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Early Mesopotamian urbanism: a new view from the north

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Research

For many years, the southern Mesopotamia of Ur and Uruk, ancient Sumer, has been seen as the origin centre of civilisation and cities: 'The urban implosion of late-fourth- and early-third-millennium Mesopotamia resulted in a massive population shift into large sites' *said Nissen in 1988.* 'These new city-states set the pattern for Mesopotamia as the heartland of cities' *(Adams 1981; Yoffee 1998). And for Stone & Zimansky (2005)* 'Remains of the world's first cities are the most noteworthy feature of the landscape in southern Iraq'. *But at Tell Brak Joan Oates and her team are turning this model upside down. A long campaign of study, culminating in the new discoveries from 2006 reported here, show that northern Mesopotamia was far along the road to urbanism, as seen in monumentality, industrialisation and prestige goods, by the late fifth millennium BC. The 'world's earliest cities' are as likely to have been in north-eastern Syria as southern Iraq, and the model of a core from the south developing a periphery in the north is now ripe for revision.*

Keywords: Mesopotamia, Syria, cities, origins of civilisation, tell settlements, urbanism

Early urbanism

Most accounts of the emergence of complex societies and city genesis in the Near East locate the beginnings of these processes in the alluvial plains of southern Mesopotamia, the iconic 'Heartland of Cities'. Features peculiar to the south Mesopotamian landscape such as the agricultural potentials of irrigated and lacustrine environments and the associated logistical advantages of the closely braided water channels of the Tigris and Euphrates rivers have been thought to provide the south with uniquely suitable habitats for the emergence of the first cities and the development of 'pristine' civilisation (Algaze 2001; 2005; Wilkinson 1994). The corollary is that the dry-farming zone upstream in northern Mesopotamia was only stimulated into its own 'secondary' phase of development after contact initiated by the southern core. But this idea is now being increasingly challenged, not merely through

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concerns with the underlying core-periphery model and its emphasis on regional asymmetric interactions, but because of recent and compelling evidence for early northern developments in social complexity that are not directly tied to the south (Frangipane 2001; Stein 2002).

Early Mesopotamian cities famously survive as *tell* settlements, which represent the accumulation of level after level of mud-brick or pisé construction, cut down, levelled off and replaced, often over many thousands of years – mud is, of course, the great 'reusable' resource. Such longevity is a factor not only of both landscape and the ancient environment but also, since the Neolithic, the '*substantial commitment to farming*' (Sherratt 1997). But a serious problem for the archaeologist wishing to investigate the background to urban growth in Mesopotamia is that the very situations that encouraged the growth of later cities were often equally attractive to early villagers; the early phases, however, soon become inaccessible through the build-up of later levels. At Uruk (Warka), for example, undoubtedly the greatest of the early cities and the site that has yielded not only the earliest written documents but also the largest area of late-fourth-millennium public buildings, soundings have failed up to now to yield pertinent information about the nature of earlier settlement (for a recent summary see Nissen 2002). Indeed our knowledge of the Neolithic/Chalcolithic background to such urban complexity comes largely from small farming settlements which, although they remain less compromised by overlying occupation, are less informative of wider social and economic developments.

Here we review recent evidence from the north Mesopotamian site of Tell Brak, indicating its growth as a major settlement apparently well before the emergence of large urban centres such as Uruk in the southern alluvium. In particular we report the convincing evidence for monumentality, industrial workshops and prestige goods that has emerged from the latest excavations of fifth/fourth-millennium BC levels. We show that these northern developments, while particularly well attested at Brak, are indicated also by evidence from across northern Mesopotamia, for example at sites like Hamoukar, Tepe Gawra and Qalinj Agha, and at Arslantepe in south-eastern Turkey (Gibson *et al.* 2002; Rothman 2002; Hijara 1973; Frangipane 2001). The implications are that northern Mesopotamia was already a land of cities long before the appearance of colonies in the later fourth millennium BC.

Tell Brak

The importance of Tell Brak derives in part from its controlling position on one of the major routes from the Tigris Valley northwards to metal-rich Anatolia and westward to the Euphrates and the Mediterranean (Figure 1, centre). This route ran through the pass at the western end of Jebel Sinjar directly to the river crossings at Brak. Tell Hamoukar, another important fifth/fourth-millennium BC site referred to more than once in this paper, sits astride the eastern route around this massive mountain (Figure 1, right). Both sites are well situated to benefit from the rich agricultural potential of their surroundings as well as areas suitable for nomadic pastoralists. Brak was selected for excavation in 1976 owing to the accessibility of its third-millennium BC remains, at that time a period little known in northern Mesopotamia.

The main tell at Brak is one of the largest in northern Mesopotamia, occupying over 40ha and rising to a height of over 40m, comparable in area to the mound of Quyunjik

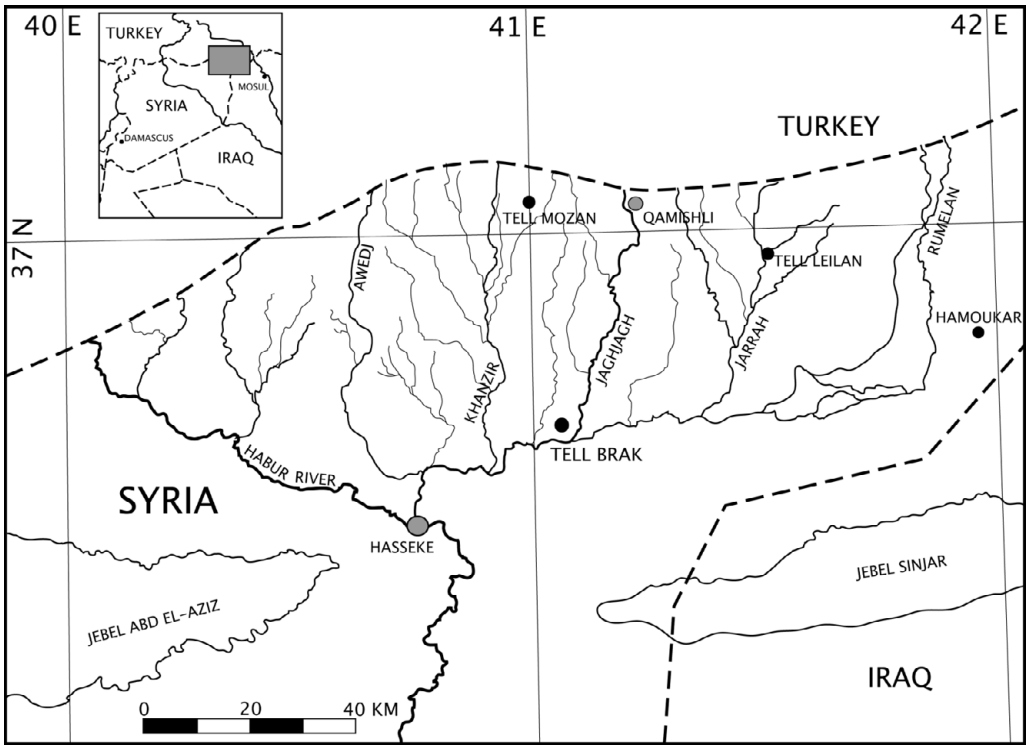


Figure 1. Map of the Khabur region, North-east Syria (D. Oates), with inset showing location.

(the citadel of Nineveh) but twice as high. Despite its impressive size, the tell constitutes only 21 per cent of the settlement complex which includes also an outer town, with a corona of smaller mounded areas and widespread evidence of occupation over a total of almost 300ha (Figure 2; see also Ur *et al*. in press). Unfortunately much of this area has been heavily destroyed by extensive quarry pits from which soil was extracted for ancient building purposes, by ancient and modern ploughing (Wilkinson *et al*. 2001) and by modern construction.

It was not our original intention to excavate fourth-millennium BC levels, recognising that these would be buried beneath the great depth of the third-millennium city which our excavations have now established as one of the largest urban centres in the north (D. Oates *et al.* 2001). Reasonably accessible fourth-millennium levels have been identified, however, in several parts of the site. It is the most recent of these excavations in Area TW, near the northern entrance to the ancient city, that forms the focus of this paper (Figure 3). Here our work has revealed monumental structures associated with organised craft activity, the manufacture of prestige goods, bureaucratic paraphernalia and evidence for the organisation and provisioning of labour beyond household levels, all dating from the late fifth and the early fourth millennia BC. Reinforcing this impression is the contemporary evidence for extended 'suburban' settlement, discussed below. (Summaries of the later fourth-millennium excavations can be found in Oates 2002; 2005).

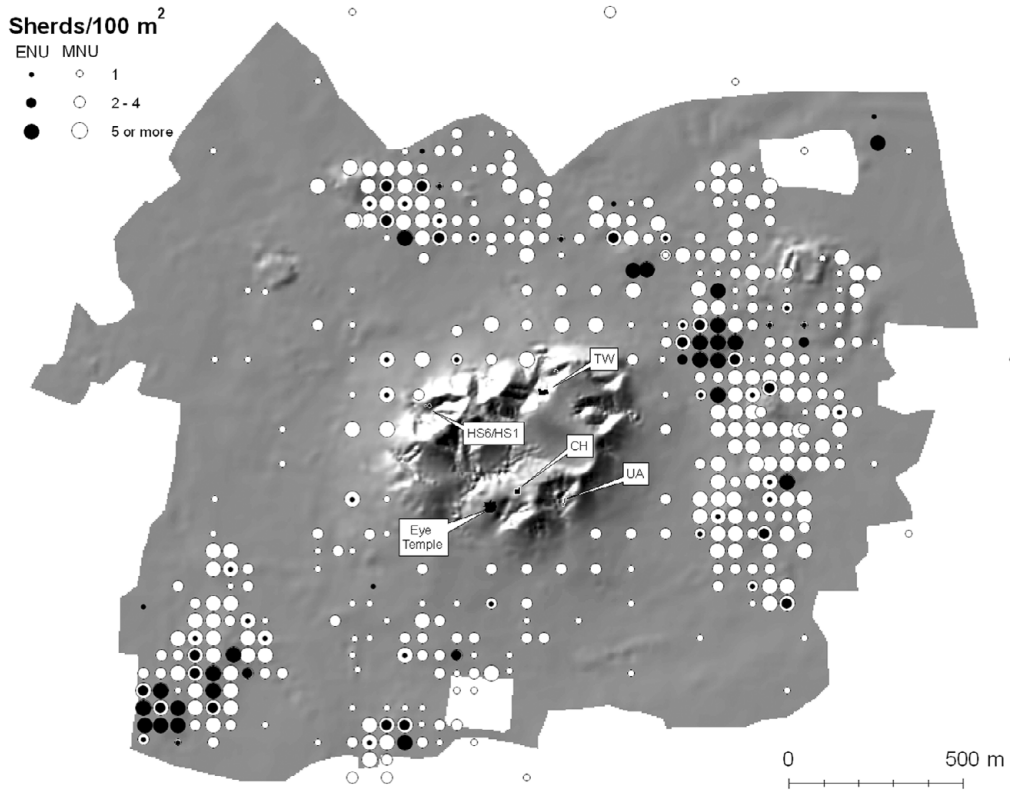


Figure 2. Tell Brak and its suburbs, showing known extent of late fifth (ENU = LC2) and first half of fourth millennium BC (MNU = LC3) occupation. (TW, CH, UA = site codes of excavations; ENU = Early Northern Uruk (LC2), c. *4200-3900 BC; MNU = Middle Northern Uruk (LC3),* c. *3900-3600 BC).*

Area TW: the excavated evidence

The Monumental Level 20 building

The earliest and almost certainly the largest of the recently excavated non-residential buildings was identified some 11m below the surface of the tell in what is now designated TW Level 20 (Figure 4). Here, in the south-east corner of the excavations, the then 10 × 20m trench literally cut across the north-west corner of a clearly important building of totally unknown type (Oates & Oates 1997). This small corner contained a massive entrance with towers on either side and an enormous doorsill consisting of a single piece of basalt, 1.85 × 1.52m in area and 29cm thick, a type of stone not native to the open steppe in which Tell Brak is situated. The red mud-brick walls of this monumental structure were 1.85m thick, and still stand to a height of 1.5m. Of the plan itself, our original trench revealed only the very small corners of two apparently empty rooms. No contemporary parallel exists for a building of this type and scale but, regrettably, four further seasons devoted to opening a larger area revealed no more than further parts of the same two rooms.

Although both rooms proved empty, we were able to establish a number of unusual features of the construction: first, that the walls were not set in foundation trenches, a



Figure 3. Area TW from the west; the lowest level excavated up to now lies still some 15m above modern plain level, this depth representing occupation dating to the earlier fifth and sixth millennia. The visible section spans the late fifth, the whole of the fourth and the very early third millennia BC.

common practice in the erection of monumental buildings, but that the whole building was built on a carefully constructed platform of large cobbles and clean red clay to a depth of over 80cm, a very unusual procedure and a rare example of the use of stone foundations at Brak. To the north of the building was a large open area, the surface of which had been covered with white lime (waterproof) plaster, beneath which at the entrance itself was very carefully laid wooden underflooring, another unusual feature. The outer courtyard area had been replastered at least three times, while the building itself was rebuilt at least once.

Outside the entrance were two small rooms, possibly guardrooms (Figure 4, room 3), while along the north front of the main structure further small rooms had been added (Figure 4; nos. 4, 5). They too were empty. They might have served as small suq-like 'shops', or perhaps as storage areas for goods passing in and out of the building, or have been related to the administration taking place within it. It is tempting (if anachronistic) to suggest that they may have been the ancient equivalent of the series of desks one finds outside government offices in the Near East today, where scribes and other clerks provide services for the benefit of those having business within. Whatever its formal function, the building is the earliest Mesopotamian example of a genuinely secular monumental building – certainly the plan bears no relationship to the religious plan widely attested throughout Mesopotamia and found slightly later at Brak in the well-known Eye Temple.

Radiocarbon determinations and pottery from a contemporary building to the west date the basalt-threshold building unequivocally to the late fifth millennium BC, the Early

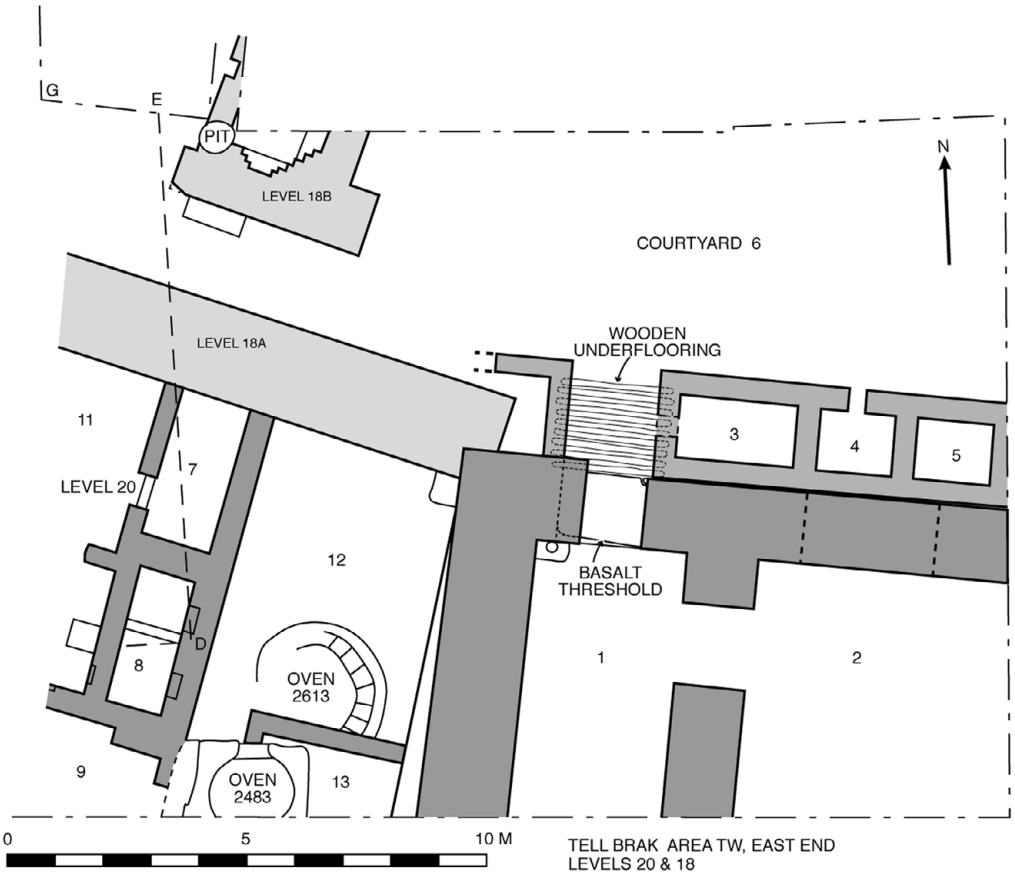


Figure 4. The eastern part of Area TW at Level 20 (late fifth millennium BC), showing the basalt-threshold building and, to the north, the corner of a Level 18b ritual building (not discussed in the text); rooms 7-11 constitute the eastern part of the western Level 20 building, excavated in 2006.

Northern Uruk period or ENU.[1] Its position, near what we believe was the north gate of the city, suggests a possible economic function, a view strengthened by evidence from new buildings excavated between March and May 2006.

The western Level 20 building

The second Level 20 building (Figure 4, rooms 7, 8 and westwards) was built on a smaller and apparently more domestic scale than its neighbour to the east, but revealed a remarkable intensity and variability of craft activity. The rooms contained large numbers of basalt pounders and grinding stones, beautifully made stone and bone tools, many clay spindle whorls, carefully polished stone palettes, delicate obsidian blades, neatly ground obsidian discs, large quantities of mother-of-pearl inlay cut from local mollusc shells, together with extensive evidence for flint-working including an unusually long brown flint blade (Figure 5).

[1] *Conventional periods cited in this report are ENU,* Early Northern Uruk *(LC2)* c. *4400-3900 BC, and MNU,* Middle Northern Uruk *(LC3)* c. *3900-3600 BC.*

Several large ovens lay within the rooms of the building which were also furnished with plastered basins and bins. Of especial interest was the large number of clay seal impressions, including door sealings indicating 'official' locking. The overall impression is of an 'industrial' building associated with a possibly open working area to the north. A sherd-paved street ran along its western side in the direction of the north gate; the entrance itself, together with the rest of the building, lie unfortunately beneath the unexcavated area of the high tell to the south.

The 'red libn building' (TW Level 19)

In Levels 19 and 18, two buildings overlay the western Level 20 building just described. The Level 19 building, discovered in 2006 (Figure 6), had massive red mud-brick walls and many ovens that were undoubtedly 'industrial'. Three distinct floors were identified, with much *in situ* material, suggesting a relatively long period of use. Of particular interest was the fact that the pottery included both early versions of MNU (LC3) types while other forms were closer to the ENU (LC2) repertoire well-known from Tepe Gawra (Tobler 1950) and TW Levels 20-22 and earlier at Tell Brak. Thus the pottery of Level 19 appears to represent a phase transitional between Early Northern and Middle Northern Uruk. Among the new types were very large open bowls, small bowls with incised craftsman's marks suggestive of later pictographs (Figure 7) and a new type of mass-produced bowl, unlike the moulded 'wide flower pots' characteristic of ENU levels.

Other finds consisted of very large quantities of raw materials, great piles of very beautiful raw flint and obsidian, for example, together with both débitage and finely worked pieces, also a great variety of coloured stones (including jasper, marble, serpentine and various diorites) used for the manufacture of beads, polished celts and other stone objects. Much raw bitumen was also present, including a single large piece weighing just under 1kg. There were large deposits of clay spindle whorls; these and the high percentage of sheep/goat faunal remains not only here but also in later fourth-millennium levels emphasise the importance of wool and presumably weaving at the site. Also found were quantities of river molluscs from which mother-of-pearl inlays were cut. With the exception of the latter, most of the raw materials had been brought from considerable distances, and without the benefit of donkey transport for which there is as yet no evidence in the Khabur region.

The most extraordinary find was a unique, obsidian and white marble 'chalice' (Figure 8). The cup itself was made from a large obsidian core, the interior of which had been ground out in order to form a deeply-hollowed drinking vessel; the base had also been hollowed to provide a smooth cup-like depression in which the obsidian could be inserted. The two stone pieces were held together by bitumen, both within the hollowed base and encasing the two parts of the vessel as visible in the photograph. The upper rim had been slightly ground and a narrow covering of bitumen added, within which was a neat groove for the insertion of some other material, presumably something valuable such as gold, since this had been removed before the vessel itself was placed in the bin in which it was found. The stark contrast between this vessel and the mass-produced bowls found throughout these levels suggests a differentiation in practices of consumption, involving, on the one hand, unique and highly visible artefacts such as the



Figure 5. Objects from the new Level 20 'industrial' building (Area TW, western part of trench). Left to right: three mother-of-pearl inlays cut from local mollusc shells; three ground obsidian discs; two obsidian blades. Below: an unusually long, brown flint blade (length 26cm).



Figure 6. TW Level 19 'red libn [mud-brick] industrial building', view from the east (c. *4000 BC).*

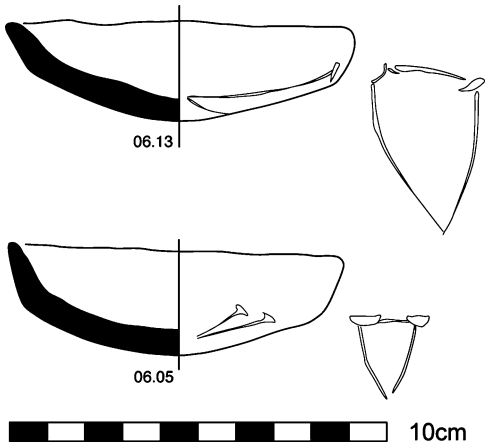


Figure 7. Small bowls from Level 19 building, a number of which bore similar 'pictographs'.

chalice and, on the other, a great number of crude, undecorated mass-produced types. Such differences, involving aesthetic standards exclusive to only a small proportion of the population, suggest increasing social stratification (Wengrow 2002).

Among the most interesting finds from these workshop rooms was a large collection of stamp sealings, including those illustrated in Figures 9 and 10. A pile of over 50 'sling bullets' was found in the corner of the NE room, having been stored there in a sack or other perishable container almost certainly as raw material for such sealings (these 'sling bullets', at least, were not 'warring weapons', as has recently been suggested). The concept of 'importance' is implied also by the presence in the same building of a beautiful, indeed unusual, lion stamp sealing, a motif rarely found on early seals and certainly, in later periods, a symbol of 'kingship' (Figure 9), suggesting that the building was controlled by or on behalf of a very senior official. Perhaps even more significant in this context is the presence of a seal impression depicting a lion caught in a net (Figure 10). Not only is the ruler himself a lion, metaphorically speaking, but greater than lions in being able to organise their capture, in later periods a strictly royal prerogative.

The use of seals to signify ownership or control was in later periods a major facet of *south* Mesopotamian administration, appearing at Uruk hand in hand with 'numerical tablets' and the pictographic script (*c*. 3400 BC). Yet this important administrative practice had its origins in central and northern Mesopotamia as early as 7000 BC (Akkermans & Duistermaat 1997; also Ferioli *et al*. 1994; Oates 1996) and by the Late 'Ubaid period had become a well-developed practice on northern sites, unrepresented in the south (e.g. Tepe Gawra; and Değirmentepe in south-eastern Turkey, Esin 1994). By the end of the fifth millennium the evidence suggests a complex hierarchy of authority at Brak, while at the contemporary, 1ha site of Gawra, glyptic evidence suggests contrasting, residence-based 'cottage-industries' (Rothman 2002) as opposed to Brak's more centralised production. At Brak the majority of sealings from the recent excavations bear single stamp seal impressions, often 2 or 3 impressions of the same seal if the surviving fragment is large (they are always broken when found). There are also at least two instances of sealings bearing impressions of more than one seal (Figure 10). Such double sealing suggests either two distinct levels of administration or two equal but different types of official, in either case evidence for substantial organisational complexity. Interestingly, the need for signatures of more than one responsible official is a practice that persists still in the Near East today. Also from an NMU context at Brak are two small pictographic 'dockets' of a type that appears to precede the more stylised pictographs of Warka (Oates 2005: Figure 16).



Figure 8. Obsidian and white marble chalice, height = 16cm (from Level 19 building, c. 4000 BC).



Figure 9. Lion sealing from 'red libn industrial building' (TW Level 19).



Figure 10. Large jar sealing, Level 19 building, bearing the impressions of two different 'lion seals', one of lions tête-bêche, the other, lozenge-shaped, depicting a lion killing a small mammal.

The 'feasting hall', Level 18

Overlying these buildings, in Level 18a, was another unique building of early MNU attribution, a formal tripartite structure with niched decoration of a type often associated with 'ritual' buildings (Figure 11; see Emberling & McDonald 2003; Oates 2005: 18-21). Despite its apparently 'ritual' plan, this building was clearly not a temple, at least not in the usual sense of the word. Its northern courtyard contained a number of ovens, rebuilt or

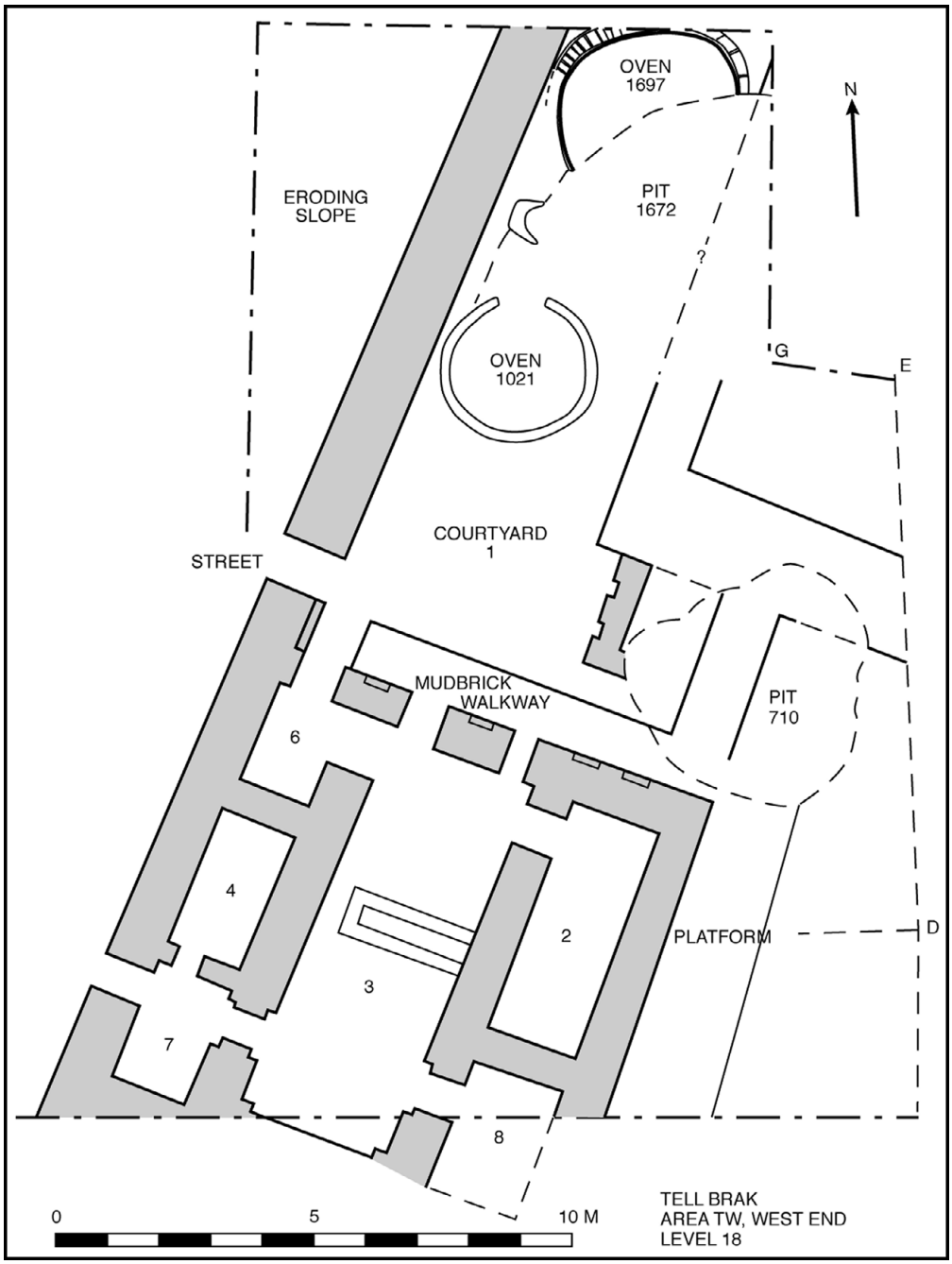


Figure 11. Plan of TW Level 18 'feasting hall' (early fourth millennium BC).

replaced throughout its long use. These were large, but, in contrast to those of Level 19, intended for the cooking of food on a large scale. The faunal remains indicate the baking or grilling of large quantities of meat, served, it would appear, on the mass-produced plates

which formed a large portion of the surviving pottery – perhaps a pre-echo of the throwaway 'paper plate' (Oates & Oates 1993: Figure 54: 66 & description; Weber 2003). Entered from a later version of the sherd-paved street, it remains unclear whether the building was designed as a form of 'feasting hall' (see Helwing 2003) or whether its purpose was to serve some nearby formal institution. Its association with the north gate also suggests the possibility of a guesthouse or 'travellers rest'.

Such a hall hints at the ways in which the provisioning of people had gone beyond that of a single household, since its large ovens and ubiquitous mass-produced plates suggest patterns of consumption well beyond that of familial households. Also relevant to levels of 'organisation' are the often moulded, mass-produced bowls already referred to, predecessors of the well-known bevelled-rim 'ration bowls' of the Late Uruk period. For the moment at least, evidence for the earlier forms comes, again, largely from the north, and is suggestive of the large units of labour that would have been required not only for on-site production and the construction of the monumental buildings themselves, but also the cultivation of sufficient land to have fed the increasing number of non-agricultural administrators and craftsmen. Monumental buildings also require very large amounts of straw and water for the enormous quantities of mud-brick and plaster necessary for their construction (D. Oates 1990: 389-90). Certainly the large fifth-millennium buildings for which we have evidence at Brak would have required considerable investment of time, materials and labour not only for their construction but for their operation and maintenance. It has been suggested that the very large number inscribed on a Brak 'numerical tablet' of clear NMU date (perhaps to be read '3600', Oates 2002: Figure 6), reflects the keeping of records for just such labour requirements. Certainly the control of manpower was a major preoccupation of the earliest written texts.

In Area CH, some 300m south of TW, a sequence of monumental structures has also been identified, dating from at least as early as the end of the 'Ubaid period (*c*. 4400 BC). Indeed a major 'boundary wall', which in the third millennium marked the eastern limit of the Naram-Sin 'Palace' (*c*. 2250 BC, see D. Oates *et al*. 2001: Figure 26), had remained in approximately the same position from at least as early as the fifth millennium. Such evidence suggests that the area beneath the 'Palace', situated between this boundary wall and the western limits of the much earlier Eye Temple, had persisted as 'monumental' or even 'sacred' space for over two millennia. The Eye Temple itself, excavated (and mis-dated) by Mallowan in the 1930s (Mallowan 1947), adds significantly to the Area TW evidence for early indigenous complexity and 'monumentality' at Brak (Oates & Oates 2002). The foundations of an early-fourth-millennium version of this structure are the source of the thousands of small alabaster 'eye idols' that give this building its name, together with large numbers of stone stamp amulets and early sculpture; examples of the amulets and eye idols have now been found at Tell Hamoukar, an important late-fifth/fourth-millennium site to the east of Brak (Reichel 2002).

The evidence for social and economic complexity from Areas TW, CH and the Eye Temple are far from isolated phenomena at Brak. In relatively restricted soundings on the north-west flank of the site, for example, Roger Matthews (2003: Figure 3.9) identified in 1996 an impressive mud-brick wall some 2m thick, dated to the late fifth millennium ENU phase (Area HS). This was, if not a city wall *per se*, at the least a wall defining some large compound.

Suburban Brak in the late fifth and early fourth millennia

Beyond the outer limits of the high tell itself lies its 'suburban' area, an extensive zone of low-mounded and generally heavily ploughed settlement covering just under 300ha. Intensive systematic sherd collection in this area has revealed shifting patterns of settlement from the sixth millennium through the Islamic periods. Of particular relevance to recent fourth/fifth-millennium excavation at Brak, and early Near Eastern urbanism in general, are the outer town distributions of sherds of the ENU and MNU periods (illustrated in Figure 2). The area of late-fifth-millennium ENU settlement on the tell itself, as revealed by the excavations up to now, covers a minimum of 30ha, while the suburban survey showed isolated clusters of settlement in the outer town, all at least 300m from the high mound. Each of seven clusters covered from 1.5 to 5ha. In total, ENU settlement occupied at least 50ha and probably more, given our conservative estimate of occupation on the high tell. While most settlements of this date are small villages, Brak must be placed with the even larger, low-density, 300ha settled area at Khirbet al-Fakhar, the outer suburbs of Hamoukar (Ur 2002). Although they are unlikely all to have been contemporaneous (Dewar 1991), these spatially extensive *northern* Mesopotamian settlements are now forcing a reassessment of the current Uruk-centric model of urban origins (Ur *et al.* in press). Brak, Gawra and Hamoukar are also closely linked in the production of virtually identical pottery over an area of some 300km. This includes 'channel-rim' vessels which seem to have served some 'distilling' function and the presence of an 'elite' ceramic, for which there is production evidence in the form of kiln wasters at both Brak and Gawra. This very distinctive pottery type occurs also in south-eastern Turkey (Oates & Oates 2004: 182).

In the subsequent MNU period (*c*. 3900-3600 BC) the high mound at Tell Brak remained fully settled while occupation in the outer town intensified. At the same time the outer, isolated clusters of ENU settlement appear to have grown together to form larger and more continuous areas of settlement. In addition to the high mound, these outer settled zones covered at least 100ha, creating a minimum total settled area of over 130ha. Again, these figures are conservative. The cluster immediately to the south of the high mound, for example, probably extended north to the Eye Temple, but this area is now covered by substantial remains of the third-millennium lower town together with eroded outwash from Brak's central gully.

Sherds of the Late Uruk phase (3400-3200 BC), the period when the high tell at Brak and a number of other northern settlements appear to have been colonised by southern Mesopotamians, are found in low density around the lower town but cluster in particular on a small rise south-west of the main mound and also to the south-east. It remains difficult to establish certain contemporaneity between the local and intrusive southern areas of settlement, but it might be tentatively proposed that these outer settlements were merchants' colonies of a type similar to the Old Assyrian *kārum* which were also established among large indigenous populations.

Conclusions

The world's earliest urban societies are widely thought to have originated in fourth-millennium BC southern Mesopotamia. Recent research at Brak and other north

Mesopotamian sites, however, reveals a level of nascent social and economic complexity together with proto-urban growth up to 1000 years earlier. For the moment, Brak remains unique in three respects – the size of its fifth- and early-fourth-millennia areas of settlement, the range and types of contemporary 'public' buildings and the accompanying, long sequence of well-stratified archaeological materials from this most crucial period in the growth of complex urban society, a phase that has recently been referred to as already representing a 'state-level' (Gibson & Maktash 2000: 477). As yet, no other large site, indeed no other Near Eastern site, has yielded comparable evidence, though such may ultimately be found at Hamoukar where the apparent spatial extent of the outer ENU settlement covers an area even larger than that at Brak. This is not to argue that such developments will never be discovered in southern Mesopotamia, only that there exists a wider picture, far more complex than had previously been realised.

The discovery in 2006 of large workshops with an extraordinary array of non-local raw materials promises further evidence of complexity in earlier levels below. Certainly we have yet to reach the earliest phases of such social and economic innovation. Indeed current evidence suggests that the initial stimulus may originate in the underlying 'Ubaid period, itself currently subject to 'north-south' debate and, to judge from Area CH and out-of context evidence, undoubtedly well-represented at Brak. The 2006 results also help to make sense of the unparalleled grave goods from an approximately contemporary cemetery at the very small site of Tepe Gawra in north-eastern Iraq, which included gold studs and rosettes, an electrum wolf's head and complete vessels of ground obsidian (Tobler 1950), symbols of an elite that up to now has been ill-represented in the archaeological record. Unfortunately, the Brak cemetery continues to elude us. Indeed the negative evidence of the intensive 'suburban' survey suggests that it may lie well beyond the settlement boundary. In writing of the development of complex society in southern Mesopotamia Gil Stein (1994) emphasised the importance of small scale, irrigation-based 'Ubaid polities using *'inclusive ideologies emphasizing group membership through a strategy of ritually mobilized staple finance'*. This is in contrast with areas where *'wealth distribution'*, not so far visible in the southern evidence, played a crucial role. Our work at Brak suggests a complex combination of both strategies. The location of Brak within later Assyria's most dependable 'granary' and a wool-rich steppe, together with the 2006 evidence for accumulation of 'status raw materials' and the unique 'chalice' itself, suggest that developing complexity in the north involved both 'staple finance', though here not apparently 'ritually' mobilised, together with a considerable degree of 'wealth distribution' seen in the elite grave goods at Gawra and in their 'institutional' manufacture at Brak.

We must admit to some difficulty in defining more precisely our use of the term 'urban'. Certainly definitions of urbanism that remain applicable cross-culturally present problems. Childe's 1950s list remains influential despite the many cases which seem differentiated in some way from those around them but which fail in some or all of Childe's categories. Recent work seems to accept urbanism as a more fuzzy concept, characterised by a cluster of variables that are best considered along axes of degree rather than simple presence or absence. What is clear from our evidence is the differentiation of a site like Brak from those in its hinterland (now subject to a wider survey, Oates 2005: 28-35). Moreover, in terms of a significant number of Brak's residents, their *'activities, roles, practices, experiences, identities and attitudes'*

(Cowgill 2004: 526) do differ significantly from those of other, smaller sites in the region. The evidence presented here for monumental and specialised buildings, non-residential craft activity, administrative practices and, not least, its great spatial extent, surely qualifies Brak as 'urban' if that term is to have any meaning. Certainly the trajectories of urban growth based on the intensive surface collection in the outer town show that alongside the emerging manifestations of social complexity revealed by the excavations, Brak was attaining a spatial, and presumably also demographic, scale previously unsuspected for 'backward' northern Mesopotamia, and apparently centuries before such developments appeared in the south or elsewhere in the Near East.

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