Jerf al-Ahmar on the Euphrates, where a group of three human skulls, covered by a large, flat stone, was found in a stone-based oven, sunk in one of the courtyards. Traces of burning on the base of the skulls suggest that the oven was in use at the time of interment, and they have been taken as evidence of ritual associated with death and fire.[89]

Once separated from the body, the skulls sometimes underwent further elaboration. At Tell Ramad, a pit ascribed to layer I contained six skulls, and two pits in layer II contained three and twelve skulls respectively. Nearly all were remodeled with plaster to produce a lifelike image of the human face, some with traces of red paint (fig. 3.20).[90] Such plastering of skulls, occasionally with marine shells as eye-inlay, commonly occurred at sites in the southern Levant, such as Jericho, Beisamoun, Nahal Hemar, and 'Ain Ghazal, but it has rarely been reported from any of the settlements north of Ramad. In other

[88] See Garfinkel 1994 and references therein. [89] Jammous and Stordeur 1996:28.
[90] Contenson 1967, 1969; Contenson and Van Liere 1966.

cases, pigment was applied directly to the crania. Traces of red paint identified as cinnabar probably imported from Anatolia were found on the skull of a five-year-old child at Abu Hureyra, and streaks of a similar red pigment were also apparent on the front teeth and upper jawbone of a young adult. Some of the plaster skulls from Jericho near the Dead Sea have stripes painted from side to side over the top of the vault, whereas the skull of an adolescent from 'Ain Ghazal in Jordan showed a black pigment, possibly bitumen, on the occipital and parietal regions. Later Neolithic Çatalhöyük in Anatolia produced eleven painted skulls, some decorated with cinnabar, others with blue azurite or green malachite. These are said to belong to females only and occur exclusively in the buildings which have been interpreted as shrines.[91]

In the earlier part of the Neolithic, the crania were mainly on display on house floors and in domestic installations. Later in the sequence, the final act of disposal of the relics seems to have changed, since they are often ritually buried in pits, perhaps as part of a wider trend of burying cultic objects.[92] Skulls were also kept in charnel houses, such as at Çayönü in Anatolia, where the so-called 'Skull Building' contained the crania of many dozens of individuals. The building, about 10 m wide and at least 8 m long, originally consisted of one large room with three subterranean, cellar-like rooms in the back, each covered with large stone slabs. These cellars contained numerous skulls and other human skeletal remains, neatly stacked up to the ceiling. Subsequently, three small, interconnected rooms were constructed above the cellars and likewise used for the massive storage of skulls, seventy-one in total, including both men and women, adults and children. The remaining large room with its plaster floor and red-painted walls had low benches along the walls and a large flat and carefully polished stone slab on the floor, perhaps serving as a table. On its surface were traces of both human and animal blood, preserved in the form of hemoglobin crystals.[93] The building not only served for the burial of human remains but also was actively and continuously used in cult practices associated with death and the spilling of blood.

Other examples of charnel houses, while different in layout and content from the one at Çayönü, were found at Abu Hureyra and Dja'de al-Mughara on the Euphrates. A small, narrow room at the northwest end of a phase 8 mudbrick building at Abu Hureyra served as a repository for the remains of at least twenty-four individuals represented by flexed corpses, often headless, and by skulls deposited singly or in groups on the floor. One skull had been wrapped in matting coated with bitumen before it was laid to rest. The charnel room, its entrance blocked by mudbricks, was the final place of interment for at least some of the dead, although it cannot be excluded that others were brought in only for the flesh to decay and would later be removed and buried elsewhere. Remarkably, another room in the same house revealed a pit (about 1.6 by 1 m and 70 cm

[91] Molleson *et al.* 1992:233–4; Mellaart 1967; Angel 1971; Strouhal 1973; Rollefson 1986.
[92] Garfinkel 1994. [93] Schirmer 1983, 1990; Loy and Wood 1989; Özbek 1988.

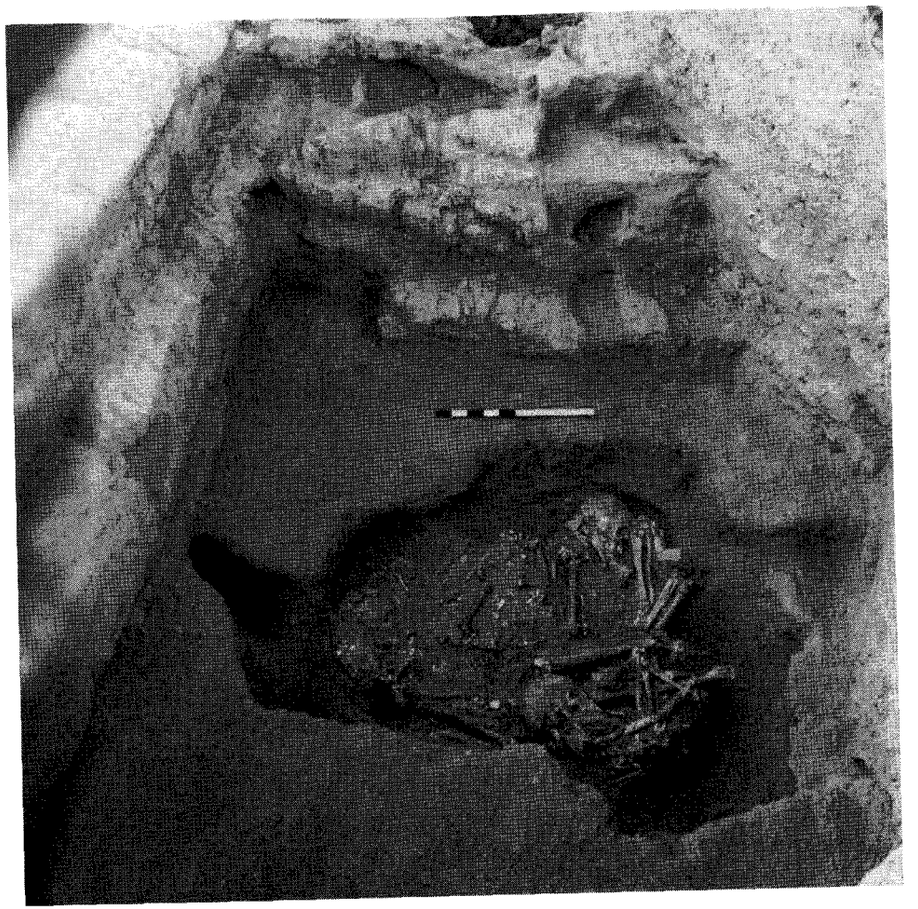

Fig. 3.21 Burial pit at Abu Hureyra, containing the bones of twenty-five to thirty individuals. The remains had already decayed before collective interment in the pit.

deep) containing the remains of twenty-five to thirty children, adolescents, and young adults, some of whom were missing their skulls or were otherwise incomplete (fig. 3.21). These were not primary burials but remains that had already decayed before collective interment. Although the phase 8 building superficially resembles any other house at Abu Hureyra, the large number of people buried in it shows that it served the needs of a group larger than the resident household; the dead were assembled from several households in the village, giving the house special ritual meaning.[94]

Indications of similar practices have been found at the small site of Dja'de al-Mughara *c.* 8000 BC. In and around the so-called "House of the Dead" with

[94] Moore and Molleson 2000.

Fig. 3.22 The "House of the Dead" at Dja'de al-Mughara, *c.* 8000 BC.

its four small rooms (fig. 3.22), the remains of at least thirty-eight individuals had been interred in a variety of ways including primary inhumations, groups of skulls, and other separately buried skeletal parts. Most corpses were buried in groups comprising up to thirteen individuals, mainly children and young adults, at least some of whom were wrapped in mats at the time of burial. One of the groups contained an adult lying in a flexed position beside a child, with one hand resting upon an isolated skull (fig. 3.23). Another group consisted of the skull of a child and the long bones of at least three adults, covered by large stones. The House of the Dead was in use over a long period of time and seems to have served the local community as a whole. It has been proposed that the practice of secondary burial at Dja'de was related to semi-nomadic groups, who interred those who had died away from the site during the seasonal itineraries. In contrast, the primary burials in the House of the Dead would involve people who had died at the site itself.[95] However, a second funeral ceremony, following the initial interment after a delay varying from a few weeks to as much as ten years, is a characteristic of many traditional societies, mobile as well as sedentary. Often the bones are exhumed and then treated in a variety of ways according to local traditions: they are washed, dried, occasionally covered with ochre, preserved as visible relics, and then reburied again.[96] The rites ending in definitive and very often collective burial confirm the new destiny of the

[95] Coqueugniot 1998, 1999.
[96] Thomas 1988; Molleson *et al.* 1992:234; Scarre 1994:79ff; Bloch 1971.

Fig. 3.23 A burial at Dja'de al-Mughara, showing an adult lying beside a child, with one hand resting upon an isolated human skull.

deceased – incorporation in the world of spirits and ancestors – and serve as acts of purification, in regard to both the dead and their descendants. Perhaps even more importantly they strengthen solidarity and a sense of permanence between the living and the deceased. Death as the final rite of passage emphasizes an ancestral world intimately linked with the world of the living.

A close bond between the living and the dead is also manifest in the skull deposits: while the corpses were buried, their skulls remained in the houses or shrines of the living, as memories of those once alive but now passed on into the community of the dead ancestors. They were sometimes given new faces by means of plastering or other treatment and may have been actively used in some form of ancestor cult. In view of their common occurrence in excavations, there can be little doubt that thousands of dead people were brought back to the world of the living in this manner, suggesting that the ancestors were crucial in the making and maintenance of the Neolithic communities. It has been proposed that the reason for this could have been a need to recall and demonstrate ancestral genealogies in order to motivate people to live and work closely together, essential in the small communities that became increasingly reliant on farming, where people had to draw on each other's labor for survival. It is probably no coincidence that the skull cult emerged within the context of villages where generation after generation lived in the same place, indicative of strong ties to the past. Another option is that the skull cult involved social competition, accompanied by head-hunting and raiding, such as may have been the case with the decapitated skeleton in a burned building at Jerf al-Ahmar.[97]

The regrouping of the disarticulated remains of many individuals and the separation of skeletal parts may signify a deemphasis of the role of the individual and of differences between individuals.[98] None of the burials argues for any form of distinction based on gender, age, or status. This conclusion may also be transferred to the world of the living, since the practice of reburial and the considerable symbolic behavior associated with it was probably not an individual act but involved the entire community. This is not to say that Neolithic society was devoid of social differentiation and hierarchy. Very often the elaboration of the burial ceremonies is related to the status, age, and sex of the deceased to a considerable extent, and depends even more on the persons carrying out the burial, who are trying to enhance their position within the community in this manner. Neither of these needs to involve any religious concepts. The emphasis upon solidarity and the collective refers to a set of societal ethics and values, although ideals and practice are not always the same.[99] At the most general

[97] Parker Pearson 1999:161. On the basis of her finds at Jericho, Kathleen Kenyon was the first to consider the possibility that the skulls were representations of venerated ancestors. See Kenyon 1957:85.

[98] See for example Shanks and Tilley 1982.

[99] James Hill concluded in this respect that "as anthropologists have long known, people will often say (and think) that they have certain beliefs, ideologies, norms, values, etc., but not actually behave in conformance with these things. Very often these 'thoughts' are among the most important aspects of 'mental culture' that people possess." See Hill 1994:90. See also Harris 1974:242–3, 245; Whittle 1996:35.

level, perhaps we may recognize a Neolithic ideology with two elements – one stressing the importance of communal solidarity, another emphasizing the reverence of ancestors. The evidence for this may be summarized as a concern to keep the dead within the community, in the form of burials immediately beneath the feet of the living, the construction of specific houses for the dead, the collective burial of the remains of many individuals of both sexes and all ages, and the common detachment of skulls from the body.

The nature of Neolithic society

The Neolithic landscape consisted of many small communities and a few larger ones built in a natural world otherwise little modified by human activity. The places of settlement may have been chosen on the basis of favorable niches in the local environment. Simultaneously, however, settling down implied a reshaping of the physical environment in a man-made world by imposing houses, villages, quarries, and fields on the landscape.[100] People had chosen to live at selected sites, often for long periods of time, creating an artificial environment where settlement mounds became cultural landmarks full of history and memories and the focal points of group identities. The numerous small settlements with their few and often scattered houses in each building phase were inhabited by a few dozens of people at the most, probably at first tied together along lines of kinship. Daily activities in these family-based communities focused on the domestic sphere and its immediate surroundings and were built upon shared labor and space. The frequently long duration of occupation and consistent reconstruction of houses in the same place and alignment over several generations imply the explicit recognition of lineages and suggest that property and other rights were heritable.

These were rather insular communities with little contact to the outside world, where change took place over many generations. At the same time, these villages were not wholly independent of or isolated from the outer world. Marriage partners had to be sought outside the community, and intimate kin relationships would have been established between many settlements. There was an ongoing movement of people, and goods, ideas, and values were constantly exchanged. The confirmation of the bonds between the various communities probably took place in the form of regular feasts and ceremonies. Any forms of social and political differentiation seem to have been weakly developed, and authority probably rested primarily upon age and, perhaps, gender; there was no need for any formally sanctioned institutions of power.

This picture may have been somewhat different in the case of the few large settlements such as Abu Hureyra on the Euphrates, 'Ain Ghazal and Basta in Jordan, and Beisamoun in Palestine, each presumably over 10 ha in size and housing many hundreds or perhaps even thousands of people. These

[100] See Ingold 1986.

communities surpassed the limits of the singular family, even in its most extended form, and incorporated various groups, undoubtedly cooperative at many levels though each with its own interests and demands. Some form of consultation and control would have been required to mediate quarrels and judicial affairs, but consistent signs of a hierarchical social segmentation within these settlements, such as differences in house size or house inventories, are still lacking.

In the formation of their communities, small and large, people relied upon concepts of common identity and values deeply rooted in the past and the ancestral world. People were tied to chosen places. The regular pattern of house construction, the consistency of the internal structure of the buildings through time, and the rather unified, clustered layout of the large settlements have been taken as evidence for the careful planning and organization of habitation. These features did not spring to life fully formed, nor did they result from any authority imposing its will upon the community; rather, they were gradually created from past experiences and concepts and traditions inherited from the earlier generations – real or imaginary. They were symbols of order and meaning, constantly reproduced and reinterpreted.[101] A strong sense of place and past can be inferred from the burials, which were not individual affairs but involved the family and, at least in the case of the small-scale occupations, the community at large, not only at the time of interment itself but also during the elaborate rites and treatment that often followed. The dead were kept within the settlements with their long histories, thus emphasizing the permanency of the bonds between the living and the deceased. The dead were not only remembered but also actively brought back in their new status into the world of the living by complex ceremonies of secondary burial and the keeping and display of the skulls. Occasionally, the ancestral spirits were given faces – realistic or imaginary – by plastering or other elaboration. Many of the figurines and the large statues originally placed in shrines may have served similar purposes. The dead as ancestors were omnipresent and remained active members of society. Whenever the deceased were believed to take an active role in society, the living were obviously concerned with the welfare of these spirits, expressed through the rituals carried out at the funerals or through the efforts put into the construction of charnel houses and shrines. This care reinforced the communities' structuring principles and values and was an expression of unity among its members. It helped to control and regulate society. The formal treatment of the dead remained essentially unchanged for thousands of years, which is perhaps not surprising given the ethnographic observation that "dead ancestors do not smile on any kind of change in the cultures of their living relatives. Because ghosts are capable of severely punishing an earthly mortal desirous of change, the force for conformity is strong."[102]

[101] Cf. Hodder 1982. [102] Lehmann and Myers 1997:285.

4

THE EXPLORATION OF NEW HORIZONS

From the outset, research into the Neolithic of Syria has been primarily concerned with beginnings, not endings. Great efforts were made in the search for the origins of agriculture and the development of sedentism, but far less attention was devoted to the successful communities that emerged at the end of what has been called the "Neolithic Revolution" or "Agricultural Transformation." The history of the study of the late Neolithic is one of fits and starts, with periods of major advances alternating with long intervals in which little interest was taken and few new results were attained. Late Neolithic strata of occupation were often reached by chance in small exposures, and interpretation often rested on sequences from isolated individual sites with little attention paid to regional diversity and local development. This picture is now changing.

The late Neolithic in Syria can be dated to *c.* 6800 to 5300/5200 BC. Although the first occurrence of ceramics is usually taken as the basis for distinguishing the late from the early Neolithic, there is reason to believe that the invention of pottery initially made little difference in the Neolithic way of life. Every Neolithic community did not embrace pottery manufacture at the same time: while some remained fully aceramic, others used pots on a modest scale or adopted pottery at a much later date in its developed rather than incipient form. The lithic assemblage and the bone industry demonstrate considerable continuity as well, and fine stone bowls were still in use.

The first indications of prehistoric pottery cultures in Syria came to light in the early 1900s at Tell Halaf and Yunus in the north and at Sakçe Gözü in the Taurus piedmont. However, these early investigations were soon overshadowed by the archaeological sequences established in the plains of northern Mesopotamia (Iraq), at settlement mounds like Nineveh, Arpachiyah, Samarra, and Hassuna, which became the key sites for the period.[1] A variety of chronologically and spatially overlapping cultures was defined – the Hassuna, Samarra, and Halaf horizons. The former two assemblages were seen as purely Mesopotamian in distribution, whereas the Halaf culture was thought to have spread into Syria as well. This traditional Mesopotamia-orientated framework still underlies much recent research in the late Neolithic of both Syria and Iraq.

[1] Von Oppenheim 1931; Woolley 1934; Garstang 1908; Garstang *et al.* 1937; Du Plat Taylor *et al.* 1950; Thompson and Mallowan 1933; Mallowan and Rose 1935; Herzfeld 1930; Lloyd and Safar 1945; Perkins 1949.

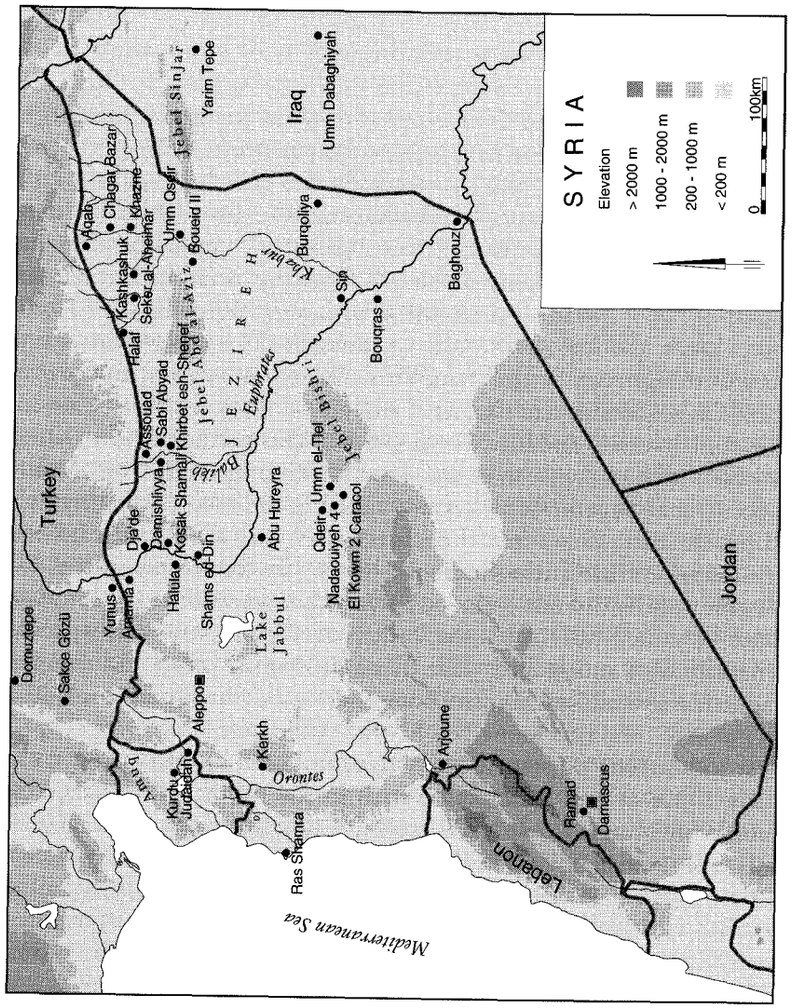

Fig. 4.1 Syria in the late Neolithic, with the location of the principal sites discussed in chapter 4.

An interest in the early pottery cultures of Syria *per se* was boosted by the work initiated in the plain of Antioch (Amuq) near the Mediterranean in the 1930s.[2] A lengthy regional sequence based on survey and the excavation of several sites was soon accepted as the basic chronological framework for the development of the late Neolithic in Syria. However, more recent research in many regions hitherto rarely investigated indicates a strong regional differentiation, many different chronologies and a wide diversity in the material culture. It is increasingly obvious that a single archaeological framework for the late Neolithic of Syria cannot be sustained (fig. 4.2).

To a significant extent, archaeological interpretation has always rested on the construction of culture groups consisting of sites sharing a discrete and homogeneous set of cultural traits. In ceramic periods, single pottery styles have been primarily taken to represent these groupings. There have been attempts to equate ceramic distributions or "cultures" with ancient peoples or ethnic entities. It comes as no surprise that changes in the material record were often interpreted in the context of population movements, new arrivals, or colonization. For example, the sixth-millennium Halaf culture has long been associated with hill people from the mountains of Anatolia who descended into the Mesopotamian plains.[3] These views have been much challenged, and the intensification of research shows that the material and social boundaries between late Neolithic cultural groups were blurred, not sharply defined.[4] Many explanations have been proposed for the widely observed overlap, from trade and the circulation of status goods to diffusion and "continuous interaction," but the argument is often still framed in the culture-group model. Far more researchers now believe that much of the late Neolithic in Syria and elsewhere should be seen as the result of long continuities and indigenous change rather than as the product of sudden innovation or the arrival of new populations. Whereas the recognition of culture groups still has an appeal on the intuitive level,[5] the straightforward "pots-and-people" associations of the early decades now shift towards models allowing for a much more fluid and heterogeneous Neolithic world. Instead of neatly bounded cultural groupings, we find a wide variety of crosscutting patterns and features and, most probably, overlapping social networks of varying intensity. There was no "Hassuna" or "Halaf" in the sense of monothetic, independent entities existing beside each other, but numerous interwoven relationships of temporary and fluctuating groupings and alliances. There were, in short, many late Neolithic cultures and histories, localized in space and time. Often they differed from each other in terms of their material assemblages, but there were also many similarities and continuities, and there was always a strong affiliation with what had gone before.

[2] Braidwood and Braidwood 1960.
[3] Mallowan and Rose 1935; Mallowan 1936; Mellaart 1970, 1975.
[4] See for example Campbell 1992; Bernbeck 1994.
[5] Cf. Watkins and Campbell 1987:428–9.

Calibrated dates BC	Periodization	Western Syria	Middle Euphrates	Balikh	Khabur	Syrian desert	Northern Iraq
5200	Halaf	Amuq D sites Kurdu Arjoune, Amuq C sites	Amarna, Masaikh, Shams ed-Din, Halula	Khirbet esh-Shenef Damishliyya Sabi Abyad 1 - 3 ('Early Halaf')	Umm Qseir Tell Halaf Chagar Bazar		Arpachiyah, Yarim Tepe II
5900	("Transitional")		Baghouz	Sabi Abyad 6 ('Burnt Village')	Boueid II		Yarim Tepe I, Hassuna,
6100	Samarra	Nebi Mend, Amuq B sites	Dja'de, Kosak Shamali, Halula Pre-Halaf	Sabi Abyad 8-10	Kashkashuk II	El Kowm 2 'PNA'	Umm Dabaghiyah, Sotto, Kültepe
6500	Pre-Halaf	Amuq A sites el-Kerkh 6–1, Ras Shamra VB, Ramad III	Tell es-Sin, Bougras 7-1 Abu Hureyra IIC	Sabi Abyad 11, Damishliyya 3-7, Assouad	Burqoliyya Seker al-Aheimar	El Kowm 1, C - D El Kowm 2 Caracol, Qdeir	
6800	Early PN, Final PPNB						
7000	Late PPNB	Ramad II	Abu Hureyra IIB				

Fig. 4.2 Late Neolithic chronology.

Despite the conservatism, we also have evidence for major changes in this long period, including: the alteration of settlement layouts; the introduction of new construction techniques and buildings; the growth of pottery into a mass product; changes in ritual; the extensive use of seals and sealings; the introduction of metallurgy; and an increase in pastoralism. The nature and pace of change differed from region to region in association with shifts in the people-and-land relationships and with an increasing emphasis upon mobility and pastoralism. Rather than maintaining the earlier pattern of sustained occupation at specific localities over many centuries, people developed a much more dispersed settlement system of small and often short-lived villages and seasonally occupied camp sites. The vast, hitherto untouched, plains extending beyond the boundaries of the cultivated fields were explored more and more, and new horizons came within reach.

Regional patterns of settlement

Late Neolithic settlements varied considerably in size, duration, and internal layout. In some cases, occupations were small camp sites without permanent installations, used intermittently or for special purposes. Others were hamlets with a handful of houses in use for only a few generations. Also part of the picture were large villages, frequently with a planned layout of uniform structures and with repeated occupations over hundreds of years. Such mounds may have been up to 10 ha or more in extent, but it is not always clear whether they were inhabited in their entirety at any one phase of occupation. Some settlements seem to have had a rather spacious and dispersed layout; others were much more densely built upon. Buildings continued to be constructed of *pisé* or mudbrick, sometimes on stone foundations, but plans are often incomplete and fail to convey the layout of the house.

It is not always easy to distinguish the houses for dwelling from buildings used as storage rooms, stables, and workshops. For example, many rectangular structures had a tripartite layout divided into a series of compartments so small they must have been used for storage only. Size, layout, elaboration, and inventories have all proven to be useful indicators of function, but the picture is rarely as straightforward as we would wish it to be. Buildings must often have served many purposes, with the emphasis changing during use. The perception of space was undoubtedly very different from that of our modern world.

In the late seventh millennium, people began to employ circular structures or *tholoi*[6] as large as 5–6 m in diameter for a wide variety of purposes. Their distribution cuts across traditional cultural boundaries, but tholoi tend to be

[6] Ever since the work at Tell Arpachiyah in northern Iraq in the early 1930s, these circular buildings have been referred to in the archaeological literature as *tholoi*, this on the basis of some broad though misleading parallels in layout with Mycenaean grave tombs of much later date. See Mallowan and Rose 1935:25ff.

Fig. 4.3 Circular architecture on stone foundation at Tell Halula.

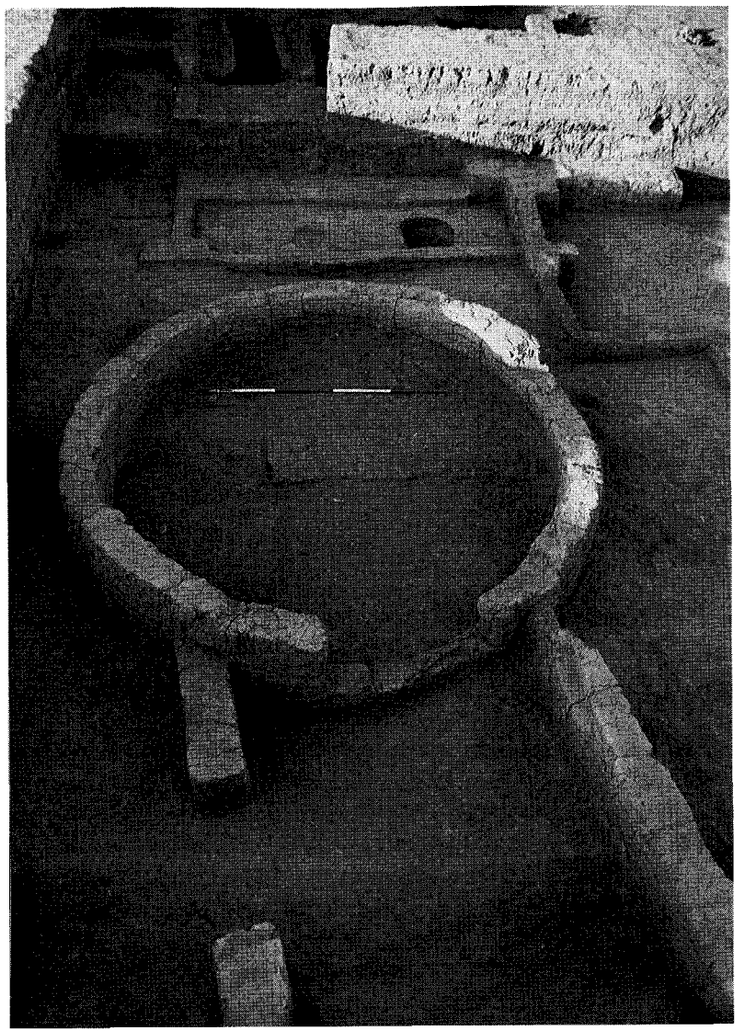

Fig. 4.4 Mudbrick tholos with rectangular antechamber at Tell Sabi Abyad, *c.* 5900 BC.

absent in more remote areas like Bouqras and the desert sites, where earlier building traditions were maintained. By the mid-sixth millennium, circular structures were predominant in the Halaf culture over much of northern Syria and Iraq. Although most tholoi had only one circular room, keyhole-shaped buildings consisting of a circular room enlarged by a rectangular antechamber also existed (figs. 4.3–4.4). The buildings are usually thought to have had a beehive-shaped superstructure.

Rather than simply another form of late Neolithic architecture, these round structures marked a fundamental departure from the long-lived traditions of rectilinear constructions. This change has been interpreted from a variety of perspectives, although none truly explains the shift from rectangular to round. One view is that the tholoi were a revival of the round-house traditions of the Epipalaeolithic and earliest Neolithic that had survived in remote hinterlands. Referring to today's traditional architecture in many parts of the Near East, another view holds that the tholoi were a response to the local environment and the availablity of building materials: tholoi could be easily and cheaply built in degraded or arid landscapes because they did not require any timber (the vaulted roofs were wholly made of mudbricks). Moreover, owing to their presumably dome-shaped superstructure, they were cooler in summer and warmer in winter than rectangular buildings. Other interpretations relying on the ethnographic record suggest that tholoi correlate with mobility and pastoralism, or that they are related to the "circular hut compounds" of tribal Nigeria and Cameroon, characterized by polygynous extended households rather than monogamous nuclear families. One neo-structuralist approach relates the dichotomy between round and rectangular buildings to differences in social organization, with the tholoi representing residential households and the rectangular buildings representing communal storage and nomads.[7]

Perhaps it is most important for us to realize that tholoi were more than a new and useful kind of shelter. They not only were means to an end but also had – like all architecture – meaning in social contexts, as products of social values, ideals, relations, and identities. The buildings were both an outcome and a vehicle of change, actively used in the shaping of the social and natural environments. Shape, size, and construction were the result of a series of choices by the builders within a range of equally viable options, on the basis of past experiences and perceived opportunities and constraints. Once these decisions were made, their consistency was probably understood as "the way things are always done."[8] People undoubtedly knew many ways of constructing buildings but adopted them only selectively for their purposes in an ever-changing Neolithic world.

Western Syria in the seventh millennium BC

In western Syria, the pattern of settlement in the transition from the aceramic to the ceramic Neolithic is not well documented. The Amuq plain seems to have been devoid of settled populations prior to the early seventh millennium BC, when occupation began at sites like Tell Judaidah and Tell Dhahab together with the introduction of pottery in the region (Amuq phase A). In the entire late Neolithic period, the extent of settlement in the Amuq was apparently limited

[7] Mellaart 1975:131, 162; P. Copeland 1955; Akkermans, ed., 1989:59–66; Tsuneki and Miyake, eds., 1998:164–76; Flannery 1972; Breniquet 1996; Forest 1996; Verhoeven 1999.
[8] Wiesner 1984:161, 195. See also the various contributions in Stark, ed., 1998.

Fig. 4.5 Late Neolithic architecture at Tell 'Ain el-Kerkh.

to a dozen sites. Elsewhere there were abandonments, as at Ras Shamra on the Mediterranean littoral between the lowest, aceramic level VC and the next level VB with its fully developed pottery assemblage.[9] However, there is also evidence for the continuity and expansion of occupation, as at the extensive cluster of prehistoric mounds at Tell el-Kerkh in the Rouj basin. The lowest levels, 12 to 7, at Tell el-Kerkh 2 are fully aceramic, while pottery is present from level 6 onwards, mainly in the form of grit-tempered and often dark-colored, carefully burnished vessels commonly termed "Dark-Faced Burnished Ware." The successive villages at Tell el-Kerkh 2 and at nearby – though much larger – Tell 'Ain el-Kerkh had rectangular *pisé* buildings with many small rooms often hardly more than 1 sq. m in size that cannot have been used for purposes other than storage (fig. 4.5). In fact, one such small room contained considerable quantities of charred cereals on its floor. The rooms sometimes had rather irregular floors made of limestone pebbles or lime plaster, or both; the rarety of doorways indicates that many of the cubicles were accessible only from the roof. One single-roomed building had, below its lime-plastered floor, a small square pit with a stone-paved surface and walls built of pebbles. The

[9] Braidwood and Braidwood 1960; Yener *et al.* 2000; Contenson 1992.

pit contained the remains of a newly born infant in a contracted position and a considerable quantity of animal bones (pig, goat, fallow deer), presumably all buried together.

In the upper levels 2–4 at Tell el-Kerkh 2 were also circular buildings up to 2.5 m in interior diameter, with mudbrick walls, plastered floors founded on pebbles, and probable domed superstructures. These buildings had a restricted lifetime and were repeatedly renewed on the same spot. Unfortunately, we still know very little about the layout of other settlements of this period in northwestern Syria, since the soundings at Qminas and Judaidah were small and failed to produce coherent plans.[10]

Surveys in the Rouj plain and in other parts of northwestern Syria such as the Qoueiq area and the Jabbul plain near Aleppo suggest a slight increase of settlement in the seventh and sixth millennia.[11] In contrast to the earlier, aceramic Neolithic period represented by one or two sites, the Rouj area in the late Neolithic period contained some fourteen occupations, although not all were occupied simultaneously. Most sites were located along ancient water channels, near springs, or in other favorable parts of the landscape. There were eight sites in the Jabbul area, almost exclusively concentrated along the Nahr ed-Dhahab in the rainier western part of the survey area. Five sites characterized by Dark-Faced Burnished Ware probably belong to the early part of the late Neolithic sequence, the others in the later part. Although some twenty-five sites were identified in the Qoueiq region, these, too, should not be assumed to be contemporary. It is all too easy to conclude that more sites reflect more sedentary occupation or an increase in population, but the number of sites in use at any given moment was probably very low. For example, sites such as Tell Kurdu in the Amuq or Tell el-Kerkh in the Rouj basin had grown into impressive mounds over 10 ha in size by the end of the period, but they were not always occupied in their entirety: Tell el-Kerkh has provided evidence for a continuous but shifting occupation from one area to another. Nevertheless, a two-level hierarchy in the organization of settlement seems to occur nearly everywhere, with one or two larger, regional centers complemented by a number of smaller sites.

Southwestern Syria is largely an archaeological *terra incognita* in the late Neolithic. Small-scale soundings at sites like Tell Nebi Mend, Hama and Tell Apamée on the Orontes yielded seventh- to sixth-millennium pottery assemblages (Dark-Faced Burnished Ware) but little or no architecture other than fragments of plaster floors. Sites of this period also occur in the Beqa'a valley southwest of Homs, as at Labweh and, perhaps, Tell Naba'a Faour.[12] The

[10] Tsuneki and Miyake 1996; Tsuneki *et al.* 1997, 1998, 1999; Braidwood and Braidwood 1960; Masuda and Sha'ath 1983.

[11] Iwasaki and Nishino, eds., 1991, 1992, 1993; Iwasaki *et al.* 1995; Mellaart 1981; Schwartz *et al.*, 2000a.

[12] Matthias and Parr 1989; Otte 1976; Thuesen 1988; Copeland and Wescomb 1966; Copeland 1969; Nishiaki 2000b.

long-established settlement mounds in the region near Damascus seem to have been abandoned *c.* 6800 BC at the latest, with the exception of Tell Ramad, occupied for another four or five centuries.[13] First settled in the late eighth millennium, Ramad was a small village of 2 ha. The nature of the occupation at Ramad changed during its three main phases. The settlement began as a series of widely spaced, semi-subterranean *pisé* huts 3 or 4 m in diameter, with a somewhat irregular, oval form. Small single-roomed structures also predominated in the next level II, but now the houses were rectangular, built of mudbricks on stone foundations. The dwellings were separated from each other by narrow lanes and courtyards containing hearths, ovens, and silos. The shift in architecture was associated with a number of important innovations in the local material culture, such as the mass production of "White Ware," mainly in the form of open containers occasionally painted with wide stripes of red ochre. Pottery manufacture was another novelty, but practiced at a much more modest scale and initially producing friable and poorly fired pots with dense straw inclusions. In the final level III (late seventh millennium BC), burnished and sometimes incised bowls and pots were produced in great abundance, all fabricated in good Levantine Dark-Faced Burnished Ware tradition. The level III occupation has not produced a single building so far; instead, there were large pits sunk into the earlier phases, interpreted as temporary shelters used by a semi-nomadic population. From the beginning, the people at Ramad grew barley and various kinds of wheat and lentils, and collected edible grasses, vegetables, and fruits from the wild. For their meat they entirely relied on the main domestic animals: sheep, goats, cattle, and pigs. Hunting was practiced marginally and confined to gazelle and deer. It is tempting to relate the shift in settlement late in the sequence to herdsmen who increasingly turned to the use of intermittent, short-term occupations at the expense of a fully sedentary life in a permanent village.

The attractive setting of Tell Ramad at the foot of Mount Hermon in a well-watered savannah with pistachio, hawthorn, and almond makes it difficult to believe that the site was the only local late Neolithic occupation. Surveys in the once densely forested foothills of the Anti-Lebanon and along the Barada river west of Damascus have located sites that may date to this period, but these seem to have been little more than small and ephemeral occupations. Some of the sites have shallow depressions possibly representing hut floors, while others manifest concentrations of heavy boulders indicating working or living areas. Little is known about the people using these sites, except that they probably practiced agriculture in small forest clearances, indicated by axes, adzes, grinders, and other ground-stone tools on the sites' surfaces.[14]

[13] Contenson 1971, 1985, 1993, 2000.

[14] Van Liere and Contenson 1963; Contenson 1985.

The middle Euphrates and the Jezireh in the seventh millennium BC

Settlement along the Euphrates and in the plains of the Jezireh farther east continued to be largely confined to tells, but there were also many shallow and short-lived sites, particularly towards the end of the period. The density of settlement fluctuated through time and varied from region to region. There were abandonments, continuities, and new foundations. For reasons not yet fully understood, the intensity of settlement remains far below expectation in some areas like the Euphrates basin, where only a dozen sites of the seventh to early sixth millennium have been discovered. As in earlier periods, there is a clear spatial patterning in this region, with most of the settlements located between the Syro-Turkish border and Lake Assad.

The continuation of occupation from the early (aceramic) Neolithic into the late (pottery) Neolithic has been documented at large mounds such as Abu Hureyra and Tell Halula (and Bouqras; see below).[15] Occupation at the 12 ha mound of Abu Hureyra contracted to half if not less of its earlier extent. No coherent building plan could be established for this phase mainly characterized by flimsy traces of rectangular mudbrick houses and numerous shallow pits sometimes provided with hearths, suggestive of their use in domestic contexts. In contrast, Tell Halula contained impressive stone walls up to 1.20 m in width that must have enclosed at least part of the settlement, although the perimeter is still unknown. There were also extensive stone-covered water channels forming part of a very early but elaborate drainage system. Halula was laid out spaciously, with many dispersed buildings and large open areas in between. The rectangular houses built of mudbricks on stone foundations were divided into small compartments provided with ovens and hearths (fig. 4.6). In two cases, a child had been buried in a pottery vessel below the floor. Towards the end of the seventh millennium, people at Halula also began to use circular structures between 1.3 and 3.8 m across, made of stone with a thin gypsum coating on the interior (cf. fig. 4.3).

There are no other settlements along the middle Euphrates dating to the transition from the aceramic to the ceramic Neolithic, but such sites commonly occur in the neighboring Balikh valley, where the characteristic early pottery has been found in small exposures at Tell Assouad, Tell Damishliyya, Tell Sabi Abyad I, and Tell Sabi Abyad II and on the surface of at least six other mounds. Most settlements were small, 1 ha or less, but all had a long history of occupation from at least the late eighth millennium and had grown into mounds up to 7 m high.[16]

An intriguing phenomenon that has sparked much debate is the interruption or even termination of occupation at many long-established mounds in Syria and the southern Levant in the early seventh millennium BC. Surveys and excavations have suggested that, within two or three centuries, people gradually

[15] Moore 1975; Molist 1998a; Molist, ed. 1996. [16] Akkermans 1993.

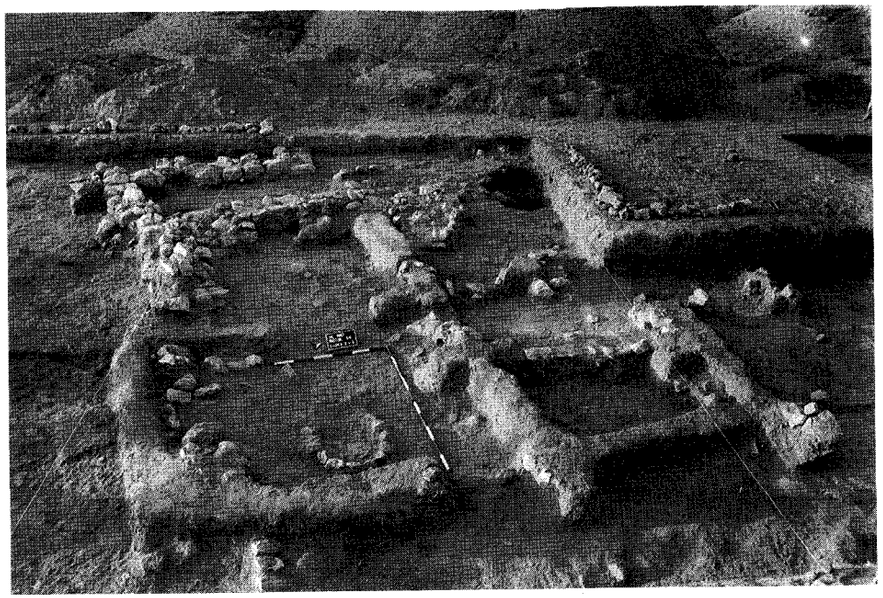

Fig. 4.6 Late seventh-millennium house remains just below the surface of Tell Halula.

abandoned extensive regions previously dotted with occupations and left these areas to their fate for sometimes considerable periods of time. The Balikh is an example of this: first there was a contraction of settlement to the northern, rain-fed, part of the basin, then a total abandonment of sites, some for good, others for a period of several hundred years. A lengthy sequence has been documented at Tell Sabi Abyad, but the crucial basal levels that might shed light on this period of upheaval have only been investigated over a very limited area so far.[17] The pattern of abandonment has also been noted for many of the farming villages across the southern Levant and is sometimes even said to have entailed a wholesale desertion of the region for up to a thousand years – the so-called *hiatus palestinien*.[18] It is often assumed that people abandoned their villages in response to an increasingly dry and deteriorating climate *c.* 7000 BC, but the evidence for climatic change, especially to a degree that would disrupt regional settlement, is equivocal at best. Other approaches have emphasized population growth and its disastrous impact on the fragile local environments or have reconstructed an increasingly dispersed settlement system resulting from the growth of nomadic pastoralism or from fissioning within the larger communities in order to avoid conflict over allocated land. Rather than interpreting the changing pattern of settlement in terms of disaster and crisis, many

[17] Akkermans 1993; Copeland 1996:313–16; Le Mière and Nieuwenhuyse 1996:140.
[18] For example, Perrot 1968; Mellaart 1975; Moore 1975; Nissen 1993.

researchers now agree on the slow indigenous transformation of Neolithic society and on shifts in the nature and intensity of occupation, with a possible increase in the number of small camp sites of low archaeological visibility.[19]

The explanation of the transition and change may be far less dramatic than it seemed to be for a long time. Although Abu Hureyra was abandoned around 6800 BC, there was a continuity of occupation for many centuries at sites such as Halula and Bouqras. A new wave of survey and excavation in the Amuq plain, the Idlib region, and elsewhere in western Syria has brought to light many late Neolithic sites hitherto unknown. There was a renewal of occupation in other regions, such as the interior desert, which had been virtually devoid of people since the end of the Ice Age. Sites were also newly built along the Euphrates and Balikh. Most new occupations were small and short-lived, as shown by the recent salvage work at Dja'de al-Mughara and Kosak Shamali.[20]

By the late seventh millennium, Tell Sabi Abyad in the Balikh valley was a well-established village built of large and closely spaced rectangular buildings surrounded by many small tholoi. The best information comes from the level 6 settlement, destroyed by a violent fire *c.* 6000 BC. Rich inventories were recovered from the burned buildings, including pottery, stone vessels, flint and obsidian implements, ground-stone tools, figurines, personal ornaments, and hundreds of clay sealings with stamp-seal impressions.[21] While unique in terms of preservation and the richness of its inventory, the "Burnt Village" (fig. 4.7) appears to have been only one in a long series of settlements comparable in size and layout. There was much continuity, with later levels of waste nestling up against earlier wall faces, or new walls set directly upon lower walls or parallel to older ones. The sequence of building activities was complex and often localized. Some structures were demolished to make way for new buildings, while other buildings remained in use with hardly any modifications at all. The open areas for passage between the buildings were increasingly built upon or used for the deposition of domestic refuse, resulting in an ongoing raising and altering of the areas of occupation.

The Burnt Village covered an area of at least 1 ha, although this space was not wholly occupied by houses. There were extensive open areas on the outskirts of the settlement provided with fireplaces, ovens, and pits, as well as extensive dumps containing ashes and other household waste. The heart of the village consisted of a series of regular rectangular *pisé* structures, interpreted as granaries and storehouses (fig. 4.8). They were usually divided into three rows or wings, each of which consisted of a series of very small cubicles. The buildings had fifteen or more such rooms, each only between 3 and 5 sq. m. Some of the rooms had normal doorways, while others had portholes of such restricted

[19] Köhler-Rollefson and Rollefson 1990; Gopher and Gophna 1993; Banning *et al.* 1994; Banning 1998; Rollefson 1998.
[20] Coqueugniot 1998, 1999; Nishiaki *et al.* 1999.
[21] Akkermans and Verhoeven 1995; Akkermans, ed., 1996; Akkermans and Duistermaat 1997.

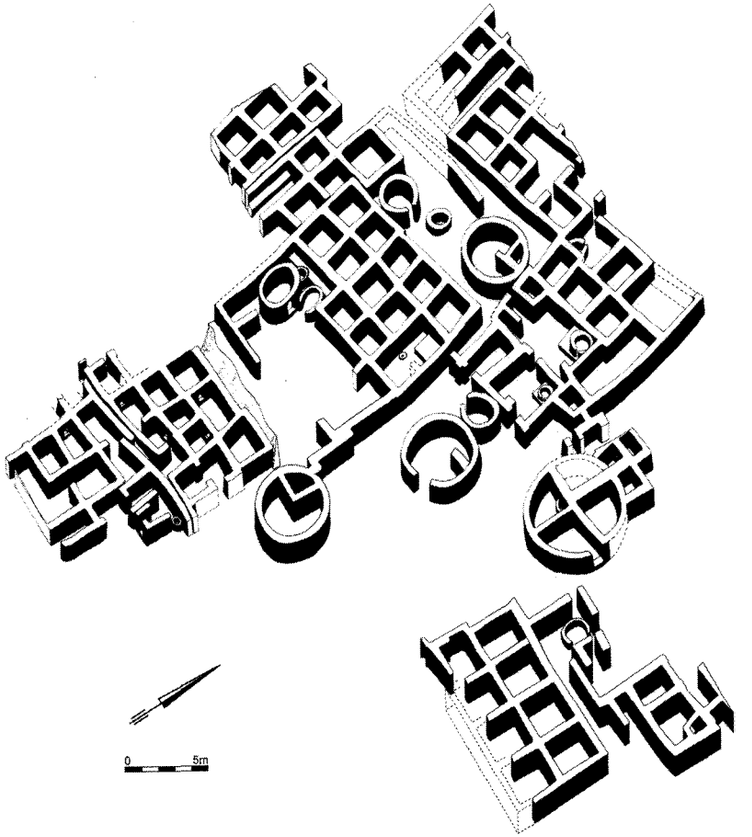

Fig. 4.7 Axonometric reconstruction of the Burnt Village at Tell Sabi Abyad.

size that one had to crawl through them on hands and knees. Occasionally no passage at all was present; apparently these rooms were accessible from the roof only. Charred beams and hard-burned loam fragments with impressions of reeds and circular wooden poles in the various houses revealed that the roofs had all been made in the same way: wooden rafters were placed at regular intervals and covered with reed mats, in their turn covered with a thick mud layer. There is evidence that people habitually walked on the roofs and that various kinds of activities were carried out there, including rituals possibly associated with fire and death. On the edges of one roof were a number of large emblematic clay "torsos," containing the horns of wild sheep and the limbs of cattle. The meaning of these objects remains puzzling, but they should most likely be associated with a ritual context. It is probably no coincidence that the corpses of two adults were deposited on the roof of the same building, suggestive of a link between the "torsos" and funerary practice. That the settlement ended in

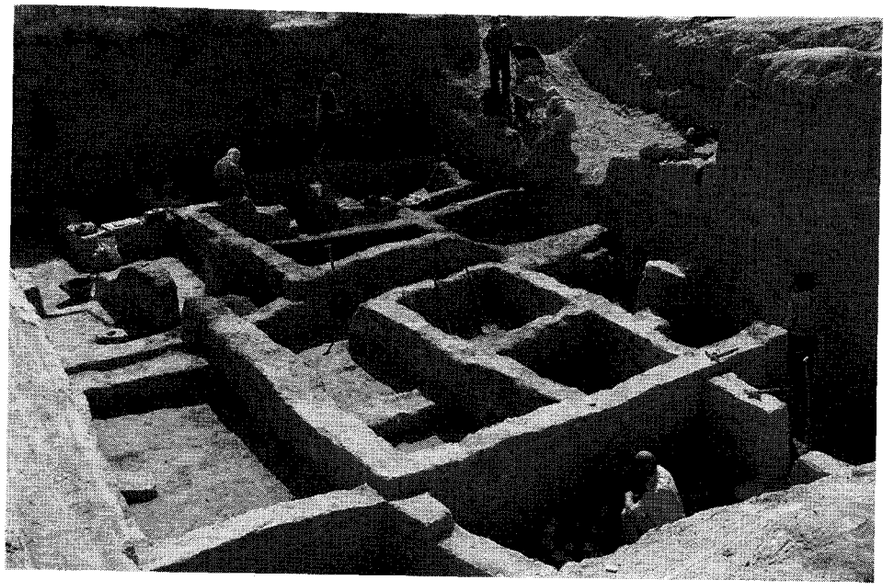

Fig. 4.8 Storehouses of the Burnt Village at Tell Sabi Abyad during excavation.

a conflagration may itself be interpreted as a deliberate ritual act of burial and abandonment.[22]

Ovens and hearthplaces – the foci of daily domestic life – were rare in the buildings of the Burnt Village but could be found in small auxiliary structures, in walled courtyards, or in the clearances between. Here stood white-plastered circular structures up to 4 m in diameter, sometimes subdivided into smaller compartments. The larger tholoi probably served for living and reception, the others for the preparation of food, the stabling of domestic animals, and the storage of all kinds of goods. Some of these buildings seem to have had a beehive shape, while others probably had flat or pitched roofs. The focal point in the largest tholoi must have been the hearth against the wall, some 1.50 m in diameter, where people sat and ate and mused on their day-to-day worries. The tholoi often had a restricted lifetime: most showed no signs of repair and, after a rather short period of time, seem to have been simply supplanted by new ones, founded upon the lower, leveled building remains. Only the largest tholoi experienced longer occupation, given the repeated renewal of their central hearthplaces.

Settlements of the seventh millennium also occur in the upper Khabur drainage in northeastern Syria, a region previously avoided or little used by Neolithic people. In general, the material culture in this area was different from

[22] Verhoeven 1999, 2000.

that of the west, with a local lithic industry and a pottery assemblage closely related to that of the so-called Proto-Hassunan sites of the north Mesopotamian plain such as Tell Hassuna, Yarim Tepe I, Telul eth-Thalathat, and Umm Dabaghiyah. Although the Proto-Hassuna phase is usually understood as the beginning of the late Neolithic (or Pottery Neolithic) in the east, recent research at Tell Seker al-Aheimar has brought to light a preceding phase with ceramics resembling the earliest pottery of the Balikh valley and the upper Euphrates.[23] Despite this early association with the Balikh, in subsequent periods the Khabur sites had less and less to do with cultural developments elsewhere in Syria and were more connected to northeastern Iraq.

There were some twenty sites in the Khabur region, some of which were low mounds along water channels, such as Tell Kashkashuk II and Tell Khazna II, and others little more than ephemeral, seasonal camp sites on wadi banks.[24] Tell Kashkashuk II, about 20 km northwest of the modern town of Hasseke, was a small, short-lived village of less than 1 ha, occupied by the middle of the seventh millennium BC. A large oval pit dug into the natural soil from the lowest level 4 was initially considered to represent a pit dwelling but was later interpreted as a quarry pit for obtaining building materials. The flimsy remains of a rectangular *pisé* building were identified in level 3. Elsewhere in the Khabur region, some settlements existed at isolated localities in the dry, marginal steppe, such as Burqoliya in the wadi 'Ajij close to the Syro-Iraqi border, perhaps focusing on the exploitation of salt from the neighboring seasonal lake of Buara.[25] When compared with the two or three early Neolithic (PPNB) sites known from the Khabur area, the local increase in the number of settlements in the late Neolithic period is considerable. However, this trend is less dramatic than some researchers seem to assume, particularly given the size of the area and the length of the period. Although all sites seem to have been new foundations, not all were occupied simultaneously.

Northern Syria in the sixth millennium BC: the Halaf phenomenon

Northern Syria in the sixth millennium is associated with the Halaf culture, which takes its name from the site of Tell Halaf on the Syro-Turkish border where the characteristic painted pottery (cf. fig. 4.22) was found in excavations between 1911 and 1929. The Halaf culture lasted for five to six centuries, *c.* 5900 to 5300 BC. Although Halaf has long been seen as one of the most homogeneous assemblages in the prehistoric Near East, there is now much evidence for regional variation. The period can be divided into an early and a late phase,

[23] Nishiaki 2001b. Ginnig in northern Iraq is another site with ceramics which are likely to predate the Hassunan Wares. See Campbell and Baird 1990.
[24] Nishiaki 1992:100, 2000:88–91; Merpert and Munchaev 1999; Matsutani, ed., 1991; Matsutani and Nishiaki 1998.
[25] Bernbeck 1993:25–33, 173.

although there are many local subdivisions, with slow and gradual transition.[26] It is mainly the late phase that is documented by excavation, but recent work has added much to our insights into the origins of the Halaf culture. The detailed sequence at Sabi Abyad has made it clear that the rise of the Halaf was neither a sudden event, as long assumed, nor the result of the arrival of people from elsewhere, but the outcome of a lengthy, continuous process of local cultural change in the plains of northern Syria and adjacent Iraq.[27]

The process also involved another culture group celebrated for its elaborately painted pottery: the Samarra, widely distributed in the plains of north and central Iraq but also found in eastern Syria at small sites less than 1 ha in extent, like Baghouz on the Euphrates, Boueid II on the lower Khabur, and Chagar Bazar in the upper Khabur triangle. Samarran pots, either imported or locally imitated, occurred in small quantities at Sabi Abyad in the level 6 Burnt Village, *c.* 6000 BC, shortly before the first occurrence of ceramics in genuine early Halaf style. Although the precise relationship is still vague, it appears that the Samarran wares were a transitional pottery type at Sabi Abyad, intermediate between the lower Neolithic strata and the upper early Halaf levels. Surveys and soundings in the Iraqi part of the Jezireh have yielded ceramics that are virtually identical to the transitional pottery found in excavation at Sabi Abyad; the identification of these transitional wares over a large area suggests a widespread sharing of cultural traits and a considerable degree of interregional communication and interaction prior to the full onset of the Halaf.[28]

To a large extent, Halaf is a ceramic tradition. Many of its other material culture characteristics would not be out of place in different cultural settings or ages. For example, round houses with or without a rectangular antechamber are hallmarks of the Halaf period, but this building tradition has a long history extending back to the late seventh millennium. The larger tholoi at the Halaf sites often had hearths and other domestic installations, suggestive of their use in daily life. Despite the popularity of round houses, Halaf people still made occasional use of rectangular buildings. At Tell Sabi Abyad in the early Halaf period (level 3, *c.* 5900 BC), a single rectangular building of monumental appearance, about 18 by 10 m, stood prominently at the summit of the mound, with a large stone-walled terrace next to it and many tholoi and other auxiliary structures low on the slope (fig. 4.9). It had a stepped entrance and white-plastered façade with niches and benches on stone foundations, and possibly an upper story. The ground floor had twenty small, almost coffin-like

[26] On the basis of the excavations at Tell Arpachiyah in Iraq in the early 1930s, the Halaf sequence traditionally has been divided into Early, Middle, and Late phases (see for example Mallowan and Rose 1935; Perkins 1949). Although this framework has long been uncritically applied in Syria, e.g. at Tell Aqab in the upper Khabur area (Davidson 1977), recent fieldwork at sites such as Sabi Abyad demonstrates that the Arpachiyah framework is not necessarily applicable outside of northern Iraq. See Watkins and Campbell 1987; Akkermans 1993; Nieuwenhuyse 2000.

[27] Akkermans and Le Mière 1992; Akkermans 1993; Akkermans and Verhoeven 1995.

[28] Mallowan 1936; Braidwood *et al.* 1944; Du Mesnil du Buisson 1948; Nieuwenhuyse 1999, 2000; Suleiman and Nieuwenhuyse 1999; Campbell 1992, 1995.

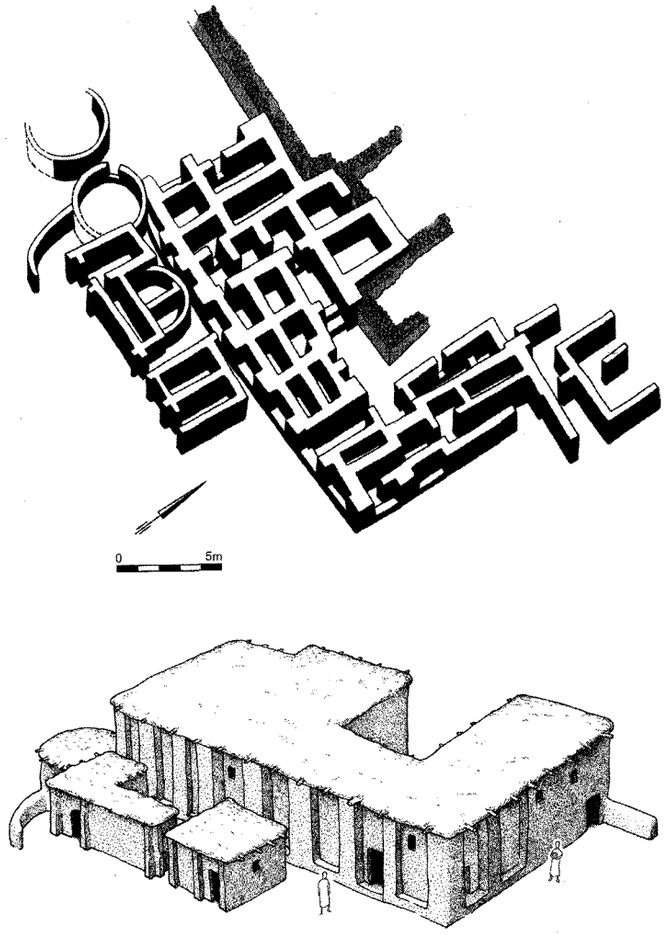

Fig. 4.9 Early Halaf architecture at Tell Sabi Abyad: axonometric plan and artistic reconstruction.

rooms hardly or not suited for living. Similar configurations occur at several other sites, including very small ones. At Khirbet esh-Shenef, a sizable building with a niched façade stood in the center of the settlement – the sole rectangular building at a site otherwise characterized by circular structures. A few rectangular buildings consisting of very small cellular rooms were also located amidst a mass of round houses at Çavi Tarlasi in southeastern Anatolia and at the mounds of Yarim Tepe II–III in Iraq.[29] Were these perhaps the communities' communal granaries or storehouses?

[29] Akkermans and Le Mière 1992; Akkermans 1993; Akkermans, ed., 1996; Akkermans and Wittmann 1993; Von Wickede and Herbordt 1988; Merpert and Munchaev 1973, 1984.

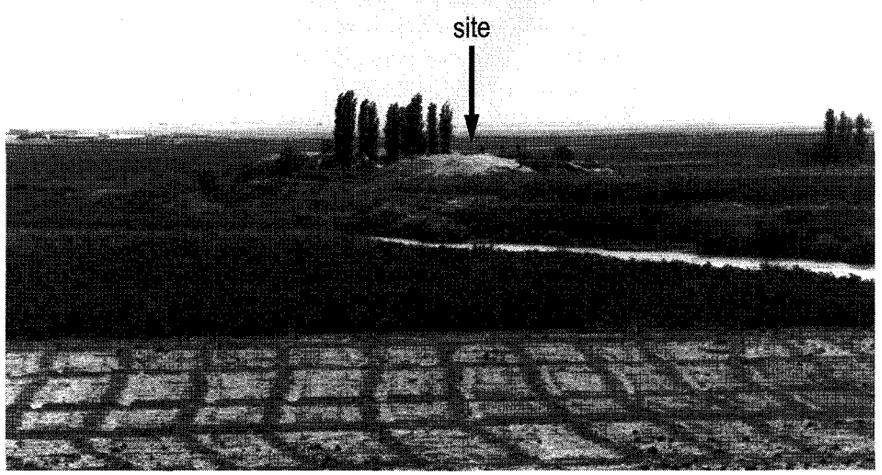

Fig. 4.10 The small Halaf site of Umm Qseir on the Khabur.

Sites of the Halaf culture covered a very large area and a wide range of landscapes from wet valley bottoms and open plains to rolling foothills. While centered in the Syro-Iraqi Jezireh, Halaf communities also extended into western Syria, the southeastern Anatolian highlands, and the Zagros piedmont. In the Euphrates basin, the density of occupation was evidently low, with only some ten sites identified. These include Tell Halula and Shams ed-Din, each with tholoi on stone foundations, and the more recently discovered Tell Amarna, apparently lacking any architectural features. However, in many other areas of sixth-millennium northern Syria there were considerably more sites than before, as in the upper Khabur and the Balikh valley, where we find almost forty settlements. Most sites were located close to water channels in the fertile rain-fed areas. There were also new but isolated foundations in long-avoided marginal regions, such as at Umm Qseir along the middle Khabur river (fig. 4.10).[30] A similar expansion of settlement can be documented in the plains of Mesopotamia, in Anatolia, and elsewhere, but we should not simply assume that the sites were all permanently occupied, nor that they imply a significant increase in the number of people in the sixth millennium. In some regions, there were a few substantial mounds perhaps covering as much as 10–15 ha, such as Nisibin in northeastern Syria and Domuztepe in southeastern Anatolia, but excavations have been restricted to small samples, inhibiting our knowledge of the areal extent of occupation. Since Halaf settlement often had a spacious layout with several foci of occupation and large open areas in between, it is not

[30] See the site and survey reports by Davidson and McKerrell 1976; Azoury *et al.* 1980; Hole and Johnson 1986/7; Akkermans 1993; Cruells 1998; Molist 1998a, 1999; Tsuneki and Miyake, eds., 1998; Lyonnet, ed., 2000.

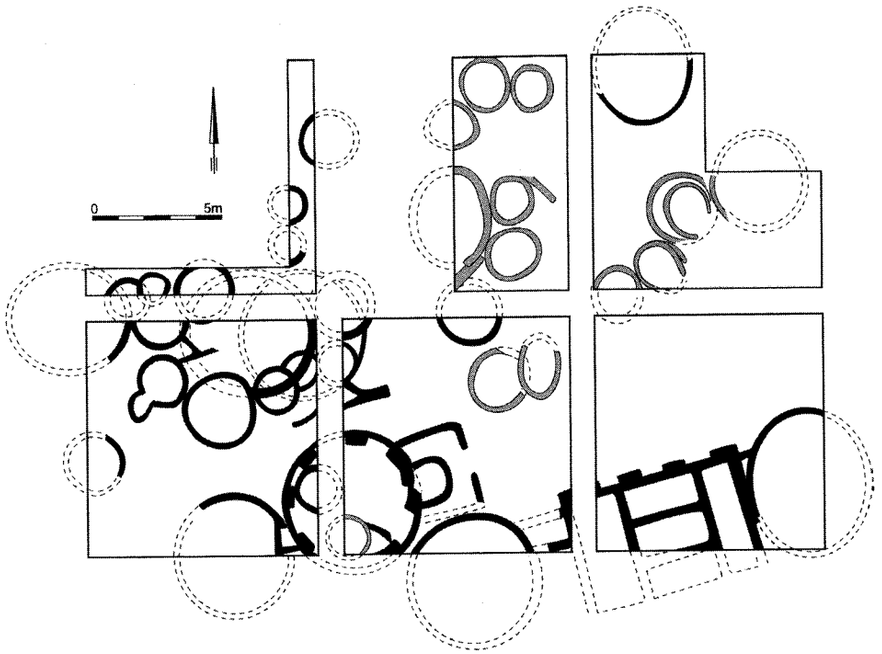

Fig. 4.11 Plan of Khirbet esh-Shenef on the Balikh.

impossible that these larger mounds were extended, aggregated versions of the small sites commonly found rather than prehistoric "urban centers" with all their usual connotations.[31]

Most Halaf sites were very small (0.1–1 ha), with shallow deposits less than 1–2 m deep, used by a small group on a seasonal basis or, if more permanently, for one or two generations at the most. The number of inhabitants must have been very low, perhaps ranging between ten and fifty. An example is the single-level site of Khirbet esh-Shenef on the Balikh, *c.* 5600–5500 BC. In the central part of the hamlet, barely a quarter of a hectare in extent, next to the niched rectangular building mentioned above, was a cluster of three or four circular houses up to 5 m in diameter, some with a small rectangular antechamber (figs. 4.11–4.12). At least one of the buildings had a large rounded hearth, as well as a series of mudbrick buttresses placed at regular intervals on the interior. Many much smaller tholoi used as kitchens, stables, or storage buildings stood on the western part of the site, while a series of horseshoe-shaped ovens and rounded kilns with hard-burned floors were concentrated in the eastern part, probably in response to the prevailing wind direction. Most buildings were used briefly, then replaced.[32]

[31] See Akkermans 1993:199 and Nieuwenhuyse 2000:183 on Halaf settlement in, respectively, the Balikh valley and the Khabur region. See Campbell *et al.* 1999 on Domuztepe.

[32] Akkermans and Wittmann 1993.

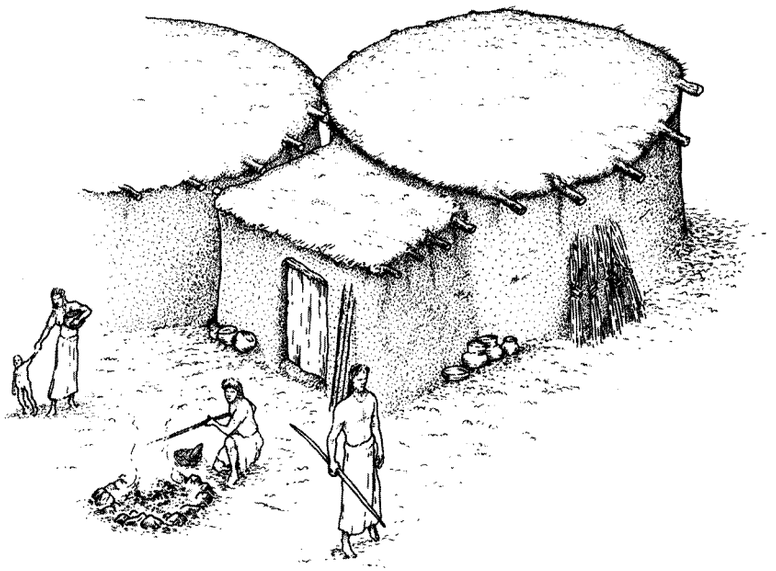

Fig. 4.12 Living with tholoi: artistic reconstruction of daily life at mid-sixth-millennium Khirbet esh-Shenef.

A relatively low population density for the Halaf period is also indicated by the infrequency of concurrent occupations. Breaks in sequences argue for interruptions and frequent shifts of occupation at sites like Umm Qseir on the Khabur or Damishliyya on the Balikh, which may have served as camp sites visited repeatedly over a number of years. Buildings were entirely lacking at Damishliyya, whereas elsewhere there were only traces of structures built in a shifting, haphazard manner such as at Kharabeh Shattani in northern Iraq. Work at Arjoune in western Syria revealed shallow pits and what may have been the lower portions of roughly circular, subterranean dwellings, sunk to about a meter into the natural rock and filled with occupational debris.[33]

Bouqras and the interior desert

Late in the eighth millennium BC, the first settlements had appeared in arid eastern Syria along the lower Euphrates and in the central desert. On the lower Euphrates was the 3 ha mound at Bouqras, located on a high terrace at the interface between the well-watered valley and the desert hinterland. Some 4.5 m deep, the site was built up by eleven occupations over a period of at least 1000

[33] Hole and Johnson 1986/7; Akkermans 1986/7; Marfoe *et al.* 1981; Watkins and Campbell n.d.

years between *c.* 7400 and 6200 BC.[34] Along with Halula and Abu Hureyra in the north, Bouqras is one of the few Euphrates sites with a long and apparently uninterrupted sequence extending from an early Neolithic phase without ceramics (levels 11–8) to a late Neolithic phase with pottery (levels 7–1). In its later levels, the site yielded over 7000 sherds that have much in common with the Proto-Hassunan assemblages at Iraqi sites like Yarim Tepe I, Tell Sotto, and particularly Umm Dabaghiyah. Bouqras seems to have flourished in considerable isolation in a landscape long avoided – the sole settlement on the right bank of the Euphrates for hundreds of kilometers up to what is now Lake Assad. Its nearest neighbor is the heavily eroded Tell es-Sinn, 30 km upstream on the opposite bank, where a small sounding revealed seven phases of occupation with mudbrick walls, plastered floors, ovens, and small quantities of pottery.[35]

Bouqras had a consistent and well-ordered pattern of house construction from its inception.[36] In one area, three houses were built atop each other with the same alignment and a similar location of doors, hearths, and other features. The people at Bouqras paid respect to a long and shared past in their principles of building. Much of the architecture of the uppermost late Neolithic levels 3–1 was visible at the surface of the site and could be extensively mapped (fig. 4.13). Although it is not completely certain that all planned buildings were contemporaneous, it has been suggested that during the penultimate phase, *c.* 6300–6200 BC, Bouqras consisted of some 180 houses over a 3 ha area inhabited by as many as 700–1000 people. The site plan suggests a basal pattern of tripartite buildings, each consisting of three or four long rectangular rooms with a tiny square room at the back (fig. 4.14). Outer entries were usually located in the side rooms. Usually, the interiors of the buildings were white-plastered, and occasional traces of a red ochre wash or the remnants of woven mats on the floor were also evident. A few buildings were distinguished by the figures of ostriches or cranes painted in red ochre on the white wall plaster (fig. 4.15) or by a stylized human face in relief on the wall opposite the hearth. The face was white-plastered, then covered with red ochre; the one preserved eye was inlaid with pieces of obsidian. These buildings may have been imbued with special significance, but they hardly differ in any other way from their neighbors.

The creation of the settlement at Bouqras, with its houses of uniform size and layout, must have required careful planning. Widespread agreement on the definition of occupation, largely ruling out any individual preferences, indicates strong social conventions and the presence of concepts expressing common identities, experiences, and ideas of place. Although we have no proof that the maintenance of the order was in the hands of chiefs, elders, or other individuals

[34] The end of occupation at Bouqras is usually set at about 6800 BC; see for example Cauvin 1994:245. However, the many ceramics of mainly Proto-Hassunan affiliation in the upper levels (particularly levels 3-1) indicate that abandonment took place at a much later date, i.e. at about 6300–6200 BC. See Le Mière 1986; Campbell 1992.

[35] Roodenberg 1979–80. [36] P.A. Akkermans *et al.* 1981, 1983.

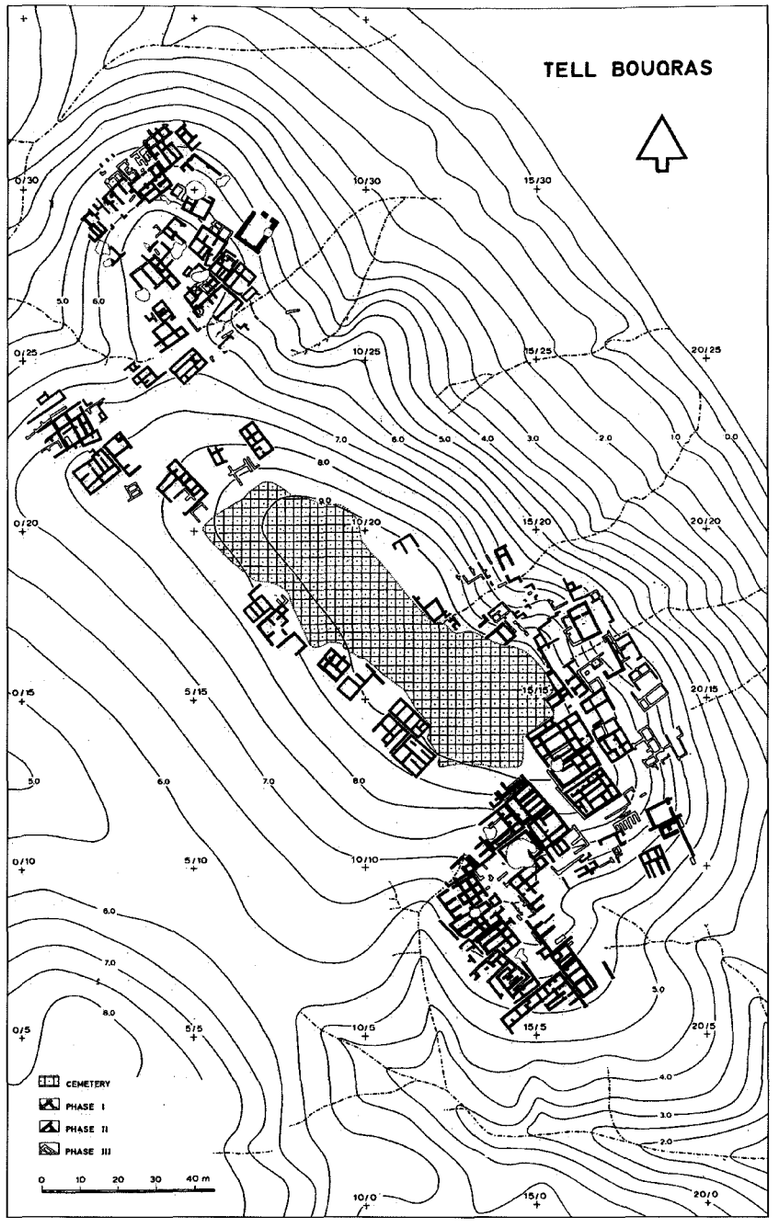

Fig. 4.13 Layout of the late Neolithic settlement at Bouqras.

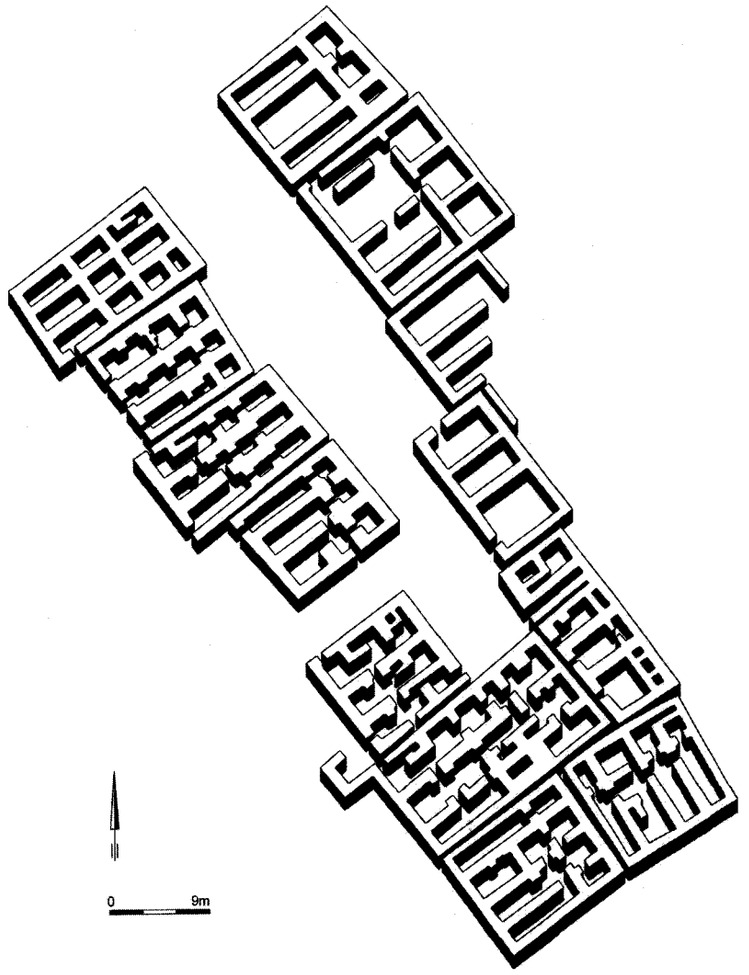

Fig. 4.14 Axonometric reconstruction of late seventh-millennium houses on the southwestern slope of Bouqras (level 2).

of high rank, such an authority cannot be ruled out, given the many people likely to have been in residence and the associated need for conflict regulation.

About the time when settlement at Bouqras began, the desert in the heart of the country was also reoccupied after a hiatus of many thousands of years following the Natufian period. Usually this long gap is explained by a hostile climate and environment, but relevant evidence is extremely poor. Field reconnaissances and excavations in the El Kowm oasis with its numerous wells, areas of fertile loess soils, and abundant flint sources have uncovered many late Neolithic sites, mostly near springs, others on hill tops with excellent views

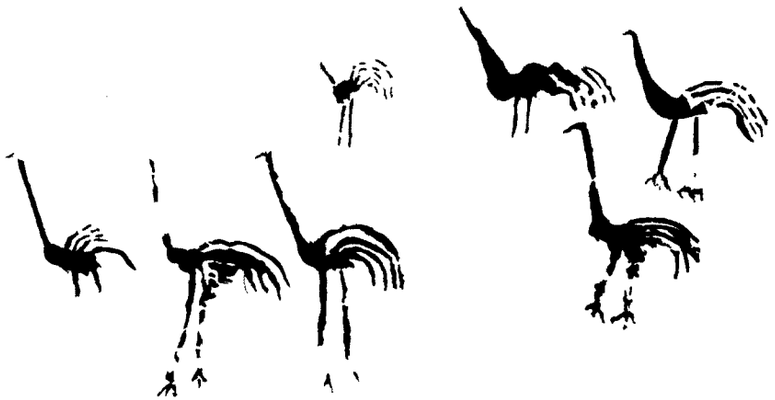

Fig. 4.15 Wall painting showing ostriches or cranes in one of the houses at Bouqras.

over the countryside. The pattern of settlement is differentiated. Some sites were used for long periods of time and had the characteristics of permanent villages, such as the cluster of mounds at El Kowm itself (fig. 4.16). The El Kowm cluster included the lower part of the high tell of El Kowm 1 and the neighboring low mound of El Kowm 2-Caracol, together forming a village of some 3 ha.[37] Rectangular buildings with many small, cell-like rooms were exposed at El Kowm 2-Caracol, complemented in the upper levels by buildings with a central T-shaped room and roughly symmetrical side wings (fig. 4.17).

The extent and nature of occupation is much more puzzling at sites such as Umm el-Tlel 2 or Qdeir, which have only produced evidence for permanent occupation in their upper levels, in the form of flimsy walls, plastered floors and fire-pits. With one rectangular building in each of its upper levels, Qdeir has been taken to represent episodic occupation by semi-nomadic pastoralists. A similar interpretation may hold for large stations such as Nadaouiyeh 4, which lacked any architectural features but had lithics spread over an area of 3 ha on the summit and slopes of a natural hill. Also attested are small factory sites where flint was obtained and worked, such as Dar el-Asfar and Dar el-Mamlaha, and other sites represented by ephemeral scatters of lithic tools often including numerous arrowheads, perhaps representing outlook posts or camp sites of small hunting parties (e.g. Hummal, 'Ain Juwal, Umm Koubeiba, El Khabra). People at some of the small occupations may also have exploited the seasonal lakes (*sabkhas*) for their salt, used for cooking and the storage of meat and skins.[38]

[37] Dornemann 1986; Stordeur *et al.* 1982, 1991.

[38] The *sabkhas* fill with water in winter but dry up in summer, leaving a salt crust. Until very recently, salt from the El Kowm *sabkhas* was widely used by people coming from regions as far away as the Euphrates valley; a similar practice in antiquity is not excluded, when taking into account the location of the small site of El Khabra along the shore of one of these seasonal lakes. See Cauvin 1991:52. A similar suggestion has been brought forward to explain the location of isolated settlements in the Khabur region in northeastern Syria, such as Burqoliya in the Wadi 'Ajij, near the salt lake of Buara. See Bernbeck 1993:173.

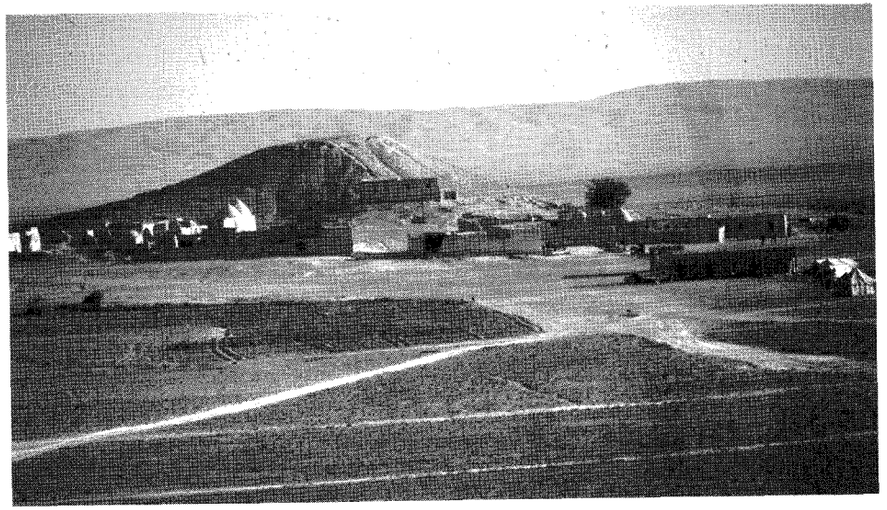

Fig. 4.16 The Neolithic site of Tell el-Kowm, surrounded by modern houses.

Occupation in the desert was not restricted to the El Kowm region, although other areas had little evidence of permanent villages. The large open-air station of Bir el-'Ain Sbai located near a spring in the Jebel Bishri is thought to have been regularly used as a temporary stop by pastoralists in the course of their annual treks. Small flint-manufacturing sites have been found in the caves and shelters in the mountains of Douara and Palmyra.[39]

Most of the desert sites are believed to date from the early seventh millennium BC, although the few radiocarbon dates available from the region allow for a much longer range, up to about 6000 BC.[40] While the absence of pottery at most sites may support their early dating, this does not necessarily hold for small, short-term camp sites or special-purpose occupations. For example, pottery was only found in the upper phases C–D at El Kowm 1 and in pits sunk into the earlier levels at El Kowm 2-Caracol. While there is a clear break at the latter site, the sequence at El Kowm 1 parallels that of Bouqras, with an aceramic early phase followed by a ceramic later phase. The ceramics from

[39] Dornemann 1986; Stordeur *et al.* 1991; Molist 1987/8; Molist and Cauvin 1990; Molist *et al.* 1992; Stordeur and Taha 1992; Stordeur 1993; Cauvin 1981, 1990, 1991; Akazawa 1978:211.

[40] Cf. Stordeur 1993:188; Cauvin 1994. Five dates are available for Neolithic El Kowm 2-Caracol and one for Qdeir, with standard deviations between 280 and 510 years; these dates range between approximately 7000 and 6000 in calibrated years BC (when using the Radiocarbon Calibration Program 1993, version 3.0.3; see also the table in Stordeur 1993:188). A date late in the seventh millennium, at about 6200–6000 BC, is suggested by two radiocarbon samples from late phase C to early phase D strata at El Kowm 1. See Dornemann 1986; Stordeur *et al.* 1991.

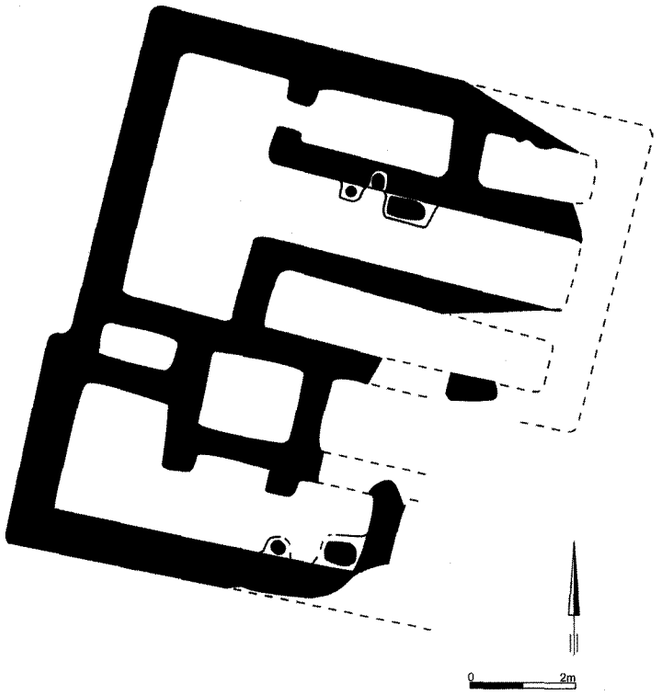

Fig. 4.17 Plan of house at El Kowm 2-Caracol.

El Kowm 1 and El Kowm 2-Caracol are identical in shape and finish, including plain wares as well as red-slipped and often burnished vessels, sometimes with broad strokes or simple hatched triangles painted in red. They resemble the Hassunan Wares from Bouqras, Tell es-Sin, and other sites in the plains of the upper Khabur and northern Mesopotamia. At least some of the vessels seem to have been imports, perhaps brought in from the Euphrates valley.[41]

Sedentism, mobility, and subsistence

The varied character of occupation was not unique to the desert but also held for many other parts of Syria and northern Mesopotamia. One type common to each region was the relatively large site with a very long, perhaps unbroken, sequence, such as Tell el-Kerkh, Tell Halula, and Tell Sabi Abyad. These were permanent villages close to water and with plenty of land for agriculture and herding. People cultivated emmer wheat, barley, lentils, field peas, chickpeas, bitter vetch, and flax, probably in small dry-farmed fields and on seasonally flooded land along the rivers and wadis. Agriculture included only limited parts

[41] Le Mière 1986:235–6.

of the potentially arable land, and many of the areas at some distance from the settlements still must have been approximately in their natural state. There people kept animals, primarily sheep and goats, and, to a much lesser extent, cattle and pigs. We have also seen that there were many small sites with short occupations and breaks in their sequences, allied with a continuously shifting pattern of settlement. The lithic scatters on the surface of some sites in the upper Khabur region may be associated with camp sites, hunter stations, or other special-purpose occupations. The site of Umm Dabaghiyah farther east in Iraq was almost certainly a seasonal habitation, which has been interpreted as a storage point for a semi-nomadic group involved in the exploitation of onagers and gazelles. Most of the other Proto-Hassuna sites in eastern Syria and Iraq were small and low and must have been used by small groups of people, often for short periods of time.

A similar picture applies to many Halaf sites, with often intermittent occupations less than half a hectare in size, allowing for a few circular buildings only.[42] There is good evidence that these tholoi were often short-lived and rapidly replaced by new ones, and it is tempting to assume that they were mainly seasonally used and subsequently left to their fate. Their construction required little investment in time and energy; the work could be completed by five or six persons within a week or so. At some sites, buildings seem to be entirely absent, suggesting that shelters of more perishable materials were in use. In general, sites were easily established and easily deserted. It appears that small, temporary occupations rather than large, permanent villages were the rule in the late Neolithic, and that mobility instead of long-term sedentism increasingly dominated life in this long period.

In contrast to the larger, permanent villages where the use of domestic resources was predominant, many of the small, short-lived occupations were characterized not only by a focus on sheep and goats but also by an emphasis upon the exploitation of the wild. At mid-sixth-millennium Khirbet esh-Shenef on the Balikh, almost 40% of the faunal sample derived from wild animals. Game is even more abundant at sites like Shams ed-Din on the Euphrates, Umm Qseir and Boueid II on the middle Khabur, and Umm Dabaghiyah in the Sinjar, comprising about two-thirds of the assemblages and predominantly focusing on animals of the steppe – onager and gazelle.[43] More riverine-bound species were hunted as well, such as aurochs, roe, fallow deer, or, whenever the opportunity arose, smaller animals such as hare, fox, birds, fish, and turtle. There is some evidence that hunting mainly took place in autumn and winter, when the herds were generally large and confined to a limited territory. In the case of large and swift animals, the chase must have involved the joint efforts of a group of hunters, not only during the kill itself but also during the

[42] Brentjes 1983; Kirkbride 1982:20; Campbell 1992:119–20; Akkermans 1993.
[43] See Akkermans 1993; Zeder 1995; Hole *et al.*, in press; Suleiman and Nieuwenhuyse, eds., 2002.

subsequent stages of butchering and transport of the heavy carcass to the settlement. Hunting techniques and strategies must have changed in the late Neolithic. A new set of weaponry was introduced, including small and light transverse arrowheads or short-tanged "Haparsa points" requiring a different kind of bow than those used during the preceding age with its heavy missiles. Ethnographic examples indicate that transverse points are often used in association with poison.[44] New, too, was the abundant use of clay sling missiles, thousands of which had been stored in small pits at Tell Sabi Abyad.

While reviewing the sixth-millennium Halaf culture, some researchers have argued that the emphasis on mobility was associated with increasing population pressure and resulting social tensions, which were counterbalanced by constant community fissioning and movements into areas not yet occupied. Others assume that, once the most favorable northerly stretches were occupied by villages, further demographic increase forced people to move southwards towards the more marginal areas where they had to pursue a diverse and flexible way of life that included small-scale agriculture, maintenance of domestic flocks, and exploitation of the abundant wild resources.[45] Although there probably was a slight increase of population in the late Neolithic, it nevertheless appears that in every region at any given moment the density of settled people was very low.[46] In other words: there was no serious population pressure, nor was there any need for a quest for soils suited for agriculture in the marginal areas, since there was still plenty of land available in the fertile rain-fed regions in the north, where yields were higher and the risks of crop failure smaller.

Why then did people not intensify their endeavors in their home country instead of exploiting an ever more extensive area? Part of the answer lies in the nature of the late Neolithic communities, which probably did not rely so much upon agriculture as on animal husbandry as a way of accumulating wealth and status and controlling the relations of production. In this view, the lands in the north were not as empty as they seem to have been but were

[44] The short Haparsa point is mainly known from seventh- to late fifth-millennium sites in the deserts of the southern Levant (Sinai, Negev, southern Jordan) and the Arabian peninsula, hence the often-used term "desert arrowhead"; see Rosen 1997. However, recent evidence makes it clear that it was also used in wholly different environments much further north in Syria, such as at Tell Sabi Abyad. The small but sharp Haparsa point was a most effective weapon, able to bring the largest animals to their knees; at Tell Sabi Abyad it had been used to hunt the large and fierce aurochs. See Copeland 1996; Akkermans and Cavallo 1999. See Clark 1975–7 on the use of arrowheads and poison.

[45] Huot 1994; Breniquet 1996; Forest 1996; Hole and Johnson 1986/7:183ff; Hole *et al.*, in press.

[46] For example, Bouqras may have had a population of perhaps a thousand persons but it was the sole site on the right bank of the Euphrates for hundreds of kilometers. At about 6000 BC, there were only five permanent settlements in the Balikh valley with its floor of approximately 450 sq. km, all together estimatedly inhabited by a mere 300 to 400 people. Four or five centuries later these population figures may have been doubled or even tripled but there was still far more land available in the basin than was actually in use. See Akkermans 1993. On the basis of site density and size, it has been suggested that northeastern Syria in the mid-sixth millennium may have supported a population as large as that nowadays found in this region (Davidson 1977:17, 87) but this view is utterly unfounded, with no support from current research.

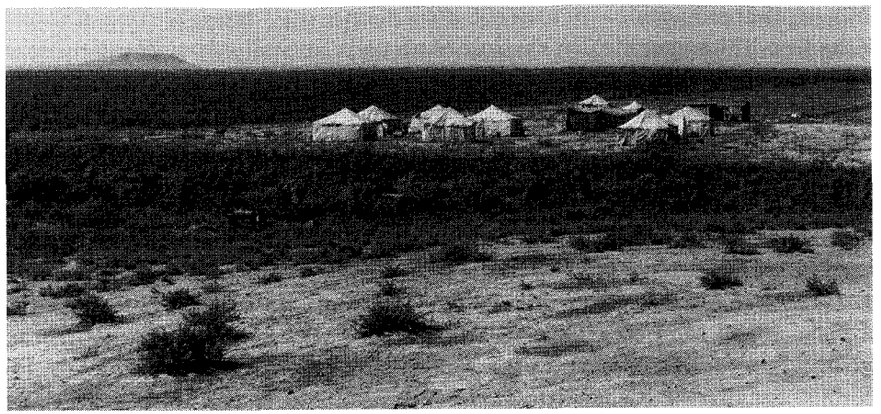

Fig. 4.18 Past and present: modern seasonal occupation at the Neolithic mound of Tell Sabi Abyad II.

intensively exploited pastures and hunting grounds of local communities. A need for more land, for whatever reason (local population increase, growth of the herds as symbols of status and wealth, environmental drawbacks, depletion of wild resources, competition, etc.), then had to be met by movements into more marginal regions further away. Although the picture is still far from clear, there may have been seasonal herding in the late Neolithic over varying distances in response to the availability of pastures and water.[47] If so, herdsmen must have settled down repeatedly for short periods of time at specific localities or base camps on their annual treks (cf. fig. 4.18).

Hunting is another activity highly dependent on seasonality. There may have been many specialized hunter occupations that were used only when game was sufficiently available. These sites perhaps not only existed in their own right but also functioned in a wider pattern of intersite exchange. In such a network, meat and hides may have been traded with sedentary communities located at considerable distances, exchanged for other food products, commodities, or services.

Today, some of Syria's best grazing lands may be found in the steppe near Bouqras, and this area may have been even more advantageous in Neolithic times, when overgrazing and the degradation of the natural vegetation were less seriously felt. In the case of Bouqras, it has been suggested that herding and hunting primarily accounted for the success of the settlement.[48] Were Bouqras and some of the other isolated occupations in these arid regions perhaps the focal points of housing and storage of a very large pastoralist and hunter population, and deliberately founded to support their social and economic needs? The people may have both farmed and tended herds, and may have held houses,

[47] See Köhler-Rollefson 1992; Akkermans 1993:264ff.

[48] P.A. Akkermans *et al.* 1981:494.

land, or other properties at or near the sites, mainly used during particular times of the year. Ethnographically, the role of nomads as landlords or house-owners is widely attested in the Near East, as among the Basseri tribe in southwestern Iran or the Marrai'e in Jordan. Archaeologically, it finds support at Umm Dabaghiyah in northern Iraq or 'Ain Ghazal in Jordan, where many of the houses were probably not inhabited on a year-round basis.[49] A similar interpretation has recently been offered for the early sixth-millennium Burnt Village at Tell Sabi Abyad, where the large central buildings with their numerous cell-like rooms have been regarded as storehouses serving the needs of perhaps hundreds of pastoralists. In this, the picture is not unlike that seen until recently in Tunisia and Morocco, where pastoralist tribes maintained extensive storage buildings or *agadir* to store flour, oils, dairy products, dried fruits, wools, clothes, and mats.[50]

One approach has attempted to recognize two ethnic groups in order to account for differences in settlement layout and material culture at the desert sites of El Kowm 2-Caracol and Qdeir.[51] However, there is no reason to postulate a late Neolithic world strictly divided between sedentary agriculturalists and transhumant pastoralists or hunters. Analyses of plant and animal remains at the site of Umm Qseir on the Khabur have shown that it is all too easy to assume that small, short-term occupations were seasonal pastoral encampments. At this small site of 0.15 ha, people lived year-round, combining farming and animal husbandry with broad-spectrum hunting and gathering strategies.[52] Working the land was probably a necessity whenever people intended to stay for longer periods, and both domesticated plants and domesticated animals occur at all excavated sites, large and small, although their relative use and the scale of production is unknown. Herders often make use of the same kinds of tools as more permanent villagers, particularly if they move infrequently.[53] We should think of a situation in which a group occupied one site permanently, practicing small-scale agriculture and animal husbandry, while a mobile group visited the site seasonally to sustain social relationships, to pasture their flocks, or to hunt game. Such a division of strategies may have lasted for only a short time – perhaps a single annual cycle. Those who were mobile herdsmen at one time may have been sedentary farmers at another time, and vice versa.[54] In this perspective, the few large and permanent villages in each region must have been preeminent landmarks in a landscape otherwise sparsely modified, existing since time immemorial in the minds of the population and providing

[49] See for example Barth 1961; Kirkbride 1974; Brentjes 1983; Köhler-Rollefson 1992.
[50] See Akkermans and Duistermaat 1997 and references therein. See also Duistermaat and Schneider 1998; Verhoeven 1999.
[51] Stordeur 1993; Stordeur and Taha 1992. [52] Zeder 1994; McCorriston 1992.
[53] See Hole 1980 and Cribb 1991 on the similarities and contrasts in material culture between herders and agriculturalists in the archaeological record.
[54] Rowton 1973a; Rosman and Rubel 1976; Cribb 1991; Köhler-Rollefson 1992; Akkermans and Duistermaat 1997.

food, shelter, security, storage, and other facilities to sedentarists and pastoralists alike. These were centers of production, storage, exchange, and distribution, and the scenes of all kinds of social engagements such as courting, marriages, festivities, ceremonies, and political decisions.

Aspects of material culture

The people of the late Neolithic had rich assemblages of pots, tools, and ornaments. The raw materials for manufacture were either locally available or acquired over sometimes surprising distances – dozens or even hundreds of kilometers. Obsidian, copper, and precious stones came from various sources in Anatolia; cedar wood,[55] tabular flint, and marine shells were brought in from the Levant; and bitumen was obtained from the Jebel Bishri in the desert or from Hit in northern Iraq. Often these non-indigenous materials were used in small quantities for the production of luxury items like small stone bowls, beads, and pendants.

Many artifacts were made of stone, but clay, bone, and other materials were also used. In the form of impressions on the reverse of clay sealings, the site of Tell Sabi Abyad has provided evidence for the presence of hundreds of baskets in its level 6, dated at about 6000 BC. Bouqras has yielded the remains of woven mats covering the white-plastered floors in the houses.[56] Textile production is indicated by the large numbers of clay spindle whorls and loom weights at many sites, and by the figurines bearing markings suggestive of clothing and ornament. Undoubtedly the current assemblages reflect only a small portion of the variability in tools and commodities once used at the sites. Originally the material culture must have included many items made of wood, cloth, hides, and other materials that now have perished.

A variety of stone tools were in daily use. People had large basalt slabs and smaller mortars and palettes for the grinding of cereals and other food products and pigments. Pestles and hand grinders came in many different sizes and shapes, according to their utility in different circumstances. At many sites there were also small bowls, cups, plates, and dishes made of all kinds of stone. The natural banding of some of the raw materials seems to have been sought for its decorative effects. These attractive objects were often produced with a high degree of craftsmanship, as exemplified by the colorful, four-legged vases found at Bouqras and Tell Damishliyya. People produced their artifacts as a means towards an end like the procurement of food and other resources, but their use may have varied in different contexts. The well-made stone maceheads, for example, were effective weapons but were probably also used in the expression of status and prestige. The many miniature stone chisels, occasionally pierced

[55] The presence of Levantine cedar wood has been attested in the level 6 Burnt Village at Tell Sabi Abyad. See Van Zeist and Waterbolk-Van Rooijen 1996.
[56] Akkermans and Verhoeven 1995:12; Duistermaat 1996; P.A. Akkermans *et al.* 1983:340.

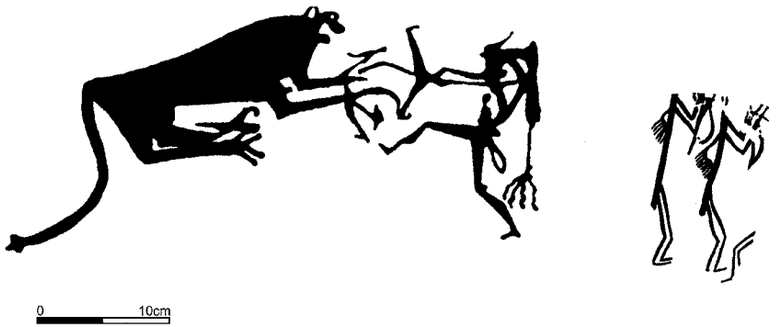

Fig. 4.19 Archers shown on sixth-millennium pottery from Arpachiyah (left) and Tell Sabi Abyad (right).

for suspension as pendants, must have been used for specific activities such as scraping or carpentry but may also have served in contexts of ritual, gender, or initiation.

The lithic industry is often described as "banal" or "impoverished," but the new trends probably reflect changing lifestyles rather than a decline in technology. Much of the industry is based on simple flake production, although the earlier blade-dominated traditions persist in the more remote regions like the desert.[57] Usually, the unworked flakes are seen as the waste products of tool manufacture but, alternatively, they may represent basic implements easily made and easily discarded, used for activities where a particular tool shape had little meaning.[58] There were also more formalized, retouched tools, each designed to perform a specific task, such as the sickle elements, scrapers, burins, borers, drills, and arrowheads, or composites of the same. The sickles for the reaping of cereals (or the shearing of animals?) were assembled from short, backed, and sometimes denticulated blade segments.

Projectile points decline in frequency during the late Neolithic and are completely absent from many assemblages. One possible explanation for this pattern is the displacement of the bow and arrow by the slingshot (sun-dried sling bolts are abundantly found at late Neolithic sites), another, that points were made of perishable materials.[59] Barely dressed archers with bows in their hands and quivers on their backs are portrayed on sixth-millennium potsherds from Sabi Abyad and Arpachiyah (fig. 4.19). At the beginning of the period, heavy missiles like the Byblos point and Amuq point of Pre-Pottery Neolithic B remained in use, but these were soon replaced by much smaller and lighter versions possibly used with poison, such as the short-tanged Haparsa points or the

[57] It also appears that the obsidian industry at most sites remains directed towards the production and use of irregularly retouched or unretouched bladelets, most often deliberately broken into sections, perhaps to facilitate their use in composite tools (Copeland 1989:267).
[58] Cf. Banning 1998:203. [59] Azoury and Bergman 1980.

transverse arrowheads that appeared shortly afterwards. The small size of the later points suggests changes in bow technology.

It is not impossible that metal assumed the role of some stone tools, although the evidence is still meager. Metalworking was a new craft introduced in Syria in the seventh millennium BC, used only for small personal ornaments such as beads and rings, all made of copper, either in its native state or in the form of malachite, one of its ores. The earliest evidence derives from Tell Ramad in southwestern Syria, where a single pendant made of a native copper nugget was found in the lowest (aceramic) level I. In the late seventh millennium, the people at Sabi Abyad had rings, pins, and small pendants of folded copper sheet. They also used pieces of green malachite, either for smelting or as semi-precious stones for bead manufacture or pigment production. Some malachite or worked copper beads are also known from the sites of the sixth-millennium Halaf culture, such as Tell Kurdu in the Amuq, Chagar Bazar in the Khabur triangle, and Yarim Tepe II and Arpachiyah in Iraq. The quantities of copper used were very low throughout the late Neolithic period, and the skills of the metalworkers were very basic up to the fourth millennium at least. Metal was neither vital for subsistence nor yet valued as a prestige commodity.[60]

Two other innovations appear to have been much more decisive in the shaping of the late Neolithic communities and those that followed in the millennia afterwards. One is the inception of pottery, which came to affect all domains of society, and the other is the development of a widely accepted, standardized system of administration in the form of seals and sealings.

Pottery

Pottery was a major novelty introduced in Syria *c.* 6800 BC, first appearing at sites along the Euphrates and the Balikh.[61] The earliest vessels were coarse products with abundant straw inclusions and a crumbly texture; most were burnished, and some had traces of red paint. Among the attested vessel shapes, predominant were simple hole-mouth pots and tall straight-walled bowls, often provided with handles. In this early period, ceramic production proceeded along domestic lines, and considerable intersite differences can be observed, even between nearby settlements. Slightly later, *c.* 6500 BC, we find not only a much greater abundance of ceramics, but a significantly greater variety of ceramic fabric, shape, size, and decoration. By the early sixth millennium BC, there was a growing need for decorated ceramics, seen in the ever-increasing proportion of painted vessels. The exquisite painted pots comprise up to 80% or more of the

[60] France-Lanord and Contenson 1973; Moorey 1994:256.
[61] On the basis of the 1970 excavations at Tell Assouad in the Balikh valley, it has been suggested that pottery occurred in Syria already around the middle of the eighth millennium BC. See Cauvin 1974b. However, more recent research has shown that this date is certainly too early. See Akkermans 1991 and references therein.

ceramic assemblages found at Halaf sites in northeastern Syria *c.* 5600–5300 BC. It has been suggested that the sometimes intense fusion of designs within a visual vernacular was related to the production and decoration of textiles and basketry.[62]

Pottery had a wide range of practical uses. Many vessels served for the display and consumption of food and drink, while others were used for storage and food preparation. With respect to the latter factor, the use of pottery in the process of beer brewing has been cited as one of the main incentives for its adoption.[63] The use of pots for cooking had a considerable impact on the diet, since meat and vegetable foods could be throroughly cooked and softened. The change led to a sharp reduction of the wear on teeth of the people, as shown by burials at Abu Hureyra.[64] Although some vessels were large and heavy, intended to remain in fixed positions, the vast majority were small and portable. They served in many different contexts, according to the needs and wishes of their users. Cooking vessels seem to have included a limited number of thick-walled, blackened pots with closed shapes, often with handles and spouts.[65] As early as the late seventh millennium, vessels were also placed in graves of adults and children as gifts accompanying the dead on their journey to the hereafter or as part of the funerary ritual. But pottery may have had an even wider significance, serving in social networks as gifts or parts of dowries, or adopted as emblems of local identity and allegiance. Ceramics produced according to distinct stylistic conventions could have symbolized group membership and the participation of the many small and dispersed late Neolithic communities in a wider cultural framework.

From the beginning, local traditions and regional styles in pottery production and distribution can be discerned. In western and southern Syria, we find "Dark-Faced Burnished Ware," itself characterized by much internal diversity (fig. 4.20). Not all Dark-Faced Burnished Ware is as dark as the name implies, nor was it darkened intentionally; it is a result of the clays used for production. The pottery often has ledge handles under the rims and is occasionally impressed or incised with lunate designs or other motifs. Pattern burnish occurs in the later part of its period of use (from Amuq B onwards). Although Dark-Faced Burnished Ware was predominant in this region, there were other common wares, such as Coarse Simple Ware, Washed Impressed Ware, and Dark-Faced Unburnished Ware. Insight into the development and phasing of Dark-Faced Burnished Ware and the associated ceramics was principally derived from the 1930s excavations at Tell Judaidah and Tell Dhahab in the Amuq plain, and the Amuq framework has often been transferred uncritically to other parts of Syria

[62] Wengrow 1998:786. [63] Katz and Voigt 1986. [64] Molleson 2000:309.

[65] In terms of fabric, this pottery is often characterized by an abundance of large grit inclusions, which may have improved the vessels' resistance to thermal stress when used for cooking. Very often, the pots are burnished, which may have reduced permeability in the case of heating of liquid substances. Cf. Rye 1981:27; Rice 1987:229, 231; Le Mière and Nieuwenhuyse 1996.

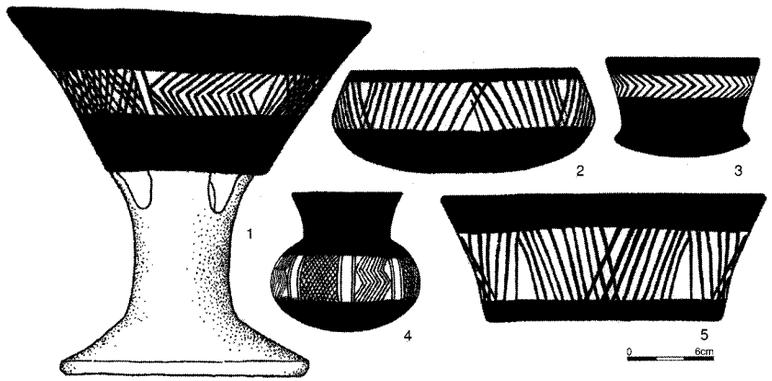

Fig. 4.20 Dark-Faced Burnished Ware from Tell el-Kerkh (nos. 1–2, 5) and Tell Judaidah (nos. 3–4).

with little or no attention to regional differentiation. Happily, recent research in western Syria and adjacent regions has refined and expanded on the Amuq data. Long considered the earliest pottery in the west, Dark-Faced Burnished Ware may now have a predecessor in the "Kerkh Ware" of levels 6–5 at Tell el-Kerkh 2.[66]

The region between the middle Euphrates, Balikh, and the Taurus range seems to have formed a ceramic "province" of its own for at least six or seven centuries in the seventh to early sixth millennium BC, with limited ties to other parts of Syria. A formidable natural obstacle hampering travel through northern Syria, the Euphrates also had an apparent effect on the distribution of ceramics and other cultural traits.[67] Yet another tradition of early pottery manufacture might be identified in the region around Tell Halaf and Tell Habesh at the Syro-Turkish border; long considered to be the oldest pottery on the plain, the monochrome burnished wares (locally known as *Altmonochrome*) from these sites are now placed relatively late in the regional sequence, in the late seventh and early sixth millennia.[68]

Another regional style known as Hassuna extended over a zone some 200 km wide in eastern Syria and Iraq, although there was much stylistic differentiation between sites. An earlier "Proto-Hassuna" phase with distinct forms, and range and quantity of painted motifs and relief decoration, may have lasted over 700

[66] Braidwood and Braidwood 1960; Tsuneki and Miyake 1996.

[67] Le Mière and Nieuwenhuyse 1996; Faura 1996.

[68] See Von Oppenheim and Schmidt 1943 and Davidson 1977 on the *Altmonochrome* tradition. The date of the *Altmonochrome* has recently been challenged on the basis of the work at a number of sites in the Balikh valley. See for example Akkermans 1991, 1993; Le Mière and Nieuwenhuyse 1996. Moreover, it appears that at least some of the pottery described as *Altmonochrome* at Tell Halaf is not of prehistoric but of first-millennium (Iron Age) origin; either these ceramics were intrusive in the Neolithic levels at the site or, in view of the absence of any reliable stratigraphy, they have simply been ascribed to these levels on stylistic arguments. See Bartl 1989.

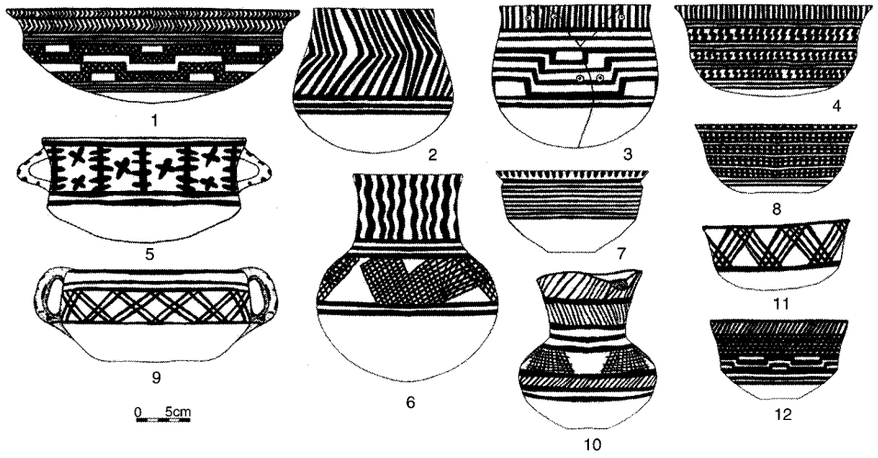

Fig. 4.21 Painted pottery in Samarra style from Tell Baghouz (nos. 1, 5) and Tell Sabi Abyad (nos. 2–4, 6–12).

years with considerable spatial variations. The later "Archaic Hassuna" phase, when painted pottery dominates, and the "Standard Hassuna" phase, when incised ceramics are predominant, seem to be restricted to northern Iraq.[69] In Syria, the Proto-Hassunan pottery appears to have had a predecessor in the earliest ceramics found at Tell Seker al-Aheimar in the upper Khabur region, but details have not been published yet.[70]

By 6000 BC, we see the beginnings of a transition from coarse, usually undecorated ceramics to increasingly fine and painted wares (figs. 4.21–4.22). First in the Samarran style and later in Halaf style, these painted ceramics are attested at sites like Sabi Abyad on the Balikh in pre-Halaf and early Halaf levels. The change was gradual and local, with the new styles evolving out of earlier pottery traditions in northern Syria.[71] Accounting for over three-quarters of the ceramic assemblage at mid-sixth-millennium sites, the new ceramics were characterized by a fine, largely mineral-tempered fabric, excellent firing properties, thin-walled, complex vessel shapes, and extensive painted decoration in a lustrous red or black. The exterior surface of most vessels was completely painted in a dazzling variety of geometric designs such as bands, crosshatching, zigzags, triangles, and checkerboards. There are also many examples of naturalistic decoration incorporating plants, birds, animals, and the renowned *bucranium* – the bull's head with horns. Later Halaf vessels sometimes have carefully executed bichrome patterns. The overall stylistic unity was considerable, but it is important to realize that there was always much differentiation in time and space. People produced their ceramics within a widely shared general

[69] Le Mière 1986; Campbell 1992. [70] Nishiaki 2001b.
[71] Cf. Akkermans 1993; Akkermans and Le Mière 1992; Le Mière and Nieuwenhuyse 1996.

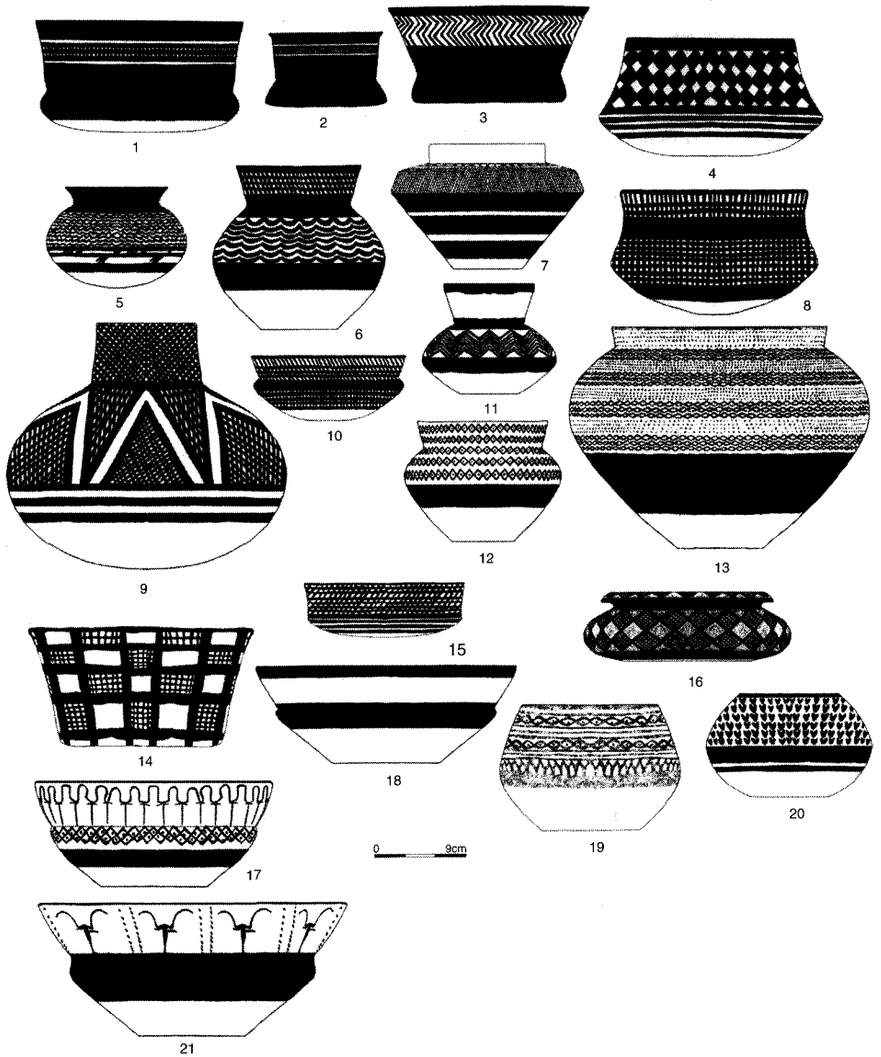

Fig. 4.22 Painted Halaf pottery from Tell Sabi Abyad (nos. 1–2, 4–6, 8–10, 14–15), Damishliyya (no. 3), Shams ed-Din (nos. 7, 11, 13, 16, 19–20), and Khirbet esh-Shenef (nos. 12, 17–18, 21).

framework, but they also constantly altered and reinterpreted the underlying structuring principles in the process of pottery making.

In its first few centuries, pottery manufacture was organized along domestic lines and was predominantly directed towards "home-use" consumption or irregular household exchange, with vessels produced on a seasonal or *ad hoc*

replacement basis. Within the small communities, the demand for ceramics was low and intermittent, and producer and consumer were probably the same person. The pottery was hand-made, coarsely finished, and produced with a simple technology that required little investment in manufacturing facilities. But with the introduction of Samarra and Halaf styles in the sixth millennium, significant changes were introduced, involving new technology and changes in spatial arrangements, the level of labor input, and capital investments. While the coarse earlier pots were produced in open fires at temperatures of about 700–750°C, manufacture of the new painted wares probably required two-chambered kilns fired up to 950°C or more. Such updraft kilns have been found at Hassunan Yarim Tepe II in northern Iraq and, in a much later Ubaid level, at Tell Ziyadeh on the Khabur in eastern Syria.[72] The potters were well aware of the varying properties and demands of each ceramic category, and different sources of clay were employed to produce different kinds of pottery. Evidence of crumbly and deformed overfired pottery and wasters at some larger sites may indicate specialized centers. There were experiments in terms of fabric and firing techniques, perhaps leading to an unequal distribution of potting know-how.[73] Given these developments, production may have become largely concentrated in the hands of a few individuals or specialists, giving those individuals a degree of social and economic power over others and making the potter's craft a profitable enterprise.

Some twenty-five years ago, results of neutron activation analysis conducted by Davidson and McKerrell suggested a widespread trade in Halaf pottery in the upper Khabur headwaters in the sixth millennium. Sites like Chagar Bazar and Tell Halaf were interpreted as production centers exporting their wares to settlements as far as 80 km distant. While a recent reexamination of the original data has revealed many inconsistencies in the analysis and rejected its outcome, this need not imply that there was no regional trade in ceramics.[74] For example, Levantine Dark-Faced Burnished Ware traveled in small but consistent numbers over hundreds of kilometers, reaching Bouqras in eastern Syria and the Proto-Hassunan sites in the Sinjar. In a reverse direction, painted pottery in Halaf style was imported into northwestern Syria and Cilicia, while Mesopotamian Samarran ceramics traveled as far west as Sabi Abyad on the Balikh in Syria and Sakçe Gözü in southeastern Anatolia.[75]

Not only were vessels traded in their own right, but they may also have served as receptacles for other exchanged commodities or as goods functioning in social or symbolic frameworks (marriage, cult, etc.). Whatever the case, it is evident that some settlements in this era produced a pottery surplus and may have been involved in "potting for profit." Such an enterprise may have required skilled artisans earning a major part of their living through their specialty. Also

[72] Munchaev and Merpert 1971:30; Buccellati *et al.* 1991. [73] Van As *et al.* 1996–7.
[74] Davidson and McKerrell 1976, 1980; Davidson 1981; Galbraith and Roaf 2001.
[75] Le Mière and Picon 1987; Akkermans 1993.

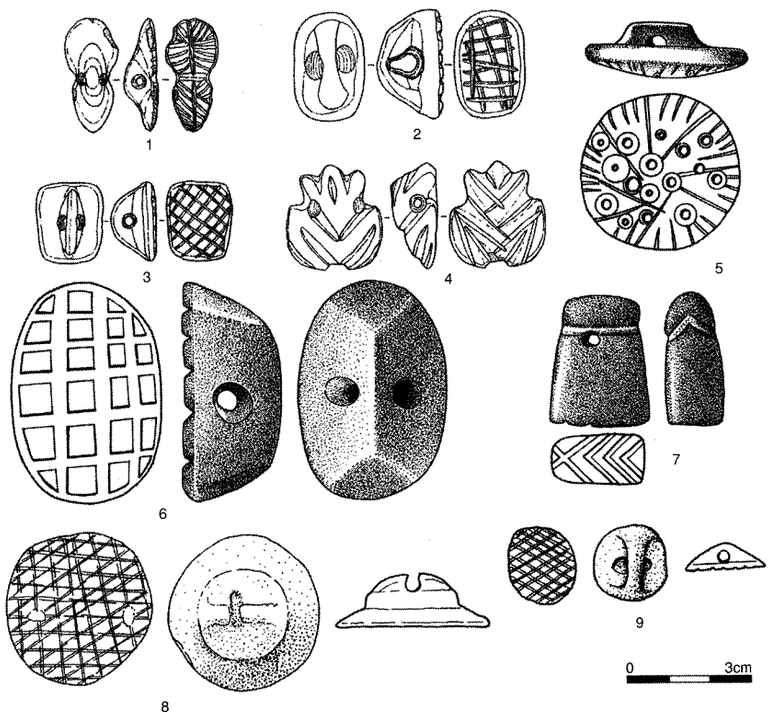

Fig. 4.23 Stone stamp seals from Tell el-Kerkh (nos. 1–4), Tell Halaf (no. 5), Judaidah (no. 6), Bouqras (no. 7), and Tell Sabi Abyad (nos. 8–9).

implied are production efficiency, explicit divisions of labor, spatially segregated areas for manufacture and storage, and significant investments in the means of production. By the late sixth millennium BC, the organization of manufacture and exchange seems to have grown into a mature and specialized economic activity aimed at mass production.

Icons of property: seals and sealings

In the second half of the seventh millennium, people in Syria began to use stone as well as clay, wood, bone, and shell for the manufacture of stamp seals in many different shapes and dimensions (fig. 4.23). Usually, the seals' flat surfaces were carved with geometric designs, but animals and plants were also represented. The engraved surface was meant to be impressed on lumps of wet clay or plaster placed on the fastening of baskets, ceramics, stone vessels, sacks and other containers or covering their opening entirely (fig. 4.24). In this manner, seals helped to define individual property and secure the containers against unauthorized opening, a useful tool in the organization of storage and in the

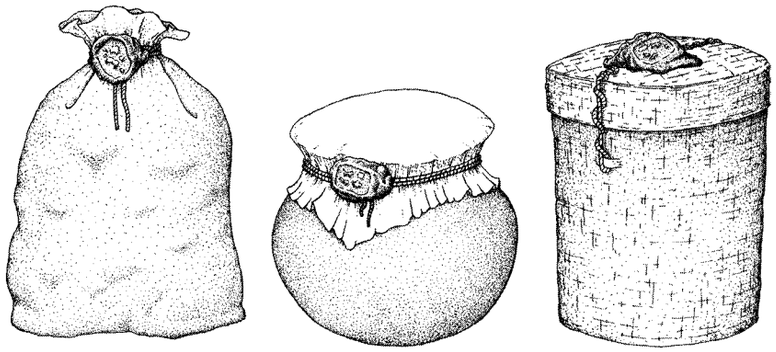

Fig. 4.24 The use of clay sealings on bags, pots, and baskets.

control of exchange networks. Such a system, comprehensible to everyone, was of such simple efficiency and flexibility that it remained in use for thousands of years. The development of administrative devices, transcending the keeping of records by memory, may well have been associated with a growing sense of family identity and private ownership in the late Neolithic and a change in the relations of production and storage. The sealed products were not available to all members of the community, but only to those who, by the act of sealing, had appropriated them. In the seventh and sixth millennia, society may have become more differentiated, in the sense that there were groups in the communities who had goods to protect or secure from other people. Although their precise meaning still eludes us, the elaborate designs of some seals suggest that the engraved stones were not always (or exclusively) used as seals. Many also may have been used as personal ornaments or as amulets with apotropaic or magical functions. They were often pierced to be worn as pendants on the body.[76]

The practice of sealing had a wide appeal to many communities in different regions and cultural settings. Crossing the boundaries of the culture groups traditionally distinguished by archaeologists, seals and/or their impressions in clay and plaster have been found in small numbers at many late Neolithic sites throughout Syria, such as Ras Shamra, Tell el-Kerkh, Tell Halula, El Kowm 2-Caracol, and Bouqras. Their distribution is not limited to the large settlements but also includes very small, isolated hamlets, such as Boueid II and Umm Qseir on the Khabur. Over 300 clay sealings have been found in storehouses of the Burnt Village at Tell Sabi Abyad, *c.* 6000 BC, together with a large number of simple geometric tokens (calculi) and human and animal figurines (fig. 4.25). Their abundance, together with their relatively limited distribution

[76] See for example Ferioli and Fiandra 1983; Zettler 1987; Alizadeh 1988; Rothman and Blackman 1990; Von Wickede 1990; Charvát 1994; Rothman 1994; Breniquet 1996; Oates 1996; Akkermans and Duistermaat 1997.

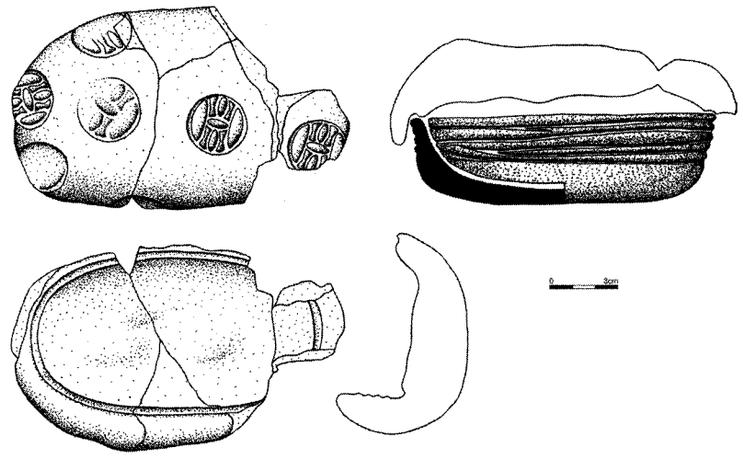

Fig. 4.25 Clay sealing and associated stone bowl, Tell Sabi Abyad, *c.* 6000 BC.

in one or two rooms inside these storage buildings, suggests that the sealings were deliberately stored in "archives" open to inspection and control after their removal from containers. More than seventy seals appear to have been in use simultaneously at Sabi Abyad, indicating that the practice of sealing was in the hands of many people, probably in the context of controlled storage. It has been suggested that the sealings facilitated the storage of property belonging to large groups of semi-nomadic people in order to avoid disputes over the ownership or the condition of the stored goods. Although many researchers have tried to link the practice of sealing with elites restricting access to goods for their own social and economic advantage, the evidence is tentative at best for the late Neolithic. The sealing system unquestionably had enormous potential for the exercise and manipulation of power, but we cannot take the use of this potential for granted. At least in the case of Sabi Abyad, it is difficult to reconcile the vast number of different seal impressions with the presence of a restricted elite group. Essentially, the sealing system was a simple and flexible means of control over property, whether in the hands of leaders or commoners.[77]

Cult, death, and burial

Burials provide the most accessible evidence for late Neolithic ritual, but other data on cult and ceremony are relatively scarce. Although biases in the archaeological record and the limited scale of excavation may be partly responsible for this state of affairs, it may also reflect changes in cult performance in the late Neolithic. Ritual activity seems to have taken place mainly at the private,

[77] Duistermaat 1996; Akkermans and Duistermaat 1997; Duistermaat and Schneider 1998.

intimate level, within the confines of individual households, rather than at the public level so characteristic of the early Neolithic. One explanation for this trend maintains that the change is consistent with the nature of late Neolithic communities, with their emphasis on small and dispersed groups living in temporary settlements. An alternative is that ritual was increasingly concentrated at larger settlements that served as the focal points of social life over many generations. The most outstanding example remains the site of Çatalhöyük in Anatolia with its magnificent wall paintings, elaborate sets of bull horns, and the numerous buildings originally interpreted as shrines.[78] Another example is early sixth-millennium Sabi Abyad, where the level 3 stone-walled terrace may have served as a central plaza used for large-scale ceremonial events. Regular gatherings could have promoted a conceptual unity among the widely scattered groups that dominated the cultural landscape at this time. Perhaps such gatherings are depicted by the dancing scenes on many decorated vessels, with individuals in strictly identical posture, dress, and direction, suggestive of communal festivities and rituals.[79]

The set of ritual paraphernalia known to us is limited. Among the reasons for this is the probable use of a wide range of items made of wood, cloth, hides, feathers, and other perishable materials. In addition, objects that had a purely utilitarian meaning at one time could have served cult aims at another. Ceramic vessels, for example, were widely used in domestic contexts but were also commonly placed in graves as gifts to the deceased. Pottery was also used in foundation offerings associated with the construction of buildings, as seen at the mid-sixth-millennium sites of Khirbet esh-Shenef on the Balikh and Yarim Tepe II in the Sinjar area.[80] At Tell el-Kerkh in western Syria, several shallow pits had two or three vessels that seem to have been intentionally broken and subsequently buried together, perhaps as part of rituals related to the burials found nearby. Similar finds occur at Yarim Tepe II in Iraq, in what seems to be a wholly different cultural setting.[81] Another category of objects that probably carried more than one meaning is the seals and their engravings: they were not exclusively administrative devices but also had symbolic value as amulets or good-luck charms. The artificial deformation of human crania by bandages, still in use in the seventh and sixth millennia at sites such as Bouqras and Tell Arpachiyah, could simply be body adornment, but its occurrence in association with two isolated skulls in the corners of one room at Bouqras suggests continuity with the ritual patterns of skull treatment in the early Neolithic.[82]

The ritual implication of clay human and animal figurines is usually taken for granted, but we are largely ignorant of the spiritual universe symbolized by them. The common occurrence of the figurines in and around the houses

[78] Mellaart 1967. [79] Garfinkel 1998.
[80] See Akkermans and Wittmann 1993; Merpert *et al.* 1981:26.
[81] Tsuneki *et al.* 1997; Merpert *et al.* 1981.
[82] Meiklejohn *et al.* 1992; Molleson and Campbell 1995.

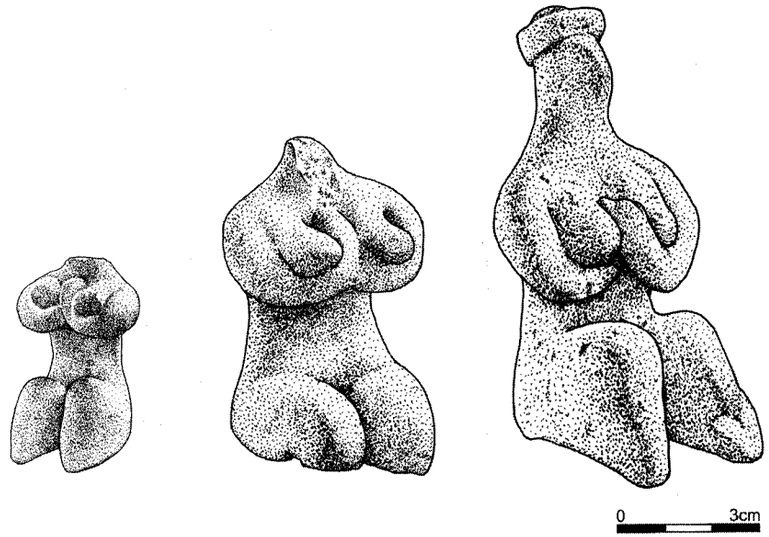

Fig. 4.26 Terracotta female figurines from Tell Kashkashuk on the Khabur.

suggests that they were used in cult practices accessible to all members of the community. Ritual knowledge was apparently not limited to specialists – sorcerers, medicine-men, shamans – but shared by many. Bouqras has yielded a variety of anthropomorphic figurines in its upper levels, including seated "mother-goddesses" wearing girdles and necklaces, and simple pillar figurines on a splayed base, with stump-like arms and an elongated head low between the shoulders. House 12 in level 3 yielded bone figurines of highly stylized humans, with groups of parallel grooves representing parts of a garment. The arms are raised in what might be an attitude of prayer. At Sabi Abyad, dozens of small female figurines of sun-dried clay were in use *c.* 6000 BC, usually found in caches together with administrative devices such as sealings and tokens. Although the precise meaning of the association still eludes us, it is not unlikely that the items functioned together in an administrative system as the symbolic material witnesses to some form of contractual obligation. The figurines come in several types. Some are fairly naturalistic, others are much more stylized and incised in a variety of ways, perhaps to indicate clothes or body ornamentation. In many cases, the head seems to have been intentionally broken off and either discarded or stored elsewhere. Some figurines have a hole in the neck, indicating that the head was separately fitted onto the body by means of a dowel.[83]

The use of paint and the firing of clay figurines were new techniques in the early sixth millennium, as seen at sites such as Tell Sabi Abyad and Tell Kashkashuk in northeast Syria. The latter site produced a large number of

[83] Collet 1996.

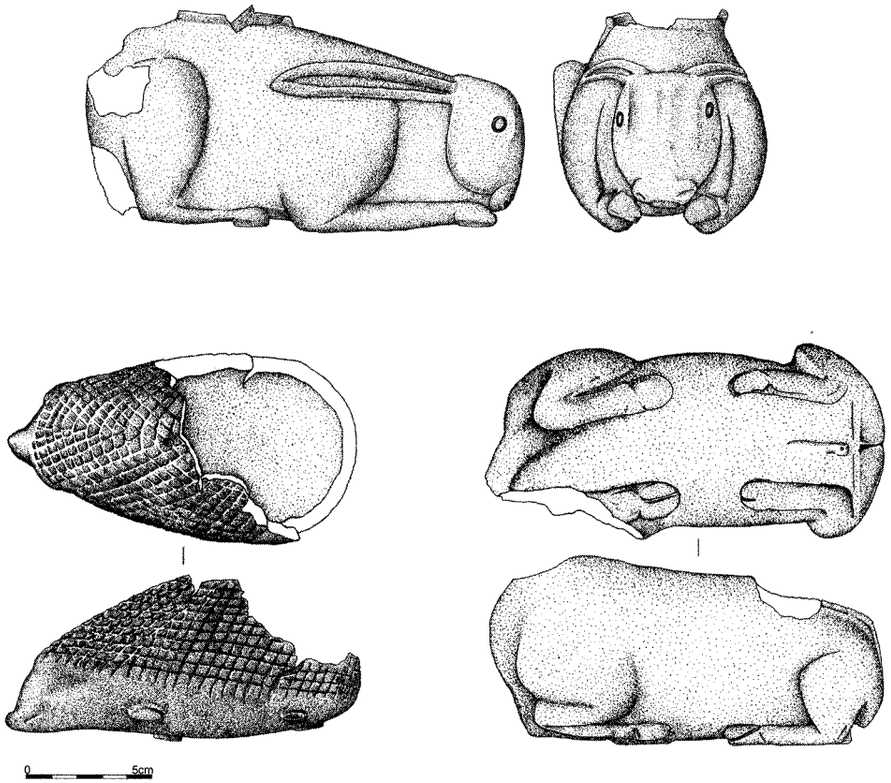

Fig. 4.27 Stone vessels in the form of a hare, a hedgehog, and a bull, found at Bouqras.

painted terracotta statuettes, all in the form of seated, naked women with exaggerated hips and voluminous breasts (fig. 4.26). The figurines are shown with the bosom cupped in the hands or supported in the crook of the arms, so that their breasts are raised and made more noticeable. The maternal gesture perhaps served to express the nurturing aspect of the female body.[84]

Animal figurines usually are crude and represent quadrupeds, some with horns and tails. Although they are usually interpreted as bulls, other species are also represented. At Bouqras, pounders in the shape of turtles were recovered together with grinding stones bearing incised animal representations. An extraordinary find at Bouqras consisted of three gypsum vessels in the form of a recumbent bull, a hare, and a hedgehog, all manufactured with great skill in a naturalistic style (fig. 4.27). At Sabi Abyad, a figurine had a small stone inserted

[84] See the exhibition catalogues *Syrie: mémoire et civilisation* (1993:74–5) and *Syria: Land of Civilizations* (Fortin 1999b:271).

in the animal's flank while the clay was still wet, a "ritually killed" image that may have had magic value to ensure luck in hunting and to protect from harm.

Ritual meaning should also be ascribed to the aforementioned group of large clay "torsos" that appear to have stood on the edge of the roof of a building in the Burnt Village at Sabi Abyad. Oval with a flat base, they all had one or two shallow holes along each of the long sides, and another hole was usually on the top. A ritual purpose is implied by the skeletal material of wild sheep and cattle embedded within the "torsos," reminiscent of the horns and skulls of wild animals found in the houses of the PPNA–PPNB periods. The objects were probably associated with a funeral ceremony, in relation to two corpses laid on the same roof (see below).

Burial practices

The burial evidence from Syria in the late Neolithic includes only a few dozen graves. Therefore, we will also consider additional data from sites in the plains of northern Iraq and the piedmont of Anatolia, with the caveat that any conclusions valid in those regions may not hold for Syria. Despite the small samples, it is apparent that mortuary practices in the late Neolithic varied widely: there were simple pit inhumations, mass interments, pot burials, skull sepultures, and cremations. Even within each category of burial, there was substantial variation in grave construction, in position and orientation of the body, and in the number and type of funerary gifts.[85] Mortuary ritual was complex, defined by belief and cultural circumstances that may have varied from case to case, perhaps in relation to age, gender, ethnicity, status, or cause of death.

Primary inhumations in simple pits were characteristic of the late Neolithic, usually with a single individual laid on his/her side in a crouching position (figs. 4.28–4.29). Occasionally severe contraction suggests that bodies were bound before interment. Sometimes, matting was used to wrap the dead, and ochre or charcoal was scattered over the body. The deceased were often provided with grave goods that mainly consisted of pottery but might also include stone vessels, axes, necklaces, and other ornaments. These objects may have been personal belongings, but the vessels may have contained food and drink, either real or symbolic, for use on the journey to the hereafter. Although a degree of social ranking has been hypothesized from the grave wealth in the burials, the evidence is weak, if not absent. Age differentiation is indicated, however, since adults were usually accompanied by more pots and ornaments than children.

Within the settlements, graves usually contain children, with adults less frequently attested. The intramural child graves were often sunk in the floor of buildings, close to walls, although it is not always clear if the houses (parental properties?) were still in domestic use or were already abandoned at the time

[85] See for example Akkermans 1989b; Campbell 1992; Merpert and Munchaev 1993a.

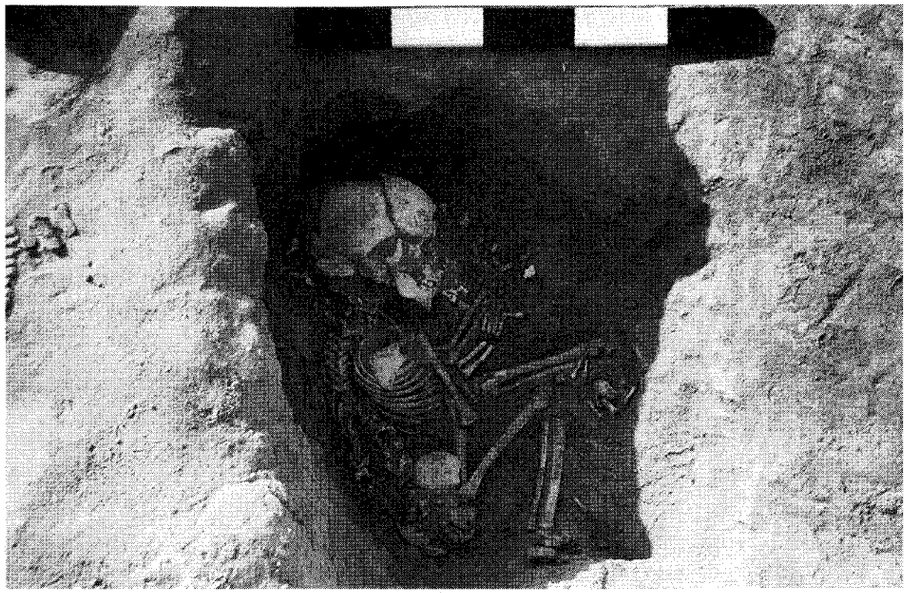

Fig. 4.28 Late Neolithic child grave at Tell Sabi Abyad, *c.* 6100 BC.

of burial. In some cases, infants less than one year old were buried in pots, as at the seventh-millennium sites of Tell 'Ain el-Kerkh in western Syria, Halula on the Euphrates, and Khazna II in the Khabur headwaters. The small number of adult interments within the settlements suggests that most adult dead were taken elsewhere to what may have been formal burial grounds, as at Yarim Tepe I in Iraq.[86]

The practice of secondary burial so characteristic of the early Neolithic was much less popular in the late Neolithic. A complete secondary interment exposed at Yarim Tepe II in northern Iraq comprised the disarticulated remains of a child whose skull had been placed atop the other skeletal material. Evidence for the detachment of the cranium from the body has been found at seventh millennium Bouqras in eastern Syria and at several sixth-millennium (Halaf period) sites in Iraq such as Arpachiyah, Yarim Tepe II, and Tell Azzo I. At Bouqras, two isolated and artificially deformed skulls were found in the corners of a room in the upper level III House 12. Located in fill above the floor, it seems likely that their original position was relatively high, perhaps on shelves fastened on the upper parts of the walls. At Yarim Tepe II, one or more skulls had been laid on the floor of shallow pits, without funerary gifts present. Two cranium graves at Arpachiyah had the skulls (in one case, one skull, in the

[86] Once deserted, the mound of Yarim Tepe I was used by the villagers of the nearby Halaf-period settlements of Yarim Tepe II–III as a suitable area for burying their dead. See Merpert and Munchaev 1993a:218–21.

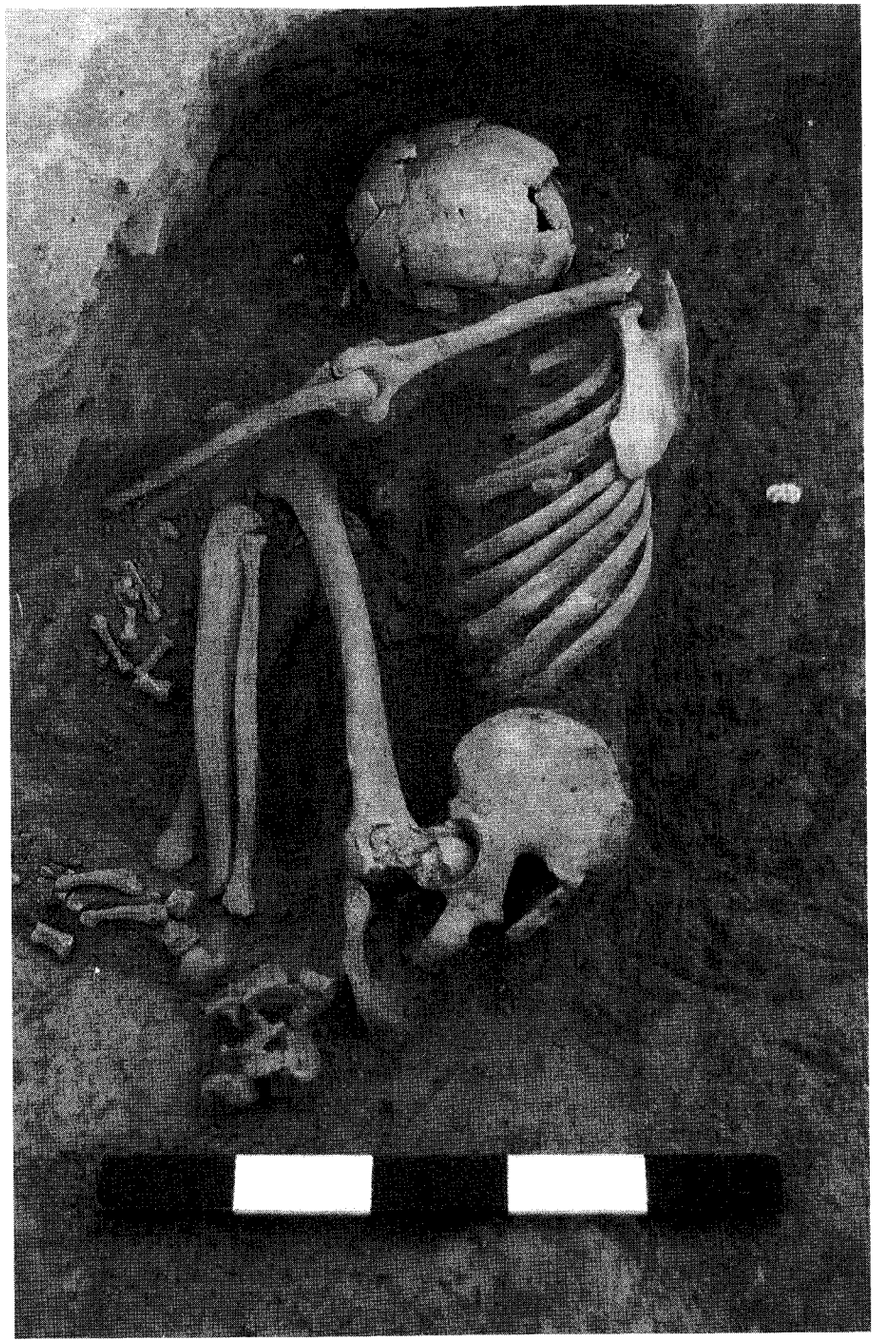

Fig. 4.29 Young adult buried in severely contracted position at Tell Sabi Abyad, *c.* 6100 BC.

other, four) placed in pots and were accompanied by ceramic and stone vessels. Recent work at Domuztepe near Kahramanmaraş in southeastern Anatolia revealed between six and nine skulls, apparently from both adults and children, in a large funerary pit in what seems to have been a post-Halaf level at the end of the sixth millennium.[87]

Late in the period, new burial types made their appearance. More elaborate tombs were built, as in the mid-sixth-millennium cemetery at Yarim Tepe I in Iraq, where the dead lay with their backs to the entrance in a low, vaulted chamber, accessible through a shaft on one of its sides. At Halafian Tepe Gawra in northern Iraq, a pit 5 m deep contained the remains of twenty-four persons, most of whom appear to have been simply thrown into the pit without any attendant ritual.[88] Were they victims of disease or warfare? A striking innovation is presented by the cremations of children and adults in the mid-sixth millennium, seen especially at Halafian Yarim Tepe II where a number of pots seem to have been broken deliberately and thrown into the fire during the burning of the corpse. Afterwards, the remains were either stored in an urn at the place of cremation or buried elsewhere at the site. Sometimes there was additional ritual associated with the interment, including another deliberate smashing of pottery or the placement of complete vessels in the grave.[89] Cremations also occurred at Chagar Bazar in northeastern Syria and at several sites in western Syria, a region archaeologists generally regard as a different cultural setting; apparently, late Neolithic burial practices transcended conventional culture boundaries. At Tell el-Kerkh, a pit containing a cremated infant also included complete but deliberately broken pots. A similar pattern was observed at Tell Kurdu in the Amuq plain, where a small pit contained heavily burned human skeletal fragments together with a smashed jar.[90] There are many archaeological and ethnographic examples of the intentional breakage or "killing" of artifacts in funerals, often related to the removal of the impurity and ill effects of death.[91]

Another mortuary practice related to fire has been identified at Sabi Abyad level 6, *c.* 6000 BC, where the remains of an adult male and female were found in the ruins of a burned building, with the bones completely crushed and burned. In view of the find circumstances, their original position must have been on the roof, from which they had fallen when the building was set alight. Rather than being trapped on the roof and caught by the flames, bone analysis suggests that both individuals were already dead at the time of destruction. Moreover, they appear to have been surrounded by emblematic clay "torsos" provided with wild sheep horns and the limbs of cattle, features not found in any of the other

[87] P.A. Akkermans *et al.* 1983:344, 365–70; Hijara 1978; Merpert *et al.* 1978:40; Campbell *et al.* 1999:402–3.
[88] Tobler 1950:49. [89] Merpert *et al.* 1976, 1977, 1978.
[90] Mallowan 1936; Tsuneki *et al.* 1997:10; Yener *et al.* 2000.
[91] See for example Hodder 1980:164; Parker Pearson 1999:26.

structures in the village. It is likely, therefore, that the burning of the house (and perhaps of the village as a whole) was intentional and ritual, and concerned the corpses on the roof.[92]

Although widely diverse, the funerary customs of the seventh and sixth millennia BC demonstrate considerable affiliation with what had gone before. The dead continued to be buried within the settlement area – a clear reference to the millennia-old practice of emphasizing the bonds between the past and present members of the community. However, the introduction of new types of burial and what appear to be separate cemeteries were striking developments apparent by the late seventh millennium, coinciding with changes in material culture (circular buildings, painted pottery, seals and sealings, etc.) and in society as a whole. At least some of the deceased were distanced from the living through interment in cemeteries, cremation, and the deliberate breakage of artifacts, signalling the discontinuity between life and death and the natural and cultural destruction of an individual's identity.

Mortuary practices were a means for people to define who they were, or, as Mike Parker Pearson has commented: "Where to put the remains of the dead is generally not a matter of functional expediency. The place of the dead in any society will have significant and powerful connotations within people's perceived social geographies."[93] Although the proper interpretation of funerary patterns can be elusive, there can be little doubt that the dead took on new significance for the living as the concepts of mobility and community were redefined in the late seventh and sixth millennia.

Social dimensions

It seems reasonable to assert that the small communities of the late Neolithic, often within sight of each other, maintained regular face-to-face contacts, exchanged marriage partners, and participated in one another's social activities like funerals, initiations, and other ceremonial events. They may also have assisted each other in warfare or in times of disease and economic disaster. Certainly there was a regular, if small-scale, exchange of material culture items such as pottery, obsidian, flint, basalt, copper ores, marine shells, bitumen, and wood. It is probable that many more items rarely preserved in the archaeological record should be added to the list, such as food, baskets, and cloth.

There were general styles in the material culture and in the technological traditions required to produce goods. Such styles were sometimes distributed over regions larger than modern states, as in the case of the sixth-millennium Halaf culture. However, the pattern in the distribution of material culture is far less consistent and uniform than is often assumed. Although far too little

[92] Akkermans and Verhoeven 1995:16; Aten 1996:116–18; Verhoeven 1999:224–9, 2000.
[93] Parker Pearson 1999:140.

analysis has been conducted, there is a growing amount of evidence for diversity in material culture styles at both the site level and regional level. While the abundance of stylistic variation undoubtedly had significance to its producers and users, it is important to realize that it does not imply that the distribution of material culture coincided with the boundaries of a single ethnic group, or that a shared material culture delineated a single society, culture, or culture area as archaeologists have conventionally understood these groupings. The ethnographic record provides ample proof that the products of local crafts frequently move between communities and across the boundaries of ethnic groups; they often create social configurations much larger than the kinds of groups usually studied by anthropologists and archaeologists.[94] Likewise, we rarely find any discrete and neatly bound artifact distributions at the regional level in prehistory. Instead, there is a vast array of crisscrossing, overlapping, and intersecting distributions – the reflection of individual and community networks over very wide regions, transcending differences in environment, economic specialization, and political organization.

Mobility was important in the late Neolithic. Although it is not always easy to interpret occupation sequences, many sites seem to have been places for transitory visits of shorter and longer duration, where small groups of people pursued a varied and flexible subsistence pattern. They herded animals and grew cereals but were also involved in hunting and in foraging for vegetable foods. Emphases and strategies differed from region to region and from site to site, as demonstrated by the different proportions and variety of plant and animal remains. While some communities completely relied on mixed farming, others focused on hunting or herding, and still others tried to attain the best of both worlds, with farmers and pastoralists engaging in an intimate, symbiotic relationship. People might decide to move over a short distance only and to build their new homestead within sight of the ancestral one, or they might decide to enter remote areas previously untouched. In general, attachments to or long-term claims on place and land seem to have been of little relevance.

However, not all occupations were used intermittently or seasonally. Almost everywhere, mobility took place within a landscape that included a few large, permanent settlements containing extensive production and storage facilities and, perhaps, cult centers and meeting places. People often stayed for a prolonged time at these "anchor" sites, which were probably invested with considerable social and ritual meaning. In a constantly changing regional mosaic characterized by occupations rapidly founded and rapidly deserted, these sites were fixed landmarks that may have grown as large as 10–15 ha by the end of the period. It is tempting to attribute regional political power to these large communities, but so far there has been no convincing evidence of elite residences, differentiated wealth distribution, or other forms of ranking. Although the large

[94] Cf. Welsch and Terrell 1994:50–1, and other contributions in Stark, ed., 1998.

rectangular building at late sixth-millennium Arpachiyah in Iraq has been interpreted as a chiefly residence, this remains to be effectively demonstrated. Aspects of material culture potentially useful in the recognition of social differentiation such as the distribution of painted pottery or of seals and sealings do not appear to have been restricted to the large sites or to specific quarters therein. In many respects, the large sites may simply have been extended versions of the many small villages and hamlets, perhaps owing a good deal of their size to a seasonal swelling of the population by semi-nomadic herders and hunters in search of food, shelter, and security.

Similarities in pottery styles and architecture are often cited as evidence for the existence of Halaf chiefdoms in sixth-millennium Syria and Iraq, but the argument is still based on minimal and unpersuasive data.[95] At present, it is safe to conclude that there is little or no evidence that the local communities were presided over by central authorities or were socially stratified. Leadership was probably temporary and situational and vested in individuals with different social *personae*, shifting routinely from one role to another as daily circumstances changed. The small villages scattered over the countryside were each inhabited by a few dozen people at most – mainly kinsmen who lived together, with elders at their head. These people, ranked by age, could assemble in a tribal or village council in times of need and return to domestic activities little different from those performed by the other members of the community. In principle, access to the highest positions, determined by age, would have been eventually open to all. A strongly egalitarian ethic was in force, in which broader socio-economic and political networks were based upon fluid alliances, the recognition of cultural unity, and a sense of shared history, facilitated by ties of kinship and centuries of intergroup marriage and trade.

While cursory shelters made of wood and hides were probably in use at the temporary camp sites, more durable structures made of stone, *pisé*, or mudbrick were built whenever a stay of one or more generations was anticipated. In many parts of Syria in the late seventh and sixth millennia BC, people increasingly chose to live in round houses arranged around one or more rectangular storehouses. These were settlements still focused on small group size and corporate efforts: the round houses were meant to accommodate a single person or a small household, while the storage buildings were for the benefit of the entire group, whether that community was a single household or several such units.[96] The

[95] Watson and LeBlanc 1973; Redman 1978. See e.g. Hijara 1997 and Akkermans 1993 for a criticism of the chiefdom approach.

[96] It is common to compare these tholoi with the "circular hut compounds" of western central Africa, where circular huts 3 to 5 m in diameter are inhabited not by a "family" in our sense of the word but either by a single man or a woman and her children. Generally, the food supply and storage facilities are shared by the whole community. The size of the groups using these compounds is on average twenty persons, although the range varies between ten and one hundred people. This description would easily fit many of the mid-sixth-millennium settlements in Syria. See for example Flannery 1972; Breniquet 1996; Forest 1996.

settlements were not built to last forever, since their inhabitants often moved after one or two generations. In some cases, the entire group picked up stakes and built a new homestead elsewhere; in other cases, there is evidence for the gradual abandonment of settlements, with houses or house clusters deserted one after the other.[97]

The reasons that people moved were undoubtedly diverse. Mobility certainly was associated with subsistence strategies and changes in the availability and quality of local resources: e.g. seasonal decline in pastureland, exhaustion of soils for agriculture, local depletion of wild resources, or scarcity of water. Movement also could have been made in response to *ad hoc* personal circumstances (e.g. quarrels, dissatisfaction, jealousy), unsanitary conditions, or inability to cope with local population pressure. However, mobility may also have been embedded in social conventions and beliefs, presenting regular movement as a way to preserve the long-term survival of the group. As a social strategy, mobility prevented group tensions and conflicts by encouraging the regular splitting of groups, occurring conventionally as part of "the way things are always done."[98] However, fissioning was not only a way of mitigating social tensions but also a *political* act, which, by the continuous restructuring of larger groups into smaller ones and an ongoing evaluation of the social relationships, made everyone equal, with no persons or would-be chiefs superior to anyone else.[99] In this sense, mobility and fission were firmly rooted in a widespread ideology aimed at the denial of, or at least the conflation of, social hierarchies. They were part of a social practice that had a structuring significance far beyond the individual community and its daily, local concerns and responses to them.[100] Further, mobility and fission were not the *outcome* of a lack of strong integrating political structures as has sometimes been proposed but, on the contrary, the *motor* behind the absence of such institutions.

[97] An example is the Burnt Village at Tell Sabi Abyad, where some houses had already been deserted before the village's destruction by fire. See Verhoeven 1999.

[98] See the various contributions in Stark, ed., 1998.

[99] See Lillios 1991 and references therein. An example is the Nuer of southern Sudan, where "lineages . . . split up not only on account of internal dissension, but because a man of personality likes to found his independent settlement where he will be an important person rather than remain a younger brother in a group of influential elder relatives . . . this process by which any man . . . could become a leader is felt to be ingrained in their social system and is a reason why they object to the creation by the Government of a few local 'chiefs' whose position tends to become formalized, permanent, and hereditary. To them this is a rigid interpretation of status, based on territorial rather than personal qualifications, which stabilizes the superiority of a single man or lineage. Every man of standing feels that he should be a 'chief'." See Evans-Pritchard 1972 [1940]:216–17.

[100] Population pressure for example is often cited as a main incentive behind mobility and community splitting but this was undoubtedly an incidental rather than a structural motive. In the case of late Neolithic Syria and Mesopotamia, there is little or no evidence for a critical population growth at the regional level that may have disturbed the social order; if it happened, it may have held for some sites or areas at particular moments but it cannot account for a widespread practice continued century after century.

Although widely employed as a "leveling mechanism," mobility was not the only way potential social conflicts were avoided. Burial treatment was actively employed in maintaining and reproducing the egalitarian social order by presenting everyone as peers in death. Equally important, perhaps, was the creation and sharing of styles in architecture and other aspects of material culture. One of the many dimensions of style is its ability to communicate personal and social identity *vis-à-vis* others – an indicator of the balance between the interests of the individual and society.[101] In this perspective, the round houses used nearly everywhere or the elaborately decorated pots widely shared in the sixth millennium may have promoted a sense of cultural strength, identification, solidarity, unity, and descent. They were an active reminder of an extensively shared set of social values, crosscutting any tribal or ethnic boundaries and underlying the individual and community networks. They helped people to define their perception of society and who they were socially: equal and autonomous.

[101] Wiessner 1989:59.

5

CONTINUITY AND CHANGE IN THE LATE SIXTH AND FIFTH MILLENNIA BC

The late sixth and fifth millennia BC are among the most minimally documented periods in Syrian archaeology, yet they are of salient importance as the transition between early villages and complex, urban societies. The era is associated with a ceramic horizon referred to as Early Chalcolithic or, more often, Ubaid, named after the small site of Tell al-Ubaid in southern Iraq; two phases have been recognized, along with many subdivisions and local variants.[1] At first, the Ubaid ceramic tradition was confined to the region south of Baghdad, where it has been identified at early sixth-millennium sites like Eridu and Tell al-'Oueilli. But in the late phase, after *c.* 5300–5200 BC, Ubaid material culture spread over an area of unprecedented scope, extending from southwestern Iran and the Arabian Gulf to the northern Levant and southeastern Anatolia. It is in this period that Syria enters the Ubaid orbit.

The Ubaid expansion entailed a set of profound changes in material culture and community life in Syria at the end of the sixth millennium. New types of painted and unpainted pottery, different in style and technology from those used before, were introduced. Tholoi, so characteristic of the late Neolithic, were replaced by rectangular multi-roomed buildings. Mobile, pastoralist lifestyles were largely abandoned in favor of permanent occupations at specific localities.

The changes set in motion at the end of the sixth millennium have long been associated with upheaval and social unrest. Among the causal factors cited are violent conquests and invasions, climate change, droughts, animal diseases, soil exhaustion, and nomad incursions.[2] None of these catastrophist explanations finds support in the archaeological record, however. At present, perspectives on the Ubaid expansion reconstruct migrations of people from southern Mesopotamia into northern Mesopotamia and Syria, focusing on episodes of intense contact between north and south.[3] Other theories see the beginnings of the Ubaid culture as the product of slow and indigenous change, particularly in the regions formerly inhabited by the Halaf communities in the north of Syria and Mesopotamia. Site abandonments in the late Halaf period are considered

[1] See for example Oates 1983.

[2] See Mallowan and Rose 1935; Mellaart 1975:236; and the overviews presented by Breniquet 1996 and Forest 1996. In the words of James Mellaart (1981:150): "Good desert stuff in the best of the T.E. Lawrence tradition."

[3] Hole 2000:22; Hole *et al.* in press; Thuesen 2000:76.

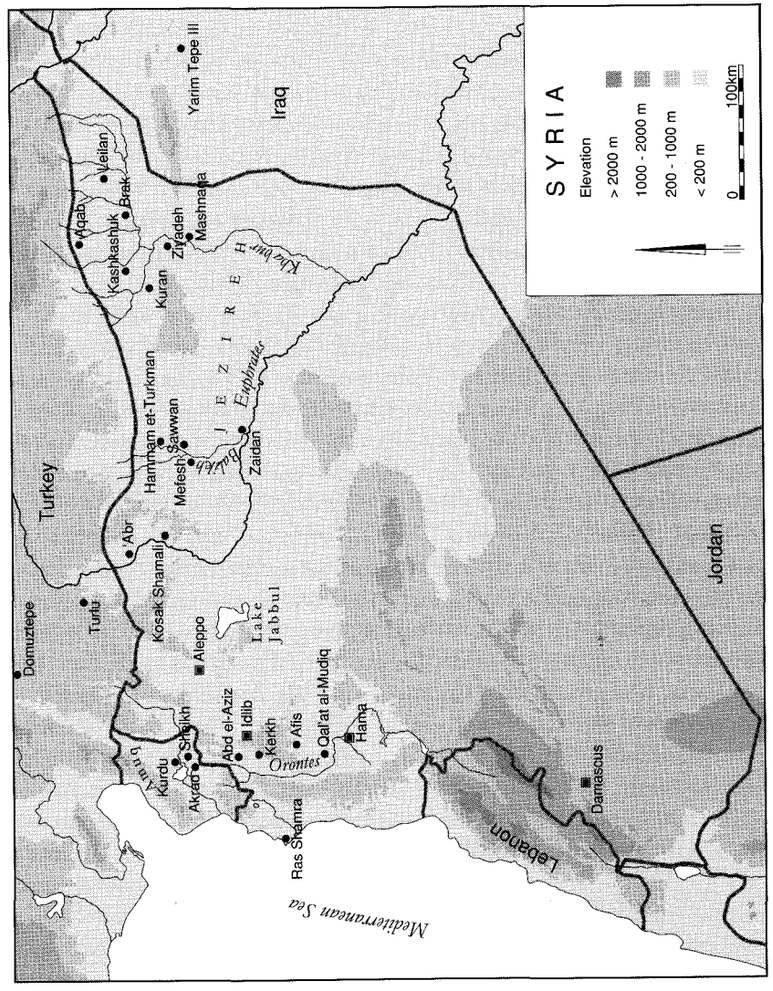

Fig. 5.1 Syria in the late sixth and fifth millennia BC, with the main Ubaid sites mentioned in the text.

to have been part of the "natural" cycle of settlement, rather than evidence of a wholesale desertion concurrent with the appearance of Ubaid populations.

When Ubaid material culture makes its earliest appearance in Syria in the final centuries of the sixth millennium, it co-exists with diverse stylistic traditions in different regions. Although their identification is still problematic, "Halaf–Ubaid Transitional" ceramics have been reported from sites like Tell Mefesh and Tell Aqab in Syria, Tell Turlu in southeastern Anatolia, and Khirbet Derak in the Eski Mosul region in Iraq. Domuztepe near Kahramanmaraş in southeastern Anatolia may be another example, although its excavators are reluctant to apply the term "transitional" to the pottery found in their "Post-Halaf A–B" levels, which include a small proportion of Ubaid-related ceramics together with Halaf-like or Levantine-style pottery.[4] Since the beginnings of the Ubaid culture entailed slow and indigenous change over hundreds of years, the communities of Syria may have developed their own distinctive version of the Ubaid tradition in that time span.

To ascertain a transition is one thing; to explain it another. One explanation holds that the Halaf–Ubaid change mainly involved innovations in pottery technology. According to this interpretation, the introduction of the slow turning wheel or tournette resulted in a simpler and more standardized style of decoration over large parts of the Near East. In this case, a desire for cheap and efficient production – not migrations of people – accounted for the extensive spread of Ubaid-style ceramics.[5] Another hypothesis posits that acculturation was the main impetus for the transition, with the sixth-millennium Halaf communities adopting Ubaid cultural traits or even being absorbed by Ubaid populations presumed to be technologically superior. The model contends that the Halaf groups were cultural anachronisms, unable to adapt to changing circumstances by the end of the sixth millennium. Such an interpretation draws particularly on the assumption that continuous community fissioning and population movements into previously unoccupied areas were vital to the Halaf groups, in order to cope with constant demographic pressure and resultant social tension. But once the new areas were inhabited and further expansion impeded, there was no other option but the adoption of cultural traits better suited to the exploitation of circumscribed territories. Those Halafian groups who were not prepared to change were simply swept aside.[6]

Such an interpretation is unlikely to be correct. The previous chapter set out a different view on population pressure and the motivation for mobility

[4] Mallowan 1946; Davidson 1977; Breniquet 1996; Campbell *et al.*1999; Nieuwenhuyse 2000:190. It is still difficult to define the "transitional" dimension of the pottery. The concomitant occurrence of both late Halaf and early Ubaid pottery in a particular level is insufficient, since there is a risk of intrusion of earlier pots into later levels and *vice versa*. The assemblages may also have existed side by side for some time, with the pots exchanged. More useful are ceramics that seem to have been of a "hybrid" nature, combining elements of both traditions (such as, for example, pots with Ubaid shapes and Halaf decoration).

[5] Nissen 1989. [6] Breniquet 1996; Forest 1996:55.

Calibrated dates BC	Northwestern Syria	Middle Euphrates		Balikh	Khabur Middle	Khabur Upper	Northern Mesopotamia
4000	Tell Afis	Kosak Shamali 3 - 1	'Abr 3 - 2	Hammam IV D	Ziyadeh 13	Leilan VIB (late)	Gawra XII
4500	Ras Shamra IIIB	Kosak Shamali 9 - 4	'Abr 5 - 4	Hammam IV C	Ziyadeh 2–12	Leilan VIB (early)	Gawra XIII, Abada I–II
	Ras Shamra IIIC			Hammam IV B	Ziyadeh 1, Mashnaqa 3	Leilan VIA	Gawra XV–XVI
5000	Amuq E, Kurdu	Kosak Shamali 12–10	'Abr 6 - 7	Hammam IV A	Mashnaqa 2		Gawra XVII–XIX
5200		Kosak Shamali 17–13			Mashnaqa 1		

Fig. 5.2 Simplified fifth-millennium chronology.

in the sixth millennium, undermining the basic premises of the acculturation hypothesis. Another problem lies in the disposition to believe in cultures as historical entities, with one superior to another in its technological and social constructs.[7] For example, Ubaid society has been repeatedly associated with irrigation agriculture, said to have been a sign of Ubaid cultural elaboration and excellence (and part of the making of "great civilizations"), surpassing the degree of complexity in the Halaf communities based on dry-farming and pastoralist endeavors.[8] However, neither the Halafian groups nor their Ubaid successors in the north were involved in irrigation agriculture; one simple reason for them not to adopt irrigation is that there was no need to do so, given their economies successfully adapted to local circumstances.

Although we have some insight into what the Ubaid became in Mesopotamia,[9] we are much less informed on its nature and development in Syria – unquestionably the result of the small sample of excavations. As a result, a review of Syrian sites must be conducted with continual reference to contemporaneous developments in Mesopotamia – but with due caution. For example, the many similarities between the painted-pottery assemblages in Syria and Mesopotamia might tempt us to assume that other material culture or social developments were similar as well. However, there is a growing amount of evidence for much regional diversity and local development in the ceramic sequences. There are also regional dissimilarities in the style and layout of buildings and settlements, casting doubt on the advisability of "lumping" the Mesopotamian and Syrian evidence into a single unit. Individual, consistent "cultures" probably did not exist in the fifth millennium; instead we should think in terms of overlapping and intersecting social networks of varying dimensions, in which different types of social power were exercised by different groups, whether economic, ideological, or political.[10]

While it is still unclear what happened at the transition from the late Neolithic to the Ubaid period, the evidence for a slow and gradual change over several centuries suggests that there must have been an enhancement of existing social systems, rather than a radical break with the past. People remained in small, dispersed villages, relying on agriculture, stock breeding, and hunting to make a living. There is little evidence for status markers or a differentiated distribution of wealth, suggesting that the earlier, egalitarian ethic and a sense of corporate community identity were still maintained. But in ways that may not have been foreseen at the beginning, people were increasingly encouraged to remain for much longer periods at specific locales. The earlier emphasis on mobility weakened in favor of a growing attachment to place and the creation

[7] See for example Shennan 1989 and Trigger 1989 on the use of the culture concept in archaeology.
[8] See Breniquet 1996:21; Forest 1996; Huot 1994.
[9] Oates 1983; Forest 1996; Pollock 1999; and the various contributions in Henrickson and Thuesen, eds., 1989.
[10] Mann 1986; Shennan 1989.

of a new network of regional and local identities at fixed localities. Associated with this shift in the pattern of settlement was the redefinition of the household.

Patterns of settlement and house layout

Ubaid sites are primarily found along the Euphrates and its tributaries in northern Syria, but they are also attested in the west as far as the Mediterranean and as far south as Hama on the Orontes (fig. 5.1). In southwestern Syria, nothing is known of fifth-millennium settlement in the rolling plains at the foot of the Anti-Lebanon range or in the region around Damascus. Ubaid groups clearly favored the fertile, well-watered lands in regions suited for dry farming, occupying only a few settlements in the marginal areas beyond the rain-fed zone. The interior desert had already been abandoned in the sixth millennium, and the Ubaid communities seem to have avoided the region as well.[11]

In many parts of Syria, sites were fewer than before, but it would be a mistake to assume a decrease in regional population densities. While many of the sites of the preceding period were short-lived, even the smallest settlements of the Ubaid period often remained in use for several centuries. There was much continuity of place, with few breaks in settlement and repeated rebuildings of architecture duplicating the layouts of earlier occupations. The mobility widely practiced in the sixth millennium seems to have had little appeal to the later groups, who were orientated towards permanence and continuity of settlement instead.

In each region were a few large settlements with a long history beginning in the sixth millennium and lasting for millennia. Tell Kurdu in the heart of the Amuq plain is a 15 ha mound, although Ubaid occupation (Amuq E in the regional sequence) seems to have been restricted to about 5–6 ha. Other sites may easily have reached similar sizes, such as Tell el-Kerkh 1 in the Rouj basin, Tell Hammam et-Turkman on the Balikh, and Tell Leilan and Tell Brak in northeastern Syria, but heavy later overburdens often obscure early deposits, leaving us uncertain about their size in prehistory. Of course, a large mound *per se* does not necessarily imply extensive settlement or dense population: Tell Abada, one of the largest Ubaid sites in the Hamrin region of Iraq, comprises 3 ha at its base, but the area occupied in upper phases II–I covered less than 1 ha. In these phases there were seven to ten extensive and elaborately finished tripartite buildings separated by alleys and enclosing a large open square; the excavator estimates a population of 70–120 persons.[12]

Most Ubaid occupations were small, about 1 ha or less. Nevertheless, the vertical build-up of occupation was often considerable, as in the case of Kosak Shamali on the Euphrates, about 0.5 ha but with 5 m of Ubaid deposits including

[11] Cauvin 1981. [12] Jasim 1985:201.

seventeen building levels. Tell al-'Abr, to the north, measured 1 ha but had six main levels and a deposit of 6 m. On the middle Khabur, Tell Ziyadeh was another 1 ha site with a thick deposit (4 m high, thirteen Ubaid levels). Occupation at these small mounds was of a dispersed and shifting character, leaving large parts of the mounds uninhabited and available for open-air activities, waste disposal, or the burying of the dead. An example is Tell Mashnaqa, where the area used for house construction in the lower stratum 1 became a refuse midden in the second phase and a burial ground in the final phase.

Although the smallest sites are sometimes found near the dominant mounds, suggestive of a two-tier hierarchy in settlement patterning,[13] most settlements were about 10–20 km from one another. The dispersed spatial patterning may be indicative of extensive community-held territories used for agriculture, herding, hunting, gathering, and the exploitation of other natural resources. Some form of mobility may have been retained, but in more circumscribed areas and associated with a specific place. The frequently lengthy settlement of people in specific localities may have resulted in the recognition of ancestral lands, one of the pillars of later political grouping.

Circular buildings – a main characteristic of earlier settlement – fell into disuse at the end of the sixth millennium, although a few tholoi still occurred in early Ubaid levels at Tell Kurdu in western Syria and at Tepe Gawra, Yarim Tepe III and Khanjidal East in northern Iraq.[14] Their disappearance is associated with a change in the definition of the role of the house: rather than relying on the dispersal of the household unit over many small, single-roomed circular structures, people turned to the use of large and multi-roomed, rectangular buildings that were large enough to accommodate an entire family and a wide range of activities under one roof. It has been suggested that the internal control of space and movement implied by compartmentalization within the buildings was associated with a desire for privacy and the segregation of the sexes, creating a new social and work ethic. In this perspective, domestic tasks were performed in relative isolation in specific quarters, increasing the amount of time spent in the house and separating the women from the whole of village life. The organizational change probably did not imply a decrease in the diversity of tasks performed by women but transferred female labor from the community level to the domestic domain.[15]

Ubaid architecture varied widely in shape and size, from small one-room buildings and irregular agglomerations of different-sized rooms to well-planned

[13] For example, the small Khirbet Meushrag near Halula, Abu Dame near Tell al-'Abr, Tell Abd el-Aziz near Tell Aray 1, Tell el-Rasm near Tell Kurdu, and Khirbet al-Haramie near Tell Hammam et-Turkman. A similar observation holds for the Ubaid settlements in the Ur–Eridu region in southern Mesopotamia, where a variety of smaller settlements can be seen as subsidiary to a few larger sites. See Wright 1981:325.

[14] Yener *et al.* 2000; Tobler 1950; Merpert and Munchaev 1993b; Wilkinson *et al.* 1996.

[15] Wengrow 1998. See also Forest 1996:56ff.

tripartite houses 50–200 sq. m in area, consisting of a large central hall flanked by parallel rows of smaller rooms on the two long sides. In general, the houses were square or rectangular, with walls of *pisé* or mudbrick, sometimes founded on stone. The recurrent division of the buildings into many small rooms served a wide variety of purposes. Certain areas were probably associated with the preparation and consumption of food and drinks, the nurturing of infants, and sleeping, while other rooms were related to such matters as hospitality, domestic production, and storage. The arrangements often may have varied with the seasons or with changes in the composition of the households. A central hearth is often found in the largest room, which must have been the focus of family gathering and the place where guests were received and entertained. There was much storage space in and around these buildings; at Kosak Shamali on the Euphrates, for example, hundreds of ceramic vessels were found in one room, while charred cereals suggest that other rooms were used for food storage. Bulk storage probably also involved water, hay, straw, and firewood. At several sites, there were buildings with a grill structure of low parallel mudbrick walls at close intervals, probably intended to support a raised floor, with air circulating below. Usually interpreted as granaries or cereal-drying facilities, these installations are often associated with a nearby house, suggesting that each household had its own grain storage.

The often elaborate tripartite houses so typical of Ubaid sites in Iraq are rarely found in Syria. The sole example is at Tell Ziyadeh on the middle Khabur, where parts of a tripartite structure were observed in the final level of Ubaid settlement, *c.* 4300 BC. Later still, such buildings occurred in fourth-millennium contexts at, for example, Tell Hammam et-Turkman and Tell Mashnaqa. Although there have been attempts to designate some of the early fifth-millennium tripartite structures in levels XVIII–XIV at Tepe Gawra in Iraq as temples, there is little evidence to support such an interpretation. It is probable that ritual and ceremony were performed on the domestic level in Syria and northern Mesopotamia, while a distinctive architectural setting, offering tables, or altars were not required until the fourth millennium (see chapter 6).[16] Local evidence for ranking on the basis of architecture is also absent; one building slightly more elaborate than others at Abada in Iraq has been interpreted as the house of the village headman, but it shared the same layout as the surrounding domestic units.[17]

[16] See e.g. Tobler 1950:44 on the level XVIII tripartite architecture at Tepe Gawra. See Aurenche 1981b; Forest 1983b; Roaf 1984; Akkermans 1989c, on the distribution and development of Ubaid tripartite architecture in northern Mesopotamia. Although the attribution is not without problems, sanctuaries may already have existed much earlier at the Ubaid sites in southern Mesopotamia: the thirteen building levels of the late sixth to late fourth millennium in the so-called Temple Sounding at Eridu are usually all considered to contain temples, with the sanctuaries evolving from small, one-roomed shrines in the lowest levels to large and highly sophisticated buildings in the upper levels. See Safar *et al.* 1981; Porada *et al.* 1992.

[17] See Jasim 1985:203.

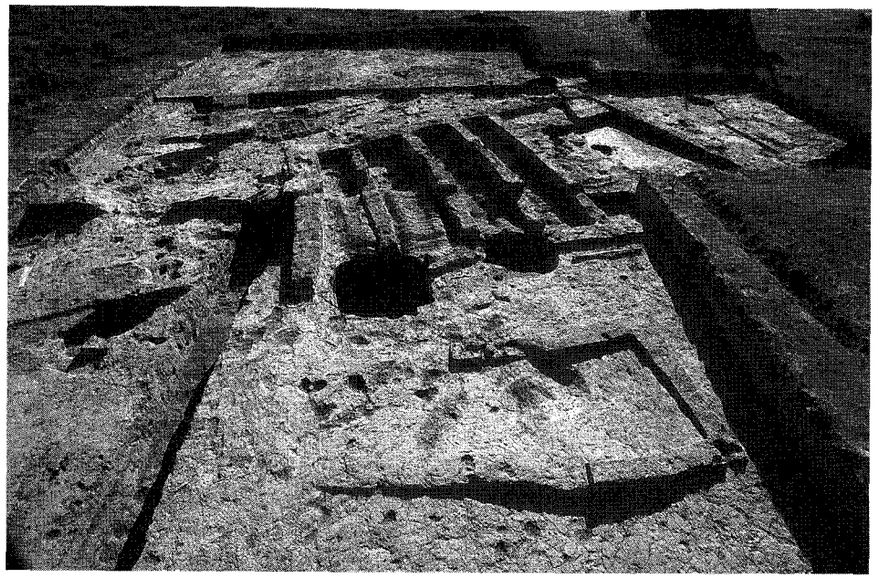

Fig. 5.3 The large grill building or granary with four narrow rooms at Tell Kurdu, *c.* 5000 BC.

Northwestern Syria

In the center of the Amuq plain is the large settlement of Tell Kurdu, which yielded 5 m of Ubaid deposits in the 1938 excavations (Amuq phase E).[18] The contexts were excavated in arbitrary levels without respect to floors, and settlement data are restricted to ash lenses, pits, and *pisé* or mudbrick wall fragments. Much more rewarding are current excavations at Kurdu, expanding on the earlier work and exposing a wealth of architectural and other evidence.[19] New trenches revealed two blocks of rooms standing on a surface of *pisé* slabs, probably part of a storehouse dated to *c.* 4800 BC. The square or rectangular rooms were very small (0.7–2.5 sq. m), without any indication of doorways. Several large vessels and grinding stones lay in some of the rooms, and a row of three bins containing charred grain was set against one wall. Below was an apparently circular *pisé* building some 7 m in diameter. On the south mound summit was occupation of a different nature and a somewhat earlier date, perhaps the late sixth or very early fifth millennium. Here was a substantial platform about 60–70 cm high constructed of alternating layers of *pisé* and reeds. Although little architecture had been preserved on the platform surface, a large grill building of four narrow rooms stood at its eastern end (fig. 5.3). The grill rooms stood partly on a foundation of at least three beds of reeds, each separated by packed mud. Bricks were laid out in regular courses on the mud on top of the upper

[18] Braidwood and Braidwood 1960. [19] Yener *et al.* 2000.

reed bed to form a solid and level surface, and the interior walls of the grill rooms ran across this surface. The scale of the building – over 10 m long and perhaps 9 m broad – and the considerable efforts spent on foundation and extensive platforming suggest that public architecture dominated the summit of the south mound at Tell Kurdu. Perhaps we should see the grill structure as part of a large granary and the seals, baling tags, and tokens in the fill surrounding the constructions as adminstrative devices used in the bulk storage of grain.

Ubaid strata of occupation have been reached at several other sites in western Syria, although the area of exposure is usually small. These include Tabara al-Akrad level VII and Tell esh-Sheikh levels I–IV near Alalakh, Abd el-Aziz layers 1–8 in the Rouj basin, and Qal'at el-Mudiq IV on the Orontes and Tell Afis southwest of Aleppo, both of which yielded late assemblages. At Ras Shamra on the Mediterranean, Ubaid pottery occurs in massive quantities in phases IIIC–B (but also in phase IV, in what seem to be mixed contexts), in association with rectangular architecture described by the excavator as consisting of "miserable" *pisé* and stone foundations. At Hama on the Orontes, phase L in the deep sounding revealed parts of a stone-based terrace wall and a rectangular one-roomed building with a fireplace in the center.[20] Many more sites in western Syria are known from surface surveys, including at least sixteen Ubaid settlements in the Amuq plain, twenty-one in the Qoueiq region north of Aleppo, three or four in the Rouj basin, and six in the Jabbul region.[21] Their size is often uncertain, although many communities were undoubtedly small, usually no more than 1–2 ha. Some sites have long sequences and may have been occupied for the entirety of the Ubaid period, but many others seem to have been inhabited for shorter time spans.

The Euphrates valley

The pattern of settlement along the Euphrates remained much the same as in the preceding eras, with sparse and dispersed occupation consisting of about 15 sites. As in the earlier periods, the settlements are mainly found in the Tabqa and Tishrin salvage regions, with relatively few communities in the marginal areas farther south. The Euphrates sites are mainly known from surface finds,[22] but two have been the subject of large-scale excavation: Tell Kosak Shamali and Tell al-'Abr. Both sites were newly founded in the Ubaid period, the former on top of a deserted late Neolithic mound, the latter on virgin soil. The small but steep mound (0.5 ha, 10 m) of Kosak Shamali at the confluence of the Euphrates and the Nahr Sarine evinced substantial architectural continuity through the fifth and fourth millennia.[23] The lengthy sequence revealed seventeen

[20] Hood 1951; Woolley 1953:29, 1955:7; Contenson 1970, 1992; Iwasaki and Nishino, eds., 1992; Iwasaki *et al.* 1995; Thuesen 1988; Collon *et al.* 1975; Mazzoni and Cecchini 1995.
[21] Yener *et al.* 2000; Mellaart 1981; Iwasaki *et al.* 1995; Schwartz *et al.* 2000a.
[22] See Van Loon 1967; Bounni 1979; Kohlmeyer 1984; Moore 1985b; Geyer and Monchambert 1987; Sagona and Sagona 1988.
[23] Nishiaki 1999; Nishiaki *et al.* 1999.

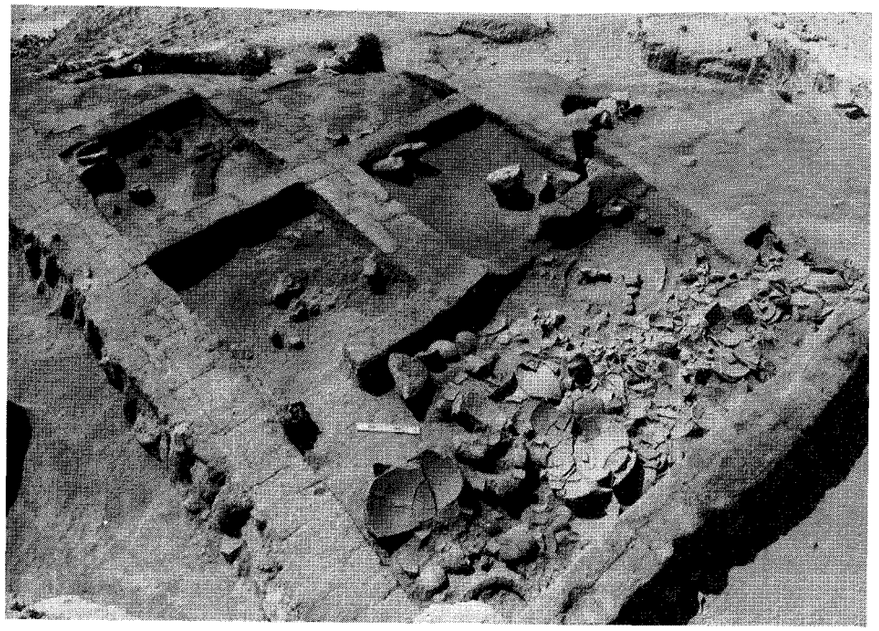

Fig. 5.4 The burned potter's workshop at Tell Kosak Shamali, with broken pots on the floor.

building levels, constituting the majority of the Ubaid period, perhaps about 1000 years, in addition to six post-Ubaid or Late Chalcolithic occupations that followed without any obvious break in the sequence. In the lower levels 14–13, settlement seems to have been bounded by a large ditch about 3 m wide and 1 m deep. Houses were built of mudbricks on stone foundations and had many small rooms, sometimes barely measuring 1.6 by 1.6 m, with a large circular or U-shaped oven in the corner. In level 10, segments of a large, heavily burned multi-room building dated *c.* 4900 BC were exposed (fig. 5.4). Although it has been interpreted as a potter's workshop, other tasks seem to have been performed there as well. The many finds *in situ* on the floors, including grinders, palettes, and ceramic scrapers interpreted as potters' equipment, suggest that one or more potters were at work in some rooms, while others were used for the storage of hundreds of small painted bowls or cereals. Evidence for local pottery production has also been found in other building phases, in particular in the post-Ubaid level 6 with its well-preserved updraft kilns.

The 1 ha site of Tell al-'Abr 20 km north of Kosak Shamali also provides evidence of much industrial activity associated with pottery manufacture. Each building level had large kilns of diverse shapes that often stood in single-roomed structures built for the purpose and were sometimes surrounded by small work rooms and pits containing ash and wasters. Settlement at 'Abr began in the early Ubaid period *c.* 5000 BC and persisted until the fourth millennium, with

the exception of at least one major abandonment of a century or two between the lower levels 5 and 6. Each of the six building levels was characterized by only a few mudbrick houses, and there can be little doubt that the number of people living at the site was very small. Although none of the buildings was completely excavated, we can infer that the houses had at least one larger room with many smaller adjacent rooms. Some rooms had a mudbrick grill of low parallel walls that probably served to support a raised floor used for the drying and storage of cereals. Carbonized cereal remains were found on some room floors as well as in a large storage vessel.[24]

Northeastern Syria

Moving east, we find fourteen Ubaid settlements in the long, narrow basin of the Balikh, distributed in a linear north–south pattern along the river and its tributaries. The villages were usually spaced regularly at intervals of 5 to 10 km, but some mounds were relatively isolated. Most of the occupations were small and inconspicuous, from less than 1 to 4 ha, occupied at various times during the period. In contrast, three mounds were much more substantial, characterized by long sequences and as much as 10 ha in area: Tell Hammam et-Turkman in the northern part of the basin, Tell as-Sawwan in the middle, and Tell Zaidan in the south at the confluence of Balikh and Euphrates.

A narrow but deep trench in the eastern slope of Tell Hammam et-Turkman revealed 15 m of Ubaid deposits with at least fourteen main occupation levels from the late sixth and fifth millennia BC, each with the remains of rectangular, multi-roomed mudbrick houses. In one instance, an interior wall face had been plastered white and decorated in red paint. There was much rebuilding or adjustment of structures within each main level, but long periods of local erosion seem to characterize the end of each building stage, with the houses wholly buried below later debris. In the late 1930s, small-scale excavation at Tell Mefesh, about 20 km south of Tell Hammam et-Turkman, exposed segments of a burned mudbrick house with four square rooms flanked by a larger oblong room or court with "corn bins." Charred beams of poplar and willow, as well as reed impressions in one of the rooms, must have been part of the roof cover.[25]

Ubaid sites are numerous in the Khabur triangle of northeastern Syria, an extensive and fertile plain drained by the Khabur river and its eastern tributaries. A survey in the Wadi Dara-Jaghjagh region identified eight Ubaid settlements within an area of about 300 sq. km, and another thirty-eight sites were located east of the Hasseke–Qamishli line. Three or four sites were found along the middle Khabur river southeast of Hasseke, and a single large mound was noted in the arid Wadi 'Ajij area near the Syro-Iraqi border. The sites varied in size, and not all were occupied for the entire length of the Ubaid period. Some were

[24] Hammade and Koike 1992; Hammade and Yamazaki 1995; Yamazaki 1999.
[25] Mallowan 1946:126; Meijer 1988; Akkermans 1988b, 1988c.

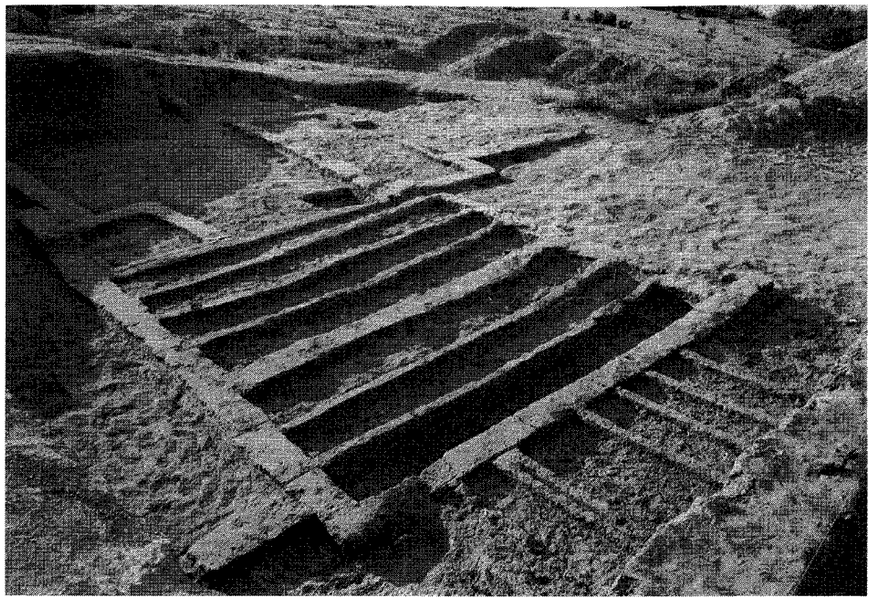

Fig. 5.5 Earliest architecture at Tell Ziyadeh: U-shaped complex with rooms on either side of a courtyard that is closed at one end by a grill-based storage structure.

new foundations, while many others rested on earlier settlements and perhaps were the result of long and continuous local occupation, as at Tell Aqab. Several mounds were probably very large with long-lasting occupation, like the huge Tell Brak, where two deep soundings reached levels with late Ubaid pottery. At Leilan, another extensive mound, prehistoric occupation has been identified on the 15 ha acropolis, although the entire area need not have been occupied simultaneously. A sounding covering 25–40 sq. m contained ten Ubaid strata within some 3 m of deposit, revealing mudbrick buildings with small rooms of apparent domestic function. Many more sites seem to have been very small, such as the 0.25 ha Tell Kuran on the upper Khabur northwest of Hasseke.[26]

On the banks of the middle Khabur were a few small and scattered settlements. Excavation at the 1 ha Tell Ziyadeh revealed thirteen Ubaid levels of occupation within a span of about 500 years, between 4800 and 4300 BC. The most complete buildings come from the lowest level 1 and the upper level 13. The earliest occupation had a large multi-roomed U-shaped domestic structure arranged around a small courtyard with a bread oven. A large room at one end of the courtyard may have been a granary, since it was filled in with parallel rows of bricks set on edge, probably meant to support a raised floor (fig. 5.5).

[26] Davidson 1977; Lyonnet, ed., 2000; Kühne 1979; Monchambert 1984a, 1984b; Bernbeck 1993; Davidson and Watkins 1981; Oates 1987; Schwartz 1988a; Hole *et al.* in press.

Fig. 5.6 Mudbrick house remains at Tell Mashnaqa (stratum 1).

The final Ubaid level 13 contained part of a tripartite house consisting of a large central hall flanked on both sides by two rooms. The side wings were accessible through doorways placed opposite one another in the southern end of the hall. Outside the building was a cooking area with a bread oven and a small circular pit lined with mud plaster. In other parts of the mound, Ubaid remains included portions of a large pottery kiln as well as the foundations of a burned building composed of mudbrick floors resting on three leveled terraces capped with brick.[27]

Some 15 km further south lies Tell Mashnaqa, occupied slightly earlier than Ziyadeh, *c.* 5200–4900 BC. The tell covers over 4 ha, but it is doubtful whether its entire extent was inhabited simultaneously. The earliest stratum 1 had rectangular mudbrick houses, occasionally reinforced with buttresses along the exterior façade, with small rooms containing fireplaces, grinding stones, mortars, and painted pots (fig. 5.6). In the next strata 2–3 was a shift of occupation to other parts of the mound, when the area formerly inhabited became a refuse midden and later a burial ground. Subsequently, the site was abandoned for hundreds of years but rebuilt in the fourth millennium, with a large tripartite building measuring about 11.5 by 10.5 m. Remarkable finds in the Ubaid levels were the fragments of two pottery boat models, strongly suggesting that

[27] Buccellati *et al.* 1991; Hole and Arzt 1998.

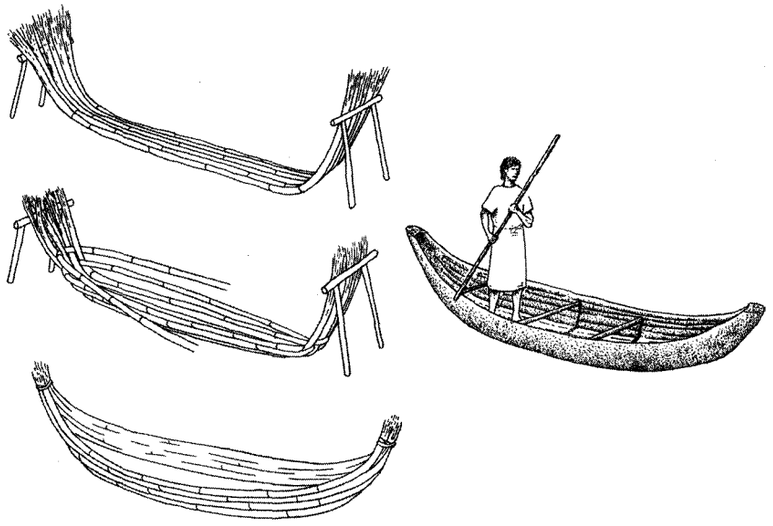

Fig. 5.7 Artistic reconstruction of an Ubaid boat, used on the Khabur river *c.* 5000 BC. Based on a clay model found at Tell Mashnaqa.

people along the Khabur river already made use of boats for transport and fishing *c.* 5000 BC, if not before. Similar miniature boats are also known from Ubaid sites in Iraq like Eridu, Ubaid, 'Uqair, 'Oueilli, and Abada. The Mashnaqa models represented long, narrow canoes with pointed sterns, probably built of bundles of reeds and coated with bitumen on the outside to make them waterproof (fig. 5.7). Until recently, similar boats traversed the marshes of southern Iraq.[28]

Material culture

The people of the Ubaid settlements used a wide variety of tools for many different purposes, from the procurement and processing of food to the manufacture of textiles and ceramics. There was much uniformity in production methods and implements from one area to another, suggesting that people everywhere were involved in a similar basic set of daily domestic activities. Much effort was devoted to agriculture, evinced by stone hoes and adzes for clearing and tilling, and small flint sickle blades for harvesting that had traces of bitumen for insertion in composite reaping tools. Also in use were terracotta crescent-shaped sickles made in one piece – a common diagnostic tool of the Ubaid period. Large slabs and mortars were utilized for grinding and pounding plant food. Flint-working mainly focused on the production of small sickle blades and

[28] Thuesen 1994, 1996, 2000; Beyer 1998; Thesiger 1967.

a variety of flake-based tools that often betrayed signs of poor workmanship. A common technique at some Khabur sites involved smashing a nodule of chert with a heavier rock into many smaller, irregular pieces.[29] Obsidian bladelets and segments occur in small quantities in many settlements (generally less than 20% of the lithic assemblages), suggesting that the older trade routes were still in use; an alternative explanation is that obsidian was collected from abandoned sites and reused.

Flint arrowheads had already disappeared in the sixth millennium, and the hunting still widely practiced in the fifth and fourth millennia must have employed other weapons like the slingshot. It is also possible that metal tools began to replace those made of stone, but the evidence is equivocal at best. Very small fragments of copper tools or ornaments were found at Kurdu in western Syria, suggesting that people there were drawing on metals from the Amanus or Taurus mountains on a restricted scale; a few pure copper pins, rings, and axe-blades also derived from late Ubaid occupations in northern Iraq, such as Tepe Gawra, Arpachiyah, and Nineveh, and copper slag lying near a furnace has been reported from late Ubaid Degirmentepe in Anatolia. Nevertheless, stone and baked clay were still the most important media for tool kits and weapons in the prehistoric communities of Syria and Mesopotamia.[30]

Pottery was used in great abundance. Bowls, pots, and jars rested on house floors or stood beside hearths and ovens, where they were employed for food preparation, cooking, eating, and drinking. Ceramics were also used for storage, and they were placed in graves as gifts to the deceased. Many vessels were still busily painted in a matt black or brown, but the emphasis shifted more and more to simple, bold geometric designs (fig. 5.8). Painting was largely restricted to small, thin-walled bowls and other serving vessels with ample opportunities for presentation in meals and gatherings. However, the painted vessels seem to have gradually lost their central role in social contexts, since they were increasingly replaced by coarser, undecorated fabrics and eventually disappeared almost completely. In part, the declining importance of painting was countered by an unprecedented variety of vessel shapes, with considerable differences within and between regions. Many regional stylistic traditions developed, implying local autonomy and independence, not only in the process of pottery production but also in the framework of community relationships and larger social networks, where there was a growing emphasis on local identities rather than on broad allegiances.

But the change in pottery production also had an economic *raison d'être*, with technological modifications emphasizing large-scale and low-cost pottery production. Most pottery was still made by hand, but a slow-turning wheel was now employed to regulate and accelerate production. The massive use of chaff for tempering purposes allowed a shorter firing time and saved fuel, since

[29] Hole and Kouchoukos in press. [30] Moorey 1994:255–6.

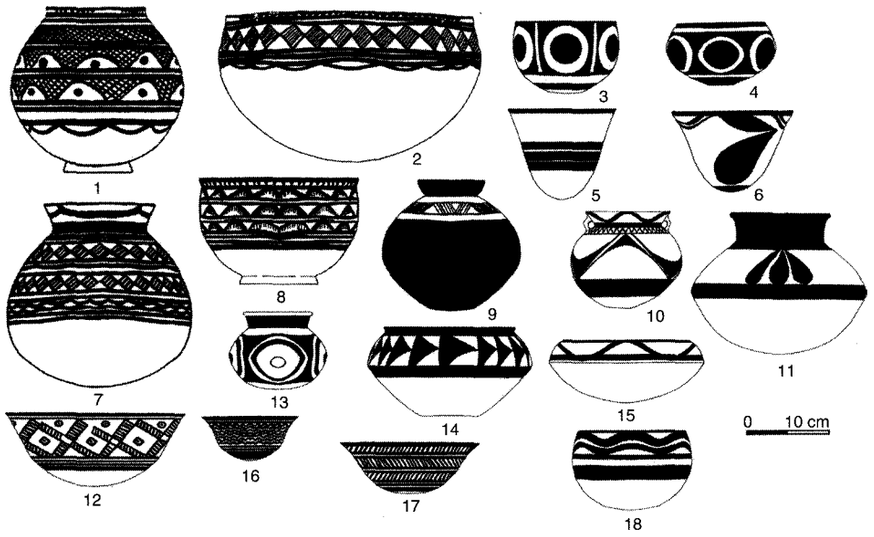

Fig. 5.8 Ubaid painted pottery from 'Abr (nos. 1, 7), Kosak Shamali (nos. 2, 8), Kashkashuk (nos. 3–6, 9–11, 13–15, 18), and Hammam et-Turkman (nos. 12, 16–17).

the plant inclusions themselves acted as fuel within the vessel. Chaff temper also gave the vessels a stronger resistance to thermal shock, owing to large pore size, and less supervision was required during firing. But the use of vegetable inclusions also resulted in thicker and coarser vessels, little suited for subtle painting or other decoration. These late Ubaid ceramics became less attractive from an aesthetic point of view, which has encouraged some archaeologists to discuss them in terms of "decadence" or "impoverishment," but such an appraisal fails to do justice to these vessels and the aims of their producers. Rather than a stage of cultural decline, the coarse pottery represents an adaptation to changing socio-economic demands, in which the economic advantages fully compensated for aesthetic drawbacks.[31]

Pottery production was mainly a local affair. In contrast to earlier periods, there is an astonishingly large amount of evidence for the autonomous manufacture of ceramics at many Ubaid sites.[32] Excavations have produced a wide range of potters' tools, workshops, and kilns, as well as production refuse in the form of ceramic wasters. Wasters also commonly occur in the ceramics collected from site surfaces in surveys. At Ziyadeh, a large (6 by 4 m) mudbrick pottery kiln consisted of a circular, double-walled chamber provided with air flues and a corbeled dome and a rectangular vaulted firebox (fig. 5.9). The circular domed

[31] Akkermans 1988b,1988c, 1988d; Schwartz 1988a.
[32] Cf. Oates 1983; Berman 1994.

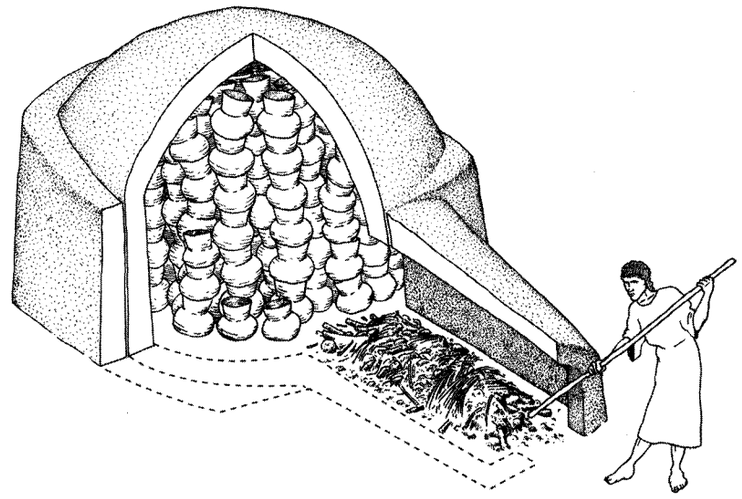

Fig. 5.9 Artistic reconstruction of the pottery kiln at Tell Ziyadeh.

area was filled to the top with vessels, most of which were painted, many of which were over-fired and friable, others incompletely baked as if the kiln had been abandoned in mid-firing. Associated with the kiln were extensive ash deposits and a work space including low bins, large circular basalt mortars, and mud-lined pits.[33] The kiln load at Ziyadeh, as well as the hundreds of vessels stored in one building at Kosak Shamali, suggest that the scale of local production was considerable. Each of the small communities must have been able to meet its own demands easily, with little or no need for imports from elsewhere. Throughout much of the fifth millennium, pottery manufacture was probably an intermittent or seasonal activity by skilled individuals rather than a continuous, full-time enterprise in the hands of professionals. It may have taken place mainly at the household level, with several households cooperating in the use and maintenance of the kilns.

Not only ceramics, but other tools and commodities were made locally. Stone bowls, maceheads, and pendants were found in varying stages of manufacture at Kurdu, implying the presence of workshops. Evidence associated with spinning and weaving is common in the form of bone awls and needles and in loom weights and spindle whorls made of sun-dried clay or reused, pierced sherd disks. Remarkable were the three stone "sandal models" found at Tell al-'Abr level 3, which may have served as anvils for the manufacture of leather shoes.[34] There can be no doubt that many more items of a perishable nature

[33] Buccellati *et al.* 1991.
[34] Yamazaki 1999:85 and fig. 5, no. 10. Similar models have been found in eighth- to seventh-millennium levels at Tell Halula and El Kowm 2-Caracol. See Molist 1999:30 and fig. 2.

once circulated in the settlements, such as wooden containers and tools, baskets, sacks, and mats. The raw materials for textile production and leatherworking were provided by the local agricultural activities and by the domestic flocks and hunted animals: hides, wools, and flax for the manufacture of linen.

To a great extent, the communities were independent and self-supporting, but this autonomy should not be confused with isolation. There was a small but steady supply of products from often distant sources, including obsidian, precious stones, and bitumen for coating or hafting. Many products may also have been exchanged at the local level or in gift-giving contexts, such as marriages, feasts, and rites. The similarities in pottery styles, as well as burial customs (see below), indicate a widespread sharing of social values and beliefs. Although we are ignorant of the symbolic meaning of painted pottery designs or shapes, it is probably not without significance that the greatest number of material culture similarities between sites is exhibited by the proportionately few painted ceramics, not the highly diverse undecorated wares. Especially in the early stages of the Ubaid period, there was a widely shared stylistic agreement that bound communities together and expressed a sense of solidarity.

There is little or no evidence for any form of centralized control over production in the Ubaid communities. Neither the artifacts found in the settlements nor those included in the graves are differentiated according to rank or chiefly power. Although seals and sealings have often been interpreted as indicators of an administrative system directed by higher social echelons, evidence is still slight for the Ubaid period. For example, a few stone stamp seals and clay sealings and tokens (calculi) found in debris at Kurdu and Kosak Shamali suggest the existence of controlled storage or incipient administrative activity, but not necessarily in the hands of specific elite groups. The overall scarcity of seals and their occurrence at only a few large and small sites suggest that the need for record-keeping and administrative control was very modest. We have to be careful about arguments from silence but we rarely find seals even at extensively excavated sites considered to be regional centers. For example, not a single seal or seal impression was found at the almost completely excavated site of Tell Abada in Iraq, and the large-scale exposure at Tepe Gawra produced only a handful in the lower (pre-stratum XIII) levels of occupation.[35]

Relatively rare, too, were human figurines and other items commonly associated with cult activities. Among these are a few crude anthropomorphic figurines found in debris at Kurdu and at sites in northern Iraq. In its lowest levels, Gawra yielded seated female images with pronounced breasts and painted strokes on the body modeled much in the same style as the earlier, Halafian figurines of Tell Kashkashuk in eastern Syria.[36] Coarsely made clay

[35] At Tepe Gawra, seals first came into extensive use in stratum XIII and were even more common in the succeeding strata XII to XI, yielding hundreds of seals and seal impressions. In contrast, only fifteen seals and impressions were found in the pre-stratum XIII levels. See Tobler 1950:175.
[36] Tobler 1950:163–5 and plate LXXXI.

and terracotta figurines of livestock, particularly bulls and rams, tend to be more common, but their number varies from site to site. Occasionally, human and animal figurines occur in graves, as in two pot burials at Abada and Gawra, each containing the skeletal remains of a child. Unique is the animal scene shown in relief on the interior base of a bowl at Kosak Shamali, displaying a quadruped creature pursued by a large snake (fig. 5.10).[37]

Subsistence

There is still much to be learned about the subsistence economy of Ubaid communities in Syria. At present, we can observe that they exploited a variety of environmental zones on a year-round basis, including the river flood plains and the arid steppe beyond. Although domesticated plants and animals are attested at every site, the relative popularity of these species and the scale of production is unknown. People grew the usual crop plants – wheat, barley, chickpeas, flax, lentils, and other legumes – in dry-farmed fields or on seasonally inundated land beside the rivers and wadis, close to the settlements. There is no decisive proof for any form of deliberate irrigation in Syria at this time. Wheat and barley, used for making bread and beer as well as for animal fodder, were staples found at all excavated sites, either in trash deposits or still *in situ* in bins (as at Kurdu), large vessels ('Abr), or the smallest rooms of buildings (Kosak Shamali). It is presumed that the structures with a grill foundation were also used for the bulk storage of cereals. In addition to domesticates, people also gathered wild plants for food, fuel, or medicinal purposes;[38] some species may also have arrived at the sites through the burning of dung fuels or as weeds in harvests. Reeds were woven into mats widely used for domestic purposes and for architectural foundations and roof cover. Locally available trees such as poplar and willow served for house construction and for fuel.

Nothing is known of the size of the domestic herds, but it seems reasonable to assume that these were usually small, given the restricted size of most communities. Sheep and goats were predominant, accompanied to a much lesser extent by cattle and pigs. The flocks must have been kept in the open plains, but the cultivated fields near the sites also provided excellent grazing opportunities once the crops were harvested. Pigs, with their specific demands, probably roamed the wet and marshy zones in the vicinity of water sources.

The domestic animal resources were not always sufficient to feed the local populations, since the diet was frequently supplemented with game like gazelle, onager, aurochs, deer, hare, a number of small carnivores, birds, turtle, lion (at Kurdu and Mashnaqa), and elephant (at Kurdu). Fishing, mainly for a kind of carp, and the collection of molluscs were also common. While the exploitation

[37] Tobler 1950:165–7; Jasim 1985:55–7; Nishiaki *et al.* 1999: plate 11, no. 1.
[38] Hole *et al.* in press; Jasim 1985.

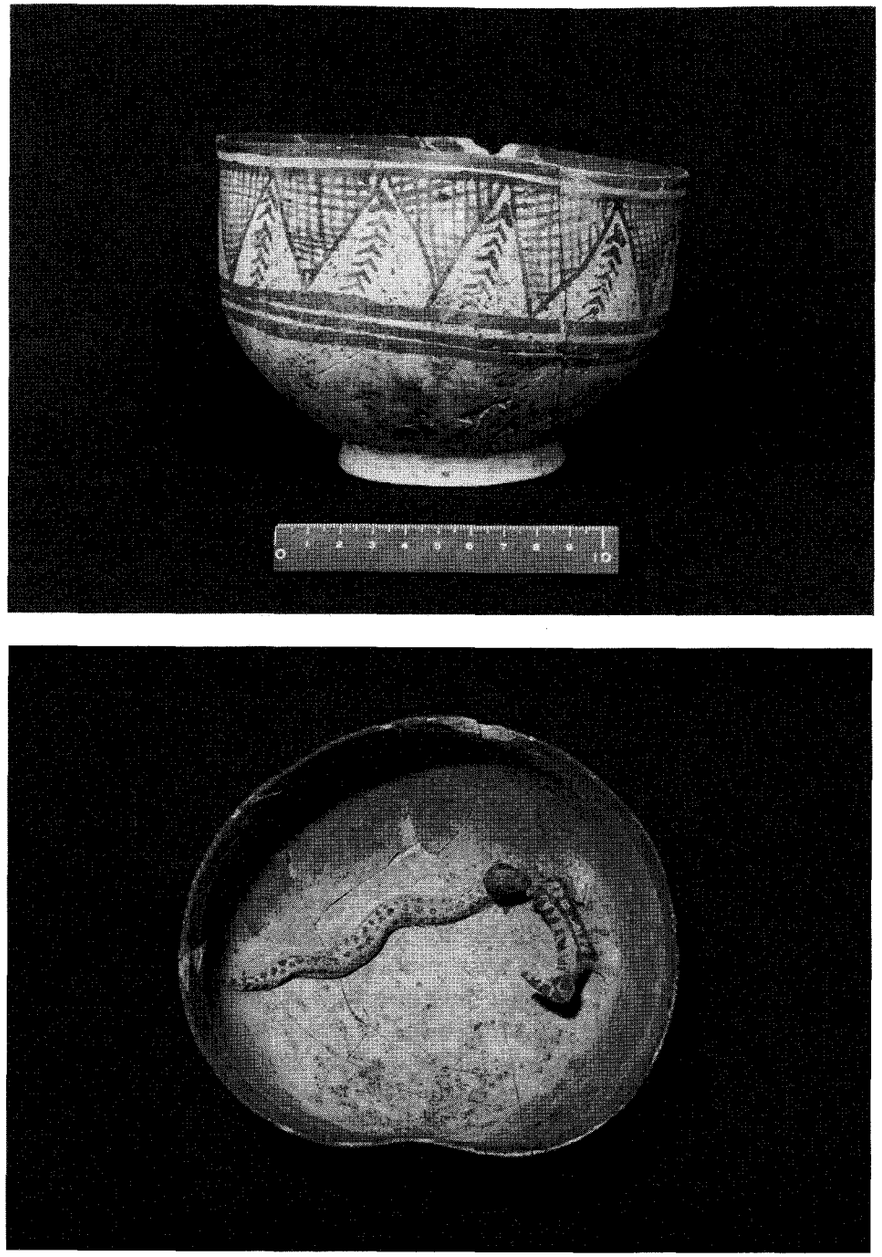

Fig. 5.10 The so-called "snake bowl" from Kosak Shamali (above), with an animal scene in relief on its interior base: a quadruped creature pursued by a large snake (below).

of wild animals was widespread, the proportions of hunted *vis-à-vis* domesticated species display regional differences. For example the people of Kurdu on the Amuq plain took game incidentally, but settlers at Mashnaqa on the middle Khabur intensively hunted onager, aurochs, and a variety of minor animals, with wild species representing over one-third of the animal bone recovered.[39] The large-scale exploitation of wild resources in the southern margins of the Ubaid area reflects a continuation of earlier subsistence strategies in the same regions.

Burials: peers in death

Burials of adults and children have been found at many sites located in open areas at the edges of settlements or in the ruins of buildings long abandoned. Sometimes burials have been reported underneath house floors, but often it is not clear whether the buildings were still in use at the time of interment. Although many graves were isolated occurrences in excavated areas, extensive burial grounds containing many individuals have also been exposed at Mashnaqa and Kashkashuk II in northeastern Syria and at Arpachiyah, Gawra, and other sites in northern Iraq.[40] Although such community graveyards seem to appear for the first time in the late Neolithic (see chapter 4), they become a main feature of the Ubaid period and may emphasize concepts of group identity and territoriality. Nowhere has the full extent of a cemetery been uncovered, leaving us with many uncertainties on the number of interments and the time spans of use; given the typically long duration of site occupation, none of the cemeteries can represent the entire population of even the smallest settlement. Bone has survived poorly at the sites, but it seems that adults were much more numerous than children, the latter perhaps buried in special sectors within cemeteries or kept close to the areas of living. At Mashnaqa, twenty-five burials were found in stratum 3 (*c.* 4900 BC), and at Kashkashuk II about a hundred were discovered, with many of the graves intersecting, suggestive of a long use of the burial ground there after *c.* 4800 BC.[41] The presence of a mudbrick platform at Mashnaqa and an oven in the stratum associated with the burials may signify inhumation rites, but it may also indicate contemporaneous occupation elsewhere on the mound. Kashkashuk II was used only for burial in the Ubaid period and the associated area of settlement must be sought at nearby Kashkashuk III. Similar burial grounds must have existed beside every settlement, whether large or small.

The graves were all primary inhumations – secondary burial was no longer practiced – and contained a single individual on his/her side in a crouching

[39] Yener *et al.* 2000; Zeder 1995; Hole *et al.* in press; S. Payne in Jasim 1985.
[40] Cf. Hole 1989; Akkermans 1989c.
[41] Thuesen 1996; Matsutani, ed., 1991; Koizumi 1993, 1996.

Fig. 5.11 Grave at Tell Mashnaqa, stratum 2.

position. Many of the dead were probably covered by mats, since fibrous material and silicate impressions of the matting were found on bones at Aqab and Hammam et-Turkman.[42] While numerous graves were simple pits, more elaborately constructed tombs were also in use – a tradition first seen in the Halaf period (see chapter 4). At Mashnaqa, some of the dead lay on their side along a short mudbrick wall left partly visible after the inhumation in order to mark the grave. Another type of grave at Mashnaqa also widely used at Kashkashuk II consisted of a shaft dug vertically over 1 m giving access to a burial chamber extending southwards horizontally. After the dead had been interred, the entrance on the north side was closed by a mudbrick wall and the shaft back-filled. The bent body was usually oriented east–west, parallel to the brick wall blocking the entrance, with the head to the west and the face looking north towards the wall (figs. 5.11 and 5.12).[43] Another form of burial container was often used for children, interred in medium-sized pots, sometimes topped by a lid, such as at Ziyadeh, Kuran, Leilan, 'Abr, and Hama.

The areas selected for burial gradually expanded, with each new grave added in a formal, public manner consistent across the range of Ubaid distribution. There was much agreement on burial symbolism over extensive regions, lasting

[42] Davidson and Watkins 1981; Thissen 1988.
[43] Thuesen 1996; Matsutani, ed., 1991.

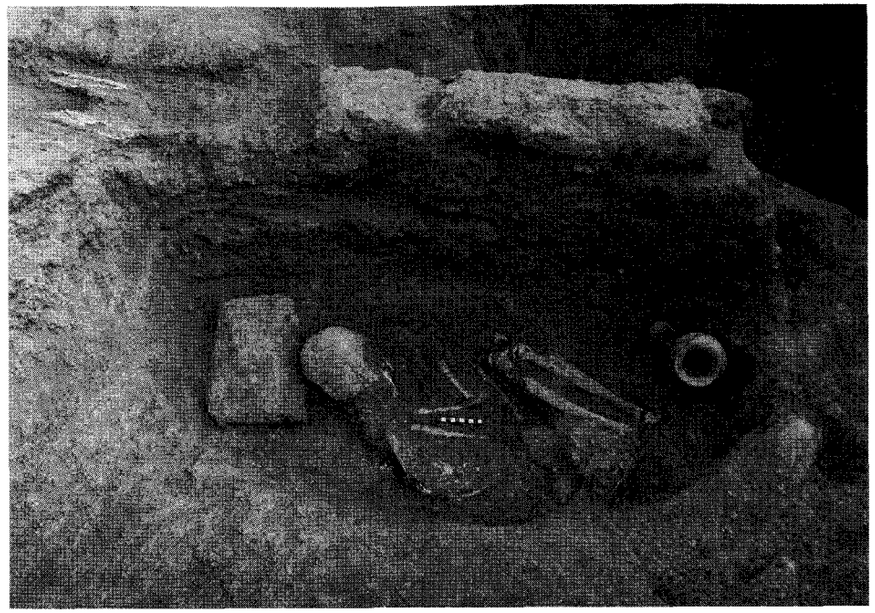

Fig. 5.12 Tomb T13 from Tell Kashkashuk II. The dead lay on the side in a crouching position, with pottery vessels placed at the feet.

for many centuries. Some of the graves intrude on earlier ones, but most must have been marked and their positions respected as at Mashnaqa, indicating that the dead were remembered and still part of the community. Although graves were not dug in rigidly defined rows, there was a spatial order to many of the graves, like the houses of the living, sharing a common orientation, usually east–west or northwest–southeast, with the dead facing north. The prevailing alignments in both graves and houses may be seen as an expression of continuity and integration between the living and the dead; death was not the end but yet another *rite de passage*.[44]

Many of the dead were provided with grave goods, usually painted or plain pottery but sometimes ornaments or flint artifacts. The graves at Aqab contained one or two vessels, either a bowl or, if two vessels were present, a bowl and a jar, usually placed at the head. At Kashkashuk the dead had one to five vessels, typically placed at the feet or, rarely, at the head, whereas at Kurdu painted vessels were placed at the feet, in front of the face, or in front of the forearms and behind the knees. So far, little has been reported on the age and gender of the buried individuals, but it is likely that age was an important determinant of the quantity and nature of grave goods: infants and children usually

[44] Akkermans 1989c. See also Huntington and Metcalf 1979.

had no grave furnishings or a string of beads, while older individuals frequently had one or more vessels. The pattern may partly represent the social position of the individual in life or that of the relatives involved in the burial, but neither the graves themselves nor their inventories imply any structured ranking or hierarchy in Ubaid society. A change in the centuries-old mortuary traditions did not occur until the very end of the Ubaid period, when we see shifts in the construction of graves, the position of the dead, and the quantity and nature of the grave equipment. A more varied burial ritual was in the making in the fourth millennium, allowing for individual preferences and an increasing though unequal exposure of wealth, as seen at Tepe Gawra in Iraq.[45]

The social landscape: equality or chiefly power?

The increasingly individualized burial treatment observed at the end of the Ubaid period was not an isolated phenomenon. At this point, we can discern numerous changes in material culture, community layout, and social organization: the emergence of a hierarchically organized complex society and the development of cities in the fourth millennium BC or Uruk period are not in dispute (see chapter 6). Although there is common agreement that the initial stimulus to these achievements should be sought in the preceding Ubaid world, the archaeological evidence is often ambiguous and open to different interpretations. One approach – favored here – is that the Ubaid communities were largely egalitarian and unstratified until the beginning of the fourth millennium. There were no centralized authorities; leadership was temporary and in the hands of elders, as in the preceding late Neolithic settlements. That social differentiation was weakly developed is demonstrated by many lines of evidence: the lack of status markers in burials; the virtual absence of exotic luxury items or prestige goods in settlements; the small size and population of most occupations; few indications of socially related architectural differences; the restricted variation in economic activities within and between sites; and the paucity of administrative control in the form of seals, even at sites of presumably regional importance.[46]

Another approach reads the archaeological record in a totally different fashion. This perspective contends that Ubaid culture consisted of small, localized chiefdoms with chiefly power based on ritually mobilized tribute.[47] Such an interpretation cites such factors as two-level settlement hierarchies of dominant centers and subordinate villages as well as occasional architectural differences implying the existence of wealthier versus poorer households. Also emphasized is the importance of ritual public architecture, with temples construed as instruments of social power as well as religious institutions. In this scenario,

[45] Forest 1983a:77ff; Akkermans 1989c.
[46] See for example Hole 1983; Akkermans 1989c.
[47] Wright 1984; Stein 1994; Forest 1996; Pollock 1999.

chiefly elites emerged from larger families or clans that had access to favorable agricultural resources and large resources of kin-related labor to work the land. Further expansion of power could be pursued through the manipulation of community institutions, perhaps in the form of temple sponsorship or support of village craftsmen, in return for portions of the community labor pool and surplus staples such as cereals. The ability to extract these tributes was greatly enhanced when embedded in concepts of communal ideology and religion.

In this view, the apparent absence of prestige goods or exotic status markers does not necessarily preclude the existence of chiefly rank but only indicates that the Ubaid polities used strategies other than wealth distribution for their maintenance. Rather than depending on power based on exotic materials for further exchange for goods and services, or for redistribution among elites as tokens of honor and rank, the Ubaid chiefs sought control over *local* resources and rural surpluses, generated and maintained through increasing ritual elaboration. The absence of any overt display of wealth and status in the Ubaid communities could result from a deliberate choice by the elites to maintain a façade of egalitarian sharing and group membership, linking leaders and commoners in a single ideological framework and hence assuring continued chiefly access to local resources.[48] Although the chiefdom model has considerable explanatory appeal, it appears that most of its arguments are suggestive rather than conclusive and, more importantly, they seem at odds with much current evidence. The hypothesis heavily relies on features that mainly appear at the end of the long Ubaid sequence, such as the rise of temple institutions, and tends to transfer these late traits into the earlier phases. We should also be aware of considerable regional differentiation and local trajectories, which militate against treating Ubaid cultural traits from such disparate regions as Syria and Iran as part of a single cultural package.

Long-term occupations with only minor changes in settlement organization, subsistence strategies, and material culture suggest that the Ubaid system of social organization remained stable for many centuries and was imbued with meaning for all its constituents. For most of the Ubaid period, the emphasis was on the maintenance of a corporate community identity. There was always reference to what had gone before, with an emphasis on repetition and consistency, thereby rooting the present in the past. In this, the Ubaid groups differed little from their late Neolithic forebears. However, we should assume neither a general aversion to change nor a scenario of small-scale egalitarian communities in the fifth millennium simply being replaced by full-blown state societies in the fourth millennium. The chiefdom model certainly has its merits at the end of the Ubaid period, when the emphasis appears to have shifted gradually from the community to the individual, resulting in an explicit exposure of social differentiation and inequality at several sites.

[48] Stein 1994:43.

Tepe Gawra in northern Iraq still provides the best evidence of the changes occurring at this time. At Gawra, we can see the development of a more varied burial ritual as well as the appearance of metals and other rare and exotic materials in the graves. Painted vessels were replaced by cheap, mass-produced wares, and seals were now abundantly employed in increasingly centralized, controlled economic activities.[49] The tripartite house plan so typical for much of the Ubaid period in Mesopotamia was largely abandoned at Gawra in favor of irregular agglomerations of buildings, constructed according to individual preference rather than traditional community rule and convention. Nor is it a coincidence that ritual public architecture (e.g. large temples) now appeared unequivocally for the first time outside of southern Mesopotamia (cf. Gawra level XIII), in association with large mansions and, slightly later, fortified buildings – all probable instruments in the hands of emerging elite groups striving for power. Leaders will have appreciated the late Ubaid temples for their religious functions, but they also would have made use of their manipulative qualities: when claiming to act on behalf of the deities, chiefs as priests or sponsors of local sanctuaries would be able to mobilize large surpluses and labor and, just as significantly, to gain sacred validation for their own political position. It is not without importance that, in contrast to ordinary houses, temples and large residences retained the centuries-old tripartite building tradition. The past was not forgotten but given a different meaning: it was used to legitimize the new and intimately mingled secular and sacred offices.[50]

[49] Rothman 1994. [50] Akkermans 1989c.

6

THE FOURTH MILLENNIUM BC AND THE URUK INTRUSION

One of the most striking discoveries of Syrian archaeology in the past thirty years has been the profusion of southern Mesopotamian-style material culture found across the Syrian landscape dated to the mid to late fourth millennium BC. In some cases, entire communities employed southern Mesopotamian architecture, pottery, and other objects of daily or special use. In others, objects of southern Mesopotamian style formed only a small part of an otherwise local assemblage. This widespread distribution of southern Mesopotamian-style material culture outside of its homeland in the fourth millennium BC is now documented not only in Syria, but in northern Mesopotamia, southeastern Anatolia, and western Iran. The phenomenon is of particular note because it coincided with the emergence of the first urbanized, complex, literate societies in southern Mesopotamia – indeed in the Near East. As a result, this development is frequently dubbed the "Uruk expansion," taking its name both from the relevant chronological period in southern Mesopotamia and from the largest and best known of the new southern Mesopotamian cities.[1]

The association of the first cities and states in Mesopotamia with a large-scale international adventure has attracted considerable attention from the scholarly community. But the precise interpretation of the Uruk expansion has been vigorously debated: do we "read" Mesopotamian material culture at foreign sites in terms of a full-scale colonial or even imperial presence, as evidence of trading colonies of Mesopotamian merchants, as emulation of southern Mesopotamian styles by developing local elites, or in some other fashion?

It is often difficult to disentangle indigenous developments in Syria from those relevant to the Uruk expansion. In fact, it is not unlikely that the emphasis on southern Mesopotamian connections has distorted our view of fourth-millennium Syrian life. For example, evidence of momentous new phenomena such as urbanism, monumental architecture, and other manifestations of societal complexity can sometimes be inferred in Syria, but archaeologists struggle with the question of whether such developments were southern Mesopotamian or indigenous in inspiration.

[1] Algaze 1989; 1993.

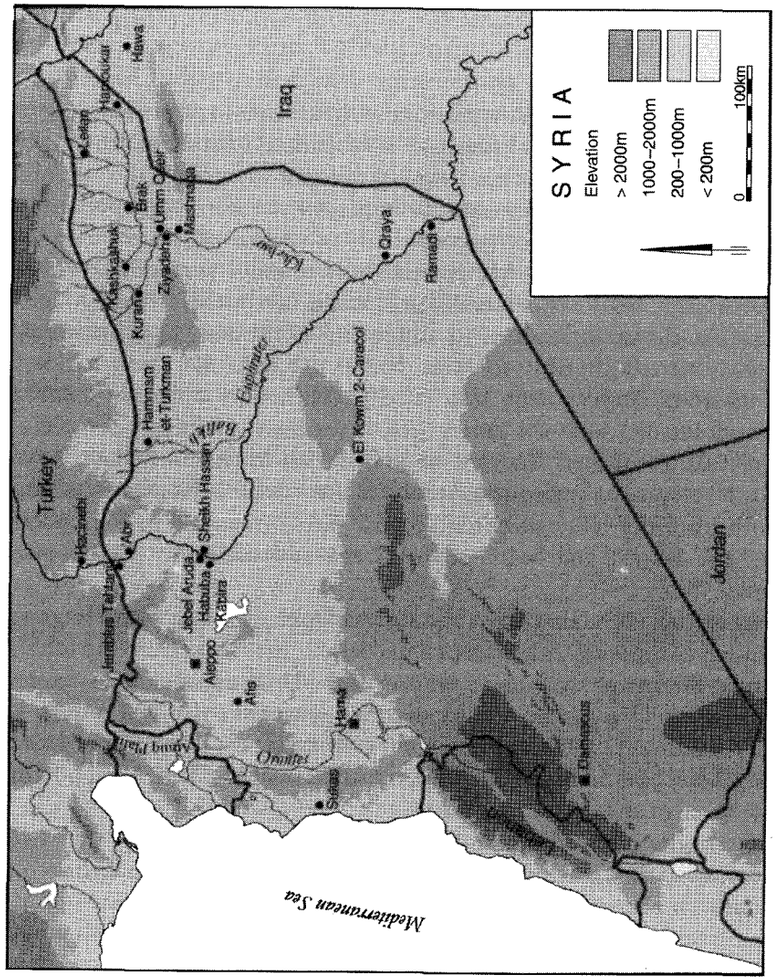

Fig. 6.1 Syria in the fourth millennium BC.

Complex societies in southern Mesopotamia

Given their relevance to fourth-millennium Syria, we shall first consider the changes transpiring in Uruk period southern Mesopotamia. It is generally accepted that the first complex, urban societies of the ancient Near East – if not the world – made their appearance in Uruk period southern Mesopotamia (*c.* 4000–3100 BC). The manifestations of complexity are diverse, but most of them entail a pronounced organizational hierarchy. Prior to the Uruk period, the Ubaid landscape had consisted at most of a small center organized around a temple, surrounded by a hinterland of villages. With the advent of urbanization, Uruk period settlements were situated in a network of villages, small towns, larger towns, and, at the top of the settlement hierarchy, giant cities like Uruk (200 ha).[2] Instead of the relatively modest temples of the Ubaid period, Uruk and its counterparts had immense, lavishly decorated public buildings that required large amounts of labor, the organizational capacity to recruit and feed the laborers, and, not least important, *specialized* labor – architects, bricklayers, craftsmen.

It is generally accepted that the southern Mesopotamian cities served as the power centers of large, hierarchically structured political organizations – in other words, states.[3] Hierarchy is likewise of signal importance in the organization of society at large: a powerful elite presided over individuals of progressively lesser status and wealth.[4] It seems probable that the authority of the elite and the character of the institutions they dominated were defined to a significant degree in religious terms; a large proportion of the evidence for these institutions comes from the Eanna district in Uruk, later identified as the sacred precinct of the city's patron goddess Inanna.

Concurrent with these developments was the invention of new administrative practices to record the manifold possessions and complex transactions of the central authorities. Of particular moment in human intellectual and technological history was the introduction of writing. Using a reed stylus to inscribe numerical and logographic characters on clay tablets, trained scribes could keep track of the administration's resources and transactions. At this stage of research, it appears that writing was introduced almost exclusively as a bureaucratic device in the cities of southern Mesopotamia.

Though less resonant historically, the introduction of cylinder seals was also significant. These small stone cylinders were engraved with distinctive designs associated with specific individuals or institutions. When the cylinder seal was rolled across wet clay, the designs were impressed on the clay, identifying the owner of the sealed property. While stamp seals had been used similarly for millennia, rolling the seal instead of stamping it covered a larger surface, allowing for the sealing of doors and the contents of the rooms they guarded, as well as jars, baskets, and clay tablets.

[2] Adams 1981. [3] Pollock 1999. [4] Nissen 1988.

In sum, we can observe that cities, states, social stratification, economic specialization, and literacy had emerged in a closely interdependent relationship in southern Mesopotamia by the mid-fourth millennium BC. The reasons for this development have been elusive. Although Wittfogel's contention that irrigation, the mainstay of the region's agriculture, required strong central management that resulted in state formation is now discredited, the great productivity of the region's irrigation agriculture cannot be gainsaid.[5] Irrigation agriculture allowed for the generation of large grain surpluses that could be used to feed specialists such as rulers, bureaucrats, priests, and craftsmen who did not produce their own food. Not only agricultural productivity but simply the large expanse of the southern Mesopotamian alluvial plain would have supported and accommodated a population large enough to constitute an urban and complex society, one of whose defining factors is scale, i.e. large political units including large communities and many thousands of people.[6]

Syria before the Uruk expansion

Before we review the evidence from late fifth–fourth-millennium Syria and its relationship to Mesopotamia, some *caveats* are in order. Despite the great interest in fourth-millennium southern Mesopotamia as a "cradle of civilization," there have been surprisingly few relevant excavations outside of Uruk itself and a few smaller centers such as Abu Salabikh and Uqair. The primary material culture sequence is provided by a 1932 small-scale deep sounding in the Uruk Eanna precinct whose stratigraphic uncertainties are well known.[7] Further complicating the picture is the ambiguity of the chronological relationship between local-style and southern Mesopotamian-related excavated assemblages in Syria. If an excavated fourth-millennium BC context yields pottery and other material culture types that exhibit no southern Mesopotamian attributes, should that context be dated to the period prior to the Uruk expansion, or should it be considered contemporaneous with the Uruk expansion and simply unaffected by it?

Despite these chronological problems, it is possible to isolate a limited number of late fifth–early fourth-millennium, post-Ubaid communities in Syria that can be dated to the period prior to the main thrust of the Uruk expansion. Particularly significant is the recently accruing evidence of urban-scale agglomerations and other hints of emerging socio-political complexity.

The post-Ubaid sites are characterized by a ceramic assemblage with a significant reduction in the amount of painted pottery; after 2000 years of painted ceramics, relentlessly plain, undecorated assemblages are in vogue throughout Syria. Akkermans has suggested that this development is part of a shift towards ceramic mass production, since the vegetal temper of these plain

[5] Wittfogel 1957. [6] Feinman 1998. [7] Oates 1993:404.

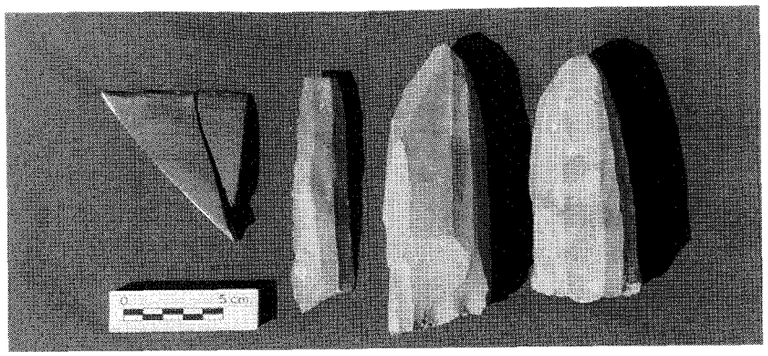

Fig. 6.2 Tabular flint, Canaanean blade, and cores from Tell Brak.

vessels requires less fuel than mineral temper (see above, chapter 5).[8] In addition to undecorated pottery, an important diagnostic of fourth-millennium local Syrian material culture is the Canaanean flint blade (fig. 6.2). Derived from the French "cananéen" (i.e. Canaanite), the term "Canaanean" originally referred to the characteristic lithics of Early Bronze Age Palestine, but these flint tools are found throughout the Levant in the fourth and third millennia. The blades are long and wide with two parallel ridges extending down the length of the dorsal surface, producing a trapezoidal cross-section. Frequently identifiable as sickles by the "sickle gloss" on the working edges characteristic of the cutting of grasses, Canaanean blades were specialized products manufactured from a specific flint type at select production centers, including Tell Brak.[9] Tabular scrapers consisting of large retouched flakes are also a characteristic lithic tool indigenous to the fourth- and third-millennium Levant.

A key site for the late fifth–early fourth millennium and for the succeeding "contact" phase is Tell Brak in the upper Khabur plains of northeastern Syria. Brak, one of the largest ancient mounds in the Khabur (43 ha, 45 m high), is located in the relatively dry southern margins of the upper Khabur region (about 300 mm annual rainfall), implying that its importance lay as much in its strategic position as in its role as a control point over an agricultural zone. Brak served as an entry point into the Khabur plains from the southeast, controlling access from the Sinjar region and, ultimately, southern Mesopotamia.

The recent excavations at Brak have revealed a sequence of fourth-millennium occupations in two excavation areas.[10] These results can be accommodated to the regional chronology recently proposed for this period (fig. 6.3).[11]

[8] Akkermans 1988d.
[9] Rosen 1997; Hartenberger *et al.* 2000. Some third-millennium examples from the Khabur region have been identified, not as sickles, but as elements in threshing sledges (Anderson and Chabot 2001).
[10] Oates and Oates 1997; Emberling *et al.* 1999.
[11] Rothman 2001; Schwartz 2001; see also Rova 1999–2000.

	Late Chalcolithic periodization	Upper Khabur		Balikh	Middle Euphrates	Western Syria	Northern Mesopotamia	Southern Mesopotamia
BC								
3000 –		Brak TW 11–1				Amuq G		Jemdet Nasr
	5	Brak TW 12			Habuba Kabira South Jebel Aruda			Late Uruk
3500 –	4	Brak TW 13	Leilan IV?		Sheikh Hassan Middle Uruk			Middle Uruk
						Amuq F		
	3	Brak TW 17–14	Leilan V				Gawra VIII	Early Uruk
4000 –	2	Brak TW 19–18		Hammam et-Turkman V			Gawra IX–XIA	
	1	Brak CH leveling fill	Leilan VIb late	Hammam et-Turkman IV D			Gawra XII	
4500 –								

Fig. 6.3 Fourth-millennium chronology.

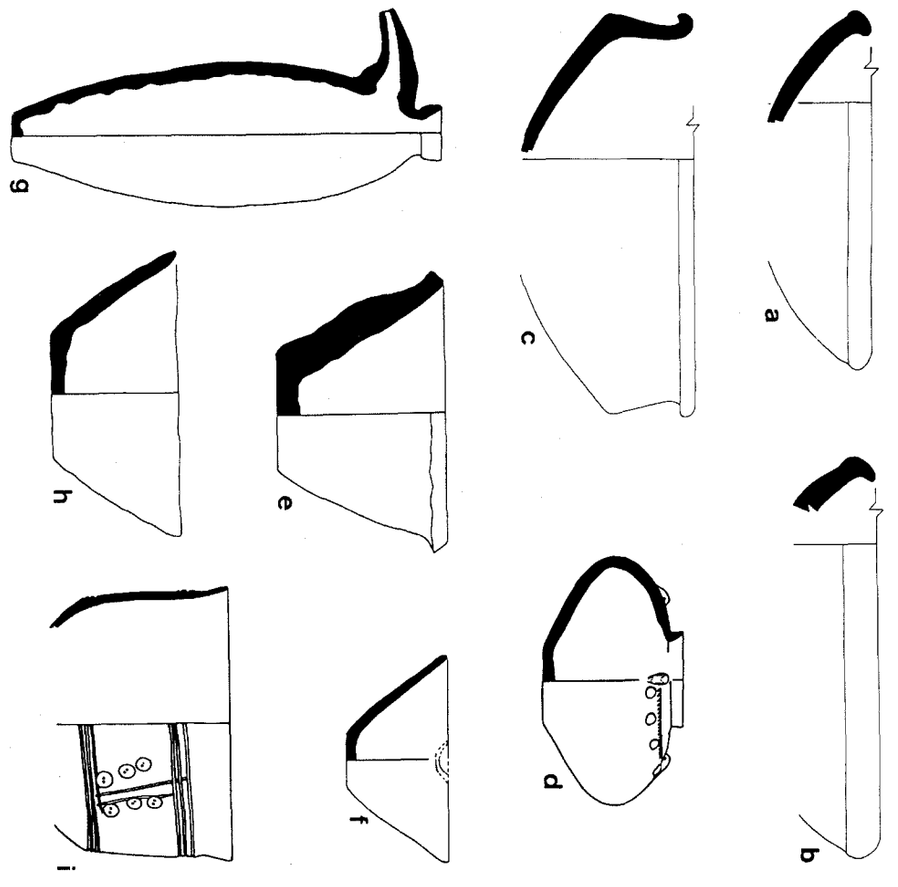

Fig. 6.4 Local (a–c, h-i) and Uruk-style (d–g) fourth-millennium pottery (scale 1:5).

In this chronology, Late Chalcolithic 1 (*c.* 4400–4200) is a Terminal or post-Ubaid phase that includes painted "Sprig Ware"[12] and the early appearance of crude, mass-produced, incompletely oxidized flat-based "Coba" bowls with scraping on the lower body (fig. 6.4h). Material from Late Chalcolithic 1 (Brak period D) was identified in the Brak CH sounding from unstratified contexts as well as from sites in the middle Khabur region such as Mashnaqa, in association with a tripartite house (see chapter 5), and Ziyadeh.[13]

The earliest hints of developing socio-political complexity appear in Late Chalcolithic 2 (*c.* 4200–3900), a phase characterized by the continued use of Coba bowls and the appearance of incised-and-impressed pottery (fig. 6.4i)

[12] Oates and Oates 1994:170. [13] Beyer 1998; Hole *et al.* 1998.

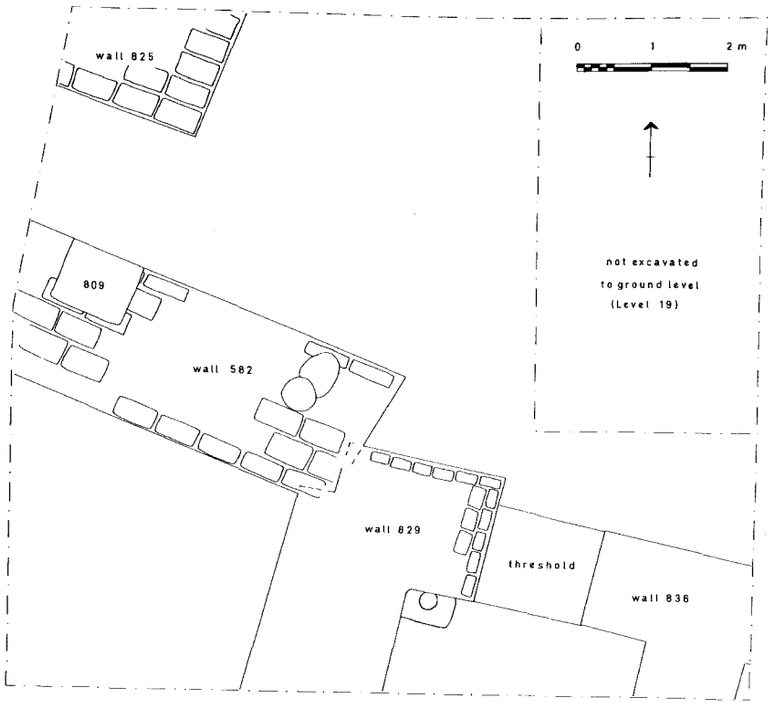

Fig. 6.5 Early fourth-millennium public architecture at Brak.

similar to that characteristic of levels XIA–IX at Tepe Gawra in northern Iraq. In Brak area TW levels 18–19 (Brak period E), excavations have revealed massive public architecture with walls 2 m thick, perhaps a community gateway (fig. 6.5). Large-scale public architecture also appeared at Hammam et-Turkman period VB in the Balikh valley: here, a tripartite-plan monumental building with lime-plastered recessed buttresses and triple niches was built atop a mudbrick terrace (fig. 6.6).[14]

But it is the evidence from Brak in the Late Chalcolithic 3 phase (*c.* 3900–3600) (TW levels 17–14, Brak period F) that is especially striking. Considering the evidence of sherds scattered on the site surface, Brak's excavators judge that the site achieved its maximum extent in this mid-fourth-millennium period, reaching unequivocally urban proportions.[15] Not only was the entirety of the 43 ha tell occupied, but a group of surrounding settlements forming a "corona" around the site are dated to this phase, perhaps indicating an urban agglomeration of as much as 100 ha. Survey results from Brak's hinterland in

[14] Van Loon 1988. While the decoration of tripartite monumental architecture with niches and buttresses is well attested in southern Mesopotamia, it is also documented at Ubaid period Tepe Gawra in northern Iraq and need not imply southern cultural influence in post-Ubaid Syria.
[15] Oates and Oates 1997; Emberling *et al.* 1999.

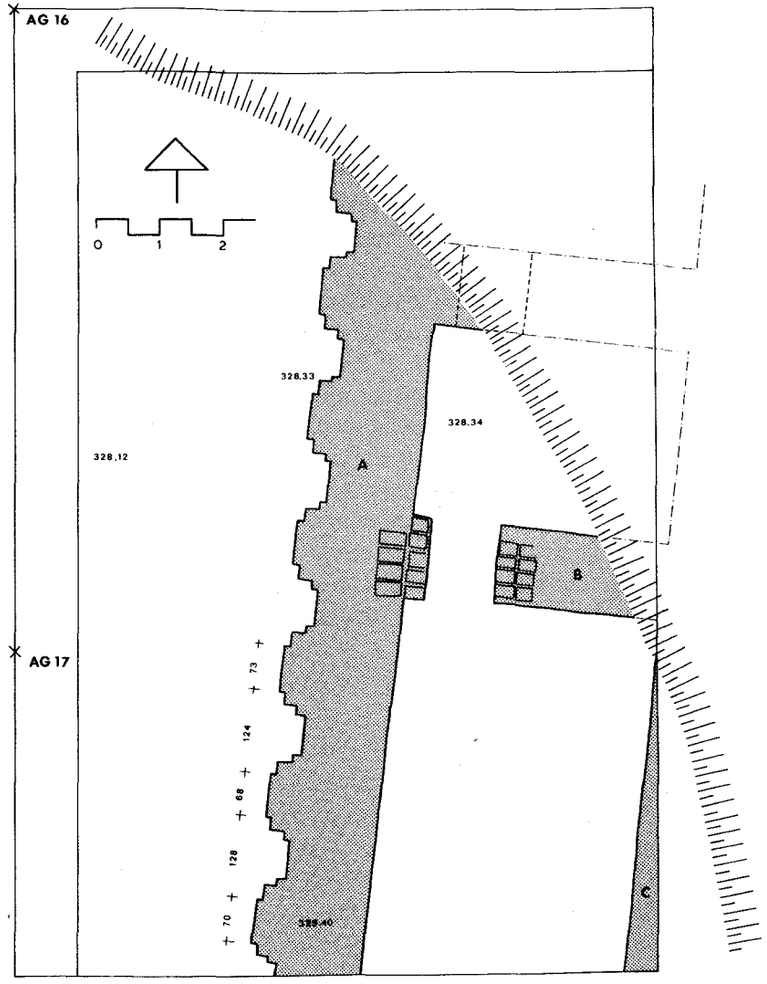

Fig. 6.6 Tripartite niched building, Hammam et-Turkman.

the lower Jaghjagh drainage show a dramatic increase in the number and density of fourth-millennium BC sites probably to be associated with this period of Brak's urban expansion. The sites around Brak are quite small, measuring 5 ha at the most, perhaps implying a "primate" system in which Brak exerted an overwhelming political and economic domination over its satellite communities.[16]

Ceramically, Late Chalcolithic 3 is characterized by crude hand-made, incompletely oxidized "chaff-faced" pottery with a widespread distribution

[16] Eidem and Warburton 1996.

throughout northern Syria and southeastern Anatolia (fig. 6.4a–c). There appear to be several groups or families of pottery within the larger chaff-faced tradition, as discussed by Pollock and Coursey, who have also attempted to distinguish an early and late phase of the assemblage.[17]

As this review has indicated, the evidence from the period before the Uruk expansion is still relatively modest, but there are intimations of societal complexity not seen in preceding periods. The vast extent estimated for Brak, as well as the evidently sizable Tell Hamoukar in the eastern Khabur, may suggest the beginnings of urbanization.[18] Monumental or public architecture also makes its first appearance at Brak and Hammam et-Turkman, and the recently inaugurated excavations at Hamoukar likewise imply the presence of large-scale public architecture.[19]

In southeastern Anatolia and northern Iraq, the phase immediately preceding the Uruk expansion also reveals a nascent societal complexity: at Hacinebi on the upper Euphrates in Turkey, the "pre-Contact" phase includes large-scale public architecture, while Tepe Gawra to the east in northern Iraq exhibits substantial evidence of craft specialization, a sophisticated administrative technology controlling it, and a pronounced status differentation in its mortuary remains.[20] Burgeoning urbanization might also be observed at Tell al-Hawa in northwestern Iraq north of the Jebel Sinjar, as large as 50 ha in this period.[21]

Uruk colonies?

Syrian archaeologists were dramatically confronted by the phenomenon of the Uruk expansion in the late 1960s with the initiation of the Tabqa dam salvage operations in the middle Euphrates valley. Here, researchers discovered a string of sites with southern Mesopotamian material culture. Those sites that were intensively excavated proved to be newly founded in the fourth millennium, and they revealed such a comprehensive array of "classic" Uruk materials that it was difficult to avoid the conclusion that they were colonies of southern Mesopotamians living in Syria. An important recent discovery is the relatively long duration of the colonial period, including both Middle and Late Uruk manifestations (equivalent to Late Chalcolithic 4 and 5, *c.* 3600–3000). Ironically, the data collected from the most intensively excavated sites have provided a

[17] Pollock and Coursey 1995. [18] Gibson and Maktash 2000; Gibson *et al.* 2002.
[19] On the other hand, the limited burial data available for the late fifth/fourth millennia betray no evidence of social hierarchies. In the cemetery containing post-Ubaid and Ubaid adult shaft graves at Kashkashuk II in the upper Khabur (Matsutani 1991), burial goods were largely restricted to a modest number of pots. Also in the upper Khabur, subterranean intramural jar burials of younger individuals were found in early fourth-millennium levels TW 17 at Brak as well as at Nustell.
[20] Stein 1999; Rothman 1994. [21] Ball and Wilkinson 1989.

more detailed picture of an Uruk community than is available from southern Mesopotamia itself.

Habuba Kabira South is the largest and best known of these settlements (fig. 6.7).[22] Measuring some 18 ha, the site consists of a walled 10 ha area and a related mound to the southwest. Founded *de novo* in the mid-fourth millennium, its three building levels and modest accumulation of deposit indicate that Habuba was occupied only briefly, perhaps a century or two during the Late Uruk period (= Late Chalcolithic 5, *c.* 3400–3000). After its relatively short occupation, Habuba Kabira was abruptly abandoned. No evidence of destruction has been found – the inhabitants seem to have collected their valuables and absconded. Because the site was not reoccupied and because of its peculiar post-depositional history, Habuba's architectural remains were visible just below the present-day surface. As a consequence, the excavation team was able to expose large expanses of architecture and learn a great deal about the spatial organization of the community. On the other hand, many of the rooms that were mapped were not fully excavated.

Of great significance at Habuba is the evidence of central planning in the creation of this "expatriate" community, indicative of management by a central authority. The main streets were oriented north–south and east–west, paved with gravel and pebbles, and provided with a sophisticated drainage system that included long conduits of ceramic pipes inserted into ditches. The town's mudbrick fortifications, the most amply documented in fourth-millennium Syria or Mesopotamia, are impressive and complex. A main wall 3 m wide had regularly spaced projecting towers or bastions and at least two gates with associated chambers. A thinner outer wall protected the approach to the main wall, and evidence of a third, niched outer wall was visible by the south gate.

The architecture at Habuba exhibits a considerable uniformity of medium and of construction technique. In particular, *Riemchen*, the small rectangular mudbricks, square in section, characteristic of Uruk period southern Mesopotamia, were used extensively. Further, a tripartite architectural plan consisting of two rows of small rooms flanking a long central room was used repeatedly for both domestic and large-scale architecture. On the site acropolis, Tell Qannas, the public structures built of *Riemchen* would have blended in perfectly at Uruk itself.[23] Because these buildings contained the tripartite plan, interior wall niches, thick walls, and clay cone mosaics characteristic of southern Mesopotamian temples, they have been identified as religious structures. However, no altars or offering tables were identified, and it is possible that they served as elite residences. The fired clay cones, a common find in Uruk sites throughout Mesopotamia and beyond, were painted on their wide ends and inserted in wet mud plaster on the exterior walls of public buildings, creating a multi-colored mosaic.

[22] Strommenger 1980. [23] Finet 1979.

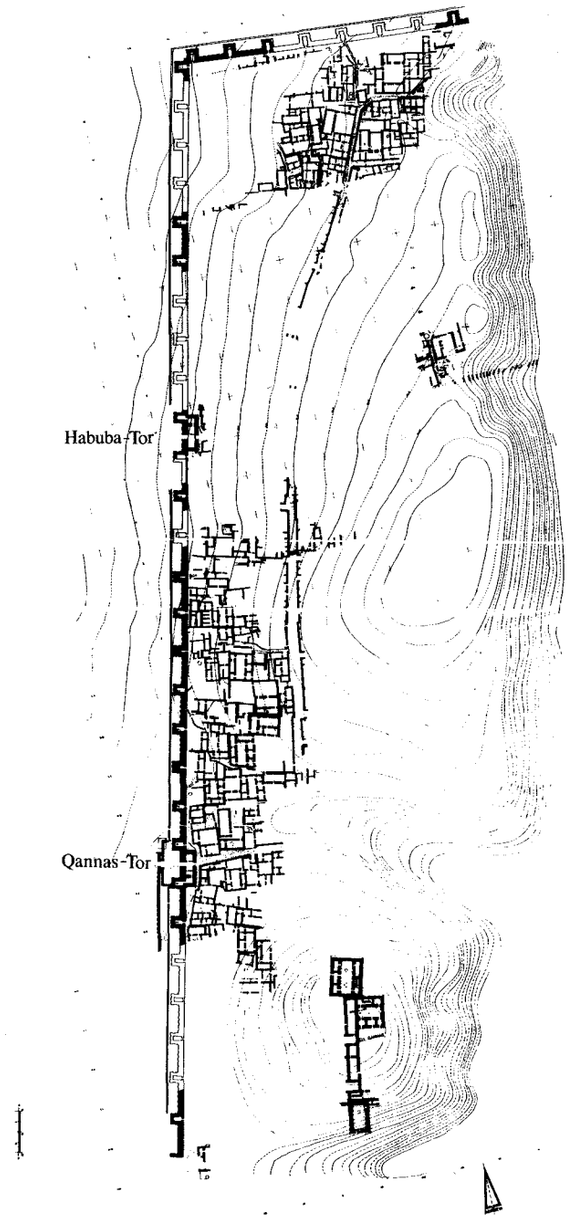

Fig. 6.7 Habuba Kabira.

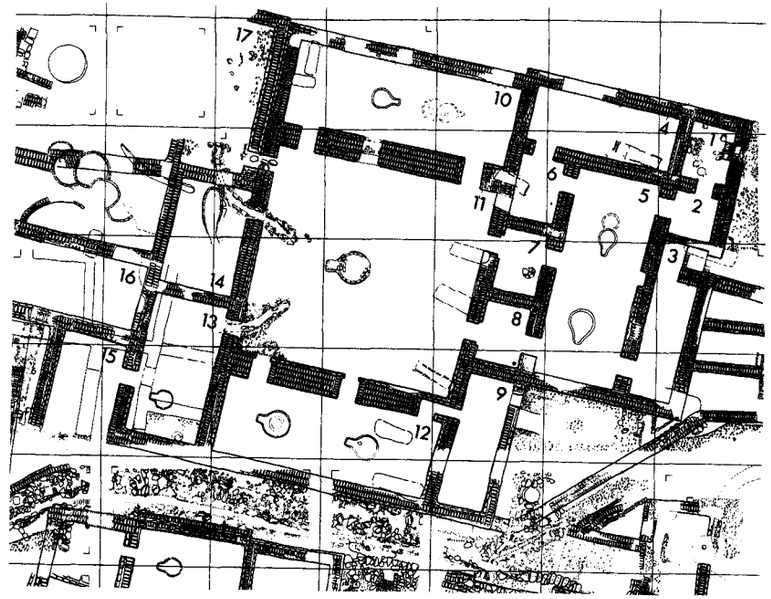

Fig. 6.8 Tripartite house plan, Habuba Kabira.

The houses of Habuba Kabira display variations of the tripartite plan, also called "middle hall" (*Mittelsaal*), an arrangement with a central room flanked by smaller rooms of similar width (fig. 6.8). According to Kohlmeyer, the large central hall was a multifunctional space where meals were eaten and work was conducted.[24] This room often had one or more pear-shaped fireplaces on the floor. The rooms adjacent to the large central hall were probably used for storage, food preparation, and sleeping.

It is worth devoting some attention to the corpus of portable artifacts found in association with the architecture at Habuba Kabira, most of which would not be out of place at Uruk itself. The pottery, in classic Uruk period fashion, is characterized by an emphasis on mass production, specialization, and minimal decoration. The fast potter's wheel, which makes its first significant appearance in the Near East in this period, accompanies the Uruk colonists to Syria. Popular wheel-made types include large jars with horizontally pierced "nose lugs" applied to their shoulders for suspension; tall spouted bottles (fig. 6.4g); "flowerpots" with string-cut bases; and vessels with reserved slip – a technique that involves wiping the slipped or wet-smoothed outer surface of a vessel in a pattern of oblique radial lines.

Perhaps the most well known and certainly the most pervasive Uruk ceramic diagnostic is the beveled rim bowl (fig. 6.4e), a crude vessel produced in

[24] Kohlmeyer 1996.

great numbers, apparently from molds, and often discarded in large quantities in both a complete or a broken state. Ample effort has been expended in trying to explain the function of these curiously homely vessels: why were they produced in such great numbers, why were they discarded even before breakage, and for what purpose were they employed? Earlier scholars suggested their use as votive containers, and recent studies, utilizing Egyptian analogies, have identified them as molds for baking bread.[25] Another influential suggestion is Nissen's proposal that they were used for meting out rations to dependents of public institutions.[26] In this hypothesis, it is argued that beveled rim bowls were produced in standard volumes corresponding to different ration amounts allotted for men, women, and children, as attested in later third-millennium Mesopotamian texts. The evidence of such standardization in the beveled rim bowls has been questioned, however, and it would seem inefficient to distribute thousands of measuring cups to all the recipients when the distributor could simply use his own set. Nevertheless, the possible association of beveled rim bowls with large central institutions deserves serious consideration.

Not only were the architectural and ceramic diagnostics of Uruk southern Mesopotamia found at Habuba, but southern Mesopotamian-style written records and other aspects of bureaucratic administration were also recovered from excavated houses (fig. 6.9). The clay tablets contained only numerical symbols, an important feature relevant to the dating of the occupation; the sequence of Late Uruk period layers at Susa in southwestern Iran implies that numerical tablets were the earliest variety of written texts. Cylinder seals, first introduced in the Uruk period, appear at Habuba Kabira as well, along with their impressions on clay. Attested are elaborate designs with lively scenes of everyday life and the more abstract, stylized designs formerly thought to derive from a Jemdet Nasr (post-Uruk) horizon. Because the seals are impressed on tablets, jars, and the clay balls known as bullae, it is clear that they are being used as indicators of ownership and administrative control, much as they were in southern Mesopotamia. It is also apparent from the southern Mesopotamian-style iconography observable in the seal designs that the Habuba inhabitants shared a common ideology and, most probably, religion with the southerners.

Because of the southern Mesopotamian character of almost all of the remains discovered at Habuba Kabira – from pottery to architecture to administrative records – it is difficult to avoid the conclusion that this settlement was a "colony" of southern Mesopotamians living in Syria. The same conclusion can be drawn about the other Uruk-related sites in the vicinity. Eight kilometers upstream from Habuba Kabira, for example, is Jebel Aruda, situated on a promontory 60 m high overlooking the Euphrates. Like Habuba, Jebel Aruda was founded on virgin soil and had a relatively brief occupation in the Late Uruk

[25] Millard 1988; Chazan and Lehner 1990. [26] Nissen 1988.

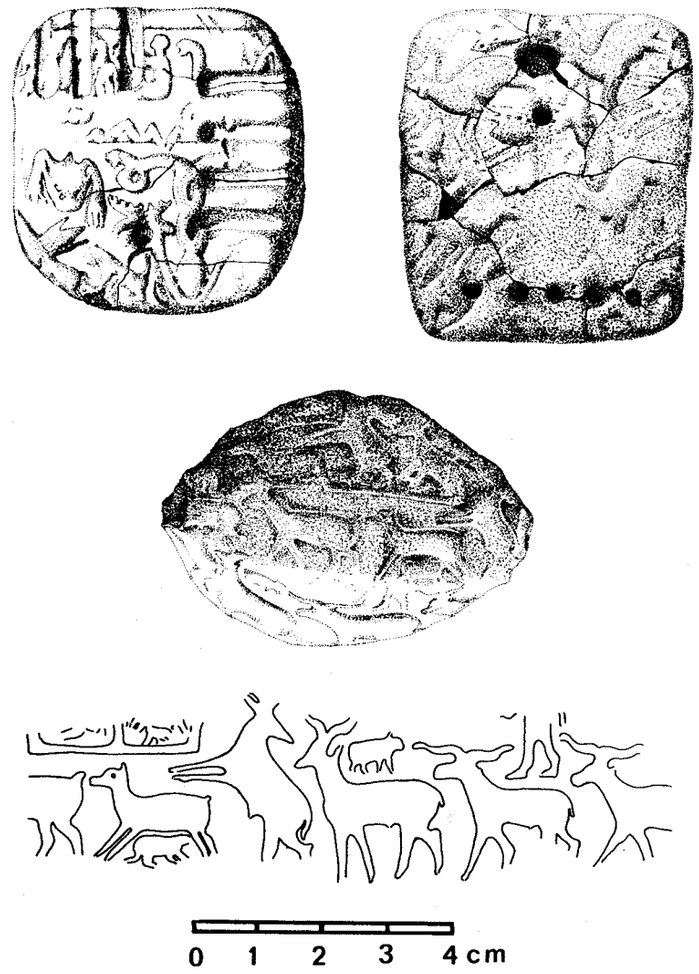

Fig. 6.9 Numerical tablets, bulla, and cylinder seal impression from Habuba Kabira.

period (Late Chalcolithic 5).[27] Jebel Aruda differs from Habuba, however, in its smaller size (about 4 ha) and character. Here, it appears, was an administrative and/or religious center for the "colonial" enclave. Dominating the settlement, two tripartite temples with niched and buttressed façades are closely comparable to monumental buildings from Uruk. Surrounding the two temples were large and well-constructed tripartite houses, whose size and sophistication suggest that they served as residences for important personnel associated with the

[27] Van Driel and van Driel-Murray 1983.

temples. One can visualize a small but powerful administrative center located high above the river valley on its sacred mountain plateau, supervising affairs in the communities down below.

Among these communities we may number Habuba Kabira South/Tell Qannas, Habuba Kabira North, Tell el-Hajj, Mureybet, Hadidi, and Sheikh Hassan. The latter site is of particular significance because it exhibits a lengthy occupation sequence mainly datable to the Middle Uruk period (Late Chalcolithic 4, *c.* 3600–3400 BC, see ceramic types illustrated on fig. 6.4d, 6.4f), indicating that the Uruk colonial episode was of much longer duration than the evidence from Habuba and Jebel Aruda originally suggested.[28] Like Habuba, Sheikh Hassan had a mudbrick city wall with evidence of niches and towers; within was a diversity of buildings including a small temple and an unusual thick-walled structure with a grid plan. The cylinder seal impressions found in level 10 are among the earliest well-stratified examples from anywhere in the Near East.

If we proceed upstream along the Euphrates, we find another enclave of Uruk colonial sites in the Tishrin salvage region near the present-day Turkish border, probably centered around Carchemish. Data from this area have not been as abundant as for the Tabqa region, but it is at least clear that smaller tells like 'Abr, which yielded a small *Riemchen* building surmounting its long Ubaid sequence,[29] and Jerablus Tahtani[30] had ceramic assemblages that were overwhelmingly southern Mesopotamian in style. Some of the pottery from Jerablus Tahtani, especially beveled rim bowls, showed evidence of bitumen residues, a pattern also noted at Sheikh Hassan and upstream at the Uruk-related site of Hacinebi north of the Turkish border.[31] The bitumen may have been imported from Hit, a well-known source on the Euphrates in central Iraq, perhaps employed for the caulking of boats.

Downstream from the Habuba/Aruda enclave, a survey conducted along the Euphrates between the Tabqa dam and Halabiye observed a string of sites with Uruk materials spaced at approximate 6 km intervals.[32] In relative isolation, however, is the specialized site of Qraya, a 2 ha tell located on a ledge above the Euphrates just downstream from its confluence with the Khabur. Above Ubaid strata, three building levels were associated with a southern Mesopotamian Uruk assemblage. The Uruk levels yielded numerous pyrotechnic installations, including elaborate facilities with grills above sunken fire chambers. Citing ethnographic parallels, Buccellati has proposed that these installations were used to process salt, and he has proposed that salt procurement was an important constituent of the Uruk expansion.[33] Salt would have been available from the salt playas at Buara on the Syro-Iraqi border, where southern Mesopotamian Uruk material was identified at the site of Anaiat

[28] Boese 1995. [29] Hammade and Yamazaki 1993. [30] Peltenburg *et al.* 1996.
[31] Stein 1999. [32] Kohlmeyer 1984. [33] Buccellati 1990.

ash-Sharqi III.[34] Buccellati also suggested that Habuba Kabira was in a strategic position to exploit the extensive salt resources of the Jabbul salt lake to its west; however, the recent survey of the Jabbul plain failed to disclose any southern Mesopotamian Uruk presence.[35] Lastly, Buccellati suggested that beveled rim bowls were used specifically for salt processing, noting the numerous specimens found in association with the Qraya facilities. While this hypothesis may prove to be correct, it is likely that salt processing was only one of the many functions these puzzling vessels were used for.

Another isolated, small specialized Uruk outpost has been identified at El Kowm 2-Caracol in the El Kowm oasis of the Syrian desert, where faunal remains from pits and midden deposits were of salient interest.[36] While the animal bones included the expected domestic sheep and goat, a profusion of wild gazelle was also attested. The gazelles were primarily young individuals, possibly indicative of the capture of female adults together with their newborn. The faunal data and the flimsy architectural vestiges at this oasis outpost suggest a specialized, perhaps seasonal, community concentrating on the exploitation of a single wild species.

Considering the extant evidence, we may conclude that settlements with an overwhelmingly southern Mesopotamian Uruk material culture, i.e. Uruk "colonies," can be identified in two distinct enclaves in the middle Euphrates valley as well as at several small, isolated, and specialized communities exploiting specific local Syrian resources. The main enclaves are limited to the rainfall-farming zones of the Euphrates flood plain. Frequently founded on virgin soil, their primarily or exclusively southern Mesopotamian material culture implies a movement of people, not only ideas or material culture types, from southern Mesopotamia. While a Late Uruk period date (e.g. Uruk Eanna IV) was originally favored for the colonies, more recent evidence from sites like Sheikh Hassan tends to suggest a longer duration including both Middle and Late Uruk phases (e.g. Uruk VII–IV, Late Chalcolithic 4–5). The numerical tablets without pictographic signs at Habuba and Jebel Aruda probably indicate a date somewhat before the extensive use of full-fledged logographic writing attested in Uruk IV.

Local communities beyond the colonial sphere

Contemporaneous with the Uruk colonies and their almost "pure" southern assemblages in Late Chalcolithic 4–5 is a wide range of Syrian sites with varying amounts and degrees of southern Mesopotamian materials. A good example of such a site, illustrating the potpourri of styles in the period and the interpretative problems they inspire, is Tell Brak on the upper Khabur plains. Contrary to Habuba Kabira and Jebel Aruda, this site was not founded on virgin

[34] Bernbeck 1993. [35] Schwartz *et al.* 2000a. [36] Cauvin and Stordeur 1985.

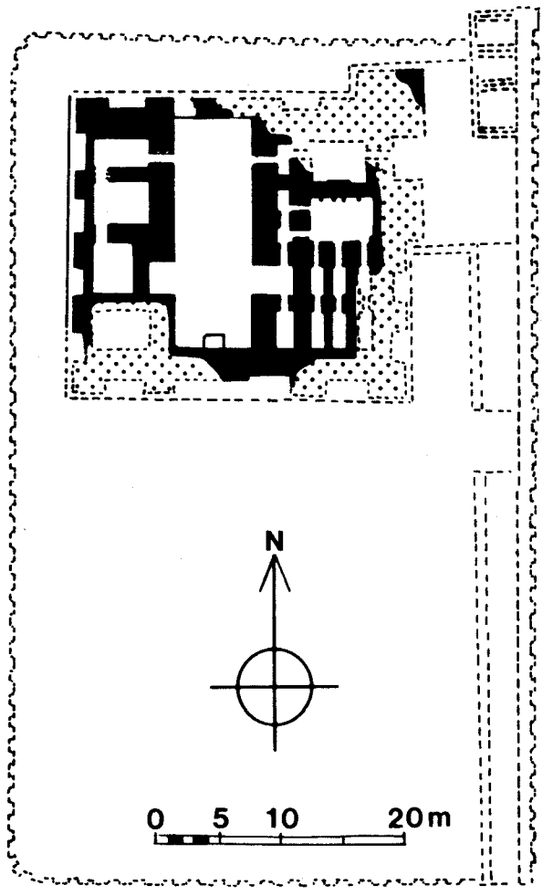

Fig. 6.10 Eye Temple, Brak.

soil: Brak had been a large and important center of its region for centuries, if not millennia. Nevertheless, unmistakable evidence of southern Mesopotamian contact can be observed. The "Eye Temple" excavated by Max Mallowan in the 1930s, so-called because of its thousands of limestone plaquettes with images of eyes prominently featured, presents ample material of southern Mesopotamian character (figs. 6.10 and 6.11).[37] Like the temples of Uruk, Jebel Aruda, and Sheikh Hassan, the Eye Temple has a tripartite plan, elaborate niches and buttresses, and clay cone mosaic decoration. However, its eastern wing with narrow storage rooms suggests a local modification of the tripartite arrangement.

[37] Mallowan 1947.

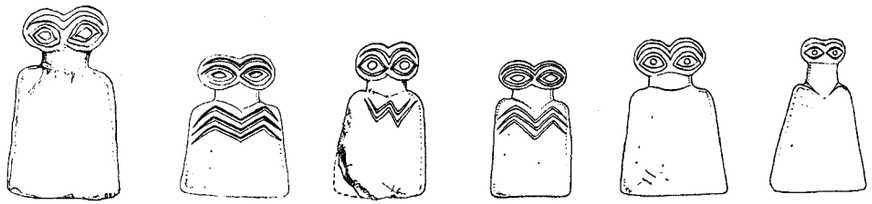

Fig. 6.11 Eye idols from the Brak Eye Temple. Scale 2:5.

Below the Eye Temple proper was a sequence of three earlier constructions. Each building had been razed and filled in with mudbricks to serve as a platform for the next one, a practice well attested in southern Mesopotamian religious architecture. The White Eye Temple, so-called because of its white lime plastered floor, had been installed above the Gray Eye Temple with its gray mudbricks. The Gray Temple yielded a stunningly rich hoard of objects, including thousands of the celebrated eye idols. These objects are thin and flat with a long neck surmounted by pronounced eyes. Some have high headdresses, and some have representations of a larger and smaller figure (mother and child?). It seems likely that these remarkable objects were votive offerings to the deity who resided in the temple, although we are still unaware of the god's identity (see chapter 8 for a similar discovery at third-millennium Qara Quzaq). In addition to eye idols and "spectacle" idols, which had perforations instead of eyes, the Gray Temple provided an extraordinary harvest of other votive objects such as animal-shaped stone amulets and stamp seals, cylinder seals, alabaster sculptured human heads, and hundreds of thousands of beads. The earliest phase of construction, designated the Red Eye Temple after its red mudbricks, was said to be associated with beveled rim bowls and red slipped and painted sherds, but they were not published. In point of fact, very little of the pottery found in the Eye Temple excavation was illustrated in Mallowan's report, making a chronological assessment of the phases difficult, although recent results at Brak may suggest an equivalence of the Gray Temple with area TW levels 14–17 (Late Chalcolithic 3).

The renewed excavations at Tell Brak conducted since the 1970s have furnished a wealth of new data on the fourth millennium, although the frequent rebuildings and levelings characteristic of the site have made for a stratigraphic puzzle of daunting complexity. Area TW levels 17–14 were primarily local in character (see above), but a few beveled rim bowl sherds indicate the beginnings of Uruk contact. In TW level 13, the southern Mesopotamian influence becomes substantial with the appearance of a Middle Uruk (Late Chalcolithic 4) pottery assemblage discovered together with examples of local Chaff-Faced Ware. The succeeding phase 12 in the area TW sequence (Brak period G) produced a corpus of exclusively southern Mesopotamian-style Late Uruk pottery (Late Chalcolithic 5). These ceramics derived from rooms containing

pear-shaped fireplaces comparable to those of Habuba Kabira South. Perhaps datable to the same time frame are various objects found out of context at Brak: painted clay wall cones, sealed bullae, and two small unbaked clay pictographic tablets each with an impressed circle and a sheep or goat pictograph. The latter objects differ from the Uruk IV examples in their portrayal of the entire body of the animal, not only the head.

In the final fourth-millennium phase from TW (10–11, Brak period H), the ceramic corpus included tall flower pots very similar to the Jemdet Nasr (post-Uruk) period pottery of southern Mesopotamia and included two Jemdet Nasr painted polychrome sherds, an extremely rare find outside southern Mesopotamia. It is unclear whether this signifies a longer duration for the Uruk expansion than conventionally presumed, since Brak, in its position as gateway to the Khabur, tends to have more evidence of "international" connections than other sites.

The mid to late fourth-millennium data from Tell Brak disclose a heady mix of local and southern material culture. It is safe to conclude that Brak does not qualify as an implanted "colony" such as Habuba Kabira, because it was not established as a new settlement and has substantial evidence of local Syrian material culture. The question we confront, then, as with the sites enumerated below, is whether the presence of southern Mesopotamian material culture implies the presence of southern Mesopotamian *people*.

While the evidence is much less extensive, other sites in the dry-farming plains of the upper Khabur like Leilan, Kashkashuk III, Kuran, and Nustell also exhibit an interplay of local and southern Mesopotamian material culture. Like Brak, the fourth-millennium occupation at the small tell of Mashnaqa on the middle Khabur reveals a pattern of local material culture change culminating in evidence of the Uruk intrusion.[38] Southern Mesopotamian-style Uruk pottery is introduced, and a large circular structure with mudbrick walls 3.5 m thick is erected (fig. 6.12). Perhaps a small fort, this structure, now much eroded, has a bastion-like brick massif on the northwest; regular openings in the wall may indicate the presence of an additional outer wall no longer extant. Elsewhere in the middle Khabur valley are brief glimpses of an Uruk presence at sites such as Bderi, Ziyadeh, and Umm Qseir.

The character of the Uruk expansion in the Balikh valley still requires clarification. Survey results have revealed a pattern of larger settlements with purely local material culture occasionally accompanied by very small "satellite" sites with southern Mesopotamian ceramics (beveled rim bowls, four-lugged jars, etc.). Here the chronological problem discussed above comes to the fore: were the small sites contemporary with the larger ones, or were the large sites abandoned by the time the Uruk contacts were established?

[38] Beyer 1998.

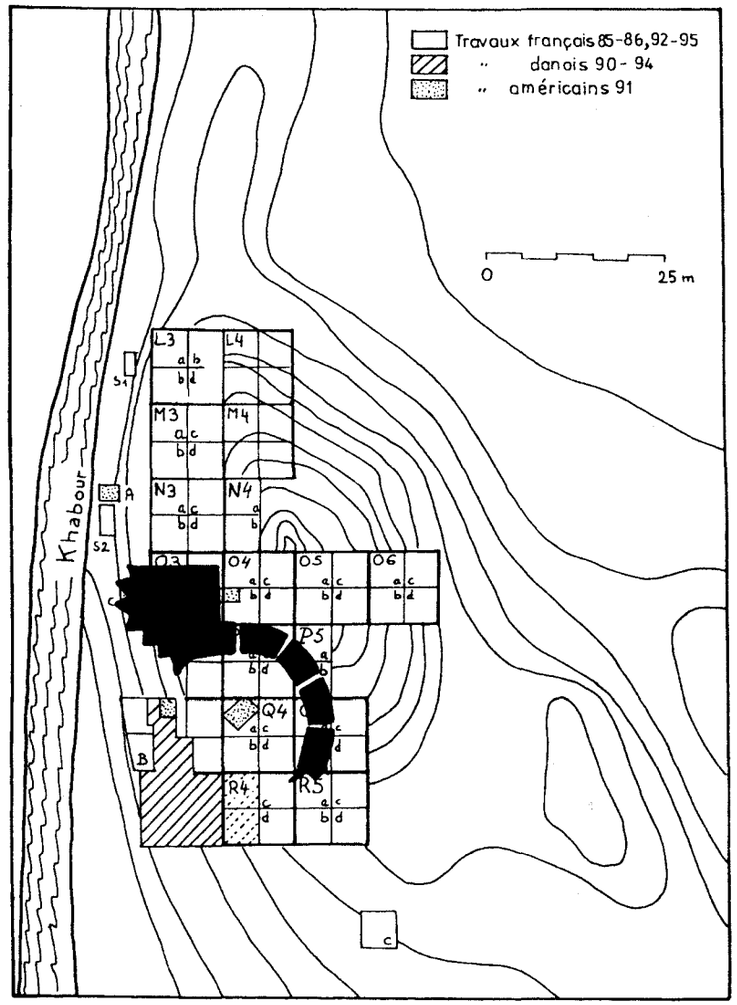

Fig. 6.12 "Fort" at Mashnaqa.

Turning to Syria west of the Euphrates, we find that data available for the mid to late fourth millennium are quite minimal, but hints of Uruk-related developments can be detected. The sites excavated in the Amuq plain in the 1930s remain the most informative source of data, and their sequence of developments parallels that of the Khabur.[39] In the earlier fourth millennium, the Amuq F period, local chaff-faced pottery dominates the assemblage. A few beveled rim bowls make their appearance in late F strata and continue

[39] Braidwood and Braidwood 1960.

into Amuq G, when reserve slip vessels are added to the assemblage, Chaff-Faced Ware disappears, and wheelmade, mineral-tempered "Plain Simple Ware" predominates. A modest Uruk presence is likewise attested in the Orontes valley at Hama, also excavated in the 1930s.[40] Although stratigraphic mixing seems to have been a major problem, some beveled rim bowls were clearly associated with fourth-millennium contexts in phase K.

Nevertheless, the Uruk influence evident at Hama and at the excavated sites of the Amuq has not been observed elsewhere in western Syria. The surveys conducted in the Sajur and upper Euphrates regions (Tishrin dam salvage area), the Jabbul plain, the Qoueiq, and the Amuq plain noted sites with local chaff-faced assemblages but failed to detect any evidence of Uruk-related material culture west of the Euphrates valley. On the Mediterranean coast, the small deep sounding at Sukas revealed only local Amuq F–G-related fourth-millennium pottery; the recent results from Afis south of Aleppo, where a stone enclosure wall was identified, also reveal an exclusively local material culture.[41] It may be safe to conclude, therefore, that the few southern Mesopotamian materials found in the Amuq and Hama were anomalies and that the right bank of the Euphrates can be considered the western border of the Uruk expansion zone. This conclusion would seem to contradict the theorized path of contact between Uruk Mesopotamia and late predynastic Egypt leading west from the upper Euphrates to the Levantine coast and thence by sea to Egypt.[42]

If we combine the evidence for the Uruk colonies and Uruk-related sites, we may conclude, first of all, that the Uruk expansion in Syria began only after many centuries characterized by post-Ubaid local assemblages. The floruit of the Uruk colonies and Uruk-related sites can be assigned to Late Chalcolithic 4–5, the Middle and Late Uruk periods of the southern Mesopotamian relative chronology, carbon-14 dated to the middle to later fourth millennium BC by samples from Sheikh Hassan, Jebel Aruda, Habuba Kabira, and Hacinebi. Uruk-related material culture largely disappears in Syria by the end of the fourth millennium BC, but some vestiges persevere, especially in the west, where the production of vessels decorated with reserved slip continues well into the third millennium.

Considering the spatial distribution of Uruk colonies and Uruk-related sites in Syria, we find that the true Uruk "colonies," newly founded settlements predominantly southern Mesopotamian in character, are almost completely

[40] Thuesen 1988.

[41] Sanlaville 1985; Matthers 1981; Oldenburg 1991; Cecchini and Mazzoni 1998.

[42] Joffe 2000. Egyptian borrowing of selected Mesopotamian Uruk-period artistic motifs, architectural styles, and perhaps even writing has been recognized for some time, and the discovery of an Egyptian predynastic Black Incised Ware sherd at Habuba Kabira South and of Amuq F style plain pottery and Uruk-style clay cones at Buto in the Nile Delta appears to support a west Syrian route of communication. Further research will be required to clarify this presumed avenue of contact.

restricted to the middle Euphrates valley. Sites with a mixture of local and Uruk materials are found in the regions north and west of this zone.

The Uruk expansion in Syria: explanations

Confronted with southern Mesopotamian material culture in a variety of permutations across fourth-millennium Syria, scholars have struggled to interpret the phenomenon. At present, the most influential perspective on the Uruk expansion focuses on southern Mesopotamia's desire for raw materials in its periphery. According to this view, southern Mesopotamia suffered from a paucity of natural resources aside from the mud, clay, and reeds that served as the basic media for its architecture, receptacles, and writing. If wood, metal, or stone were desired in any quantity, it had to be sought outside of the southern Mesopotamian alluvium, particularly in the forested highlands of eastern Anatolia or on the Iranian plateau. A southern Mesopotamian "presence" along the Euphrates up into the heart of eastern Anatolia, therefore, is explained as an effort to control access to the rich resources of eastern Anatolia: timber from the eastern Taurus, copper from mining areas like Ergani Maden, silver, and obsidian.

In the best-articulated argument focused on long-distance exchange, Guillermo Algaze has applied Immanuel Wallerstein's world-systems theory to the Uruk expansion.[43] He proposes that the emerging city-states in southern Mesopotamia required large infusions of metals, woods, and stone for decorating their monumental new temples, for fashioning symbols of the authority and legitimacy of the new ruling elite, and for "essential" purposes. Therefore, the politically complex "core" of southern Mesopotamia established a system of control points in its less sophisticated "periphery" designed to facilitate a continual flow of raw materials into the core. The system is seen as one of asymmetrical exchange and "informal empire" in which the southern Mesopotamians acquired desired natural resources while peripheral populations became dependent on southern Mesopotamian finished goods and/or surplus grain. Local authorities in the periphery would have been amenable to this system because their receipt of exotic gifts and products from the outside world allowed them to intensify their own power.

According to Algaze's model, sites with a full complement of Uruk pottery, architectural types, and administrative techniques (i.e. seals, tablets, bullae) were colonies serving as southern Mesopotamian control points along the major routes leading from the southern alluvium to eastern Anatolia. A variety of such control points are recognized: large urban communities with satellite villages (e.g. the Habuba, Carchemish, and Samsat enclaves, Tell Brak, and Nineveh in northern Iraq); small isolated stations near important routes

[43] Algaze 1993.

(e.g. Qraya, Hassek on the upper Euphrates in southeastern Anatolia); and small isolated outposts well beyond the main area of Uruk settlement (e.g. El Kowm, Godin Tepe in western Iran). Sites with local assemblages displaying some evidence of southern Mesopotamian material culture are interpreted as indigenous communities in contact with the Uruk control points (e.g. Leilan, Kurban Höyük).

While Algaze's model has attracted great interest, researchers have called attention to a variety of flaws in its argumentation. One obvious problem with an explanation focused on long-distance exchange is the scarcity of traded commodities in the archaeological record: there is little evidence of a significant infusion of exotic metals, wood, or stone in the Uruk-related settlements of the "periphery" or in southern Mesopotamia itself. Conversely, there is no evidence of widespread consumption of Mesopotamian finished goods in the periphery. While the Uruk-related sites are often located along trade routes or at riverine crossing points, important and prosperous communities of Syria were traditionally located along such routes, whether or not trade was their primary concern. One is hard put to explain thickly populated networks of towns like those of the Habuba or Carchemish enclaves solely as control points along a trade route.[44] As Wattenmaker has observed, "not all settlements with large quantities of foreign goods are trade colonies, and not all trade colonies have large quantities of goods brought from home."[45] Indeed, the best-documented merchant colony of the ancient Near East, the Old Assyrian trading quarter at Kanesh in central Anatolia (nineteenth to eighteenth centuries BC), is characterized by an almost wholesale adoption of local styles of architecture and domestic artifacts.

More recent research, often aimed specifically at testing Algaze's model, has revealed an impressive degree of economic and social complexity in the periphery, weakening the argument for an asymmetric relationship between Mesopotamia and its surrounding territories. For example, there is substantial evidence for the development of metallurgy in eastern Anatolia prior to the Uruk intrusion, indicating that the Anatolians did not need to rely on Mesopotamia for finished metal products. At fourth-millennium Hacinebi, Stein has concluded that a group of Mesopotamians lived peaceably within a local Anatolian community; there is no hint of any economic or political domination of one group by the other.[46]

Therefore, while an explanation focused on long-distance trade might seem inescapable at first glance, there may be reasons to look further. A consideration of a better-documented case, the eighth-century BC archaic Greek colonization of the Mediterranean, has shown that Greek colonies were indeed well placed with respect to long-distance trade, but a more important variable was the impoverished Greek peasants' search for new farmland. Having been dispossessed of their original holdings by increasingly powerful urban-based

[44] Schwartz 2001. [45] Wattenmaker 1990:67. [46] Stein 1999.

elites, poor farmers sought land in previously unexploited territories. The archaic Greek case demonstrates that the motivations for the establishment of far-flung colonial settlements, whether or not established along trade routes, may be more complex than the desire for foreign raw materials.[47]

If we require explanations that focus on variables other than long-distance exchange, what additional alternatives might be proposed? Most attempts to date have consisted of suggestions intended to spur further research rather than fully developed testable models. Noting that a profusion of Uruk material culture at a given site need not imply the presence of southern Mesopotamian people at the site, Wattenmaker postulates the existence of local elites using Mesopotamian styles and administrative techniques to legitimize and enhance their own positions of power.[48] The evidence from Tell Brak, for example, a regional center growing to urban dimensions with a mélange of local and southern material culture, could be persuasively interpreted along these lines.

Rather than interpreting the Late Uruk period as an era of prosperity and informal empire, Gregory Johnson has focused on demographic crises and unrest in southern Mesopotamia.[49] He argues that the new city-states of southern Mesopotamia competed vigorously with each other over limited resources of land and labor, and the ensuing conflict resulted in the creation of thousands of refugees. These rootless groups fled upstream to Syria and eastern Anatolia, establishing new Uruk-style communities. While he convincingly argues that refugee communities are more likely to reproduce all the "comforts of home" than merchant colonies, it may be difficult to accept the establishment of so many refugee communities at such a great distance from southern Mesopotamia.

One final avenue for future research on this issue has been suggested by Rita Wright and by Joy McCorriston.[50] In an era of developing economic specialization, they note the appearance of specialized sheep/goat pastoralism and emphasize its connection to the rise of large-scale textile production in southern Mesopotamia. Central institutions controlled flocks of sheep whose wool was employed to manufacture textiles in large weaving establishments. The considerable scale of this enterprise may have required grazing the vast flocks in zones reserved for that purpose in the Mesopotamian peripheries, safely removed from the agricultural fields of the south.

Animal husbandry and agriculture in fourth-millennium Syria

The faunal data indeed show an increasingly specialized focus on sheep and goat at selected sites in fourth-millennium Syria. Such a pattern has been particularly associated with Uruk colonial sites and interpreted as evidence of Mesopotamian food preferences, to be contrasted to the indigenous

[47] Schwartz 1988b. [48] Wattenmaker 1990.
[49] Johnson 1988–9. [50] Wright 1989; McCorriston 1997.

communities' diversified range of species.[51] Weber, however, found a contrary pattern at Brak, where an overwhelming predominance of sheep/goat was observable in both the "local" levels prior to the Uruk expansion and the Uruk-related levels.[52] These data suggest that the trend towards pastoral specialization in ovicaprids began well before the period of Uruk influence in Syria.

The trend towards pastoral specialization has been indirectly observed in botanical data as well. At early fourth-millennium Ziyadeh on the middle Khabur, the carbonized wheats and legumes well known from earlier periods are supplemented by seeds from steppic environments.[53] Since the carbonized plant remains are probably derived from animal dung used as fuel, the appearance of steppic plant material implies a new tendency towards pasturing domestic animals on the steppe beyond the river valley and a consequent expansion of animal husbandry.

It has been hypothesized that the exploitation of sheep for their wool, as well as for other non-meat products like milk, was an innovation of the fourth millennium.[54] While such a "secondary products revolution" has not been directly corroborated for fourth-millennium Syria, there is no reason to reject the hypothesis as of yet. A related issue is the presence or absence of nomadic pastoralism, in which a pastorally specialized mobile group accompanies its flocks on a seasonal round of grazing lands. Although well documented in historical periods, the existence of such groups in prehistoric periods is difficult to establish, since their mobile lifestyle leaves few archaeological traces.[55]

Melinda Zeder's work on the faunal assemblages from Khabur sites has shown that fourth-millennium Syrians were as likely to focus on hunting as on animal husbandry – a surprising conclusion for a post-Neolithic society (fig. 6.13).[56] At Umm Qseir on the middle Khabur, perhaps a seasonal hunting station, the assemblage predominantly consisted of wild onager and, to a lesser degree, gazelle. A similar pattern emerged at Kuran in the upper Khabur, where an extraordinary deposit of almost 3000 densely packed gazelle foot bones was discovered, implying 100 gazelles killed in a single hunt. Zeder suggests that initial butchery and discard took place at the site, with the relatively useless feet thrown into a single midden deposit and the more meaty segments of the animal distributed elsewhere. Both the scale of the hunt and the spatial segregation of butchery activities suggest a highly organized system of procurement and distribution. A focus on wild species was also observed at El Kowm 2-Caracol in the Syrian desert (see above).

An additional innovation of great significance in the animal economies of the fourth millennium is the domestication of the donkey.[57] Given their utility for long-distance transport, donkeys may well have played an important role in the Uruk expansion.

[51] Stein 1999. For example, sheep/goat totalled 59% of the faunal assemblage at Habuba Kabira South, but wild species accounted for only 5% (von den Driesch 1993).
[52] Weber in Emberling *et al.* 1999. [53] McCorriston 1998.
[54] Sherratt 1981. [55] Schwartz 1995. [56] Zeder 1998. [57] Vila 1998.

Site	Date	Domestic (%)	Wild (%)	Total number
Northern steppe				
Feyda	7500 BC	78	22	194
Kashkashuk II	6400 BC	87	13	137
Kuran	4400 BC	69	31	309
Kuran	3200 BC	6	94	3344
Kashkashuk II	3200 BC	98	2	45
Kashkashuk IV	1800 BC	97	3	159
Southern steppe				
Umm Qseir	5400 BC	43	57	2446
Mashnaqa	4400 BC	55	45	807
Umm Qseir	3200 BC	28	72	509
Bderi	2500 BC	91	9	179
Bderi	1500 BC	97	3	815

Fig. 6.13 Proportions of wild versus domestic fauna in Khabur sites.

The Uruk collapse

The end of the Uruk expansion in Syria presents a final problem. Colony sites like Habuba Kabira and Qraya were abandoned after their relatively brief lifespans without any evidence of destruction or military conflict. Settlements with a longer history of indigenous occupation generally endured, but they shifted to a material culture almost totally independent of southern Mesopotamian connections. The traces of Mesopotamian contact that can be discerned in Syria after the Uruk period simply entail a local continuation of object types or styles first introduced in the fourth millennium (e.g. cylinder seals, ceramic reserved slip decoration in western Syria, four-lugged jars in the east). Only Tell Brak, characterized by a long history of close connections with southern Mesopotamia, displays any contact with post-Uruk period southern Mesopotamia in its Jemdet Nasr ceramic assemblage.

In his world-systems model, Algaze proposes that the "collapse" of the Uruk expansion can be attributed to changes both in the southern Mesopotamian core and in the peripheries. In southern Mesopotamia, agriculture was intensified to support the increasing urbanization of the region and the ever-expanding numbers of specialists who did not produce their own food. The continuing bid to increase agricultural surpluses resulted in overirrigation, environmental deterioriation, collapse of the agricultural system, and socio-political catastrophe. In the periphery, local authorities had gained enough power to take advantage of southern Mesopotamian weakness and assert their independence.

These explanatory proposals for the Uruk collapse are compelling but are not yet supported by a strong body of evidence. In the case of the Syro-Mesopotamian "periphery," for example, no powerful local elites are apparent in the period after the Uruk collapse. An alternative suggested by Sürenhagen posits that the Habuba colonial enclave, dependent on agricultural products supplied by a local indigenous population, was cut off from its food supply when that population became hostile.[58] However, no indigenous communities have been identified in the middle Euphrates valley, and only a handful of fourth-millennium sites were noted in regions to the east and west. There simply do not appear to have been enough local people around to produce the crops required to feed the thousands of Uruk colonists.[59] Indeed, current evidence suggests that the bend of the middle Euphrates was almost virgin territory when the Uruk settlers arrived – perhaps one of the main attractions of the region.[60]

That the colonists in the Habuba enclave were afraid of someone, however, is suggested by the community enclosure walls at Habuba Kabira and Sheikh Hassan. These were constructed after the initial foundation of the communities, implying that the perceived threat only emerged after the colonies were established. Violent disaster is suggested by evidence of burning at Jebel Aruda and Sheikh Hassan level 6, although such a conflagration may not necessarily reflect military conflict. Also of possible relevance is the puzzling circular "fort" at Mashnaqa on the middle Khabur. Who were the enemies and what role, if any, did they play in the abandonment of the Uruk colonies? Since, as we have observed, there is no significant evidence of indigenous settled populations in the middle Euphrates, one might postulate the existence of hostile groups in southeastern Anatolia, archaeologically invisible pastoral nomads, or even enmities between the colonial enclaves themselves.

If we consider the changing circumstances of the southern Mesopotamian "core," we must first acknowledge our ignorance of that region's political situation and its relationship to the Uruk colonies. Indeed, it is by no means established that the city of Uruk itself had any role in the "expansion" that bears its name. Curiously, some of the closest material culture parallels to the colonial sites derive not from Uruk, but from Susa in southwestern Iran; we may well find ourselves discussing the "Susa expansion" in the future. Some authorities have assumed the existence of an array of city-states in southern Mesopotamia, while others have postulated a single, quasi-imperial entity dominated by Uruk. In any case, it appears that significant changes were transpiring in late fourth-millennium southern Mesopotamia. Surface survey results have

[58] Sürenhagen 1986.
[59] Archaeobotanical results from Jerablus Tahtani indicate that this apparently colonial community conducted its own agricultural production and was not reliant on locals (Peltenburg 1999a:99–100).
[60] Schwartz 2001.

revealed crises of population decline and settlement abandonment, and the grandiose buildings of the Eanna precinct at Uruk were leveled, to be replaced by new constructions with a different character and orientation. Whether these upheavals were precipitated by agricultural overintensification, as Algaze has suggested, remains to be demonstrated; recent suggestions of a climatic desiccation in the later fourth millennium may also prove to be significant. Whatever the cause, post-Uruk period southern Mesopotamia turned its attention to eastern trading networks centered on the Persian Gulf and Iran and left Syria to its own devices.

Conclusions

The discovery of a close, if enigmatic, relationship between the earliest urban societies in southern Mesopotamia and contemporaneous populations in Syria and other parts of the Near East has led to an important reorientation of late prehistoric and early historic Near Eastern research. Scholars now think in more "international" terms, seeing the ancient world not as a set of discrete and self-sufficient political or cultural units but as a collection of entities very much interrelated in economic, ideological, and other aspects.

Whatever else might be said about the Uruk expansion, it is a phenomenon without parallel in the subsequent history of our area. In no succeeding period is there such a profusion of foreign material culture distributed across Syria. In our opinion, this phenomenon requires further consideration and data collection before a consensus can be reached on either its *raison d'être* or the causes of its demise. We believe that it is reasonable to assert that at least some component of the Uruk expansion involved southern Mesopotamian acquisition of desired raw materials from distant sources. However, we also believe that other variables were involved. First, the scale of the middle Euphrates enclaves suggests that they served a purpose additional to the strategic control of trade routes. Whether such a purpose entailed mass migration of dispossessed or refugee southerners, or something totally different, remains to be ascertained. Second, many sites with Uruk material culture were probably not colonies of southern Mesopotamian residents, but local Syrian settlements emulating southern Mesopotamian material culture. Tell Brak is probably the best example of such a situation, and we think it likely that Brak was a powerful local center whose elites copied southern Mesopotamian styles to bolster and legitimize their own authority.

The issue of the development of local Syrian societal complexity is, in fact, one of the most difficult problems for the period, as well as one of the most intriguing. Evidence for the growth of indigenous elites and socio-political complexity is observable in the period prior to the Uruk expansion at Hammam et-Turkman and Brak, and the latter site appears to attain an impressive urban character as the millennium progresses. If the Brak Eye Temple was a local

project, it would also furnish the earliest unequivocal example of indigenous temple-building in Syria, indicating a new centralization and intensification of public ritual – in likely association with emerging elites. Moreover, the astounding number and quality of stamp seals and amulets found in the Gray Eye Temple also reflect an impressive level of craft specialization.

But these early attempts at urbanization and socio-political complexity do not appear to survive the period of the Uruk intrusion. Nor did the accoutrements of Uruk civilization such as centrally planned cities and monumental architecture persist. As we shall explore in chapter 7, there is no substantial evidence of urban or state institutions in Syria in the period immediately following the Uruk expansion. Given the complexities of our evidence, it seems certain that the development of sophisticated socio-political structures in fourth-millennium Syria and their relationship with the southern Mesopotamian presence will continue to be debated for some time to come.

7

REGIONALIZATION AND LOCAL TRAJECTORIES

After the collapse of the Uruk expansion, Syria's material culture ties to southern Mesopotamia were severed. Local, regionalized styles evolved, as in the other former "peripheries" of Uruk Mesopotamia. But unlike proto-Elamite Iran, where complex, literate societies emerged, Syria, southeastern Anatolia, and northern Mesopotamia experienced a period of ruralization or, at most, a modest growth of small centers.[1] In this post-Uruk era, Syria was primarily a landscape of small communities with little or no evidence of monumental architecture, elite art, or writing. Such a development runs counter to the expectations of many scholars: why, despite centuries of contact with the urban civilization of southern Mesopotamia, was there no immediate flowering of urbanism and societal complexity?

The issue is further complicated by the eventual appearance of large cities, states, and literate societies in Syria by *c.* 2600–2500 BC, hundreds of years after the Uruk collapse (see chapter 8). Was this phenomenon the product of renewed contact with southern Mesopotamia, or was it a process whose initial stages can be recognized in the earlier centuries of the third millennium? These and other issues currently define the archaeology of the late fourth and early third millennia BC in Syria. The period is conventionally referred to as the beginning of the Early Bronze Age, although the use of tin-bronze does not become common until the second half of the third millennium.

The northeast: the Ninevite 5 culture

In the era following the Uruk incursion, two geographically defined material culture assemblages can be recognized in Syria. To the west is an extensive region characterized by such pottery styles as Late Reserved Slip and Red-Black Burnished Ware; to the east in the Khabur drainage is the "Ninevite 5" culture. We begin with a discussion of the latter region and its post-Uruk development.

The term "Ninevite 5" derives from the deep sounding conducted by Max Mallowan in 1931 at the great mound of Nineveh in northern Iraq. Among the results of this pioneering excavation was the identification of distinctive painted and incised styles of pottery in the fifth and uppermost level. Similar

[1] Algaze 1999; Schwartz 1994a.

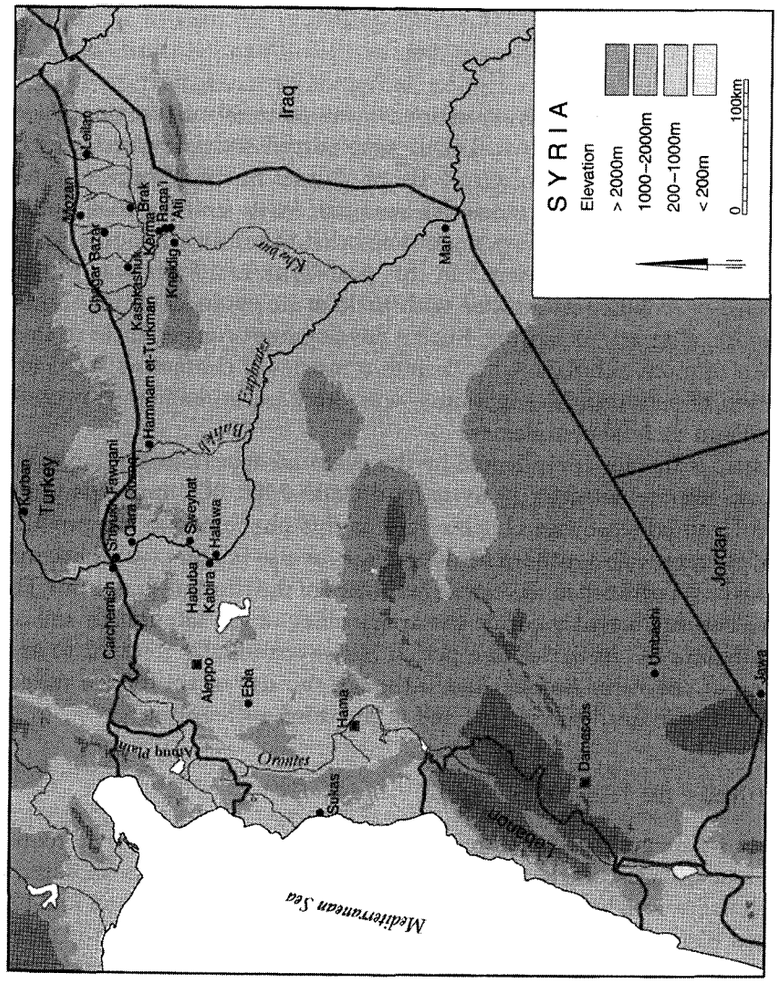

Fig. 7.1 Syria in the early third millennium BC.

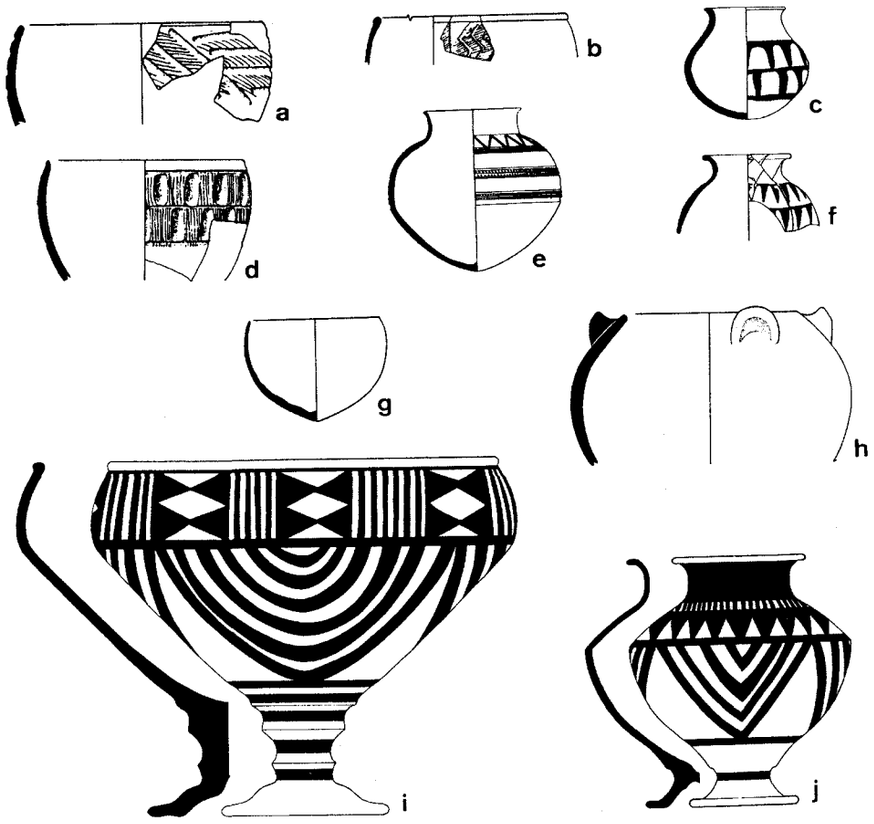

Fig. 7.2 Ninevite 5 and other pottery of the Khabur (scale 1:5).

ceramics were later discovered at sites from the Khabur drainage to the foothills of the Zagros, and the term "Ninevite 5" came to refer to the period and culture that generated the pottery.[2] Judging from available carbon-14 data, the Ninevite 5 period can be dated to *c.* 3100–2550 BC.[3] Although Mallowan and others suspected external origins for the Ninevite 5 corpus and, by association, its producers, it is now recognized to be of local derivation. A few residual traits from the Uruk period lingered, such as four-lugged jars, but foreign material culture connections were otherwise minimal.

Painted Ninevite 5 pottery is characterized by geometric motifs (ladders, crosshatch, hourglass designs), naturalistic animal motifs, the employment of festoons on the lower body of vessels, and a general *horror vacui*. Common shapes include tall-necked jars with pedestal bases and wide bowls with high pedestal bases ("chalices") (fig. 7.2j, i). In its earlier manifestations, incised

[2] Mallowan 1964; Schwartz 1985; Rova 1988. [3] Weiss *et al.* 1993; Matthews 2000.

Ninevite 5 pottery entails relatively simple triangular, undulating, arrow and herringbone patterns consisting of thin incised lines and small dots (fig. 7.2e). Later varieties have deeper, thicker incisions interspersed with thin incised lines, a technique called "excision" (fig. 7.2a, b, d). Among the popular shapes for incised pottery are small cups with bead rims and pointed bases and jars with everted necks and pointed bases.

The chronology of painted and incised Ninevite 5 pottery has been the subject of much discussion (fig. 7.3). In the 1930s, excavation results from Nineveh and Billa in northern Iraq and Chagar Bazar in the upper Khabur led to the conclusion that the manufacture of painted Ninevite 5 preceded that of incised Ninevite 5. More recent excavations at Telul eth-Thalathat in northern Iraq and at Tell Leilan in the Khabur revealed that painted and incised pottery were employed simultaneously in an intermediate phase prior to the disappearance of painted Ninevite 5. At Leilan, which has yielded the longest continuous stratified sequence for the Ninevite 5 period in Syria,[4] four sub-periods are defined: IIIa (with painted and ribbed Ninevite 5), IIIb (with painted and earlier incised), IIIc (with later incised, excised, and some painted pottery) and IIId (with late excised, no painted). The regional chronology recently proposed by Pfälzner with modifications by Lebeau designates Leilan IIIa–c as Early Jezireh I and Leilan IIId as Early Jezireh II.[5]

After salvage work at Ninevite 5 sites on the upper Tigris in Iraq (Eski Mosul region) in the 1980s, the excavators recognized the existence of a transitional phase between Late Uruk and Ninevite 5 proper with a distinctive painted ware.[6] Because this transitional painted style has not been observed in the Khabur, with the possible exception of Tell Brak, some authorities have hypothesized a break in occupation after the Uruk period in that region. According to this perspective, the Ninevite 5 pottery tradition developed in the upper Tigris during a period when the Khabur drainage was virtually abandoned; later on, the Khabur was repopulated by settlers using Ninevite 5 pottery. While this problem requires further consideration, the applicability of the Eski Mosul sequence to Syria remains to be fully demonstrated; aside from the absence of Transitional pottery, the Khabur deviates from northern Iraq in the relative scarcity of painted Ninevite 5 pottery, a preference for specific varieties of excised decoration (e.g. step and zigzag patterns; fig. 7.2a–b), and a crude painted style with only tenuous links to the Ninevite 5 tradition found in the middle Khabur (sites like Raqa'i, Gudeda, Kneidig) and at Kashkashuk III, Khazna I, and Chagar Bazar in the upper Khabur (fig. 7.2c, f).

While the lion's share of attention has been devoted to the chronology of decorated Ninevite 5 pottery, plain, undecorated vessels were extremely numerous, if not predominant, in the assemblage. Characteristic types include cups

[4] Schwartz 1988a; Weiss 1990.
[5] Pfälzner 1997a, 1998; Lebeau 2000. [6] Numoto 1991, 1993.

	Early Jezireh periodization	Upper Khabur	Middle Khabur	Balikh and adjacent regions	Western Syria	Southern Mesopotamia
2500 –	IIIa	Leilan IIa	Raqa'i 2 Bderi IIIa	Chuera IC		Early Dynastic IIIa
2600 –	II	Leilan IIId	Raqa'i 3 Bderi II	Chuera IB		Early Dynastic II
2700 –		Leilan IIIc	Raqa'i 4 Bderi I		Hama K 5–1 Amuq H	
2800 –	I	Leilan IIIb	Raqa'i 5–7			Early Dynastic I
2900 –		Leilan IIIa		Hammam et-Turkman VI East	Amuq G	
3000 –						Jemdet Nasr

Fig. 7.3 Early third-millennium chronology.

	Early Jezireh periodization	Upper Khabur	Middle Khabur	Balikh and adjacent regions	Western Syria	Southern Mesopotamia
2500 –	IIIa	Leilan IIa	Raqa'i 2 Bderi IIIa	Chuera IC		Early Dynastic IIIa
2600 –	II	Leilan IIId	Raqa'i 3 Bderi II	Chuera IB		Early Dynastic II
2700 –		Leilan IIIc	Raqa'i 4 Bderi I		Hama K 5–1 Amuq H	
2800 –	I	Leilan IIIb	Raqa'i 5–7			Early Dynastic I
2900 –		Leilan IIIa		Hammam et-Turkman VI East	Amuq G	
3000 –						Jemdet Nasr

Fig. 7.3 Early third-millennium chronology.

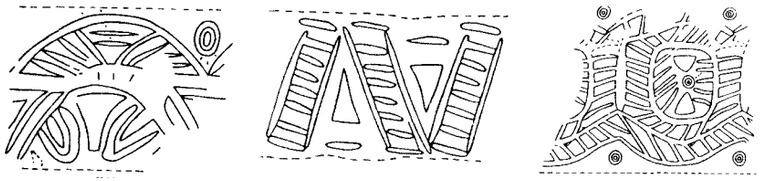

Fig. 7.4 Glazed steatite ("Piedmont Jemdet Nasr") cylinder sealings from Brak.

with pointed bases and slightly inverted bead or simple rims (fig. 7.2g), jars with pointed bases and everted rims, hand-made hole-mouth cooking pots with crescent-shaped or horizontal lugs below the rims (fig. 7.2h), and coarse disc-shaped lids. The assemblage displays a continuing trend towards increased craft specialization and mass production; the fast potter's wheel, introduced in the fourth millennium, is now used with frequency. Nevertheless, the intricate motifs of the painted and incised vessels demonstrate that elaborate decoration of at least some pottery was more important than its quick and standardized production.

If we review evidence for Ninevite 5 social and political structures, we find little evidence for the existence of states or urbanism, but the data reveal some manifestations of socio-political complexity. For example, no written records are attested for the Ninevite 5 period, but recording practices of a certain sophistication were in use. Most important is the use of cylinder seals and sealings, originally introduced in the fourth millennium BC. Indeed, an important diagnostic of the earlier part of the period is the so-called "Piedmont" or glazed steatite cylinder seal (fig. 7.4). These seals, first manufactured in proto-Elamite Iran, were produced over a vast extent of the "piedmont" of the Zagros–Taurus arc, including western Iran, the Diyala region, the upper Tigris, and the Sinjar and Khabur regions. Generally decorated with geometric motifs, the seals exhibit such patterns as rosettes, center-dot circles, and hatched bands of arches or lozenges. In the latter part of the Ninevite 5 period, Piedmont seals go out of style and are replaced by figurative seals that have stylistic and thematic parallels to Early Dynastic southern Mesopotamian glyptic but also exhibit many local peculiarities. In addition to glyptic evidence, a few numerical tallies on clay tablets from Brak and Kashkashuk III have been discovered in Ninevite 5 contexts.

With the exception of the large-scale public architecture dating to the end of the Ninevite 5 period recently excavated at Tell Leilan (see chapter 8), monumental palace or temple complexes are not attested at Ninevite 5 communities, and the tripartite architectural plans of the fourth millennium are no longer in evidence. Instead, structures identified as temples in later Ninevite 5 contexts at Chagar Bazar, Kashkashuk III, Raqa'i, and most recently Brak, are diminutive buildings consisting of a single room with a mudbrick "altar,"

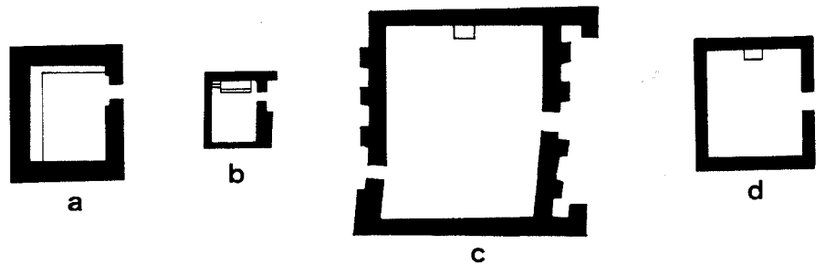

Fig. 7.5 Early third-millennium temples (scale 1:400): (a) Kashkashuk III, (b) Raqa'i, (c) Halawa, (d) Qara Quzaq.

presumably a platform for the divine image or symbol (fig. 7.5a, b).[7] Excavations below the Raqa'i structure revealed that it had elaborate sub-floor foundations that entailed digging a large pit, filling it with mudbricks, constructing a mudbrick platform above it, and erecting the temple proper above the platform. Similar complex foundation procedures have been attested in the large-scale urban temples of third-millennium southern Mesopotamia, indicating shared ideologies.

Turning to extant settlement pattern data, available surface survey results indicate a two-tier hierarchy of small centers, perhaps some 15–20 ha at most, associated with satellite villages.[8] The largest sites with Ninevite 5 assemblages in Syria include such tells as Leilan, Mozan, and Brak in the upper Khabur and Mari on the Euphrates downstream from the Khabur confluence. In the region around Brak, the trend towards urbanization and dense population observable in the fourth millennium is reversed, with a reduction from twenty-five to fifteen sites. Brak seems to have significantly diminished in size, although its precise extent is uncertain.

With very few exceptions, excavated samples from the largest Ninevite 5 sites have been quite limited. Vertical excavations exposing long occupation sequences have been the rule, rather than broad horizontal exposures. In contrast, a rich and extensive body of information has been gleaned from small Ninevite 5 sites. This development is the result of salvage excavations initiated in marginal areas of the Khabur. Dam construction began in the areas to the northwest and south of the confluence of the tributaries of the upper Khabur "triangle" in the late 1980s, and an international effort to rescue data from the small threatened third-millennium sites ensued.

This enforced concentration on marginal areas provided a rare opportunity to investigate the nature of "rural" communities in a period of developing societal complexity. Traditionally, archaeologists had favored the largest sites, centers of political and economic power where impressive large buildings, elite art, and

[7] Schwartz 2000; Matthews 1996. [8] Stein and Wattenmaker 1990.

written records could be discovered. Assuming a correlation between a site's size and the range of functions it performed, archaeologists had supposed that small villages were economically and socially homogeneous – simple communities of food producers.[9] However, Robert McC. Adams and others had emphasized that such assumptions needed to be tested and that societies had to be studied in a holistic fashion that included both large and small communities.[10]

The excavation of twelve small Ninevite 5 communities in the middle Khabur region south of Hasseke has produced a sizable and provocative corpus of data. Located just south of the current limit of dry farming, the middle Khabur area witnessed a proliferation of sites along the river in the early third millennium. The 1983 surface survey indicated a dramatic jump from five sites in the fourth millennium to as many as twenty-two in the third millennium,[11] and excavations to virgin soil at Raqa'i, 'Atij, Tuneinir, Bderi, and Melebiya have confirmed that these sites were founded in the early third millennium and were occupied for the duration of the Ninevite 5 period.

Contrary to expectations of simple villages of self-sufficient farmers, the excavations at the small middle Khabur sites revealed evidence of economic specialization and interregional connections. Most remarkably, many sites were dominated by large-scale facilities for the storage and processing of grain. At the 0.3 ha site of Kerma, a burned central granary was filled with carbonized barley and wheat, and auxiliary processing rooms had waste products of grain processing *in situ*.[12] Spaces identified as silos consisted of doorless mudbrick structures with vaulted corbelled roofs.

Comparable silo architecture was identified in levels 4 and 3 at the 0.4 ha site of Raqa'i 2 km downstream from Kerma, both inside and outside a 20 m diameter Rounded Building.[13] In the earliest Raqa'i levels 5–7 (approximately contemporaneous with Leilan IIIa), grill buildings with rows of parallel walls demarcating narrow spaces between, probably associated with subsistence-level grain storage or drying, were characteristic. Subsequently, in level 4 (= Leilan IIIb–c), the Rounded Building was constructed, with vaulted silos, brick platforms, and large ovens (fig. 7.6). The Rounded Building was reconstructed in level 3 (= Leilan IIId), and small-scale domestic architecture, an enclosed temple or shrine area, and an "industrial" area were arranged around it in a radial pattern (fig. 7.7). The large excavated sample (1400 sq. m) from Raqa'i level 3 provides a near-complete view of a small third-millennium community.

Raqa'i's specialized focus on grain storage and processing appears to be corroborated by the archaeobotanical analyses conducted by Willem van Zeist.[14] In levels 5–7, the very small amounts of diverse plant species, including both wheat and barley, suggest a subsistence economy, but the much larger

[9] Schwartz and Falconer 1994. [10] Adams 1984.
[11] Monchambert 1984a, 1984b. [12] Saghieh 1991.
[13] Curvers and Schwartz 1990; Schwartz and Curvers 1992; Schwartz 1994b.
[14] Van Zeist forthcoming; see also McCorriston 1998.

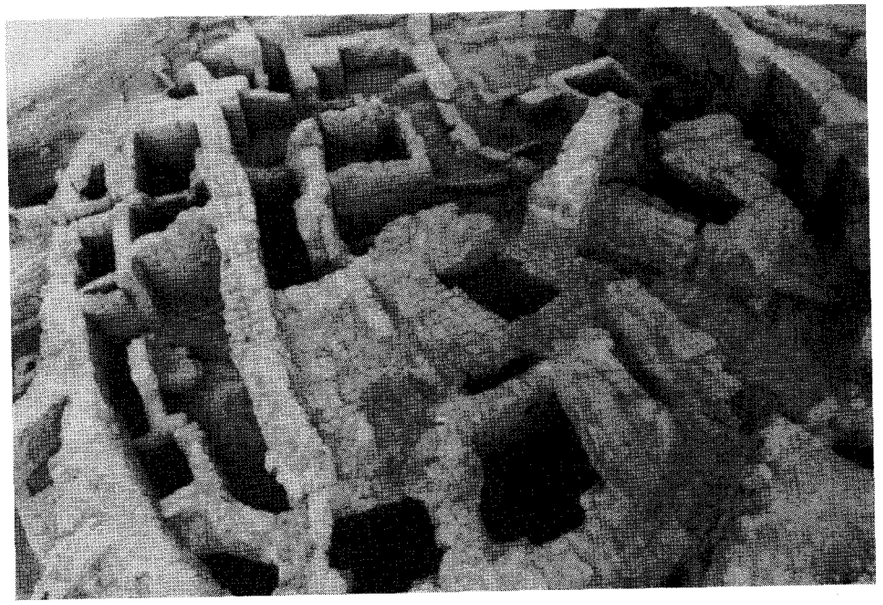

Fig. 7.6 Rounded Building, Raqa'i level 4.

quantities of cereal remains, predominantly barley, in levels 4 and 3, when the Rounded Building was in use, imply specialized surplus grain production. A comparable pattern has been observed in the faunal data by Zeder.[15] She notes the existence of a subsistence economy in the earlier levels at Raqa'i based on a broad diversity of wild and domestic species, but this strategy is supplanted in later levels by a specialized economy focused primarily on domestic sheep and goat. The same pattern is attested at the nearby sites of 'Atij and Gudeda.[16]

Another 2 km downstream from Raqa'i, 'Atij has an occupation sequence mirroring that of Raqa'i: the earliest levels include grill buildings, and the later Ninevite 5 levels have a complex of vaulted, doorless grain storage facilities.[17] The granary installations were protected by a 2.5 m thick mudbrick enclosure wall currently extant to a height of 4 m. Unlike Raqa'i, there was no unequivocal evidence of residential architecture at the site. But at Kneidig, further down the Khabur, an extensive exposure of a village with both multi-room domestic architecture and an enclosed, centrally planned (grain?) storage installation complements the Raqa'i data and is contemporary with level 4 at the latter site (fig. 7.8).[18] While the relevant excavated exposures have not been as extensive, similar indications of early third-millennium villages dominated by

[15] Zeder 1998.
[16] Curiously, a similar temporal pattern is observed at the ostensibly large center of Tell Brak (Weber in Emberling *et al.* 1999).
[17] Fortin 1998. [18] Klengel-Brandt *et al.* 1997.

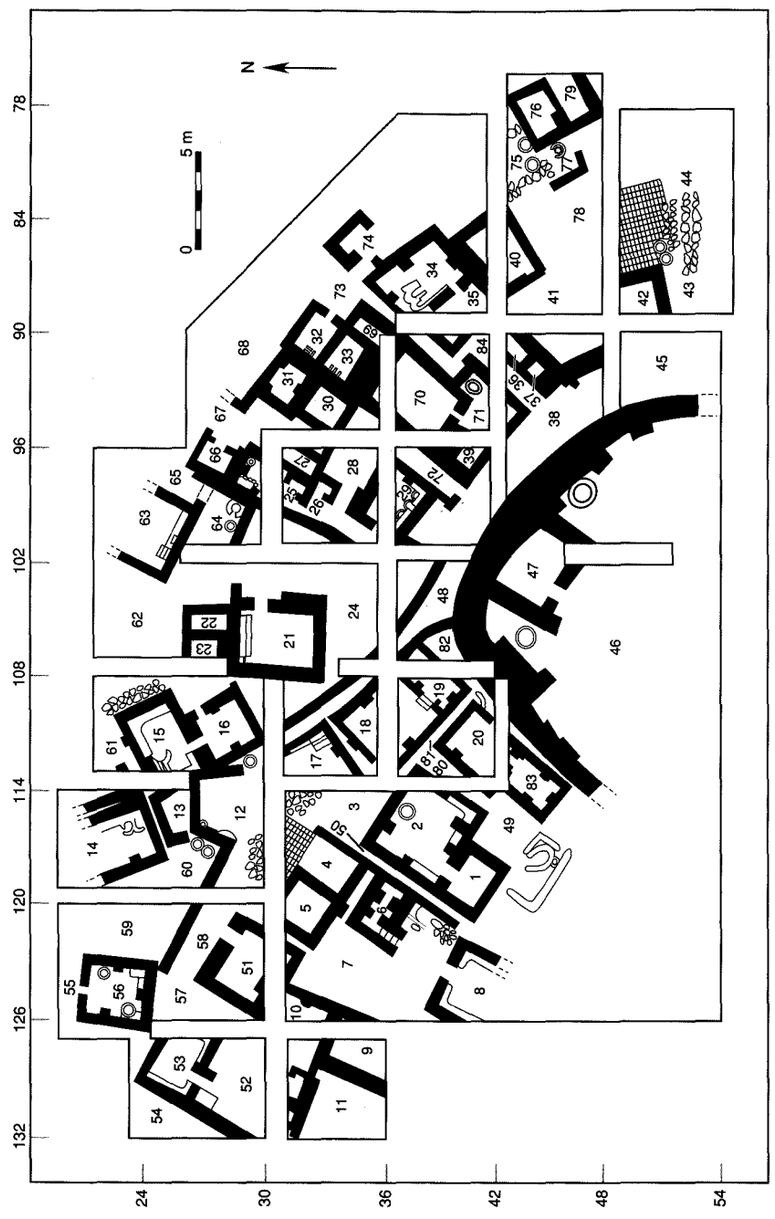

Fig. 7.7 Raqa'i level 3.

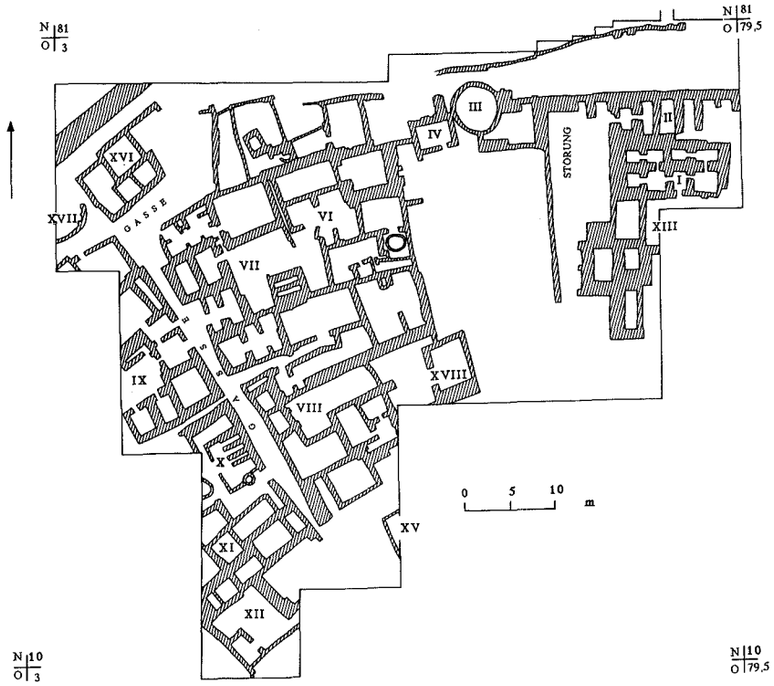

Fig. 7.8 Kneidig, early third millennium.

granary installations, with either grill or vaulted silo architecture, have been noted at Ziyadeh and Mashnaqa.

Other middle Khabur sites have not produced evidence of grain storage architecture, but they supply additional indicators of the character of these small communities. At Rad Shaqrah, upstream from Kerma, a sequence of domestic architecture reveals an evolution from single-room to two-room houses to multi-room structures.[19] A thick mudbrick enclosure wall was supplemented by a stone glacis, indicative of large-scale public architecture even in this minuscule settlement of about 1 ha. Similar large-scale architecture has been identified at Mulla Matar[20] and at the probable regional center, Bderi, some 5 ha in size, which had a town wall and mud glacis.

The proliferation of small sites along the middle Khabur in the early third millennium and their unexpected fixation on grain storage and processing has prompted extensive discussion. The excavators of Raqa'i and 'Atij, citing the large scale of the storage facilities and the small local populations, have proposed that the stored grain was not solely intended for local consumption. Although one might cite earlier examples of grain storage architecture (see

[19] Bielinski 1996; Kolinski 1996. [20] Sürenhagen 1990.

above, chapters 4 and 5) to support a local use for the middle Khabur facilities, the Khabur granaries differ in their larger size and in their enclosure walls, indicating restriction of access.[21] Noting the sophisticated architecture and presence of administrative artifacts such as cylinder seals and impressions, Fortin[22] and Schwartz and Curvers[23] have proposed that the middle Khabur granary sites operated under the auspices of a central authority concerned with mobilizing and deploying staple surpluses. They have utilized the staple finance model espoused by D'Altroy and Earle in which elites in chiefdoms or early states collect surplus staples from the population, store them, and disburse them in order to support personnel engaged in elite-sponsored tasks.[24]

If this perspective is correct, what was the destination of the surplus grain? Several possibilities have been suggested, none completely persuasive. Immediately to the north is the upper Khabur, where centers such as Tell Brak may have exploited virgin territory in the middle Khabur to acquire needed agricultural surpluses. Because the upper Khabur area receives more rainfall than the middle Khabur region, one might wonder why an upper Khabur entity would invest energy and resources in the middle Khabur. A center like Brak, however, situated in the relatively dry southern fringes of the upper Khabur, may have found the exploitation of an almost "empty" area without prior claimants profitable. Another possibility would be an association of the middle Khabur sites with a power to the south like Mari on the Euphrates. Founded in the early third millennium, Mari was situated in a relatively narrow stretch of the Euphrates valley where only irrigation agriculture was practicable and agricultural productivity was limited (see chapter 8). Although Mari is located a considerable distance downstream from the middle Khabur, textual sources from the early second millennium BC affirm that the community was in the habit of importing large quantities of surplus grain from the Khabur area and elsewhere.

Skeptical of the large scale of the storage enterprise suggested by Fortin, Schwartz and Curvers, Frank Hole proposed that the grain stored at the middle Khabur sites was minimal, primarily intended for the local sedentary population and for hypothesized nomadic pastoralists in the region.[25] While the specialized, surplus character of the grain storage operations in the middle Khabur seems ever more apparent, Hole's suggestion of a pastoralist connection has been of interest. The primary grain attested in the middle Khabur granary sites is barley, a cereal characteristically used for animal fodder.[26] Instead of feeding people, the barley may have been consumed by large flocks of animals. One might hypothesize that central authorities dispatched large herds of sheep

[21] Perhaps the grill architecture of earlier periods as well as of contemporaneous contexts is to be associated with subsistence level agriculture, while the larger, enclosed installations of the middle Khabur imply specialized storage.
[22] Fortin 1997, 1999a. [23] Schwartz and Curvers 1992; Schwartz 1994b.
[24] D'Altroy and Earle 1985. [25] Hole 1991, 1999.
[26] It should be noted, however, that barley is both textually and archaeologically attested as a major staple for human consumption in Bronze Age Syria.

and goats under the supervision of pastoral specialists to be pastured in steppe areas far removed from the main agricultural zones, avoiding conflicts between farmers and pastoralists over land use.[27] Specialized, surplus grain production is still indicated, but the grain would be used in an "indirect storage" system that converted perishable staples into longer-term commodities (livestock), whose products (wool, milk) could be consumed. Eventually the livestock themselves could be consumed for their meat.

In her analysis of carbonized plant remains from Raqa'i and 'Atij, McCorriston has concluded that local agriculture was based on dry farming, not irrigation, despite the area's low rainfall. This conclusion introduces another variable – climate change: was the dramatic increase in the number of sites along the middle Khabur in the early third millennium and the recently observed settlement of the dry slopes of the Jebel 'Abd al-Aziz to the west associated with an increase in precipitation? Data on this issue are still minimal but deserve further scrutiny.

While they have not engendered similar questions of economic strategies or interregional relationships, the small sites excavated in the salvage region northwest of Hasseke have provided further evidence on small early third-millennium communities. Tell Khazna I had extraordinarily well-preserved architecture extant as high as 8 m.[28] The complex reconstructions and reuses of the excavated buildings make their interpretation difficult, but an apparent tower, a *pisé* enclosure wall, and a dense agglomeration of small rooms with domestic appurtenances were identified. Settlements like Khazna, Abu Hgaira, Abu Hafur, and Djassa el-Gharbi share many architectural attributes with the small sites of the middle Khabur, including the use of interior buttresses, false arches, arched buttresses, and brick platforms. The sophistication of many of these features suggests that some degree of labor specialization was involved in their construction. The results in this region and in the middle Khabur demonstrate that the "rural" communities of the early third millennium were not simple, self-sufficient villages but participated significantly in regional economies and had conspicuous signs of economic specialization.

Reviewing the Syrian Ninevite 5 data considered thus far, we can conclude that although urban or state societies are not visible, there is evidence of economic specialization and of institutions with economic and political power. The existence of large-scale centralized storage and of a relatively sophisticated administrative technology (cylinder seals and sealings) provides one relevant datum.[29] Further, a certain degree of social stratification is evident in the burials, ranging from modestly furnished pit graves to relatively wealthy mud-brick tombs like the grave of a young woman at Kashkashuk III with numerous copper/bronze pins and beads, some of lapis lazuli.[30] But no monumental or treasure-laden tombs have yet been identified for Ninevite 5.

[27] McCorriston 1998.
[28] Munchaev, Merpert and Bader 1993. See also Kolinski and Lawecka 1992 on Abu Hafur.
[29] Matthews 1995:92. [30] Suleiman and Taraqji 1995; Schwartz 1986.

Given the evidence of a degree of socio-political complexity without states or cities, the Ninevite 5 societies fall somewhere between simple Neolithic-type unstratified societies and full-fledged urbanized states. To understand such societies, archaeologists often refer to the "chiefdom" model advanced by Service and Carneiro. Chiefdoms consist of societies in which communities are integrated within a single polity headed by a paramount chief and an accompanying ruling elite.[31] Elite mobilization of surplus staples (staple finance) and/or valued "wealth" objects (wealth finance) is characteristic. "Complex" chiefdoms, larger scale and more socially stratified than simple chiefdoms, are characterized by a high level of elite appropriation of surpluses in a tributary arrangement.[32] Because of the evidence of social hierarchy, appropriation and management of agricultural surpluses, and two-tier settlement hierarchies of the Ninevite 5 period, the complex chiefdom may be an appropriate model for testing hypotheses on social organization in this period. Alternatively, scholars such as Yoffee discourage reliance on ethnographically derived concepts such as chiefdoms and advocate an understanding of pre-state social organizations on their own terms.[33]

If elites can be reconstructed for the Ninevite 5 period, the emphasis on centralized storage and associated record-keeping devices (cylinder seals, sealings) may suggest that they based their power on systems of staple finance. Manifestations of an ideological or military power base are scarce, and wealth finance does not appear to be of significance, given the rarity of high-status objects. One obvious exception, cylinder seals, decorated first with Iranian and later with southern Mesopotamian motifs, may have been used to distinguish individuals of higher status and legitimize their position through access to exotic styles.

Western developments

The data from western Syria, while not as plentiful as those of the Khabur region, provide a comparable view of socio-political decentralization or ruralization in the period following the Uruk collapse. Most excavated sites are small, non-literate communities with minimal evidence of large-scale public architecture or social stratification. As in the Ninevite 5 case, however, we can observe some manifestations of socio-political complexity, including a precocious metallurgical industry and other indicators of significant economic specialization.

In general, the relative chronology of western Syria in the late fourth and early third millennia BC is still imperfectly understood (fig. 7.3). The primary sequences derive from deep soundings in the Euphrates valley sites of Shiyukh Fawqani, Qara Quzaq, Ahmar, Hadidi, and Habuba Kabira North, from Hammam et-Turkman in the Balikh, from the Amuq plain sites, and from Hama in

[31] Carneiro 1981:45; Johnson and Earle 1987:207.
[32] Earle 1987; Wright 1984. [33] Yoffee 1993.

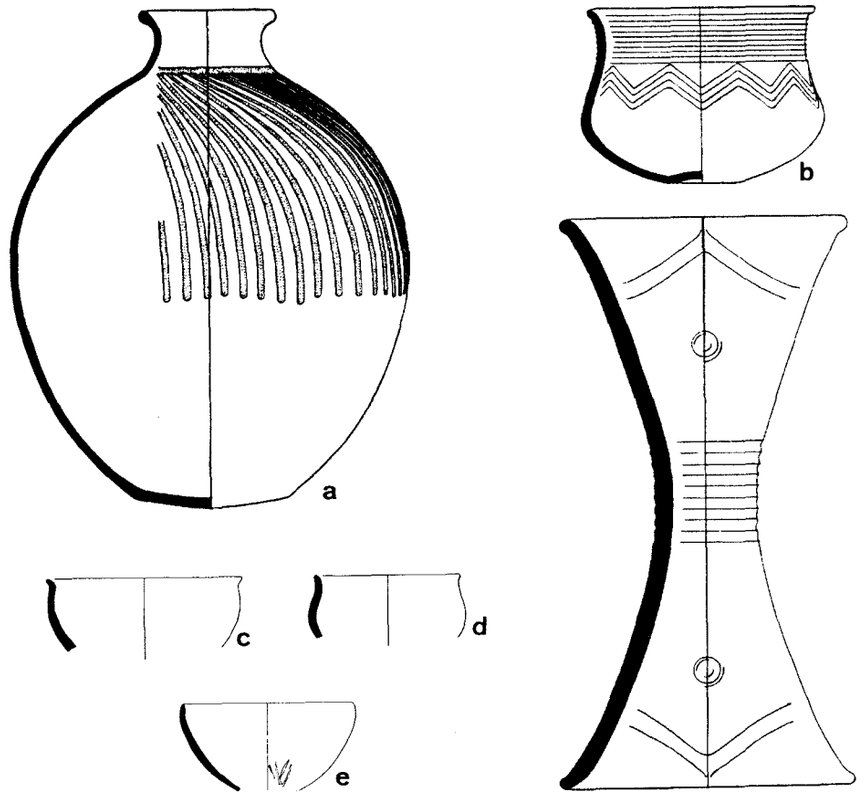

Fig. 7.9 Early third-millennium pottery from western Syria (scale 1:5).

the Orontes valley. As was the case for the fourth millennium, evidence from the regions south and southwest of Hama is extremely meager. An absolute date of *c.* 3100–2600/2500 BC for this material culture period can be suggested from the carbon-14 data available from Habuba Kabira, from the deep sounding at Tell Sukas on the coast, and from phases immediately subsequent to the period.

Characteristic of the earlier part of the period are sinuous-sided bowls (fig. 7.9c–d) and Late Reserved Slip Ware (fig. 7.9a).[34] The latter pottery type, primarily manifested by large jars with everted rims, was decorated by applying a light-colored slip to the exterior of the vessel and then wiping off oblique radial lines to expose the usually darker clay underneath. Sometimes a criss-cross pattern of horizontal and vertical lines was produced. Late Reserved Slip Ware, like a few other types of late fourth/early third-millennium pottery, displays

[34] Jamieson 1993.

a continuity with fourth-millennium Uruk period ceramic styles. While the ware was common in the regions west of the Euphrates (Amuq phase G) and in the upper Euphrates valley, Late Reserved Slip was not typical of the Tabqa dam region of the Euphrates or the Balikh. Later in the period (cf. Amuq phase H), fine green high-fired "cyma-recta profile" (i.e. sinuous-sided) bowls with small ring bases were found in approximately the same regions where Late Reserved Slip dominated, and Transcaucasian-style Red-Black Burnished pottery ("Khirbet Kerak") appeared to the west of the Euphrates (fig. 7.9b, f).

Other common west Syrian ceramic types include light-colored hemispherical bowls with simple rims (fig. 7.9e) and jars with everted rims, both occasionally incised with "potters' marks." A notable variety on the upper Euphrates at sites like Carchemish was the "champagne" cup or bowl with a tall pedestal base. Cooking vessels were relatively crude, often in the form of "hole-mouth" pots. While other varieties of pottery were often made on the fast wheel, cooking vessels were manufactured by hand, probably within each household.

As in the Khabur region, cylinder seals, first introduced during the Uruk interlude, continued to be manufactured, alongside the traditional stamp seals. Local styles were employed at sites like Tell el-Judaidah (Amuq), Halawa, and the recently excavated Tishrin sites.[35]

When reviewing the data for late fourth/early third-millennium communities in western Syria, one is struck by the modest amount of evidence. Aside from the relatively broad exposures obtained at Hama and Habuba Kabira North, most excavations have consisted of small-scale soundings. This situation has gradually improved in recent years, especially in the Tishrin dam salvage region of the upper Euphrates (e.g. Shiyukh Fawqani, Qara Quzaq, Shiyukh Tahtani, Jerablus Tahtani, Tell Ahmar, Tell Khamis),[36] but much more work must be done before the period is reasonably well documented. Generally, the available data indicate the predominance of simple, small-scale communities. Excavated exposures in the mid to late levels at Hama level K revealed an expanse of domestic architecture without any indication of central planning or of public buildings. The numerous sub-floor pit or jar burials at Hama, largely of children, were accompanied by only humble grave goods and revealed little evidence of social differentiation. Similar patterns of modest residential architecture were observed at Tell el-Judaidah phase H in the Amuq and at Ras Shamra IIIA.1 on the coast; a peculiarity of the latter site was the prevalence of deep pits with animal skeletons found intact at the bottom.[37] Survey data from the Balikh, Jabbul, Qoueiq, and Amuq corroborate the pattern of small uniform settlements, as do the excavation and survey results from the Turkish upper Euphrates (cf. Hassek 4–1, Arslantepe VIB–C).[38]

However, occasional indications of developing socio-political complexity can also be ascertained in the west Syrian data. At Ebla (modern Tell Mardikh), the

[35] Matthews 1997. [36] Del Olmo Lete and Montero Fenollós 1999.
[37] Contenson 1992. [38] Wilkinson 1990.

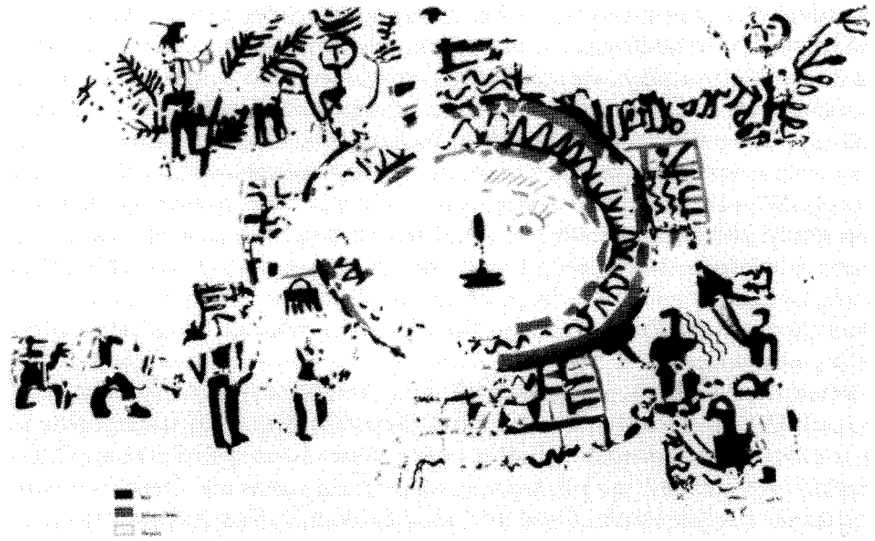

Fig. 7.10 Wall painting from Halawa.

site that has provided our most vivid evidence of mid-third-millennium Syrian urbanization, excavations below the storerooms in Royal Palace G revealed a large-scale, thick-walled storage structure interpreted as a modest predecessor of Palace G.[39] The era directly preceding the brilliant urban florescence of Ebla is of the greatest significance for understanding the origins of that civilization, and one hopes that more data will be forthcoming.

More substantial evidence for the existence of large-scale public architecture derives from Halawa in the Tabqa dam region of the Euphrates.[40] Here, excavations on Tell B uncovered a sequence of temples constructed on mudbrick platforms enclosed within a demarcated precinct. In the burned level 3, an earlier, smaller-scale rendition of the later temples yielded several wall paintings *in situ*. The best-preserved example, executed in red and black, depicts a large oval face encircled by groups of human figures, perhaps signifying the worship of a cult image (fig. 7.10). Another example of wall painting, which rarely survives in the Syrian archaeological record, is attested in a fragment from Tell al-Raqa'i level 4 showing a short-skirted man, perhaps in an offering scene.[41]

In level 2 at Halawa Tell B, a mudbrick terrace was erected and a one-room sanctuary with auxiliary rooms ("Bau II") constructed atop it (fig. 7.5c). The building's identification as a temple is supported by its elevated position on top of the platform, its exterior buttresses, and the podium ("altar") against the north wall, all characteristic of third-millennium religious architecture in Mesopotamia. Also typical of sacred architecture is the enclosure wall isolating

[39] Mazzoni 1991:173. [40] Orthmann 1989. [41] Dunham 1993a.

the structure from the surrounding community. The main, east entrance to the sanctuary, which includes a set of steps mounting the platform, is of the *antis* variety (in German, *Antentempel*) in which the two walls perpendicular to the entrance wall extend some distance beyond that wall, creating a small porch. "Kleiner Tempel 2," a small building inside the enclosure wall east of Bau II, may have served as a second sanctuary. For the construction of the level 1 temple ("Bau I"), a single-room structure with large exterior buttresses, Bau II was filled in with bricks and earth and a new mudbrick terrace was constructed above it (compare this procedure with the Raqa'i temple discussed above, and with the foundations of the recently excavated one-room temple (fig. 7.5d) at Qara Quzaq in the Tishrin salvage region[42]). Kleiner Tempel 1 to the east had an *antis*-type façade.

While the evidence for large-scale public architecture is still relatively slight for early third-millennium western Syria, the intensification of craft specialization is better documented. Metallurgical evidence is particularly robust from the Euphrates valley, both in Syria and upstream across the Turkish border. The stone cist graves excavated by Leonard Woolley prior to World War I at Carchemish contained large assortments of copper implements and weapons, as did the cemeteries at Hassek West and the Birecik vicinity on the Turkish Euphrates.[43] The limestone mold of a crescentic axehead, a type characteristic of this period in Syria,[44] was discovered at Halawa Tell B level 3, and burials at Tawi, north of Halawa, and Qara Quzaq included copper daggers or spearheads.[45] But perhaps most striking – and controversial, given their proposed early date – are six remarkable figurines found in a cache at Tell el-Judaidah phase G in the Amuq plain. Three are male, three female; the males wear helmets of silver alloy and carry a mace and spear, and two of the females sport elaborate headdresses of silver alloy. Surprisingly, the figurine bodies are tin-bronze, rather than the usual arsenical copper of this period.[46] The figurines were probably cast by the lost-wax process, in which a wax model is covered with clay and heated. After the wax melts, metal is poured into the space formerly occupied by the wax, and the clay covering is broken away after cooling.

Emblematic of the increasing prevalence of craft specialization is the sequence of workshop areas excavated at Tell Habuba Kabira North on the Euphrates.[47] In the earliest post-Uruk occupation, levels 2–3, the excavators exposed a burned building with an "industrial" zone apparently devoted to pottery production. Three circular clay vats with dried clay inside were interpreted as receptacles for levigating clay, and finished vessels were stowed on benches nearby. In level 5, the area was transformed into a workshop for the

[42] Olávarri and Valdés 1996.
[43] Woolley and Barnett 1952; Behm-Blancke 1984; Sertok and Ergeç 1999.
[44] Philip 1989.
[45] The Qara Quzaq burial is a two-chamber mudbrick tomb (Olávarri 1995).
[46] Yener 1995.
[47] Strommenger 1980.

manufacture of stone and shell beads and animal-shaped amulets. All stages of the manufacturing process were represented: raw materials, obsidian and flint tools, half-finished products, and finished ornaments. Similar materials were discovered in the level 6 workshop, and graves to the south yielded the locally produced beads and amulets as well as copper/bronze pins and other objects.

Trends towards continued specialization in ceramic production are also evident in the mass manufacture of the fine, wheel-made "cyma recta" cups. Wilkinson's survey of the environs of Kurban Höyük on the Turkish Euphrates noted that several small sites appeared to be production centers for these vessels.

Particularly relevant to the issue of ceramic craft specialization is the controversial Red-Black Burnished or "Khirbet Kerak" Ware. Discovered in the 1920s at Khirbet Kerak south of the sea of Galilee, the pottery was subsequently identified as an important diagnostic of the Early Bronze III period throughout Palestine, and it has also been discovered in some abundance in the west Syrian coastal region (e.g. Ras Shamra and nearby sites) and in the Orontes valley (Amuq plain, Ghab, Hama). Obviously alien to local pottery traditions, Red-Black Burnished Ware was soon recognized to be comparable to the indigenous ceramics of the Transcaucasian Kura-Araxes region of northeastern Turkey, Georgia, Armenia, and Azerbaijan. Red-Black Burnished Ware was declared to be "probably the most obvious instance of a pottery associated with ethnic movements."[48]

Red-Black Burnished Ware mainly consists of sinuous-sided bowls with small bases (fig. 7.9b) but also includes lids, hourglass-shaped pot stands (fig. 7.9f), and odd objects conventionally termed "andirons." Although they were hand-manufactured, the vessels were clearly the work of specialists. They were generally covered with a red or black slip; in some cases, the interior and upper exterior surfaces were red and the remainder of the exterior was black, an effect produced by changing from an oxidizing to a reducing atmosphere during kiln firing. Burnished to a high luster, the vessels were often decorated by fluting, ribbing, and relief decoration.

Since open forms were favored, the pottery was clearly not used for the transport of commodities, and recent research has demonstrated that Syrian and Palestinian examples were manufactured locally. Because there is no evidence of violent invasion in Syria or Palestine and little or no attestation of any other Transcaucasian material culture types, a large-scale migration from the far northeast is also improbable. Perhaps the most likely interpretation for the appearance of this pottery style in the Levant is the immigration of specialized craftsmen from Transcaucasia or eastern Anatolia to northwestern Syria and Palestine, producing vessels in the style of their homeland. That the pottery was well received is clear from sites like Tell el-Judaidah in the Amuq,

[48] Amiran 1968:317.

where half of the sherds examined were Red-Black Burnished Ware specimens. Although Charles Burney has hypothesized that the appearance of Red-Black Burnished Ware in the Levant represents a wave of "proto-Hurrians," the dearth of Hurrian names in the Ebla archives of the twenty-fourth century BC seems to contradict such an assertion.[49]

The Red-Black Burnished Ware issue is but one illustration of the "pots and peoples" problem that has dogged Near Eastern archaeology. What is the relationship between material culture styles and ethno-linguistic or political groups? Do pots equal peoples? In the earlier twentieth century, scholarship typically concluded that major changes in regional material cultures betokened the in-migration of new peoples or new ideas. Such migrationist and diffusionist points of view assumed that ceramic cultures were congruent with ethnic groups and that alterations in material culture could be best explained by influence from outside. By mid-century, this view had come under fire, and material culture changes were more typically attributed to internal, intra-society developments than external causes. Serious doubt was also cast on the assumed identity between material culture assemblages and ethnic groups. Ethnographic and historical evidence demonstrated that ethnic groups could employ a diversity of material culture styles, while conversely a single material culture assemblage could be used by several ethnic groups.

The problem of ethnicity, its definition, and its recognition in the Near Eastern archaeological record has been reviewed by Kramer, Kamp and Yoffee, and Emberling.[50] They note that ethnic groups and linguistic groups are often not identical and that ethnic groups can include sub-units with diverse social or economic characteristics (e.g. nomads and sedentists). While material culture markers of ethnicity may exist (e.g. Kurdish dress and rug patterns), they may not be easily recognized in the archaeological record. Ian Hodder's ethnoarchaeological research in central Africa concluded that material culture was used to express group identity in cases of pronounced competition between different groups over scarce resources. But if such conflicts did not exist, markers of group identity were less likely to be employed.[51]

In addition to craft specialization, other aspects of economic specialization have begun to surface in early third-millennium western Syria. The tiny 0.25 ha site of Hajji Ibrahim near Tell Sweyhat in the Tabqa dam region appears to have served as a specialized grain storage center reminiscent of the middle Khabur granary sites.[52] Located in a marginal steppe environment some 3 km from the Euphrates, the settlement consisted of a central residential structure with carbonized barley *in situ* encircled by storage facilities. Given its location on the steppe, the excavators of Hajji Ibrahim hypothesize that the site was used to store surplus grain for dry-season feeding of sheep and goats tended by mobile

[49] Burney 1989. [50] Kramer 1977; Kamp and Yoffee 1981; Emberling 1997.
[51] Hodder 1979. [52] Danti and Zettler 1998.

pastoralists. Sweyhat itself, a small center of some 4 to 6 ha in the early third millennium, has yielded evidence of mudbrick pit houses that are interpreted as dwellings for a semi-sedentary seasonal population.

Another adaptation to a dry environment featuring a reliance on pastoralism has been postulated for the Hawran region of southeastern Syria. At the site of Khirbet Umbashi, excavations have revealed an enclosure wall delineating some 5 ha.[53] Since no architectural remains were detected inside the enclosure, dated by carbon-14 evidence to the early third millennium BC, the excavators suggest that it was used to protect mobile encampments of pastoralists. The origins of settlement at nearby Hebariyeh have also been assigned to this period, possibly associated with a fortified structure and large cistern. Both Khirbet Umbashi and Hebariyeh, which experienced their full florescence in the later third millennium BC, were part of a group of communities in the Hawran with elaborate hydraulic systems developed for effective survival in a marginal environment. The results from Jawa in northeastern Jordan furnish the largest body of evidence from such a community.[54]

Conclusions

While both northeastern and western Syrian zones are characterized by sociopolitical organizations of limited complexity after the Uruk expansion, they did not "return" to an Ubaid-like condition of minimally integrated agricultural villages. Instead, indications of developing elites and specialized economies provide clues for the eventual appearance of full-fledged urban, complex societies in the mid-third millennium.

When considering these data, variability between east and west requires emphasis. The evidence from the Khabur and other parts of upper Mesopotamia suggests an intensification of power through the collection and control of agricultural surpluses, probably in a staple finance system. Surplus grain storage in association with an administrative apparatus of cylinder seals and sealings has been attested at the middle Khabur sites, Telul eth-Thalathat in northern Iraq, and elsewhere (see also late Ninevite 5 Tell Leilan, chapter 8). Complex societies cannot exist without such surpluses, which feed the rulers, officials, priests, craft specialists, and other individuals who do not produce their own food. Harvey Weiss has discussed the substantial agricultural productivity of the rainfall farming plains of Syria and northern Mesopotamia and their potential for generating ample surpluses.[55] While the rainfall agriculture of the region cannot produce yields as high as southern Mesopotamia's irrigation agriculture, the extensive land available for cultivation allows for ample harvests without labor-intensive canal construction and maintenance. The challenge is the extraction and collection of agricultural surpluses: how do authorities compel the

[53] Braemer *et al.* 1993, 1996. [54] Helms 1981. [55] Weiss 1983, 1986.

farmers to cultivate and surrender surplus grain, and how do they transport the grain effectively to distribution centers? The middle Khabur granary sites may provide the beginnings of evidence as to how these challenges were met.

In the west, we also find evidence of a growing elite, but with a different power base. Here, craft specialization seems to be of pronounced importance, particularly in the metallurgical sphere. Attesting to a metallurgical sophistication as well as a developing social stratification are the contents of cist graves excavated at Carchemish and other sites upstream. One might propose, therefore, that developing elites (chiefdoms?) of western Syria functioned within a system of wealth finance where items of symbolic value were acquired through elite-sponsored craft manufacture or long-distance exchange. Such objects of wealth, defining an individual's social standing and economic opportunities, would be amassed by higher-status individuals and accorded to their followers.[56] Warfare also may have played a significant role in the accumulation of power by west Syrian elites, considering the recurrent evidence of weapons in mortuary and other contexts.

But it must be emphasized that any reconstruction of the socio-political landscape of early third-millennium Syria will be necessarily speculative, given the limited and often ambiguous nature of the evidence. Whether Syrian groups were organized in chiefdoms, "simpler" structures, or other socio-political arrangements that do not fall into familiar neo-evolutionist categories is still to be determined.

[56] D'Altroy and Earle 1985; Johnson and Earle 1987:208, 222.

8

THE "SECOND URBAN REVOLUTION" AND ITS AFTERMATH

In the mid-third millennium BC, Syria experienced one of the most important transformations in its history – the full-fledged adoption of urban life and its associated institutions. In a matter of a few centuries, complex urban societies and their complete range of attributes appeared throughout the entire region. Among these were fortified cities associated with hierarchies of satellite communities, large-scale hierarchical political organizations ("states"), monumental building projects sponsored by powerful elites, lavish funerary displays of high social status, and the employment of writing. The phenomenon is observable not only in Syria, but in neighboring areas to the east in upper Mesopotamia (e.g. sites like Tell Khoshi, Tell Taya, and Tell al-Hawa in Iraq) and to the north on the plains of southeastern Anatolia (e.g. Titriş Höyük, Kazane Höyük in Turkey) (fig. 8.1). Current evidence suggests that this broad region saw the formation of a mosaic of city-states of varying power and scale. These early complex societies flourished *c.* 2600–2000 BC, in the middle and late Early Bronze Age.

We term this development the "second urban revolution"[1] for two reasons. First, diverse aspects of complex, urban society had first appeared in the fourth millennium, the period of the Uruk expansion, although they did not survive into the early third millennium. Second, the term calls attention to the possible "secondary" nature of the event: because Syria became urbanized almost a millennium after southern Mesopotamia, the likely influence of preexisting, "primary" Mesopotamian complex societies has been a persistent question. The precise role of southern Mesopotamia and the extent of this secondary character, however, remain to be fully elucidated.

Several centuries after the advent of Syrian urbanization, *c.* 2300 BC, southern Mesopotamian interference in Syrian affairs is unambiguous. In the first attempt at an ancient Near Eastern "empire," the Akkadian kings of a newly unified southern Mesopotamia campaigned and raided extensively in Syria and established at least one well-known administrative control point. The precise character and extent of this incursion and its effect on the trajectory of Syrian urban society are important problems for the archaeology of the later third millennium.

[1] Mazzoni 1991.

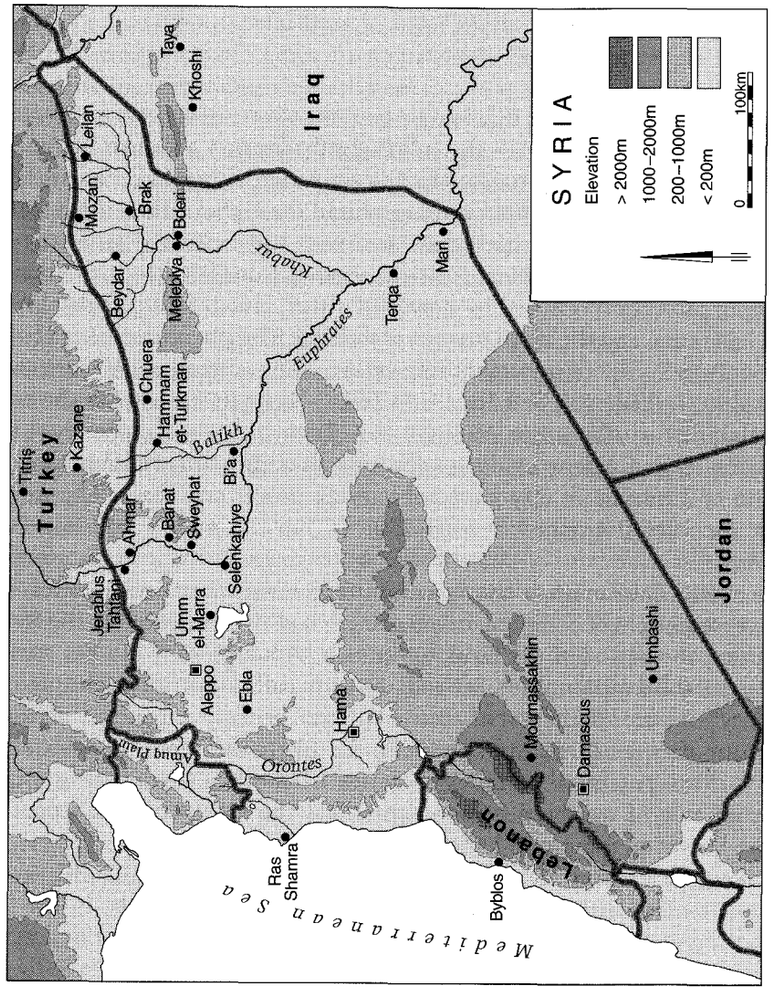

Fig. 8.1 Syria in the mid/late third millennium BC.

The final major research issue of this period is its conclusion. Towards the end of the third millennium, Syrian urban civilization suffered a major crisis, perhaps even a collapse. The apparent failure of this early experiment in urbanization has been the subject of considerable debate. Did Syrian urban life effectively disintegrate, and if so, how can this outcome be explained?

Ebla: urban civilization in western Syria

Prior to the excavations at Tell Mardikh, ancient Ebla, third-millennium Syria was generally thought of as an illiterate backwater of small communities far removed from the great developments of civilization occurring in Mesopotamia and Egypt. The results from Ebla and other sites excavated subsequently have completely transformed that perception.

Tell Mardikh is a 60 ha tell about 60 km south of Aleppo on the dry-farming plains of western Syria. Although excavations began in 1964, substantial evidence of third-millennium occupation remained elusive until 1973, when exposures below the surface of the western slope of the central high mound ("acropolis") revealed a major third-millennium complex.[2] This mudbrick structure, whose walls were preserved as high as 7 m, proved to be an extensive royal palace that had burned in antiquity, yielding a rich collection of contents *in situ*. The most stunning aspect of the discovery was the unearthing of some 17,000 clay cuneiform tablets and fragments in diverse rooms of the palace.

The mid-third-millennium burned palace G, assigned to Ebla period IIB1 (fig. 8.3), was a vast, rambling structure and is still only partially exposed. The building was arranged on two sides of a large open space termed the "court of audience" that included a raised mudbrick dais against the north wall, perhaps a base for the royal throne (fig. 8.3). In the northeast corner of the court was a square tower with an interior stairway of four flights of steps, perhaps providing access from upper chambers directly to the throne dais. To the north of the audience court was a sector apparently reserved for storage purposes, including a room containing numerous vessels and another with wooden furniture that had probably fallen from an upper floor. East of this area was the "central unit," which included substantial evidence of food-processing such as grinding stones and pestles *in situ*.

A monumental stairway of basalt steps on the east side of the court of audience ascended 6 m up the slope of the acropolis, ostensibly to rooms no longer extant. South of the stairway was an "administrative quarter" where many of the tablets were found, including a small court and perhaps a throne room. Well to the east of the main excavated areas of the palace was another excavated sector, the "southern storehouse," a group of small squarish rooms. Most

[2] Matthiae 1981; Matthiae *et al.* 1995.

	Early Jezireh periodization	Upper Khabur	Middle Khabur	Balikh and adjacent regions	Mari	Middle Euphrates	Western Syria	Southern Mesopotamia
	Pfälzner Lebeau							
2000 –					*shakkanaku* levels, Palace P-O			Ur III
	IVb V							
2100 –				Hammam et-Turkman VI West		Banat II	Amuq J Mardikh IIB2	
2200 –	IVb	Brak Naram-Sin						
	IVa IVa	"Palace"		Chuera IE				Akkadian empire
2300 –		Leilan IIb						
	IIIb	Brak Late ED III	Bderi IIIb	Chuera ID	Ishtar Palace P–1 a	Banat III	Amuq I Mardikh IIB1	
2400 –					b			Early Dynastic IIIb
					c			
2500 –	IIIa	Leilan IIa	Raqa'i 2 Bderi IIIa	Chuera IC		Banat IV		
								Early Dynastic IIIa
2600 –	II	Leilan IIId	Raqa'i 3 Bderi II	Chuera IB				

Fig. 8.2 Mid/late third-millennium BC chronology.

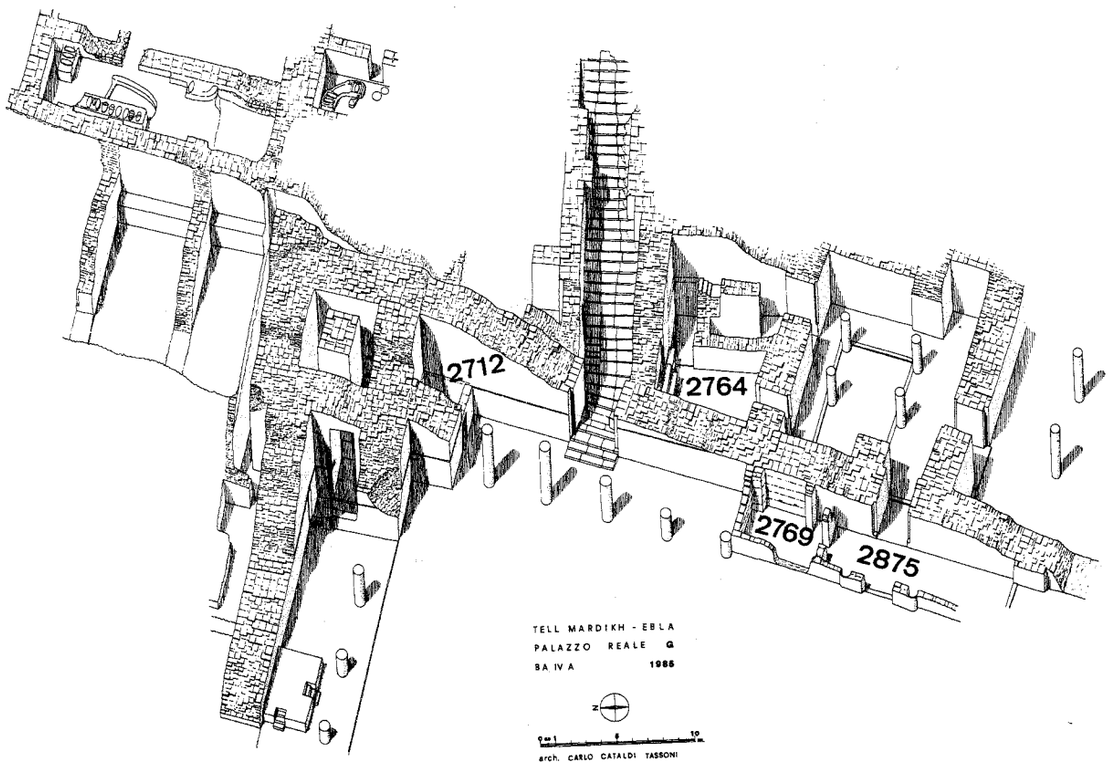

Fig. 8.3 Ebla palace G, central area.

Fig. 8.4 Tablets *in situ*, Ebla palace G.

recently, a possible royal tomb was discovered some 5 m below the floors of the palace. Completely plundered, the two-chambered structure was built of dressed limestone blocks and was originally roofed with a corbeled vault.

Despite the names given to the different segments of the palace by the excavators, their functional interpretation is often ambiguous. Mazzoni's[3] study of the pottery distribution, for example, showed a relative homogeneity of types in the different rooms, suggesting a multifunctional aspect to many areas of the structure. However, the purpose of the "southern storehouse" seems relatively clear, given the residues of cereal seeds and olive pits found there, and Dolce[4] suggests that the rooms contained foodstuffs for the immediate needs of the palace establishment.

The clay cuneiform tablets were excavated in 1974–6 (fig. 8.4) and distributed in several rooms, allowing for identification of different archives with specific functions. The largest group of some 2500 texts was found in stacks fallen on the floor of L. 2769, a small room appended to the east edge of the court of audience. The tablets, mainly administrative records of textiles distributed, stored, or received by the palace, had been stored on wooden shelves whose indentations were still visible in the walls of the room. The "vestibule" L. 2875 to the south of L. 2769 contained tablets along with possible accessories for inscribing them, such as bone styluses and a stone for smoothing the surface of a tablet. In cubicle L. 2712 in the northeastern corner of the court of audience was an archive of texts concerning food rations for dependents of the royal

[3] Mazzoni 1988. [4] Dolce 1988.

establishment, while the trapezoidal room L. 2764 south of the monumental stairway yielded agricultural records.

One of the most important aspects of the discovery of the Ebla texts was the revelation that they were written in a local, Semitic language, thereby providing the earliest extensive documentation of any Semitic tongue. Since the texts employed the cuneiform system developed in Mesopotamia for writing Sumerian, however, they made copious use of Sumerian and of "Sumerograms," Sumerian words intended to be read in Eblaite through the addition of syllabic signs. The complicated mix of Sumerian and Semitic creates a difficult task for students of the Ebla texts, and there has been considerable debate on the interpretation of various passages. It is now clear, however, that the sensational claims of biblical names and connections originally asserted for the texts (e.g. references to Sodom and Gomorrah) have no credibility.

The Ebla documents predominantly consist of the administrative records of the local royal establishment, which was a vast, highly centralized and bureaucratized institution. Thousands of officials, artisans, and laborers associated with the palace were supported with rations of foodstuffs. Immense flocks of sheep were owned by the palace, and the production of woolen textiles and their distribution to local individuals and foreign dignitaries were primary concerns in the archives. In addition to administrative documents, the Ebla tablets include occasional literary compositions, as well as lexical texts that are duplicates of examples from Fara and Abu Salabikh in southern Mesopotamia, underlining the importance of the Mesopotamian connection in the adoption of writing at Ebla.

Not only do the Ebla texts supply an incomparable source of data on the organization and character of the Eblaite state, they also provide information on social, political, and economic conditions in northern Syria in the mid-third millennium. Apparently, the region was comprised of city-states with tripartite political structures consisting of king, royal officials, and "elders."[5] Presumably, the elders were representatives of important families integrated into the royal establishment. Their political significance attests to the concurrence of both kin-based and class-based institutionalized power in these early Syrian states. The texts detail the growth of Ebla and Mari as competing regional powers, vying with each other over spheres of influence, particularly in the Euphrates area. At its height under the last kings Irkab-Damu and Ishar-Damu, Ebla dominated the region from the Amuq plain in the west to the Euphrates in the east and Hama in the south, and Mari delivered a high annual tribute in silver and gold.

The economic and political power of Ebla and its palace establishment are at least partly suggested by the material culture finds of Palace G. In the administrative quarter, room floors were strewn with clusters of unworked lapis lazuli chunks totaling an astonishing 22 kilograms. Lapis was only available

[5] Archi 1988.

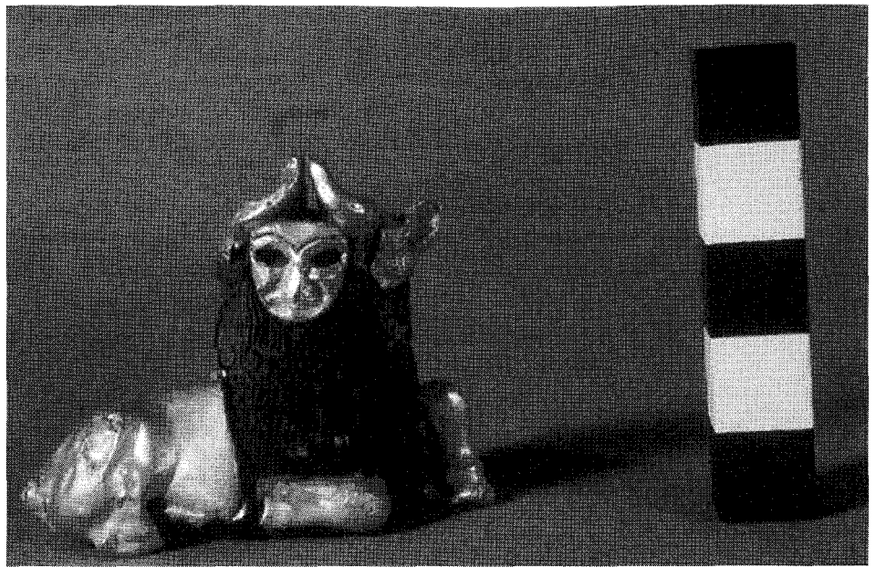

Fig. 8.5 Human-headed bull figurine from Ebla palace G.

from Badakhshan in eastern Afghanistan, over 3000 km distant, and perhaps arrived from the east via Mari, the strategic Euphrates control point between southern Mesopotamia and Syria. Given the rarity of lapis and the expense of its importation from a vast distance, it is not unlikely that the lapis trade was a royal monopoly at Ebla, as Pinnock has suggested.[6] Fragments of Egyptian alabaster and diorite vessels, including a lid with an inscription of King Pepi I of the Sixth Dynasty, indicate contact with Egypt, probably via the port of Byblos on the Mediterranean in Lebanon. Byblos had developed very strong connections to Egypt by the mid-third millennium, manifested by a profusion of Egyptian objects, some of which even suggest Egyptian administrative control over this important gateway to Asia. It is probable that lapis lazuli was one of the main commodities available from the Syrian interior that were of interest to the Egyptians.

Also impressive to the modern eye are the finished art objects found in the burned remains of the palace. Objects like the human-headed bull figurine composed of steatite and gold foil attached to a wooden core (fig. 8.5) attest to the high level of craftsmanship sponsored by the Eblaite elite. Characteristic of the palace G art finds are elements of composite sculptures, especially miniature headdresses ("wigs") of dark stone or lapis lazuli probably used as the coiffures for figurines made of wood or other materials. The so-called "Standard of Ebla" consisted of limestone inlays applied to wooden panels used for wall

[6] Pinnock 1988.

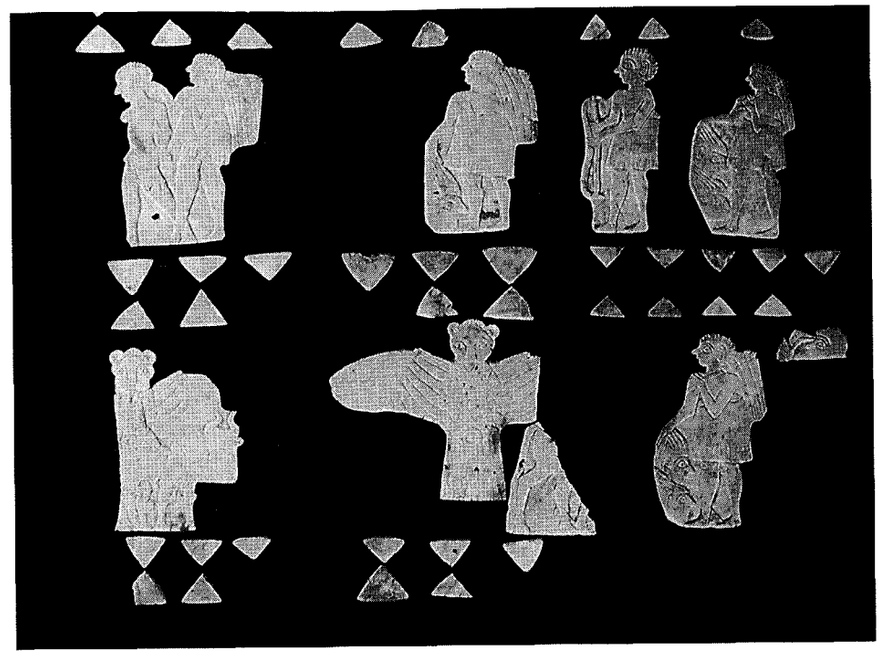

Fig. 8.6 Limestone inlays from the "Standard of Ebla."

decoration (fig. 8.6). The registers of the Standard depict processions of victorious soldiers with captured or beheaded enemies as well as mythological scenes like the lion-headed eagle (Anzu) mastering two human-headed bulls. A workshop for high-quality art of this type was recently discovered in building P4 northwest of the Ebla acropolis, one of the few period IIB1 structures excavated outside of palace G.[7]

Cylinder seals retain and intensify their importance as indicators of ownership and administrative control in this period, and the glyptic of the Ebla palace includes a number of exemplary products of the seal-cutter's art (fig. 8.7c–d). As in other areas of elite art, Mesopotamian models played an important role, and influence from the Mesopotamian Early Dynastic IIIb period is apparent in scenes of contests between interlocked humans and animals. Nevertheless, a distinctly local "spin" was given to these productions, with a preference for frontality and for figures such as the "cow woman" and the goddess dominating wild animals.

Cylinder seal impressions were occasionally found on ceramic jars in palace G along with incised "pot marks." While seal impressions on pottery are well known in the mid-third millennium Levant,[8] the numerous examples *in situ* in the Ebla palace have allowed Mazzoni[9] to propose a viable interpretation for

[7] Marchetti and Nigro 1995–6. [8] Ben-Tor 1978. [9] Mazzoni 1992.

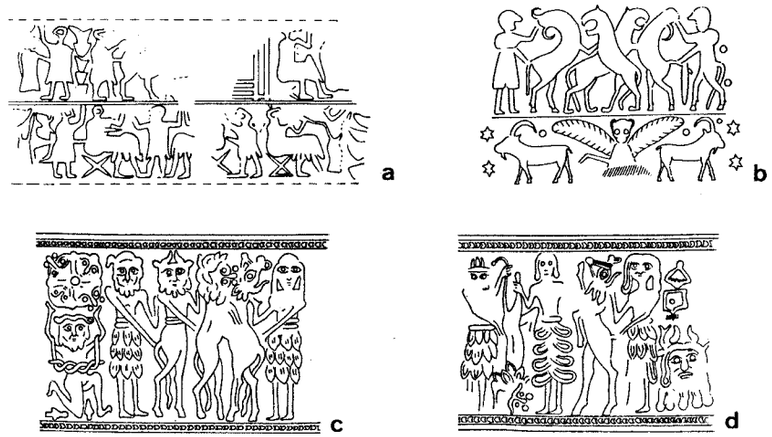

Fig. 8.7 Mid/late third-millennium BC cylinder seal art from Brak (a–b) and Ebla (c–d).

the practice. Noting that the relatively simple, linear sealings on the vessels revealed minimal evidence of the careful artistry and Mesopotamian influence of other glyptic examples from the palace, Mazzoni concluded that they represented "popular" styles produced outside of Ebla itself. Therefore, she has suggested that the jars contained foodstuffs collected, i.e. taxed, by the Ebla central administration. Manufactured in hinterland areas, the jars were marked with sealings and/or incised symbols to indicate the quality of the product they contained and its place of origin. After the vessel was filled, it was shipped to the palace's storage facilities.

Like the art found in palace G, the pottery of Ebla period IIB1 reflects the intensification of craft specialization characteristic of Syria in this period. The Ebla pottery is part of the "caliciform" assemblage that appears in mid-third-millennium western Syria, typified by fine, thin-walled, mass-produced goblets often decorated with horizontal corrugation. Manufactured "off the hump" on the fast wheel, these vessels were mass produced and standardized to an unprecedented degree. In addition to the small, fine goblets (fig. 8.8c–e), probably employed for drinking wine and other liquids, the IIB1 assemblage included large bowls with thickened rims and ring bases, storage jars with grooved rims, everted-rim jars and hemispherical bowls decorated with horizontal reserve slip, globular hole-mouth, hand-made cooking pots, and large hand-made jars with painted wavy vertical bands (fig. 8.8i).[10]

This specialist-produced assemblage is associated with the appearance of urban and state societies in mid-third-millennium western Syria, and its geographical distribution roughly approximates the economic and political

[10] Mazzoni 1982.

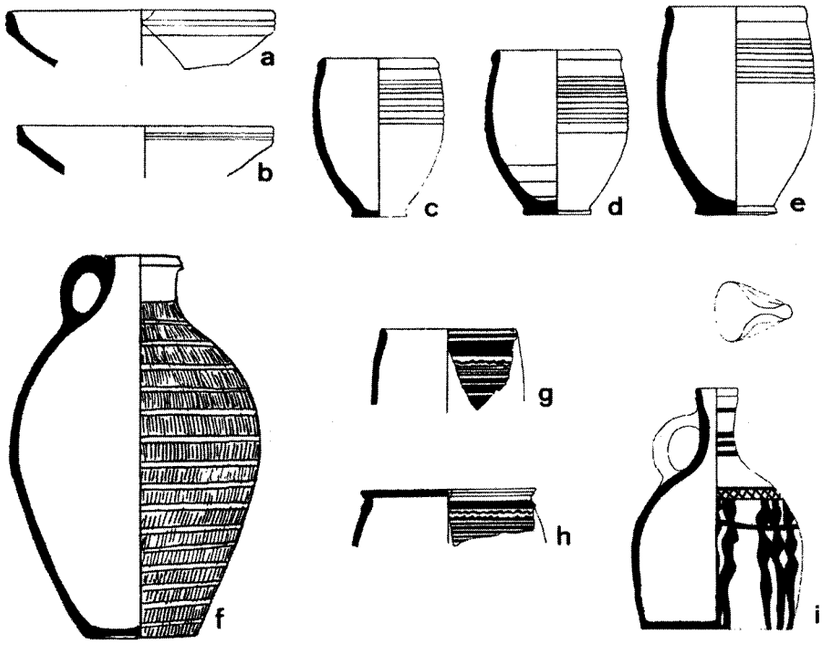

Fig. 8.8 Mid/late third-millennium BC pottery from western Syria (scale 1:5 except f, 1:10).

hegemony of Ebla. Mazzoni, al-Maqdissi and others have recognized regional subdivisions within the assemblage, including a southern group in the Hama vicinity, a coastal variant, a northern zone including the regions around Aleppo, and a Euphrates valley region. The earlier phase of this assemblage, approximately contemporaneous with Ebla period IIB1 and perhaps extending back a century or two earlier, has been termed "Early Bronze IVA" by some authorities, and it can be recognized at Amuq phase I and Hama levels J8-5 and dated to *c.* 2500–2300 BC.[11]

It is generally accepted that the Ebla archives concern a period of not more than forty or fifty years, spanning the reigns of the kings Igrish-Halam, Irkab-Damu, and Ishar-Damu and their hereditary ministers Ibrium, Ibbi-Zikir, and Dubuhu-Adda. What has been the subject of controversy is the date of the destruction of palace G. In their royal inscriptions, the southern Mesopotamian kings Sargon and his grandson Naram-Sin, rulers of the Akkadian empire, both claimed to have subjugated Ebla. Naram-Sin also maintained that "no previous king had ravaged Armanum and Ebla." At present, the analysis of the

[11] Many authorities use the terms EB I, II, III, IVA, and IVB, but only the latter two designations are explicitly tied to stratigraphically derived assemblages, i.e. Mardikh IIB1 and IIB2 or Amuq I and J. The others are usually employed in a frustratingly vague way.

tablets and material culture indicates a contemporaneity of the last decades of palace G with the late Early Dynastic III or early Akkadian periods in southern Mesopotamia. Therefore, Sargon is the likely destroyer of Ebla palace G, whose demise should be placed in the later twenty-fourth century BC. Still to be explained is Naram-Sin's claim of primacy of destruction.

After the destruction of palace G, Ebla continued to function as an important regional center in the succeeding period IIB2, *c.* 2300–2000 BC, and occasional references to personages from Ebla appear in the texts of Ur III period southern Mesopotamia. However, the palace G area was abandoned and settlement confined to the northern part of the site. In the northern lower town, an "Archaic Palace" with a trapezoidal plan was constructed. The Ebla IIB2 period, sometimes designated "Early Bronze IVB," corresponds to the later phase of the caliciform assemblage, notable for goblets with dark painted bands incised with straight and undulating horizontal lines (fig. 8.8g–h), a type peculiar to the area west of the Euphrates. Also prevalent were shallow bowls with vertical and occasionally grooved rims (fig. 8.8a–b) and Smeared Wash Ware, which consisted of large jars with a red wash partly smeared away in undulating patterns. Around 2000 BC, Ebla was burned once again and the IIB2 occupation came to an end.

The results from elsewhere in western Syria may not be as dramatic as those of Ebla, but they reveal an analogous development of urban civilization. Relevant survey data indicate a significant increase in the number of settlements in the mid-third millennium as well as the appearance of large nucleated sites serving as regional centers. Regions with dense, urbanized populations included the Qoueiq drainage near Aleppo (e.g. Tell Rifa'at), the Jabbul plain east of Aleppo (with Umm el-Marra founded as a walled center and Abu Danne fortified), the Ebla region, the Orontes valley (Hama, Mishrife-Qatna), and the Amuq plain.

In a significant discovery made recently at Umm el-Marra east of Aleppo, a small elite tomb was found containing the remains of eight individuals in three layers, its contents still intact.[12] In the top layer were the skeletons of two young women, each with a baby, while the remains of men and an additional baby were found in the layers below (fig. 8.9). The women were adorned with gold, silver, and lapis lazuli ornaments, while the men beneath were accompanied with more modest items. This tomb, apparently free-standing, appears to be part of a larger structure and as such might be compared to the free-standing, conspicuous mortuary monuments from Tell Ahmar, Jerablus Tahtani, and Tell Bi'a on the Euphrates (see below).

Prior to the discoveries at Ebla, the main point of reference for mid to late third-millennium Syria was the sequence provided by the 1930s excavations at Hama,[13] one of the chief urban centers of the Orontes region, possibly mentioned in the Ebla texts as Amad. The large excavated exposure (over 1600 sq. m)

[12] Schwartz *et al.* 2000b. [13] Fugmann 1958.

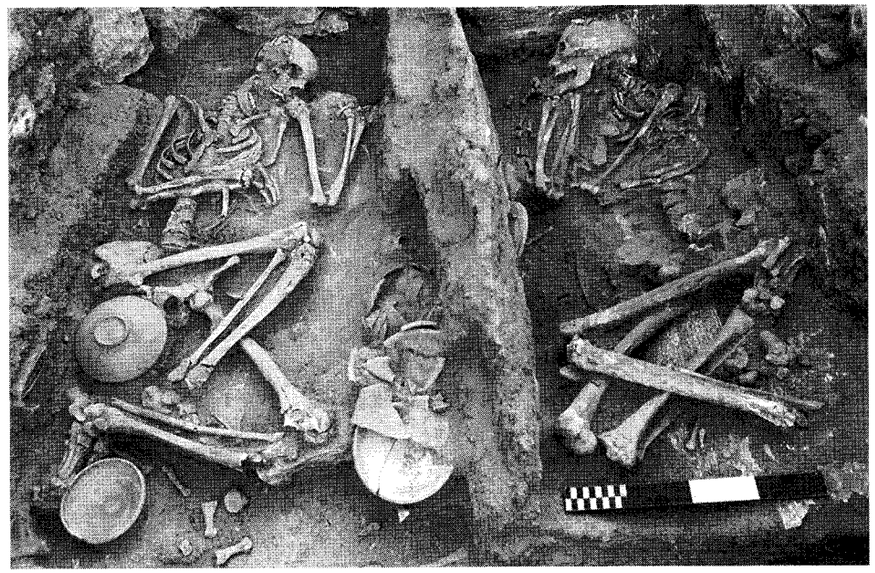

Fig. 8.9 Umm el-Marra elite tomb, men buried in middle layer.

and lengthy sequence remain invaluable, although the evidence is compromised by the questionable stratigraphy. However, the Hama data mainly derive from mundane domestic contexts and thus supply a useful complement to the monumental and elite material from Ebla. The relevant levels are J8-1, characterized by a caliciform pottery assemblage. In levels J8-5, with ceramics comparable to Ebla IIB1, a residential quarter with multi-room free-standing houses of mudbrick above stone foundations evolved into a densely occupied warren of small-roomed houses separated by narrow alleys. All J8-5 occupations except J7 were destroyed by fire or other means. Following the J5 destruction, levels J4-1, with pottery comparable to Ebla IIB2, saw a progressive diminution of settlement in the excavated area.

The massive 100 ha tell of Mishrife, ancient Qatna, south of Hama on the Orontes near modern Homs, must contain the remains of a major mid to late third-millennium city, but the 1920s investigations only acquired small samples from the period.[14] Most of the data collected came from the rich shaft grave Tomb IV, which included forty skeletons, well over 100 copper/bronze weapons and ornaments, and abundant pottery. Tombs were also excavated by du Mesnil du Buisson at nearby Dnebi and Selimiye. West of Qatna, an important mid to late third-millennium center has been identified at Tell Nebi Mend, ancient Qadesh, but few results have been made public thus far.[15]

[14] Du Mesnil du Buisson 1935. [15] Parr 1997.

In the Mediterranean coastal region, the sequence from the Amuq plain continues to supply an essential baseline. The mid to late third millennium is divided into two phases, Amuq I, with an assemblage similar to Ebla IIB1 but with the continued presence of Red-Black Burnished Ware, and Amuq J, comparable to Ebla IIB2. Red-Black Burnished Ware also continues in use at Ras Shamra levels IIIA2 and IIIA3, where the absence of painted Ebla IIB2/Amuq J style painted goblets may indicate an abandonment by *c.* 2300–2200 BC. Excavation of a small sounding on the Ras Shamra acropolis uncovered the remains of an olive press that included two plastered slabs with notches for the evacuation of liquid and two adjacent plastered subterranean vats to catch the oil.[16] Also indicative of the importance of the local olive oil industry are high-fired combed storage jars (fig. 8.8f) found at Ras Shamra and other coastal sites like Simiryan and Sianu;[17] these vessels are comparable to Palestinian Early Bronze III examples used as olive oil and wine containers. The presence of combed jars, unattested in the Syrian interior, also underlines the distinctive character of the coastal material culture.

Cities and cemeteries along the middle Euphrates

The mid to late third millennium saw a marked increase in the number and size of sites in the middle Euphrates valley, indicating the emergence of an urbanized and dense population.[18] Because of the profusion of mid to late third-millennium sites, the salvage operations precipitated by the Tabqa (Thawra) dam project of the 1960s–1970s and the Tishrin dam project of the 1980s–2000s have produced an extraordinarily rich and diverse body of evidence on this period. The region did not generate immense urban centers with interregional power like Ebla or Mari, nor has it yet produced significant evidence of writing, but the middle Euphrates clearly was a key participant in the development of complex societies evident throughout Syria.

Despite the voluminous data collected from the region, the middle Euphrates relative chronology is still imperfectly understood. This situation exists partly because much of the published pottery was retrieved from burials used over many generations or with unclear stratigraphic contexts.[19] Evidence for a local sequence has begun to be pieced together from sites like Banat, Ahmar, and Selenkahiye. The earliest well-defined phase is provided by Tell Banat period IV, dated to *c.* 2600–2450.[20] The Banat IV ceramic assemblage includes tall-necked jars with everted rims, bead-rim open bowls and cups, bowls with pedestal bases, and "Euphrates Banded Ware" (fig. 8.10b–c). The latter category consists of fine, high-fired, thin-walled (often eggshell thin) vessels, most commonly tall-necked ledge-rim globular jars, frequently painted with red horizontal parallel bands on the neck and upper body. These vessels often had an orange or

[16] Courtois 1962. [17] Bounni and al-Maqdissi 1994.
[18] McClellan 1991. [19] Jamieson 1993. [20] Porter 1999.

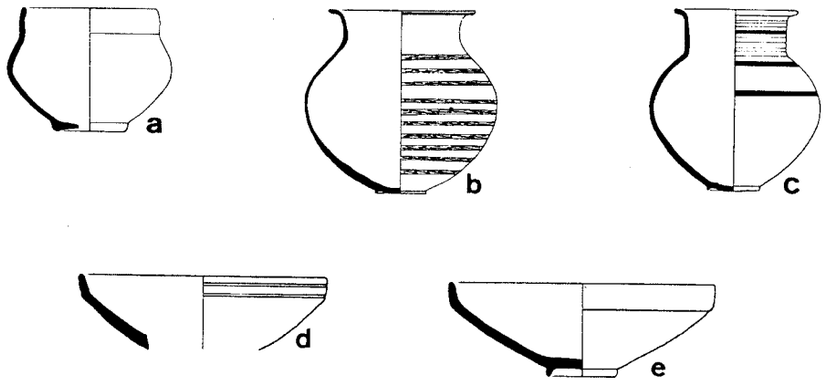

Fig. 8.10 Mid/late third-millennium BC pottery from the middle Euphrates valley (scale 1:5).

red paste and were customarily decorated by spiral burnishing, which consists of the application of a thin tool to the vessel exterior as it turns on the wheel, producing a pattern of horizontal striations.

In the succeeding period III at Banat, dated *c.* 2450–2300, many of the characteristics of the caliciform assemblage typical of western Syria make their appearance, including wheel-made mass-produced corrugated goblets and cups. Hand-made, often burnished cooking jars with triangular lugs at the rim also become common, as well as large bowls with thick bead rims and jars with horizontal reserve slip. This period, approximately comparable to "Early Bronze IVA" as in Ebla period IIB1, Hama J8-5, and Amuq I, is well represented in the earlier levels at Selenkahiye and sees the continued use of Euphrates Banded Ware as well as other specialized varieties like gray spiral-burnished "Syrian bottles" and Combed Wash Ware. In the later third millennium, *c.* 2300–2000 BC, the caliciform assemblage continues in use and is well attested at Sweyhat, later Selenkahiye, and Banat II. New types include shallow bowls with vertical rims (fig. 8.10d–e) and goblets with collared rims (fig. 8.10a), while Euphrates Banded Ware painted jars disappear. Although comparable to Ebla IIB2, Hama J4-1, and Amuq J ("Early Bronze IVB"), this Euphrates assemblage maintains its local peculiarities, eschewing the painted caliciform goblets common west of the valley.

If we consider the distribution and size of contemporaneous sites in the valley, we may recognize a range of cities, smaller centers, and villages. Among the cities, probably the centers of small political entities, we may number such sites as Selenkahiye, Hadidi, Banat, and, late in the period, Sweyhat. Third-millennium Emar, mentioned copiously in the Ebla archives, has not been significantly explored but apparently is located below or adjacent to the second-millennium city of Emar.[21] At 25 ha Tell Banat, excavations have provided

[21] Finkbeiner 1999–2000.

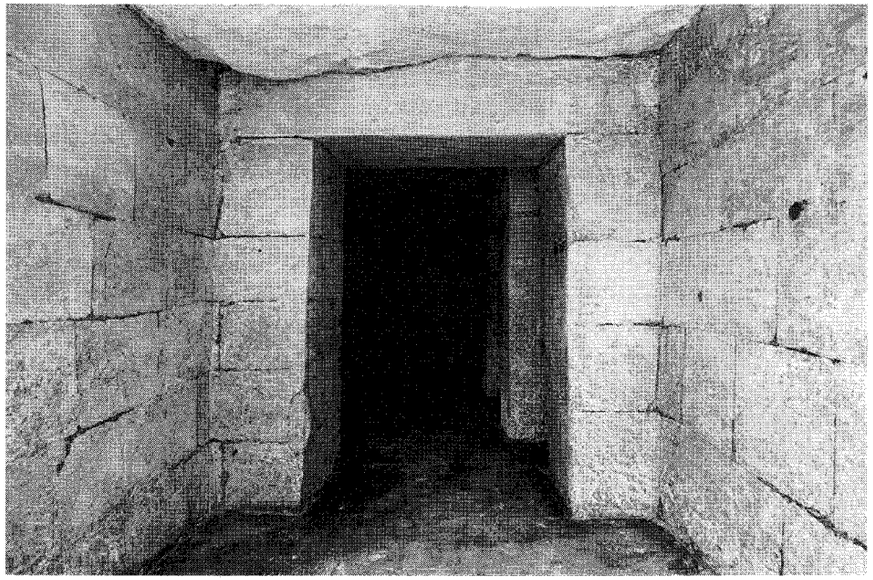

Fig. 8.11 Banat, tomb 7.

striking evidence of an economically prosperous center dominated by a powerful and ostentatious elite in the mid-third millennium.[22] An industrial zone on the western side of Tell Banat had numerous pottery kilns, while impressive monumental architecture was detected in the site center. Here the construction of a massive artificial gravel platform at least 3.5 m deep indicates the impressive scale of labor organization and resources accessible to the local authorities. A set of large-scale buildings were built on terraces dug into the platform; unfortunately, the presence of modern village houses has impeded the coherent exposure of these structures. But especially remarkable is the monumental tomb 7, also dug into the gravel platform. Virtually unique to third-millennium Syria, this five-room structure was built of dressed stone blocks carefully cut and fitted into place (fig. 8.11), and it was roofed by nine immense limestone slabs 3 by 2 m each. The interstices between the roof slabs and the stone blocks of the walls were sealed with bitumen, and a bitumen floor was installed above a baked clay tile floor. Although the tomb had been robbed, enough of its contents remained to allow the excavators to identify materials from Banat periods IV and III (*c.* 2600–2300 BC), indicating reuse of the tomb through time. Inside the tomb was a disarticulated burial associated with gold and lapis lazuli pendants, beads, and bottle stoppers. Obviously, the tomb was associated with a person or persons of elevated status, probably a local ruler.

[22] McClellan and Porter 1997, 1999; McClellan 1998.

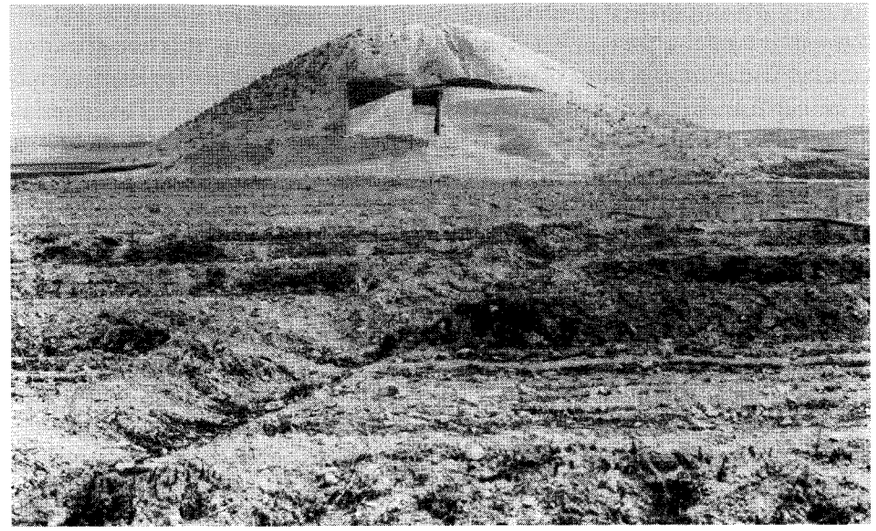

Fig. 8.12 Banat, White Monument.

Perhaps even more remarkable is the evidence from Tell Banat North, a conical mound 100 m in diameter and 20 m high (fig. 8.12). Rather than the small settlement originally expected, this tell has been identified as a single structure, the "White Monument," so-called because of the layers of white marl and reddish gravel added against the core of the original structure. The original construction was encased in a stepped, corrugated mud layer reminiscent of a ziggurat, but there was no evidence of a shrine on top. Instead, the discovery of skeletal remains inside the mud "skin" of the original construction suggests that the White Monument was a funerary structure. Whether it functioned as a tumulus for an important ruler accompanied by retainers or something else remains to be established.

The Banat monuments are in many ways unique in third-millennium Syria, but additional examples of large and well-furnished elite tombs are known from several other middle Euphrates sites. Perhaps the most famous is the "hypogeum" from Tell Ahmar, ancient Til-Barsib,[23] a corbeled tomb built of stone boulders and roofed with huge stone slabs. Accompanying two skeletons were 1045 complete vessels and thirty-five copper/bronze axeheads, daggers, spearheads, and ornaments. The pottery and copper/bronze objects were characteristic of both the middle and later third millennium, suggesting continued reuse of the tomb. Reinvestigated in 1989, the structure was shown to be part of a multi-room above-ground complex rather than an independent edifice.[24]

[23] Thureau-Dangin and Dunand 1936. [24] Bunnens 1993–4; Roobaert and Bunnens 1999.

A similar monumental tomb was recently discovered downstream from Carchemish at Jerablus Tahtani.[25] Like the Til-Barsib hypogeum, this free-standing corbeled structure was built of undressed stone blocks, but it was also covered by an earth mound. Although robbed, the tomb still contained the remains of twelve adults and children and a rich trove of accompaniments including gold and rock crystal beads, silver pins, gold foil, bronze axeheads, spears, and daggers, and many hundreds of pottery vessels. The tomb was encircled by a number of "satellite" pithos burials. Its location at a relatively small site is curious and could indicate the presence of a wealthy elite even at smaller communities or a special burial place reserved for the elite of the region.

Downstream from Tell Banat on the west bank is an urban-sized center at Selenkahiye.[26] In contrast to Banat, with its monumental and public structures, Selenkahiye provides an extensive sample of residential architecture and non-elite graves. In its early period of occupation, approximately contemporary with Ebla IIB1 (EB IVA), the central 10 ha zone was enclosed inside a fortification wall associated with a rock-cut moat. After its destruction at the end of this period, the wall was reconstructed and widened by filling in adjacent rooms with bricks, accompanying a new occupation contemporary with Ebla period IIB2 (EB IVB). A broad exposure of domestic architecture excavated in the west center revealed a network of streets lined by densely packed houses associated with graves. The grave goods and the contents of the houses, the latter including lapis lazuli ornaments and fragments of stone votive statues, suggest considerable affluence and sophistication in these households. In the southwest, a thick-walled "mansion" of seven rooms containing numerous jar sealings probably served administrative as well as domestic purposes, but no definitive palaces or temples were identified at the site. Widespread conflagration and destruction brought this period of prosperity to an end *c.* 2000 BC, and a modest reoccupation was soon followed by complete abandonment.

An example of a smaller middle Euphrates community is Habuba Kabira North, a few kilometers upstream from Selenkahiye, which maintained its focus on craft specialization in this period.[27] A set of rooms interpreted as a textile workshop was excavated in level 7, with vats and dyes *in situ*, and a metallurgical facility was identified in the later level 14 occupation, including limestone molds, terracotta elements of a bellows, and a hoard of copper/bronze ingots, tools, and weapons. Although a relatively diminutive settlement, Habuba was provided with an enclosure wall and a building interpreted as a small temple. A similar small fortified community that focused on craft specialization existed at nearby Tell Qannas, yielding evidence of pottery production and a metallurgical installation.[28]

The demarcation of sites by fortified enclosure walls seems to have been the norm in this region, even for small sites like Qannas and Habuba Kabira North.

[25] Peltenburg 1999b; Peltenburg *et al.* 1995.
[26] Van Loon 1979, 2001. [27] Strommenger 1980. [28] Finet 1979.

Fig. 8.13 Temple *in antis*, Halawa.

Banat, Hadidi, and Selenkahiye were among the large urban centers provided with defensive architecture, and Sweyhat, which expanded to 35 ha *c.* 2200 BC, had brick walls enclosing both its central high tell and its newly occupied lower town. More modest-sized communities with excavated enclosure walls included Munbaqa, Halawa Tell A, and Tell al-'Abd. Smaller sites could also have "forts," such as the 300 m square building at Jerablus Tahtani. Although the existence of earth and/or pebble glacis constructions is traditionally associated with the early second millennium Levant (Middle Bronze Age), evidence of such structures in the third millennium has begun to proliferate at many of these sites.

Temples identified at middle Euphrates sites are usually of the long-room *antis* variety (*Antentempel*) where two walls perpendicular to the short entrance wall extend beyond that wall, creating a small porch (fig. 8.13). A podium or altar probably intended as a pedestal for the divine image or symbol is typically found against the short wall facing the entryway. Temples *in antis* have been excavated at Tell Kabir near Tell Banat from late third-millennium contexts, Halawa Tell A, Qara Quzaq, and perhaps Habuba Kabira North.

Peculiar to the middle Euphrates area in this period are extramural cemeteries, attested to an extent unparalleled in any period before or since.[29] Cemeteries, often with hundreds of graves, have been at least partly investigated near Tell Banat as well as at Sweyhat, Shams ed-Din West, Tell al-'Abd, Tawi, and Halawa on the east bank of the Euphrates in the Tabqa region and at Hadidi, Habuba Kabira South, Qannas, and Wreyde on the west bank. In the area south of Carchemish on the west bank near the Turkish border, Leonard Woolley's

[29] Orthmann 1980.

pre-World War I expedition acquired objects from cemeteries at Kara Hassan, Hammam, and Amarna. Unfortunately, the middle Euphrates cemeteries have been the frequent target of plunderers, both in antiquity and in the present.

Four main grave types can be recognized:[30] pit burials, often with stone slab covers and usually containing only one individual; cist graves lined and roofed with stone slabs; gallery graves, long rectangular pits covered with stone slabs, sometimes constructed with stone walls and termed "dolmens"; and shaft and chamber tombs intended for multiple burials, either stone built or cut into the virgin bedrock, consisting of a vertical shaft leading down to one or more burial chambers sometimes provided with benches and niches. While not as common as cemetery burials, graves also existed within settled communities in this period. At Selenkahiye, for example, numerous examples of both pit and shaft graves are attested within the town walls.

Carter and Parker propose a chronology of grave types with an early phase when cists and gallery graves were particularly common, a middle phase when stone-built shaft graves were common and elaborate earth-cut shaft tombs appeared, and a late phase when stone-built shaft tombs continued in use, cist and gallery graves declined and earth or rock-cut shaft and chamber tombs predominated. However, as Carter and Parker point out, this sequence is not documented at any individual site. In a different interpretation, Anne Porter interprets the diverse burial types as evidence of different stages in the treatment of a dead individual eventually resulting in his or her incorporation into an ancestral group.[31]

Cemeteries tend to have separate clusters of graves, perhaps representing kinship units, occasionally differentiated by grave types. At Shams ed-Din West, for example, one area contained stone cist graves and another shaft and chamber tombs. The cemetery at Tawi included a number of discrete burial zones with a diversity of grave types.[32] Included were pit graves, the most common variety and attested in all areas, cist graves, only located in one area, gallery graves, containing single individuals only, and shaft and chamber graves. In areas investigated intensively by the expedition, graves proved to be arranged in regular rows and equally spaced from one other.

Typical objects in graves include pottery, beads, copper/bronze toggle pins, and, not infrequently, spearheads, daggers, and axeheads. Collective shaft graves could include quite sizable collections: the unlooted tomb 5 at Sweyhat (mid-third millennium/EB IVA in date) contained at least ten individuals accompanied by hundreds of artifacts including personal ornaments, copper/bronze weapons, animal bones, incised bone cylinders, and over 100 ceramic vessels.[33] Apart from the obvious evidence of monumental elite burials at Banat, Til-Barsib, and Jerablus Tahtani, the existence of social stratification can be discerned from the more mundane mortuary evidence available. At Selenkahiye

[30] Orthmann 1980; Carter and Parker 1996. [31] Porter 2002.
[32] Kampschulte and Orthmann 1984. [33] Zettler 1997.

and Wreyde, for example, the richer graves had objects like silver diadems as well as abundant pottery and copper/bronze objects, while simpler burials contained only a few vessels and some beads.

There is some evidence of the interment of animals (sheep, cattle, dog, equid) in graves at Banat, Selenkahiye, and Halawa as well as at Bi'a farther down the Euphrates.[34] Further evidence of burial ritual at Selenkahiye and nearby Wreyde includes the association of crude stone human figurines with the interred individuals.[35] Sexual differentiation is indicated by data from shaft tombs at Halawa in which female individuals were placed in niches in the walls and males were arranged on the floor in the center of the chamber. Physical analysis of the skeletal material indicated that the men were rugged and the women gracile, perhaps indicating sexual division of labor.[36]

While extramural cemeteries are known from other parts of Syria in this period (e.g. down the Euphrates near Tell Bi'a and at Abu Hamad),[37] their proliferation in the middle Euphrates is particularly conspicuous. The reasons why such cemeteries were so prevalent in this region and in this time period remain to be effectively illuminated, but one suggestion proposes that they frequently represent the inhumations of pastoral nomads.[38]

The Syrian Jezireh: urban life on the dry-farming plains of upper Mesopotamia

In the mid-third millennium, an array of urban centers and associated states appeared in the Balikh and Khabur drainages and in the southeastern stretches of the Syrian Euphrates valley. Like their western neighbors, the elites of the Balikh and Khabur polities looked to southern Mesopotamia for models of artistic styles and administrative techniques but retained their own distinctive perspectives.

The relative chronology of the Balikh and Khabur areas, like west Syria and the Euphrates, is still in the process of satisfactory refinement. Many of the chronological uncertainties and disagreements have stemmed from attempts to fit local assemblages into a southern Mesopotamian periodization itself troubled by regional inconsistencies. Particularly nettlesome is the relationship between Syrian relative chronology and the subdivisions of the Mesopotamian Early Dynastic period. The tripartite scheme of Early Dynastic I–III was originally proposed by excavators in the Diyala area, and it has subsequently been shown that the material culture hallmarks of the Early Dynastic II period are barely recognizable outside of that region. A recent study has proposed the elimination of ED II as a significant designation outside of the Diyala, resulting in a two-part division of the period into ED I and ED III.[39] Given the material culture autonomy characteristic of Syria, it is inappropriate to identify Syrian

[34] Boessneck and von den Driesch 1989. [35] Orthmann and Rova 1991.
[36] Kunter 1981. [37] Al-Khalaf and Meyer 1993–4.
[38] Roobaert and Bunnens 1999. [39] Porada *et al.* 1992.

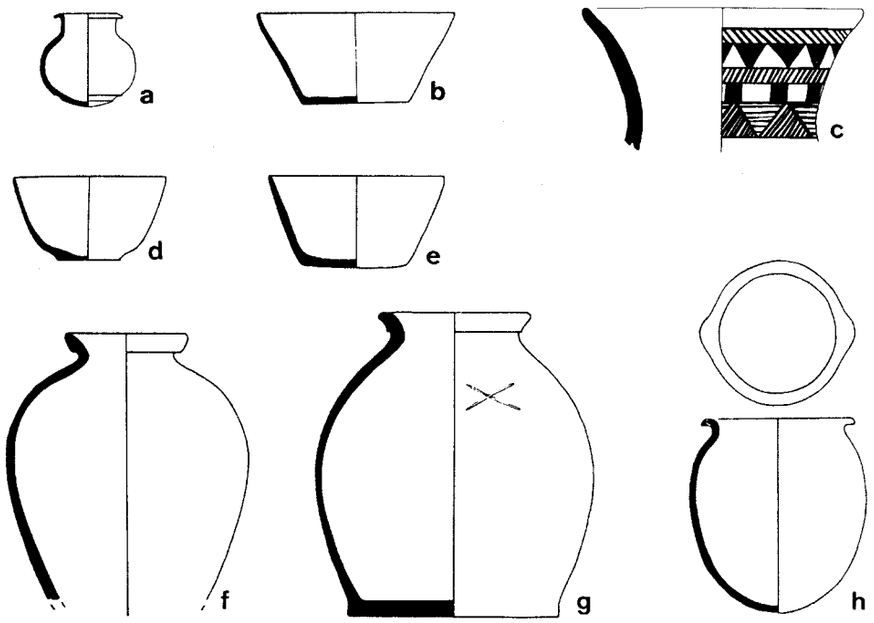

Fig. 8.14 Mid/late third-millennium BC pottery, Khabur region (scale 1:5 except f–h, 1:10).

assemblages as ED I, II, or III without considerable qualification. A recent effort to produce a local "Early Jezireh" relative chronology has attempted to rectify this problem (fig. 8.2).[40]

For the Khabur and the southeast Syrian Euphrates, ceramic sequences are available from Brak, with its link to the epigraphically dated Naram-Sin "palace" (*c.* 2250 BC), Leilan, the middle Khabur sites (Bderi, Raqa'i, Melebiya), and Mari. A lengthy sequence of radiocarbon dates from Leilan, a group from Brak, and Brak's historical connection to Naram-Sin's reign help define the absolute chronology. The latest phase of the Ninevite 5 assemblage, assigned to Early Jezireh II (e.g. Leilan IId, Raqa'i 3) ends *c.* 2550, followed by Early Jezireh IIIa, a period of mass-produced round-based plain rim cups, large storage jars with collared rims (fig. 8.14f–g), small spouted jars, polychrome painted stands (fig. 8.14c), cooking jars with triangular lugs (fig. 8.14h), and Metallic Ware, recognized at components such as Leilan IIa, Raqa'i 2, Bderi IIIa, and Brak HF1 phase 2, perhaps to be dated to *c.* 2550–2400 BC.

Metallic Ware, also known as Stoneware, is a fine, hard, high-fired, vitrified, and wheel-made ceramic type whose sherds make a metallic clink when knocked together.[41] Typical shapes include tall-necked round-based globular

[40] Lebeau 2000; Pfälzner 1997a, 1998. [41] Schneider 1989; Kühne and Schneider 1988.

jars with ledge rims (fig. 8.14a) and open bowls with flaring sides (fig. 8.14b), and the vessels range from black to red in color, sometimes with black and red bands. Because they usually consist of non-calcareous clay unavailable in upper Mesopotamia, the vessels must have been imported, perhaps from the Taurus or Tur Abdin mountains to the north of the Syrian Jezireh. The earliest examples of Metallic Ware appeared in late Ninevite 5 contexts, but the type becomes much more common in the post-Ninevite 5 period. Particularly characteristic of the Balikh and Khabur regions, this ware should not be confused with the gray spiral burnished and Euphrates Banded Wares common in the middle Euphrates and western Syria.

In a later phase, Early Jezireh IIIb, perhaps *c.* 2400–2250 BC, this assemblage is slightly modified with the addition of flat-based truncated conical bowls (fig. 8.14e) and other types characteristic of Bderi IIIb and Leilan IIb, but it is most comprehensively illustrated in the destruction level of Tell Brak designated "Late Early Dynastic III," preceding the construction of the Naram-Sin palace and probably to be dated *c.* 2300 BC. Although many sites suffered destructions that might be attributed to the onslaught of the Akkadian conquerors, it appears that the local ceramic assemblages continued into the period of the Akkadian empire without significant modification. The characteristic ceramic types of this late third-millennium period (2250–2000 BC) in the Khabur remain to be firmly established.

In the Balikh region, we observe a mélange of material culture types from the "caliciform" region in the west and from the Khabur in the east. According to survey results,[42] the region saw a proliferation of the number of settlements, a marked increase in total occupied area, and the appearance of urban-sized fortified communities in the mid-third millennium. As usual, only the larger centers have been excavated.

Tell Bi'a, a mound of some 35–40 ha (750 × 650 m) located near modern Raqqa, is strategically positioned to control the junction of the Balikh and the Euphrates. The largest site in the southern Balikh drainage, Bi'a probably dominated the region economically and politically, with Harran predominant in the portion of the valley north of the present-day Turkish border. Identified by second-millennium texts as ancient Tuttul, a city sacred to the god Dagan, Bi'a probably also played an important role as a religious center. Excavations have identified a sequence of occupations indicating the site's significance and wealth from the mid-third millennium on.[43] Like other urban centers of the period, Bi'a was provided with a fortified enclosure wall, including a gate with a tower or bastion; a temple *in antis* adjacent to residential architecture has also been identified. The most remarkable evidence, however, derives from the monumental remains excavated in the southern part of the central mound. Datable to the mid-third millennium (*c.* 2500 BC) are a set of six above-ground

[42] Curvers 1991. [43] Strommenger and Kohlmeyer 2000.

mudbrick tombs with a uniform three-room plan reminiscent of the elite tombs of the Royal Cemetery of Ur in southern Mesopotamia. Although robbed in antiquity, the tombs yielded segments of inlaid wooden furniture, personal ornaments, copper/bronze weapons, and pottery; the tombs were clearly high-status burials, perhaps for the local rulers and their families.

Excavated above these graves, although apparently not associated with them, was a burned palace with its contents *in situ*. The exposed portion, which included substantial evidence of wood in its otherwise brick construction, revealed a large courtyard with a pebble surface adjacent to a set of rectilinear rooms. The pottery and eleven radiocarbon dates support the excavators' suggestion of contemporaneity with Ebla palace G in the twenty-fourth century BC. Architectural similarities to Ebla palace G have also been cited, including the positioning of the building along the tell slope. Subsequent third-millennium levels at Bi'a yielded a large administrative building with abundant clay seal impressions, an area of kilns and round brick silos, and wealthy shaft burials contrasting with poorer graves. North of Bi'a in the Balikh drainage, excavations at Hammam et-Turkman have identified a massive city wall and adjacent domestic architecture in the mid-third millennium.[44]

The *Kranzhügel* problem

In the relatively dry regions between the Balikh and Khabur, in the western Khabur triangle, and in the Jebel 'Abd al-Aziz region are an array of tells whose plans resemble concentric circles composed of walled upper and lower components. These *Kranzhügel* ("wreath-mounds"), as von Oppenheim designated them in his pre-World War I explorations, are enigmatic because of their peculiar morphology and their location in marginal agricultural zones. Why did so many large settlements thrive in areas now ill suited for rainfall agriculture, and to what do they owe their distinctive layout?

The results of an American survey in the Jebel 'Abd-al-Aziz revealed that the *Kranzhügel* of that area primarily date to a post-Ninevite 5 mid-third-millennium period,[45] and the two excavated examples flourished in the same period of Syrian urbanization. Perhaps the largest of the *Kranzhügel* is the 65 ha Tell Chuera, excavated since 1955 (fig. 8.15). Earlier third-millennium levels were occasionally reached in deep soundings, but the oldest evidence of the site as a large-scale urban center derives from the mid-third-millennium period IC (= Early Jezireh IIIa). A burned destruction level is associated with several IC contexts, two of which yielded remains of skeletons of victims of the catastrophe. Despite these destructions, the site continued to flourish in period ID (Early Jezireh IIIb), diminished in size in the late third-millennium period IE, and was then abandoned. Almost all of the excavations have concentrated on the upper tell, but investigations on the lower town have confirmed that the

[44] Van Loon 1988. [45] Hole and Kouchoukos n.d.

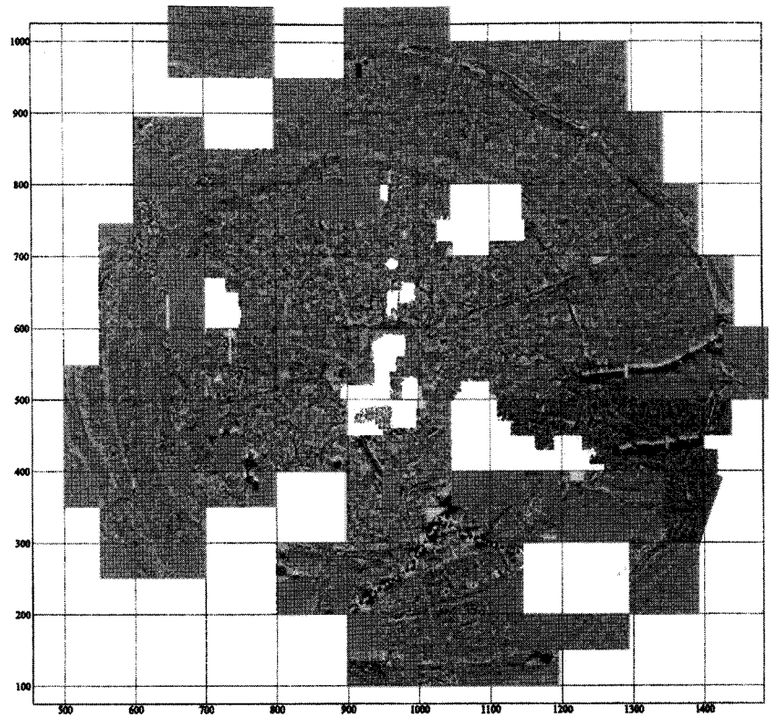

Fig. 8.15 Chuera, magnetometry map of a *Kranzhügel*, with concentric rings and streets visible.

entire site was encircled by a mudbrick fortification wall and ditch (moat?) as early as period ID, and the upper tell was also probably fortified.[46]

Near the western edge of the upper mound was the third-millennium palace (fig. 8.16), dated to the ID period and possibly earlier. The exposed plan reveals rectilinear rooms arranged around large courtyards, with a storage area to the south. One of the larger rooms was provided with a dais and has been interpreted as a throne room. In the southeastern upper tell, a line of monumental "*Steinbau*" buildings (I–IV) with limestone terraced foundations probably constituted a large complex of religious structures. Mudbrick temples *in antis* ostensibly were constructed above the stone foundations, but their traces have all but disappeared; other temples *in antis* excavated at Chuera include the North Temple and two examples in the Aussenbau outside of the tell proper, located near a double row of large stone stelae.

The "Small Temple in Antis" (*Kleiner Antentempel*) in the south central part of the upper mound consisted of several phases of a brick temple surrounded by residential architecture and is particularly notable for the limestone votive

[46] Orthmann 1995; Kühne 1976; Moortgat-Correns 1975.

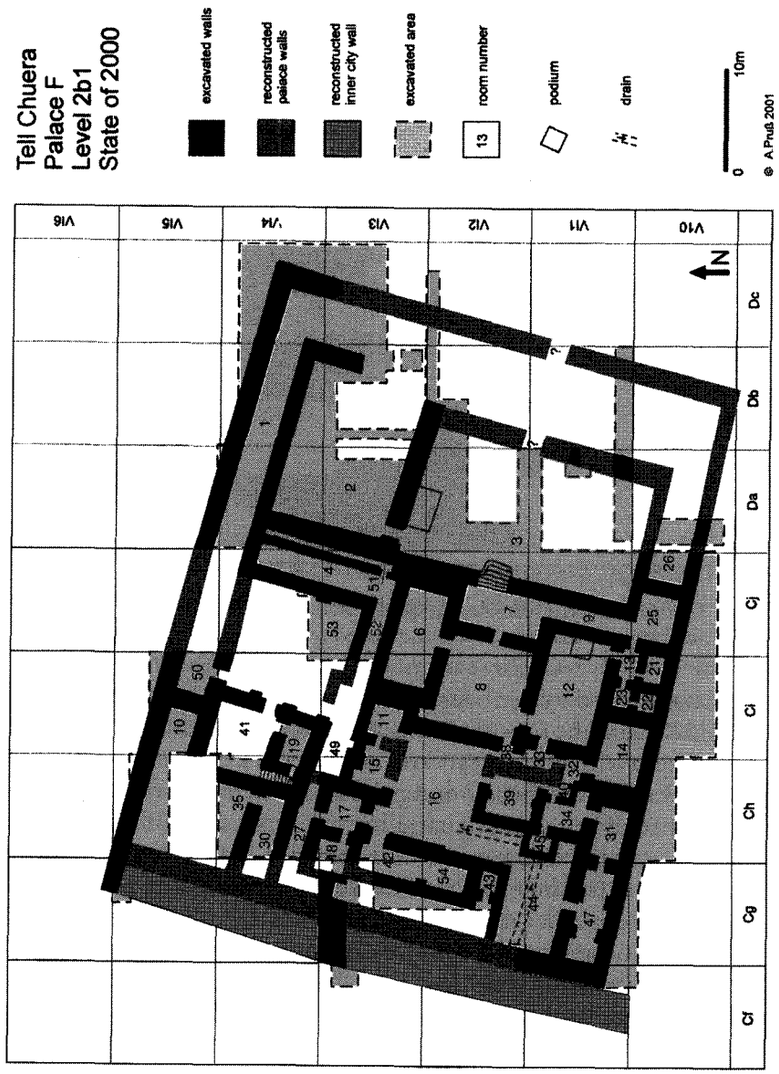

Fig. 8.16 Chuera palace.

statuettes found in its vicinity. Because they are stylistically comparable to examples from the Early Dynastic II period in the Diyala, an ED II date for their context (level 2, period ID) and, by extension, much of the Chuera occupation has been suggested, but they were broken and probably date from an earlier context than that in which they were found. The residential architecture found in this area and other parts of the site (e.g. the "Houses" area south of Steinbau I–IV) consists of contiguous multi-room houses built along narrow streets. The general house plan consists of an entry corridor providing access to a courtyard, a large reception room between courtyard and street, and adjoining smaller rooms. Peter Pfälzner[47] has suggested that these houses were built on regular plots of land with standardized measurements (fig. 8.17), implying central planning by municipal or state authorities.[48]

Farther to the southeast in the upper Khabur triangle is the 28 ha *Kranzhügel* of Tell Beydar (ancient Nabada?), investigated since 1992.[49] Probably a second-order regional center, Beydar has yielded a wealth of public and residential architecture from the mid-third millennium (*c.* 2550–2300), including a two-phase palace on the highest point of the upper tell, a long four-room official building (granary?) to the southeast, a residential quarter on the eastern upper tell with multi-room courtyard houses, an interior fortification wall, and a poorly preserved exterior rampart with glacis. Especially important was the discovery of some 140 cuneiform tablets in a small three-room house on the northern upper tell (fig. 8.18), providing the first large corpus of written evidence for the Syrian Jezireh in the mid-third millennium. Approximately contemporaneous with the Ebla archives, the Beydar tablets are also written in a Semitic language and primarily consist of administrative records of the local authorities. Particularly telling are the frequent references to the king of Nagar, probably to be identified with modern Tell Brak 45 km to the east, perhaps Beydar's ultimate overlord.

Thus far, the results from the excavated *Kranzhügel* indicate that, at least in the case of Beydar and Chuera, these large occupations were densely populated communities of an urban character. Explaining their location in agriculturally marginal regions remains difficult; some have proposed an economic emphasis on livestock breeding rather than agriculture,[50] others have interpreted the sites' moats as reservoirs,[51] while still others have posited higher rainfall in the mid-third millennium. Perhaps these sites reflect an extension of urbanization from core areas like the upper Khabur into marginal regions owing to increasing population growth and desired local resources.

The Khabur triangle

The upper Khabur triangle, the famously productive rainfall-farming plain east and north of the main *Kranzhügel* distribution, saw a pronounced trend towards

[47] Pfälzner 1997a; Dohmann-Pfälzner 1996, Pfälzner 2001.
[48] See Matney and Algaze 1995 for similar conclusions at Titriş Höyük in southeastern Turkey.
[49] Lebeau and Suleiman 1997. [50] Lyonnet 1998. [51] McClellan *et al.* 2000.

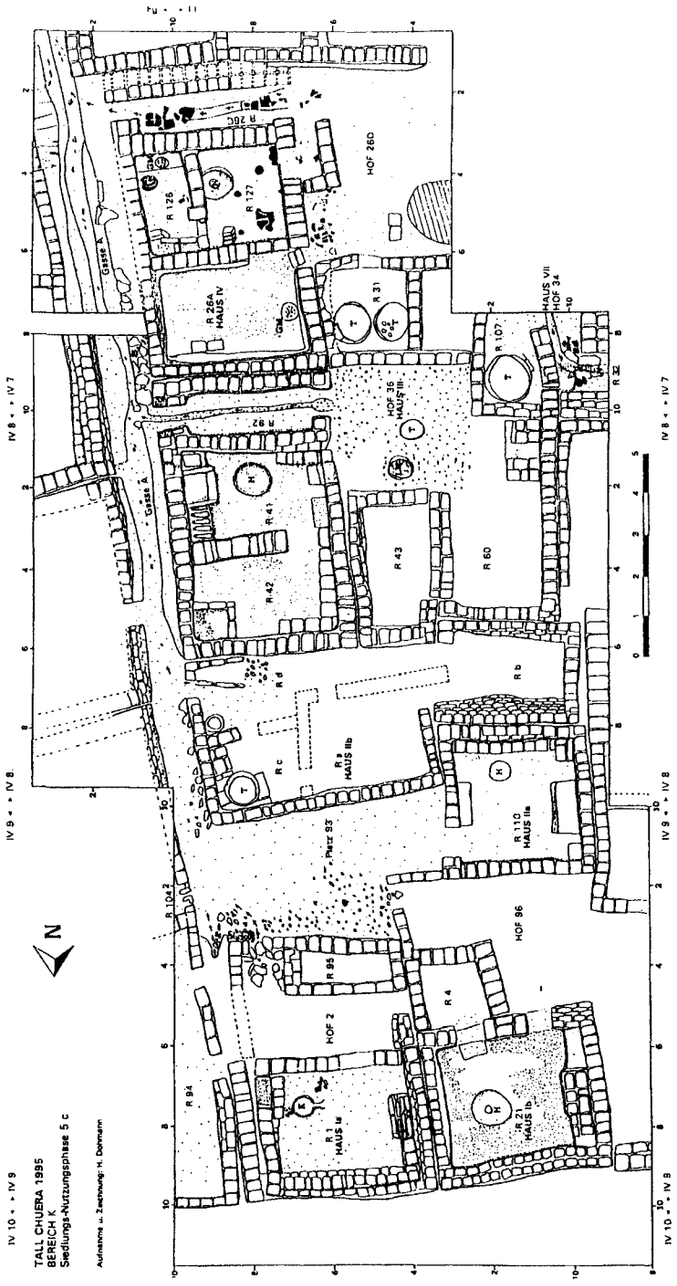

Fig. 8.17 "Parcel houses" at Chuera.

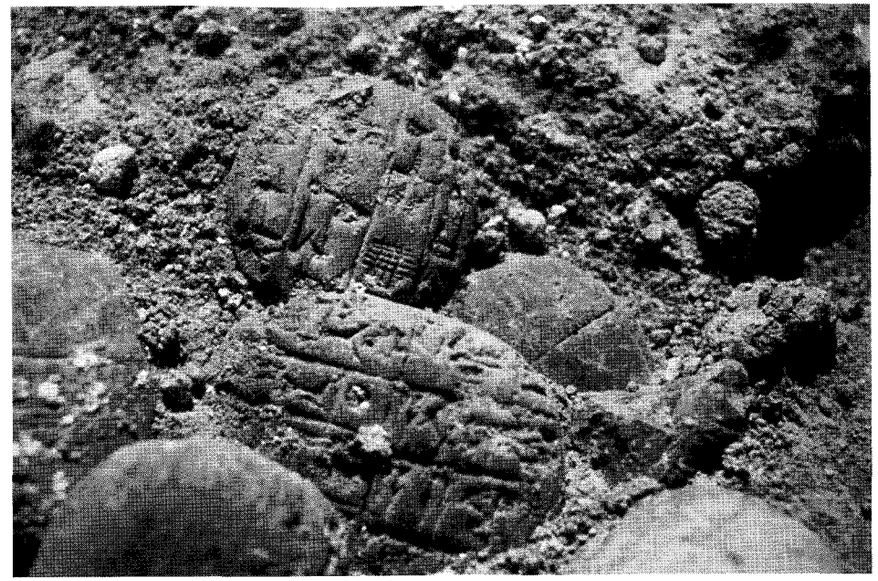

Fig. 8.18 Tablets *in situ*, Beydar.

urbanization in the mid-third millennium. Stein and Wattenmaker's 1987 survey of the Leilan vicinity revealed a shift from a two-tier settlement hierarchy in the Ninevite 5 period (Leilan III) to a four-tier fully urbanized pattern in the post-Ninevite 5 era (Leilan II), although the total number of sites remained relatively constant. The dominant urban centers, each probably the control point for its own small regional polity, included Brak (probably ancient Nagar), Leilan (ancient Shekhna), and probably Mozan (ancient Urkesh). At Brak, evidence for this mid-third millennium period of prosperity is relatively limited, but the city's broad extent is clear from the destruction levels noted in at least six excavation areas including a recently discovered large curvilinear building.[52] Stratified prior to the construction of the Naram-Sin palace in area CH, the destruction is probably to be associated with the Akkadian conquest of Brak. It is also possible that monumental buildings dated to the period of the Akkadian conquest (see below) were originally constructed in the mid-third millennium.[53]

The chronology of urbanization is best documented at Leilan, which expanded from 15 to 100 ha in the Leilan IIId period (*c.* 2600, Early Jezireh II), the latest Ninevite 5 phase.[54] On the Leilan acropolis, a large administrative building ("palace") included a grain storage area with hundreds of clay southern

[52] Emberling *et al.* 1999; Oates *et al.* 2001. [53] Oates *et al.* 1997:141.
[54] Weiss 1983; Weiss *et al.* 1993. Evidence is beginning to suggest that the Early Jezireh II period was a crucial transition to the appearance of urban societies in the Khabur region. See, for example,

Mesopotamian-style cylinder seal impressions on its floors. In Leilan IIa, a mud-brick defensive wall was constructed on the Leilan acropolis and Ninevite 5 incised pottery was replaced by a plain ware assemblage with an emphasis on mass production and speed. The succeeding period, Leilan IIb, has been linked by Weiss to the era of the Akkadian conquest (see below). In this phase, the entire site was surrounded by a defensive structure. Excavations on the eastern edge of the tell revealed two concentric brick walls 8 m wide with a 1 m wide wall between them, perhaps a walkway; exposures on the tell's north edge indicated the existence of a large earthen rampart.

Beyond the urban metropolises like Brak and Leilan, evidence from smaller communities has also begun to accumulate from the Khabur region. Excavations at Abu Hgaira west of Brak have exposed a rural settlement including a quarter of small houses flanking a street, often associated with relatively well-furnished brick tombs of children.[55] In the middle Khabur salvage area, the small sites no longer focused on grain storage and, like Abu Hgaira, were deserted sometime in the third quarter of the millennium. Curiously, evidence of numerical notation tablets derives from this period at Raqa'i level 2, 'Atij, and Bderi. Raqa'i level 2 and 'Atij had numerous and relatively wealthy child burials similar to those of Abu Hgaira but only limited architectural remains. In contrast, the larger sites of the region, Melebiya and Bderi, about 5–6 ha, prospered with congested agglomerations of multi-room houses arranged along streets, comparable to the houses of Chuera.[56]

The changing configurations of domestic architecture at Bderi have been studied by Peter Pfälzner,[57] who has recognized an evolution from single nuclear family dwellings to extended family households composed of several nuclear families. He has also suggested the presence of single families with two co-resident wives, each with her own food-preparation room. Evidence of household pottery and metallurgical workshops was also retrieved at Bderi, and the diminutive site of Gudeda across from 'Atij appears to have functioned as a small multi-craft production center in this era.[58] After their period of quasi-urban success, Bderi and Melebiya were abandoned, probably by 2200 BC, at which point the middle Khabur was largely bereft of sedentary occupation.

The rise of Mari

Despite the prosperity and power manifested by the Khabur and Balikh centers, the main center of economic and political power in eastern Syria resided at Mari on the Euphrates (modern Tell Hariri). Situated below the confluence of the Euphrates and the Khabur, probably at the terminus of a land route

the recent discovery of a monumental terrace, perhaps associated with a temple, dated to this period at Mozan (Dohmann-Pfälzner and Pfälzner 1999).

[55] Martin and Wartke 1993–4. [56] Lebeau 1993; Pfälzner 1997a.
[57] Pfälzner 1997a. [58] Fortin 1999a.

leading southwest across the desert, Mari was in an excellent position to control traffic between southern Mesopotamia and Syria. According to the Ebla texts, Mari was the main rival of Ebla in the twenty-fourth century, and both powers jockeyed for control of the middle Euphrates. Mari's interregional power was similarly appreciated by the southern Mesopotamians, to judge from the Sumerian King List. The site, consisting of an upper and lower tell demarcated by two concentric ramparts in the style of the *Kranzhügel*, currently measures over 100 ha but may well have encompassed an even greater area in antiquity.

Excavations commenced at Mari in 1933, after locals encountered an ancient statue while digging a grave, and have continued with few interruptions. As a result, Mari is one of the most extensively excavated sites in Syria, but synthetic treatments of many of the results have not yet been produced. The excavations of third-millennium remains have produced a wealth of monumental and elite-related data; considerably less information is available on the non-elite sectors of the community.

Recent deep soundings have ascertained that the site was founded in the early third millennium.[59] Margueron[60] has proposed that the site was established as a large-scale, urban entity of over 250 ha. He reasons that the town could not have survived without protection from flooding or without access to the water of the Euphrates. Therefore, the large rampart or dike encircling an area of over 250 ha (1.9 km diameter) and the 2 km canal leading to the Euphrates must have been established at the same time as the settlement. Since the construction of the rampart, excavation of the canal, and the establishment of an urban-sized community could have only been implemented under the direction of a powerful central authority, Mari must have been established as a massive urban center in an act of "political will."

Still unidentified, however, are both the founding political entity and the large population necessary for the establishment of such a prodigious urban center. According to survey results, only two small sites are attested for the fourth millennium in the entire Euphrates valley downstream from the Khabur confluence. While Euphrates floods may have destroyed evidence of additional sites, one still is left speculating on the source of Mari's large populace. As for the authorities capable of organizing and endowing the foundation of a new city, we again draw a blank. A connection to the Diyala or southern Mesopotamia might be hypothesized, but the material culture of the earliest occupations at Mari is of a Ninevite 5 style comparable to the middle Khabur and Leilan IIIb–d.[61]

After the first stage of occupation at Mari in the early third millennium, a major program of public construction projects was implemented, ushering in an era of grandeur and wealth. Perhaps the earliest evidence of an emerging elite (*c.* 2500 BC) is provided by the richly furnished corbel-vaulted stone tombs found below the Ishtar temple sequence near the west edge of the upper

[59] Margueron 1996. [60] Margueron 1987. [61] Lebeau 1990.

Fig. 8.19 Inlays from Mari.

tell.[62] Above these tombs, the excavators identified three phases (c–a) of temple reconstructions, associated in their uppermost phase with the goddess Ishtar.[63] The three Ishtar temple phases are characterized by numerous foundation deposits, each consisting of a D-shaped copper/bronze ring-bolt, a pointed copper/bronze peg, and uninscribed stone tablets. Although no obvious altars were identified, benches with libation bowls ("barcasses") were frequent. Ishtar phases c and b consisted of a rectangular cella (sanctuary) with an entrance on the long wall, a brick-pillared courtyard to the north, and a "priest's house" to the east. Ishtar a, burned with its contents *in situ*, had been enlarged and featured two adjacent cellas. A rich yield of objects was recovered, including over 100 votive statues and fragments, some of which were inscribed with the names of important individuals like Ishqi-Mari (formerly read Lamgi-Mari) king of Mari and the official Ebih-il. The inscription placed on the statue's shoulder supplied the name of the donor and the dedication to the deity. Also notable were fragments of wooden panels with shell, bone, or mother-of-pearl inlay, illustrating scenes of victorious soldiers or religious rituals (fig. 8.19).

Five temples were excavated in the central part of the upper mound, each associated with a deity by virtue of epigraphic material.[64] All had been burned,

[62] Jean-Marie 1999. [63] Parrot 1956. [64] Parrot 1967.

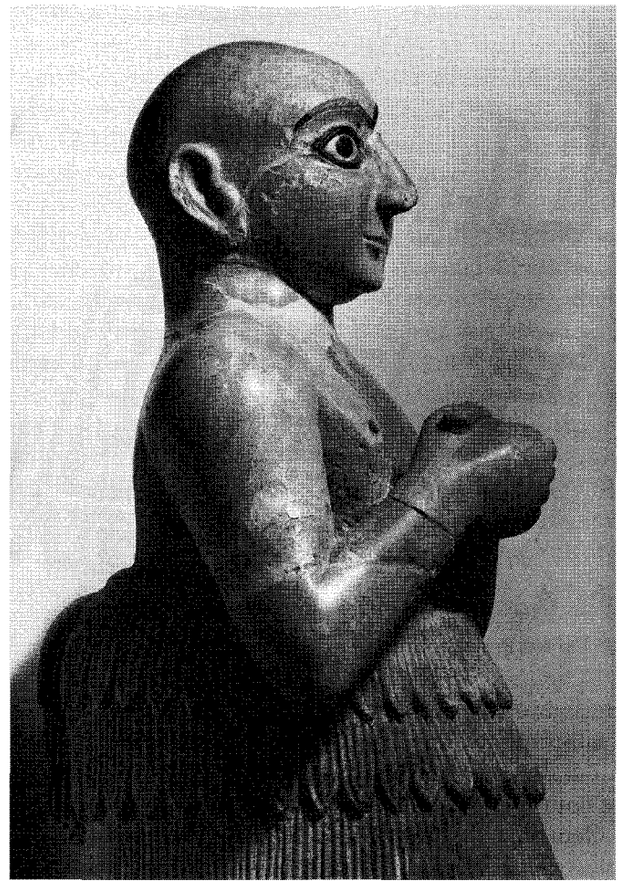

Fig. 8.20 Votive statuette from Mari.

yielding rich contents such as inlaid wooden panels with religious or martial scenes and votive statuettes (fig. 8.20), often inscribed. The "Dagan" temple was associated with a massive mudbrick mound ("massif rouge"), while the Ishtarat temple was arranged like a multi-room house around a central courtyard. Its rectangular cella had a bent-axis entry along the long wall with a brick altar for the divine statue or symbol against the short wall. The Ninnizaza temple, built against Ishtarat, had a similar plan and cella but was distinguished by a conical basalt stele in its central courtyard reminiscent of the *massebah* monoliths well known from second-millennium Palestine. Little has been published from the Shamash temple; the nearby Ninhursag temple included a room with a wall painting depicting stick-like human figures reminiscent of rock-art.

Below the sprawling palace of the second-millennium rulers of Mari in the north central part of the upper tell, excavations revealed successive phases of

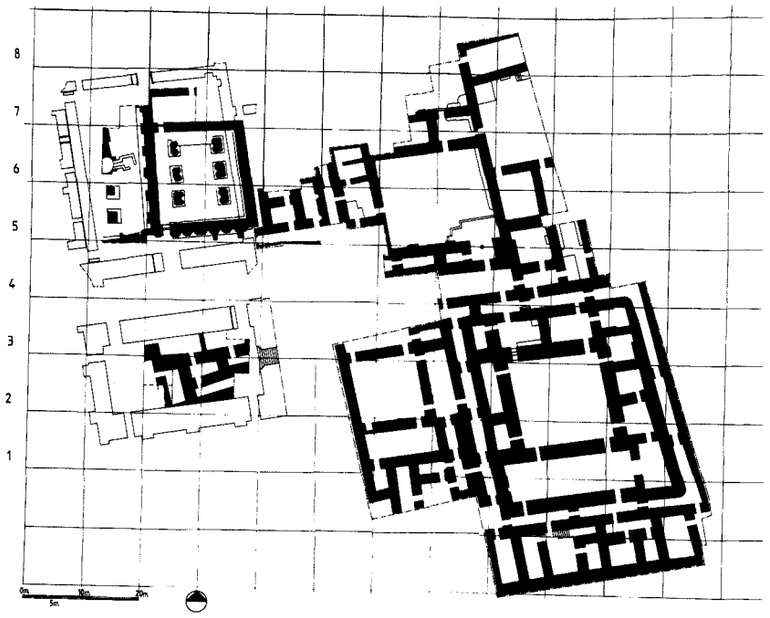

Fig. 8.21 Palace P-1 at Mari.

third-millennium monumental architecture. The earliest phase, P-3, was only minimally sampled, but the succeeding P-2 consisted of a complex of rooms organized around a courtyard 16 m square. Given the niched decoration of the walls of the courtyard, foundation deposits, and other accessories, the building can be identified as a religious structure. However, the duplication of a similar plan in the next phase, P-1, in association with a set of "secular" architectural wings implies that we are dealing with a palace enclosing a smaller religious structure (fig. 8.21). Belonging to the same period, or perhaps slightly later, the "salle aux piliers" with its niched and buttressed columns has been interpreted as a throne room because of its dais. In his magisterial study of Mesopotamian palatial architecture, Margueron[65] has discussed the organization and function of rooms in the Mari palace, the distribution of light and of roofed versus unroofed spaces, and the question of a second story. Margueron's recent excavations have also exposed the monumental entry to the palace.

Palace P-1 was burned, and in the debris was a hoard that Parrot dubbed the "Treasure of Ur."[66] The treasure, found inside a large jar, consisted of numerous objects (e.g. pins, bracelets) fashioned of valuable materials like gold, silver, ivory, and lapis lazuli, but the most magnificent piece was a lion-headed eagle (Anzu) of lapis lazuli, gold, bitumen, and copper. Rings of copper/bronze and

[65] Margueron 1982a. [66] Parrot 1968.

silver were also found inside, and a multi-face lapis lazuli bead bore an inscription of Mesannepada, king of Ur. Contrary to earlier interpretations, these objects were largely of local manufacture, but the inscription indicates at least a general contemporaneity with mid-Early Dynastic III in southern Mesopotamia, *c.* 2500 BC or later.

Although non-monumental remains have only been minimally investigated at Mari, ironically their excavation has yielded most of the pre-Sargonic cuneiform tablets yet retrieved. Excavated structures include the burned "Maison Rouge" southeast of the five-temple area and a building exposed in Chantier B on the north edge of the upper tell. As at Beydar, the tablets are primarily administrative texts in a Semitic language associated with a central authority and entail such concerns as accounts of grain and bread rations.

The abrupt termination of Mari's period of splendor and power in the mid-third millennium is demonstrated by the burned levels found across the site in almost every excavated area. Presumably, these destructions can be attributed to the southern Mesopotamian ruler Sargon, and Mari's first era of prosperity is conventionally termed "pre-Sargonic." The carbon-14 dates from the pre-Sargonic palace levels appear to be too early, but the material culture otherwise supports a date *c.* 2500–2300 BC.

Upstream from Mari near the Khabur confluence, Terqa, modern Tell Ashara, was an urban center probably subservient to Mari in the mid-third millennium. The massive brick fortifications, three concentric walls totalling 20 m in width, and several well-furnished shaft tombs supply the primary evidence of the site's importance in this period.

Southern Syria

The evidence from southern Syria is regrettably sparse from this period, more a reflection of the paucity of research than the nature of the archaeological remains themselves. Among the relevant studies are the Syrian excavations at Moumassakhin 50 km north of Damascus, one of the southernmost communities employing the caliciform ceramic assemblage.[67] Otherwise, investigations have been largely limited to the drier zones of the Hawran region southeast of Damascus, where evidence of large communities with elaborate hydraulic systems has been detected. The most intensively studied site is Khirbet Umbashi, whose main period of occupation is dated by carbon-14 and ceramic evidence to *c.* 2600–1700 BC.[68] Umbashi, investigated by a Franco-Syrian team, is remarkable in its well-preserved stone architectural remains visible from the surface, allowing for an examination of the entire community. The 8 ha "south town" was covered by an extraordinary deposit of butchered and burned animal bones sometimes over 2.5 m thick, primarily sheep/goat but also with some cattle

[67] Al-Maqdissi 1988, 2000. [68] Braemer *et al.* 1993, 1996.

and a small percentage of gazelle. Apparently this accumulation represents discard from meat consumption on a grand scale. The south town also included a group of agglutinative semi-subterranean multi-room houses. In the "north town," an area of some 50 ha, were clusters of rectangular single-room houses with an entryway on one of the longer walls (a "broadroom" plan) as well as rectangular megalithic structures with pillars. In areas east and southwest of the site, cemeteries with over 1400 graves were noted; stone dolmen tombs covered by an earth mound or tumulus are said to be characteristic.

The intricate water management systems identified at Khirbet Umbashi provided water for the inhabitants and their animals in this region of minimal rainfall; whether the water was also used for irrigation is not certain. The main source was the nearby wadi, whose water was diverted through a system of earthen or stone dams and channels into large reservoirs. According to the excavators, the system at Umbashi could have accommodated 45,000–50,000 cu. m of water at peak capacity. Smaller sites near Umbashi show a similar dependence on elaborate water harvesting systems, including Khirbet ed-Dabab and Hebariyeh, as well as Labwe.[69] The emergence of these thriving communities in a dry region ill suited for agriculture suggests an economic focus on sheep/goat pastoralism, a strategy also implied by the prodigious bone deposits at Umbashi.

General trends in third-millennium Syrian urbanism

As the above review has outlined, large cities and associated states sprang up across Syria in the mid-third millennium. Leilan's expansion to 100 ha in the twenty-sixth century BC provides the best-dated example of urbanization, and the appearance of many of the other cities can probably also be dated to *c.* 2600 BC if not before. While survey evidence is relatively limited, dense populations and multi-tier hierarchical settlement patterns are generally indicated. The scale of the largest centers exhibits a degree of regional differentiation: cities in western Syria, the middle Euphrates, and the Balikh attained no more than 50 or 60 ha, but sites in the upper Khabur and perhaps Mari achieved 100 ha or more. Wilkinson has suggested that cities in the Jezireh could not grow beyond a "ceiling" of about 100 ha owing to the limited technologies and costs of overland grain transport, thereby limiting the economic and political power of these city-states.[70] Secondary centers like Hammam et-Turkman or Beydar typically had a size of some 15–30 ha.

Regional capitals, secondary centers, and even small communities were fortified with enclosure walls of mudbrick, sometimes above stone foundations. Occasionally, earthen ramparts or glacis constructions were also employed. The military activity implied by these structures is corroborated by the frequent discovery of weapons in tombs, burned destruction levels, depictions

[69] Al-Maqdissi 1984. [70] Wilkinson 1994.

of military victories in the art of Ebla and Mari, and textual accounts of wars between Mari and Ebla in the Ebla archives.

Administrative and residential headquarters of the political authorities have been excavated in palaces at Ebla, Banat, Bi'a, Chuera, Mari, and Beydar, revealing large-scale complexes suggestive of considerable economic power as well as political authority. Temples were a common component of urban centers and exhibit regional distinctions, with multi-room plans at Mari and temples *in antis* in the middle Euphrates. Given the distinction between these two types, one might posit that temples in the western part of our region were not the large economic institutions characteristic of Mesopotamia.

Details of urban organization apart from large-scale public architecture are studied only infrequently, but dense agglomerations of multi-room courtyard houses lining streets seem to be characteristic of residential areas. The appearance of the courtyard house throughout third-millennium Syria and Mesopotamia and the disappearance of the tripartite unit has been associated with an increasing privatization of urban space. As cities became larger and more densely populated, activities that formerly took place outside the house were now confined to an interior courtyard.[71]

The cuneiform tablets retrieved from Ebla, Beydar, and Mari indicate that the Syrian royal establishments utilized southern Mesopotamian writing systems for bureaucratic purposes while adapting them to the local languages. The texts corroborate the large scale and wealth of the palace establishments, which controlled vast resources of labor as well as agricultural, pastoral, and craft products; details on state political organization, religion, and interregional relations are also provided. The language and the personal names of the texts indicate that the west and northeastern Syrian populations were almost exclusively Semitic speakers.

Considerable social stratification is evinced by the mortuary evidence, which reveals a wide range of energy and wealth expended on tomb construction and furnishings. At the low end are relatively simple pit graves with just a few vessels, while monumental interments like Jerablus Tahtani tomb 302 had hundreds of valuable and exotic contents. An interesting pattern that has become apparent is the tendency towards visibility in the elite tombs of western Syria – free-standing monuments dominating their surroundings (e.g. the Banat White Monument, Jerablus Tahtani tomb 302, Til-Barsib hypogeum, Bi'a complex, and Umm el-Marra tomb). Some have interpreted this conspicuousness as evidence of the veneration of elite ancestors in order to legitimize the authority of their living descendants.[72]

Differentiation in tomb contents may not solely be a product of social status, however. Analysis of the child burials at Raqa'i level 2 also revealed the significance of age: infants under one year old were never accompanied by grave

[71] Forest 1996. For a comprehensive review and interpretation of third-millennium BC domestic architecture in the Syrian Jezireh, see now Pfälzner 2001.
[72] McClellan and Porter 1999; Peltenburg 1999b.

goods, but children at least one year old had a range of poor to well-furnished graves.[73] The location of child graves within communities, as opposed to the presumed extramural interment of adults, is attested at Raqa'i 2, 'Atij, Abu Hgaira, Beydar, and Chagar Bazar 2–3, perhaps indicative of a local custom of the mid-third-millennium middle and western Khabur.

Important economic and technological developments were also concurrent with the process of urbanization and state formation. Increasingly apparent are economic and labor specialization, where an individual produces more of a given commodity and less of others than he/she consumes, generating surpluses for exchange.[74] The impetus for specialization originates both from the elite, who sponsor production of well-crafted goods to advertise their status, and from the non-elite, who emulate their "betters" and communicate social information.[75] The profusion of highly crafted and exotic objects in this period, even at small sites, indicates a shift towards increased international trade connections and an emphasis on wealth finance.[76] Imported from the east, probably via Mari, were lapis lazuli from Afghanistan (and perhaps gold and tin) and shell and mother-of-pearl from the Persian Gulf, while copper and silver arrived from Anatolia.

In the mid-third millennium, pottery assemblages in both western and eastern Syria reveal a new emphasis on intensified specialization, mass production, and standardization. The caliciform pottery of the west, thrown "off the hump" on the fast wheel, is turned out in great numbers and decorated, if at all, swiftly by corrugation, spiral burnishing, and horizontal painted bands as the vessel turns on the wheel. In the east, the labor-intensive Ninevite 5 vessels, unstable and difficult to stack or transport in large quantities because of their inturned rims and pointed bases, are supplanted by mass-produced, higher-fired, minimally decorated, and easily transportable vessels.[77] The abandonment of elaborately decorated vessels may indicate that ceramics no longer functioned as markers of status. Stein and Blackman's technical analyses of pottery from the Leilan vicinity have also demonstrated that vessels were produced in local independent workshops, not under centralized state control.

The use of metal escalated remarkably in this period and was accompanied by great technical advances. While arsenical copper was still common, the use of tin-bronze became increasingly frequent in Syro-Mesopotamia – although not in Palestine or Egypt. A persistent problem has been the identification of the source of Near Eastern tin. The recent discovery of a mine and nearby processing site at Göltepe in the central Taurus has prompted extensive debate, and it is still not clear if this was a significant source of tin for third-millennium Syro-Mesopotamia.[78] The simultaneous appearance of lapis lazuli, gold, and tin in mid-third-millennium Syro-Mesopotamia (e.g. Ur Royal Cemetery, Ebla,

[73] Schwartz and Curvers 1993–4. [74] Blackman *et al* 1993.
[75] Wattenmaker 1998. [76] D'Altroy and Earle 1985.
[77] Stein and Blackman 1993. [78] Yener 2000.

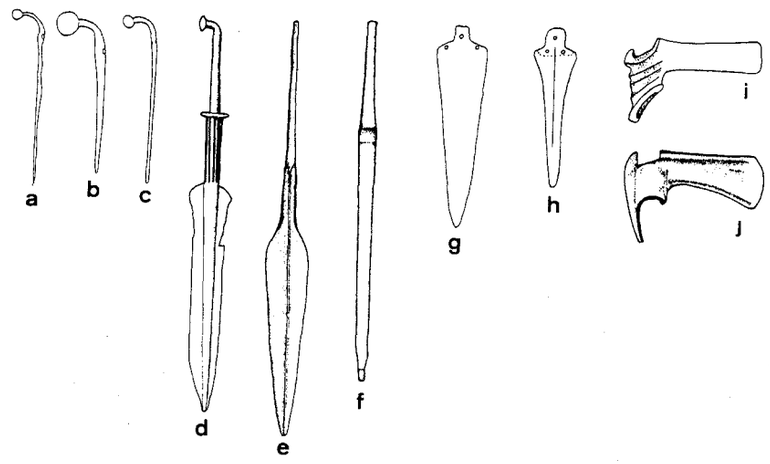

Fig. 8.22 Copper/bronze toggle pins and weapons, mid/late third millennium BC.

Mari, Banat) has been interpreted to imply an Afghan derivation, since all three resources are available in Afghanistan and lapis lazuli is only accessible in that region.[79]

The Ebla texts indicate the palace's supervision over metal production, and metal was extremely important as an indicator of wealth and status. Epigraphic evidence also indicates that silver was employed as a standard of value, and the silver rings found in the Mari "Treasure of Ur" probably can be understood as part of a system of currency standardized by weight. The tribute Ebla collected annually in hundreds of kilograms of silver and copper and in smaller quantities of gold provides further documentation of the status and significance of metal among the newly emergent Syrian city-states.

Among the copper/bronze objects found in the archaeological record are toggle pins with bent spherical heads (fig. 8.22a–c) or straight heads;[80] torques; implements such as adzes and chisels; a variety of weapons[81] such as tanged spearheads (fig. 8.22d–f), daggers with three rivets (fig. 8.22g–h), shaft-hole axes (fig. 8.22i–j), and three-tang crescentic axes; and sacred or prestige symbols such as foundation deposit accessories or the objects in the Treasure of Ur. The metallurgical sophistication apparent in the use of diverse molds and other techniques contrasts with the relatively simple metallurgical products of Palestine in this period.

Prestige goods were also manufactured in stone, shell, mother-of-pearl, and bone, including votive statues, personal ornaments, and inlaid wooden furniture. Building P4 at Ebla appears to have been a workshop for the manufacture

[79] Stech and Pigott 1986. [80] Klein 1992. [81] Philip 1989.

of such highly crafted products, and a specialized flint workshop in Mari palace P-1 produced microborers and bladelets used for working mother-of-pearl.[82] Indeed, chipped stone implements continued to be utilized despite the increasing significance of metal. Arrowheads were primarily manufactured from chipped stone, for example, and a flintknapping workshop producing flint and obsidian arrowheads was discovered at Hadidi on the Euphrates.[83]

The agricultural and pastoral sectors of the economy also saw an increasing economic specialization focused on a restricted number of domesticated species, contrasting with earlier subsistence strategies based on a broad range of plants and animals. A concentration on sheep and goat pastoralism grew ever stronger, often associated with the large-scale production of woolen textiles organized under the auspices of the central institutions.[84] As with earlier periods, the existence of sheep- and goat-tending pastoral nomadic groups engaged in a year-round circuit of pasturelands has been hypothesized but not yet demonstrated. While sheep/goat herding intensified, the hunting of wild animals such as gazelle and onager decreased in importance.[85] Donkeys, domesticated in the fourth millennium, provided an important means of transporting commodities.

In the archaeobotanical assemblages, two-row barley, free-threshing wheat, and lentils are especially common;[86] olive and grape assumed a specialized importance in the western regions. Like faunal data, the archaeobotanical material reflects the emergence of central institutions; at Leilan, a trend towards agricultural intensification involving the cultivation of marginal farmlands has been associated with the maximizing strategies of central authorities.[87] Wilkinson's interpretation of the sherd scatters around large urban centers (see below) proceeds along similar lines.

The ecofactual data also attest to the importance of social stratification in this period: "social status... had become an additional factor in determining who ate what."[88] At Leilan, Zeder's work showed that the diet of the people in the period IIId "palace" on the acropolis differed significantly from their non-elite contemporaries in the lower town, who ate much more pig.[89]

The proliferation of art objects in this period, in both elite and plebeian contexts, allows us to consider these symbol-rich data from a cognitive perspective. Not surprisingly, we find an emphasis on the legitimization of the new social order in such specimens as the mosaic panels illustrating military victories. However, representations of rulers are curiously few, perhaps corroborating the qualified nature of kingship indicated by the Ebla archives. Among the examples that can be cited are the votive statues from Mari (fig. 8.20) and the Jebelet el-Beidha stele from the Jebel 'Abd al-Aziz region (fig. 8.23). The latter

[82] Coqueugniot 1993. [83] Miller 1985.
[84] Zeder 1998; Weber in Emberling *et al.* 1999; Boessneck 1988.
[85] But see the results from Sweyhat cited in Weber 1997.
[86] Van Zeist and Bakker-Heeres 1985. [87] Wetterstrom n.d.
[88] Miller and Wetterstrom 2000:1126. [89] Zeder 1995.

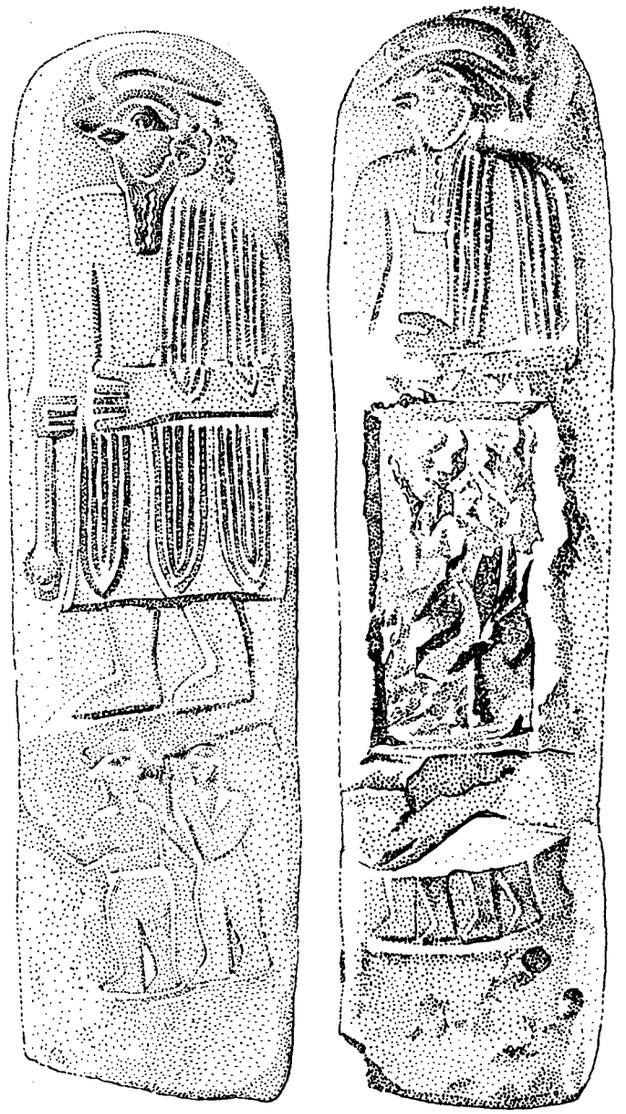

Fig. 8.23 Jebelet el-Beidha stele.

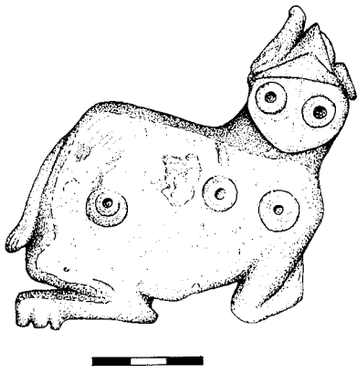

Fig. 8.24 Shell bovid with circle and dot design from Qara Quzaq.

monument, erected on a mountain plateau visible from a distance, depicts a man in a fleecy garment holding a mace standing above two smaller persons also bearing weapons.[90] Removed to Berlin by von Oppenheim, it was unfortunately destroyed by bombing during World War II.

Official religion is attested through temples and their accessories. Architectural (and ritual?) variability is indicated by distinctions between the multiroom complexes of Mari and the simpler temples *in antis* in the west. Characteristic of most temples was a cella or sanctuary where the divine image resided; the deity was nourished with offerings presented on tables or, in the case of liquids, poured into receptacles, activities illustrated in the mosaic panels from Mari. Foundation deposits anchored the temple into the deep-water recesses of the *abzu* below the earth,[91] and murals depicted scenes of worship or divine images at mid-third-millennium (EB IVA) Mari, Munbaqa, and probably Sweyhat.

Stone votive statues with their hands clasped in supplication were deposited in or near temples at Mari (fig. 8.20) and Chuera. A well-known southern Mesopotamian type, these figures were "stand-ins" that were meant to pray for the person represented, usually a member of the elite given the expense of producing such a statue. Also apparently votive in function were the rectangular alabaster plaquettes decorated with circle-and-dot motifs found in a jar in the temple *in antis* at Qara Quzaq on the middle Euphrates. Circle-and-dot designs are found on numerous art objects widely distributed from western Syria to the Khabur, including a distinctive bovid figure usually rendered in shell (fig. 8.24). Presumably imbued with religious symbolism, the figure seems to indicate widespread shared beliefs or ideologies. Some widespread symbolic motifs like the lion-headed eagle Anzu (fig. 8.6; fig. 8.7b, lower register), well

[90] Moortgat-Correns 1972; Meyer 1997. [91] Dunham 1983.

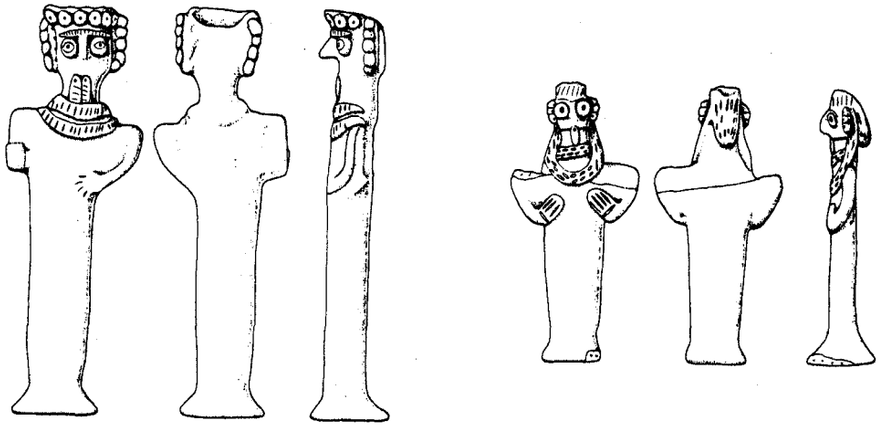

Fig. 8.25 Terracotta figurines from Halawa.

attested in southern Mesopotamia, can be reasonably understood, but the interpretation of others like the quadruple spiral is elusive.

A profusion of objects related to popular rituals and beliefs is available, but their symbolism is likewise difficult to interpret. Rare since the late Neolithic, terracotta human figurines reappear in force in the third millennium. In western Syria and the middle Euphrates, somewhat grotesque female figurines with elaborate hairstyles are common, occasionally with attributes suggestive of the breast-holding gesture well known from subsequent periods (fig. 8.25). They are usually found in secondary contexts, but occasional discoveries of these objects buried under house floors at Selenkahiye and Umm el-Marra may suggest their use as foundation deposits intended to protect the house from evil.[92] Likewise, stone or shell pendants in the shape of animals or other entities often found in child burials have been interpreted as apotropaic in function, warding off danger posed by demons.[93] The intended symbolism of the ubiquitous clay animal figurines, "chariot wheels," and model wagons remains enigmatic.

Explanations

Why did Syria experience an "urban revolution" in the mid-third millennium? One avenue of explanation focuses on Syria's potential for generating the agricultural surpluses capable of supporting urban centers and complex societies. The agricultural productivity of the dry-farming plains of the upper Khabur and western Syria has been extensively discussed by Weiss.[94] Given a staple finance system where mobilized foodstuffs are distributed by an elite in return for labor,

[92] Van Loon 1979; Schwartz *et al.* 2000a. [93] Dunham 1993b. [94] Weiss 1983, 1986.

surpluses provide a foundation for elite power if the technology to extract, transport, store, and administer the staples exists. In the middle Euphrates, the role of wealth finance and international trade has been hypothesized. Objects of wealth, either manufactured locally or acquired by long-distance trade, would be accumulated by elite individuals and bestowed on their followers. The role of warfare, population growth, and population circumscription might also be considered in this region.[95] Given the political landscape of competing city-states suggested by the Ebla, Mari, and Beydar texts, the peer polity interaction model proposed by Renfrew may also be of use in understanding state emergence in third-millennium Syria.[96]

Many have speculated on the role of southern Mesopotamia in the development of Syrian complex societies in the third millennium. Was this a case of "secondary state formation," in which stimuli from the complex societies in Mesopotamia precipitated urbanism in Syria? That the elites of Syria in the mid-third millennium were sensitive to southern Mesopotamian developments is manifested by both the material culture and the textual evidence. Art from the upper strata of society frequently employed southern Mesopotamian models: the votive statues from Mari and Chuera have Mesopotamian-style stances, gestures, and fleecy garments; the inlaid mosaic panels from Mari and Ebla recall the Standard of Ur; the Jebelet el-Beidha stele figure exhibits Mesopotamian-style dress and coiffure; and cylinder seal designs utilize southern Mesopotamian themes (banquet and contest scenes; see fig. 8.7) and motifs.[97] Recurrent mythological figures like the lion-headed eagle Anzu (fig. 8.7b, lower register) or bull with human head (fig. 8.5) may also indicate common ideologies. At the same time, most of these examples are not mere slavish copies of southern Mesopotamian specimens but display local characteristics that are sometimes, from a modern perspective, an aesthetic improvement on the southern models (e.g. the Mari votive statues). One might even question the southern Mesopotamian origin of some of these motifs; southern Mesopotamian chronological priority is not always unequivocal, and the adoption of some artistic styles may have been roughly contemporaneous in Syria and Mesopotamia, reflecting a broad cultural oikumene.

Be that as it may, the cuneiform writing system was certainly borrowed from southern Mesopotamia and was used, as in its homeland, primarily for bureaucratic purposes. Originally developed for writing Sumerian, cuneiform was adapted by the Syrians for local needs and adjusted for Semitic languages. The Ebla texts indicate particularly close connections with Kish, in the northern part of southern Mesopotamia where Semitic languages also predominated, and Gelb has persuasively written of a "Kish civilization" extending west from Kish to Mari and Ebla.[98]

[95] Carneiro 1970. [96] Renfrew and Cherry 1986.
[97] Matthews 1997. [98] Gelb 1992.

Given such evidence of Mesopotamian influence, can we infer a causal role for southern Mesopotamia in the development of urban societies in mid-third-millennium Syria? Several possibilities might be proposed:

1. Syrian complex societies developed on their own, but their elites emulated southern Mesopotamian symbols and technologies of authority in order to legitimize and intensify their own positions. Emerging elites often emulate the symbols and styles of powerful peers elsewhere, utilizing the prestige of the exotic.[99] Such emulation indicates familiarity with the material culture of the foreign elite, but it need not involve political or economic connections.
2. A widespread interest in international trade, perhaps instigated by southern Mesopotamian demand for raw materials, developed in the mid-third-millennium Near East. As Syrian authorities prospered from their participation in this trade and from the development of a wealth finance system, hierarchical political and social structures intensified and culminated in states and cities. Southern Mesopotamian models were emulated by Syrian elites to strengthen their power.
3. Southern Mesopotamian rulers interfered directly in Syrian affairs, campaigning in the north in order to gain control over the routes to western sources of metals, stone, and timber. Local chiefs banded together to resist the external threat, developing larger-scale political systems. Southern Mesopotamian models of authority were copied by the new elites.

At present, the third model seems least likely, since southern Mesopotamian textual references to military campaigns in Syria only appear in the time of Eannatum and Lugalzagesi (*c.* twenty-fourth century BC), after the advent of Syrian urbanization. Models 1 and 2 may each apply in different regions, with trade and wealth finance significant along the Euphrates but less so in the Khabur or western Syria.

Akkadian imperialism

The era of urbanization in third-millennium Syria was punctuated by the first unambiguous emergence of "empire" in the ancient Near East, the Akkadian state of southern Mesopotamia, which subjugated or raided large parts of Syria in the twenty-third century BC. We define empires as large-scale, expansionistic, multi-regional, and administratively complex states. In the Akkadian case, which incorporated all former city-states of southern Mesopotamia as well as large segments of neighboring regions, a new level of imperial administration was installed above the traditional city-based authorities. The Akkadian rulers themselves recognized that their political creation was something new: Naram-Sin, the fourth ruler of the dynasty, took the unprecedented step of identifying himself as a god and assumed the universal title "king of the four quarters."

[99] Helms 1988.

The Akkadian empire was founded *c.* 2350 BC by Sargon, who established his capital at the city of Akkade near Kish, still not identified archaeologically. While the official bureaucracy employed the Semitic language Akkadian, the primary language of the region around Kish, there is no reason to reconstruct an ethnic struggle between Akkadian-speakers in the north and Sumerian-speakers in the south. Emphasis is often placed on the inherent fragility of the new system and its relatively loose control over subservient areas, demonstrated by the frequent rebellions against Sargonic authority.

Sargon's royal inscriptions describe how the god Enlil gave him the land from the Upper (= Mediterranean) Sea to the Lower Sea (Arabo-Persian Gulf), a process which included the subjugation of Mari, and how the god Dagan of Tuttul gave him the "Upper Country," including Mari, Iarmuti, and Ebla, until the Cedar Forest (= Amanus or Lebanon) and the Silver Mountains (Taurus).[100] Mari's subjugation by Sargon is also noted in a year formula. The inscriptions of his successors Rimush and Manishtushu do not allude to Syrian conquests, but the textual sources from his grandson Naram-Sin's reign include abundant data on Syria. Among the relevant data in the royal inscriptions are references to campaigns in Subartu (upper Mesopotamia and Syria) and a war against Armanum and Ebla including the conquest of the Cedar Forest; the text describing the latter campaign maintains that no previous ruler had "ravaged" Armanum and Ebla. The latest Sargonic reference to military activity in Syria derives from the reign of Naram-Sin's successor Sharkalisharri, the last major ruler of the dynasty, who refers in a year formula to a battle with (pastoralist?) Amorites in the Jebel Bishri area northeast of Palmyra. By *c.* 2200 BC, the Akkadian empire is effectively defunct.

While some authorities have downplayed the scale and extent of the Akkadian empire outside of southern Mesopotamia, a consideration of the evidence from Syria discloses both a punishing military presence and, in some cases, a substantial administration *in situ*. Massive and widespread destructions have been noted at key Syrian sites in contexts approximately contemporaneous with the reign of Sargon. Most compelling are the destructions of Ebla palace G, the temples and palace at Mari, the Tuttul (Bi'a) palace, and Brak. The first three sites are specifically named by Sargon, and Brak is well known as an Akkadian control point in Naram-Sin's reign. One might also cite, albeit much more tentatively, the roughly contemporary destructions at sites like Selenkahiye, Hama J5, Qannas, Hammam et-Turkman, and Bderi. Occasionally, the pre-Sargonic Mesopotamian rulers Eannatum or Lugalzagesi have been proposed as the culprits, but their claims of conquest in Syria are difficult to corroborate. In the case of Mari, for example, Parrot could not believe that Sargon would have treated his fellow Semites so savagely (!) and favored Lugalzagesi as Mari's destroyer.[101]

[100] Frayne 1993. [101] Parrot 1974:89.

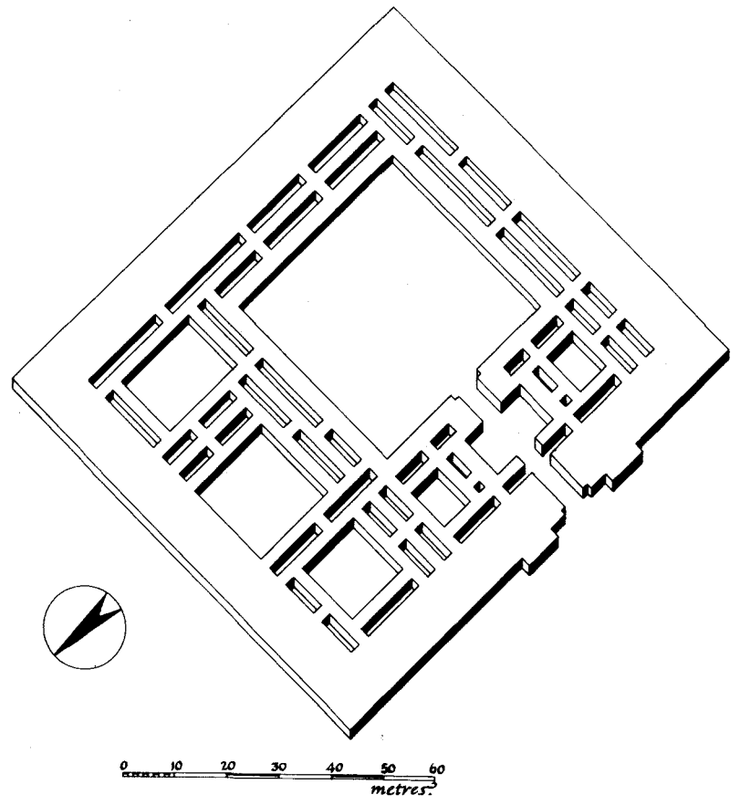

Fig. 8.26 Naram-Sin administrative building at Brak.

The best evidence for the period of Akkadian control derives from Tell Brak (ancient Nagar/Nawar), which the Sargonic rulers appear to have selected as administrative center for the upper Khabur plains. In the 1930s, Mallowan excavated the foundations of a massive square building covering over 1 ha that included mudbricks stamped with Naram-Sin's name (fig. 8.26).[102] The narrow galleries and vast square courtyards of the so-called "Naram-Sin Palace" suggest a storage and administrative function probably connected with the acquisition of tribute from the surrounding region and the provisioning of Sargonic troops.

The more recent excavations of David and Joan Oates have revealed a large-scale structure adjacent to the "palace," as well as extensive monumental architecture in area SS, with a bent-axis temple and associated complex, and in area FS, where another bent-axis temple was located.[103] Such bent-axis temple plans

[102] Mallowan 1947. [103] Oates and Oates 1994; Oates *et al.* 2001.

Fig. 8.27 Human-headed bull from Brak.

are comparable to examples from the Diyala region of central Mesopotamia. Found in the area SS temple was the calcite figure of a recumbent human-headed bull, perhaps associated with the sun-god Shamash (fig. 8.27). Both temple complexes were abandoned and then filled in, accompanied by ritual deposits that included several donkeys in area FS.[104] After a brief reoccupation, the Akkadian settlement at Brak was burned. Cuneiform tablets retrieved from the large-scale Akkadian period buildings at Brak consist of administrative documents of the Sargonic state concerned with the disbursement of rations, receipt and disbursement of silver, lists of garments and livestock, and other familiar bureaucratic affairs. They are largely datable to later Sargonic times, i.e. the reigns of Naram-Sin and Sharkalisharri.

Also dated to the Akkadian period at Brak – although it may precede the era of Sargonic control – was a jar hidden below a room floor containing a hoard of objects including silver ingots and rings, a lapis and gold Anzu figure, and a gold plaque depicting crossed lions.[105] The silver rings supply another example of the premonetary currency first seen in the Mari "Treasure of Ur" and illustrate the continuing importance of silver as a unit of value. Other silver hoards identified in Mallowan's excavations at Brak and in sites in Iraq may indicate the period's political instabilities or signify exercises in conspicuous consumption.

[104] The excavators have interpreted the area FS complex as a caravanserai or way-station, given the evidence of ritually interred donkeys, dung, stake holes, and references to equids on inscribed bullae found in this building (Oates *et al.* 2001).
[105] Matthews *et al.* 1994.

Northeast of Brak at Tell Leilan, the period IIb occupation has been associated with the Akkadian conquest by Harvey Weiss. This assertion is corroborated by a tablet and inscribed sealing in Old Akkadian, the official language of the Sargonic empire, found in the cultic quarter on the Leilan acropolis.[106] It is not certain if the entire IIb occupation belongs to the period of Akkadian domination, but Weiss outlines a set of developments he interprets as manifestations of the Akkadian imperial presence. Among these are the first construction of a defensive wall encircling the entire site of Leilan and a relocation of rural populations to the newly circumvallated (and closely controlled?) urban center. The latter phenomenon is deduced from surface survey results that indicate a reduction in the number of nearby sites and the diminution of settlement at secondary centers.

Citing soil science data implying canal maintenance, Weiss and Courty infer a program of agricultural intensification in this period.[107] Within Leilan itself, remains of processed barley and lentils from houses on the southwest lower town are interpreted as the remnants of food rations allotted to dependent workers. Similarly, the mass-produced fine bowls with flat bases and straight, flaring sides characteristic of period IIb are interpreted as vessels for disbursing food rations. The capacity of the bowls is said to approximate 1 sila, a standard ration allotment. However, the discrepancy between this interpretation and Stein and Blackman's conclusions of non-centralized production of the vessels requires clarification, as does the presence or absence of such ration bowls elsewhere in the Akkadian empire. At present, the delineation of the Leilan period IIb developments and their attribution to an Akkadian imperial presence may be considered as important hypotheses to test but still to be conclusively demonstrated.

Evidence of a Sargonic imperial presence in the upper Khabur is also implied but still to be clarified at Mozan, ancient Urkesh, where an important recent discovery revealed a group of clay door sealings bearing the cylinder seal impressions of Tar'am-Agade, daughter of Naram-Sin. The significance of this remarkable find is unclear at present: did this Mesopotamian princess play a role in an Akkadian occupation of Mozan, or had she become the wife of a local ruler in a diplomatic marriage (see below)?[108] Also significant are occasional Old Akkadian tablets and inscriptions found at Mozan and in Chagar Bazar levels 2–3. At Mari, where rulers with the title *shakkanaku* may have been appointed by the Sargonic kings,[109] Old Akkadian tablets found out of context have been reported.[110] Also found at Mari is a hoard of bronze tools and three inscribed bronze bowls, two of which bore inscriptions of daughters

[106] Weiss 1997. For a possible contemporaneous occupation at Hamoukar, east of Leilan, see now Gibson *et al.* 2002.
[107] Weiss and Courty 1993.
[108] Buccellati and Kelly-Buccellati 1991, 2000.
[109] Durand 1985.
[110] Charpin 1987.

of Naram-Sin, discovered in architecture built above the burned "Maison Rouge." A similar hoard from Munbaqa on the middle Euphrates included a bronze bowl with an inscription of the daughter of a high Sargonic official, but the significance of this find is unclear, given the hoard's uncertain context.[111]

In general, the evidence from Brak and, more subtly, from other sites indicates the existence of an Akkadian imperial administration in the Khabur and Mari areas but not in the west. Curiously, there is relatively little evidence of southern Mesopotamian material culture visible in the Sargonic period aside from cuneiform tablets, some cylinder seals, and other examples of elite art. Ceramic assemblages, for example, retain their local Syrian character, and there is no widespread distribution of southern Mesopotamian pottery styles across Syria. Such a pattern stands in contrast both to the fourth millennium "Uruk expansion" and to Akkadian period Elam (southwest Iran), where southern Mesopotamian material culture was imitated pervasively.[112]

Why did the southern Mesopotamians attempt to establish an empire? The usual perspective emphasizes the southern Mesopotamians' desire for the raw materials of their periphery, a viewpoint supported by the Sargonic inscriptions' rhetoric of "silver mountains" and "cedar forests." It has been proposed that the growth of Syrian urban societies like Ebla and Mari impeded southern Mesopotamian access to the natural resources of eastern Anatolia and the Levant. As a result, the southern Mesopotamians took by force what they could not obtain by trade. Adopting a different approach, Weiss has interpreted Akkadian imperialism as a desperate attempt to maximize agricultural production in a period of progressive climatic desiccation. While such economic *raisons d'être* are undoubtedly significant, other issues, particularly ideological, also may have been at play.

In terms of its overall effect on Syrian complex society, we can conclude that the Akkadian imperial interlude was responsible for the elimination of powerful central authorities and institutions at Ebla, Bi'a (Tuttul), Mari, and Brak (Nagar). The impact may have been disastrous in some regions such as the middle Khabur, which suffers virtual abandonment by *c.* 2300–2200. But in others, such as the middle Euphrates and western Syria, we can observe a continuity of urban life and material culture until the end of the millennium.

Urban crises of the late third millennium

In the final centuries of the third millennium, the urban societies of Syria exhibit conspicuous evidence of stress or even collapse. In the Khabur region, numerous sites were abandoned at a point roughly synchronous or just subsequent to the period of the Akkadian presence in Syria. By *c.* 2200 BC,

[111] Boese 1983. [112] Potts 1999.

Leilan and the sites in its vicinity, Chuera, Beydar, Abu Hgaira, and all the excavated middle Khabur sites were deserted. Only Brak and Mozan survived.

In western Syria, evidence of decentralization appears by *c.* 2000 BC, at the end of the Ebla IIB2 period ("EB IVB"). Sites were burned (e.g. Ebla, Qannas, Sweyhat, Selenkahiye), reduced to minuscule, short-lived villages (Selenkahiye, Sweyhat), or abandoned, either totally or partly (Qannas, Ahmar, Umm el-Marra, Hammam et-Turkman, Hadidi).

The disintegration of early urban societies in the late third millennium is not unique to Syria: similar phenomena have been observed in Palestine, Egypt, Cyprus, Anatolia, and the Aegean. Because of this interregional pattern and recent interest in problems of civilizational decline and collapse,[113] considerable attention has been devoted to the issue. For the Syrian case, two different approaches have been advanced.

One perspective, espoused by Harvey Weiss, Marie-Agnès Courty and their collaborators, has emphasized the significance of climate change.[114] They argue that a late third-millennium episode of aridity exhausted the agricultural capacities of urban societies and brought about their swift collapse. Through analyses of soil micromorphology, based on trenches cut at Leilan and nearby sites, Courty detected evidence of an abrupt increase of wind circulation, atmospheric dust, and aridity *c.* 2200 BC; this date is supported by Leilan IIb sherds stratified prior to the episode of major desiccation. Integrating the soil science results with archaeological data from Leilan, Weiss has proposed a model of third-millennium development centered on climate change. First, the urbanization of Leilan *c.* 2600 (period IIId), characterized by agricultural maximization, is partly interpreted as a response to increasingly arid conditions. The establishment of the Akkadian empire in Syria *c.* 2300 is also viewed as a strategy of agricultural intensification in the face of intensifying desiccation. Finally, the climax of the desiccation *c.* 2200, perhaps concurrent with a volcanic eruption, results in the drastic reduction of sedentary occupation in the Khabur region. Weiss posits a major displacement of population, both sedentist and pastoral nomadic, from Syria into southern Mesopotamia at this juncture.

While Weiss's approach has been controversial,[115] its reintroduction of climate change as a significant variable in the history of complex societies is an important contribution. Whether the specifics of the model, based mainly on information from the Leilan vicinity, will be substantiated can only be determined through continued data collection and analysis.

The alternative perspective on late third-millennium urban collapse focuses on an environmental deterioration effected by the urban societies themselves.

[113] Yoffee and Cowgill 1988.
[114] Weiss *et al.* 1993. Note that Courty has recently changed her interpretation of the late third-millennium "event" (cf. Oates *et al.* 2001:367–72).
[115] Gremmen and Bottema 1991 concluded, for example, that palynological evidence showed no evidence of significant climate change in the Jezireh since *c.* 4000 BC.

Here, the emphasis is on the weaknesses inherent in early complex societies rather than on external challenges.[116] Tony Wilkinson's work in off-site archaeology provides a good example of this approach.[117] Investigating the areas between sites, Wilkinson has observed "linear hollows" radiating out from ancient sites as well as widespread scatters of sherds encircling the sites. Wilkinson interprets the linear hollows as ancient roadways leading to fields outside the towns; he interprets the sherd scatters as vestiges of ancient manuring in which organic waste and mound material, including sherds, were collected from towns and transported to fields.

Since the sherd scatters are often associated with third-millennium large centers, Wilkinson has proposed that their appearance signals a strategy of agricultural intensification. In this model, traditional "resilient" alternate fallow agriculture was abandoned when the urbanizing societies required ever-larger agricultural surpluses. When a "maximizing" strategy of annual cultivation was instituted, manuring provided larger crops and recovered some of the nutrients lost when alternate fallowing was discontinued. Unlike alternate fallow, however, manuring fails to retain moisture from the previous year's rainfall, rendering the agricultural systems particularly vulnerable to increased aridity. A sequence of dry years would have precipitated an agricultural catastrophe and the collapse of the associated urban systems. Like Weiss's model, this approach has been controversial, particularly with respect to the interpretation of sherd scatters. Continued data collection should broaden our understanding of the issue; at present, corroborating evidence of human-induced environmental deterioration is provided by Naomi Miller's analysis of archaeobotanical data from Sweyhat and Umm el-Marra, where the high ratio of seeds (from dung fuel) to wood charcoal implies deforestation.[118]

The urban collapse of the late third millennium had its conspicuous exceptions – urban centers that thrived in a period traumatic to other communities. Such cases require discussion and explanation. In the Khabur, textual evidence had long indicated the existence of a post-Akkadian kingdom of Urkesh and Nawar ruled by kings with names in the non-Semitic Hurrian language. We are now apprised of the identity of Urkesh (Mozan) and Nawar (most probably Brak) and affirm that they continued to prosper in the late third millennium. Since 1984, excavations have been conducted at Mozan, an 18 ha upper mound encased by a sprawling lower town estimated at over 100 ha.[119] The most important data stem from what appears to be a palace in area AK, whose floors yielded hundreds of cylinder seal impressions on clay. Inscribed examples provide the name of Tupkish, endan (Hurrian, "king") of Urkesh, but they derive mainly from the household of the queen Uqnitum (Akkadian, "lapis lazuli

[116] Tainter 1988. [117] Wilkinson 1994, 1997. [118] Miller 1997; Schwartz *et al.* 2000a.
[119] Buccellati and Kelly-Buccellati 1996, 1997, 2000.

Fig. 8.28 Cylinder seal impressions from Mozan (Urkesh).

girl"), with the queen's nurse and cook mentioned, among others. Representations of the royal family, including the king, queen, crown prince, and a smaller child seated on the lap of the queen, are unique in third-millennium Syrian art (fig. 8.28 left). Also unusual is the correspondence between the seal owner's profession and the activities represented on the seals (e.g. the cook's seal, fig. 8.28 right, has depictions of food preparation).

In another part of the palace, a group of clay door sealings was found bearing the name of Tar'am-Agade, daughter of Naram-Sin. This discovery is of considerable historical importance, but the significance of Tar'am-Agade's presence is, as yet, elusive. Still to be clarified is the chronological relationship between the local Hurrian dynasty and the Akkadian rulers: should Tupkish be dated to a period prior to Naram-Sin, as the Mozan excavators suggest, or is his rule subsequent to the Sargonic period?

The advent of Hurrians in Syria, their place of origin, and the nature of their role in Syrian society are important research questions still to be completely resolved. No Hurrian names have been identified in the Ebla or Beydar texts, providing a twenty-fourth-century BC *terminus post quem* for the Hurrian appearance in Syria. Persons with Hurrian names first appear in documents of the later Sargonic empire, and the Mozan sealings as well as the lion-shaped foundation deposits of the king of Urkesh and Nawar now in the Louvre and Metropolitan Museum of Art appear to derive from a late or post-Akkadian date. It is likely that the Hurrians who appeared in late third-millennium Syro-Mesopotamia originated in the eastern Taurus or western Zagros highlands. Still to be determined is whether the appearance of Hurrian names in the Syro-Mesopotamia lowlands represents the successful assumption of power by members of a foreign ethno-linguistic group or whether a full-scale migration was involved. It is unlikely, at any event, that a distinctive Hurrian art or "culture" can be distinguished from the other manifestations of material culture in third-millennium Syro-Mesopotamia.

Although the archaeological evidence has not yet been substantially presented, it appears that Brak also flourished in the post-Akkadian era as one of the power centers of the Urkesh–Nawar entity. Why did these two urban centers survive, and not Leilan, Beydar, or Chuera? Mozan's location at the

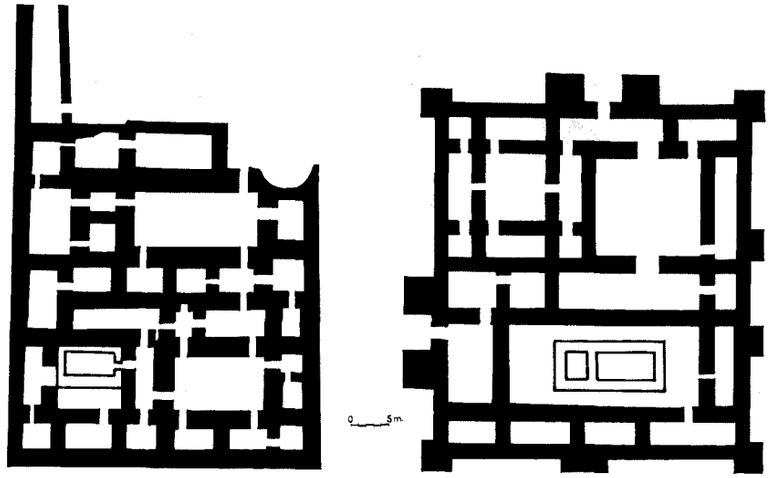

Fig. 8.29 *Shakkanaku* era palaces at Mari (left) and Bi'a (Tuttul) (right).

northern edge of the Khabur plains near the Mardin saddle may indicate control of the route to the copper mines of eastern Anatolia – and perhaps an entry point for Hurrian individuals arriving from the highlands to the north. Brak, at the southern fringe of the region, may have retained its role as traditional connector to southern Mesopotamia.

Mari, with an even stronger link to southern Mesopotamia, provides another important exception to the disintegration of urban societies in the late third millennium. Indeed, in the period of the *shakkanaku* rulers, *c.* 2250–1900 BC, Mari enjoyed a prosperity evident both in monumental public building projects and in smaller-scale residential or industrial contexts. According to Margueron, the construction of a new religious quarter entailed leveling the center of the city, installing a thick layer of pebbles, and building a high terrace ("ziggurat") and new temples above this foundation.[120] The "lion temple" is unusual for Mari in its *antis* plan.

The palatial complex in the center of the upper mound was also reconstructed and modified. In phase P-0, the sacred area of the earlier complexes was rebuilt, its square court now provided with niched brick pillars. Construction of a magnificent new royal palace was begun after the P-0 phase, but its early second-millennium BC incarnation is far better documented and will be discussed below in chapter 9.

To the northeast on the upper mound was the smaller "eastern palace," a squarish building of small rooms flanking large rectangular courts (fig. 8.29 left).[121] A throne room with a dais was identified, in addition to kitchens,

[120] Margueron 1996. [121] Margueron *et al.* 1997.

bathrooms, and a toilet. The tablets and seal impressions found in the palace reveal that one of its important occupants was Hitlal-Irra, brother of the *shakkanaku* Puzur-Ishtar. Below the throne room and underneath another large room were elaborate multi-chamber corbeled tombs constructed of baked brick, reminiscent of the Ur III elite tombs at Ur. Unfortunately, their contents had been robbed.

The reasons for Mari's success in weathering the storms of the late third millennium remain to be elucidated. Like Brak, Mari was a traditional gateway to southern Mesopotamia and may have avoided disaster because of its economic and commercial significance. The same may have held true for Bi'a (Tuttul) on the Euphrates upstream from Mari near the Balikh confluence, where a palace contemporaneous with Mari's *shakkanaku* period was constructed (fig. 8.29 right). Provided with exterior bastions and a monumental entry, the building was organized around two courtyards.

Conclusions

The third-millennium urbanization of Syria has become one of the key research issues for the archaeology of the region and promises to remain so for the foreseeable future. Not only was this the first sustained experiment in complex, literate, and urban societies in Syria, but it was the apogee of urbanism in pre-Classical period Syria. In no succeeding period of the second and early first millennia BC do we observe such a large number of urban-sized sites distributed across the Syrian landscape. Yet the experiment was not a total success: urban disintegration and collapse became widespread in the troubled years of the late third millennium. Thus the phenomenon demands attention both for its swift and ubiquitous appearance and for its decline.

9

THE REGENERATION OF COMPLEX SOCIETIES

With the confusion and upheaval of the end of the third millennium BC, the Early Bronze Age draws to a close. In the succeeding Middle Bronze period (*c.* 2000–1600 BC), we encounter one of the most compelling issues of Bronze Age Syrian archaeology: how did Syrian complex societies reinvent themselves after "collapse"? Although there is no clear answer to this problem as yet, several factors can be explored. Among these are the role of economic or political stimuli from external complex societies, the survival of smaller-scale administrative entities, technological changes, enhanced climatic conditions, and new ethnic groups.

The role of the latter variable seems particularly clear from the textual sources that begin to reappear in the first few centuries of the second millennium. Rulers with names in Amorite, a Semitic language, preside over an array of Syrian and Mesopotamian political entities and include among their number Shamshi-Adad, founder of the first northern Mesopotamian empire *c.* 1800 BC, and his younger contemporary the famous Hammurabi of Babylon. Sometimes these kings refer explicitly to their kinship with other Amorite rulers: Hammurabi, for example, claimed descent from the same ancestors as Shamshi-Adad.

Who were the Amorites? References to the group "Martu" (= Amorite) first appear in texts from the mid-third millennium, sometimes in association with the Jebel Bishri desert region northeast of Palmyra.[1] By the late third millennium, the southern Mesopotamian kings of the third dynasty of Ur considered the Amorite groups a major threat and went so far as to build a "great wall" between the Tigris and Euphrates called *Muriq-Tidnim* (Akkadian, "repeller of the Tidnum Amorites"). While some Amorites were considered an external menace, it is clear that many Amorite individuals functioned successfully within southern Mesopotamian society, sometimes operating at the highest political levels. After the collapse of the Ur kingship and the Early Bronze polities in Syria, we find Amorite rulers in place from the Mediterranean to the Persian Gulf.

That many Amorites were nomadic pastoralists herding flocks of sheep and goats is clear from a variety of written sources: southern Mesopotamian texts

[1] See Streck 2000:21–80 for a historical introduction.

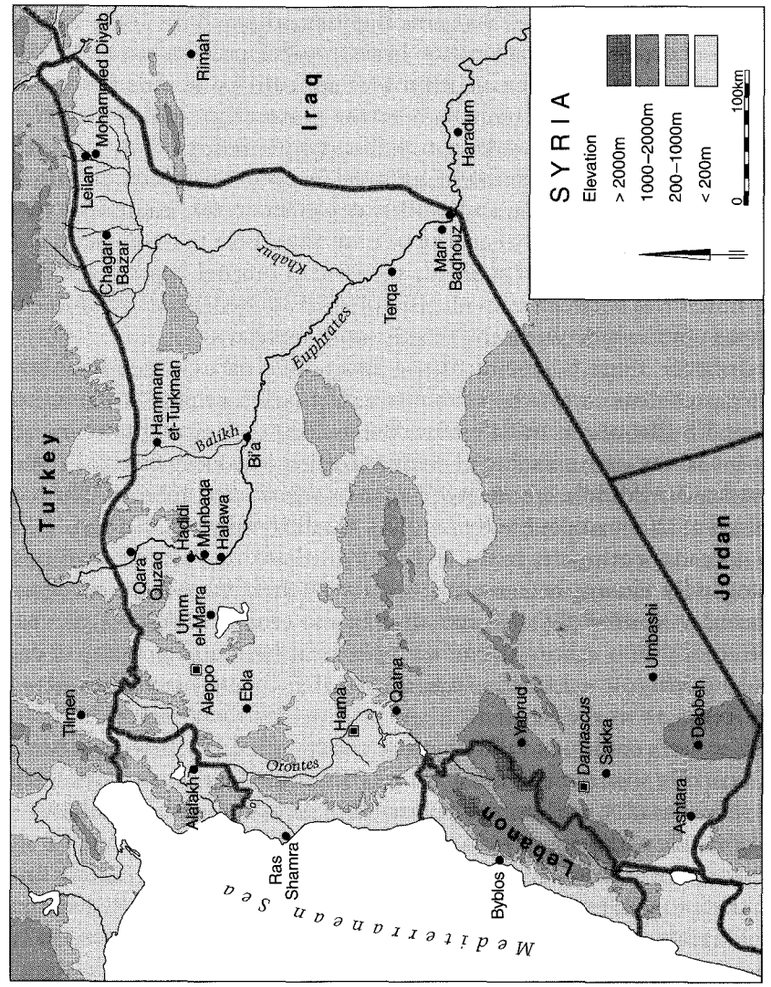

Fig. 9.1 Syria in the early second millennium BC (Middle Bronze Age)

of the late third millennium refer to them as uncouth outsiders who "know no bread," and the Amorite rulers themselves allude to their nomadic past. While ancient literary sources and modern traditional scholarship both have represented nomads and sedentists as polar opposites with little in common except hostility, more recent research has emphasized the "dimorphic" character of Near Eastern society.[2] Such a dimorphic society would include both nomadic pastoralists and sedentists exploiting overlapping geographical zones and forming a mutually dependent relationship. In this model, pastoralists provided the sedentists with animal products in return for agricultural or craft goods. Moreover, a persistent flow of individuals between pastoralism and sedentary agriculture was probably characteristic, as well as combinations of the two strategies, depending on regional economic, political, or climatic circumstances. If we adopt this view of dimorphism and mutual dependence, the traditional view of nomadic "waves" periodically rushing in from the desert to overwhelm sedentary society is not tenable. Of course, a scenario of mutual dependence did not preclude hostilities between nomadic pastoralists and sedentists any more than it precluded conflicts between the sedentists themselves.

Unfortunately, there is precious little archaeological evidence for Amorite nomadic pastoralists or for the ethnic transformation of political rule in the early second millennium; in Palestine, the well-known attempts to associate Amorite invasions with episodes of deurbanization (the Early Bronze IV period) or reurbanization (Middle Bronze Age)[3] are now considered dubious. The reason for this state of affairs undoubtedly involves the difficulties of identifying either pastoral nomads or ethnicity in the archaeological record. Pastoralist groups are archaeologically elusive because the brevity of their temporary occupations results in very limited physical remains. In the case of ethnicity, groups are known to mark their ethnic status with physical objects (e.g. items of dress), but these are difficult to identify archaeologically. Given this predicament, we can only guess as to the particulars and reasons for the Amorite "takeover" in the unsettled conditions following the collapse of Early Bronze states. But it is not unlikely that the extended kin relations the Amorites enjoyed, which allowed them to enlist a widespread network of support,[4] and the military skill of their nomadic components were important factors.

While Amorite names are ubiquitous in the textual sources of Middle Bronze Syria, Akkadian remained the language used for writing, and Akkadian names persist alongside Amorite examples. Hurrian names are also evident in texts from the Jezireh and as far west as Alalakh near the coast, indicating the movement of Hurrian-speakers, or at least Hurrian naming practices, from the Khabur region to the west in the early second millennium.

The proliferation of texts in this period raises the issue of the relationship between archaeology and the study of written records. It is sometimes tempting

[2] Rowton 1973a, 1973b, 1976. [3] Kenyon 1966. [4] Yoffee 1995.

for historians to relegate a secondary status to archaeology when texts supply detailed information on politics, economy, religion, and other aspects of society. In this perspective, historic period archaeology functions primarily as an excavator of texts and as a means to "illustrate" texts with buildings and art objects. We argue, however, that material culture and text must be used conjunctively, for each provides insights that the other cannot. Texts are typically produced by urban-based elites and contain the biases and interests of those groups, largely ignoring or denigrating lower social strata and rural populations. Archaeology is able to counteract this imbalance, providing data on non-elite members of society and on non-urban settlements – in fact, the vast majority of the societies' population. Unfortunately, this is a task that archaeologists have often avoided, preferring the spectacular results of monumental architecture in the largest cities.

Western Syria: Middle Bronze beginnings

The Middle Bronze period in western Syria is divisible into two segments, Middle Bronze I (*c.* 2000–1800 BC) and II (*c.* 1800–1600 BC) (fig. 9.2).[5] The stratified sequence from Tell Mardikh/Ebla provides the most convenient anchor for this chronology, with Mardikh IIIA equivalent to MB I and Mardikh IIIB equivalent to MB II. However, complete publication of relevant ceramic material from Ebla is still awaited. While important sequences are also available from Hama and Tell Atchana (ancient Alalakh), problems of stratigraphic uncertainty limit their utility.[6]

Traditionally, a clear break between the material culture of Early Bronze and Middle Bronze Syria has been recognized. Ceramics show distinct differences in shape, decoration, and method of manufacture, clay figurines have new forms, and house and town plans also exhibit marked change. However, recent evidence from excavations in the Ebla Archaic Palace and from sites on the middle Euphrates like Tell Kabir, Sweyhat, and Hadidi have begun to provide documentation for a gradual transition in ceramics, at least at those specific sites.[7]

In general, the pottery of the early second millennium in western Syria manifests a coarser character than that of the later third millennium: clays and fabrics are rougher, temper inclusions are larger, vessel walls are thicker, and firing temperatures are lower. The diminished number of shape types, perfunctory decoration, and increasing uniformity in the pottery suggests even more of an emphasis on standardization and mass manufacture than was the case in the Early Bronze Age. Similarly, the fast wheel is used with even greater scope than before, employed for large jars and cooking pots as well as for serving vessels.

[5] Matthiae 1997a, 1997c.
[6] See Heinz 1992 for a reassessment of the Alalakh Middle Bronze sequence.
[7] Cooper 1998.

		Western Syria			Balikh	Khabur	Mari and vicinity	Northern Mesopotamia	Southern Mesopotamia
1600 –	----------	Alalakh VII	----------	----------	Hammam et-Turkman VIIC		Hana period		----------
1700 –	Middle Bronze II	Alalakh VIII–IX	Mardikh IIIB		Hammam et-Turkman VIIB				First Dynasty of Babylon
1800 –	----------	Alalakh X–XIII	----------	Hama H 5–1	Bi'a Younger Palace late	Leilan I	Zimrilim Yahdun-lim	Shamshi-Adad Old Assyrian period	Hammurabi ----------
1900 –	Middle Bronze I	Alalakh XIV–XVII	Mardikh IIIA		Hammam et-Turkman VIIA Bi'a Younger Palace early		*shakkanaku* period		Isin-Larsa period
2000 –	----------	----------	----------	----------					----------

Fig. 9.2 Early second-millennium BC chronology.

Fig. 9.3 Early second-millennium BC pottery from western Syria (scale 1:5 except i, l, 1:10).

The Middle Bronze I ceramic assemblages of western Syria are particularly characterized by a frequency of carination, especially in bowls with flat bases and goblets. Larger open or slightly restricted vessels have flat or overhanging ledge rims, frequently grooved on top, and jars have tall necks with grooved rims. The larger vessels are often decorated with horizontal or undulating comb-incised designs. The same traits are common in the pottery assemblages of early second-millennium Palestine, indicating a homogeneity of Levantine Middle Bronze material culture that also includes architectural types and diverse craft products.

At Ebla, Middle Bronze I ceramic characteristics include shallow carinated bowls with everted rims and concave upper bodies (fig. 9.3b,e), carinated goblets with beaded or collared grooved rims, sharply carinated biconical fine ware goblets ("Gublite bowls") with thin walls and small everted rims, jars with tall necks and slightly everted grooved collared rims (fig. 9.3j–k), and large

	Western Syria				Balikh		Khabur	Mari and vicinity	Northern Mesopotamia	Southern Mesopotamia
1600 –					Hammam et-Turkman VIIC					
		Alalakh VII						Hana period		First Dynasty of Babylon
1700 –	Middle Bronze II		Mardikh IIIB		Hammam et-Turkman VIIB					
		Alalakh VIII–IX						Zimrilim		Hammurabi
1800 –				Hama H 5–1		Bi'a Younger Palace late	Leilan I	Yahdun-lim	Shamshi-Adad	
		Alalakh X–XIII			Hammam et-Turkman VIIA				Old Assyrian period	
1900 –	Middle Bronze I		Mardikh IIIA			Bi'a Younger Palace early				Isin-Larsa period
		Alalakh XIV–XVII						*shakkanaku* period		
2000 –										

Fig. 9.2 Early second-millennium BC chronology.

open or slightly restricted vessels with grooved ledge rims and combed/incised decoration on the upper body.[8] Black-Burnished Ware is also attested, as is Syro-Cilician Painted Ware. The latter variety, found with frequency in Cilicia, the Amuq plain, the Aleppo vicinity, and the region south of Aleppo, consists of trefoil-mouthed jugs (fig. 9.3h), carinated bowls, and footed bowls whose upper bodies are painted with geometric, plant, and animal motifs in friezes bordered by horizontal bands divided into metopes. Ebla also has a Common Painted Ware characterized by horizontal bands and crosshatched triangles on trefoil-mouth pitchers with twisted handles and globular juglets. Both Syro-Cilician and Ebla Common Painted Ware are to be distinguished from Khabur Ware, found in the Jezireh, and what Tubb has designated Levantine Painted Ware,[9] common on the coast and in southern Syria and Palestine.

At present, our view of western Syria in the first two centuries of the second millennium is dichotomous: on the one hand, many sites are abandoned or reduced in size and prosperity, but, on the other, at least one – Ebla – exhibits considerable resources and power. Unfortunately, survey work has not effectively complemented the excavation results, since the available analyses (from the Sajur, Jabbul, Qoueiq, Amuq, and Akkar regions) do not distinguish MB I from MB II. However, recent results from the dry steppe northeast of Hama indicate the existence of large, perhaps semi-sedentary occupations in an EB–MB transitional period.

The evidence of early second-millennium impoverishment is particularly clear in the middle Euphrates region. Sites like Selenkahiye and Sweyhat have small-scale, short-lived "squatter" occupations atop the ruins of their Early Bronze cities and are subsequently deserted. Smaller sites like Habuba Kabira North and Tell Kabir also "downsize" in the early second millennium and are soon abandoned. At Hadidi, occupation is restricted to the high tell, and Halawa may have been temporarily uninhabited. In general, the impression one receives from the middle Euphrates is of the disintegration of Early Bronze centralized city-states and their replacement by small, self-reliant communities.[10] A similar pattern has been noted upstream in the vicinity of Kurban Höyük in southeastern Anatolia.[11]

Elsewhere in western Syria, similar indications of decentralization and small-scale occupation are evident in the Middle Bronze I period. At Hama, where a large excavated exposure was obtained, the site was reoccupied after the devastating fire of level J1, perhaps after a hiatus. This reoccupation, period H, is marked by domestic architecture that is oriented differently and is less densely packed than the third-millennium settlement. Associated with these early second-millennium levels are subterranean brick-lined circular silos, perhaps indicative of localized storage replacing the centrally managed redistribution of the third millennium.

[8] Nigro 1998. [9] Tubb 1983. [10] Cooper 1998. [11] Wilkinson 1990.

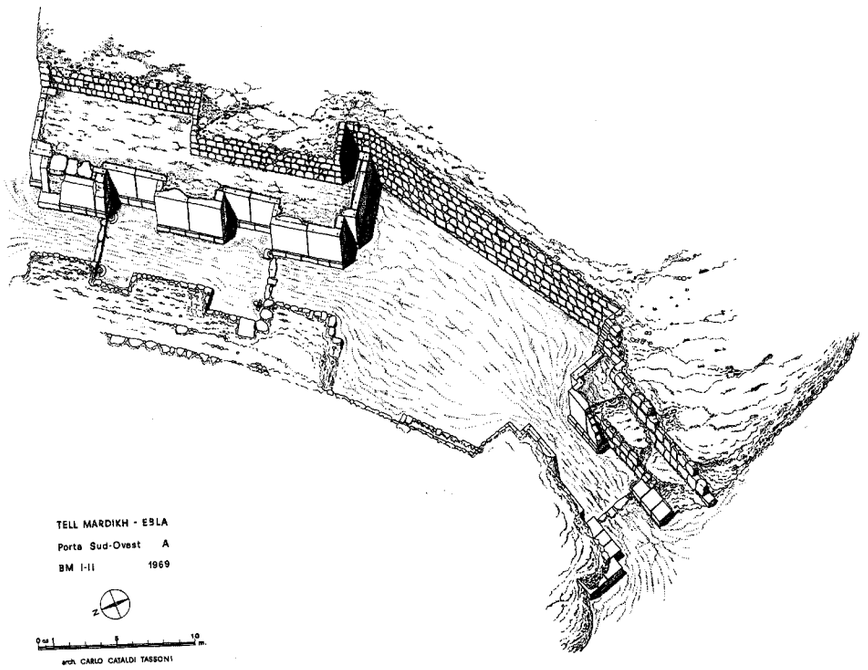

Fig. 9.4 Southwest gate at Ebla.

In sharp contrast to this picture of decentralization, however, is the evidence from early second-millennium Ebla in period IIIA. After the destruction at the end of Ebla period IIB2, the city seems to have enjoyed an episode of marked power and importance. According to the excavators, the massive earthen rampart faced with a stone revetment surrounding the city, preserved up to 22 m high and 45 m thick, was constructed early in the IIIA period.[12] The massive southwest gate of the town has also been attributed to Ebla IIIA. This impressive construction consisted of a single-chamber outer gateway with two pairs of facing piers, an inner gateway consisting of two chambers and three pairs of facing piers, and a trapezoidal courtyard between the two gateways (fig. 9.4). The lower portions of the walls of the inner gateway were faced with huge orthostat slabs.

When these awe-inspiring monuments were under construction, the administrative center of the town was probably located in the Archaic Palace (Building P5, northwest of the acropolis), originally built in the late third millennium and abandoned towards the end of the Ebla IIIA period. An Intermediate Palace, as yet minimally investigated, was built on the site of the Archaic Palace, and

[12] Matthiae 1997a.

other palaces better known from period IIIB may well have been erected first in IIIA. Although it was found out of context, an inscribed basalt statue of Ibbit-lim discovered in 1968 probably represents one of the kings who presided over this period of Ebla's renewed prosperity. Dedicated to the goddess Ishtar, the piece provided the first confirmation that modern Tell Mardikh was the site of ancient Ebla. Other examples of royal votive statues may date from the IIIA period as well.

In the regions bordering the Syrian coast, the evidence for the beginning of the second millennium is fragmentary. The important center of Alalakh, modern Tell Atchana, was founded in this period, but evidence from the earliest levels is limited and mainly involves phases of a broadroom temple. At Ras Shamra, significant early second-millennium remains have been identified, but stratigraphic imprecision is common, and Schaeffer's tripartite division of the Middle Bronze occupation (Ugarit moyen 1–3) is of questionable utility. Perhaps the earliest second-millennium evidence is provided by the graves of the "porteurs de torques" excavated on the acropolis, containing an impressive collection of copper/bronze duckbill axeheads, toggle pins, socketed spearheads, daggers, and torques. There is no evidence to support Schaeffer's contention that these were graves of foreign invaders.

The beginning of the second millennium in the Jezireh

The archaeology of the Jezireh has produced only minimal evidence for the first two centuries of the second millennium BC, perhaps reflecting the decentralized and small-scale character of settlement in much of the region. Survey work occasionally supplies data on the trend towards deurbanization, as in the Euphrates region below the Tabqa dam, which sees a pronounced decline in permanent settlement following the Early Bronze Age.[13] However, the ceramic assemblages of the beginning of the millennium are incompletely understood, rendering most survey results preliminary in nature. An important recent contribution is the quantified ceramic sequence from the early second-millennium palace at Tell Bi'a.[14]

Survey of the Balikh region has identified a pattern of small sites and a few larger centers such as Hammam et-Turkman. At the latter site, a break in occupation between the late third and early second millennium is apparent, followed by the construction of relatively modest domestic architecture on the site acropolis. Probably sometime in the nineteenth century BC, a large-scale administrative complex was erected on the acropolis that included a sophisticated drainage system of pits lined with terracotta pipes.

The Khabur region seems to experience a similar period of deurbanization in the beginning of the second millennium, with most large sites abandoned or, as in the case of Tell Brak, significantly reduced in size. Only in the lower

[13] Kohlmeyer 1984. [14] Einwag 1998.

Euphrates valley does urban life persist effectively, although even here there are signs of stress. The period of the *shakkanaku* rulers at Mari (see above, chapter 8) is marked by the construction of monumental buildings, including the royal palace best known from its eighteenth-century BC manifestation. But even at Mari, there may have been a period of difficulty, considering the abandonment of the "eastern palace" and the assumed century-long break in textual documentation between the end of the *shakkanaku* period (twentieth century BC) and the era of the king Yahdun-lim.[15] Although Tell Bi'a (Tuttul) at the confluence of the Balikh and Euphrates apparently diminished in size in the early second millennium, a palace contemporaneous with Mari's *shakkanaku* period was in use.

In the early nineteenth century BC, textual sources from Kültepe (ancient Kanesh) in central Anatolia reveal the existence of a thriving trade between that region and Assur on the Tigris in northern Iraq. Although several localities in the Syrian Jezireh are cited as stopping points for the Assyrian merchants, including Zalpa (= Hammam et-Turkman?), archaeological evidence of Assyrian trade colonies (*karum*) in Syria has not yet been detected. Nevertheless, shared motifs in the glyptic of Middle Bronze I Syria and Anatolian sites involved in the trade with Assur indicate a common cultural environment.[16]

Middle Bronze II: reurbanization and the emergence of regional states

By the later nineteenth century BC, urban life in Syria reasserted itself and acquired a new vitality and success. Politically, this era saw the appearance of regional states whose bureaucracies produced abundant written records, particularly at Mari, Alalakh, and Leilan (ancient Shubat-Enlil/Shekhna). While often based in important cities, these polities controlled larger areas and exercised more direct administrative control over their territories than the city-states of the third millennium. Among the new regional powers were Yamkhad and Qatna in the west, the short-lived empire of Shamshi-Adad in the east, and Mari and its successor state Hana in the Jezireh.

In the west, Yamkhad is far better documented than its southern rival at Qatna, both textually and archaeologically. Based at Aleppo, the kings of Yamkhad controlled the area from the Mediterranean coast to the middle Euphrates valley, but they often participated in the politics of regions well to the east, even intervening in southern Mesopotamia. Like Ebla in the third millennium, Yamkhad derived much of its power from its crucial strategic importance at the intersection of north–south and east–west trade routes, in combination with its productive dry-farming hinterland. Qatna controlled west central Syria, and a similar regional power was centered at Hazor in northern Palestine.

[15] Durand 1985.
[16] Porada 1985 outlines a typology and periodization for the glyptic art of Middle Bronze Syria.

In western Syria, this period of reurbanization and regional polities is associated archaeologically with Middle Bronze II (*c.* 1800–1600), equivalent to Ebla period IIIB. Ceramically, the emphasis on mass production with limited decoration observed in Middle Bronze I is maintained. At Ebla and elsewhere in western Syria, the carinated bowls of period IIIA are largely replaced by new shapes, especially mass-produced shallow bowls with inturned rims (fig. 9.3a, d). Small collared-rim goblets continue, as do the large, often comb-incised vessels with grooved ledge rims (fig. 9.3i, l) and the tall-neck jars with out-turned grooved rims. Appearing in the latter part of the period are "shoulder goblets" with pronounced tall necks, globular lower bodies, and ring bases (fig. 9.3c, g). Also characteristic of later MB II is a single horizontal ridge on the bottom of jar necks, as well as a cylindrical beaker with low carination. While Common Painted Ware remains in use, Syro-Cilician Ware declines. The Middle Bronze II ceramic assemblages observed elsewhere in western Syria share numerous characteristics with Ebla IIIB, implying marked ceramic uniformity throughout the region. In the middle Euphrates, pottery assemblages from sites like Hadidi and Halawa differ from those farther west mainly in the paucity of painted vessels.

As was the case for the third millennium, the most plentiful body of evidence for a western Syrian regional center derives from Ebla. Indeed, the Ebla excavations have produced a far more extensive sample of architecture and material culture for early second-millennium contexts than for the third millennium. However, a textual archive like that of the third-millennium Palace G has yet to be discovered. In Middle Bronze II Ebla, excavations have documented the existence of a fortified central acropolis with palace and temple enclosed by a belt of monumental sacred and palatial buildings on the lower town, itself surrounded by the massive outer ramparts of the city (fig. 9.5).[17] The inner and outer fortifications at Ebla, as well as the town's considerable importance in the second millennium, are explicitly cited in a Hurrian–Hittite bilingual epic recently discovered at the Hittite capital Hattusha (modern Bogazköy) in central Anatolia.[18]

Although historical evidence suggests that Ebla was subservient to Yamkhad in Middle Bronze II, the city remained a prosperous center whose kings retained the resources and authority to build on a monumental scale. In this period, the acropolis was encircled by a massive fortification of brick and stone revetments and terraces, while the outer ramparts were surmounted with a series of small fortresses with uniform plans of six or more rooms, located at regular intervals.

Of the four palaces so far identified, the Western Palace (Palace Q) on the lower town is the most extensively excavated, with some 7300 sq. m and over fifty rooms exposed, many with dressed stone orthostats lining the walls (fig. 9.6). The plan reveals irregular blocks of rooms connected by small

[17] Matthiae 1997a, 1997c. [18] Neu 1996:378–95.

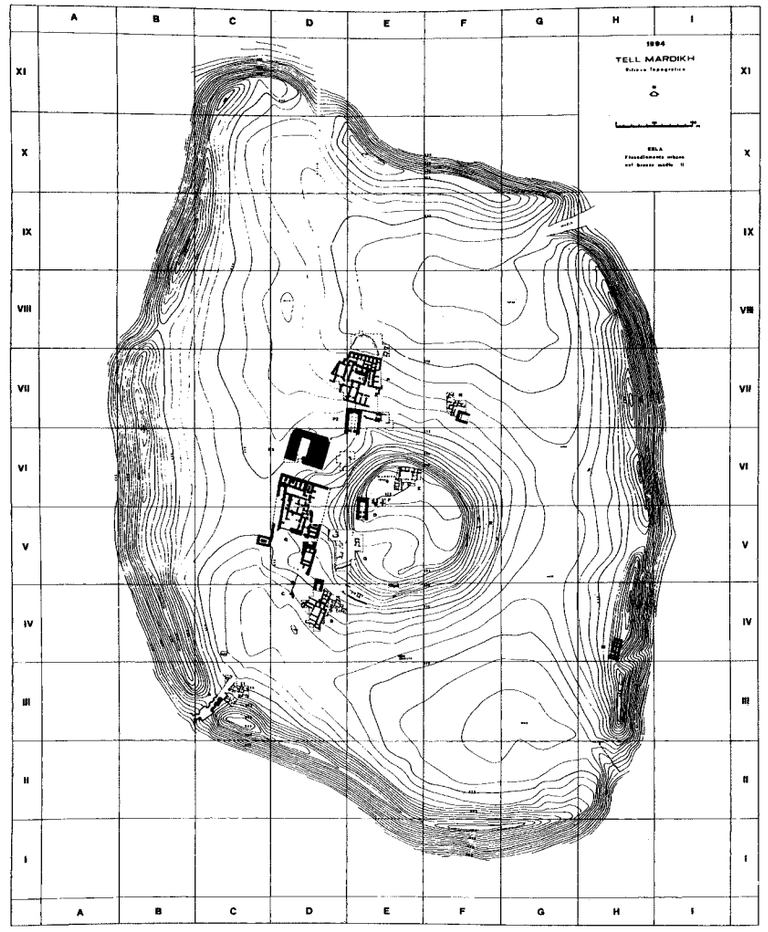

Fig. 9.5 Ebla; note thick enclosure wall around site and acropolis in center.

courtyards, contrasting with the Mesopotamian pattern of rooms arranged symmetrically around large square courts as at Leilan and Mari (see below). A four-columned portico was noted on the southern façade, and Matthiae posits a throne room in the center of the building. Among the best-preserved rooms in the complex were spaces used for storing and processing grain, including a large chamber with sixteen regularly spaced grinding slabs and pestles on a mudbrick bench against the wall.

The Western Palace is significant, not only for its impressive scale and plan, but for the elite tombs carved into the bedrock under its floors.[19] While most

[19] Matthiae 1984.

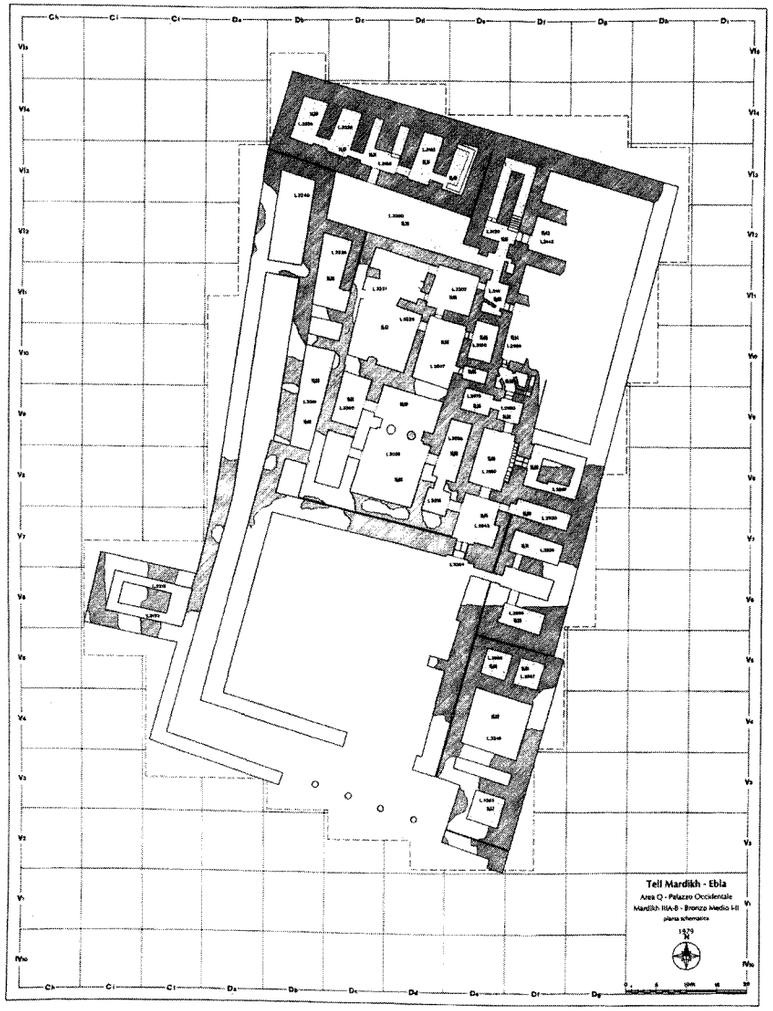

Fig. 9.6 Ebla Western Palace (Q).

of the ten tombs identified had been looted, three contained rich assortments of grave goods. One of the three, the "Tomb of the Lord of the Goats," included a ceremonial mace with an inscription of King Hetepibre of the Egyptian thirteenth Dynasty (eighteenth century BC), an important chronological link.

The Northern Palace (Palace P), successor to the Archaic and Intermediate Palaces of the late third/early second millennium, yielded a collection of ivory furniture components from its central "throne room." The ivories are carved in an Egyptianizing style, including figures with the crowns of Hathor and other deities (fig. 9.7). On the northern slope of the site acropolis, Palace E, not

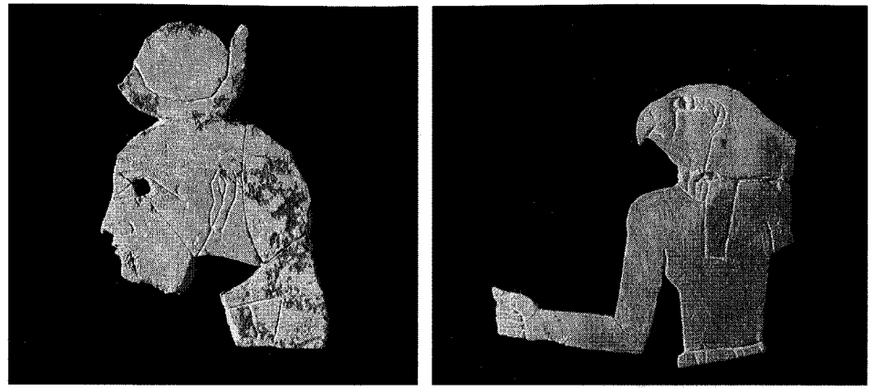

Fig. 9.7 Egyptianizing ivories from Ebla North Palace.

as well preserved as the lower-town palaces, was built on a series of terraces. Most recently, excavations have exposed a palatial building constructed atop the western rampart near Fortress V.

An array of monumental religious buildings has been identified in Middle Bronze II Ebla, many of which have yielded examples of royal and priestly votive statues and carved limestone basins of cultic significance. On the acropolis, Temple D, perhaps the main sanctuary of the city, is a massive long-room construction of three chambers, including a cella with a niche in the back wall ostensibly for the divine statue, an anteroom, and a vestibule with projecting walls *in antis* (fig. 9.8). Matthiae has associated Temple D with the goddess Ishtar on the basis of a basalt stele discovered in a complex of small rooms to the south of the temple. Northeast of the acropolis, Temple N is a single-room structure only partly preserved. Matthiae identifies this as the temple of Shamash, god of the sun and of legal transactions, because of its eastern orientation and the recovery of a carved two-part limestone basin depicting the celebration of a pact. Southeast of the Western Palace is the single-chamber long-room Temple B1 (the "Reshef" temple) and the anomalous Sanctuary B2, a multi-room structure organized around a large central chamber. The presence of finely worked basalt "offering tables" in several rooms seems to support a religious interpretation for B2, but Matthiae's hypothesis that the building was devoted to the veneration of deceased rulers requires further supporting evidence.[20]

Unique and extraordinary is Monument P3, north of the Western Palace, an immense platform (42 × 53 m) of stone blocks enclosing an interior room (fig. 9.9). Encompassing an area only slightly smaller than the ziggurats of Ur, Eridu, and Nippur in southern Mesopotamia, the function of this structure is enigmatic but probably cultic. Matthiae has suggested an association of Monument P3 and the nearby Temple P2 with Ishtar, the goddess of love, sex, and warfare, on the basis of the imagery on the basin found in Temple P2,

[20] Matthiae 1990.

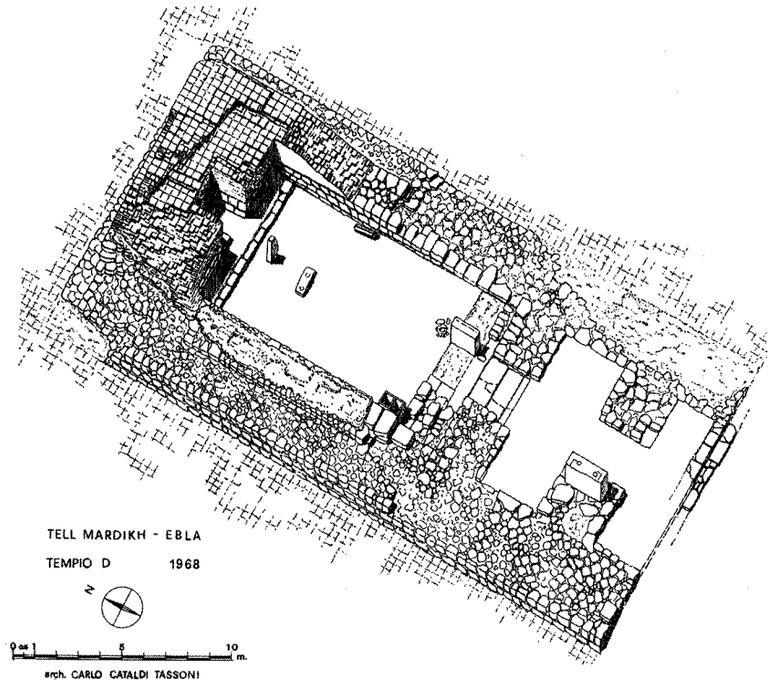

Fig. 9.8 Temple D, Ebla.

proposing that the interior court of P3 housed the sacred lions of the goddess. As before, this hypothesis is intriguing but requires further evidentiary support. Temple P2 itself, a thick-walled long-room temple *in antis*, is the largest sanctuary yet discovered at Ebla (33 × 20 m).[21]

The elite representational art of Ebla IIIB, including carved stone basins, statues, stelae, and glyptic, is primarily ritual and cultic in character and avoids explicit glorification of the ruler. While this might be attributed to Ebla's putative subservience to Yamkhad, one might observe a similar pattern from third-millennium Syrian art. The basins characteristically emphasize a sacred banquet in which the king participated along with other worshippers, sometimes armed (fig. 9.10). Iconographic parallels with glyptic art from Kültepe (Kanesh) in central Anatolia suggest dates as early as the mid-nineteenth century for some specimens.

For the non-public or non-elite sector of Ebla, we have strikingly little evidence. Ostensibly, further excavations beyond the acropolis and central ring of monumental structures would yield such data, but for the moment we can cite limited evidence of private houses with vestibules leading to rooms organized adjacent to if not enclosing central courtyards.[22]

[21] See Marchetti and Nigro 1997 on cultic pits in this area.

[22] Matthiae 1997b.

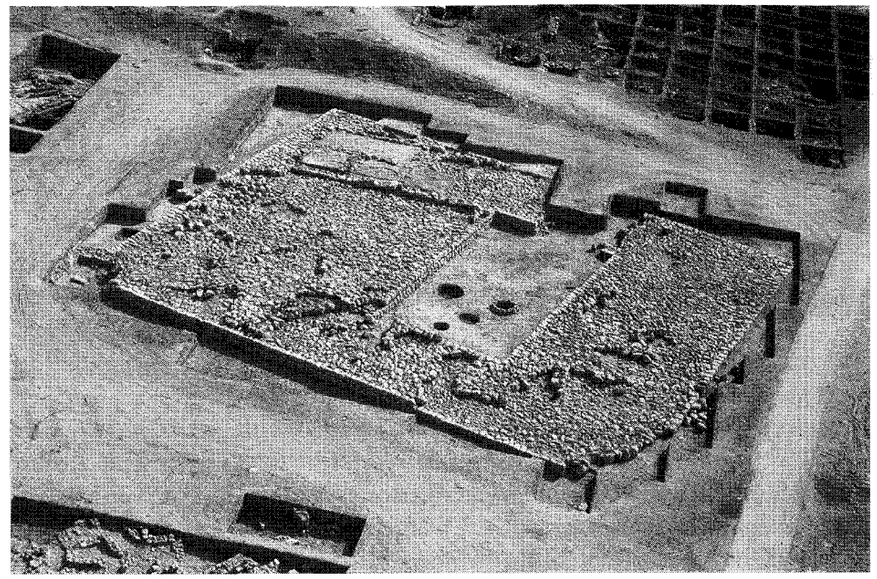

Fig. 9.9 Monument P3, Ebla.

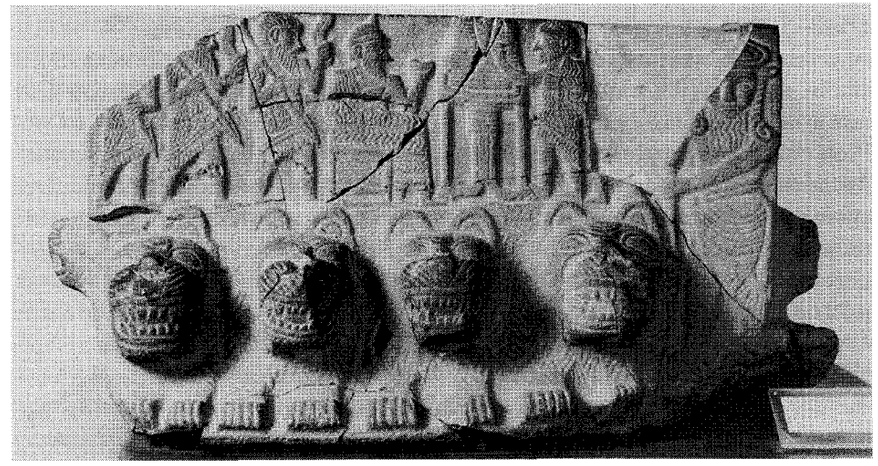

Fig. 9.10 Cult basin with banquet scene, Ebla.

Data from sites from elsewhere in inland northwestern Syria provide additional evidence of the character of large communities in Yamkhad, particularly the emphasis on fortification, of both outer towns and inner citadels, including chambered gateways, enclosure walls, earthen rampart or glacis constructions, and circular towers (e.g. Tell Touqan and Afis in the Ebla vicinity, Abu Danne and Umm el-Marra in the Jabbul region, and Tilmen Höyük in the Islahiye

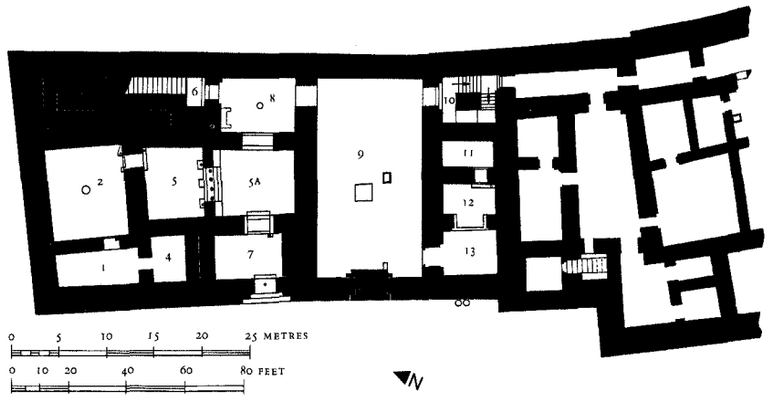

Fig. 9.11 Alalakh level VII palace.

region north of Aleppo[23]). Evidence of domestic architecture has also been retrieved in some detail at Umm el-Marra and Hama levels H3-1.

Thus far, evidence from the Yamkhad capital, Aleppo, has been almost nonexistent owing to massive later occupations and the location of the modern city above the ancient remains.[24] As a result, the primary source of data for Yamkhad apart from Ebla comes from the westerly reaches of the kingdom at Tell Atchana, ancient Alalakh, a mound of some 20 ha. Leonard Woolley, the celebrated excavator of Ur in southern Mesopotamia, directed excavations here in the late 1930s and late 1940s.[25] Located on the plain of Antioch near the Orontes, Alalakh benefited from its rich agricultural environs and its position controlling trade from the Mediterranean inland to Aleppo and beyond. The most useful evidence derives from the later Middle Bronze II period (late seventeenth century?) in level VII, which produced monumental architecture and a royal archive of cuneiform tablets. The Alalakh VII texts, written in "peripheral" Akkadian, identify the site as the capital of the region of Mukish and vassal of the Yamkhad kingdom, whose rulers were related by birth to those of Alalakh.

The level VII "Yarimlim palace" (fig. 9.11) was constructed on three terraces near the city wall. The northern, official segment, where the archive was discovered, contained rooms whose walls were faced with orthostats; a stairway led up to the domestic section to the south, and the southernmost segment was also domestic in character. The use of wooden columns was observed in several rooms of the palace, and frescoes with naturalistic designs reminiscent of Minoan art were used to decorate the walls. Similar murals with Minoan

[23] Alkim 1968.
[24] See, however, the collective grave and pottery sequence from Ansari, in the southwest part of modern Aleppo (Suleiman 1984).
[25] Woolley 1955.

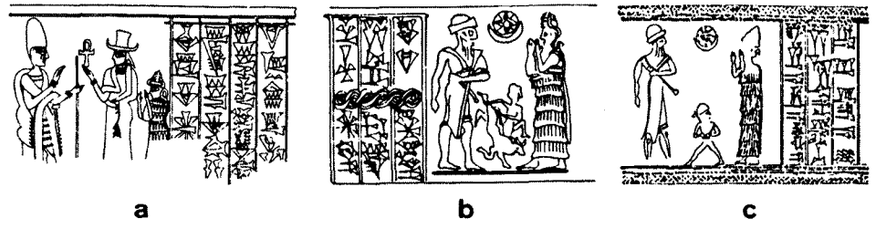

Fig. 9.12 Early second-millennium BC cylinder seal art from (a) Alalakh, (b) Rimah, and (c) Leilan.

associations have recently been found in mid-second-millennium contexts at Tell Kabri in northern Palestine and Tell ed-Dab'a in the Egyptian delta. Like the Ebla lower-town palaces, the Yarimlim palace lacks the great central courts of the Mesopotamian palaces. Adjacent to the building was a variant of the long-room temple *in antis* with antechamber and cella.

A large corpus of cylinder seal impressions on the Alalakh tablets, analyzed by Dominique Collon,[26] has allowed for the recognition of well-stratified Middle Bronze II glyptic styles. A frequent scene involves the figure of the king or seal owner before a deity, with an interceding goddess in attendance (fig. 9.12a); representations of the important Aleppo deities of Adad, the weather god, and his wife Hepat can be identified with some degree of confidence on these sealings. An "Aleppo school" of seals associated with the Yamkhad court has been identified at Alalakh, with examples also attested at Ugarit and Umm el-Marra.[27]

The frequent Egyptian imagery (*ankh* signs, deities, royal insignia, winged suns) in the Yamkhad glyptic, also observable in the ivories from Ebla Palace N and in the murals from Sakka in southern Syria (see below), are probably to be interpreted as emulation of elite symbols from a prestigious and exotic source rather than any political or economic control exerted by Egypt. The international allusions of the glyptic, as well as the Minoan-inspired wall paintings at Alalakh, clearly point to a cosmopolitan elite eagerly emulating the high art fashionable elsewhere in the eastern Mediterranean. Also notable among the examples of elite art found in Alalakh VII is the black diorite head that Woolley speculatively identified as the local ruler Yarimlim.

On the Syrian coast, the significance of Ras Shamra (ancient Ugarit) is attested both in texts from Mari and in the archaeological record.[28] Evidence of a town wall has been detected, as well as a steadily increasing population density. It is also possible, if uncertain, that the Baal, Dagan, and Hurrian gods' temples known from the Late Bronze occupation existed in this period. Individual and collective tombs were found in diverse excavation areas, occasionally in elaborate stone corbelled structures. Both the tombs and the domestic architecture

[26] Collon 1975. [27] Collon 1981. [28] Yon 1997a.

yielded examples of ceramic imports like Cypriot and Minoan pottery, attesting to Ugarit's involvement in eastern Mediterranean trade in this period. Evidence of Middle Bronze developments on the Syrian coast has also been retrieved from soundings at Sukas, where a collective pit grave was excavated, and at Kazel, Amrit, and Simiryan.

Qatna in the middle Orontes region was the center of a powerful state and a rival of Yamkhad. Excavations in the 1920s at the site of Mishrife, ancient Qatna, indicated the existence of a massive 100 ha city in the Middle Bronze Age fortified with earthen ramparts and chambered gates. Remains of an Egyptian sculpture of a sphinx dedicated by Princess Ita, daughter of Amenemhet II (*c.* 1900 BC) were recovered.[29] In the recently renewed excavations, evidence has revealed that the Late Bronze palace excavated in the 1920s was founded in the Middle Bronze period, providing additional clues to this important era in Qatna's history.[30] Elsewhere in the Homs region, Middle Bronze Age occupation has been noted at Tell et-Tin and Nebi Mend, with possible evidence of a Middle Bronze II casemate fortification wall at the latter site.

A frontier zone: the middle Euphrates in Middle Bronze II

In the Middle Bronze II period, the middle Euphrates valley was a transitional and often contested territory between the great powers of the Jezireh (e.g. the empire-builder Shamshi-Adad and King Zimrilim of Mari) and the western kingdom of Yamkhad. The most important centers of the region were Emar to the south and Carchemish on the Turkish border. Unfortunately, Middle Bronze Age Emar has only recently been identified (see below, chapter 10) and the excavations of Carchemish early in the twentieth century provide only ambiguous hints of its importance in this period.

Nevertheless, the results of the Tishrin and Tabqa dam salvage projects have produced valuable data on Middle Bronze occupation in the middle Euphrates. Particularly intriguing is the evidence for a diversity of specialized sites. In the Tishrin region, the occupation of Tell Qara Quzaq consisted almost completely of stone-lined circular silos.[31] The silos contained barley, prompting the suggestion that the site functioned as a granary along the route from Carchemish to Mari. Also identified were the stone foundations of a temple *in antis*, perhaps utilized in concert with the grain storage emplacement. Indications of a small specialized community were also obtained from late Middle Bronze II contexts at the clifftop site of el-Qitar, where an official "orthostat building" was noted below the Late Bronze occupation. Data still to be fully presented have also been obtained from Tell Ahmar, Tell Khamis, and Shiyukh Tahtani, the latter with a sequence of domestic architecture.

[29] Du Mesnil du Buisson 1935.
[30] Novák and Pfälzner 2000; al-Maqdissi 1996; al-Maqdissi *et al.* in press.
[31] Del Olmo Lete 1996; Valdés 1999. Given the pottery recently published from the silos, an earlier date in Middle Bronze I might be called for.

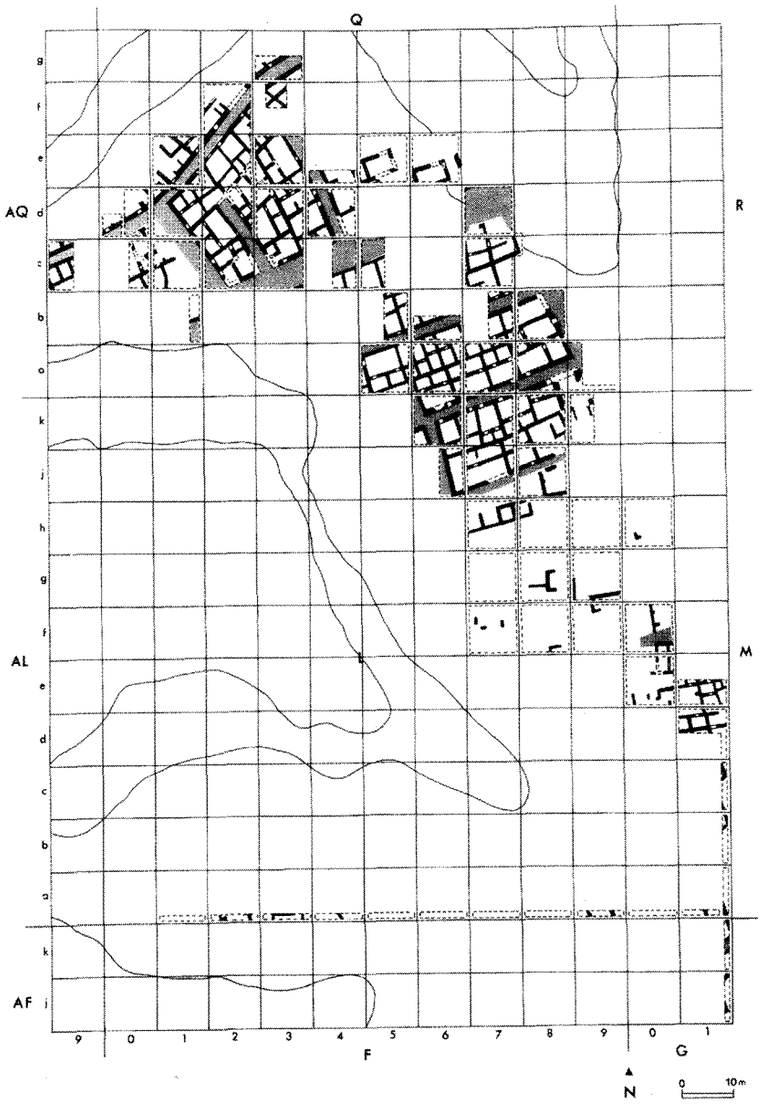

Fig. 9.13 Halawa, domestic architecture.

A sizable sample of non-elite domestic architecture has been excavated at Tell Halawa in the Tabqa region.[32] In level 2 on Tell A, blocks of uniform houses organized along an orthogonal street system suggest central planning and social control (fig. 9.13). The ground plan of the houses is of the "front room" variety[33] (see below, chapter 10) consisting of a large rectangular room

[32] Orthmann 1989. [33] McClellan 1997.

at the entrance and two smaller rooms in the rear of the house. The uniform house plan and absence of elite goods suggest social homogeneity and a lower-status population. Given the rarity of grain storage facilities, the excavators hypothesize a population of dependent workers and their families provided with rations by a central authority based elsewhere.

Munbaqa, in contrast, has "urban" characteristics such as a probable temple below the Late Bronze period Steinbau 3 as well as town fortifications. Elaborate fortifications are also indicated at Hadidi. A sample of domestic architecture retrieved from inside the Hadidi town wall revealed small rooms with infants buried below the floors, sometimes in cooking pots, a phenomenon also attested at Umm el-Marra.

The Jezireh in the period of Shamshi-Adad and Zimrilim

Crossing the Euphrates into upper Mesopotamia, we find ourselves in the political sphere of Mari's Lim dynasty, allied with Yamkhad, and its bitter rivals, the family of Shamshi-Adad, aligned with Qatna. The first major ruler of the Lim dynasty, Yahdun-lim, claimed to have reconstructed the walls of Mari and Terqa, dug numerous canals, and campaigned successfully throughout the Jezireh and beyond. Yahdun-lim was defeated, however, and around the turn of the eighteenth century BC Shamshi-Adad created the first multiregional state native to Syria and northern Iraq, extending from the middle Euphrates to Assyria and the Zagros foothills. The identification of Shamshi-Adad's capital Shubat-Enlil with modern Tell Leilan in the upper Khabur has been one of the most important recent developments of second-millennium archaeology in the Jezireh. However, after Shamshi-Adad's death the Lim dynasty reasserted itself, and Zimrilim, newly established as king of Mari, became the preeminent power in upper Mesopotamia.

Archaeologically, the period of the Lim dynasty and Shamshi-Adad is much better documented than the beginning of the Middle Bronze Age in the Jezireh. As in western Syria, the pottery of this period exhibits a technical decline from that of the third millennium, with coarser, thicker-walled and lower-fired wares implying an emphasis on mass production. A primary ceramic diagnostic is "Khabur Ware," first recognized and named by Max Mallowan in his 1930s surveys of the upper Khabur. Ironically, current research indicates that this pottery is rarely found in the Khabur river valley itself but is predominantly located to the north and east on the upper Khabur plains and in northern Iraq; it is likewise rare at Mari. Khabur Ware (fig. 9.14c–e, h–i) is primarily defined by painted designs of horizontal bands and rows of crosshatched or hatched triangles on globular tall-necked jars with everted rims. Early attempts to link the advent of Khabur Ware with Hurrian immigrants from the eastern Taurus highlands have been rejected, given the diversity of ethnic groups attested textually in the regions where the pottery was found.[34]

[34] Kramer 1977.

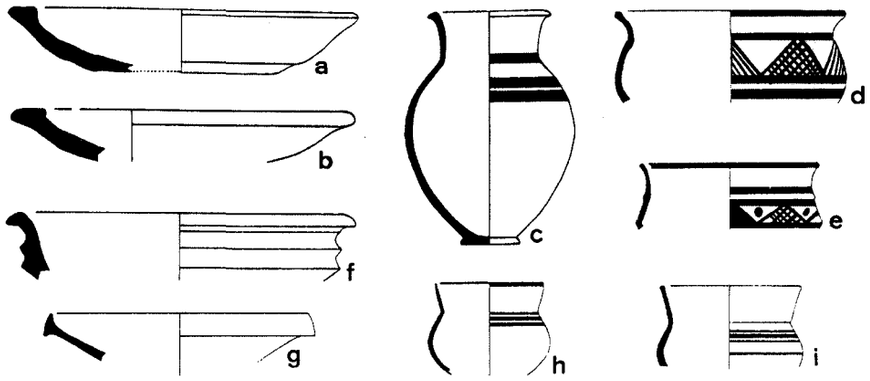

Fig. 9.14 Early second-millennium BC pottery from the Syrian Jezireh (scale 1:5).

The chronology of Khabur Ware is not completely understood. Although the pottery is unequivocally associated with cuneiform texts dated to the reign of Shamshi-Adad, it is not clear how much earlier it was manufactured. In later phases of its existence, thinner-walled vessels, naturalistic designs, and shapes like the shoulder goblet (a tall-necked jar with globular body and small ring base, fig. 9.14h–i) and a tall beaker with low carination are common. In the latest manifestations, jars with button bases and tall vertical necks appear, a form which also is characteristic of the painted "Nuzi Ware" of the Late Bronze Age, indicating an overlap between the two wares and a final date for Khabur Ware around the sixteenth century BC.[35] Other well-documented ceramic types of the Jezireh in this period include shallow flat-based bowls with flat rims (fig. 9.14a–b), large deep bowls with ledge rims and applied ribbed bands, ledge-rim carinated bowls, and gray-burnished bowls (fig. 9.14f–g) often with thick horizontal grooves. The ubiquitous comb-incising of the middle Euphrates and western Syria is common in the Balikh but rare elsewhere in the Jezireh.

Turning first to regional settlement patterns, we find a general increase in the number and size of communities in the better-watered regions of the Jezireh (e.g. Balikh, Khabur) after the "crash" of the late third/early second millennium.[36] However, this urban revival does not attain as large a scale as the urbanization of the mid-third millennium, and several surveyed regions showed serious reduction or even depletion of their sedentary population in the Middle Bronze Age. Among these are the southwestern upper Khabur plains, the Jebel 'Abd al-Aziz range, and the Euphrates valley downstream from the Tabqa dam.

[35] Oates *et al.* 1997.
[36] Curvers 1991; Weiss 1986. But see the Brak survey for a contrasting pattern of decreasing numbers of sites: Warburton and Eidem 1996.

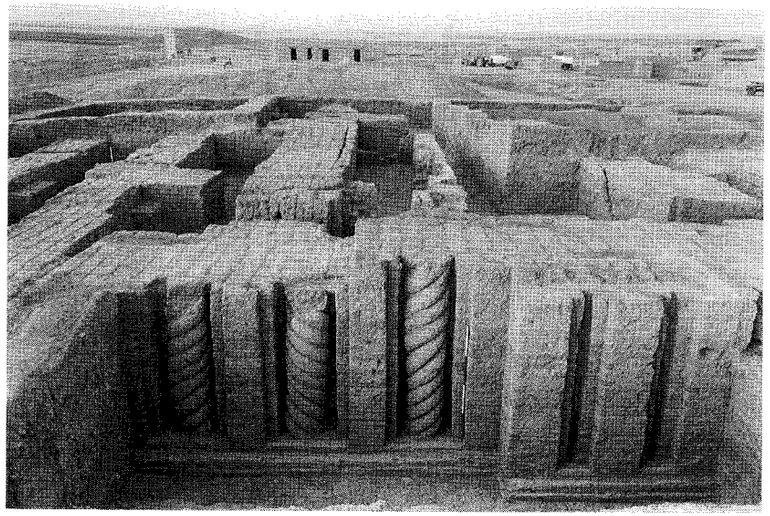

Fig. 9.15 North façade with semi-engaged columns, Leilan acropolis temple.

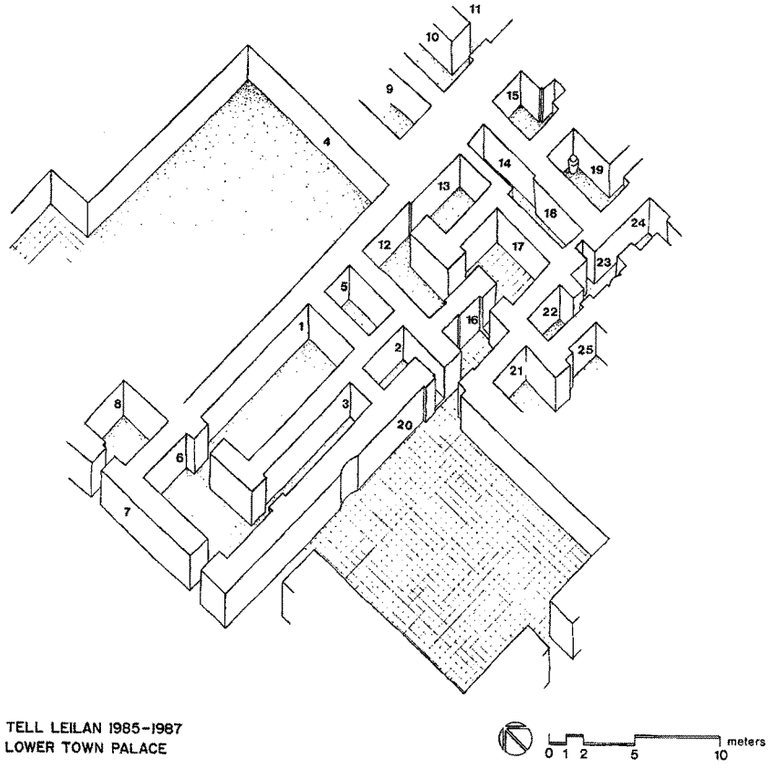

Fig. 9.16 Eastern lower town palace at Leilan.

The abandonment of sedentary occupation in these marginal regions might be linked to the profusion of sheep-and-goat-herding pastoral nomads discussed at length in the documents from Mari.[37] In these texts, numerous groups of Amorite nomads, often referred to as Hanaeans, Sim'alites, "sons of the left (= north)," or Yaminites, "sons of the right (= south)," migrate between seasonal pasturelands in the Jezireh and beyond. Often associated politically or economically with the sedentary rulers, these groups also clearly posed a continual challenge to those authorities by virtue of their mobility. It remains to be seen whether the large population of mobile pastoralists documented in the Mari texts was a novel phenomenon – the consequence of late third-millennium deurbanization? – or whether it can be traced back to earlier periods.

The two most powerful urban centers of the Jezireh in this period were Tell Leilan, Shamshi-Adad's capital in the upper Khabur, and Mari on the Syrian lower Euphrates, both of which had been major third-millennium cities. In the case of Leilan, whose original name appears to have been Shekhna, Shamshi-Adad appropriated the city for his base of operations and renamed it Shubat-Enlil, "dwelling place of Enlil," in honor of the southern Mesopotamian god responsible for the legitimation of Mesopotamian kingship. After Shamshi-Adad's death, a sequence of warlords competed for control of Leilan, again known as Shekhna, until a dynasty of kings of the "land of Apum" (the Leilan vicinity) assumed control. This dynasty was brought to an end by a campaign of Samsuiluna of Babylon *c.* 1728 BC. Although the site was largely abandoned after the disaster, there is no evidence of violent destruction or conflagration.

Evidence of the Leilan rulers' monumental building activities has been retrieved from a variety of excavation areas.[38] On the northeastern site acropolis, a large multi-room temple was erected and modified in several stages. In its best-preserved phase, the building had a long-room plan with an antecella and a long central cella flanked by narrow rooms. Both its northern and southern façades were decorated with mudbrick half-columns, some formed in remarkable spirals twisting in opposite directions, others with elaborate representations of palm tree fronds on their mud-plaster faces. The northern façade, in particular, must have presented an extraordinarily impressive view from its eminence on the acropolis (fig. 9.15). Similar decorated mudbrick columns are attested at contemporaneous public buildings elsewhere in Mesopotamia, including a temple at Tell al-Rimah on the Sinjar plain and the Ebabbar temple at Larsa in southern Mesopotamia. Inscribed cylinder seal impressions found in the Leilan acropolis temple indicate an association with Shamshi-Adad and, in phases of secondary use, with his successors Turum-natki and Haya-abum.

On the Leilan lower town east of the acropolis, the excavators identified a palace associated with the kings of Apum and, not improbably, with Shamshi-

[37] Lyonnet 1996a.
[38] Akkermans and Weiss 1989; Akkermans *et al.* 1991; Weiss 1985; Weiss *et al.* 1990.

Adad himself. This Eastern Lower Town Palace (fig. 9.16) included a complex of small rooms arranged around large courtyards with baked brick floors, including several specialized rooms that were probably kitchens. The earliest of the four building levels identified, for which only a small excavated sample was obtained, yielded sealings associated with Shamshi-Adad and his sons. The later phases contained hundreds of tablets belonging to the reigns of the kings of Apum, including royal letters, treaties, and a recension of the Sumerian King List. In the latest occupation of the building, dated to the reign of Yakun-ashar, was an archive devoted to the administration of wine.

Yet another royal administrative structure was discovered north of the Leilan acropolis. The rooms of the Northern Lower Town Palace, only briefly investigated, proved to contain jars with nearly 600 cuneiform tablets concerned with the administration of beer. The tablets allow for the association of the building with Qarni-lim of Andariq, a ruler from the Sinjar plain in northern Iraq who briefly held sway over Shubat-Enlil in the years following Shamshi-Adad's demise. While a mudbrick city wall demarcating the 90 ha extent of the site is attested for this period, there are indications that Leilan was a "hollow" city whose lower town was occupied only by the occasional public building. Non-elite domestic architecture was encountered only in the excavations near the city wall.

In contrast, an extensive sample of non-elite residential architecture has been excavated at the 60 ha site of Mohammed Diyab, only 7 km southeast of Leilan.[39] The houses at Mohammed Diyab, constructed of brick walls on stone footings, were organized in insulae delimited by narrow alleys. The frequent use of radial vaults[40] as opposed to the traditional corbeled vaults was an important innovation, and the employment of stone channels for the evacuation of water is also noteworthy. Burials under house floors were common, ranging from simple pits to brick constructions. At Mohammed Diyab, the proximity of large and smaller houses corresponds to data from southern Mesopotamian cities where wealthy and poor families lived cheek-by-jowl in quarters apparently defined by kinship.[41] The continual modifications of floors, rooms, and house plans over time resulted in a densely packed environment indicative of a steadily increasing population.

Domestic architecture was also excavated at Chagar Bazar, the first Bronze Age excavation project in the upper Khabur region, conducted by Max Mallowan in 1935–7.[42] Here Mallowan noted an amorphous agglomeration of contiguous units; as at Mohammed Diyab, the use of the radial vault was frequent, and graves, sometimes also vaulted, were located below house floors. Chagar Bazar is also significant for its cuneiform texts, including a group of

[39] Castel 1996. [40] Van Beek 1987. [41] Stone 1987.
[42] Mallowan 1936. Excavations have recently resumed at Chagar Bazar (McMahon *et al.* 2001). See also the recent exposure of domestic architecture from this period at Mozan (Dohmann-Pfälzner and Pfälzner 2000).

administrative tablets retrieved from a public building dated to the reign of Shamshi-Adad. Found resting on sherds of Khabur Ware, the tablets provided the first secure dating of this pottery type.

In this period, Tell Brak's power and significance were significantly reduced, and excavation results have been minimal. Just north of Brak, Italian excavations have detected contemporaneous occupation at Tell Barri (ancient Kahat), but its temple, mentioned in the Mari documents, has not yet been located. Although the lower Khabur is described in the texts as a well-populated dependency of Mari, survey results detected relatively few sites in the area apart from the fortified center at Sheikh Hamad. At Tell Ashara (ancient Terqa), more direct evidence of a secondary center subordinate to Mari has been obtained from a multi-phase administrative complex (area F) that yielded bureaucratic texts and seal-impressed clay door sealings.[43] A hypothesized scribal installation with a brick floor included a jar and a bin containing tablets near a vessel holding fine clay.[44]

To the west, Bi'a (ancient Tuttul) at the head of the Balikh valley served as an administrative center subservient to Shamshi-Adad and the Mari rulers.[45] In the rebuilt *shakkanaku* period palace, administrative texts from the reign of Shamshi-Adad were excavated. This phase at Bi'a apparently had a lurid beginning: the remains of some eighty individuals deposited in an underground vault inside the palace have been interpreted as evidence of a massacre. Upstream from Bi'a, Hammam et-Turkman (ancient Zalpa?) also had an administrative complex on its summit.

The splendors of Mari

With the exception of the interlude of Shamshi-Adad's rule, Mari reigned supreme as the dominant power in the Syrian Jezireh in the early second millennium. The city prospered, as it had in preceding periods, because of its strategic location at the nexus of trade routes between southern Mesopotamia, western Syria, and southern Syria. Also significant was Mari's relationship with the many Amorite pastoral nomadic groups moving about the Jezireh and the region south of the Euphrates; according to textual evidence, Mari's king, himself an Amorite, functioned as the pastoralists' overlord and often made use of their resources and labor, although the nomads' cooperation was by no means assured.

Despite these assets, Mari's agricultural resources were limited, and rulers paid close attention to the construction and maintenance of artificial watercourses such as the "canal of Mari" and the canal "Ishim-Yahdun-lim" extending from the lower Khabur to Mari. Although Margueron[46] has attemped to

[43] Rouault *et al.* 1997; Rouault 1998a. [44] Buccellati and Kelly-Buccellati 1983.
[45] Strommenger 1994; Einwag 1998. [46] Margueron 1988.

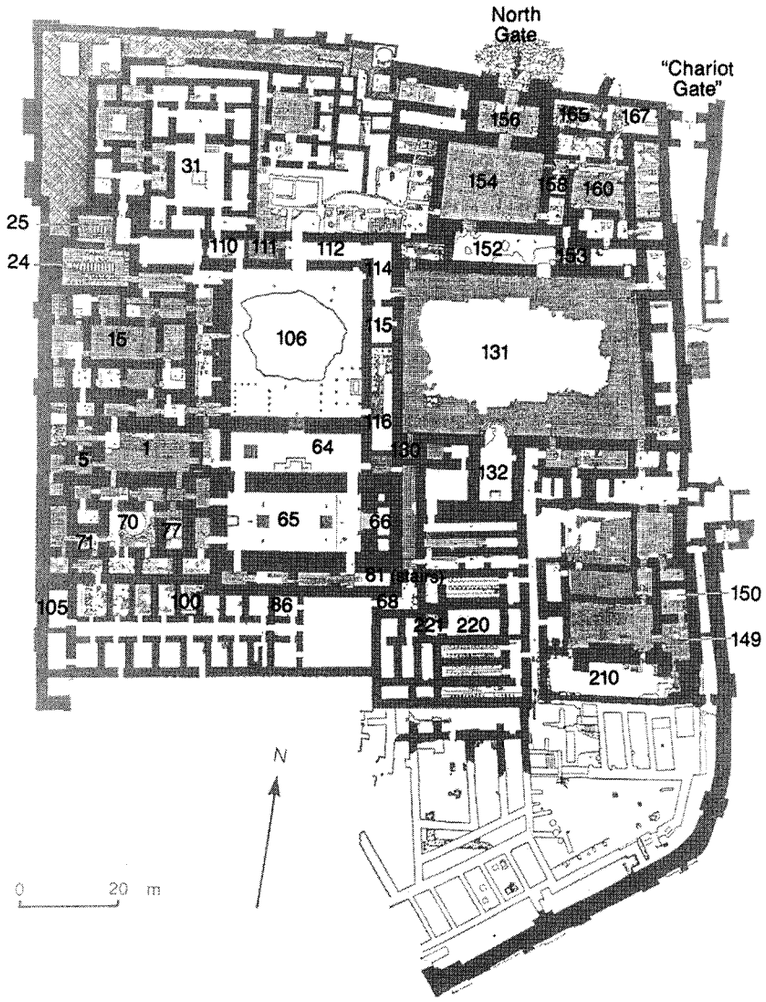

Fig. 9.17 "Zimrilim" palace at Mari.

link traces observable in the modern landscape with canals discussed in the historical sources, the dating of these features is ambiguous.

In many ways, the city of the Amorite rulers of Mari was inherited from the *shakkanaku* dynasts of the late third and early second millennia, but the new kings invested it with a fresh magnificence. The grandeur of this period is most prominently manifested in the "Zimrilim Palace," constructed above the third-millennium royal palace (fig. 9.17).[47] Burned by the conquering

[47] Parrot 1958a.

Babylonian troops of Hammurabi, the palace walls were preserved as high as 5 m and contained numerous objects *in situ*, including some 20,000 cuneiform tablets documenting the affairs of the royal establishment, the kingdom at large, and international concerns. Encompassing some 2.5 ha and almost 300 rooms, it is little wonder that the palace was celebrated in its own time: in a letter discovered in the building, the ruler of Ugarit writes to his overlord Hammurabi of Yamkhad to request permission for a visit to Mari's renowned palace.

Several chronologies have been proposed for the construction of the palace on the basis of wall painting style, textual allusions, and architectural and stratigraphic details.[48] Although there is still no consensus, most would agree that the palace was built in several episodes that included the period of the *shakkanakus*, Shamshi-Adad and Zimrilim. Margueron[49] has produced a comprehensive study of the palace's architecture, examining the pattern of traffic between rooms, the blocking of doorways, and the likelihood of an upper story. Functional attributions for different parts of the building are also suggested, but these are frequently problematic, and it is not unlikely that spaces were used for a variety of activities.

The building is organized in multi-room blocks arranged around large tiled courtyards. To the northeast is the main entryway, which leads through the "reception" block to the largest courtyard (131). A rectangular vaulted baked-brick structure found below the courtyard floor was interpreted as a tomb by Parrot, but Margueron contends that it served as a cistern. The small room 132 to its south was painted with elaborate religious and mythological scenes. To the west is court 106, built above the third-millennium "salle aux piliers." Margueron and others have identified this area as the "court of the palm" mentioned in the Mari texts, although Parrot favored court 131. Court 106 is particularly notable for the richly colored wall paintings preserved *in situ* on the south wall, including the "investiture" scene depicting a king receiving the symbols of authority from the goddess Ishtar (fig. 9.18). Adjoining court 106 to the south is the long rectangular room 64, perhaps a shrine with a large podium, in which the body of the statue of the "goddess of the flowing vase" was discovered (the head was in court 106). One of the treasures of ancient Syrian art, this white stone statue contained a channel through which water originally flowed into and out of the goddess's vase (fig. 9.19 left). Room 65 to the south, often interpreted as a throne room, contained the remains of statues of early rulers, including the *shakkanaku* Ishtup-ilum (fig. 9.19 right).

Elsewhere in the western part of the palace were kitchens associated with terracotta molds probably used for making bread or cheese, a "scribal school" with benches, also interpreted as a storage area, and a block of small rooms in

[48] Parrot 1958b; Moortgat 1964; Margueron 1982; Gates 1984. [49] Margueron 1982.

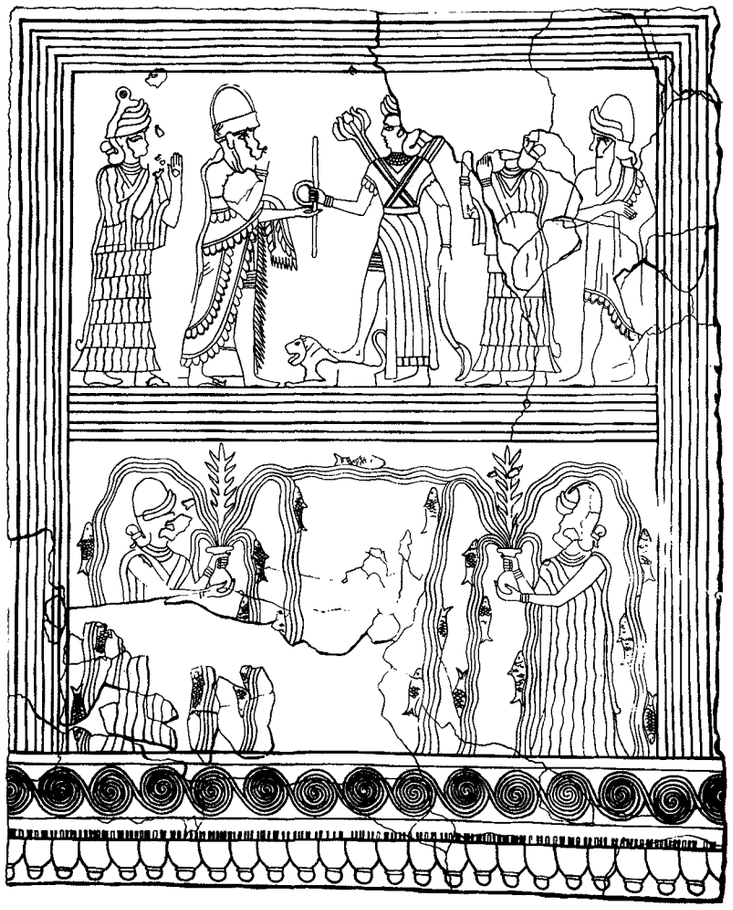

Fig. 9.18 Wall painting, court 106, Mari "Zimrilim" palace.

the southwest interpreted as storerooms or as servants' quarters. In the highest part of the palace to the southeast, a religious complex was built above the third-millennium sacred precinct, where more statues of *shakkanaku* rulers were found.

Other excavated public structures of Mari in this period are also legacies of the *shakkanaku* rulers, such as the "eastern palace," which contained an administrative archive of Zimrilim's brother-in-law, and the "lion temple," a structure *in antis* guarded by two copper lion figures, adjacent to the mudbrick high terrace ("ziggurat"). As is all too common in the excavations of Bronze Age capital cities, there are virtually no useful data on non-public and non-elite contexts from Mari in this period.

Fig. 9.19 Statue of goddess with flowing vase (left) and *shakkanaku* ruler Ishtup-ilum (right) from Mari "Zimrilim" palace.

The Hana kingdom

A major player in the power politics of Mesopotamia, Zimrilim nevertheless fell victim to his ambitious colleague Hammurabi of Babylon. Having subjugated the competing city-states of southern Mesopotamia, Hammurabi proceeded to eliminate his main rival in the north, capturing Mari *c.* 1760 BC, burning its famous palace, and ending its role as a great city and political force. In the years that followed, the Syrian lower Euphrates did not regain its commercial and political power, but a new "rump" state of Hana was centered at Terqa, the ancient city upstream from Mari.

Although much of the tell is overlain by a modern town, excavations at Terqa (modern Tell Ashara) have uncovered ample evidence of the Hana period, approximately datable to the second quarter of the second millennium BC.[50] The cuneiform archive recently discovered in a large administrative building demonstrates Hana's subservience to the successors of Hammurabi of Babylon and, by *c.* 1500 BC, its inclusion in the kingdom of Mitanni. Also discovered

[50] Buccellati and Kelly-Buccellati 1983; Rouault *et al.* 1997.

was a temple devoted to the healing goddess Ninkarrak, a long and narrow four-room structure with a bent-axis entry, decorated with rabbeted doorjambs and engaged columns. A figurine representing Ninkarrak's animal associate, the dog, was excavated next to the cella's altar. Across the street was the house of an individual named Puzurum, whose effects included a late eighteenth-century BC archive of land sale contracts. Because these tablets were sealed by numerous witnesses, the seal impressions furnish a well-dated corpus of cylinder seal types.

Of a different character is the evidence from Baghouz on the left bank of the Euphrates, noted in prehistoric archaeology for its Samarran occupation (see above, chapter 4). Here, the 1934–6 excavations uncovered a cemetery with hundreds of burials organized in distinct clusters.[51] Since the pottery in the graves is comparable to that known from Hana period Terqa, we may date the cemetery to the late eighteenth or seventeenth century. The burials exhibited a range of sizes and contents, at least partly indicative of different social ranks. Frequently, they consisted of stone-lined pits covered with stone slabs ("dolmens"), sometimes with an earthen tumulus above. Remains of wooden beds and other furniture were often found inside the tomb chambers, along with bronze weapons and implements.

Ceramic indicators of the late eighteenth and seventeenth centuries have been recognized from the excavations at Terqa, the flimsy remains at Mari, and Baghouz, as well as ancient Haradum (Khirbet ed-Diniye), a planned city on the Iraqi upper Euphrates implanted by the Babylonian central authorities.[52] Diagnostics include a globular one-handled jar constructed in two segments with concentric circular corrugations, a jar painted with simple motifs in bitumen, and the "shoulder goblets" and the beakers with low carination well known from elsewhere in Syria and upper Mesopotamia.

Southern Syria in the Middle Bronze Age

According to the Mari texts, a kingdom called Apum (not to be confused with the region around Tell Leilan in the upper Khabur plains) thrived in the Damascus region in the early second millennium. Unfortunately, no glimpse of this period has yet been afforded us from Damascus itself, but evidence of a flourishing Middle Bronze Age society has begun to accumulate from other sites in the south.

In the Ghutah oasis enclosing Damascus, Tell Sakka has recently yielded a Middle Bronze public building with Egyptianizing murals (fig. 9.20);[53] significant Middle Bronze remains have also been detected at Deir Khabiyeh and Tuleilat Shawaqa, and a community enclosure wall was observed in the step

[51] Du Mesnil du Buisson 1948. [52] Kepinski-Lecomte 1992. [53] Taraqji 1999.

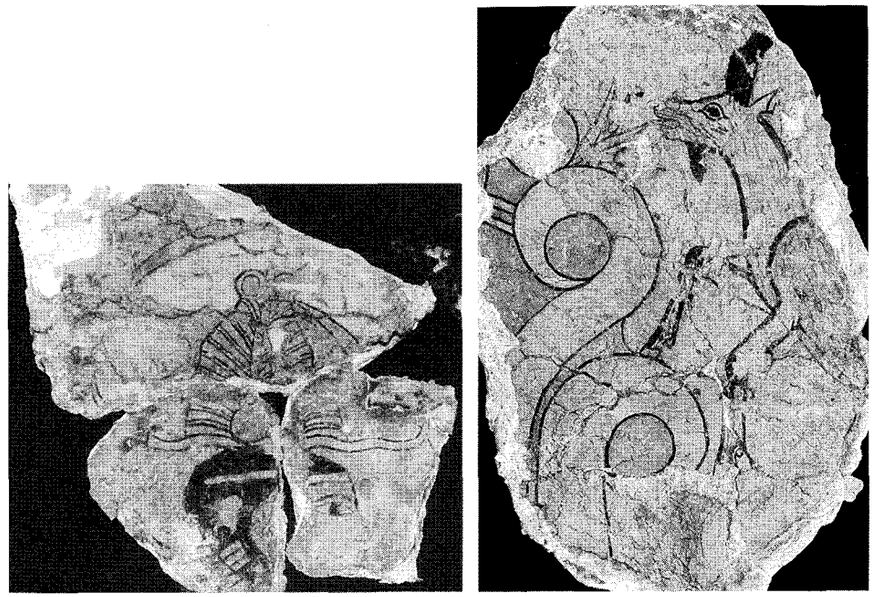

Fig. 9.20 Mural fragments from Sakka.

trench excavated at Tell es-Salihiye in 1952–3.[54] Sites explored by recent salvage operations have revealed individual or collective pit tombs, sometimes with tumuli. At Yabrud in the Anti-Lebanon northeast of Damascus, a Middle Bronze cemetery consisted of rows of stone-lined dolmen tombs replete with bronze weapons, personal ornaments, and pottery.[55]

Recent research has also documented a substantial Middle Bronze presence in the Hawran region south and southeast of Damascus. According to Braemer's survey of the eastern Hawran,[56] settlements proliferated over the entirety of that region, including a possible regional center at Tell Debbeh north of Suweida. Braemer suggests that the Middle Bronze sites were associated with canals and cisterns used to maximize the potential of that dry but fertile region, although it may be difficult to distinguish Roman/Byzantine hydraulic installations from those of earlier periods. As noted above, the maximum 40 ha expansion of Khirbet Umbashi is dated to the late third/early second millennium BC, but a period of scattered village-type occupations followed this peak of settlement. Braemer hypothesizes that overexploitation by the specialized pastoralists of Umbashi resulted in environmental degradation and necessitated a return to nomadism. Elsewhere in the eastern Hawran, Syrian salvage operations at Mtoune, north of Suweida, have excavated subterranean collective graves, and funerary material was also retrieved at Dhibin south of Suweida.[57]

[54] Von der Osten 1956. [55] Abou Assaf 1967. [56] Braemer 1988. [57] Al-Maqdissi 1991.

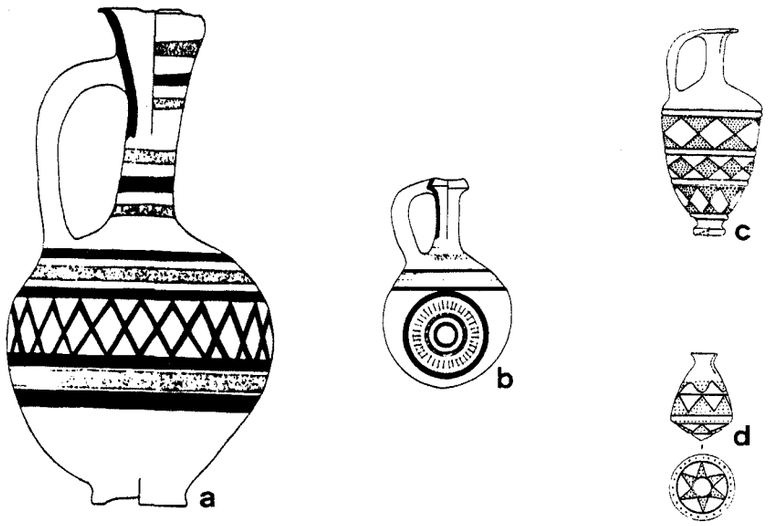

Fig. 9.21 Levantine Painted Ware (a–b) and Tell al-Yahudiyeh Ware (c–d) (scale 1:5).

Deep soundings at Bosra have confirmed Middle Bronze occupation at that well-known classical site.

In the western Hawran, Tell Ashtara (ancient Ashtaroth?) north of Der'a, which may have served as the regional center, was briefly investigated by Abou Assaf,[58] who also excavated a stone-lined roofed dolmen grave in Tayyibeh. Collective tombs cut into rock were excavated by salvage operations at Tell al-Ash'ari and Der'a in the 1990s.[59]

Among the notable types of the ceramic corpus from Middle Bronze southern Syria is Tell al-Yahudiyeh Ware, a well-known diagnostic for Middle Bronze II, although it may have originated slightly earlier. The type is well known from the Egyptian Delta (e.g. Tell ed-Dab'a, the Hyksos capital) and from Palestine, and is occasionally found on the Syrian coast (Ras Shamra). Usually brown or black, the ware consists of ovoid or piriform juglets geometrically decorated with bands of small dotted incisions filled with white pigment (fig. 9.21c–d). Another Middle Bronze decorated type, Levantine Painted Ware,[60] found in southern Syria, the Syrian coast, and Palestine, is characterized by a frequently bichrome decoration of concentric circles and horizontal bands on piriform juglets and other shapes (fig. 9.21a–b). Other elements of the southern Syrian ceramic corpus include familiar Syrian types such as shoulder goblets, sometimes in a decidedly globular form, carinated goblets with everted rims, large

[58] Abou Assaf 1968.
[59] Al-Maqdissi 1993. See also Nasrallah (1950) on burial tumuli excavated near Der'a.
[60] Tubb 1983.

open vessels with flat ridged rims, and the use of combed incised decoration. Other varieties, however, have closer parallels in northern Palestine, such as teapots and large carinated shallow bowls.

General trends in Middle Bronze Syrian complex societies

Although available survey evidence is incomplete, regional data for the revived urban societies of the Syrian Middle Bronze Age usually reveal multi-tier settlement hierarchies of cities, towns, and villages, but with many areas only sparsely occupied. Rather than new urban sites, the large cities are almost always reoccupations of third-millennium centers, often with the morphology of an inner and outer town. As in the Early Bronze Age, the scale of urbanization varied by region; centers in the Jabbul or upper Balikh were no larger than 25 ha, Bi'a (Tuttul) occupied about 35–40 ha, Ebla about 55 ha, Leilan 90 ha, and Mari well over 100 ha. It is possible, however, that these area measures are deceptive and that the Middle Bronze reoccupations were less densely inhabited than their third-millennium predecessors, as proposed for Leilan, Tell al-Rimah, and other "hollow cities."[61]

An emphasis on defense is apparent, including the fortification of outer and inner towns with mudbrick enclosure walls, often with stone foundations, and rampart or glacis constructions made of earth or stones. City gates have been excavated in western Syria, where they typically have a straight-axis plan with two chambers and three sets of piers on each side (e.g. Qatna east and west gates, Touqan, Carchemish, Ebla east gate, Alalakh VII); the Ebla southwest gate is a more elaborate version of this type (fig. 9.4). The bronze weapons commonly found in Middle Bronze graves further corroborate the importance of warfare in this society.

The palaces of the Jezireh Middle Bronze centers like Leilan and Mari are typically Mesopotamian in plan, with rectilinear rooms arranged around large square tiled courtyards; a similar plan is also apparent at Tell al-Rimah, an urban center in the Sinjar plain of northern Iraq with cuneiform tablets dating to the Shamshi-Adad period.[62] In contrast, the palaces of western centers like Ebla and Alalakh are less symmetric and have no grand square courtyards. Temples *in antis* predominate in western Syria, but with thicker walls and *antae* than in the third millennium, perhaps indicating the existence of a second story. The few temples known from the Jezireh display greater variety: the sprawling Leilan acropolis temple prefigures the Assyrian long-room temples of the later second millennium, while shrines with niches and podia on the summit of nearby Tell Mohammed Diyab are relatively small, often single-room buildings. The Leilan temple's construction against a mudbrick terrace is mirrored at the Mari lion temple and at the temple at Tell al-Rimah in northern Iraq. In the Jezireh,

[61] Oates 1985. [62] Oates 1972.

the temples are sometimes provided with rabbeted doorways (i.e. with niched doorjambs), a Mesopotamian characteristic noted at the Terqa Ninkarrak temple, at Leilan, and at Tell al-Rimah.

The domestic architecture of Middle Bronze Syria is not as well attested as the public architecture, but patterns of continual modification, rebuilding, and cutting into earlier deposits are often observable, perhaps indicating an increasing density of occupation or the division of property among heirs in nuclear family arrangements. While Halawa's uniform "front-room" plans dominate the site, the rooms of larger houses at sites like Ebla and Chagar Bazar are arranged around a courtyard. There is an increasing use of radial vaults in the early second millennium (e.g. houses at Chagar Bazar and Mohammed Diyab), as opposed to the corbeled vaults of the Early Bronze Age. In the Jezireh, baked brick becomes more common, especially in palaces and elite residences, which often have sophisticated drainage systems with ceramic pipes and baked-brick features.

As in the third millennium, the gradations of social stratification can be observed in the burial data, ranging from the treasure-laden royal graves of Ebla to infant jar burials without attendant goods. It appears, however, that the highest-ranking members of society were no longer memorialized with monumental above-ground tombs, but were interred in subterranean sepulchres. Burial of children and sometimes adults below house floors is a common practice, while cemeteries with stone-lined dolmen tombs have been discovered at Baghouz, downstream from Mari, and in the south at Yabrud and Khirbet Umbashi. A curious indicator of mortuary ritual is the inclusion of perforated bronze drinking strainers together with jars in graves at Leilan, Chagar Bazar, and Baghouz, presumably intended as provisioning for the afterlife or for funerary ritual.

The available faunal and archaeobotanical data, while minimal, indicate a continued reliance on sheep/goat pastoralism and cereal agriculture, especially two-row barley and free-threshing wheat.[63] Pulses like lentils and grass pea were also part of the Syrian diet. Naomi Miller's botanical analyses at Umm el-Marra indicate a persistent trend towards deforestation that probably characterized most of the settled regions of Syria, with trees cleared for farmland and fuel (to be used in energy-consuming metallurgy).[64] Jill Weber's work at the same site notes a focus on the hunting of wild onagers in Middle Bronze II, an unexpected strategy for an urban economy.[65]

Throughout Syria there is an emphasis on ceramic mass production, largely at the expense of aesthetic accomplishment. Occasional vessels were decorated, however, and the different painted pottery traditions (Khabur Ware, Syro-Cilician Painted Ware, Ebla Common Painted Ware, Levantine Painted

[63] Van Zeist and Bakker-Heeres 1985; Séiquer and Núñez 1994.
[64] For evidence of second- and first-millennium BC deforestation in the lower Khabur valley, see Frey *et al.* 1991.
[65] Schwartz *et al.* 2000a.

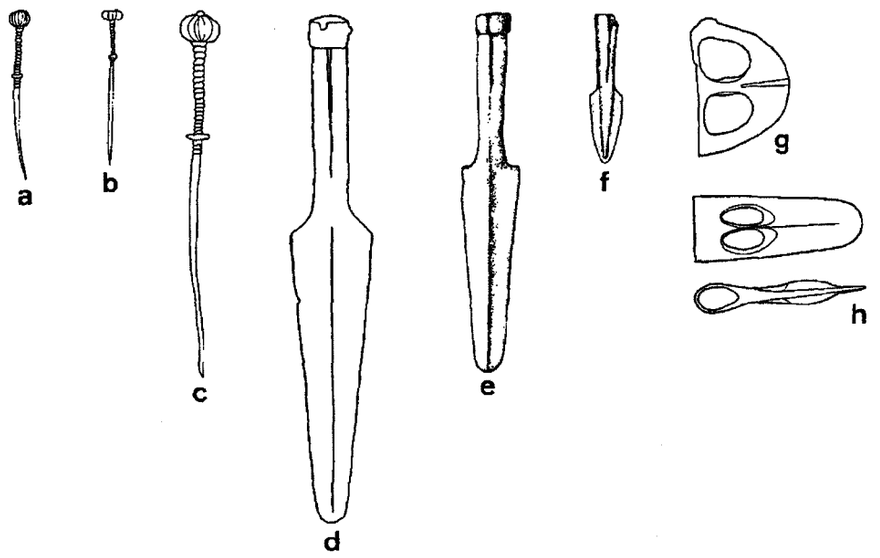

Fig. 9.22 Copper/bronze toggle pins and weapons, early second–millennium BC.

Ware) often have similar motifs or shapes that indicate the frequent communication of decorative ideas throughout the eastern Mediterranean world in this period. The many similarities of Syrian and Palestinian material culture, ranging from ceramics, fortifications, temples, and metal types, also bear witness to an eastern Mediterranean cultural continuum.[66]

Wide-ranging economic contacts throughout the eastern Mediterranean world are also evident in the Mari texts from the period of Zimrilim, when the rulers of Mesopotamia, the Levant, and even Minoan Crete exchanged communications, greeting gifts, and commodities. The role played by Mari in the increasing importance of tin-bronze production is attested by the trade in tin ingots sent from Elam in southwest Iran, distributed by Mari to points further west. By now, an increasingly important source for copper was Cyprus, where urban societies had developed by the early/mid-second millennium. Among the common bronze objects attested archaeologically in Middle Bronze Syria are toggle pins with spherical, often fluted heads with ribbing below (fig. 9.22a–c), torques, socketed spearheads (fig. 9.22d–f), largely replacing tanged spearheads, and fenestrated "duckbill" axeheads (fig. 9.22g–h).

Egyptian trade connections with the Levantine coast are well illustrated by the rich discoveries from the royal tombs at Byblos in present-day Lebanon, replete with Middle Kingdom Egyptian or Egyptian-inspired elite objects.[67] In

[66] Dever 1987. [67] Montet 1928.

this era, Byblos was a prosperous harbor providing Egypt with valued Asiatic products such as timber, resin, and wine. Following the demise of the Middle Kingdom, the relationship of the Egyptian Hyksos kings with their putative compatriots in the Levant remains to be fully elaborated, but Hyksos scarabs are common in Palestine and occasionally found in southern and coastal Syria. The sphinx found at Qatna, as well as Middle Kingdom sculptural fragments found out of context (and often mutilated) on the Ugarit acropolis, may have been gifts sent by the Hyksos rulers, if we may cite the analogous evidence from the Nubian capital at Kerma.[68]

The local artistic productions found in Syrian elite contexts also attest to international orientations. In glyptic art, for example, the cylinder seals of the court of Zimrilim and of Shamshi-Adad are heavily influenced by southern Mesopotamian styles, including the well-known presentation scene with suppliant goddess or motifs like the king with the mace (fig. 9.12b–c). The adoption of southern Mesopotamian glyptic by the rulers of the Jezireh can presumably be interpreted as emulation of the elite styles of a prestigious foreign power in order to legitimize their own status and authority.[69] The employment of Mesopotamian architectural styles such as engaged mudbrick columns on public buildings (e.g. Leilan, Terqa) may also be interpreted in this context.

After the period of Zimrilim, different seal styles can be observed throughout Syria, reflecting diverse artistic traditions and borrowings from different foreign repertoires. The glyptic data from the Leilan Acropolis and Eastern Lower Town Palace provide a valuable well-stratified corpus of material illustrating these changes, with Babylonian-style material from Shamshi-Adad's reign replaced by mixed styles in the following period.[70] The seals of the Hana kingdom also reveal a mixture of Mesopotamian and Syrian traits, including the peculiarity of representing the principal deity seated on the left, rather than the right, and the use of drill holes as part of the artistic motifs. To the west, the Yamkhad glyptic corpus, well illustrated at Alalakh, includes motifs from Egypt that suggest emulation of the elite styles and symbols of that ancient and highly respected power.[71]

While the cylinder seals typically exemplify works of art manufactured for the higher levels of society, examples of mass-produced "popular" art also exist. In particular, hand-made clay figurines are numerous in the archaeological record, especially of nude females. In the west, the typical female figurines have elaborate hairstyles, pierced ears, and applied circular pierced pellets for the eyes and navel (fig. 9.23).[72] In the Jezireh, mold-made terracotta plaques are common, sometimes with the representation of a ceremonial drinking scene or

[68] O'Connor 1993.
[69] In her study of "Classic Syrian" glyptic, dating to the early to middle eighteenth century BC, Otto (2000) interprets the depiction of a king facing a suppliant goddess as an emblem of the state, used only by officials of that institution. She also identifies six glyptic groups used in this period, each associated with a distinct phase and region.
[70] Parayre in Weiss *et al.* 1990. [71] Teissier 1996; Eder 1995. [72] Marchetti 2000.

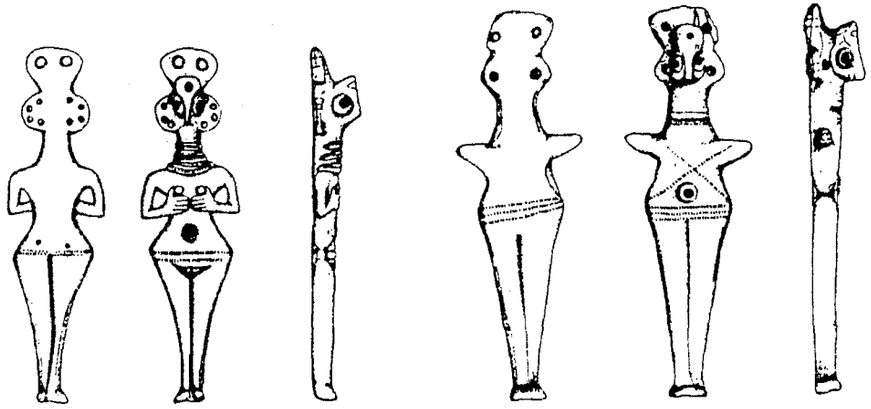

Fig. 9.23 Terracotta female figurines from Ebla.

of a nude woman holding her breasts. Such objects, like clay "chariot models,"[73] undoubtedly represent various aspects of popular, e.g. non-official, religion and ritual, but their precise function and interpretation are problematic.

Conclusions

Having raised the issue of the revival of urban societies in Middle Bronze Syria, what explanatory models can we suggest to account for it? As noted above, there are no simple explanations that can yet be offered, but some patterns may be discerned. An important factor is the continuity of settlement, especially among the largest communities: the urban centers of the Middle Bronze Age were constructed on the ruins of Early Bronze Age cities. Thus, we are dealing not with the assumption of power by localities of prior insignificance, but perhaps with the survival of lower-level administrative structures from the failed Early Bronze systems.

While economic relations with non-Syrian complex societies were clearly significant once urban life was reestablished, there are no available data suggesting that those societies served as stimuli in reactivating complex societies in Syria. Similarly, technological changes facilitating new hierarchies of power do not seem to have been important, nor does the climate appear to have improved dramatically in the early second millennium.[74] The role of new ethnic groups does appear significant, given the monopoly of rulership enjoyed by Amorites in Middle Bronze Syria. Further investigation of this phenomenon is necessary, exploring such issues as the advantages conferred by Amorite kinship relations and nomadic military capabilities.

[73] Bollweg 1999. [74] Wilkinson 1998.

The end of the Middle Bronze Age is associated with a dramatic military event in the west: *c.* 1600 BC, the Hittites attacked Yamkhad, destroying Aleppo and Alalakh, and then put an end to another Amorite dynasty with their extraordinary raid on Babylon. It is probable that these destructive campaigns were responsible for the burning of Ebla, never to regain its status as a major urban center. In the Jezireh, the end of the Middle Bronze has no comparable violent conclusion. Indeed, in both regions material culture exhibits a smooth transition between Middle and Late Bronze strata. But when the socio-political situation becomes clearer by *c.* 1500 BC, a new political – and ethnic – order is in place.

10

EMPIRES AND INTERNATIONALISM

In the Late Bronze Age, *c.* 1600–1200 BC, Syria is drawn into an ever-widening net of international connections and affiliations. Politically, Syria serves as the primary arena of confrontation for a succession of competing multiregional polities, including the Mitannian, Egyptian, Hittite, and Assyrian empires. Economically, Syria is an active participant in the international trade famously documented in the Amarna letters.

Of the diverse empires of the Near Eastern Late Bronze Age, only the Mitannian is indigenous to Syria. Its origins are ambiguous, but Mitanni can be to said to exist by at least the early fifteenth century,[1] extending from Cilicia in the west to the foothills of the Zagros in the east. Although Mitanni's power base was situated in the upper Khabur plains, the capital, Washukanni, has never been located and is one of the few major cities of the ancient Near East still unidentified. The large site of Tell Fakhariyah near the headwaters of the Khabur has been proposed as ancient Washukanni, but this identification remains unconfirmed (fig. 10.1).[2]

The ethnicity of the inhabitants of Mitanni has been the subject of considerable discussion. Hurrian names and terms attain a peak of popularity in the texts of the Mitanni kingdom, with Hurrian personal names predominating in the documents from Alalakh in the west and Nuzi in the east. At the same time, the kings of Mitanni bore names in an Indo-European language related to Sanskrit, and the names of gods and technical terms related to the breeding and training of horses are also attested in the same language.[3] Completing this "multicultural" picture, the language most commonly employed for writing remained Semitic Akkadian, and the continued importance of west Semitic is evident in the personal names in texts from Qatna and Hadidi.

Once again we confront the question of ethnicity, language, and the archaeological record. What does the spread of Hurrian names and other terms "mean"? The conventional interpretation involves a gradual, large-scale migration of ethnic Hurrians from eastern Anatolia to the upper Khabur and northern Iraq

[1] Wilhelm 1989.
[2] A program of chemical analyses compared the composition of clay from potential site candidates with a clay cuneiform tablet sent from Washukanni to Egypt, but no match was obtained (Dobel *et al.* 1977).
[3] Wilhelm 1989.

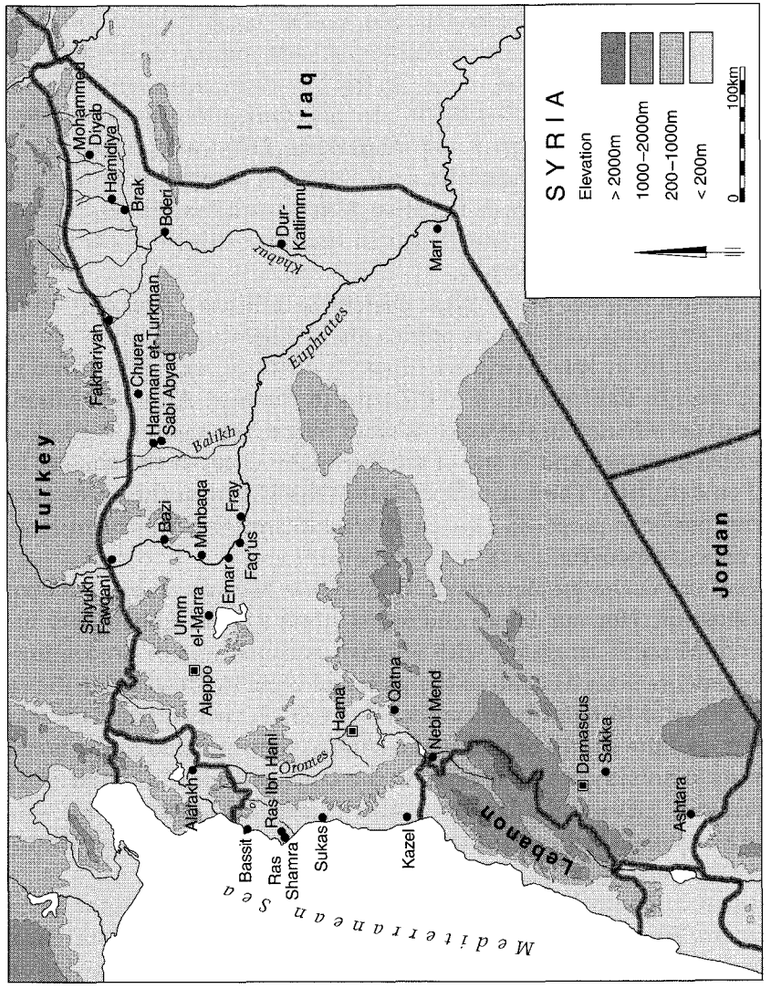

Fig. 10.1 Syria in the mid/late second millennium BC (Late Bronze Age).

in the late third millennium and to western Syria in the second millennium. An alternate model might posit the assumption of power by ethnic Hurrian individuals (a military elite?) over different parts of Syria in the late third and second millennia, accompanied by acculturation: the adoption of Hurrian language, naming practices, and ideologies by Semitic speakers in emulation of their superiors.

The identification of distinct Hurrian styles of art or material culture in the archaeological record has bemused many archaeologists,[4] but their attempts have usually ended in frustration. An assumption of a one-to-one correspondence of ethnic identification with archaeological "cultures" has long been discredited, although markers of ethnicity can exist in material culture.[5] It is likely that Mitannian art and material culture consisted of a mixture of different traditions from Syria and its neighbors, although some local peculiarities and emphases can be observed, most particularly in the development of Mitannian glyptic styles and a high-status pottery type, Nuzi Ware.

When it appears on the historical scene, Mitanni is locked in conflict with the imperialist Eighteenth Dynasty Egyptian pharaohs. For the first time, Egypt had initiated a program of repeated military campaigns and, eventually, administrative control in Palestine and Syria. The Egyptians encountered Levantine city-rulers dependent on the Mitannian king and decisively defeated them at Megiddo in northern Palestine. Although Thutmose III campaigned as far as the Euphrates, the Egyptian sphere of influence was largely limited to the Syrian coast and the region south of Qatna, while Mitanni retained northern inland Syria and northern Mesopotamia.[6] Mitanni appears to have consisted of diverse local dynasts ultimately responsible to the Mitannian king rather than a tightly administered polity. Egypt's control of southern and coastal Syria was a similar affair in which indigenous rulers remained in power but were expected to render tribute to their overlord.

Egypt and Mitanni preserved a balance of power in Syria until the advent of Hittite imperialism in the mid-fourteenth century. Moving south and east of their power center in Anatolia, the armies of Suppiluliuma I of Hatti defeated the Mitannians and assumed control of northern Syria through a combination of local vassal rulers and Hittite viceroys based in Carchemish and Aleppo. The ensuing confrontation between Egypt and Hatti came to a head in the early thirteenth century at the battle of Qadesh (modern Nebi Mend), after which a peace treaty was signed acknowledging Syria's division into Hittite and Egyptian spheres of influence. Meanwhile, the weakened Mitanni kings were attacked from the east by their erstwhile dependents, the kings of Assur on the Tigris. These Assyrian rulers eventually put an end to the Mitanni state, establishing their own empire in the Jezireh in the thirteenth century and challenging the Hittites for control of Syria.

[4] E.g. Barrelet *et al.* 1977, 1984. [5] Hodder 1979; Emberling 1997. [6] Klengel 1992.

	Western Syria			Middle Euphrates	Balikh	Khabur	Northern Mesopotamia	Anatolia	Egypt
1200	Ras ibn Hani palaces	Ugarit Late Bronze destruction level	Alalakh I	Late Bronze Emar	Sabi Abyad *dunnu*	Dur-Katlimmu Middle Assyrian occupation	Tukulti-Ninurta I Shalmaneser I	Hittite empire period	Rameses II Dynasty 19
1300			Alalakh II				Middle Assyrian period		
			Alalakh III			Brak Mitanni palace and temple		Suppiluliuma I	Akhenaten
1400			Alalakh IV		Hammam et-Turkman VIIIB		Mitanni kingdom		Thutmose III
		Hama G 3–1							
1500			Alalakh V		Hammam et-Turkman VIIIA				Dynasty 18
1600			Alalakh VI						

Fig. 10.2 Mid/late second-millennium BC chronology.

This era of competing great powers also saw an intensified economic contact between the different regions of the eastern Mediterranean and southwest Asia. The cuneiform documents found at Tell el-Amarna, capital of the iconoclastic Egyptian king Akhenaten, include evidence of a lively exchange of "gifts" between the rulers of the eastern Mediterranean states, and a prosperous seagoing trade is amply attested in the archaeological record.

Pottery and chronology

Despite the increased availability of written sources from archaeological contexts, the archaeological chronology of the period is incomplete (fig. 10.2). Even a congruence of abundant textual and material culture evidence as at Alalakh IV does not resolve issues of absolute and relative chronology, given the ambiguities of both types of data, and the applicability of a low, middle, or high chronology[7] are still heatedly debated. Radiocarbon evidence from Late Bronze Syria is scarce, and the possibilities of dendrochronological analysis are only beginning to be explored.

One of the problems in Late Bronze Syrian chronology is the similarity of Late Bronze ceramics to those of the Middle Bronze Age. Rather than an abrupt break between the two periods, the pottery assemblages display a smooth transition in which many traits of the earlier period persist into the later. The employment of combed decoration on large vessels, for example, is common to both periods in western Syria. A similar smooth transition can be observed in the architectural and stratigraphic sequences at major sites like Alalakh, Hama, and Hammam et-Turkman. While Palestinian-related distinctions like LB I, IIA, and IIB are sometimes applied to Syrian data, the diagnostic criteria for each sub-period are not made explicit and the internal divisions are therefore still equivocal.

Especially characteristic of the Late Bronze Syrian pottery assemblages are shallow bowls with simple, interior bead or inturned rims (fig. 10.3a–c), small jars with tall straight necks (fig. 10.3l–m), a variety of jugs and juglets (fig. 10.3p), oil lamps (fig. 10.3n), sometimes with two spouts, and a general popularity of ring bases. Continuing from later Middle Bronze assemblages are beakers with low carination (fig. 10.3o), "shoulder goblets" with tall necks and globular bodies, large vessels with inverted upper bodies and everted or collared rims, sometimes with combed decoration, and large jars with tall necks and everted or ribbed rims. Later in the period, during the era of Middle Assyrian imperial control in the Jezireh, new popular types in that region include carinated flat or ring-based bowls (fig. 10.3d–e) and various shapes with nipple bases (fig. 10.3f–g).[8]

In addition to the common wares of Late Bronze assemblages, several distinct varieties of luxury wares or imported ceramics are important in the period. Nuzi

[7] Åström 1987; Gasche *et al.* 1998. [8] Pfälzner 1995.

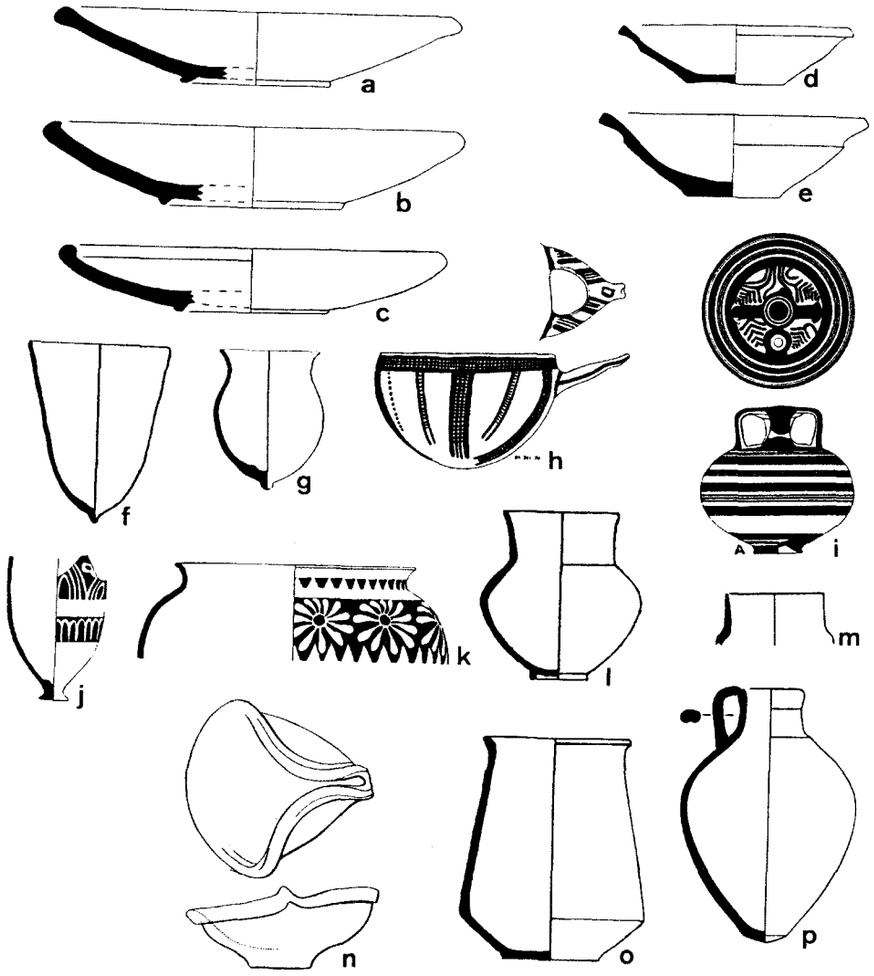

Fig. 10.3 Mid/late second-millennium BC pottery (scale 1:5 except p, 1:10).

Ware (fig. 10.3j–k), first discovered at Yorgan Tepe (ancient Nuzi) in northern Iraq, is characterized by light-colored painted motifs, either geometric or, especially in the west, floral (fig. 10.4), applied to a field of dark paint. The typical shape is a tall thin-walled open vessel with a small pedestal or button base. Found throughout the Mitannian sphere in the fifteenth to fourteenth centuries but rarely in great numbers, this handsomely decorated pottery might be interpreted as a Mitannian elite marker. In the Jezireh, the latest phases of Khabur Ware overlap with the appearance of Nuzi Ware and consist of dark-painted motifs on "shoulder goblets" with button bases.[9]

[9] Oates *et al.* 1997.

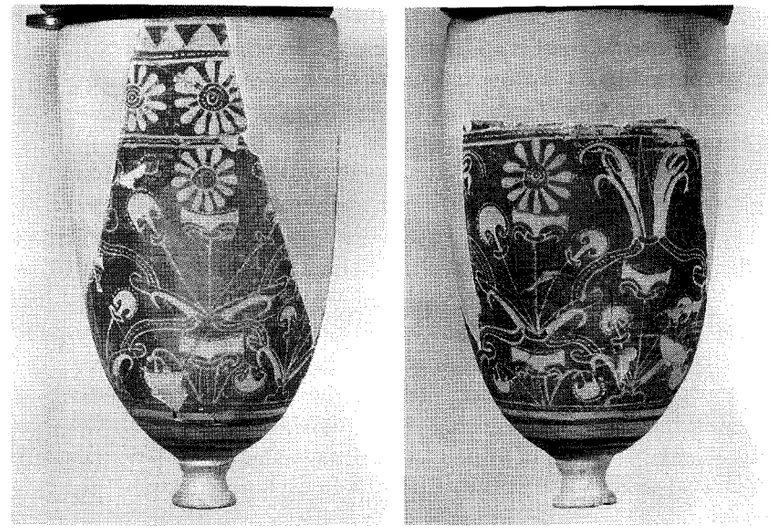

Fig. 10.4 Nuzi Ware from Alalakh.

The inclusion of coastal Syria into an eastern Mediterranean maritime trade network is evinced by, among other things, the prevalence of Cypriot and Mycenaean ceramic imports. Given the ubiquity of imported bowls, as opposed to closed forms, these attractively painted vessels were frequently imported for their own sake and not as containers of trade goods. Especially popular, particularly in the early to middle centuries of the Late Bronze Age, were Cypriot White Slip I and II "milk bowls" (fig. 10.3h) and gray Base Ring Ware juglets, while Mycenaean pottery (fig. 10.3i) appears later in the period. Both Cypriot and Mycenaean pottery were imitated to produce local versions. The attestations of imported pottery from Cyprus or the Aegean are most profuse in sites on or near the coast, while their numbers fall off dramatically in the Syrian interior and are nearly absent in the Jezireh.

Alalakh and western Syria

If we consider the evidence of archaeological surface survey from western Syria, we encounter a general trend of decline in the number of occupied tell sites in the Late Bronze Age, although the blurring between Middle and Late Bronze pottery may obscure some of the relevant data.[10] This pattern sometimes has been interpreted in terms of an increasingly exploitative urban elite whose oppressive demands forced the peasants to abandon their homes. The fleeing peasants either embraced a mobile pastoralist lifestyle or attached themselves to roving bands of refugees and outlaws like the rootless *habiru* of the Amarna

[10] Yener *et al.* 2000; Schwartz *et al.* 2000a; de Maigret 1978; Thalmann 1989–90.

documents.[11] Another view might consider the deleterious effect of conflicts between external imperial powers and of tributary obligations to such powers.[12] An apparent exception to dwindling sedentary occupation is found in the area around Homs and Qatna, where sedentary communities are said to be numerous in both the Middle and Late Bronze periods.[13]

One of the richest sequences from Late Bronze western Syria was obtained from Alalakh, levels VI–I, although the stratigraphic uncertainties of the excavation must be kept in mind.[14] After successive reconstructions of a fortress in levels VI and V, a large palace was built that yielded, in its level IV manifestation, an archive of administrative texts dating to the reigns of Idrimi, Niqmepa, and Ilimilimma, vassals of the Mitannian kings. The palace (fig. 10.5) is notable for its two-columned portico entrance, a prefiguring of the so-called *bit hilani* type that becomes common in the early first millennium BC. Its integrative use of wood and mudbrick, as well as the employment of basalt orthostats lining the bases of walls, is characteristic of Syrian Late Bronze palaces. After the burning of Alalakh level IV, presumably by the Hittite forces of Suppiluliuma, the city's reconstruction included a multi-room fortress and a series of long-room temples. Perhaps the best-known single discovery from Late Bronze Alalakh is the curiously grotesque seated statue of Idrimi with its autobiographical text (fig. 10.6, left). Found in the level IB temple vicinity, the statue is usually interpreted as an heirloom from the fifteenth century.

In the region east of Alalakh, public structures of Late Bronze date have been partially excavated at Gindaris and Afis, while only minimal evidence of occupation has been detected at Ebla, Touqan, and Abu Danne. At Umm el-Marra, a large sample of domestic architecture from the Mitannian period included central-room houses (see below) as well as luxury items like alabaster and glazed ceramic vessels.[15]

The importance of Qatna in the Late Bronze Age was intimated by the results of the 1920s excavations, including a palace dated to the fourteenth century and earlier and a temple of the goddess Ninegal, the latter producing cuneiform inventories of the temple treasury.[16] In 2002, extraordinary results were reported from new excavations in the palace. In addition to a collection of legal and administrative documents and royal letters from the fourteenth century BC, an apparent royal sepulchre was found consisting of a set of underground chambers guarded by two seated male statues. New textual finds from the Late Bronze Age were also reported from a different elite building at the site. Data from these discoveries may well be expected to revolutionize our understanding of Late Bronze Age western Syria. West of Qatna, Nebi Mend, ancient Qadesh, was likewise an important power center, yielding a victory stele of pharaoh Seti I and some evidence of public architecture.[17]

[11] Liverani 1987. [12] Gonen 1984. [13] Sapin 1978–9.
[14] Woolley 1955; Gates 1981. [15] Curvers and Schwartz 1997.
[16] Du Mesnil du Buisson 1935; see also al-Maqdissi *et al.* in press. [17] Bourke 1993.

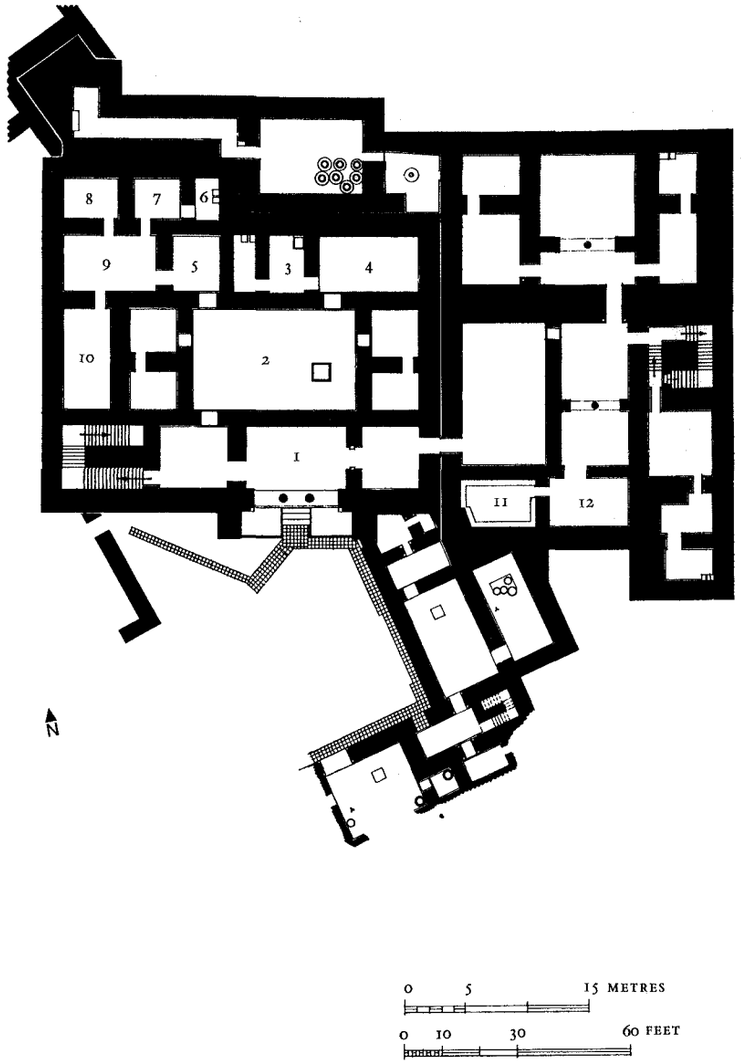

Fig. 10.5 Alalakh IV Palace.

Ugarit: a great coastal emporium

There is no question that the most extensive and impressive material remains from Late Bronze Syria derive from Ras Shamra, ancient Ugarit, on the Mediterranean coast. Excavated almost continuously since 1929, the site has supplied an overwhelming body of evidence from the burned, *in situ* remains of its last

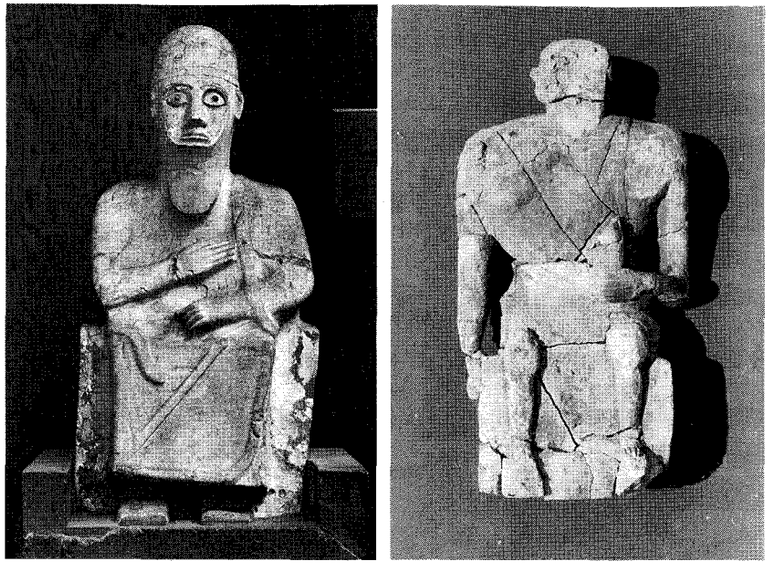

Fig. 10.6 Statue of Idrimi from Alalakh (left) and statue from Brak Mitanni palace (right).

Late Bronze occupation.[18] Rather than a typical Syrian urban center, however, Ugarit was an unusually wealthy city profiting from its role as intermediary between the intensified maritime trade of the eastern Mediterranean and the resources and markets of the Asiatic interior. Although the territory controlled by the rulers of Ugarit was relatively small, it included a coastal plain with productive wheat, grape, and olive cultivation, highlands providing timber for ship-building, and marine resources like murex shells used to produce purple dye. Despite its economic significance, Ugarit was subservient to the great powers of its day, owing allegiance first to Egypt and subsequently to the Hittite kings.

Given the immense quantity of data collected from Ras Shamra, we can only begin to outline some of the most important results of the seventy-plus years of excavation. Unfortunately, the periodization of the Late Bronze remains is often difficult, given the lack of stratigraphic control in Schaeffer's excavations (1929–70). In terms of urban layout (fig. 10.7), we can recognize an urban center of some 30 ha in which a religious complex dominates the ancient acropolis to the east, a set of sprawling royal palaces occupies the western fringes, and interspersed residential neighborhoods consist of insulae separated by narrow streets. In contrast to inland Syrian communities, Ras Shamra has almost no evidence of mudbrick architecture, employing only dressed and rough stone and

[18] Yon 1997a.

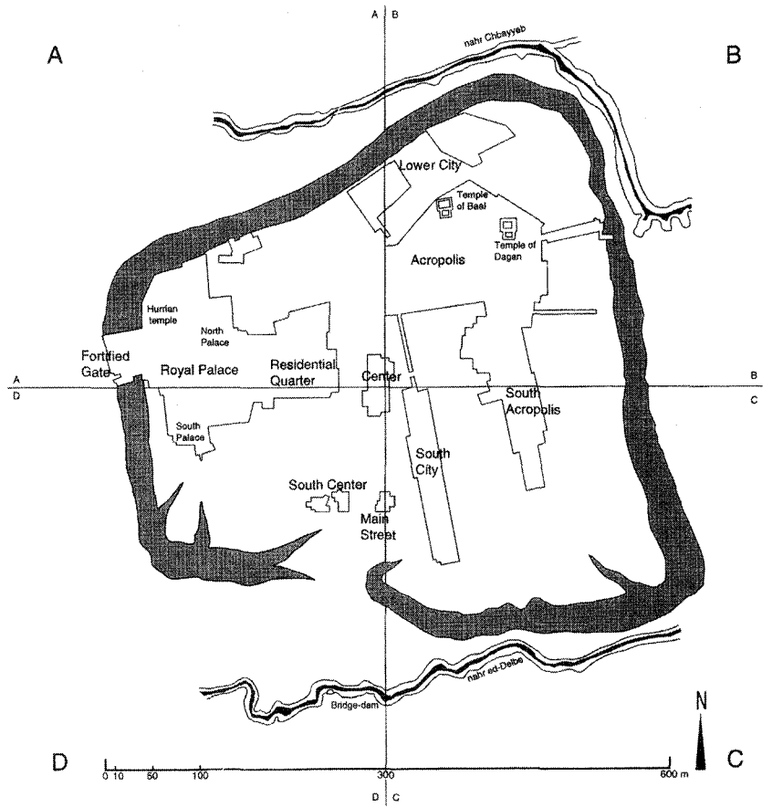

Fig. 10.7 Ugarit.

timber. Recent research has identified a main entrance to the city at the south, with a boulevard extending to the north. A dam on the Nahr ed-Delbe stream south of the site has also been identified, ostensibly used for the accumulation of water in periods when wadi flow was limited.

The Ugarit royal palace (fig. 10.8), encompassing almost 1 ha with about 100 rooms, was one of the marvels of the Late Bronze Age world. Demarcated from the rest of the city, the vast structure was amply protected by a sloping glacis of stones and a postern gate on its western exterior. Stone staircases indicate the existence of at least one upper story, if not more. A vestibule with two columns led to an official quarter, while private apartments and gardens were located to the south and east. Courtyards were distributed at intervals, including an example with a basin and piped-in water system. Under rooms to the north were the dressed-stone royal tombs, consisting of a dromos leading by steps down to a corbeled burial chamber. Other palaces have been also identified in the western

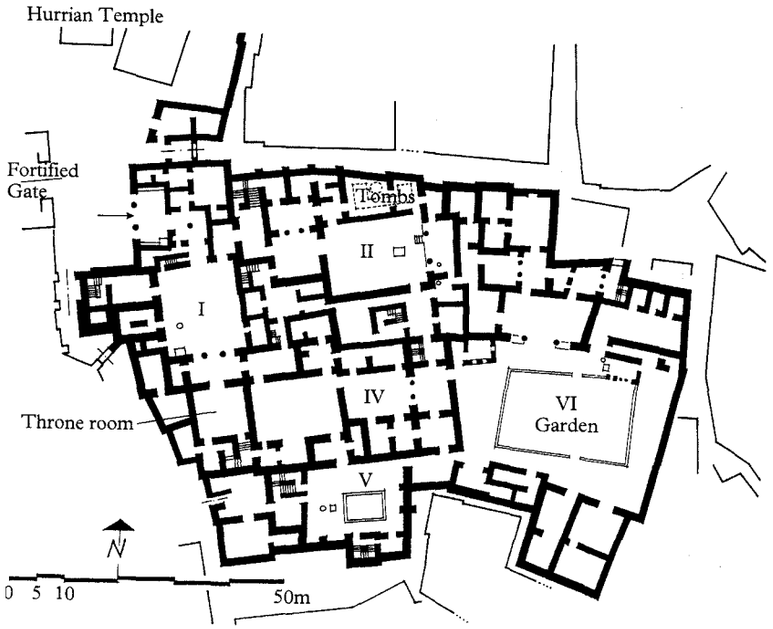

Fig. 10.8 Ugarit royal palace.

part of the city, including the orthostat-lined Northern Palace, associated with the early part of the Late Bronze period, and the Southern Palace.

While the royal palace yielded an unprecedented collection of art objects and luxury items, it also contained thousands of cuneiform texts, many of them in an alphabetic cuneiform system unique to the Syrian Late Bronze Age. In addition to the texts in alphabetic cuneiform employed to write the local Semitic language, numerous Akkadian documents were found, as well as texts in Sumerian, Hurrian, Hittite, Egyptian, and Cypro-Minoan. The tablets from the palace and from other parts of the site have provided a treasure-trove of administrative, diplomatic, economic, and religious information and form one of the most important corpora of written documents from the ancient Near East.

Despite the vast excavated exposure at Ugarit, only four temples have been identified. Crowning the acropolis and visible from a great distance were the temples of Baal and Dagan (the latter identified by inscribed stelae), massive two-room structures that appear to be variations on the "classic" Syrian temple *in antis* long-room plan, with small antecella and larger cella (fig. 10.9b). Given their formidable foundations and an associated stairway, it is likely that these buildings resembled towers and had rituals performed on their roofs. Their hypothesized auxiliary function as landmarks for voyaging sailors is supported by

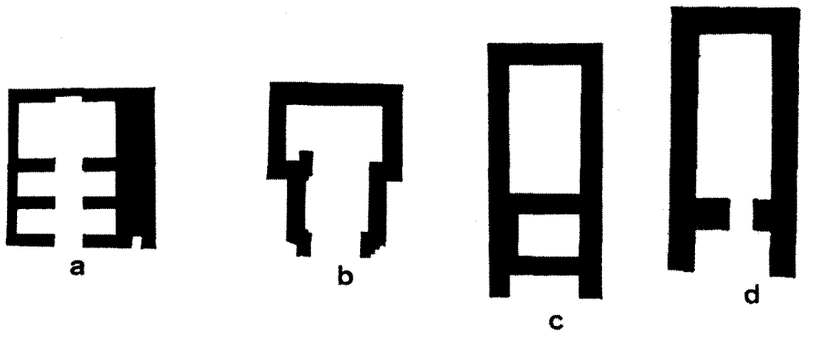

Fig. 10.9 Mid/late second-millennium west Syrian temples: (a) Alalakh, (b) Ugarit Baal Temple, (c) Munbaqa, and (d) Emar (scale 1:800).

the discovery of stone anchors in the vicinity of the Baal temple, apparently deposited as votive offerings.[19] Elsewhere in the site were the small two-room "Hurrian Sanctuary," perhaps a royal temple, and the "Temple of the Rhytons," thought to represent a genre of cultic shrines integrated into local neighborhoods.

An enormous sample of residential architecture has been excavated at Ugarit, and several in-depth studies of individual houses have recently appeared.[20] Contrary to original interpretations, the neighborhoods evince little functional or social differentiation, with craft workshops, residential units, wealthy houses, and poorer quarters all located within the same districts. In a recent study, Schloen hypothesizes that the households of Ugarit were composed of patrimonial "joint families" within kin-related neighborhoods.[21] A common house plan consists of numerous rooms arranged around a central courtyard, with the vaulted stone-built family tomb below one of the room floors (fig. 10.12a). Second stories, probably the loci for living/sleeping rooms, were common, while the preserved ground-floor rooms were used for storage, food preparation, and craft production. Wealthier houses sometimes sported systems of water distribution connected to bathrooms and toilets.

The wealth of Ugarit, especially of the royal establishment and associated elite, is amply demonstrated by such items as the gold bowls found near the temple of Baal (fig. 10.10), gold-plated bronze statuettes of deities, carved ivory furniture fittings, alabaster luxury vessels, and vast quantities of imported Cypriot and Mycenaean pottery, found preeminently in the royal palace but also in residential quarters, particularly in the well-furnished family tombs. This luxury and prosperity is attributable to the palace's mobilization of the rich agricultural products of Ugarit's hinterland, the city's control of trade between the Mediterranean and the interior (e.g. copper from Cyprus; wine, olive

[19] Frost 1991. [20] Callot 1983, 1994. [21] Schloen 2001.

Fig. 10.10 Gold bowl from Ugarit.

oil, and textiles from Syria), and its craft industries. Among other facilities, metallurgical workshops, olive presses,[22] and an installation for dyeing textiles with crushed murex shells found at the harbor site of Minet el-Beida[23] have been discovered.

Although excavations have not been attempted at any of the villages in the Ugarit realm, several large or elite centers have been sampled, including Ras el-Bassit on Ugarit's northern border[24] and, in the Tartus vicinity, Daruk, Amrit, Simiryan, Sianu, and Sukas. At the latter site, deposits of small vessels in the harbor sand may indicate a seaside offering place.[25] Most informative have been the excavations at Ras ibn Hani, perhaps ancient Biruti, located on a cape 4 km south of Ugarit. Here was a planned community of elite residences and administrative architecture probably constructed in the reign of Ugarit's king Ammishtamru II (mid-thirteenth century). The site is particularly notable for two sizable palaces, the larger of which (the Southern Palace) encompassed over 5000 sq. m. in area. The Northern Palace, apparently built for the king's mother, had considerable evidence of craft activity such as fragments of stone and bone object manufacture as well as crucibles and other metallurgical implements.[26] Particularly significant among the latter was a sandstone mold

[22] Callot 1987. [23] Schaeffer 1950. [24] Courbin 1986.
[25] Riis *et al.* 1996. [26] Bounni *et al.* 1998.

for a four-handled "oxhide" copper ingot. Oxhide ingots of Cypriot copper are well known throughout the eastern Mediterranean, but the Ras ibn Hani example is the only mold yet discovered, apparently indicative of the Ugarit kingdom's role as middleman in the copper trade. South of the Ugarit kingdom was the Akkar plain, the base for Egyptian military campaigns in Syria and later the heartland of the Amurru kingdom, a buffer between the Egyptian and Hittite spheres of influence. Tell Kazel, perhaps ancient Sumur, the main center of the region, although relatively small in area (about 8 ha), has nevertheless revealed substantial evidence of a Late Bronze elite presence including several large-scale buildings and a stamp seal with an inscription in hieroglyphic Hittite.[27]

Ekalte, Emar, and the cities of the middle Euphrates

Although the Thutmosid pharaohs claimed to have erected stelae on the banks of the Euphrates, the great bend of the river remained in Mitannian hands until the Hittite campaigns of Suppiluliuma I in the later fourteenth century. After the Hittites asserted control, the middle Euphrates served as their eastern frontier against Mitanni and, subsequently, the Assyrian empire. Archaeological evidence from this region is ample, thanks to the Tabqa and Tishrin dam salvage operations. However, as in other regions, the internal chronology of the period is uncertain because of incomplete ceramic sequences. An excellent opportunity to document a historically dated assemblage was missed when the Emar pottery was only minimally published. As a result, it is difficult to distinguish material culture differences between the period of Mitannian domination and that of the Hittites.

Thus far, our evidence consists of large and prosperous urban centers enjoying a relatively autonomous existence. In most cases, defensive architecture is emphasized, ostensibly because of the danger from outside powers as well as internal conflicts. The best-documented center is Munbaqa, ancient Ekalte, in the Tabqa dam area.[28] Munbaqa's broad excavated exposure, combined with the results of geomagnetic survey, provide an unusually comprehensive view of a Late Bronze city (fig. 10.11). Expanding dramatically from its Middle Bronze location on the high tell, Late Bronze Munbaqa was transformed into a center of about 15 ha consisting of an inner and outer town, each zone protected by enclosure walls of gravel and of brick above stone foundations. Three gates have been excavated, including a northeast gate with preserved mudbrick radial arch, reconstructed as a two-chamber installation with a 4 m wide interior brick "walkway." On the high western crest of the tell near the river, the stone foundations of three temples *in antis* have been excavated (fig. 10.9c).

Most extensive at Munbaqa are the exposures of domestic architecture, largely of the central-room house type,[29] where a large roofed hall is flanked

[27] Badre and Gubel 1999–2000.
[28] Werner 1998; Czichon and Werner 1998. [29] McClellan 1997.

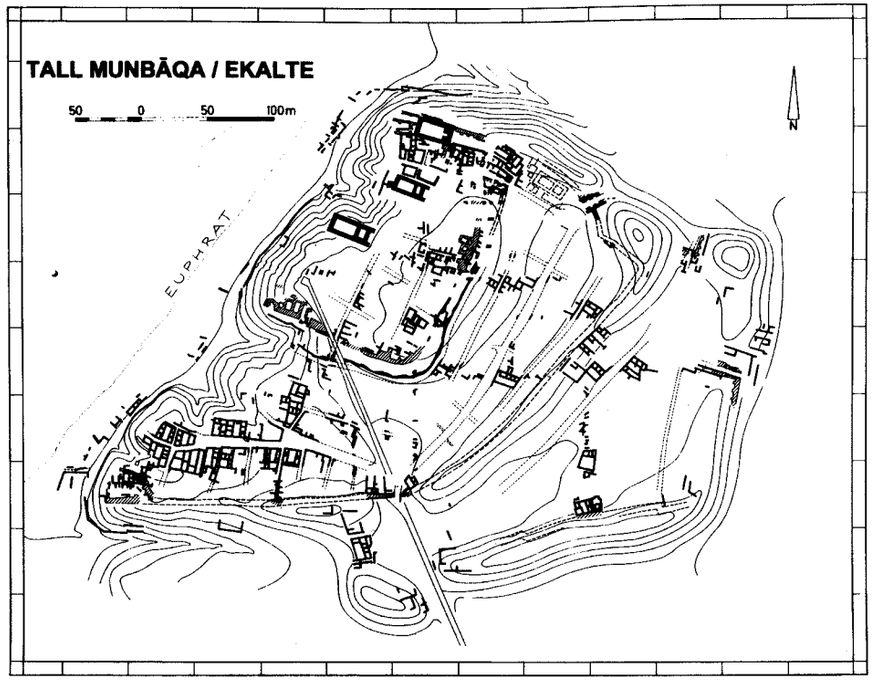

Fig. 10.11 Munbaqa.

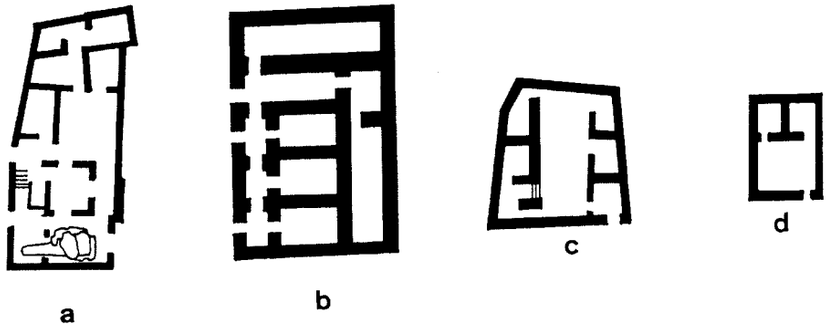

Fig. 10.12 Houses from (a) Ugarit (with tomb on lower right), (b) Alalakh, (c) Munbaqa central-room, and (d) Emar front-room (scale 1:600).

by smaller rectangular rooms (fig. 10.12c). Evidence of craft production (e.g. pottery kilns) is frequent alongside storage or domestic remains. Curiously, no palaces have been identified at Munbaqa, despite the broad horizontal exposures, a situation perhaps clarified by the cuneiform legal and business texts found in some of the houses. In these records, communal authority is embodied in elders of the city, in a group called the "Brothers," who have their own

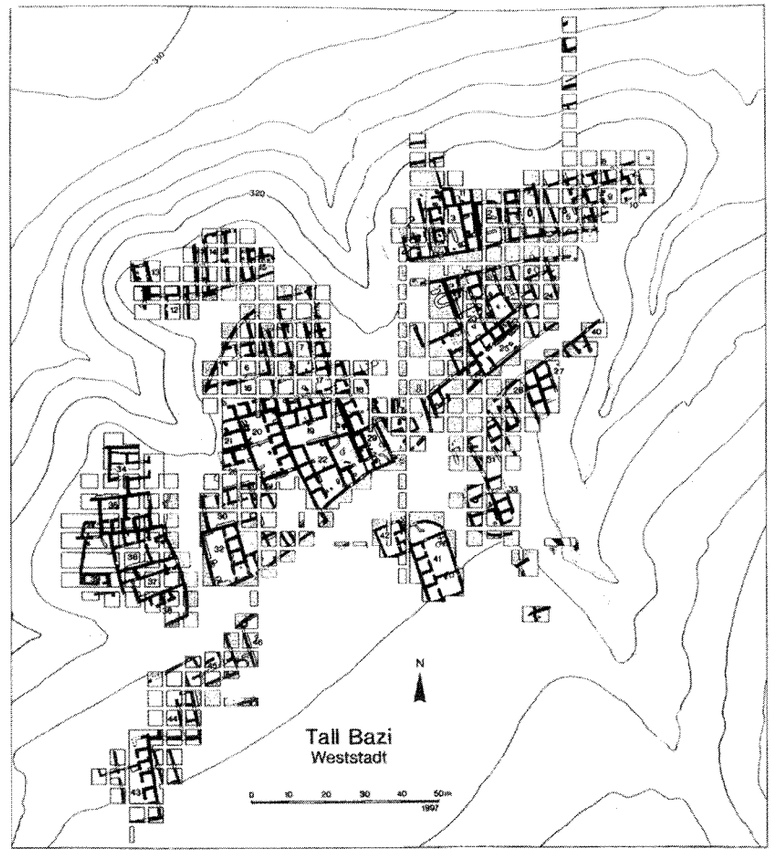

Fig. 10.13 Bazi.

official cylinder seal, and in the city god Ba'laka (= Baal), while kings are conspicuous in their absence. In general, one receives an impression of relatively homogeneous households enjoying a reasonably high standard of living. A similar picture obtains at nearby Hadidi, ancient Azu, where a central-room house yielded tablets referring to the "Brothers" and the city god Dagan, whose establishment had its own seal. Like Munbaqa, Hadidi expanded to peak size and was enclosed by defensive walls in the Late Bronze period.[30]

Comparable to Munbaqa in its broad exposure of Late Bronze domestic architecture is Tell Bazi, upstream in the Tishrin dam region.[31] Since the Bazi western lower town is a one-period site constructed on virgin soil, the excavators have been able to uncover half of the site, some 10,000 sq. m. The fifty excavated houses, arranged along broad streets, display a variant of the central-room

[30] Dornemann 1979. [31] Einwag and Otto 1996, 1999.

plan consisting of a large main hall with a row of small square rooms along one of the longer sides (fig. 10.13). The central rooms often contained ovens and brick platforms, while the smaller rooms yielded storage jars and other implements implying a storage function. A hypothesized second story is thought to have served as living space. The excavators report that the discovery of raw materials, worked objects, and molds suggests that most households engaged in the craft production of items like bronze weapons or tools, stone weights, and jewellery. East of the Bazi lower town was a heavily fortified citadel built on the slopes of a natural hill.

Fortification also seems to have been the main *raison d'être* for the 6 ha site of el-Qitar (ancient Til-Abnu?), 9 km south of Bazi. Defensive walls constructed of stone blocks were erected atop a natural hill next to the river, enclosing an upper and lower settlement, with towers situated at intervals. Although a Middle Assyrian tablet whose sealing bears Hittite hieroglyphs indicates a thirteenth-century date, McClellan[32] assigns the main floruit of this fortress-settlement to the fifteenth century. North of Qitar towards the Syro-Turkish border, Late Bronze evidence has recently begun to accrue from other Tishrin dam salvage sites such as Shiyukh Fawqani, Shiyukh Tahtani, and Tell Ahmar.[33] Although Carchemish, located directly on the border, was undoubtedly the main center of the middle Euphrates, very little archaeological information on the Late Bronze occupation was afforded by the early twentieth-century excavations at the site.

Controlling the southern end of the great Euphrates bend was Emar (modern Meskene), the major center of the Tabqa dam area, a region known as Ashtata in the Late Bronze Age. In contrast to Carchemish, Emar has yielded abundant Late Bronze data, thanks to salvage excavations in the 1970s.[34] Although textual evidence indicates that Emar was an important urban center from the mid-third millennium BC on, only the occupation in the period of Hittite control in the Late Bronze Age has been sampled extensively.

Because of the information supplied by tablets found in the excavated site, we can date Emar's Late Bronze occupation from *c.* 1330 to its destruction in 1187. According to Margueron, Late Bronze Emar (*c.* 70 ha) was built on top of a huge artificial terrace of gravel and clay; because of this unusual preference for a hilltop location and the vast expense required to construct it, Margueron has proposed that the entire project was sponsored by the Hittite authorities.[35] Alternatively, McClellan suggests that Late Bronze Emar was built on an artificial height by the inhabitants of the original city in order to avert the threat of flooding. In a new development, Finkbeiner's recent excavations have revealed *in situ* Early and Middle Bronze materials below the Late Bronze structures, necessitating a revision of previous interpretations.[36]

[32] McClellan 1987. [33] Del Olmo Lete and Montero Fenollós 1999.
[34] Margueron 1995, 1997; Beyer 1982. [35] Margueron 1980.
[36] McClellan 1997; Finkbeiner 1999–2000.

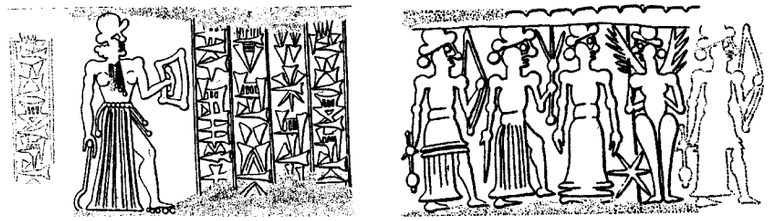

Fig. 10.14 Communal seal (left) and royal seal (right) from Emar.

On the highest point, two twin temples *in antis* were excavated (fig. 10.9d), and a third was identified in a more central location. East of the twin temples, a residential neighborhood contained houses of a uniform front-room variety (fig. 10.12d), consisting of a large rectangular room flanking the street with two rooms behind, the latter probably bearing a second story for living and sleeping space. A building to the east of the houses, while sometimes identified as a temple, may instead have been the house of a diviner. The hundreds of Akkadian tablets found here and from other contexts at Emar provide the most important source of documentary evidence from Late Bronze Syria after Ugarit.

A large building in the northwestern part of the site has been identified as the palace of the local king built in *bit hilani* style (see chapter 11), although its fragmentary preservation leaves such interpretations hypothetical. Indeed, the extent of the king's economic or political power at Emar has been questioned in the face of frequent references to communal authorities represented by elders, the city god NIN.URTA, and occasionally the "Brothers."[37] In a study of the seal impressions on Emar tablets, Yamada[38] has recently shown that the royal establishment and the communal authorities had distinct cylinder seals, indicating separate (and competing?) bases of power (fig. 10.14). The economic importance of communal, non-royal authorities at Emar as well as Hadidi and Munbaqa may suggest a middle Euphrates tradition of strong communal authorities alongside of or in competition with royal establishments.

At the same time, the Emar texts indicate a clear subservience to the Hittite authorities at Carchemish and at the imperial capital of Hattusha. Margueron has attributed major construction projects to the Hittites, both in the establishment of Late Bronze Emar and in the building of a citadel at Tell Faq'us 10 km downstream from Emar, tested in a short 1978 excavation.[39] Downstream from Faq'us at Tell Fray, the "little palace" of level IV was identified as the possible residence of a Hittite governor. This structure, consisting of rooms flanking two sides of a large courtyard, contained hieroglyphic Hittite inscriptions on jars and a bulla, and Matthiae[40] likens the building to examples of public architecture at the Hittite capital of Hattusha. While attributions of these constructions to the Hittite authorities may or may not be tenable, it

[37] Fleming 1992. [38] Yamada 1994. [39] Margueron 1982b. [40] Matthiae 1980.

is nevertheless clear that the material culture of the middle Euphrates sites is primarily local in character, and the Emar texts reveal a Semitic-speaking population with indigenous social, economic, and religious characteristics.

Generally, the Late Bronze middle Euphrates centers evince a prosperity based on local agricultural and pastoral resources. Despite Emar's position at the juncture of Mesopotamian and west Syrian trade routes, there is strangely little reference to commercial activities in the texts and next to no evidence of western contacts in the material culture.

The Syrian Jezireh in the sixteenth to fourteenth centuries: heartland of Mitanni

Although the Jezireh was the heartland of the Mitannian state, survey results from this region (west Jezireh, Balikh, Bi'a vicinity, upper and lower Khabur) resemble those from western Syria in the decreasing number of tell occupations.[41] Along with reduced urbanization, Wilkinson's work in the Balikh notes a trend towards rural settlement in small, short-lived hamlets. Curvers[42] suggests that this ruralization was accompanied by the appearance of elite manor houses (Akkadian *dimtu*) controlling agricultural production in the Mitannian hinterlands, as mentioned in the texts from Nuzi.

Excavations at major tells with Mitannian period occupation exhibit a pattern of large-scale elite buildings on mound summits with little evidence of occupation elsewhere on site. An example of a high-status residence installed at a largely depopulated major tell has been exposed at Hammam et-Turkman VIIIB.[43] Constructed above the Middle Bronze period administrative complex, this building was organized in two wings on either side of a large cobbled courtyard. In the west, "official" wing, the mudbrick architecture was embellished with limestone orthostats and wooden accoutrements. The eastern, residential wing included a bathroom with a baked-clay tub and a kitchen with cooking installations, both served by water drainage systems of stone and terracotta.

In the Khabur valley, the core area of the Mitannian state, the most abundant evidence is derived from Tell Brak, ancient Nawar, where a palace and temple were constructed atop the highest point of the tell (fig. 10.15).[44] The Brak palace is a square complex with a central courtyard paved with baked bricks, around which are smaller rooms including a file of chambers on the east, one of which had a baked-brick floor, ovens, and drain. Two stairways indicate the presence of a second floor, where, once again, living and sleeping rooms are hypothesized. Adjacent to the palace is a temple with a square broad-room cella characterized by the use of engaged mudbrick half-columns. The small finds from the Brak palace furnish an exemplary sample of Mitannian

[41] Einwag 1993; Wilkinson 1998; Kohlmeyer 1984; Meijer 1986; Röllig and Kühne 1983.
[42] Curvers 1991. [43] Van Loon 1988. [44] Oates *et al.* 1997.

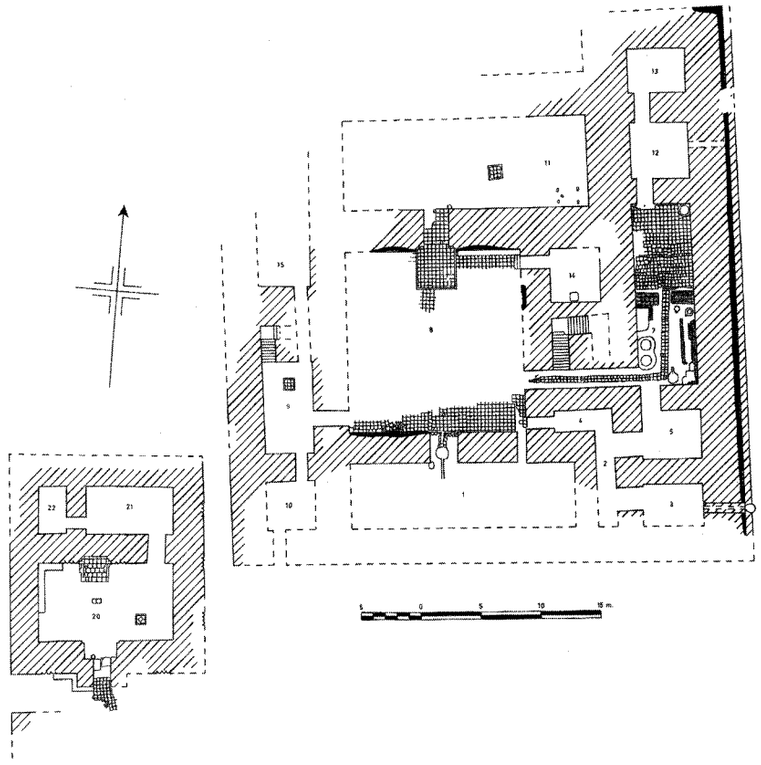

Fig. 10.15 Brak Mitanni palace (upper right) and temple (lower left).

period luxury items, including glass vessels and beads, alabaster jars, and ivory and wood furniture components. Also notable is a small limestone statue of a seated male (fig. 10.6, right); while the piece is crude and its face destroyed, it provides a rare example of sculpture in the round from the Mitannian sphere. A sample of tablets includes legal cases heard by the Mitannian kings Artashumara and Tushratta sealed with a dynastic cylinder seal bearing the name of their predecessor Saustatar (fig. 10.19c).[45]

Upstream from Brak on the Jaghjagh is Tell al-Hamidiya, probably ancient Taide, one of the Mitannian political centers. Excavated since 1983, this 20 ha tell has a sequence of palaces constructed on its summit estimated at a formidable 250 × 250 m in area and 14 m high.[46] The earliest palace phase ostensibly dates to the Mitannian period, but little relevant evidence has been provided thus far. Further east, the only Mitannian period evidence thus far

[45] A tablet from Umm el-Marra in western Syria had the same sealing and was dated to the reign of Saustatar's descendant Shuttarna.
[46] Eichler and Wäfler 1989–90.

at Leilan consists of wealthy burials discovered on different parts of the lower town; a Mitannian elite building crowning the highest point of the site may yet be encountered. Such a state of affairs seems to apply at nearby Mohammed Diyab, where Mitannian period occupation is restricted to the tell summit and includes a thick-walled large-scale building of unclear function (Operation 1) and an area with domestic architecture and a small one-room temple (Operation 3, level 7).[47] A small temple has also been reported from Tell Chuera, constructed atop the abandoned third-millennium ruin. In contrast, Mitannian occupations on low, secondary sites adjacent to major third-millennium tells have been identified at Beydar and Arbid.

In the middle Khabur valley, where Middle Bronze Age occupation is virtually unknown, a substantial Mitannian period occupation was installed atop the third-millennium tell at Bderi.[48] Here, residential architecture erected on a mudbrick terrace included an elite house with a large circular storage structure, a type replicated in soundings elsewhere at the site. A nearby rural settlement has been attested at Umm Qseir, while another small Mitanni period village has been briefly sounded at Tell Hwesh north of Hasseke in the southern Khabur triangle.[49]

The Middle Assyrian imperial system

In the late fourteenth and thirteenth centuries, the kings of Assur on the Tigris in present-day northern Iraq took advantage of Mitannian weakness and established their own empire in the Jezireh. The conjunction of archaeological and textual evidence has recently furnished abundant data on the Middle Assyrian empire in the Jezireh and on the transformation of the region under Assyrian rule.[50] In the reign of Shalmaneser I (mid-thirteenth century), a provincial system was established with its headquarters on the lower Khabur at Dur-Katlimmu, modern Sheikh Hamad, connected to Assur via a direct east–west route across the dry steppe. The Middle Assyrian evidence recovered at Dur-Katlimmu includes the fragmentary remains of a large building with vaulted doorways and mudbrick floors, probably the governor's palace, and an archive of some 500 administrative texts fallen from a second story.[51] According to the Dur-Katlimmu tablets, a tight control was exercised by the Assyrian administrative system, which was supervised by a local governor and a royal official who visited the site at intervals. The archaeological reflection of this new administrative system is provided by the emergence, for the first time, of a three-tiered settlement pattern in the lower Khabur valley; Middle Assyrian

[47] Sauvage 1997. [48] Pfälzner 1990. [49] Tsuneki and Miyake 1998; Berthier 1990.
[50] Assyrian history is divided into three periods, Old Assyrian *c.* 2000–1750 BC, Middle Assyrian, *c.* 1400–1000 BC, and Neo-Assyrian, *c.* 1000–609 BC.
[51] Kühne 1983–4.

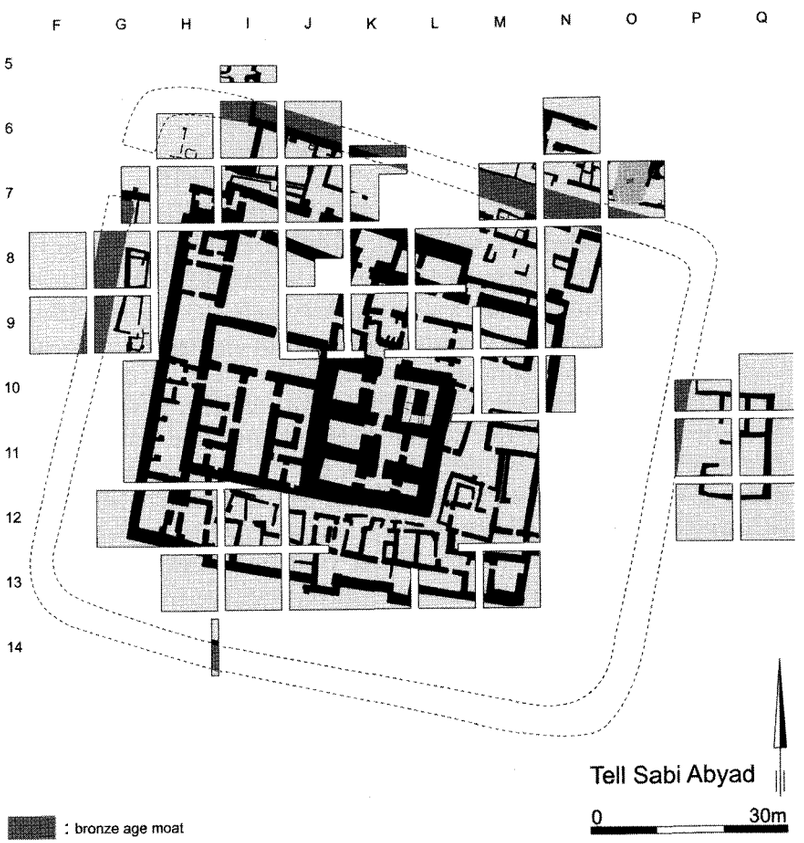

Fig. 10.16 The fortified Middle Assyrian outpost at Sabi Abyad.

control points along the route to Assur have likewise been identified by surface survey in the Wadi 'Ajij east of Dur-Katlimmu.[52] Assyrian imperial control is also evinced by the centralized production of a standard pottery repertoire throughout the Jezireh (see fig. 10.3d–g).[53]

The choice of Dur-Katlimmu in the dry lower Khabur as capital of the Jezireh may reflect its central location, relative proximity to Assur, and distance from traditional local centers of power. Noting the dry climate of the region, the excavators have inferred the importance of irrigation agriculture, and they assign the traces of a canal running parallel to the east bank of the Khabur to the Middle Assyrian period, although the dating of canal systems is often problematic.

[52] Bernbeck 1993. [53] Pfälzner 1997b.

Lower-level nodes of Middle Assyrian imperial control have also been identified elsewhere in the Jezireh. In the Balikh valley at the western frontier of the empire, an administrative center was installed atop the Neolithic tell of Sabi Abyad, not far from a farmstead at Khirbet esh-Shenef. The small (2–3 ha) community was centered around a 60 m square fortified outpost (*dunnu*) that has been excavated in its entirety (fig. 10.16). Because it had been burned, the occupation yielded a remarkable array of *in situ* artifacts including pottery, grinding tools, bone implements, weapons, jewellery, seals and sealings, and over 300 cuneiform tablets. The texts describe the *dunnu* as the personal property of Ili-ipadda, chief minister and viceroy of Assyria in the reign of Tukulti-Ninurta I (late thirteenth century) and his immediate successors, evincing a not infrequent intersection of state and private interests.[54] In the center of the installation was a massive square tower (20 × 23 m) adjacent to the palace of Ili-ipadda, a tripartite edifice with a central reception room flanked on its long sides by smaller chambers including baths and toilets. Around the tower and palace were administrative units, houses, storage buildings, and workshops of all kinds, including those of a potter, a brewer, and a baker. East of Sabi Abyad, another Assyrian outpost was established at Chuera, where a large public building also contained an administrative archive from the reign of Tukulti-Ninurta I. The texts call the place Harbu ("ruin"), referring to the immense Early Bronze tell it was built on top of; the settlement functioned primarily as a station along the road from the Khabur to the Balikh.[55]

In the upper Khabur, traces of Middle Assyrian occupation have been detected at Tell Amouda, Mohammed Diyab, Barri, and Hamidiya. A palace must have existed at the latter site, given the evidence of fragmentary foundation inscriptions found there. At Tell Fakhariyah near the sources of the Khabur, the brief 1940 excavation uncovered a thirteenth-century building on the acropolis consisting of small rooms around a pebbled courtyard, including a bathroom with baked-brick floor and toilet inserted into a niche in the wall, indicative of a prosperous household.[56] Carved ivory fragments found below the Iron Age palace seem to date to this occupation as well.

An unusual discovery revealed possible evidence of Middle Assyrian occupation at Mari in the ruins of the Zimrilim palace. Here, some 150 graves were excavated by Parrot on or below the floors of the palace courtyards or smaller rooms, including individuals interred inside two jars placed mouth to mouth. The three richest burials included frit vessels and masks, gold jewelry, and Egyptian New Kingdom scarabs. While Parrot associated these graves with an Assyrian garrison stationed at Mari, this interpretation remains to be substantiated.[57]

[54] Akkermans and Rossmeisl 1990; Akkermans *et al.* 1993; Akkermans and Wiggermann 1999; Lyon 2000; Wiggermann 2000.
[55] Orthmann 1995:185–222. [56] McEwan 1958.
[57] Parrot 1938:81–4; Margueron *et al.* 1993:15–19.

Southern Syria

Contemporaneous texts indicate that southern Syria was in the Egyptian orbit during most of the Late Bronze Age, a situation corroborated by stelae of Seti I from Qadesh and Rameses II from Keswe near Damascus.[58] The first historical mention of Damascus occurs in the texts of Thutmose III, and excavations at nearby Tell Sakka have exposed Late Bronze Age pillared houses. At Tell Ashtara in the western Hawran, perhaps ancient Ashtaroth, a metallurgical workshop was excavated.[59]

General trends in Late Bronze Age Syria

Although Syria was absorbed into a succession of empires in the Late Bronze Age, local traditions remained very much in force. For example, northwest Syria's inclusion in the Hittite political system is evident from Hittite bullae, stamp seals, and other inscribed material at Fray, Emar, Ugarit, and Alalakh, with the influence of Hittite art also apparent in the Emar glyptic,[60] but Syrian material culture traditions are otherwise predominant. The Mitannian and Egyptian empires are even less visible in terms of administrative control, with a cultural and economic autonomy evident at sites like Munbaqa and Ugarit, although elite styles such as Nuzi Ware were peculiar to the Mitannian sphere and some architectural novelties are discernible in the plans of the Alalakh IV and Brak Mitanni palaces. In contrast, the Middle Assyrian imperial system was orientated towards direct control, with a reorganization of settlement patterns and infusion of new material culture types.

Citing the Alalakh IV and Ugarit documents, Mario Liverani[61] has emphasized the extensive power and exploitative character of large royal establishments in the Late Bronze period, a power corroborated by the opulence of the large palatial complexes found at Alalakh, Ugarit, and Ras ibn Hani. Yon[62] has suggested that the increasing urban density of Late Bronze Ugarit can be attributed to an influx of rural populations intent on benefiting economically from proximity to the royal establishment. She interprets the distribution of luxury items such as ivories and alabaster jars in the private houses at Ugarit in a similar vein, positing that the urban dwellers profited from their association with royal prosperity. However, McClellan[63] has observed that such evidence is largely restricted to the Syrian coast, while sites in the interior rarely evince archaeological evidence of an extensive palatial establishment. In the middle

[58] Taraqji 1999.
[59] Abou Assaf 1968. Note also the fortification wall detected at Salihiyeh near Damascus (von der Osten 1956).
[60] Beyer 2001. [61] Liverani 1975, 1987.
[62] Yon 1992. Note that the partitioning of houses cited by Yon might instead be interpreted as the division of familial property (Schloen 2001).
[63] McClellan 1992.

Euphrates, for example, the importance of non-royal communal authorities is apparent from both the material culture and the textual evidence.

Evidence of socio-economic organization is available, not only from palaces, but from excavated domestic contexts. Distinct house types can be observed,[64] such as multi-room courtyard houses at Ugarit (fig. 10.12a), large houses with corridor rooms along one side at Alalakh (fig. 10.12b), central-room houses organized around a large roofed chamber, especially common at Munbaqa (fig. 10.12c), and front-room houses, particularly common at Emar (fig. 10.12d). Given the scale and associated finds, McClellan has tentatively suggested an association of the front-room type with households whose members were in the employ of larger institutions, as opposed to larger house types associated with households with greater economic autonomy. Certainly the central-room houses of Munbaqa and Bazi often exhibit evidence of craft production on the household level. It is striking that courtyards are usually absent in Late Bronze Syrian houses, except for Ugarit, suggesting that open-air activities (e.g. cooking) took place outside the house in a communal setting, a reversal of the previous trend towards privacy and the insulation of household activities.

As in earlier periods, the long-room temple *in antis* is common in western Syria (fig. 10.9), with diverse variations on the theme, while temple architecture in the Jezireh has "Mesopotamian" traits such as the engaged brick half-columns at Brak. Defensive architecture is sometimes absent (e.g. Emar, Abu Danne, Umm el-Marra, Hammam et-Turkman), but fortifications are well attested at Ugarit, Ras ibn Hani, Alalakh, and numerous middle Euphrates sites. A further trend in the architecture of Late Bronze Syria is the integration of wood into the usual mudbrick or stone constructions, especially in elite contexts. Walls are often reinforced by wooden beams or are augmented with wooden panels, and wooden thresholds, door frames, and columns are also well attested.

With respect to economy, we find coastal Syria extensively involved in the maritime trade of the Late Bronze eastern Mediterranean, manifested by the extensive quantities of Cypriot and Mycenaean pottery and other exotic items found in the coastal sites. Cyprus, probably ancient Alashiya, saw the emergence of complex, urban societies by the mid-second millennium and became actively involved in the export of copper, pottery, and other products.[65] Other eastern Mediterranean complex societies in Egypt, Palestine, and the Aegean were also tied into this prosperous network of exchange. The shipwrecks excavated off the coast of Turkey at Uluburun and Cape Gelidonya provide graphic examples of the raw and finished goods changing hands across the eastern Mediterranean. In the extraordinarily rich cargo of the Uluburun wreck, datable to the late fourteenth century, were copper, tin and glass ingots, elephant tusks, hippopotamus teeth, and stacked Cypriot pottery.[66] The excellent state of preservation afforded by these underwater sites, as well as the recovery of

[64] McClellan 1997. [65] Knapp 1992. [66] Bass 1989.

commercial cargoes *in situ*, provides an invaluable contribution to our understanding of Late Bronze economy and trade.

The material and textual evidence demonstrate that Syrian involvement in the eastern Mediterranean sea trade was mainly restricted to the coastal regions. In the middle Euphrates, for example, the material culture is largely autonomous, with few traces of western ceramics or other objects, and the local texts are similarly insular in character. Nevertheless, a concentration on commerce, if only on a local scale, is evident from the proliferation of stone weights at both coastal and interior Late Bronze sites, typically biconical or cylindrical in shape.

The basic subsistence patterns observed in the Early and Middle Bronze eras remain in place in Late Bronze Syria, including the predominance of sheep/goat pastoralism and barley/wheat cultivation.[67] Nevertheless, changes in faunal assemblages can be noted. Humped zebu cattle, imported from India, are a novelty on the Syrian scene,[68] and increasing numbers of equid remains have been associated with donkey caravans used for overland trade.[69] Horses, first evident in the third-millennium Near East, also grew in importance with the popularity of the light two-wheeled horse-drawn chariot, a major innovation in the military technology of the period.[70] Although the introduction of the chariot has sometimes been attributed to Indo-Aryan immigrants to the Near East, more recent research suggests an indigenous origin.[71] Associated with elite groups such as the *maryanni* class of the Mitannian kingdom, chariots used in the hunt or in war are depicted in the aristocratic art of the period such as the gold bowls from Ugarit (fig. 10.10) or an engraved goat horn from Emar.

Specialist studies of stone implements from the recent excavations at Ugarit have provided a rare source of data on everyday household and craft activities in a flourishing Late Bronze city. Elliott's study of the ground stone[72] provides a typology and functional analysis of implements such as pestles, pounders, spindle whorls, loom weights, and mortars. The Syrian Late Bronze ground-stone industry shows considerable homogeneity in form and function, and the basalt tripod mortar is a particularly common type throughout the Levant in the second and early first millennium BC. Elliott's petrographic and mineral analyses have also demonstrated that basalt implements were exported from Syria to Cyprus. In his study of lithics from Ugarit, Coqueugniot[73] notes the abundant distribution of flint sickles and other tools in each house, indicating a continued use of flint long after the introduction of metal, as well as the participation of urban households in agricultural labor. Sickles in the second millennium tended to be of the Large Geometric variety,[74] consisting of individual blades inserted into a crescentic handle.

[67] Van Zeist and Bakker-Heeres 1985.
[68] Clason and Buitenhuis 1997; Matthews 1995:98. [69] Boessneck and von den Driesch 1986.
[70] See Holland 1993–4 and Vila 1998 on evidence for the early appearance of the horse in Syria.
[71] Littauer and Crouwel 1979. [72] Elliott 1991.
[73] Coqueugniot 1991. [74] Rosen 1997.

Elite art, especially profuse at the opulent coastal center of Ugarit, demonstrates a pronounced internationalism in this period, corresponding to the intensified exchange of goods, personnel, and information throughout the eastern Mediterranean. Aegean and Egyptian elements are widespread, as well as Anatolian and Mesopotamian artistic motifs.[75] Among the celebrated examples of elite art are the gold bowls from Ugarit depicting hunting scenes (fig. 10.10), while other gold objects more widely distributed include "Astarte" pendants portraying a nude female figure, sometimes with a curled Hathor hairstyle, and star, rosette, and circular disc pendants. Ivory furniture components from Ugarit have elaborate carved scenes of deities, kings, animals, and mythological creatures, and other ivory pieces such as duck-shaped boxes have been retrieved from Alalakh, Brak, Beydar, and Fakhariyah. Caubet and Poplin[76] have shown that hippopotamus ivory was used for many Syrian Middle and Late Bronze objects, but elephant ivory was reserved for larger and more elaborate pieces. It is likely that hippopotamus and elephant populations still survived in Syria – the Egyptian pharaoh Thutmose III boasts of hunting elephants in the land of Niya, probably the Ghab depression, and archaeological sites have yielded elephant remains.[77]

Monumental art in Late Bronze Syria is again best represented at Ugarit, where stone stelae representing deities have been recovered in considerable number,[78] primarily from the acropolis temple area. The representations of a standing god bearing weapons, and in one case a spear with sprouting vegetation, are traditionally identified with the young warrior deity Baal (fig. 10.17), while a venerable seated figure revered on another stele is thought to be the old god El. Egyptian elements and stances are often integrated into the stelae, such as the posture of the smiting god with upraised arm and the Egyptian *was*- and *hiq*-scepters. The smiting god wearing a short kilt is also attested in a well-documented class of small bronze statues from Ugarit and other Levantine sites (fig. 10.18), often covered in gold or silver leaf and frequently wearing the tall Egyptian "white crown." In contrast, stone sculpture in the round is relatively rare and typically crude in manufacture (e.g. the Idrimi statue of Alalakh, the Brak Mitanni palace statue, and statues with extremely simplified features from a diversity of sites; a rare exception derives from Ugarit[79]).

A significant technological and artistic innovation of the Late Bronze Age was the production of glass vessels and other glazed objects.[80] The technique of core forming was introduced, involving the application of molten glass around a disposable clay core, and multi-colored mosaic glass was produced through the employment of different metal colorants. It appears that this important development occurred first in the Mitannian kingdom, with a range of examples from Alalakh and Brak in Syria, where glass ingots were also discovered, as well

[75] Smith 1965; Feldman 2002. [76] Caubet and Poplin 1987.
[77] Clason and Buitenhuis 1997. [78] Yon 1991.
[79] Yon 1995:25, fig. 5. [80] Moorey 1994.

Fig. 10.17 Stele of "Baal" from Ugarit.

as Tell al-Rimah and Nuzi in northern Iraq. The production of faience, a fired silicate product like glass but non-vitreous, also intensified in this period, and the first glazed pottery is attested at sites like Alalakh, Ugarit, Umm el-Marra, Brak and Nuzi.[81]

The use of faience, or more properly sintered quartz, was particularly apparent in the production of cylinder seals in the Mitannian period. Brightly colored glazed seals of the Mitannian "common style," easily carved from an inexpensive material, were produced in great numbers and probably employed as much for personal ornamentation as for sealing documents.[82] These seals are typified by the undisguised use of the drill, with repeating patterns of

[81] Matoian and Bouquillon 1999. [82] Salje 1990.

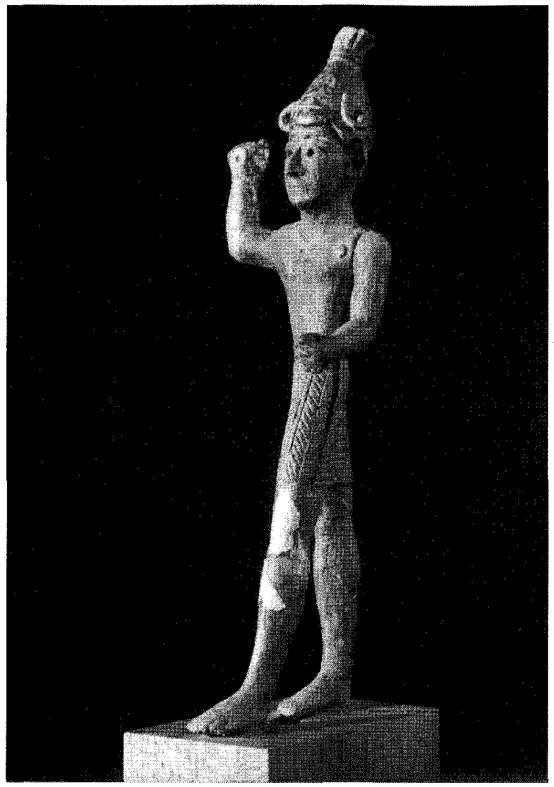

Fig. 10.18 Bronze statuette of smiting god from Ugarit.

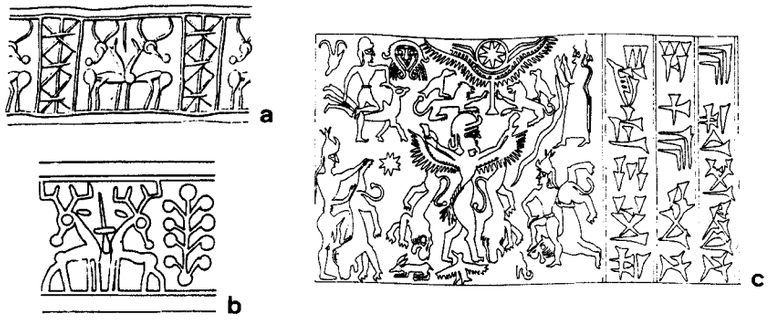

Fig. 10.19 Common (a–b) and elaborate style (c) Mitannian cylinder seals.

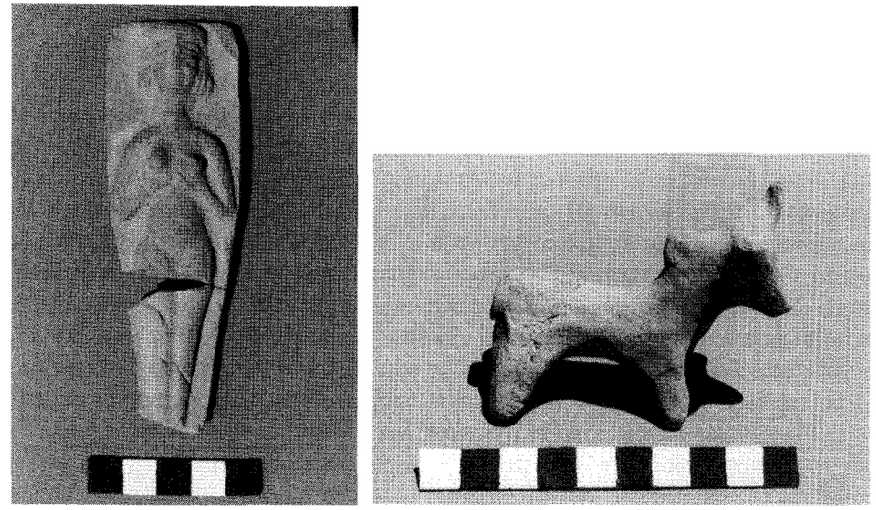

Fig. 10.20 Anthropomorphic female and humped bull figurine from Umm el-Marra.

humans and animals including frequent ritual scenes involving a stylized tree (fig. 10.19a–b). Some designs are distinctive enough to ascribe to specific workshops, as at Alalakh, Nuzi, Beth Shan in northern Palestine, and Ugarit, where an atelier was excavated. The Mitannian "elaborate"-style cylinder seals associated with elite individuals were made of stone and included more complex and carefully executed designs, often with exotic iconographic elements (fig. 10.19c). In this period, rulers often utilized the seals of earlier kings as "dynastic seals," ostensibly a legitimizing tactic emphasizing the rulers' illustrious ancestry.

After the Mitannian period, seals of Middle Assyrian style predominate in the Jezireh, characterized by balanced compositions with fantastic creatures, while Hittite stamp seals are found in the middle Euphrates and in western Syria. Scarab stamp seals, first introduced into the Levant in the Middle Bronze Age, remain popular into the first millennium. They were rarely employed for sealing and were probably used primarily for personal ornament.

More prosaic types of art provide evidence of popular ritual and belief, as opposed to the official ideologies reflected in monumental art and temple accoutrements. Clay mold-made figurines or plaques depicting nude females holding their breasts are common, as are clay bovid figurines, often of humped zebus (fig. 10.20). Terracotta models of houses and towers were retrieved in some numbers from domestic contexts at Emar (fig. 10.21);[83] the house models seem to conform to the typical Emar house, consisting of a rectangular set of rooms

[83] Muller 1998.

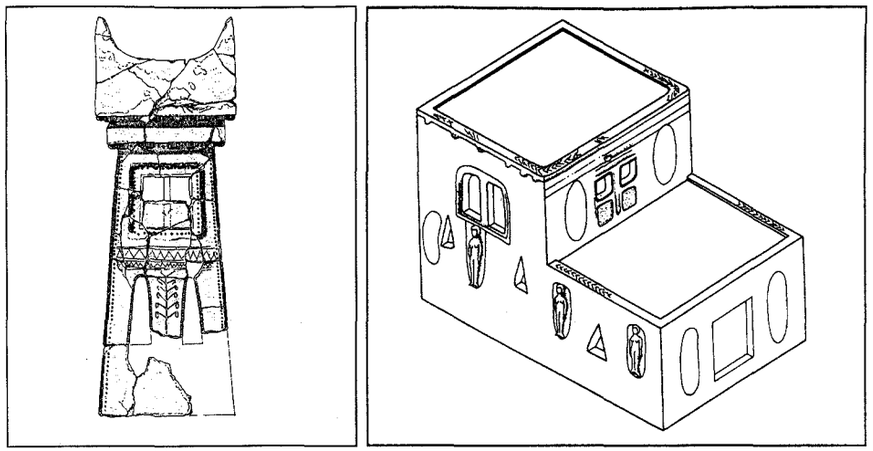

Fig. 10.21 Tower and house models from Emar.

surmounted by a smaller second story. Emar also yielded numerous incised miniature tables with burned residues, perhaps incense burners. As is often the case, the functional or symbolic interpretation of these types of objects remains ambiguous. Better understood are the clay models of sheep livers found at Ugarit, Alalakh, and sites in the middle Euphrates, used for divining the future in accordance with the traditional Mesopotamian practice of extispicy.

The great collapse

Around 1200 BC, the great urban centers and political systems of the eastern Mediterranean world experienced a period of crisis and collapse.[84] This episode, bringing the Late Bronze Age to its end, provides us with our second major case of socio-political disintegration in ancient Syrian complex societies. The great Late Bronze urban centers of Ugarit and Emar were destroyed, never to be reoccupied, and other regional centers like Alalakh, Hammam et-Turkman, and Brak were abandoned by the period's end. Further, the "great powers" of the era saw their power reduced or completely obliterated: the Hittite capital Hattusha was burned and the Hittite state eradicated, Egypt's imperial involvement in Asia was curtailed, and the centers in Mycenaean Greece and Cyprus suffered decline and destruction. Although the Middle Assyrian rulers held on to their empire in Syria for some time, they too found their dominions and power significantly reduced by the mid-eleventh century. Given this instability, the extensive maritime trade conducted between the rulers of the eastern Mediterranean came to an end.

[84] Ward and Joukowsky 1992.

Traditionally, this series of events has been attributed to an invasion of the "Sea Peoples" migrating from diverse parts of the Mediterranean towards the Levant. Although tablets from Ugarit allude to impending danger, the role of the Sea Peoples in the downfall of Late Bronze urban systems has been much debated, and it now seems likely that foreign invasion was only one of many variables contributing to the troubles at the end of the Late Bronze Age.[85] The Late Bronze socio-political systems suffered from significant internal stresses, particularly the increasingly exploitative character of royal establishments in centers like Ugarit and the resulting stream of refugees opting out of the oppressive system. Agricultural demands made on the environment like those posited for the Early Bronze Age probably applied here as well, and a period of dry years could have wreaked serious havoc on an already strained agricultural system. Some scholars have, in fact, made a case for climatic desiccation in this period and its central role in the downfall of Late Bronze societies.[86]

Lest we overemphasize the extent of destruction and abandonment at the end of the period, it should be noted that the Syrian Late Bronze was marked by numerous destructions throughout its history, with sites like Munbaqa, Hama, Alalakh, Mohammed Diyab, and others burned repeatedly. Further, the burning of urban centers at the end of the Late Bronze Age did not preclude their subsequent partial reoccupation, as in the case of Ras ibn Hani or Ras el-Bassit near Ugarit. Nevertheless, the socio-political configuration, material culture, and linguistic makeup of Syria changed significantly in the period that followed.

[85] Oren 2000. [86] Neumann and Parpola 1987; Brentjes 1982.

II

IRON AGE SYRIA

The Syrian Iron Age, *c.* 1200–330 BC, is the last era before the major infusion of Greek and Roman cultural, political, and economic institutions into Syrian life. Although the conquests of Alexander the Great do not demarcate a clean break between an era of "pure" Near Eastern culture and one of major western contact, the establishment of the Macedonian Seleucid dynasty and its policy of Hellenization represents a significant change in Syrian history.

The Iron Age was marked by new political and economic developments drawing Syria into a network of international affiliations even wider than that of the Late Bronze Age. In the earlier part of the period, the city-based, palace-centered economies of the Late Bronze Age were replaced by regional states with new ethnic and cultural affiliations. The monumental art and architecture of these new polities assumed a vital new style that is one of the most significant aesthetic contributions of ancient Syrian civilization. In the later Iron Age, Syria was absorbed into a succession of world empires: the Neo-Assyrian, Neo-Babylonian, and Achaemenid Persian. Some of the most important issues for the period, therefore, include the explanation and elucidation of the development of local regional states and their peculiar character, the success of the external empires in subjugating Syria, and the nature of Syria's relationship with the ruling imperial institutions.

Momentous economic and technological developments also took place in the Iron Age. By the end of the second millennium, iron had emerged as a significant material for weapon and tool manufacture throughout the Near East.[1] Iron apparently became popular when the disruption of trade routes at the end of the Late Bronze age depleted the supply of tin necessary for bronze production. In contrast to tin and copper, sources of iron were abundant, and it was soon recognized that carburization of iron results in a much harder and more durable product than bronze. Iron, unlike bronze, does not require elaborate installations for its production. As a result, the manufacture of this "democratic metal" was not dependent on wealthy institutions and could be conducted at all social levels.

Developments in the realms of writing and trade also brought an end to monopolies held by the central authorities of the Late Bronze Age.[2] The adoption

[1] Wertime and Muhly 1980; Waldbaum 1999. [2] Liverani 1987.

of the alphabet, first for Phoenician and later for Aramaic, Greek, and other languages, released writing from its control by specialized cadres of cuneiform scribes. Likewise, long-distance trade was no longer the exclusive preserve of Great Power elites and was more explicitly commercialized and widened geographically. Inland, a lucrative trade in frankincense and myrrh from south Arabia was facilitated by the rise of camel nomadism, whose broad range of movement through arid zones allowed for the transmission of goods over long distances.[3] In the Mediterranean, the Phoenician inhabitants of the Levantine coast sailed farther west than Late Bronze traders had ever dared, opening up new sources of raw materials and establishing colonies.

Given the extent of change observed in the Iron Age, considerable debate has been conducted over the nature of the transition between the Late Bronze and Iron Ages in Syria and elsewhere.[4] Were there abrupt transformations and significant influence from external invaders like the Sea Peoples, or was the transition more of a gradual and endogenous process? On the one hand, great urban centers of the Late Bronze Age such as Ugarit and Alalakh with their palace-centered economies and cuneiform scribal bureaucracies disappeared. The use of the Hurrian language, once so significant in Late Bronze Syria, was abandoned. On the other hand, a complete disjuncture with preceding developments, either culturally or ethnically, is not apparent. Continuity of occupation is attested at some large centers like Hama and Carchemish (fig. 11.1), and the extent of the crisis, economically or otherwise, is sometimes viewed as relatively minor, particularly in inland western Syria.[5] Even on the coast, continuity in settlement occupation has been attested,[6] and there is no obvious evidence of any significant settlement of Sea Peoples – whether or not they participated in the destructions at the end of the Late Bronze Age.

The best-documented sequence from the Late Bronze Age into the early Iron Age has been obtained from Tell Afis, perhaps ancient Hazrek, north of Ebla.[7] Trenches on the acropolis and lower town provide a long series of occupational strata spanning the late second and early first millennia BC. Evidence of architectural and other material culture continuities with the preceding Late Bronze levels is indicated in the earliest Iron Age strata, contradicting the notion of a dramatic break between the two periods. The earliest Iron Age (Iron I) remains are of small-scale domestic structures in a village-like community, but evidence of urban planning and specialization of architecture appears in the ninth century. At this point, the settlement is enlarged and fortified with a mudbrick casemate wall. In the ninth and eighth centuries, Afis becomes a full-scale regional center, with public buildings crowning its acropolis[8] as well as a unique square brick ceremonial (?) enclosure sunk 5 m into earlier deposits (fig. 11.2).

[3] For camels in Syrian faunal assemblages see Clason and Buitenhuis 1997 and Wilkens 1998. Representations of camels occur occasionally in relief sculpture, e.g. at Halaf and Carchemish.
[4] Ward and Joukowsky 1992. [5] Mazzoni 1997. [6] Yon 1992.
[7] Cecchini and Mazzoni 1998. [8] Matthiae 1979.

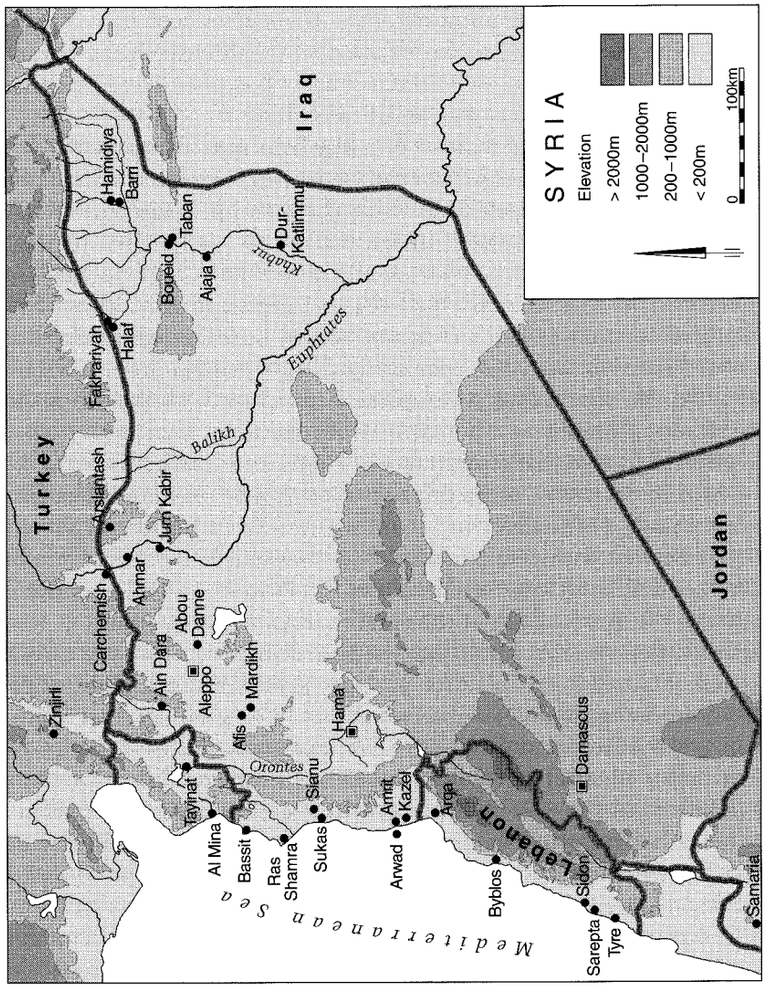

Fig. 11.1 Syria in the early/middle first millennium BC (Iron Age).

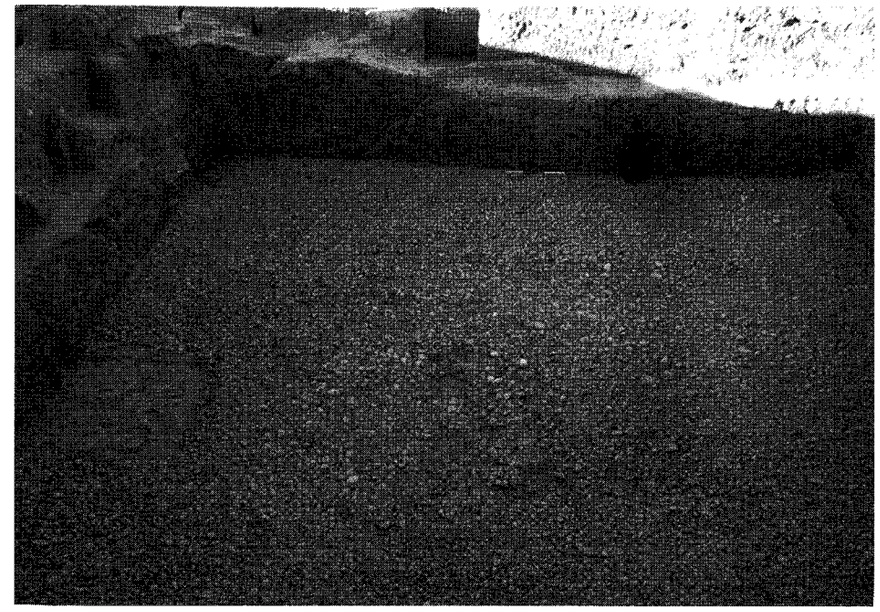

Fig. 11.2 Sunken ceremonial (?) feature at Afis.

With sequences like that of Afis, important progress is being made on the ceramic chronology of Iron Age Syria, although much more needs to be accomplished (fig. 11.3).[9] Mazzoni[10] recognizes three subdivisions, Iron I (*c.* 1200–900), Iron II (*c.* 900–700), and Iron III (*c.* 700–550), followed by the Persian period (*c.* 550–330), but other periodizations have been employed and a consensus has yet to be reached. Iron I is the most poorly documented phase, with material attested from Afis and from Hama phase F, with contemporaneous cemeteries offsite. In Iron II, the diagnostic Red Slip pottery characteristic of the great regional capitals of Luwian–Aramaean Syria is introduced, apparently from the Levantine coast. Lehmann[11] defines the pottery of this period in detail (his Assemblages 1 and 2), with particular reference to the destruction levels at Hama E and Rifa'at, attributed to the Neo-Assyrian conquest. He notes a significant difference between coastal and inland pottery, the latter being conspicuously coarser. In addition to the Red Slip bowls, fine wide Red Slip shallow bowls atop pedestal bases (fig. 11.4d) and kraters with loop handles (fig. 11.4h) are common, and hole-mouth cooking pots are furnished with applied rope bands below the rim (fig. 11.4k). Cypriot painted imports occur with some frequency, particularly on the coast, and Greek imports begin to make their appearance. The succeeding Assemblages 3 and 4 (Mazzoni's Iron III)

[9] Hausleiter and Reiche 1999; Lebeau 1983.
[10] Mazzoni 1990a, 1990b, 2000. [11] Lehmann 1996, 1998.

	Western Syria					Middle Euphrates		Khabur	Mesopotamia
300		Sukas F							
400	Achaemenid Persian period		Al Mina 3–4	Mardikh VIA palazzetto					Achaemenid Persian period
500		Sukas G1							
		Sukas G2						Dur-Katlimmu Red House	Neo-Babylonian period
600	Iron III	Sukas G3	Al Mina 5						
					Afis IX				
700			Al Mina 6–10			Neo-Assyrian occupation at Tell Ahmar and Arslantash		Dur-Katlimmu Neo-Assyrian levels	
800	Iron II	Sukas H1			Afis VIII				Neo-Assyrian period
900									
		Sukas H2					Local kingdom at Carchemish		
1000					Afis VII				
	Iron I								
1100								Local ruler Aššur-ketti-lešer	Middle Assyrian period
1200									

Fig. 11.3 Early/middle first-millennium BC chronology.

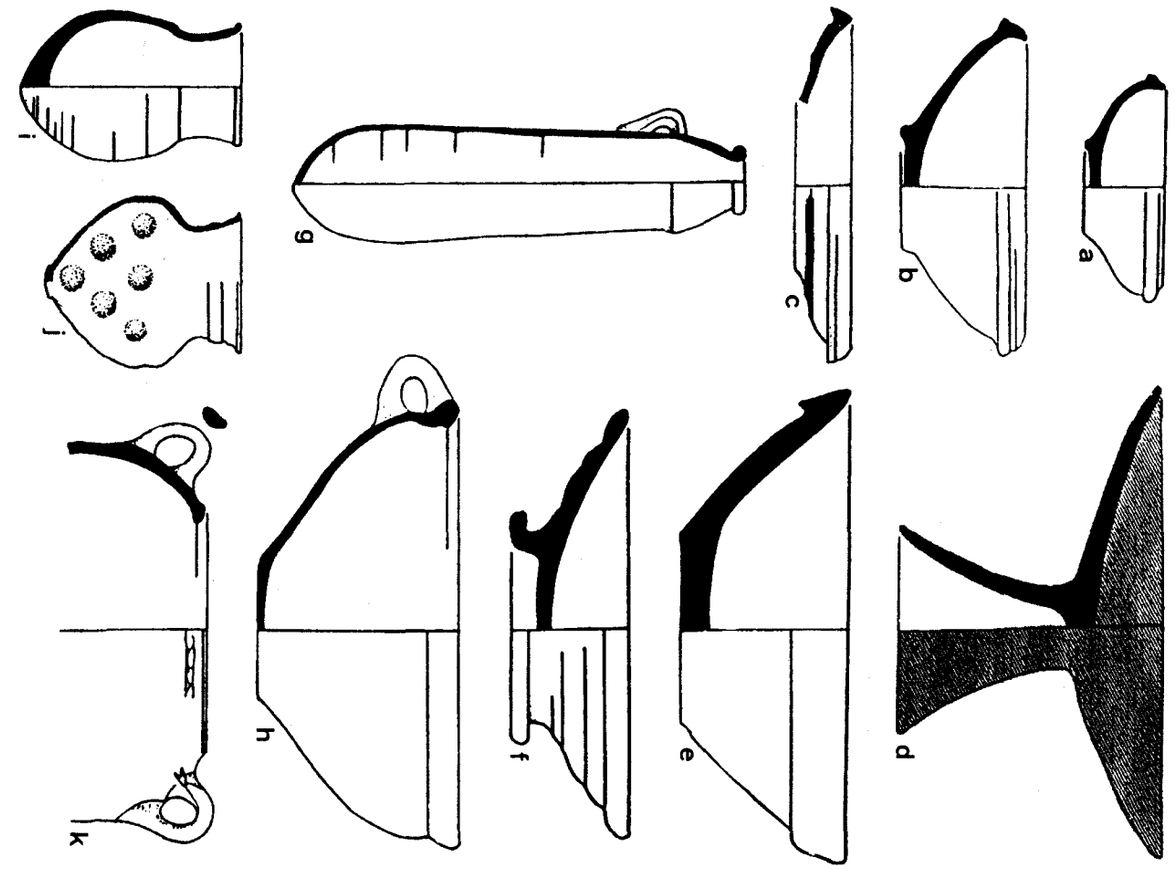

Fig. 11.4 Early/middle first-millennium BC pottery (scale 1:5 except g, 1:10).

include more Greek but fewer Cypriot imports on the coast, Neo-Assyrian imitations, and a continuing use of Red Slip pottery. Bowls often have club-, beak-, or hammer-headed rims (fig. 11.4a–c). In Assemblage 5, we see a significant growth in the use of Greek imports, the disappearance of Red Slip pottery, and the increasing popularity of mortaria, flat-based large open forms (fig. 11.4e). The Persian period (Assemblages 6–7) manifests an even greater popularity of Greek pottery, mortaria with high ring bases and ridged sides (fig. 11.4f), "torpedo" amphoras (fig. 11.4g), and a new cooking pot with short neck and everted rim. An increased ceramic standardization is observed in the later Iron Age, perhaps owing to the inclusion of Syria in large-scale political entities and broader economic networks.

Luwian–Aramaean states

By the end of the second millennium BC if not earlier, new regional states had emerged in Syria. Frequently in conflict with each other and, eventually, with the Neo-Assyrian empire, the elites of these small polities competed in grandiose building projects and innovative styles of monumental ornamentation. These states, and their new and vital styles of elite art, are variously referred to as Neo-Hittite, Syro-Hittite, and Luwian–Aramaean. Some rulers' inscriptions were written in hieroglyphic Luwian, one of the languages of the Late Bronze Age Hittite empire, and their names often emulated those of Hittite kings. Other rulers' names and inscriptions were written in the newly attested west Semitic language Aramaic. In both cases, the rulers sponsored the creation of monumental art that clearly owed a heavy debt to the conventions and motifs of Late Bronze Age Hittite royal art. Emulation of Hittite artistic ideas is most effectively seen in monumental architecture and sculpture, particularly the use of guardian figures like lions and sphinxes at gateways, carved orthostats lining the base of walls, and iconographic details. The significance of the diverse Luwian/Hittite and Aramaean associations requires careful elucidation.

At present, kings with Luwian affiliations are the first to emerge in the light of archaeological and historical evidence. The evidence is strongest at Carchemish on the Euphrates, which had served as the primary administrative control point for the Hittite empire in Syria and southeastern Anatolia. After the collapse of the Hittite empire *c.* 1180 BC, Carchemish appears to have retained a dynasty of local rulers with familial and cultural ties to the Hittite royal house.[12] Luwian dynasts of other states may have had similar ties to their Hittite precursors and may represent lower-level imperial administrators who became independent rulers after the empire's demise. Such polities included Masuwari (later Til-Barsib), downstream from Carchemish, Pattina (also called Unqi, on the lower Orontes and the Amuq plain), Hamath (modern Hama),

[12] Hawkins 1988.

and several entities in southeastern Anatolia such as Melid (capital at modern Arslantepe), Kummuh (capital at modern Samsat), and Gurgum (capital at Marqas, modern Kahramanmaraş).

The popularity of Hittite models for Iron Age monumental art seems difficult to explain at first glance, given the paucity of Hittite monumental art in Syria during the period of the empire in the fourteenth and thirteenth centuries. Which monuments were the artists of Iron Age Syria copying? The answer to this question may derive from the vagaries of archaeological discovery: significant examples of Hittite monumental art may have been present at Carchemish, the main center of Hittite administration in Syria, but the Late Bronze Age occupation of Carchemish has not been significantly investigated.

Juxtaposed with the states dominated by Luwian dynasts were the polities ruled by kings who identified themselves as Aramaeans and employed Aramaic in their inscriptions.[13] The Aramaeans first appear historically as enemies of the Assyrian king Tiglath-pileser I (*c.* 1100 BC); a significant component of this group appears to have included pastoral sheep/goat nomads. In a situation reminiscent of and analogous to the emergence of Amorite power many centuries earlier, Aramaean rulers established small polities in the Syrian Jezireh and, ultimately, throughout western Syria.[14] Unlike the Amorites, however, the Aramaean rulers sponsored inscriptions in their own language, borrowing an alphabetic script from the Phoenicians of the Mediterranean coast. The significance of "tribal" organization in Aramaean society is inferred from the nomenclature of their new states, with names such as Bit Bahiani ("house of Bahiani"), Bit Adini, Bit Agusi, etc., referring to eponymous group ancestors.

Once again the success of a group with a large pastoral component requires explanation. According to Assyrian sources, conflicts between the Assyrian kings and Aramaean groups began during a period of famine; the drying up of pastureland may have compelled Aramaean pastoralists to move deep into sedentary zones, leading to a confrontation with the Assyrian authority. Since the extent of pastoralism was already significant in the Late Bronze Age,[15] the decline in sedentary society may have allowed pastoralist leaders to assume control in the sedentary sphere. Another explanation may be derived from a decline in agricultural production: given a reduction in required agricultural goods, pastoralists may have sedentized in order to conduct agriculture themselves.[16]

When assessing the significance of "Luwian" or "Aramaean" states in Syria, it must be recalled that our information on the ethnic composition of the diverse Iron Age regional states in Syria primarily concerns the rulers. As a result, it is by no means clear what the ethnolinguistic make-up of the majority of the

[13] Dion 1998; Lipinski 2000; Sader 1987. [14] Schwartz 1989.
[15] McClellan 1992. [16] Finkelstein and Perevolotsky 1990.

population of these polities was; certainly, the material culture shows no clear distinctions between states dominated by Luwians or Aramaeans. It is safest to conclude that these states were multi-ethnic, as Syrian polities had been for centuries.[17] One must also recall that the great majority of archaeological data on these states derives from elite contexts at urban centers, owing to the research interests of the early twentieth-century excavators. Evidence of non-palatial domestic architecture is remarkably meager, with the exception of sites like Chatal Huyuk in the Amuq region and Mastuma northwest of Tell Mardikh (fig. 11.5).[18]

The emergence of the new small states was accompanied by a revival of urbanism. The capitals of the new kingdoms were newly occupied towns (Tayinat, Sam'al/Zincirli), long-abandoned tells that were reinhabited (Gozan/Halaf), or smaller communities refashioned into great urban centers (Hazrek/Tell Afis). Most of the great Bronze Age centers were now abandoned or reduced in importance. As Mazzoni[19] has discussed, a common model of urban planning was adopted by the Iron Age Syrian dynasts, who boasted of their accomplishments in their building inscriptions.

The urban revival of the Iron Age occurred together with a proliferation of small communities.[20] In the Afis region, Mazzoni observes that the Iron Age settlement pattern consisted of sites of a relatively homogeneous scale, as opposed to hierarchies of different sized communities. In the Jabbul, Balikh, and Khabur regions, most Iron Age sites were small and rural in character. One difficulty with interpreting the survey data, however, is the frequent "lumping" of Iron Age sub-periods, because of the difficulty of distinguishing the pottery of Luwian–Aramaean occupations from that of the subsequent Neo-Assyrian period.

In general, the Luwian–Aramaean urban sites were somewhat smaller than the largest centers of the Bronze Age, usually in the 20–50 ha range. They were organized into two or three sectors, often in a series of concentric circles, each heavily fortified, sometimes with double walls and multiple gates: upper mounds or citadels usually contained the monumental buildings, and lower mounds had domestic architecture. Zincirli, ancient Sam'al, in present-day southern Turkey west of Gaziantep, is a particularly well-documented example. Enclosed by a double wall with towers, the city also had a fortified citadel including palaces of the so-called *bit hilani* type (fig. 11.6).

A genre of public building characteristic of Syrian Iron Age cities, the *bit hilani* has a porticoed entryway, usually with one to three columns, providing access to the long side of a rectangular central room (fig. 11.7).[21] There is often a staircase to one side of the portico, and the column bases are sometimes

[17] Kuhrt 1995:411.
[18] Haines 1971; Wakita *et al.* 1995; Braemer 1982, 1997; see also Stone and Zimansky 1999.
[19] Mazzoni 1994, 1997. [20] Wilkinson 1998; Schwartz *et al.* 2000a.
[21] Frankfort 1952; Fritz 1983.

Fig. 11.5 Domestic architecture at Mastuma.

elaborately carved in the shape of double animals (fig. 11.8). While Hittite or Anatolian origins are occasionally hypothesized for the *bit hilani*, precursors of this type can be seen in Late Bronze Syria, if not earlier, in the palaces at Alalakh IV and Ugarit. The bases of walls in such monumental buildings were often faced with large orthostat slabs, which were sometimes elaborately carved

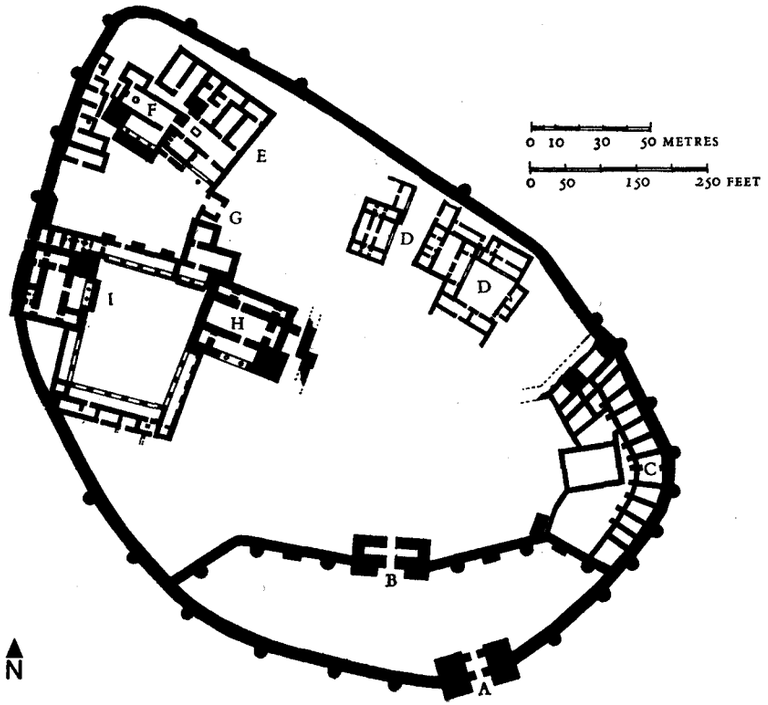

Fig. 11.6 Citadel at Zincirli.

with mythological themes or scenes representing the achievements of the local dynasty.

Temples are rarely attested in this period. An eighth-century example derives from Tayinat (fig. 11.7), which replaced Alalakh as the main center of the Amuq plain in the Iron Age.[22] In the city's ceremonial center was a small temple in association with two *bit hilani* structures constructed around a large paved courtyard. In the Tayinat temple, the long-room structure *in antis* of the Syrian Bronze Age is replicated by a file of three rooms with the cella at the rear with offering table and altar. But the building is distinguished from earlier temples *in antis* by the stone column bases elaborately carved in the shape of double roaring lions. A noteworthy characteristic of the temple and other public buildings in this period is the frequent use of wood, the presence of beams being implied by the gaps in the brickwork.

Perhaps the best-preserved Iron Age temple is located at 'Ain Dara, northeast of Tayinat in the domain of the Bit Agusi polity (fig. 11.9).[23] Situated high on the acropolis mound, the burned building has a modified long-room *antis* plan. The 'Ain Dara temple was extravagantly decorated with sphinx and lion

[22] Haines 1971. [23] Abou Assaf 1990.

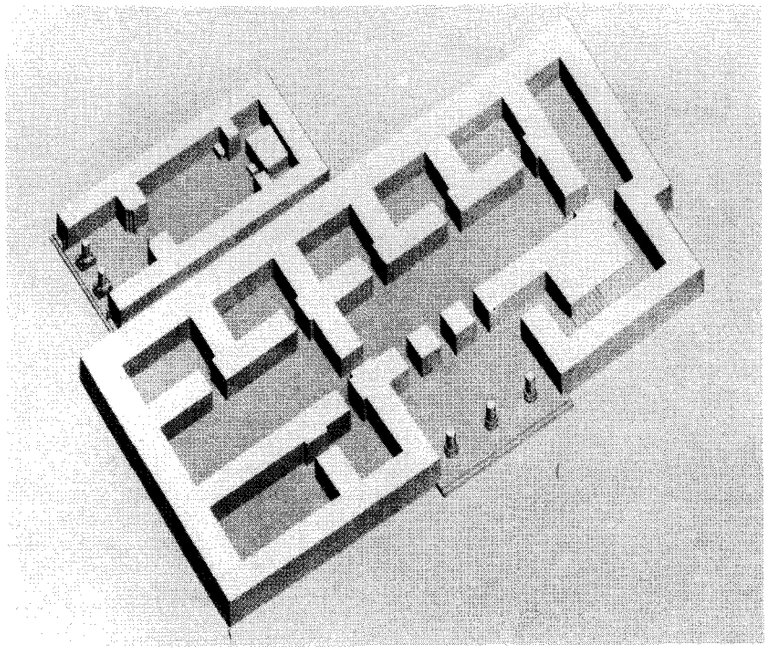

Fig. 11.7 *Bit hilani* (lower right) and temple (upper left) at Tayinat.

Fig. 11.8 Double-lion column base, Carchemish.

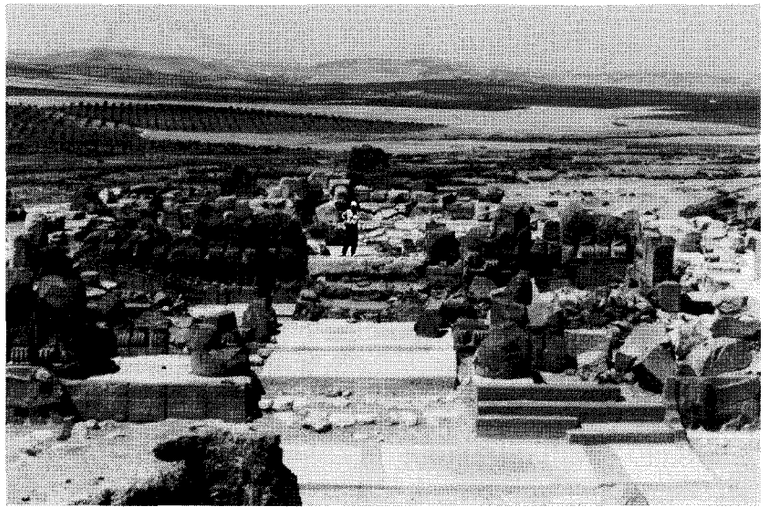

Fig. 11.9 Temple at 'Ain Dara.

sculptures guarding the entry and with numerous orthostat reliefs carved with divine and mythological figures; much of the sculpture can be assigned to an early phase of the Iron Age on stylistic grounds. A unique feature of this building consists of impressions of oversized footprints on the threshold stones leading to the antecella and cella, presumably representing the deity entering his or her house; the identity of the associated deity is uncertain.

In an important recent discovery, a large Iron Age temple was identified on the citadel of Aleppo, perhaps dedicated to the famous weather god Adad of Aleppo, ornamented with orthostats carved with reliefs of gods and mythological creatures (fig. 11.10).[24] Indeed, the most distinctive aspect of elite Iron Age Syrian material culture is its sculpture, executed in a style that can be critiqued for its crudeness but which displays a remarkable power and dynamism. Relief sculpture was employed on orthostats facing lower wall faces in public buildings and in gateways, while sculpture in the round, less commonly attested, was used for guardian lions and sphinxes, double animal column bases, and occasional statues of rulers or other important figures. A comprehensive review of this material is provided by Orthmann,[25] who proposes a tripartite periodization based on stylistic criteria and written sources.[26] Mazzoni notes that changes in the imagery and in the locations employed were associated with the evolving ideologies of the ruling dynasties.[27]

[24] Kohlmeyer 2000. [25] Orthmann 1971.
[26] See also Genge 1979. In her review of Orthmann 1971, Winter 1975 attributes the inter-regional similarities of Iron Age Syrian artistic styles to the exchange of craftsmen between centers.
[27] Mazzoni 1997.

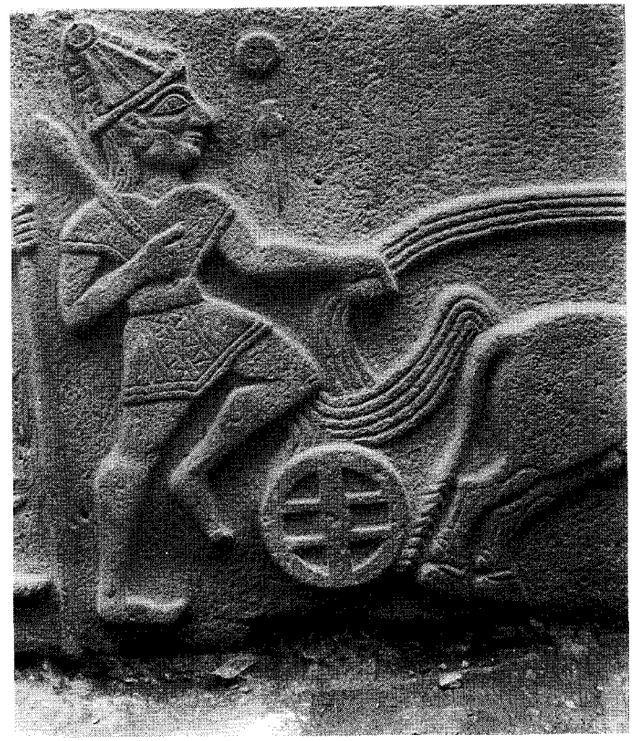

Fig. 11.10 Orthostat with storm god, Aleppo citadel.

One site with a particularly striking array of monumental sculpture is Tell Halaf at the source of the Khabur, ancient Gozan, capital of the Aramaean state Bit Bahiani. Excavated by Max von Oppenheim in the early twentieth century, the site had a square fortified citadel with a set of large-scale public buildings. Most elaborately decorated was the "temple palace" built by the ruler Kapara (*c.* ninth century BC), a *bit hilani* whose entry portico had three colossal basalt caryatid statues guarded by sphinxes (fig. 11.11). On the base of the building's outer wall were orthostats, often reused from earlier buildings, with relief carvings representing hunting scenes, lions, fantastic creatures, warriors, and other themes. Although the sculpture at Halaf can be faulted for its awkward proportions and clumsy renderings, the "boldness of the conception of the portico surpasses anything undertaken by Mesopotamian sculptors."[28] Also impressive are the colossal basalt statues of seated women, associated with elite vaulted grave installations containing cremation urns and rich grave goods. Unfortunately, much of the sculpture from Halaf was destroyed during a 1943

[28] Frankfort 1956:176.

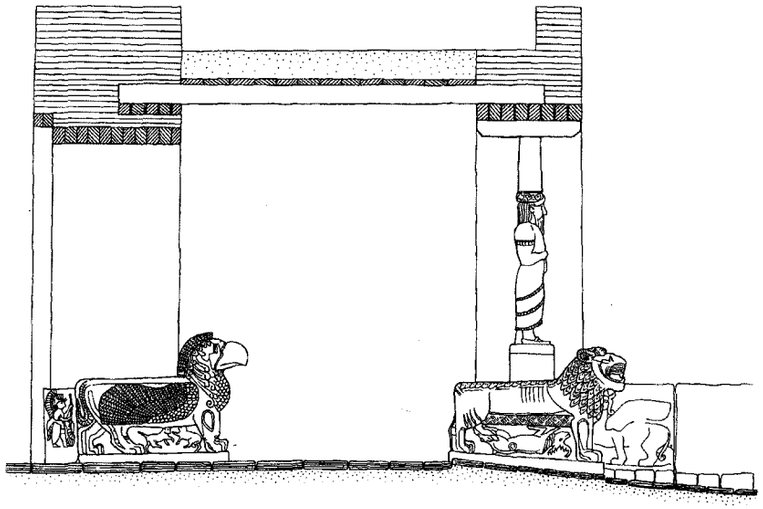

Fig. 11.11 Section through portico of Kapara's palace, Halaf.

air raid on Berlin that demolished von Oppenheim's Tell Halaf Museum. Across the river from Tell Halaf, the brief soundings conducted at Tell Fakhariyah in 1940 revealed the segment of a *bit hilani* decorated more simply than its counterpart at Halaf.

Monumental sculpture is evident in profusion at Carchemish, where gateways, palaces, and temples were lavishly ornamented with relief carving over a period of many centuries.[29] The orthostats of the "Long Wall of Sculpture" at the Temple of the Storm God celebrate a military victory of the local ruler Suhi, who is accompanied by his wife and a procession of deities. Dynastic imagery is repeatedly stressed, as on the "Royal Buttress," where the ruler Yariris presents his heir Kamanis (fig. 11.12). It has been proposed that Carchemish was a major center for the production of monumental and other elite art, supplying both finished productions and ideas to other regional centers of Iron Age Syria.[30] The process of production of the monumental sculpture for this period can be studied at quarry sites such as Yesemek and at Sikizlar northeast of Aleppo.[31] At the latter site, blocks were selected according to desired shape and size, shaped preliminarily on site, and then transported to their final destination for finishing.

In addition to monumental sculpture, workshops manufacturing elite objects in this period are notable for the production of carved elephant ivories. Employed as furniture attachments, these objects are among the most remarkable artistic creations of the ancient Near East, featuring delicate renderings of fantastic creatures, animal combats, and other motifs (fig. 11.13). The ivories

[29] Hawkins 1976–80. [30] Winter 1983. [31] Mazzoni 1986–7.

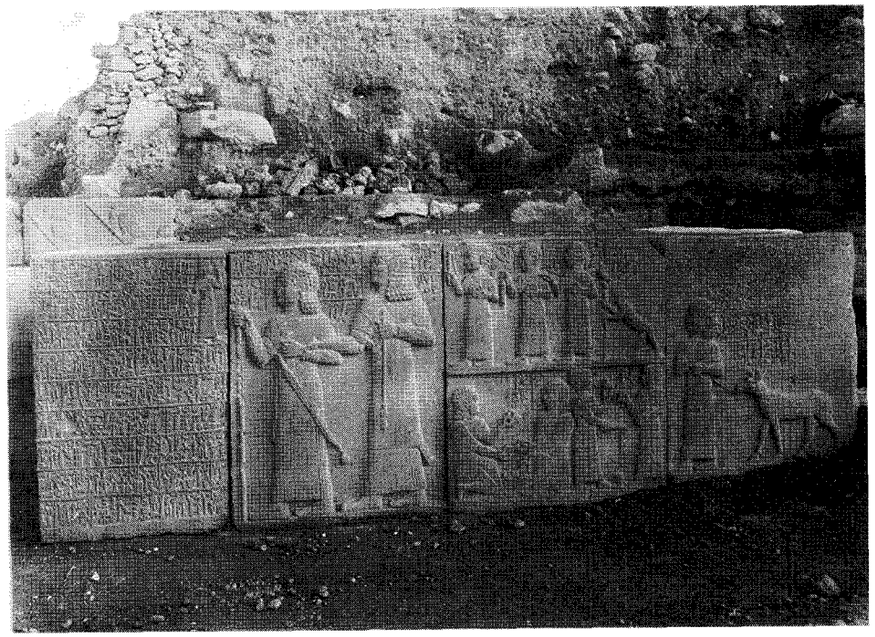

Fig. 11.12 Carved relief orthostats, "Royal Buttress," Carchemish.

produced in Syria and on the Phoenician coast were highly valued and coveted by the rulers of the emerging Neo-Assyrian empire. As a result, most of the examples retrieved archaeologically come from the Assyrian capitals of Nimrud (ancient Kalhu) and Nineveh, rather than from Syria itself. Nevertheless, different workshops have been hypothesized, including a North Syrian style, perhaps concentrated at Carchemish, a Phoenician style with a heavily Egyptianizing character, and a South Syrian style perhaps centered at Damascus.[32]

Among the excavated Luwian–Aramaean capitals, Hama (ancient Hamath) is unusual for its relative paucity of sculpture and for the absence of any *bit hilani* structure. Nevertheless, the excavated area of level E revealed an impressive complex of public buildings encircling a large open space, including a fortified gateway, a temple to the goddess Baalat, and royal installations.[33] Elsewhere in western Syria, communities of the Luwian–Aramaean states have been partly investigated at such sites as Abu Danne in the Jabbul region east of Aleppo, Tell Rifa'at (ancient Arpad?) north of Aleppo, and Qarqur in the Ghab depression, with samples of domestic architecture and, in the latter two cases, evidence of monumental gateways.

In helpful contrast to the usual focus on large sites, the Danish excavations at Jurn Kabir in the Euphrates valley have documented the development of a small

[32] Barnett 1957; Winter 1976; Herrmann 1986, 1992.
[33] Fugmann 1958; for a controversial interpretation of these buildings, see de Maigret 1979.

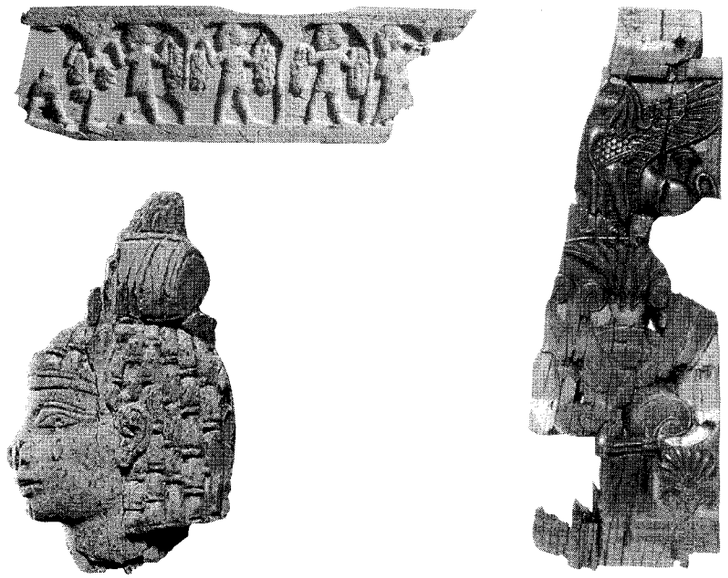

Fig. 11.13 Carved ivories from Ahmar.

(2–3 ha) Iron Age riverine control point. An oval citadel enclosure with casemate rooms was constructed in level III, and the subsequent level II saw a large-scale building program including an apparent *bit hilani*.[34] Eidem and Pütt have noted that apart from a few sites such as Jurn Kabir very little Iron Age material has been retrieved from the Euphrates valley downstream from Til-Barsib (see also material from Shiyukh Fawqani, Khamis, and Qadahiye in the Tishrin dam region). This pattern may be indicative of the region's status as a no man's land between competing polities, or of the reduction in the region's economic importance, with trade routes being redirected from the south (via Emar) to the north (via Carchemish, Til-Barsib). Although this part of the Euphrates valley had little Iron Age settlement,[35] the Jabbul plain to the west and the Balikh and Khabur regions to the east all saw a resurgence of settled occupation after their Late Bronze Age nadirs.[36]

In southern Syria, historical sources indicate that Damascus was the capital of a powerful Aramaean state. The emergence of Damascus as a major center in this period was probably associated with its role as a northern destination for the south Arabian incense trade. Unfortunately, relevant archaeological evidence for Iron Age Damascus is meager. The basalt stele of a sphinx now in the Damascus Museum is one of its few attestations, as is the recent discovery

[34] Eidem and Pütt 1999.
[35] See also Kohlmeyer 1984, but contrast Wilkinson and Barbanes 2000:415.
[36] Wilkinson 1998; Monchambert 1984a, 1984b; Schwartz *et al.* 2000a.

of the victory stele of an Aramaean king of Damascus at Tell al-Qadi (Dan) near the headwaters of the Jordan. Indications of significant Iron Age occupation have been adduced from survey results in the region southeast of Damascus and from Tell Ashtara to the southwest.[37]

The rise of small regional ("national") states in the southern Levant in this period is presumably analogous to the emergence of the Luwian–Aramaean states in Syria, and there are some points of material culture similarity between them, such as in the production of carved ivories and ceramics. However, the public structures in southern Levantine cities (e.g. Samaria) were not ornamented with monumental guardian figures or carved orthostats.

Syria and the Neo-Assyrian empire

After the decline of Mitanni in the late fourteenth century BC, the kings of Assyria on the upper Tigris had extended their control into the Syrian Jezireh, establishing the Middle Assyrian empire. Although Assyrian domination over the region began to dissipate by the end of the millennium with the emergence of Aramaean polities, control of strategic outposts seems to have persisted.[38] In an important recent discovery, textual evidence of a local ruler subordinate to Assyria *c.* 1100 has been obtained from Tell Taban (ancient Tabetu) and Tell Bderi (ancient Dur-Aššur-ketti-lešer) on the middle Khabur.[39] Sabi Abyad in the Balikh region was burned in the early twelfth century BC, but evidence of a reoccupation included numerous burials in the vicinity of the ruined tower and palace. Of particular note were the burned remains of two adults and a sheep found inside a jar that also contained a "treasure" of gold, bronze, and iron jewelry.

At the end of the tenth century BC, Assyrian kings began a series of successful campaigns against the polities to the west, resulting in the establishment of the Neo-Assyrian empire (*c.* 900–609 BC). The Neo-Assyrian kings followed an explicit policy of expansion, mounting annual military expeditions to raid and subjugate their neighbors. Generally, the enemy territories were first reduced to tributary status supervised by occasional Assyrian control points. An illustration of such a tributary relationship is provided by the accidental discovery in 1979 of a ninth-century BC statue from Tell Fakhariyah (ancient Sikani) near the headwaters of the Khabur (fig. 11.14). The statue, which bears an important bilingual inscription, depicts Hadad-Yis'i, ruler of Gozan; in the Aramaic part of the inscription, his title is "king" (*mlk*), but in the version written in Akkadian, the language of his Assyrian overlords, the more modest title

[37] Al-Maqdissi 1991; Abou Assaf 1969. See also the enclosure wall excavated at Salihiyeh near Damascus (von der Osten 1956).
[38] Liverani 1988.
[39] Pfälzner 1990; Ohnuma *et al.* 1999. Note also the evidence of late Kassite Babylonian material culture (and political presence?) in the vicinity of Terqa on the Euphrates (Rouault 1998b).

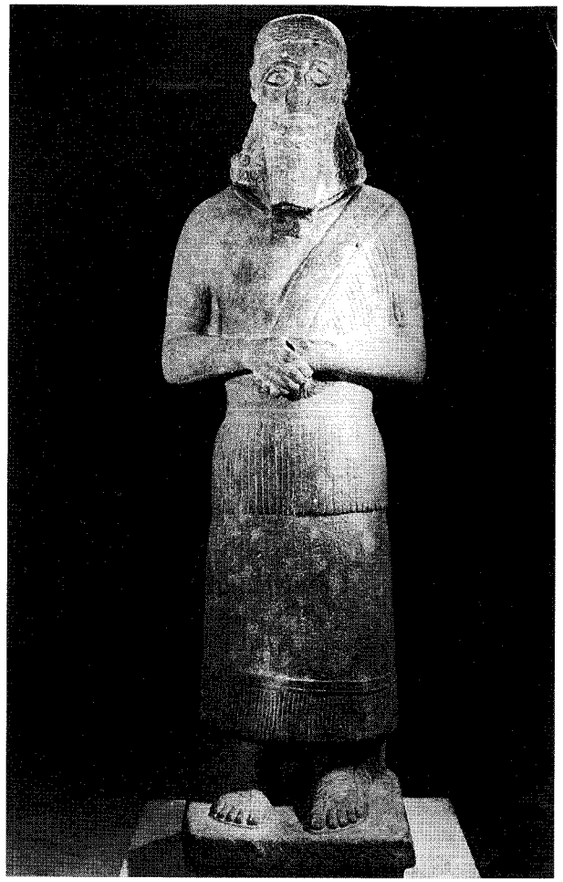

Fig. 11.14 Statue of local ruler from Fakhariyah. Height 2 m.

"governor" is employed.[40] While tributary relationships were usually established in the original stages of Assyrian domination, rebellious activity in the subordinate regions often resulted in their integration into a provincial system managed directly by Assyrian administrators. This pattern has been discussed as a development from a hegemonic or "network" empire to a territorial one.[41] Although the latter arrangement resulted in a more efficient exploitation of the subject territories, it was also more expensive to maintain.

By the end of the ninth century, the Aramaean polities of the Syrian Jezireh had been incorporated into the Assyrian empire; by the end of the eighth century, the Luwian, Aramaean, and Phoenician states of western Syria and the

[40] A mixture of Assyrian and local elements is also evident in the imagery of an enigmatic stele found at Ashara (Terqa) on the Euphrates bearing a crude inscription of the early ninth-century BC Assyrian king Tukulti-Ninurta II (Masetti-Rouault 2001).

[41] Liverani 1988; Feinman 1998:109.

Lebanese coast were conquered. With the conquest of Samaria and its kingdom, the reduction of Babylonia to subject status, and numerous victories elsewhere, the Neo-Assyrian empire became the largest political entity the Near East had ever seen. Having been the first target of Assyrian expansion, Syria retained a special status and significance in the Assyrian imperial world, manifested through material culture and even linguistic evidence (see below).

Archaeologically, the recognition of the period of Neo-Assyrian domination can sometimes be difficult, given the lack of clear ceramic indicators distinguishing pre-Assyrian from Assyrian periods. The coordination of destruction layers with historically documented conquests is often attempted at Luwian–Aramaean centers (e.g. Hama E, presumed to have been destroyed by Sargon II in 720). However, such correspondences are difficult to confirm and may obscure other interpretations of the evidence or issues of importance. Similarly, archaeological evidence for the well-known Assyrian policy of mass deportation of subject peoples can be sought but is difficult to validate. On the other hand, the adoption of certain ceramic types originally at home in Assyria seems to accompany the establishment of imperial control. These include the fine, thin-walled pottery known as Assyrian Palace Ware, including bowls and small tall-necked jars with pointed or button bases, sometimes with "dimpled" impressions on the vessel body (fig. 11.4i–j). The appearance of these Assyrian pottery types implies economic or cultural connections throughout the empire as well as emulation of elite styles in the imperial heartland.

Thus far, the period of Neo-Assyrian domination in Syria is best known from the provincial centers established by the new rulers. The most extensively documented of these is Dur-Katlimmu (modern Sheikh Hamad) on the lower Khabur.[42] Dur-Katlimmu had served as a major administrative center of the Middle Assyrian empire (see above), and this status was revived and enhanced in Neo-Assyrian times. Enlarged in the eighth century to a walled city of 55 ha, Dur-Katlimmu was also accompanied by suburbs resulting in an impressive total of 110–120 ha of occupied urban space. Given the evidence from the large excavated sample on the lower town (over 20,000 sq. m), Kühne has concluded that this newly occupied area was primarily devoted to official architecture. Among the important buildings excavated in this sector was a palace (building F), a rambling structure built in several phases that eventually included a *bit hilani*, two additional wings, a large throne room, and four courtyards (fig. 11.15). Building G, perhaps the residence of a high official, consisted of suites of rooms arranged around courtyards. Especially notable was a room with the wall painting of a pavilion amidst stylized plant motifs labeled É GIŠ.KIRI, "the garden house."

A vast urban installation like Dur-Katlimmu is all the more remarkable given the site's location well outside the zone of rainfall farming. Regional analysis has revealed that a sophisticated large-scale irrigation system was implemented

[42] Kühne 1989–90, 1993–4, 1994.

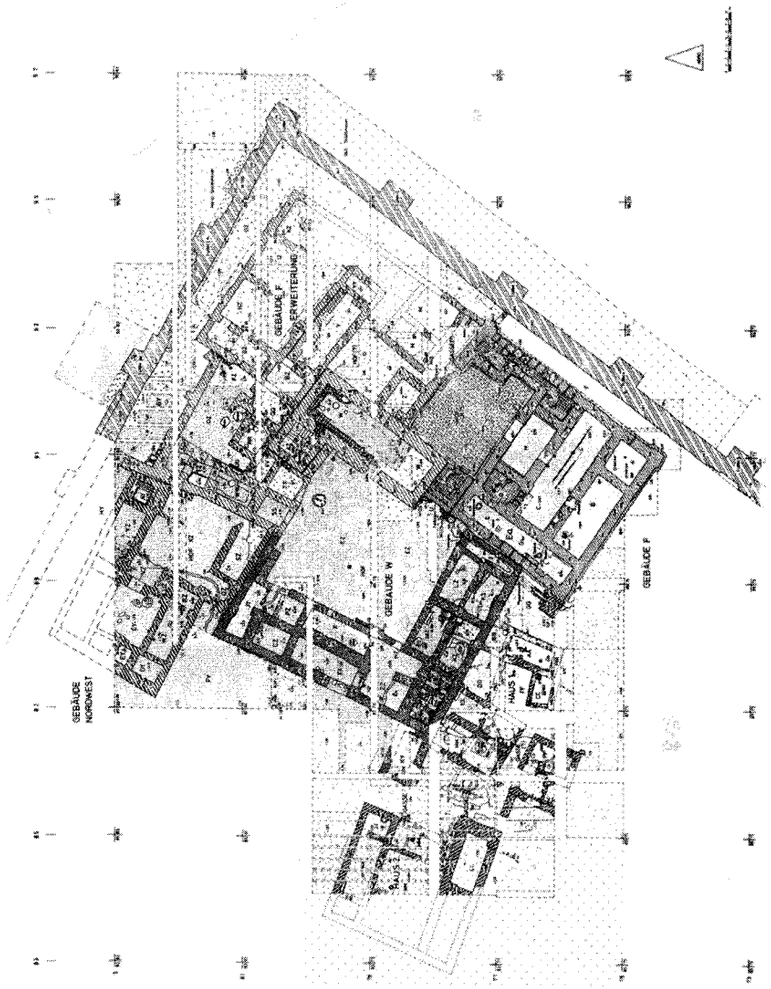

Fig. 11.15 Building F at Dur-Katlimmu.

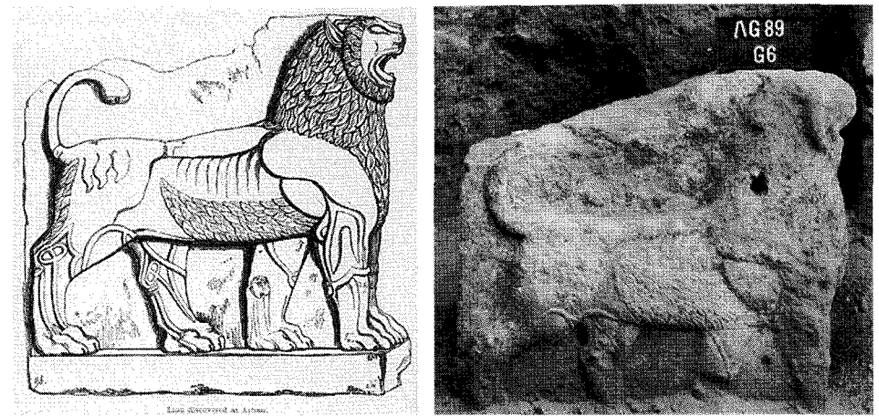

Fig. 11.16 Protective lion stele from Ajaja, as excavated by Layard (left) and reexcavated in the 1980s (right).

throughout the lower Khabur region by the eighth century. Morandi Bonacossi[43] has recognized the development of a six-tier site-size hierarchy in the region, with a network of canals servicing the many settlements (rural sites, large walled communities, small forts, crossing points, etc.). This evidence indicates a centrally planned project of agricultural and demographic development sponsored by the imperial authorities, with the likely resettlement of individuals deported from elsewhere in the empire.[44] In the Wadi 'Ajij area to the east, a similar state-sponsored program of settlement is evident. Here, in a strategic location along the steppe road east to the Assyrian heartland, archaeological survey has revealed a dramatic increase in the number of occupied sites and a hierarchical settlement pattern.[45] These projects mirror the large-scale hydraulic projects of the Neo-Assyrian state in the vicinity of its capital cities.[46]

Upstream from Dur-Katlimmu on the lower Khabur, another Assyrian administrative center has been located at Shadikanni, modern Tell Ajaja, first investigated in the nineteenth century by A.H. Layard. Recent excavations have concentrated on an apparent governor's palace dating to the ninth century BC, prior to Dur-Katlimmu's Neo-Assyrian florescence.[47] Particularly striking are the stone *lamassu* figures of winged human-headed bulls guarding the doorways of this building. These sculptures, as well as the stelae found at the site (fig. 11.16), are smaller-scale, "provincial" copies of the well-known colossal examples employed in the Neo-Assyrian capital cities like Nineveh, Kalhu (modern Nimrud), and Dur-Sharrukin (modern Khorsabad). North of Ajaja in the middle Khabur salvage region, Antoine Suleiman has exposed a multi-room

[43] Morandi Bonacossi 1996.
[44] A lengthy canal was dug in the Balikh region, also perhaps associated with resettled deportees (Wilkinson 1998).
[45] Bernbeck 1993. [46] Bagg 2000. [47] Mahmoud *et al.* 1983.

administrative building with wealthy sub-floor jar burials.[48] Similar burials are documented below room floors in domestic contexts at nearby Kneidig, where adults were interred in double pots and infants in single jars.[49]

While the Neo-Assyrian presence is not as well documented in the upper Khabur, fragmentary inscriptional and architectural remains indicate the presence of palatial architecture at Hamidiya and Barri.[50] Domestic architecture was exposed at Tell Halaf above the Aramaean period monumental buildings,[51] and contemporaneous occupation was indicated at Beydar 2 and at village-size sites like Abu Hafur, Zagan, and Hwesh.[52]

In contrast to the situation in the Khabur, excavated evidence for Neo-Assyrian control in the west is limited almost exclusively to two urban-sized administrative centers in the Euphrates region.[53] This may be due at least partly to the shorter period of Assyrian domination west of the Euphrates (late eighth to late seventh century), but the paucity of Assyrian control points outside the Jezireh is striking. The two excavated administrative centers, Tell Ahmar and Arslantash, were investigated in the 1920s and 1930s. Tell Ahmar on the Euphrates, known as Masuwari and Til-Barsib before the Assyrian takeover, was renamed Kar-Shalmaneser by its conqueror in the ninth century and transformed into an imperial control center. A governor's palace was constructed on the newly fortified ancient tell, and additional settlement was inaugurated on a lower town, resulting in an urban site of some 50 ha. As at Ajaja, the monumental accoutrements of Assyrian imperial art were reproduced here in provincial form, including guardian lion sculptures at the city gate and two large stelae of the Assyrian king Esarhaddon. Especially notable from the palace were polychrome murals preserved on the room walls, supplying the best-preserved examples of Neo-Assyrian painting extant. These murals, produced in two separate periods, represent military victories, royal lion hunts, royal audiences, and rituals. Recent salvage excavations conducted on the lower town have provided evidence of large houses organized around courtyards, several of which had extraordinary black and white pebble mosaic floors (fig. 11.17). The houses' contents (e.g. carved ivories [fig. 11.13], a seventh-century BC cuneiform archive) imply wealthy occupants.[54]

Arslantash, ancient Hadatu, was located northeast of Tell Ahmar in the rain-fed Saruj plain near the present-day Turkish border and comprised about 31 ha. As at Tell Ahmar, an administrator's palace was located on a citadel surrounded by a lower town.[55] The 1928 excavations exposed a governor's palace consisting

[48] Suleiman 1995. [49] Klengel-Brandt *et al.* 1997.
[50] Eichler and Wäfler 1989/90; Pecorella 1998. [51] Naumann *et al.* 1950.
[52] Lebeau and Suleiman 1997:210–11; Reiche 1997; Seeden and Wilson 1989; Berthier 1990. Evidence of Neo-Assyrian public architecture has recently been identified at Tell Masaikh near Terqa on the Euphrates (Rouault 1998b).
[53] A possible exception may be at Tayinat in the Amuq plain, where indications of public architecture accompanied by Assyrian Palace Ware were noted (Haines 1971).
[54] Thureau-Dangin and Dunand 1936; Bunnens 1997; Roobaert and Bunnens 1999.
[55] But see Bunnens 1999 for a cultic interpretation of the building.

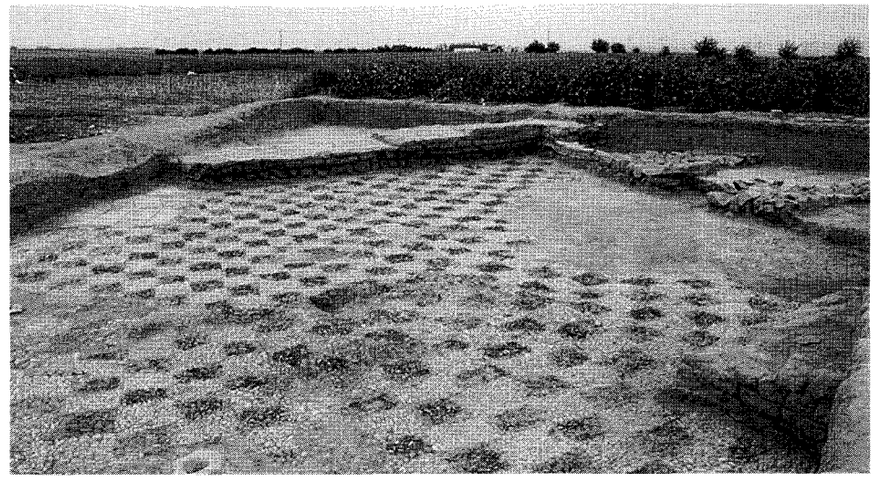

Fig. 11.17 Checkerboard mosaic floor at Ahmar.

of three large complexes with square tiled courtyards.[56] To the east was the "Bâtiment aux ivoires," notable for the rich collection of finely carved ivories ostensibly collected as tribute by the Assyrian administrators. Also notable at Arslantash was the discovery of six statues of divinities, cult statues being only rarely recovered from Syria or Mesopotamia.

A Neo-Assyrian presence of smaller scale may be discerned at three sites on the Euphrates in the vicinity of Tell Ahmar. At Jurn Kabir, early Iron Age buildings are surmounted by a fort of apparent Neo-Assyrian date,[57] and a *bit hilani* was erected atop the abandoned tell of Sheikh Hassan, dated to the period of Neo-Assyrian control.[58] Located inside a walled 1 ha area, this building may represent the palace of a local administrator. Finally, an archive of Neo-Assyrian cuneiform texts was found in a house at Shiyukh Fawqani (ancient Burmarina).[59]

The archaeological evidence currently available allows us to make several observations about the nature of the Assyrian imperial system in Syria. First, the Assyrians established urban-sized control points in the conquered territories, but these were primarily limited to the Jezireh. According to Liverani, the Assyrians conceptualized the Jezireh as part of the Assyrian core, while territories to the west and north were peripheral.[60] West of the Euphrates, the modest extant evidence suggests that local communities suffered a period of impoverishment after the Neo-Assyrian conquest.[61] In the Jezireh, one is struck by the pervasive Assyrian character of almost the entire range of material culture at both large and small sites. The pottery is largely comparable to that of the

[56] Thureau-Dangin 1931. [57] Eidem and Pütt 1999. [58] Boese 1995.
[59] Fales 1999; Bachelot *et al.* 1997. [60] Liverani 1988. [61] Mazzoni 1990b; Thalmann 1990.

Assyrian capitals like Nimrud and Assur, including Palace Ware and glazed vessels, and cylinder seals display styles characteristic of the Assyrian upper Tigris heartland. Close architectural parallels are also common: the ground plan of the palace of Hadatu closely resembles that of Assurnasirpal II's Northwest Palace at Kalhu, and the large houses at Dur-Katlimmu parallel those of Assur. Finally, the monumental sculpture is closely comparable to that of the Assyrian heartland, although it often has a smaller scale or a provincial style. Such homogeneity of material culture between the imperial core and subject territory is not evident in western Syria, where the pottery and architecture of sites like Afis and Mardikh (acropolis, period VB) have a more pronounced local character.

However, the idea of a monolithic Assyrian material culture opposed to a local Syrian one is deceptive, since it is clear that the Assyrians borrowed numerous styles and ideas from Syria, and vice versa.[62] Indeed, the very use of the monumental sculpted guardian figures and relief orthostats so characteristic of Neo-Assyrian palaces may have been derived from the Iron Age capitals of Syria. Also well known among the Assyrian borrowings is the *bit hilani*; the very term is derived from Assyrian sources, which describe the adoption of a style of building from "Hatti" (= western Syria). It is admittedly uncertain whether the word mentioned in the Assyrian sources corresponds to the architectural type recognized in the archaeological record. Nevertheless, the adoption of the porticoed entrance with multiple columns is evident in Assyrian palaces at Dur-Sharrukin (Khorsabad) and Nineveh. Consequently, the *bit hilani* at Assyrian centers in Syria like Dur-Katlimmu may be understood in terms of an Assyrian appropriation of a Syrian type. On the other hand, Assyrian material culture influence can be seen in Syrian cities prior to their incorporation into the Assyrian empire: the rectangular city plan of Tell Halaf, for example, may have emulated those of the Neo-Assyrian capitals, departing from the traditional circular plans of Iron Age Syria.[63]

The cultural interchange between Syria and Assyria is all the more comprehensible if we consider the mass deportation of Syrians to the Assyrian heartland attested in the historical record. Many Syrians were employed in the Assyrian imperial administration, and it appears that an "Assyro-Aramaean amalgam" was quickly effected.[64] The increasing use of Aramaic in the Assyrian administration is part of this phenomenon, to the extent that Aramaic was employed simultaneously with Akkadian in the later documents of the empire. At Dur-Katlimmu Building F, for example, a small archive included both cuneiform Akkadian tablets and triangular clay dockets with Aramaic inscriptions (fig. 11.18). Similarly, several tablets written in Aramaic were found together with the Neo-Assyrian cuneiform archive at Shiyukh Fawqani on the

[62] Winter 1982; Orthmann 1971:149–61, 471.
[63] Bunnens 1996. Orthmann (1971) observes that the latest of his three phases of Syrian and southeast Anatolian Iron Age sculpture, dated from *c.* 750 BC, shows a marked Assyrian influence.
[64] Kuhrt 1995:493.

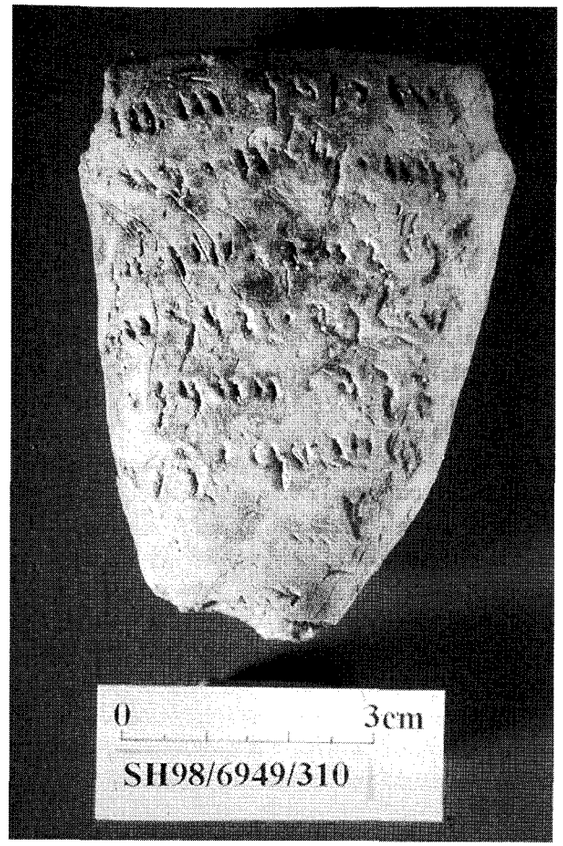

Fig. 11.18 Clay Aramaic docket from Dur-Katlimmu.

Euphrates. While the use of Aramaic as a written and spoken language steadily increased throughout the Assyrian empire, the employment of Luwian language and names disappeared with the demise of the independent Luwian dynasts.

Outside the Assyrian urban control centers, archaeological survey data suggest that the central authorities sponsored the colonization of unexploited steppe zones, particularly in the Jezireh.[65] Large numbers of rural settlements were founded in the Balikh valley, on the Khabur plains, in the Iraqi northern Jezireh, and elsewhere.[66] In contrast to the Bronze Age, the predominant pattern is of small communities rather than a hierarchy of different-sized sites, although the lower Khabur appears to provide a conspicuous exception to this pattern.[67] Wilkinson[68] has suggested that colonization of the steppe allowed for

[65] As noted above, these conclusions are dependent on an ability to distinguish Neo-Assyrian period ceramics from pre-Neo-Assyrian ceramics, which is often difficult.
[66] Wilkinson 1998. [67] Morandi Bonacossi 1996. [68] Wilkinson 1995.

the production of agricultural surpluses intended for the immense populations of the Assyrian capital cities.

Tying together the different regions under Assyrian control in the Jezireh was a centrally managed road system. The so-called *harran šarri*, the royal road, traversed the Balikh and Khabur valleys and extended east to Assyria proper. Wilkinson[69] has identified a north–south "hollow way" in the Balikh valley that may correspond to such a royal road.

Phoenicians and Greeks on the Syrian coast

In the period of the Luwian–Aramaean states and their eventual absorption into the Neo-Assyrian empire, significant political and economic developments were also transpiring on the Levantine coast. The coastal cities became commercial powerhouses, developing and controlling maritime trade and establishing far-flung colonies all over the Mediterranean world. Conventionally, the coastal populations of this period are referred to as Phoenicians, after the ancient Greek term for the region. Generally interpreted as the coastal region between Akko in the south and Sukas in the north, Phoenicia had an influence quite out of proportion to its size.

While ancient authors sometimes speculated on exotic origins for the Phoenicians, there seems no reason to doubt that they were Iron Age descendants of the Late Bronze inhabitants of the Levant coast. Indeed, there is relatively little evidence of significant disruption or destruction in the region at the end of the Late Bronze Age. Occupational continuity is apparent between Late Bronze and Iron Age levels at Sarepta and Tyre in southern Lebanon, for example, and in Syria at Sukas, Kazel, Ras ibn Hani, and Bassit.[70] Although archaeological evidence for the late second millennium is relatively scarce, isolated historical sources suggest that Sidon, Tyre, Byblos, and Arwad were already engaged in prosperous commercial and maritime activity. By the early first millennium BC, colonies were established on Cyprus, and outposts were later established in north Africa, Sicily, Sardinia, and Spain. The original motivation for these westward voyages appears to have been the acquisition of metals such as silver, gold, tin, iron, and lead.

When the Neo-Assyrian military machine reached the Levant, the Phoenician cities were subjugated along with the states of inland Syria. Reduced to vassal status, the Phoenician city rulers were required to provide continual tribute to their overlords on the upper Tigris. In particular, it appears that the Phoenicians were expected to act as a major supplier of raw materials for the Assyrian empire. This obligation precipitated bold new efforts in Phoenician westward expansion and colonization.

[69] Wilkinson 1998. [70] Caubet 1992.

The Phoenicians did not restrict themselves to the acquisition of raw materials. They were also celebrated as the manufacturers and exporters of well-crafted metal vessels, jewelry, ivory furniture components, and glass objects. Among their extraordinary glass creations were rod-formed multi-colored glass beads in the shape of human or animal heads. More mundane objects were also mass produced for exchange, such as amulets and scarabs in Egyptian style. Like their predecessors in Late Bronze Ugarit, the Phoenicians were renowned as producers of purple dye for textiles ("Tyrian purple"), derived from the shell of the murex marine snail.

Although the importance of the Phoenicians in the historical record is corroborated by the archaeological remains of their westward expansion, the evidence from the Phoenician homeland is disappointingly meager. This circumstance is largely due to the fact that the remains of the great Phoenician centers such as Tyre,[71] Sidon, and Arwad are located beneath modern cities. Nevertheless, data have been collected at a variety of smaller sites on the Lebanese and Syrian coasts. In Lebanon, extensive excavations were conducted at Sarepta (modern Sarafand) south of Beirut. A production center for the manufacture of pottery, Sarepta also yielded a small shrine with benches and an offering table.

On the Akkar plain near the Syro-Lebanese border, Tell Arqa[72] and Tell Kazel, probably ancient Sumur, capital of the small Iron Age state of Amurru,[73] have yielded important Iron Age sequences. Soundings at nearby Tabbat al-Hammam[74] provided evidence of a community that probably served as an important harbor installation permitting access to inner Syria via the Nahr el-Kabir (Eleutheros) valley.

Tell Sukas on the Jeble plain is the northernmost site of the Phoenician littoral to have yielded substantial data. In subperiods H2 and H1, early Iron Age remains consisted of small-scale domestic structures.[75] Also noteworthy was the detection of an open-air sanctuary in the harbor area, manifested by deposits of small vessels sometimes containing the burned remains of offerings as well as numerous bull figurines.[76] The inland site of Tell Sianu, recently excavated, is said to have had a large fortified citadel of the eighth century.[77]

Complementary to the issue of Phoenician commercial enterprise and colonialism in the Iron Age is the role of the Greeks in the eastern Mediterranean and their possible presence in Syria. The existence or character of Greek activity on the Syrian coast has been vigorously debated. This issue generates such heat because it involves issues central to the study of classical Greece, particularly the "Orientalizing revolution" of the early first millennium BC and the effect of Near Eastern influence on the development of classical civilization.

[71] Bikai 1978; Seeden 1991. [72] Thalmann 1990.
[73] Badre *et al.* 1994. [74] Braidwood 1940. [75] Lund 1986.
[76] Riis *et al.* 1996. For Iron Age remains at Tell Tweini on the coast north of Sukas, see now Bretschneider *et al.* 1999.
[77] Bounni and al-Maqdissi 1998.

Did the Greeks receive Near Eastern ideas and objects via Phoenician traders visiting the Aegean, or did they acquire it directly by establishing outposts in northern Syria?[78] If Greek colonies were present in north Syria, why was the competition tolerated by the Phoenicians?

The controversy has swirled predominantly around a single site, Al Mina, excavated by Woolley[79] in 1936–7 prior to his work at Alalakh. A port town for the Amuq plain located at the mouth of the Orontes, Al Mina's remains from level 3 (fifth to fourth centuries BC) were interpreted as merchants' warehouses. Although this interpretation is itself open to question (see below), it was applied to the earlier Iron Age levels as well. Given the presence of Greek pottery throughout the Al Mina sequence, many scholars identified Al Mina as a Greek (or more specifically, Euboean) colony. Since the archaic Greek establishment of colonies in the western Mediterranean and the Black Sea was well known, a trading station in Syria did not seem far fetched. Much of the discussion has hinged on the proportions of Greek, Cypriot, and local sherds, although the representative character and context of the extant pottery sample is uncertain and may not lend itself to quantitative analysis. The earliest levels, 10–7, now dated to no earlier than the later eighth century,[80] had large numbers of Greek sherds, including Sub-Protogeometric ("pendent semicircle") cups and Late Geometric examples of East Greek and Corinthian manufacture. However, the evidence of Greek presence was exclusively ceramic: the fragmentary architectural remains had no Greek attributes, and there were no burials or other aspects of material culture with Greek characteristics.[81] As a result, a colonial interpretation seems unlikely.[82] Moreover, the Greek pottery is of a limited range and function, with a particular focus on open vessels (kraters, skyphoi) used for preparing and drinking wine. Consequently, Al Mina could be interpreted as a harbor for importing exotic tableware to be used by Syrian elites.

While not found in such large numbers as at Al Mina, Greek sherds have been discovered at numerous other Iron Age coastal sites in the Levant, including Bassit, Sukas,[83] Tabbat al-Hammam, and Tyre. Sometimes the published reports dwell on the identification of these sherds almost to the exclusion of other artifact categories – a testament to the allure of Greece in the minds of modern scholars. However, Cypriot imported sherds tend to be more numerous in these assemblages, and local sherds even more so. Both the Cypriot and the Greek pottery on the Iron Age Levantine coast recall the voluminous quantity of Cypriot and Mycenaean ceramics in the same region during the Late Bronze Age and can be viewed as a reflection of the revitalized eastern Mediterranean maritime trade of the early first millennium BC.

[78] Boardman 1990. [79] Woolley 1937, 1938.
[80] Kearsley 1989. [81] Snodgrass 1994; Waldbaum 1997.
[82] Stein 1999: 69–73. [83] Ploug 1973.

Neo-Babylonians and Achaemenid Persians

In the late seventh century BC, the Neo-Assyrian empire was destroyed by an alliance of the Babylonians of southern Mesopotamia and the Medes of western Iran. Assyrian strongholds in Syria like Dur-Katlimmu were looted and burned; at Tell Ahmar, the long-pent-up hostility felt by the subject peoples might be adduced from the mutilation of the faces on the wall paintings and by the damage inflicted on the statue of an Assyrian official.[84]

After the Assyrian downfall, Nebuchadnezzar of Babylon defeated Necho of Egypt at the battle of Carchemish (605 BC) and created a new empire encompassing Mesopotamia and the Levant. It is the Babylon of this period, capital of a vast domain and embellished with grand construction projects, that captured the imagination of the biblical authors and of Herodotus. Nevertheless, the Neo-Babylonian empire had only a brief lifespan and was brought to an end by Cyrus the Persian in 539 BC. Perhaps as a result, evidence of the Neo-Babylonian period in Syria is meager. However, recent results from Dur-Katlimmu provide some clues on the transition from the Neo-Assyrian to the Neo-Babylonian empire. Built on the burned ruins of Neo-Assyrian architecture, the "Red House" on the Dur-Katlimmu lower town appears to have been a provincial palace of the early Neo-Babylonian era. This building was a vast structure divided into three sectors with tiled courtyards and an impressive drainage system.[85] An important discovery from the Red House was a group of cuneiform tablets; although they employed Neo-Assyrian bureaucratic formulae, they were dated to the early years of Nebuchadnezzar's reign. This suggests that an Assyrian provincial administration was allowed to remain in place after the Babylonian takeover. The retention of Assyrian administrative structures, as well as the social disruption caused by the Assyrian policy of mass deportations, may help to explain why a Neo-Babylonian empire could be so easily installed in place of the Neo-Assyrian.

An even larger world empire took the place of the Neo-Babylonian, the Achaemenid Persian state (*c.* 550–330 BC) established by Cyrus the Great. At first, Syria was included in the satrapy (province) of Babylonia, but the Levant and Cyprus were eventually organized into a separate unit designated Eber-Nari ("across the river," i.e. the Euphrates).[86] Contrary to the Neo-Assyrian and Neo-Babylonian conquests, there are no destruction layers marking the Persians' subjugation of Syria. Likewise, cuneiform texts discovered at Neirab, southeast of Aleppo, suggest that the Persian administration allowed Syrian deportees to return to their places of origin, recalling the Biblical account of Cyrus' policies.[87]

Although the Achaemenid Persians ruled Syria for 200 years, the period of their control is one of the most poorly documented in Syrian history, and the

[84] Roobaert 1996. [85] Kühne 1997. [86] Sartre 1989. [87] Cagni 1990.

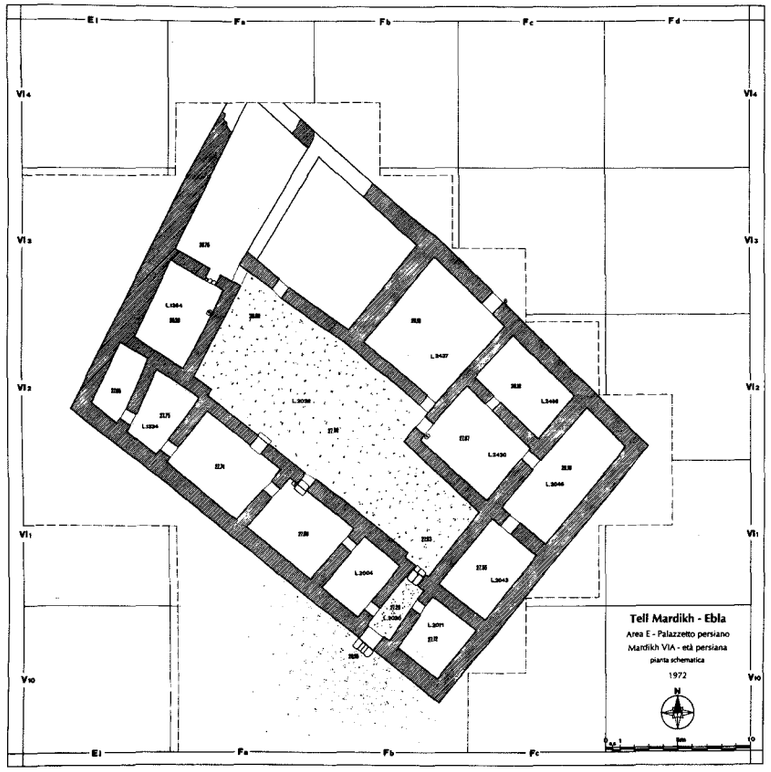

Fig. 11.19 Persian period "palazzetto" at Mardikh.

archaeological record is disappointingly insubstantial outside of the coastal regions. Part of the problem is the difficulty of distinguishing pre-Achaemenid from Achaemenid material culture assemblages:[88] as in the Neo-Assyrian and Neo-Babylonian periods, the historical changes do not necessarily coincide with material culture changes.

The evidence from inland Syria and the Jezireh is especially sparse. Some scholars have gone so far as to suggest that the Syrian interior was largely devoid of sedentary population because of a period of climatic aridity.[89] In the historical sources, inland Syria is mainly noted as the site of agricultural estates owned by members of the Persian royal family and nobility.[90] Of possible relevance to this imperial interest in agribusiness is the "palazzetto" constructed on the acropolis at Tell Mardikh (Ebla) period VIA (fig. 11.19). The trapezoidal plan of this small palace or administrative building consisted of rooms arranged

[88] Mazzoni 1990b; Lyonnet 1996b. [89] Briend and Sapin 1995. [90] Sartre 1989.

around a large rectangular courtyard. Mazzoni[91] suggests a Neo-Assyrian prototype and compares the building to small palaces or forts in Achaemenid period Palestine. Apart from its plan, the building is noteworthy for its stone architecture, employed without a mudbrick superstructure, and for the use of stone architraves instead of wood beams.

Evidence of domestic architecture, although fragmentary, has been detected at Tell Khamis in the Tishrin region of the Euphrates valley. Graves excavated at Deve Hüyük west of Carchemish[92] can be compared to pit burials recently discovered at Shiyukh Fawqani in the same region.[93] Although the Deve Hüyük graves were interpreted as the burials of Persian mercenaries, their contents are not stylistically intrusive, and the mercenary hypothesis is also called into question by the inclusion of women and children in comparable Shiyukh Fawqani graves.

In contrast to the paucity of evidence from the interior, a diversity of sites on the Syrian–Lebanese coast have generated Persian period data.[94] Historical sources indicate that the Phoenician city-rulers were allowed to retain their local authority, a situation confirmed by the recovery of royal monuments like the stele of Yehawmilk of Byblos and the sarcophagus of Eshmunazar of Sidon. In return for their positions, the local kings were expected to perform tributary and other vassal obligations. In particular, the use of Phoenician fleets was extremely important to the Persian military. Phoenician commercial activities in the western Mediterranean continued unabated, as did manufacturing and agricultural pursuits in the Phoenician homeland.

Within the modern boundaries of Syria, the major Phoenician power was the island city of Arwad. Although no archaeological evidence is available from Arwad itself, towns within its domain have yielded considerably more data than the more famous city-states in Lebanon like Sidon and Tyre.[95] Preeminent among the sites in the Arwad vicinity is Amrit, noted for its impressive open-air temple ("Maabed"), the best-preserved monumental structure from the Phoenician homeland (fig. 11.20).[96] Probably dedicated to the gods Melqart of Tyre and Eshmun,[97] this extraordinary rock-cut structure consisted of a colonnaded portico enclosing a large rectangular basin. In the center of the basin was a naos, a stepped altar surmounted by merlons, stepped crenellations of a style employed frequently at the Achaemenid imperial capitals in Iran. A large ritual pit contained limestone votive statues of the "Herakles–Melqart" type, depicting a young man wearing a lionskin and brandishing a club (fig. 11.21). These sculptural fragments display not only an encroaching Greek influence

[91] Mazzoni 1990b. [92] Moorey 1980. [93] Luciani 2000.
[94] Lund 1990. See also the recently recovered evidence from the Masyaf region of the Jebel Ansariyah (Hasan 2001).
[95] The results from Sidon, probably the capital of the satrapy of Syria, include elite tombs and an open-air sanctuary of the god Eshmun.
[96] Dunand and Saliby 1985. [97] Puech 1986.

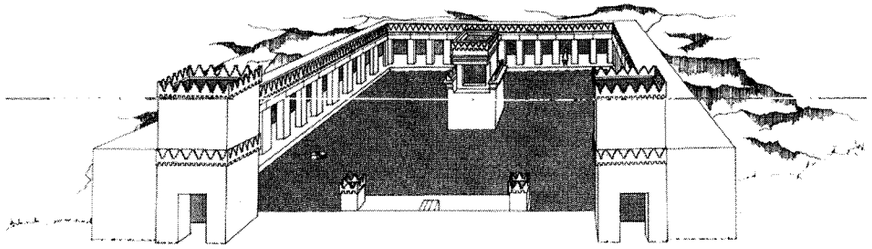

Fig. 11.20 Open-air temple ("Maabed") at Amrit (reconstruction).

but an Egyptianizing tendency in Phoenician art also seen in the style of the naos and in anthropoid sarcophagi.[98] Additional results from the Arwad region derived from Kazel, where a cluster of circular domed silos was excavated,[99] and from Sianu.[100] To the north, the ancient tell of Ras Shamra was reoccupied on a modest scale, as was the nearby harbor of Minet el-Beida (ancient Leukos-Limen).[101]

As in the preceding period, a major concern of the archaeology of this region has been the presence or absence of Greek merchants and colonists. In the period G occupation at Sukas, dated from the seventh to the fifth centuries, Riis[102] hypothesized the presence of a Greek-style temple with temenos and altars, associated with abundant Aegean pottery and with ceramic roof tiles, a Greek invention of the seventh century. A modest Greek presence was also proposed for sixth-century BC Bassit, the Posideion of Herodotus.[103] However, the most commonly cited evidence of Greeks on the Syrian coast in this period derives from Al Mina at the mouth of the Orontes. Woolley[104] interpreted the large excavated exposure from level 3 as a group of warehouses belonging to Greek merchants, primarily because of the large quantities of Greek pottery found. However, the architectural remains – rectilinear complexes of small rooms separated by narrow alleys – could as easily be interpreted as domestic units, and they have no salient Greek characteristics. As a result, both the predominance of Greeks at Al Mina and the functional interpretation suggested by Woolley have been called into question.[105] The combination of cultural elements on the coast, as well as Aramaic, Phoenician, and Greek graffiti found at coastal sites, argue once again for a multi-ethnic population rather than discrete Greek or Phoenician communities.

Whether or not Greek merchant outposts were established, the material culture of the coastal region shows an ever-increasing Greek character in the Persian period. The Phoenician art of this era is notable for its adoption of Greek iconography and style, manifested in the Herakles–Melqart sculptures

[98] Al-Maqdissi 1993:489. [99] Gubel 1990. [100] Al-Maqdissi 1993:444–7.
[101] Stucky 1983. [102] Riis 1970. [103] Courbin 1986. [104] Woolley 1938.
[105] Elayi 1987; Waldbaum 1997.

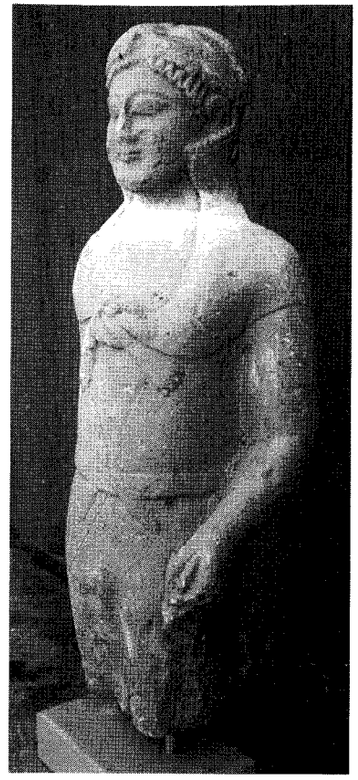

Fig. 11.21 Herakles-Melqart statue from Amrit. Height 60 cm.

from Amrit and in clay "Astarte" figurines.[106] Greek coins were introduced, and Phoenician cities minted their own coins on the Greek model soon after. Especially abundant was Greek pottery, with both Attic and East Greek pottery (especially Ionian cups) common in the sixth century and Attic predominating in the fifth–fourth centuries. It is likely that the Greek contacts were effected via Cyprus, which had a significant Greek material culture presence. These data reveal that the Levant had significant cultural contact with Greece well before the establishment of Greek–Macedonian political control by Alexander and his successors. Perhaps this was due to the formation of an eastern Mediterranean "world system" where economic, cultural, and ideological contacts throughout the region were frequent and intensive.

In contrast to Greek or Egyptian stimuli, the Persian impact on Syrian material culture was remarkably minimal. Perhaps the most obvious example is the appearance of clay "Persian rider" figurines representing horsemen dressed

[106] Yon and Caubet 1993; Jourdain-Annequin 1992; Riis 1949.

in Persian garb.[107] The symbolism and function of these figurines remain obscure but are ostensibly associated with the perceived power and prestige of the Persian military. Not only is the influence of Persian material culture extraordinarily slight, there are strikingly few indications of Persian administrative control: no Persian coins have been found, and few obvious forts or palaces. The light hand of Persian rule evinced in the material culture can be sharply contrasted with that of the Neo-Assyrian empire and accords well with the Achaemenid "ideology of commonwealth" observed from other sources.[108]

General trends in the Syrian Iron Age

In the Iron Age, Syria took its place in an ever wider world of international political and economic interconnections. At first a region of numerous small states, Syria was absorbed into the provincial systems of vast multiregional empires. The differing material culture signatures of these empires in Syria provide insights into their organization and ideologies. Economically, Syria became enmeshed in a broadening network of commercial connections.[109] With the intensification of mercantile activities, the production of specialized goods for exchange also acquired a new vitality, especially on the Levantine coast.

Technological changes such as the appearance of iron were crucial, allowing for advances in military and maritime activities. The adoption of the alphabet and the use of perishable writing materials resulted in a transformation of the technology of recording and administration. With the resulting decline in cuneiform use, cylinder seals for rolling across wet tablets also diminished in popularity and were replaced by stamp seals (fig. 11.22). These small pyramidal, scarab-shaped, or conical objects were impressed on small pieces of clay attached to documents written on papyrus or other perishable materials. In contrast to cylinder seals, often elaborately decorated, stamp seals usually bore only a single figure or the owner's name. More mundane changes in Iron Age artifact types can also be recognized, such as the advent of bronze fibulae (safety-pins), apparently associated with innovations in customs of dress (fig. 11.23),[110] and the appearance of clay loom weights, signalling the adoption of the warp-weighted loom.[111]

Significant ideological innovations occurred as well. An important modification in funerary customs emerged with the increasing incidence of cremation burials, attested by pottery vessels with charred bones inside. Extensive cemeteries of such urn burials were excavated outside the tell at Hama and were judged to be contemporary with Hama phases F and E.[112] Another significant

[107] Pruss 2000. [108] Mazzoni 1990b:195. [109] Sherratt and Sherratt 1993.
[110] Stronach 1959. [111] Cecchini 2000. [112] Riis 1948.

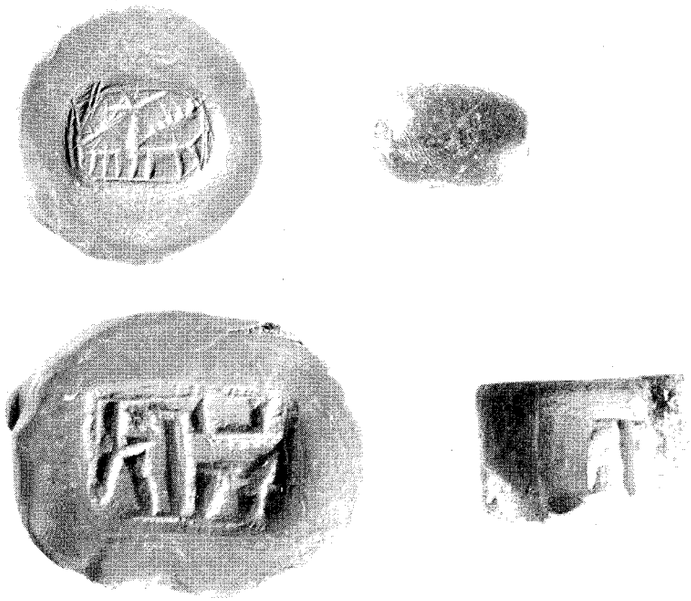

Fig. 11.22 Stamp seals and impressions from Afis.

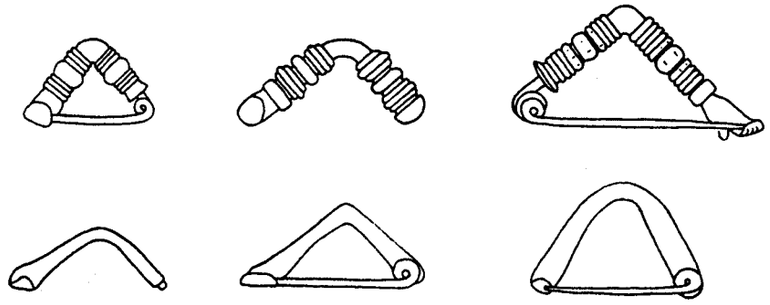

Fig. 11.23 Fibulae.

innovation in funerary customs was the use of stone funerary stelae, often with representations of the deceased partaking of a funerary meal (fig. 11.24).[113] On the Levantine coast, members of the elite were often interred in elaborate stone sarcophagi, a well-known example of which is the Ahiram sarcophagus from Byblos (*c.* 1000 BC), with the representation of a father and son.

[113] Bonatz 2000.

Fig. 11.24 Funerary stele from Neirab.

Although new influences and changes developed in the Iron Age, old traditions persisted alongside them. The ancient practice of manufacturing clay female figurines continued with the production of "Astarte" figurines (fig. 11.25).[114] On the south part of the Syrian coast, a distinctive type of male figurine with a tall hat (*lebbade*) was also common.

In comparison to earlier periods, the Iron Age has a decidedly modest corpus of published archaeobotanical and faunal data, but extant data indicate the continued prevalence of sheep/goat pastoralism, barley/wheat agriculture, and, in the west, olive and grape cultivation.[115] While the zooarchaeological reports

[114] Riis 1949, 1960–1; Nishiyama and Yoshizawa 1997.
[115] Crawford 1999; Wachter-Sarkady 1998.

Fig. 11.25 Astarte figurine.

from Afis indicate a persistent exploitation of wild animals alongside the more common domesticated species such as sheep, goat, cattle, and pig, evidence of hunting is completely absent at 'Ain Dara.[116] The camel, instrumental in the trans-Arabian incense trade, makes its first substantial appearance in the faunal assemblages of the period.[117]

[116] Wilkens 1998; Frey and Marean 1999. [117] Wilkens 1998.

12

CONCLUSIONS

The preceding chapters review a breathtakingly long timespan, yet a number of recurrent patterns and problems can be discerned. One of the most common is the issue of the cultural coherence of Syria and its relationship to other regions. In contrast to societies like Egypt, Syria does not manifest a homogeneous, monolithic culture. Instead, the region was decidedly "multicultural": new ethnic groups and languages consistently make their appearance (e.g. Hurrian, Luwian, Aramaean, Amorite), and signs of political unification are rarely detectable until Syria's absorption into the first-millennium BC empires. Regional differentiation within Syria is always significant, with the coast oriented westward, the Jezireh oriented eastward, and numerous material culture sub-regions throughout.

External influences are often apparent, and the effect of exogenous contacts on Syria is a constant theme in Syrian archaeology. Why did Syrians adopt Mesopotamian Ubaid material culture styles in the fifth millennium BC? What is the relationship of the Uruk expansion of the fourth millennium to the development of societal complexity in Syria? Because Syria never became a great power center like Mesopotamia or Egypt, modern scholars frequently assume that major culture changes in Syria were precipitated by external forces. But the effect of foreign stimulus is often highly exaggerated. For example, indigenous material culture styles persisted for long periods in the Neolithic, sometimes with considerable influence outside of Syria (e.g. Halaf), while the newly emergent third-millennium urban societies had a singular character distinct from, if partly influenced by, those of southern Mesopotamia. In the Iron Age, not only did the Luwian–Aramaean polities develop their own idiosyncratic styles of art and architecture, but these were sometimes adopted by their conquerors the Assyrians.

When Syria does become part of empires of foreign derivation in the late second and first millennia BC, we encounter the question of how Syria adapted to such changes and how different empires manifested themselves in their conquered territories. The pattern of Egyptian, Hittite, or Persian domination, allowing a substantial degree of local autonomy, contrasts sharply with that of Middle and Neo-Assyrian regimes who left signatures of a standardized imperial material culture and strong central control.

A second pattern is the recognition of cyclical trends in the social, political, and economic life of ancient Syria. Periods of socio-political centralization alternate with decentralization; eras of intensive sedentism oscillate with phases of sedentary decline. During the early seventh millennium BC, pre-pottery Neolithic societies "crash," to be gradually replaced by cultures of the Ceramic Neolithic. In the fourth millennium, the Uruk expansion, with its first experiments in urbanism, is followed by a period of ruralization. Further cycles of integration and decentralization occur with the emergence and periodic decline or collapse of urban societies in the third and second millennia BC. These cycles of development have also been observed in other Near Eastern regions (e.g. Mesopotamia, Palestine), and the episodes of decentralization have been variously interpreted as the result of internal, systemic weaknesses within sedentary societies, the effect of external contacts or invasions (e.g. the "Sea Peoples" *c.* 1200 BC), and, more recently, the result of climatic desiccation. It is not unlikely that all three variables are often to be implicated. Although much attention has been devoted to the causes of collapse, the mechanisms of *regeneration* have yet to be systematically studied and understood.

Fluctuations between periods of substantial as opposed to minimal sedentary occupation raise the issue of the relationship between pastoral nomads and sedentary agriculturalists. Because pastoral nomads are so difficult to identify in the archaeological record, their presence is often inferred through the scarcity of sedentary occupation, but reliance on such negative evidence is always open to skepticism. Pastoral nomads are elusive spectres in Syrian archaeology: their effect on socio-economic developments in a given period or region, their first appearance on the Syrian scene, even their very presence, remain difficult to establish with conviction. In some periods, pastoralists are more visible than others (e.g. early and late second millennium BC), and some group members emerge as rulers of regional or local polities for reasons that remain to be effectively demonstrated. At any rate, it seems likely, given available textual, ethnographic, and archaeological sources, that mobile pastoralists and sedentist agriculturalists interacted in contexts characterized by both mutual dependence and animosity.

As in other parts of the world, the identification of archaeological "cultures" and the creation of archaeological periods is a continuing preoccupation of Syrian archaeology. In the prehistoric era, concepts such as Halaf and Ubaid – archaeological cultures – are employed to recognize contemporaneous sites with shared material culture styles. One is often struck by the inadequacies of the construct; for example, many defining characteristics of the Halaf culture are not, in fact, unique to it – tholoi, seals, and burial types are now observed in other periods, cultures, or regions beyond the Halaf homeland. It seems safe to predict, however, that although typologies will always be imperfect, given the complexities of human behavior, their heuristic value will remain significant.

Despite the archaeological practice of dividing the past into discrete periods – necessary as it is – it must be recalled that there was much continuity in antiquity. In many ways, for example, the people of the Neolithic were little different from their Epipalaeolithic predecessors: the introduction of al-Khiam points is taken as a marker of the beginning of PPNA, yet demography, economy, and material culture remained relatively consistent over long spans of time. The extent of continuity should not be underestimated, nor the case for change or "revolution" overstated.

Often, the material culture changes between archaeological periods or cultures are a subject of intense debate: do we observe a complete replacement of one material culture assemblage by another, or is gradual change the norm? The transition from Early Bronze to Middle Bronze *c.* 2000 BC, for example, is seen by some as a sharp material culture break, but by others as a gradual development. Similar discussions are characteristic when discussing the transition from Halaf to Ubaid, or from Late Bronze to Iron Age. *Explaining* such changes is even more difficult: why, for example, do round houses regain popularity in the late Neolithic, only to fall out of use in the fifth millennium? Functional explanations do not always satisfy: there were undoubtedly additional variables at work such as changes in social constructs, world views, identities, and beliefs – but identifying and explaining them are extremely formidable tasks, at best.

In historic periods, ethnicity and its relationship to societal developments have been perennial concerns. While it cannot be denied that people in ancient Syria often identified themselves and others in ethnic terms, it can be argued that archaeologists have devoted an inordinate amount of time towards the assignment of ethnic labels to sites and cultures, as if such a designation solves the major questions one might ask about the character of the group in question. Even if an identification of ethnicity were an appropriate end in itself, such identification is all too often based on data from the local elite, giving little indication of what the rest of the population may have considered themselves or been considered by others. Also problematic is the fact that the language of an individual's personal name, the usual basis for ethnic designations, may not indicate his or her ethnic identity or spoken language.

The changing linguistic map of Syria in antiquity is, in fact, an interesting problem that eludes facile interpretation. Why are Semitic names universal in the third millennium, Hurrian names dominant in the mid/late second millennium, and Semitic names again preeminent (along with Luwian, for a time) in the first millennium? Was there always a Semitic "substrate" under the Hurrian majority, preserving Semitic traditions? And why do some languages persist and others leave the scene?

Problems and recommendations

While the achievements of Syrian archaeology are considerable, limitations and strategies for future research deserve mention. One problem is irregular

geographical coverage. The Syrian Jezireh, because of its proximity to Mesopotamia, the "cradle of civilization," has received a disproportionate amount of attention in recent decades, compounded by the focus of salvage work in the Euphrates and Khabur river valleys. In contrast, western inland Syria has been relatively underinvestigated and southern Syria conspicuously neglected for almost all periods under consideration in this book. A similar issue is erratic chronological coverage: eras of agricultural or civilizational origins such as the early Neolithic and the third millennium BC tend to receive the lion's share of research, while other periods like the fifth millennium BC are relatively overlooked. Even in the well-studied prehistoric periods, excavated samples are often remarkably small, sometimes little more than a few square meters in area, placing limits on credible interpretation and explanation.

Explanation of the Syrian past is often hampered by the imperfections of chronological methodology. For example, the efficacy of relative chronologies is related to the diagnostic materials used in their creation. Chronologies of ceramic periods tend to be better refined than pre-ceramic ones, because pottery is more sensitive to temporal change than lithics, which only allow for the recognition of very long periods. Another problem stems from the use of archaeological cultures: once we assign a given site or occupation to a culture with a recognized range of centuries, we often assume the site's contemporaneity with others of the same culture. But the longer the period, the more likely it is that different sites will have been occupied at different times within the era. Tallying up the sites of a given culture and assuming contemporaneity, therefore, will provide an erroneous impression of variables like population size, population pressure, and social organization.

In historic periods, we confront the problem of the relationship between text and material culture: what role can each data category play, and how can they be utilized by scholars of ancient Syria? Because of the requirements of training, students of ancient Syrian material culture (i.e. archaeologists) and students of ancient Syrian texts (i.e. philologists, "historians") are almost always distinct from one another. As a result, archaeologists often have difficulty controlling the textual record, and text scholars frequently know little about archaeology. Whenever possible, we advocate an integrated approach to the two sets of data, because their complementary use affords a more complete view of ancient societies than text or material culture alone. In some cases, the two types of data actually contradict each other, a situation that compels the present-day scholar to take a more nuanced view of the societies in question.

As we have already noted, texts usually stem from, and are concerned with, elite and urban contexts; in theory, archaeology is in a position to counteract this bias and provide information on lower social strata and non-urban communities. Unfortunately, archaeology in Syria, as elsewhere, has traditionally focused on the very same urban and elite components already documented by the texts. Palaces and temples are repeatedly the subject of inquiry, while the non-elite or the rural are only rarely considered. Although this imbalance has

been partly offset by the excavation of small sites in salvage regions, the preference for the big and the flashy remains. Even in prehistoric periods, one can observe a bias towards large sedentary sites: little attention is paid to mobile hunter-gatherer groups, even though Neolithic material has been identified in caves and open-air camp sites in the Palmyra and Anti-Lebanon regions. Perhaps even more neglected is the archaeology of gender, but this issue will doubtless receive greater attention given its increasing importance in the broader archaeological milieu.

Syrian archaeology has made increasing use of ecofactual data (e.g. floral or faunal remains), but such analysis is much more common for prehistoric archaeology than in historic periods. In fact, ecofactual data would be particularly valuable for later periods, since such data often provide information on economy and social relations not available from other data categories – including texts. It also would benefit Syrian archaeology to integrate faunal and botanical data into the general discussions of fieldwork results, as opposed to the common practice of consigning ecofactual reports to appendices easily passed over by artifactually orientated scholars.

In the final analysis, what does Syrian archaeology teach us? While the field has been concerned with the explanation of major social transformations like the emergence of Neolithic or urban life, few explanatory models have received general acceptance. Variables likely to have been influential can be proposed, and explanatory models put forward, but definitive explanations of such major changes in human societies remain elusive. Presumably this state of affairs exists because of the complexity of the phenomena under consideration and the incomplete nature of our data, but one might also wonder whether a single overarching explanation can ever be successfully advanced for such large-scale events. What the archaeology of Syria offers then, is a bountiful, complex record of human societies and their behaviors through time, with many unexpected and even baffling developments that may elude immediate explanation but illustrate the unpredictable and complicated character of human life. Given the vigor and productivity of Syrian archaeology, it is certain that the patterns and interpretations presented in this book will need revision as new data are produced, but we hope that we have provided at least a framework for future contemplation and insight.

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