

# LES ANNALES ARCHÉOLOGIQUES ARABES SYRIENNES

MINISTÈRE DE LA CULTURE  
DIRECTION GÉNÉRALE  
DES ANTIQUITÉS ET DES MUSÉES  
RÉPUBLIQUE ARABE SYRIENNE

---

# PRELIMINARY REPORT ON THE 2002 AND 2003 SEASONS OF THE TELL BRAK SUSTAINING AREA SURVEY

**Henry T. WRIGHT, Eric S.A. RUPLEY, Jason UR, Joan OATES and Eyad GANEM**

*Université du Michigan (USA); Université de Chicago (USA); Université d'Oxford (Angleterre); DGAM (Lattaquié)*

*The first and second seasons of the Tell Brak Sustaining Area Survey took place in the autumn of 2002 and 2003, over seven weeks from mid September through the beginning of November.*

## INTRODUCTION

In 2002 our efforts were focused on the immediate neighbourhood of Tell Brak up to a seven km radius from the site itself. In 2003, with the issuance of a new permit, we extended north and west to a radius of 15 km, increasing our coverage to nearly 500 km<sup>2</sup>. Over the two seasons a total of 268 sites have been identified (Figure 1). During the 2003 season, an intensive investigation of the outer suburbs of Tell Brak was also initiated. The survey is part of the wider Tell Brak Project under the overall direction of Professor David Oates, whose death on the 22nd March, 2004, we report with sadness. He will be sorely missed. The survey itself is directed in the field by Professor Henry

Wright with the assistance of Eric Rupley, Jason Ur and (in 2003) Helen McDonald, Phil Karsgaard and Harriet Martin. We were further ably assisted in the 2003 season by Fahed Juma and Chris Martin. In 2002 Geoff Emberling, Joint Field Director of the Tell Brak Project together with Helen McDonald, came with us to Damascus and Hasseke to oversee the preparatory stages of the project. Professor David and Joan Oates joined us for part of both seasons. Throughout both seasons, we were incomparably aided by Sd. Eyad Ganem, Representative of the Directorate General of Antiquities and Museums, Damascus. We also wish to thank most warmly Dr. Tammam Fakouch, Director General, Dr Michel Al-Maqdissi, Director of Excavations, and Dr. Abdul Razak Mouaz, former Director-

General, of the Directorate General of Antiquities and Museums, Damascus, for their friendly and unfailing assistance and support. We also wish to thank Sd. Abdul Messih al-Baghdo, Director of Antiquities for Hasseke Province for his continuing efforts on our behalf.

### THE SETTING OF THE SURVEY

The Khabur Plain constitutes the largest tract of land in Upper Mesopotamia suitable for dry farming, although today it suffers unreliable winter rainfall and fierce summer heat, especially toward its southern margins. At the present day the plain receives only erratic and seasonal water from several small streams originating in the Tur Abdin massif to the north or from springs in the foothills, while the flow of the Khabur River itself, as well as its largest tributaries, suffers from the effects of pumping for irrigation. At times rainfall is adequate for grain cultivation and the sustenance of sheep and goat herds throughout the plain. At other times, only the northern third of the area receives sufficient rain for reliable crops. Evidence from ancient times suggests long periods of more reliable moisture, and the Khabur plain can be viewed as a microcosm of the north Mesopotamian Jazira with both its potential and its risks.

This plain is important for archaeologists because of the variety of past cultural processes that can be studied within its bounds. Criss-crossed by several important ancient routes (Oates 1977), it is an area in which relationships between changes in inter-regional exchange and in social complexity can be investigated (Stein 1999). As a key province in successive imperial domains, its settlement patterns can also provide indices of the degree of imperial control of agriculture and transport, as well as in the defense of frontiers (Oates 1968). The primacy of Brak (ancient Nagar) is understandable as a response to its 'gateway' position (Burghardt 1971) at a major wadi crossing and the intersection of east-west and north-south routes; its gateway role is also reinforced by its position within a narrow band of separation between the fertile heart of the Khabur basin to the north of Brak and the zone of marginal cultivation to the south (Brak 2, Ch. 1). Moreover, cities like Brak occupy a position of control between the well-watered Khabur heartland and the increasingly arid lands to the south and may have

functioned as an interface between semi-nomadic pastoralists and urban agrarian economies (Wilkinson 1994; 2000); indeed the importance of wool in the economy is especially noticeable in the fourth millennium evidence from the site (Weber in Emberling & McDonald 2003; Oates 1993).

### PREVIOUS ARCHAEOLOGICAL SURVEY NEAR TELL BRAK

The Khabur plain was first systematically surveyed during the 1920s by Père Poidebard of the Mission Archéologique en Syrie (1934), with a special emphasis on forts and roads which he believed to date from the period of Roman imperial control. Later in the 1930s Max Mallowan surveyed some of the larger sites in the area of Brak and Chagar Bazar (Mallowan 1936, 1937).

Nearly forty years later, several surveys have been initiated under the direction of David Oates, the first by Oates himself in 1975, with the assistance of Sd Kassem Tuweir of the Directorate-General in Damascus, when Brak was selected for further excavation. In 1978 Kate Fielden recorded a number of fourth millennium sites in the general area of Brak (reported in her dissertation, Fielden 1981). In the late 1980s a more comprehensive survey was initiated under the Brak Project and carried out by Jesper Eidem and David Warburton (1996). This survey focused especially on sites near the Wadi Jaghagh and was chronologically more comprehensive. The Oates also re-examined a number of Poidebard's Roman sites; their observations are published in the Adnan Bounni Festschrift (1990).

### SURVEY METHODOLOGY

While the limited length of this communication precludes a full discussion of our methodology, we wish to mention several key elements. It is our intention over four seasons to unite observations of the Tell Brak region to include identification of both multi-component and small single-period sites as well as landscape features of archaeological relevance, to identify changes in local settlement patterns and to anchor archaeological observation of the Brak local area within a comparative, regional framework. We wish to stress the importance of this last point: surveys focused on the sustaining area of

a major site, such as the work at Brak or Hamoukar, require comparison with other surveys for their effective interpretation. Thus, a primary concern has been to assure methodological comparability with other surveys within the Khabur watershed (Wilkinson 2000), in particular those around Tell Beydar, Tell Hamoukar and Tell al Hawa (Ur 2002b; Wilkinson 2002a, b; Wilkinson and Tucker 1995). Our survey method involves six aspects: (1) initial site identification, (2) definition of site boundaries, (3) sherd collection, (4) landscape observation (5) typological analysis, dating and curation of ceramics, (6) storage of collections.

**Initial site identification:** Prior to collection, possible site locations are identified by various means, including the use of Corona and other photographs taken before modern agricultural development. These techniques are supplemented by the use of internationally available Landsat data and GIS software. This combination of techniques with the use of infrared bands to highlight soils characteristic of human occupation has enabled our identification not only of sites of very small size but also those which are without relief or have been largely destroyed owing to ploughing and erosion. Our recovery record is thus closely comparable with that of surveys based on intensive field-walking (Fish and Kowalewski 1990; Wilkinson et al. 2003).

**Definition of site boundaries:** Collection boundaries are determined by consensus among team members walking transects, based on the following observational criteria: extent of surface remains, primary ceramic scatter, local topography and soil characteristics. In conformity with the surveys of Wilkinson and Ur, sites are defined generally as associated with ceramic densities greater than 2-3 sherds per 10 m<sup>2</sup> (Ur 2002a; Wilkinson and Tucker 1995). In practice, boundary changes in ceramic density are assessed against local background, to ensure that low density sites such as campsites are included.

**On-site collection:** Within the boundaries of a site, sectors for collection are defined principally by topography and obvious differences in ceramic scatter; within each sector all visible diagnostics are collected.

**Landscape observation:** Observations on site morphology as well as proximity to landscape fea-

tures are recorded. Existing cuts revealing site stratigraphy are drawn. All identified sites are mapped with GPS at 1:200 and located on our overall map using a UTM Zone 37S, WGS 84 coordinate system. The presence of so-called 'hollow ways' (traces of ancient track-ways) observed on the Corona and satellite images (Wilkinson 1993) are confirmed by surface observation. In 2002 and 2003, several potential canal beds near the Wadi Jaghjagh were recorded, as were sequences of alluvial deposition from bank cuts within the bed of the Jaghjagh.

**Analysis and storage of ceramic collections:** Twenty-five years of continuous excavation at Tell Brak and other sites in the area provide an almost unbroken stratigraphic sequence covering more than eight thousand years, upon which our analysis of collected ceramics is founded. The excavations at Brak itself provide a fairly complete stratigraphic sequence from the late fifth to the late second millennium BC. For earlier periods we depend on reports from Halaf and 'Ubaid sites elsewhere in eastern Syria and in nearby northern Iraq. For succeeding Middle Assyrian to Parthian periods, we will soon have the evidence from nearby Tell Barri (Pecorella 1997; 1999a; 1999b; 2000), and there is other relevant evidence from northern Iraq (e.g. C. Postgate et al. 1997; Oates & Oates 1957, 1958) and from preliminary studies elsewhere in the Khabur region. Our initial recording methods follow those of Wilkinson, Tucker (Ball et al. 1989; Wilkinson and Tucker 1995) and Ur (2002b), revised with the help of advice from Joan Oates. A particular phase of occupation is confirmed when two or more diagnostic types are identified. All site collections are washed, recorded, bagged and stored at Tell Brak to enable further study as our chronology is refined.

## CERAMIC CHRONOLOGY AND SETTLEMENT EVIDENCE

THE FOLLOWING ARE KEY RESULTS OF OUR FIRST TWO SEASONS OF SURVEY:

**Palaeolithic and Epipalaeolithic Evidence.** In 2003, we found our first definitive Palaeolithic specimens -- Levallois flakes with faceted platforms of Mousterian affinity -- on gravel knolls in the north and northwest portions of our survey area.

In addition we recorded two low mounds close the Jaghjagh, composed of burnt stone with small

blades and microblade industries including baked and truncated blades, denticulated blades and small notched projectile points. The material seems to be most similar to earlier or middle Pre-Pottery Neolithic B assemblages (Eric Coquengniot, personal communication).

Seventh to Fifth Millennia BC (Halaf and 'Ubaid). In 2003, the survey found proto-Hassuna and Samarran-related sherds, including so-called Orange Ware, on sites to the north of Brak.

Succeeding Halaf ceramics have distinctive fine brown to buff clay bodies with few inclusions, and a consequent blocky fracture. Forms include a range of straight-necked jars and hemispherical, shallow or carinated bowls. A substantial minority of these sherds have reddish-brown to grey painted designs. Several successive Halaf phases are probably represented. Within the area surveyed to date, 32 Halaf sites have been recorded (Figure 2). They are distributed widely on the plain. Most are relatively small, less than one hectare. In contrast are several larger sites (2-3 ha) on the northern periphery of the survey area. As yet, we have no way of estimating the size of Tell Brak during Halaf times, though judging by the quality and quantity of the pottery it was not then an insignificant site.

In contrast to Halaf, 'Ubaid ceramics along the Jaghjagh have buff to reddish clay bodies with sand and/or vegetal inclusions. Identified forms include a range of straight- or flared-neck jars and hemispherical, shallow or incurved bowls. In better preserved assemblages a substantial minority of the sherds bear reddish-brown to black painted designs, including bold horizontal lines, curved lines and geometric motifs. A total of 63 sites have been recorded with 'Ubaid ceramics. Many are similar in size to the sites of Halaf attribution. We have also identified several distinctly larger, multi-mounded 'Ubaid sites (for example BKS-65 or BKS-98-100). These possibly mark distinctly larger 'Ubaid communities, though further assessment of the ceramics may reveal that different mounds were occupied at different periods within the 'Ubaid time span. Again, we cannot estimate the size of the 'Ubaid site at Brak.

Late fifth to early third millennia BC (the Uruk and Post-Uruk periods). The ceramics of the late

fifth and very beginning of the fourth millennium, long known from excavations at Gawra (Tobler 1950), are of diverse fabrics, including fine buff pottery, grey wares with sand or limestone inclusions, buff and green wares with some vegetal inclusions and soft buff or brown wares with heavier vegetal inclusions. Among the commonly recognised forms are fine ware beakers, bowls with inwardly beveled or internally or externally thickened rims on fabrics with vegetal inclusions, hole mouth jars usually of grey or red fabric, large heavy 'channel rim' jars and rough, shallow bowls with heavy vegetal inclusions. By this time the expansion of Tell Brak to become the dominant centre of the region was well underway, and at least 82 sites other than Brak had ceramics of this Northern Early Uruk assemblage (Phase E, Brak 2, xxx). Preliminary assessment of the sizes suggests a settlement hierarchy with a major centre at Tell Brak, a few small centres or town sites of 5-7 ha, large villages of 2-3 ha and small village sites of about a hectare.

The Early Northern Uruk assemblage appears to have developed gradually into the distinctive mid-fourth millennium assemblage (Brak Phase F) well described from Tell Leilan (Schwartz 1982), Kurban Höyük (Algaze 1990) and Brak itself to which the term 'Northern Middle Uruk' has been applied (Oates and Oates 1993). A variety of bowls and jars were made of a very fine buff fabric, including small hemispherical and carinated bowls and small jars with flared rims. More common are vessels made of brown or reddish fabric with copious vegetal inclusions, perhaps from the addition of dung to the clay. Most of the latter have been wet-smoothed and even burnished, exposing the organic fragments on the surface and giving rise to the Braidwoods' term 'chaff-faced ware' (Braidwood and Braidwood 1960). Among the open forms are small shallow plates, large shallow bowls with thickened 'hammer-head' rims, and carinated open cooking vessels ('casseroles'). Among the closed forms are medium to large jars with flared thickened rims and band rims, often with multiple grooving inside the neck. Such grooving is also found in fine ware jars. The urban centre at Brak reached its largest extent during this phase, covering the entire main tell and at least 5 subsidiary mounds, while 92 sites within the survey area produced ceramics of the Northern Middle Uruk assemblage (Figure 3). Preliminary assessment



of the sizes suggests a settlement hierarchy similar to that of the early fourth millennium. Examination of the settlement distribution map for the mid-fourth millennium shows that sites cluster in a rough ring 3 to 8 kilometres from the edge of the large settlement complex at Brak, with few sites on the right bank of the Jaghjagh close to Brak. This relatively empty area may have been the zone intensively cultivated by the inhabitants of Brak itself.

Occurring occasionally in mid-fourth millennium contexts and replacing the local pottery at Brak by c 3400 BC is a buff ware assemblage with sand inclusions, a fabric derived from the Uruk pottery of Lower Mesopotamia (Brak Phase G). Common forms include wheel-thrown conical cups, hemispherical bowls with rounded or obliquely cut rims and a diversity of jars with straight or flared necks and simple rounded, ledge, oblique-cut or collared rims, often with handles, perforated lugs or spouts. Bottles with drooping spouts are particularly notable. Characteristic decoration such as horizontal or cross-hatched incising or black-on-red painted designs, all found on jar shoulders, are relatively uncommon; the former are also found at Brak in early Phase H. A soft ware with vegetal or limestone inclusions is used to make both 'beveled rim bowls' and wheel thrown vessels termed 'flower pots'. Beveled rim bowls are also found with the mid-fourth millennium assemblages and are best viewed not as characteristically 'Uruk', in a southern sense, but as a widely-used mass-produced form. Southern Late Uruk pottery was identified on only 14 sites, most small with only a few Uruk sherds. There were three larger sites of this date with diverse ceramic assemblages, BKS-124 to the north, BKS-76 to the southeast and BKS 163 to west of Brak. At this time the main settlement at Brak may have been an actual southern 'colony'. A question that remains to be answered is whether Brak and the 13 rural sites were the only settlements of Late Uruk times, or whether there were other contemporary sites continuing to use a later version of the (local) Northern Middle Uruk ceramic assemblage.

During the late fourth millennium (Jamdat Nasr) and early third millennium at Tell Brak itself we have excavated a phase (H) following the Late Uruk settlement, with small quantities of Jamdat Nasr bi-chrome and other shapes identical with those from

the southern repertoire. Local types, which continue well into the third millennium, include very distinctive small cups and bowls, tab-lugged jars and 'proto-Ninevite 5' together with a few southern 'ED I' types, including reserved slip ware (Oates & Oates 1991, Area TW). A distinctive type of beveled rim bowl is also found.

Possible Jamdat Nasr ceramics are known on only one site other than Tell Brak, BKS-75, lying southeast of Brak on the route to the Sinjar area and thence toward lower Mesopotamia. The recognition of this late-fourth early-third millennium phase among surface sherd collections has up to now proved difficult, but further study of the collections should reveal other examples.

Ninevite 5 (second quarter of third millennium, Brak Phases J,K). The succeeding Ninevite 5 ceramics are known from many excavations in eastern Syria and northern Iraq and are well represented at Tell Brak (Brak 2; Matthews 2003). The most distinctive vessels are those of a fine greenish-grey ware, often small cups with beaded rims and distinctive ogee-curved bases or vessels with easily recognised incised or (later) excised designs. Easily recognised also are cooking jars with coarse crushed rock inclusions, often with crescentic lugs and decorated with deeply jabbed impressions. Relatively few sherds of Ninevite 5 painted ware have been found among the survey collections, though a number have been recovered at Brak itself. Among the sites surveyed up to now 40 have produced Ninevite 5 ceramics. In addition to the large centre at Brak, with possibly 40 hectares of occupation, there was another substantial settlement 14 km north of Brak on the Jaghjagh, Tell Shaikh Names, BKS 242, with about 5 ha of Ninevite 5 settlement. Among the smaller sites, many are conical mounds, 15-20 metres high, on which the sherd distributions tend to indicate thick Ninevite 5 deposits. Lower outlying sites are often found near these high mounds. The settlement distribution is striking, sites being evenly spaced north and east of Brak, west of the Jaghjagh and between the Jaghjagh and the Radd.

Late ED III, Akkadian, and Post Akkadian (c. 2500-2000 BC; Phases N-L). This period of time is represented by large and well-studied excavated assemblages from Tell Brak (Brak 2). Fine grey wares, highly fired stone wares (Kühne and Schneider 1988)

and a range of buff wares with sand inclusions ranging from fine to coarse, often with a trace of vegetal inclusions, are attested. Throughout these periods, common forms include conical cups, large bowls with flattened rims, medium banded-rim jars, and large jars with folded or thickened rims. Among the surveyed sites at least 90 produced ceramics of the later Early Dynastic III, Akkadian or Post-Akkadian periods. By this time (and probably much earlier) we know that Brak was ancient Nagar, the capital of a regional state controlling much of the central Khabur Plain. During the Akkadian period it became a major imperial administrative centre. On the rural sites, sherds of these periods comprised only a minority of our survey collections and were often weathered. Many of these sites are, however, quite large, for example BKS-48, BKS-98-100, BKS 210 and BKS 220, which had long histories of occupation before and after the late third millennium. In addition to the usual range of small mounds, there are several very small sites, probably farmsteads or hamlets, and isolated third millennium sherds are often found. Within the area surveyed up to now, the largest settlements lie to the north of Brak; settlement is also dense to the east of the Jaghjagh and to the west along the Wadi Khanzir.

A number of distinctive very late third to early second millennium ceramic types are known from Tell Brak, but these have not proved easy to distinguish among surface sherds (even on Brak itself). Most easily recognised is wavy combing on the shoulders of large jars or urn-like vessels. Although this type occurs at Brak, it has been found only at a few surveyed sites along the Jaghjagh. Only further study will show whether there were genuinely fewer rural settlements at this time, or whether the very distinctive pottery types of this date found at Brak were more commonly used in the urban centres where there continues to be evidence of large-scale settlement (for example Brak itself, Mozan, Hamoukar, Chagar Bazar).

Middle – Late Bronze (Old Assyrian to end of Mitanni, c. 1850-1280 BC; Brak Phases P,Q). The most distinctive pottery of this period, Khabur painted ware, was defined by Mallowan at Brak (1947), but recent studies (Brak 1; C. Postgate et al. 1997) provide both broader and sharper definition. The date of the earliest Khabur ware remains a matter of debate, but evidence from Brak clearly indicates a

century or more of early second millennium occupation before the introduction of this very common and distinctive painted pottery. The fabric depends in general on the type and content of vessels. The most common surface finds—jars with thickened rims and carinated bowls, bearing horizontal brown or reddish painted bands, simple geometric motifs and horizontal grooving -- continue well into Mitanni times. Note also that painted Khabur ware was entirely absent from the final phase of Mitanni occupation at Brak (late 14th century).

At least 74 sites produced Khabur ware. These sites are evenly spaced along the Jaghjagh and the Radd, but are less common on the surrounding plain. Most of these sites are small, but there are also a number of substantial settlements, particularly south of Brak. At this time Brak appears to have diminished in size, though it remained a walled city.

Mitanni ceramics recognized in surface assemblages are commonly of a fine ware used for small jars, bowls (often of types that occur also in late Middle Bronze contexts) and beakers with pedestal bases. A number of types bear designs in black or brown paint on a buff surface or in white paint on a brown or red slip ('Nuzi ware'). Rare among surface assemblages but common at Brak itself are shallow bowls with red bands around the rim (a type found also in Middle Assyrian contexts). In terms of the survey it is difficult to establish whether sites are of late Middle Bronze or early Late Bronze date, since the pottery, other than the relatively rare Nuzi ware, is virtually indistinguishable. Further refinement of our survey data should allow a more precise attribution of the second millennium sites.

At least 38 sites had Mitanni fine wares. Most also had Khabur ware. The larger Khabur ware sites to the south may have been abandoned in the Late Bronze Age, but this observation needs confirmation given the difficulty of distinguishing Middle and Late Bronze Age Khabur ware. Brak itself, however, expanded at this time, on the plain to the north and northwest of the main tell.

Late second millennium BC (Middle Assyrian; Phase R). In this period the larger vessels are of a heavy buff to green fabric, the most characteristic form being a large pot with square rim. Very distinctive carinated small bowls with outward fla-

ring sides are made of a finer grit-tempered buff to brown fabric. Jars with rounded, collared rims and shallow bowls continue from Mitanni times.

Regrettably, Middle Assyrian occupation at Brak has largely eroded from the uppermost area of the tell, but within the area intensively surveyed in 2002 and 2003 at least 93 sites produced ceramics of this period, possibly indicating a recovery of rural settlement to a level similar to that of the mid-fourth millennium. There is also a substantial town site, BKS-28, on the Jaghjagh southwest of Brak. Most settlements, however, are small and clustered along the Jaghjagh.

First Millennium BC (Neo-Assyrian, Neo-Babylonian, and Achaemenid, c. 900-312 BC). The ceramics of the early Iron Age are diverse. We are fortunate to have recent synthetic studies of the broader region (Hausleiter and Reiche 1999), but still need a comprehensive publication of samples from nearby sites. These ceramics have a range of buff brown and reddish colours with fine sand and vegetal inclusions. Our samples included large shallow bowls, sometimes carinated, with thickened rounded rims, often with a single exterior groove. There were also a variety of jars with rolled over, rounded rims on slightly flared necks. These jars often had a distinctive swollen, convex, 'knob' base.

At least 141 sites had Neo-Assyrian ceramics (Figure 4). This is the largest number of sites recorded from a single period within the Brak sustaining area. The rural sites are relatively large and closely spaced, and the right bank of the Jaghjagh is no longer avoided, despite the continuing occupation of Brak at this time. Two towns are situated on the Jaghjagh west of Brak, BKS-27-28 surviving from Middle Assyrian times, and BKS-53, newly re-established on the other side of the river.

Our ceramic knowledge for the time dominated by the Neo-Babylonian and Achaemenid dynasties is unsatisfactory. There is a range of fabric colours, with sandy inclusions increasingly predominating. Rolled rim jar forms continue, some with multiple exterior grooves. Also associated is a hole mouth jar with grooves on the rim. Heavy-rimmed bowls continue, often with multiple grooves on the top of the rim.

Possible types dating from this mid-first millennium phase have been recognized on 90 sites. The

distribution of small sites resembles that of the preceding period but the traces of occupation on larger town sites are irregular, possibly because these late deposits are more eroded.

Late First Millennium BC (Hellenistic, c. 300-146 BC). For this period, in contrast with the preceding phase, there are a number of common and well-defined types. There are a range of fabric colours usually with fine sand or calcite inclusions and fine wares with few inclusions. Common forms include small incurved bowls, often with a reddish or grey streak paint or slip, and a jar with folded rim often with the appearance of a grooved collar and occasionally red paint. Finer ware shallow plates with ledge rims and ring bases often have a red slip.

The distinctive Hellenistic ceramic assemblage was found at 87 sites. Many new settlements were established at this time, and the banks of the Jaghjagh were continuously settled. Although there are now within the survey area some large sites with several component mounds, for example BKS-20, there are no sites that might be described as towns. An unusual square fort of Hellenistic date, 200 meters on each side, on the Jaghjagh west of Brak (Khirbet Rashid, BKS-27) has been repeatedly examined, confirming that the associated material is Hellenistic (Oates & Oates 1990, 238).

Parthian-Roman (146 BC - AD 360). Parthian ceramics are typically made of a distinctive light-coloured, hard, finely sand-tempered fabric. Straight jar necks with a groove on the exterior of the rim often have deeply grooved strap handles. There is a small fine ware version of this form. The Hellenistic jar with folded rim develops into a low-grooved collar form with flattened lip. A common and easily recognised indicator of Roman/Parthian occupation is an array of diamond-shaped impressions, usually on jar shoulders. This distinctive decoration is firmly dated at Hatra and Ain Sinu in the first half of the third century AD, but may also be earlier or later (Oates and Oates 1959). Particularly distinctive is the finely ribbed cooking ware. The equally distinctive light-blue Parthian glaze, though known in this area, is rare in surface assemblages.

Historically, Tell Brak was near the easternmost frontier of the Roman empire (Oates and Oates



1990), and at least 96 sites had ceramics from the period of Parthian and Roman control (Figure 5). The overall pattern of settlement is broadly similar to that of the preceding Hellenistic period, with sites distributed throughout the survey area, though many of the Roman sites appear to have been new foundations. There are several large sites, some with multiple mounds (for example BKS-130). Recognizable Roman ceramics – pithoi, mortaria, amphorae, and Arretine ware plates – have been found only on the Saibakh barracks (BKS-95, Figure 5, lower right) and nearby satellites along the Jaghjagh. Sites at this time have again moved close to Brak, with at least one small settlement to the northwest of the main tell and a rectangular fort or castellum of probable Roman origin just to the northeast (BKS-1C, see Oates & Oates 1993, fig. 39). Most of the surface pottery here and in the surrounding fields is Byzantine or Islamic. The castellum is probably Thebeta, identified on the Peutinger map on the road from Nisibis to Singara, modern Beled Sinjar (Oates & Oates 1990, 235-6).

Sassanian to late Islamic. While we can easily recognize the distinctive and widespread glazed wares of these periods, they are unfortunately rare on sites in the Brak area. The plain wares are varied and such common elements as handles will probably provide a means for dating even the most modest sites. This material is still under study, and it is

our intention to produce a more detailed classification in the future.

## CONCLUSION

Our survey and analyses are still incomplete; the density of sites within the Brak sustaining area is high, and we hope to carry out two more seasons of field survey. Geoarchaeological work, necessary to place the identified settlement patterns within a landscape context, will continue. Ongoing stratigraphic analysis of the excavated material from Brak itself will also expand our understanding of the ceramic sequence in the Khabur area and thereby increase our understanding of settlement and land use “in the shadow of Brak”.

We wish also to mention the current threat to many sites from modern agriculture and construction. We ourselves have witnessed major depredations, which our representative, Eyad Ghanim, was able to stop, for example clay removal at BKS-115 and massive bulldozing at BKS-90. It is the steady encroachment of modest houses and ploughing, however, that most threatens sites. We hope that we can contribute to future efforts to preserve sites and especially to inform local people of the legacy of their landscape before additional damage is done.

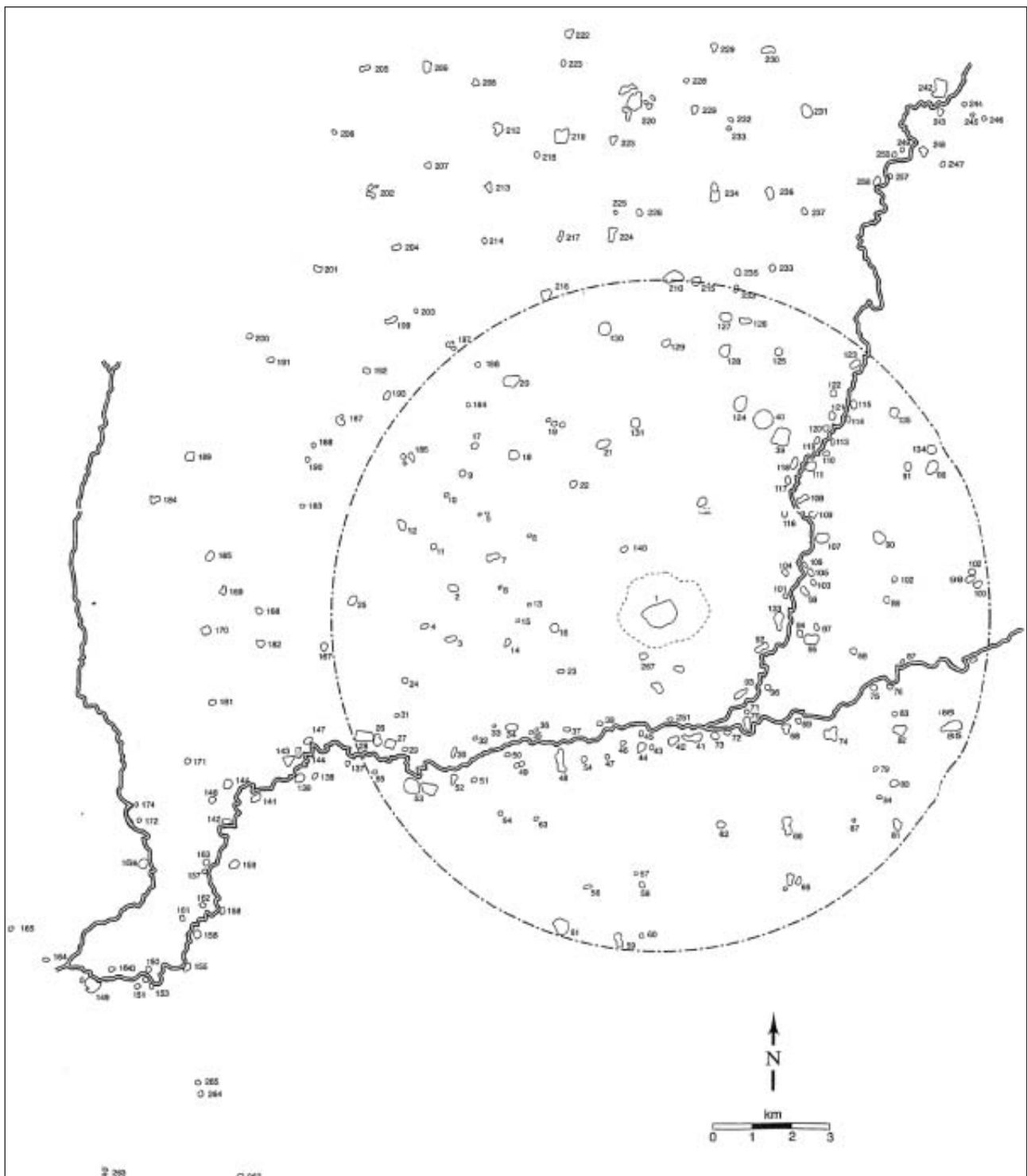


Fig 1: Sites from 2002 and 2003 seasons

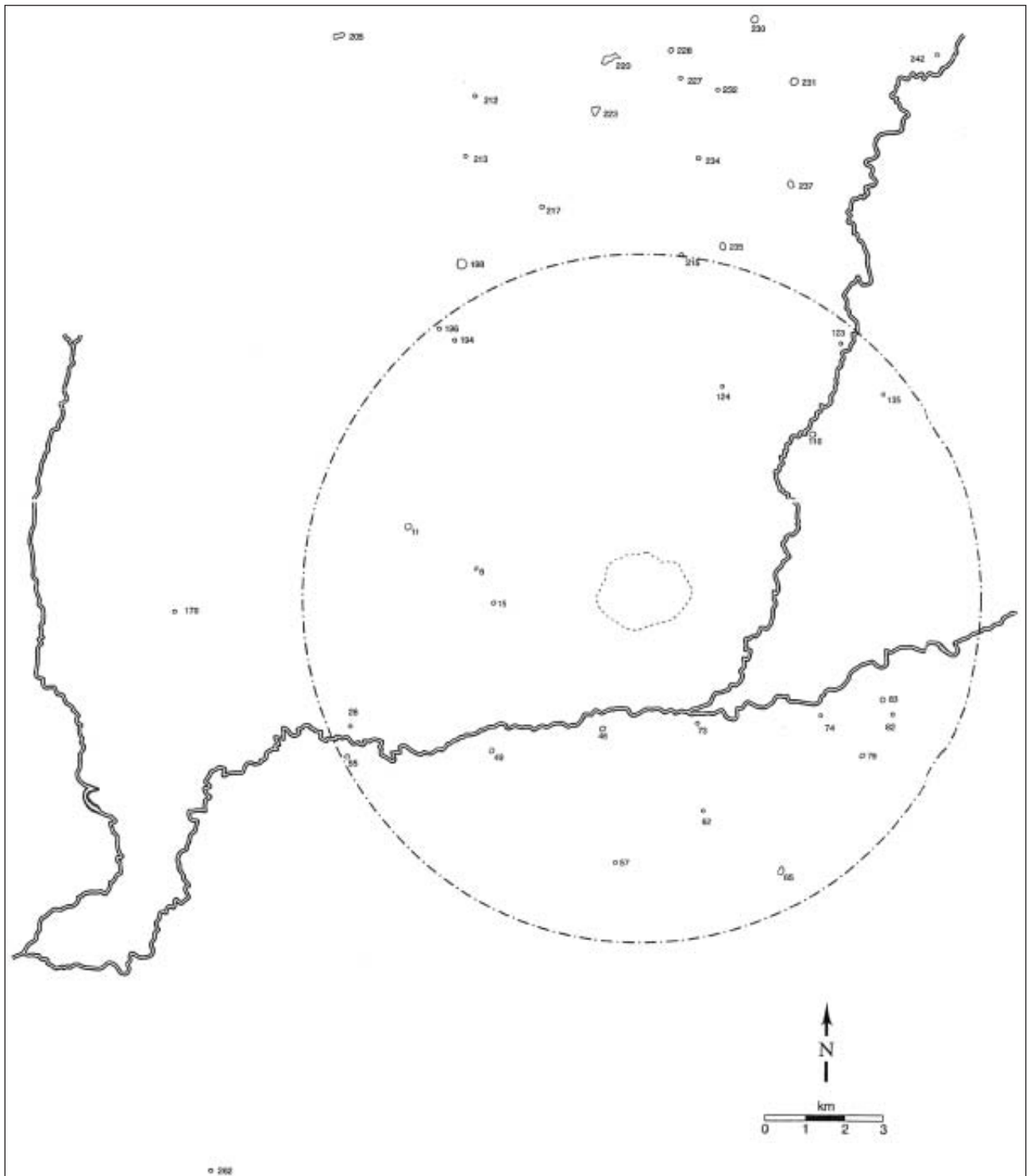


Fig 2: 6th Millennium BC

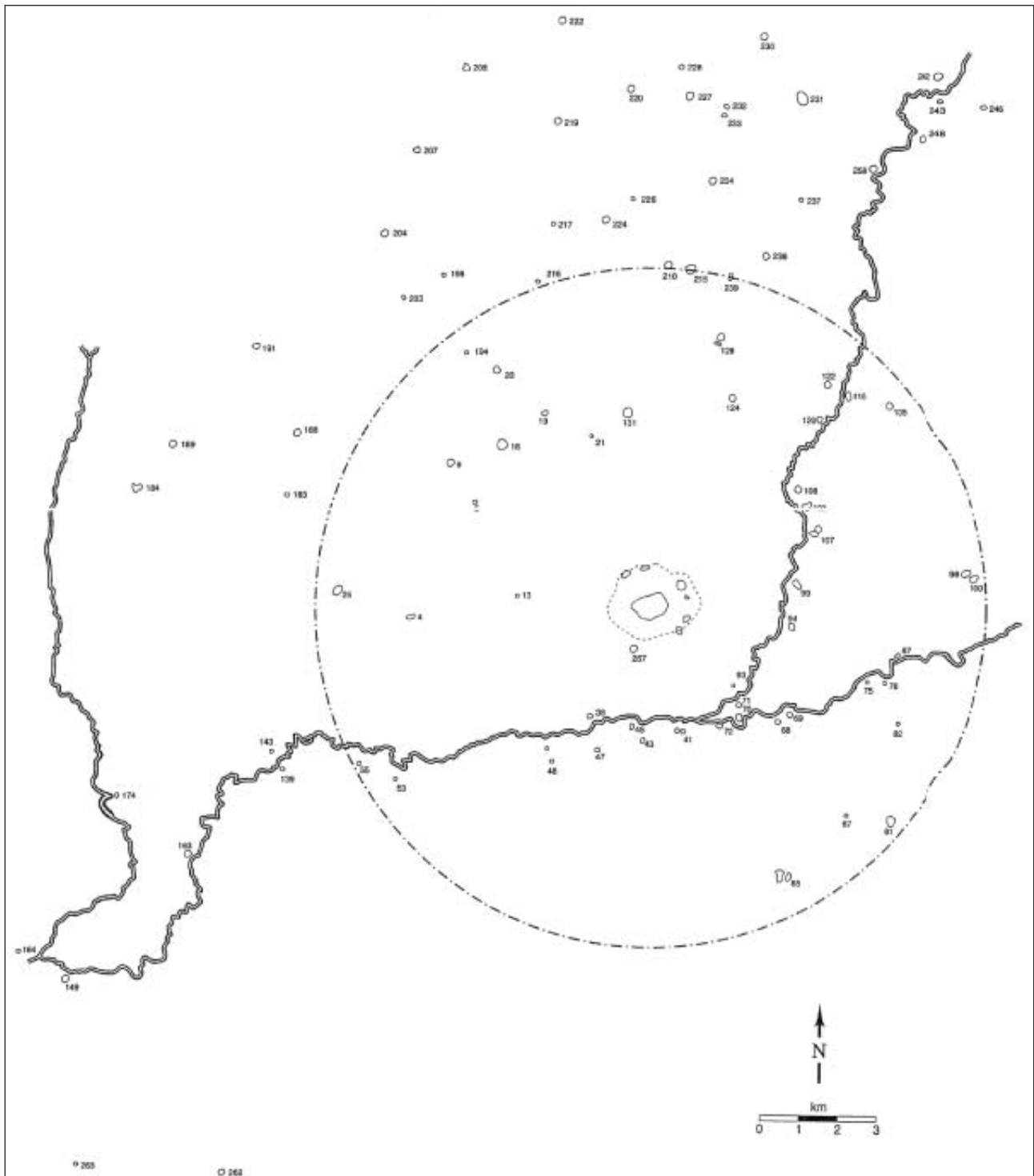


Fig 3: Mid 4th Millennium BC



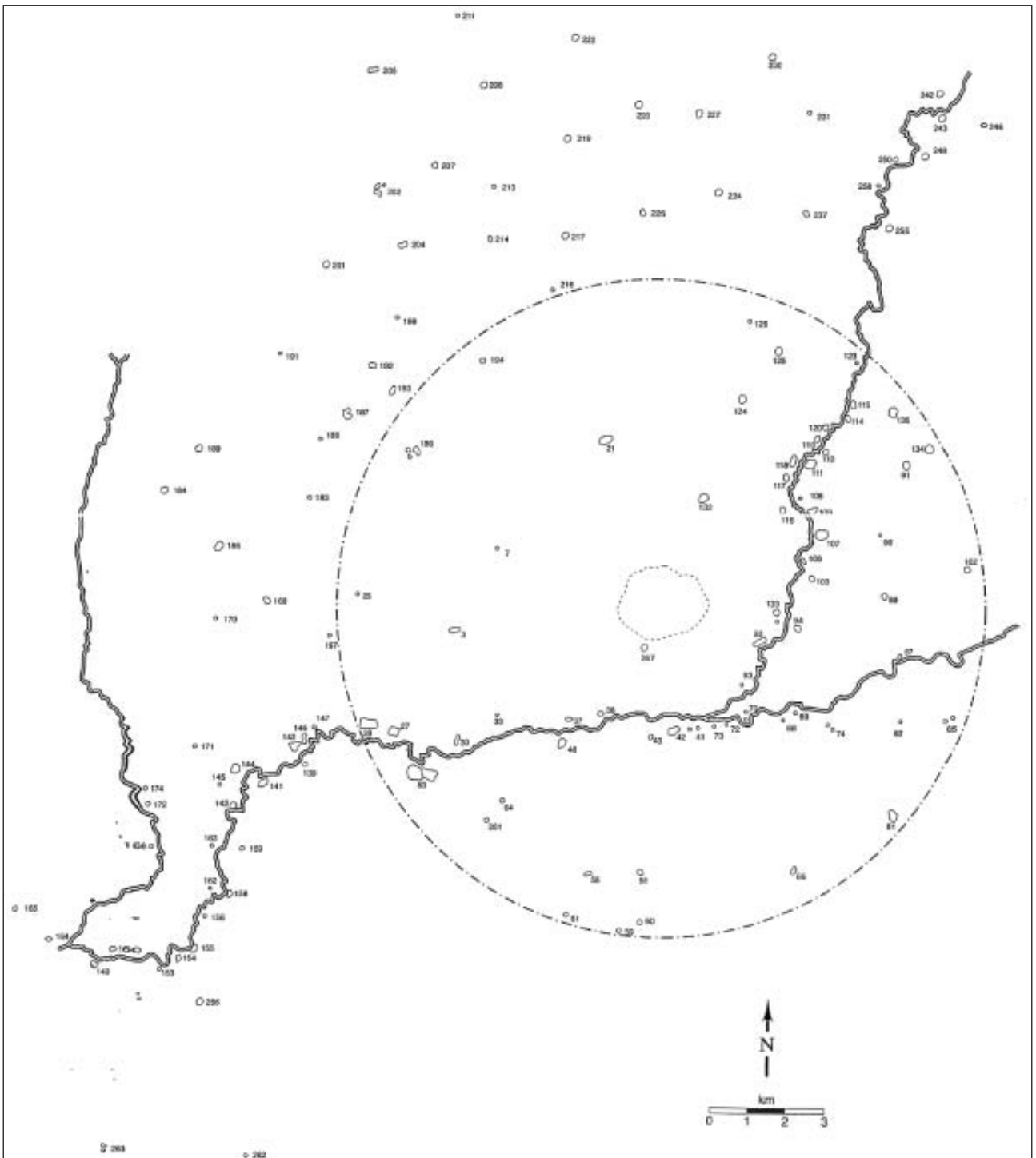


Fig 4: Early-Mid 1st Millennium BC

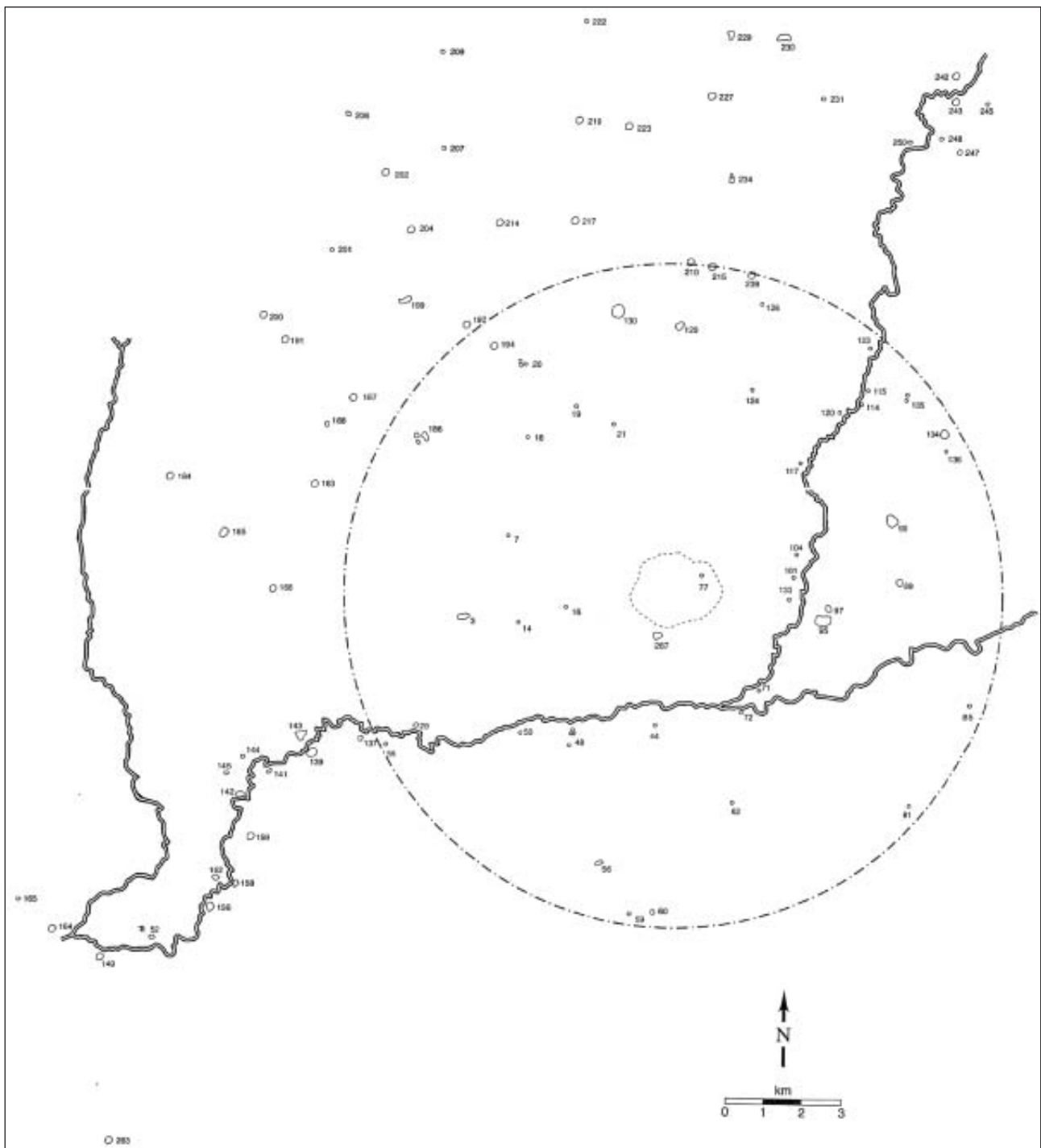


Fig 5: Early 1st Millennium AD

## REFERENCES

- Brak 1 = OATES D., OATES J. & McDONALD H., 1997, *Excavations at Tell Brak*, Vol. 1: *The Mitanni and Old Babylonian Periods*. Cambridge: McDonald Institute Monographs.
- Brak 2 = OATES D., OATES J. & McDONALD H., 2001, *Excavations at Tell Brak*, Vol. 2: *Nagar in the third millennium, BC*. Cambridge: McDonald Institute Monographs.
- ALGAZE G. (editor), 1990, *The stratigraphic sequence at Kurban Höyük*. 2. 3 vols. Oriental Institute of the University of Chicago, Chicago, Ill.
- BALL W., TUCKER D. J. and WILKINSON T. J., 1989, The Tell al-Hawa Project: Archaeological Investigations in the North Jazira 1986-87. *Iraq* 51: pp. 1-66.
- BRAIDWOOD R. J. and BRAIDWOOD L., 1960, *Excavations in the Plain of Antioch I: The Earlier Assemblages*, Phases A-J 61.
- BURGHARDT A. F., 1971, A Hypothesis about Gateway Cities. *Annals of the Association of American Geographers* 61(2): pp. 269-285.
- DILLEMANN R., 1962; *Haute Mésopotamie orientale et pays adjacents*. Geuthner, Paris.
- EIDEM J. and WARBURTON D., 1996, In the Land of Nagar: A Survey around Tell Brak. *Iraq* 58: pp. 51-64.
- EMBERLING G. . and McDONALD H., 2003, Excavations at Tell Brak 2001-2002: Preliminary Report. *Iraq*: pp.65.
- FIELDEN K., 1981, *The Chronology of Settlement in Northeast Syria during the Later Fourth and Third Millennia B.C. in the Light of Ceramic Evidence from Tell Brak*. Doctoral dissertation, Oxford University.
- FISH S. and KOWALEWSKI S. (editors), 1990, *The Archaeology of Regions: A Case for Full-Coverage Survey*. Smithsonian Institution Press, Washington D. C.
- HAUSLEITER A. and REICHE A. (editors), 1999, *Iron Age Pottery in Northern Mesopotamia, Northern Syria and South-Eastern Anatolia*. 10. Ugarit-Verlag, Münster.
- KOUCHOUKOS N., 1998, *Landscape and Social Change in Late Prehistoric Mesopotamia*. Doctoral dissertation, Yale University.
- KÜHNE H. and SCHNEIDER G., 1988, Neue Untersuchungen zur Metallischen Ware. *Damaszener Mitteilungen* 3: pp. 83-139.
- MALLOWAN M. E. L., 1936, The Excavations at Tall Chagar Bazar, and an Archaeological Survey of the Habur Region, 1934-5. *Iraq* 3: pp. 1-59.
- MALLOWAN M. E. L., 1937, The Excavations at Tall Chagar Bazar and an Archaeological Survey of the Habur Region, Second Campaign 1936. *Iraq* 4: pp. 91-154.
- MALLOWAN M. E. L., 1947, Excavations at Brak and Chagar Bazar. *Iraq* 9(1-2): pp. 1-266.
- OATES D., 1968, *Studies in the Ancient History of Northern Iraq*. Oxford University Press, London.
- OATES D., 1977, The Excavations at Tell Brak, 1976. *Iraq* 39: pp. 233-244.
- OATES D. and OATES J., 1990, Aspects of Hellenistic and Roman Settlement in the Khabur Basin. In *Resurrecting the Past: A Joint Tribute to Adnan Bounni*, edited by P. Matthiae, M. van Loon and H. Weiss, pp. 227-248. Uitgaven van het Nederlands Historisch-Archaeologisch Instituut te Istanbul. vol. 67. Nederlands Historisch-Archaeologisch Instituut te Istanbul, Leiden.
- OATES D., OATES J. and McDONALD H., 1997, *Excavations at Tell Brak* Vol. 1: *The Mitanni and Old Babylonian Periods*. McDonald Institute for Archaeological Research and British School of Archaeology in Iraq, Cambridge and London.
- OATES D., OATES J. and McDONALD H., 2001, *Excavations at Tell Brak* Vol. 2: *Nagar in the Third Millennium BC*. McDonald Institute for Archaeological Research and British School of Archaeology in Iraq, Cambridge and London.
- OATES J., 1959, Late Assyrian Pottery from Fort Shalmaneser. *Iraq* 21: pp. 130-146.
- OATES J., 1993, Trade and Power in the Fifth and Fourth Millennia BC: New Evidence from Northern Mesopotamia. *World Archaeology* 24(3): pp. 403-422.
- PECORELLA P. E., 1997, *Tell Barri/Kahat. La campagna del 1997, relazione preliminare*, Florence.

- PECORELLA P. E., 1999a, *Tell Barri/Kahat. La campagna del 1998, relazione preliminare*, Florence.
- PECORELLA P. E., 1999b, *Tell Barri/Kahat. La campagna del 1999, relazione preliminare*, Florence.
- PECORELLA P. E., 2000, *Tell Barri/Kahat. La campagna del 2000, relazione preliminare*, Florence.
- PERKINS A., 1949, The Comparative Archeology of Early Mesopotamia. *Studies in Ancient Oriental Civilization* 25.
- POIDEBARD A., 1934, *La trace de Rome dans le désert de Syrie. Le limes de Trajan à la conquête arabe; recherches aériennes*. Paul Geuthner, Paris.
- POSTGATE C., OATES D. and OATES J., 1997, *The Excavations at Tell al Rimah: The Pottery. Iraq Archaeological Reports* 4. British School of Archaeology in Iraq, Warminster.
- ROTHMAN M. S., 2000, Environment and Cultural Factors in the Development of Settlement in a Marginal, Highland Zone. In *The Archaeology of Jordan and Beyond: Essays in Honor of James A. Sauer*, edited by L. E. Stager, J. A. Greene and M. D. Coogan, pp. 429-443. Eisenbrauns, Winona Lake, IN.
- SCHWARTZ M., 1982, Osseto-Indo-Europaeaica. In *Societies and Languages of the Ancient Near East: Studies in Honour of I. M. Diakonoff*, edited by M. A. Dandamayev, I. Gershevitch, H. Klengel, G. Komoróczy, M. T. Larsen and J. N. Postgate, pp. 336-344. Aris and Phillips, Warminster.
- STEIN G., 1999, *Rethinking World-Systems: Diasporas, Colonies, and Interaction in Uruk Mesopotamia*. University of Arizona Press, Tucson.
- TOBLER A. J., 1950, *Excavations at Tepe Gawra* 2. University of Pennsylvania Press, Philadelphia.
- UR J. A., 2002a, Settlement and Landscape in Northern Mesopotamia: The Tell Hamoukar Survey 2000-2001. *Akkadica* 123: pp. 57-88.
- UR J. A., 2002b, Surface Collection and Offsite Studies at Tell Hamoukar, 1999. *Iraq* 64: pp. 15-43.
- UR J. A., 2002c, Using CORONA Satellite Photography to Study Ancient Road Networks: A Northeastern Syrian Case Study. *Antiquity* 77.
- van LOON M. (editor), 1988, *Hammam et-Turkman* I. 63. Nederlands Historisch-Archeologisch Instituut te Istanbul, Leiden.
- WATKINS T. and CAMPBELL S., 1987, The Chronology of the Halaf Culture. In *Chronologies in the Near East: Relative Chronologies and Absolute Chronology 16,000-4,000 B.P.*, edited by O. Aurenche, J. Évin and F. Hours, pp. 427-464. BAR International Series. Oxford.
- WILKINSON T. J., 1982, The Definition of Ancient Manured Zones by Means of Extensive Sherd-Sampling Techniques. *Journal of Field Archaeology* 9: pp. 323-333.
- WILKINSON T. J., 1989, Extensive Sherd Scatters and Land-Use Intensity: Some Recent Results. *Journal of Field Archaeology* 16: pp. 31-46.
- WILKINSON T. J., 1993, Linear Hollows in the Jazira, Upper Mesopotamia. *Antiquity* 67: pp. 548-562.
- WILKINSON T. J., 1994, The Structure and Dynamics of Dry-Farming States in Upper Mesopotamia. *Current Anthropology* 35(5): pp. 483-520.
- WILKINSON T. J., 2000, Regional Approaches to Mesopotamian Archaeology. *Journal of Archaeological Research* 8(3): pp. 219-267.
- WILKINSON T. J., 2002a, Physical and Cultural Landscapes of the Hamoukar Area. *Akkadica* 123: pp. 89-105.
- WILKINSON T. J., 2002b, The Settlement Transition of the Second Millennium BC in the Western Khabur. In *Of Pots and Plans: Papers on the Archaeology and History of Mesopotamia and Syria Presented to David Oates in Honour of his 75th Birthday*, edited by L. al-Gailani Werr, J. Curtis, H. Martin, A. McMahon, J. Oates and J. Reade, NABU Publications, London, pp. 361-372.
- WILKINSON T. J. and BARBANES E., 2000, Settlement Patterns in the Syrian Jazira during the Iron Age. *Ancient Near Eastern Studies Supplement* 7: pp. 397-422.
- WILKINSON T. J., CASSANA J. and UR J., 2003, From Nucleation to Dispersal: Trends in Settlement Pattern in the Northern Fertile Crescent. In *Side-by-Side Surveys in the Mediterranean World*, edited by J. Cherry and S. Alcock. in press.
- WILKINSON T. J. and TUCKER D. J., 1995, *Settlement Development in the North Jazira, Iraq: A Study of the Archaeological Landscape*. Aris and Phillips, Warminster.