City of Culture 2600 BC

Early Mesopotamian history and archaeology at Abu Salabikh

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إهداء

أقدم بإمتنان هذا الكتاب إلى أهل مدينة قرية العاصفة
وذكرى بدر عباس المرحوم وإبن أخيه وخلفه كحارس الموقع
سلمان وضح الذي بحكم يقظته ووعيه تمكن من حماية الموقع
خلال السنين الصعبة منذ سنة ١٩٩٠

Dedication

This book is gratefully dedicated to the people of Qariyet al-Asife,
to the memory of Bedr Abbas and to his nephew Salman Wadhah
who succeeded him as guard, and whose vigilance has protected
the site throughout the difficult decades since 1990.

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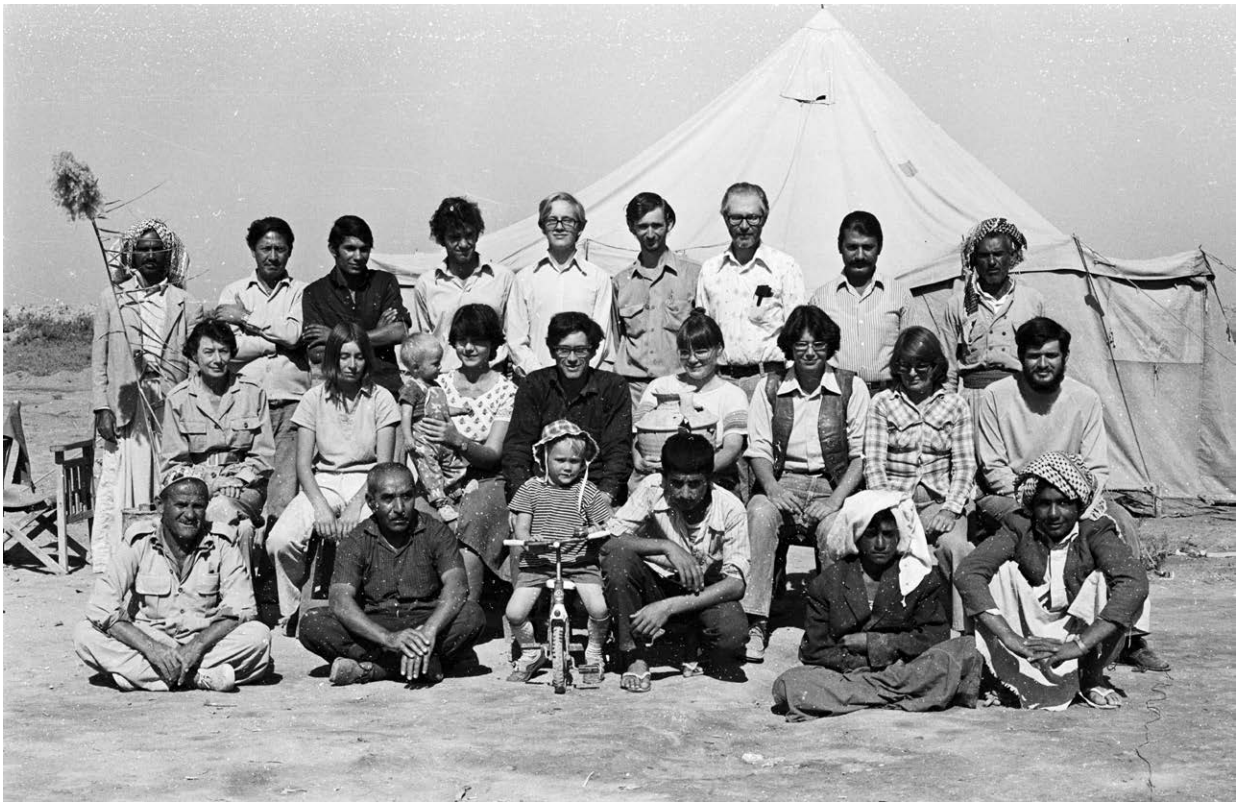
Acknowledgements

Our first acknowledgements must go to our Iraqi hosts. Permission to continue the investigation of the site in 1973 was granted by Dr Isa Salman, as Director-General of Antiquities, and we owe a great debt of gratitude to him, to his successor Dr Muayad Saeed Damerji, and the staff of the Directorate-General (now the State Board for Antiquities and Heritage) for the unfailing support and collaboration we received during the years that followed. They oversaw our presence there and in the country more generally, providing us with our long suffering representatives, whose names are recorded below. Thanks equally go to the staff and Directors of the Iraq Museum, who presided over the annual deposit of finds at the Iraq Museum, principally Dr Fawzy Rashid and Dr Bahijah Khalil Ismail.

Team members

Without the men and boys of the village of Qariyet al-Asife, and in earlier season the technical expertise of our experienced Sherqati excavators, none of the results here would have been realized. Our weekly pay rolls remained in Baghdad after 1990 and we are therefore unable to acknowledge individually the contribution made by the residents of Qariyet al-Asife from 1973 to 1990 and in the 1970s by a select band of Sherqati pickmen headed by Dawla Taleb al-Angoud, but they are fellow workers fondly remembered. Full fifteen colleagues from the State Board for Antiquities and Heritage (and its predecessors) joined us as members of the team between 1973 and 1989, some more than once, as listed below. They have been universally supportive and indispensable and their contribution to the success of the project is remembered with much gratitude.



The dig team, 1976.

Throughout the 1970s and 1980s the fieldwork was a project of the British School of Archaeology in Iraq, and would not have been possible without the support of its London arm, most especially Geraldine Talbot, Leri Davies and David Hawkins. In Iraq the initial survey of the site would have been impossible without the tuition of David Oates, to whom the author is indebted in many other respects. As mentioned below, in Chapter 2 the generous response of our Chicago colleagues, Robert McC. Adams and Robert Biggs was essential to launching our work at the site.

Representatives

Abd al-Hamid Abd al-Majid (1986)
Abd al-Mejid Muhammad (1975; 1976; 1977)
Abd ar-Rahman Muhammad Ali (1981)
Abd-as-Salaam Sim'an (1981)
Ahmed Khidhr al-Beyati (1986)
Ali Hashim (1975; 1978)
Ghassan Azzawi (1975)
Ghiyath Jihad (1985)
Hassan Khdheyr Hashim (1983)
Kamil Alwan Shehab (1983; 1988; 1989)
Muhammad Yahya (1977; 1979; 1981; 1983; 1985)
Nadhir Ar-Rawi (1978)
Nahidh Abd ar-Razzaq (1973)
Sabah Abboud (1976)
Sabih Ali Alwan (1979)

If two junior members of my family are included, a total of 100 staff members from outside Iraq took part in the excavations between 1975 and 1989, we have refrained from presenting a full list here (all adults are mentioned in the preliminary reports on the relevant seasons in *Iraq*). I owe a great debt to the Assistant Directors who were Jane Moon in 1985, and in 1986 Roger Matthews, who then acted as Field Director in 1988 and 1989.

Donors

Birmingham City Museums and Art Gallery 1976
British Academy 1975, 1976, 1977, 1978-9, 1981, 1983, 1985-6, 1988-89
British Museum 1975, 1976, 1977, 1978-9, 1983, 1985-6,1988-89
National Geographic Society, Washington DC 1978-9, 1981, 1983, 1985-6, 1988-89
Royal Ontario Museum 1981
Trinity College, Cambridge 1975, 1985-6, 1988-89
C.H.W. Johns Fund, University of Cambridge 1975, 1976
McDonald Institute, Cambridge 1989

While preparing this book the author has benefited from the generous assistance and advice of numerous colleagues, Robert Biggs, Jerrold Cooper, Harriet Crawford, Matthew Davies, David Heslop, Kazuya Maekawa, Harriet Martin, Roger Matthews and Wendy Matthews, Julian Reade, Robert Reese, Walther Sallaberger, Elizabeth Stone, Simon Stoddart, Siriol Streeten, Paul Yule, Richard Zettler. Many thanks also to Vicki Herring and Ian Bolton for their technical expertise in generating plans and scanning photos respectively, and to Trinity College for unfailing logistical and financial support. At Archaeopress Mike Schurer has been an ideal editor, and Ben Heaney did the layout and design. I am grateful to the readers of the manuscript for their helpful input. Permissions to reproduce photographs were given by the British Museum, the Louvre, and, generously gratis, by the Penn Museum and the Chicago Oriental Institute.

Advice to the Reader

Transcription and translation

The translation of Sumerian is still often provisional, and unlike Akkadian there is no definitive Sumerian dictionary (though some on-line resources). Knowing how frustrating it is to see an English word without its Sumerian original, I have often encumbered the text or the footnotes with the Sumerian of a quotation for the benefit of those yearning for it.

Bold font is used for Sumerian words, either precise transliterations from a text, or the normalized version of a word conventionally used by modern scribes, e.g. **ukkin**. Between slashes (as /eme.gir/) is what we believe may have been the real form of the word. (For typographical reasons the word ensi, and the Sumerian terms of metrological units, such as gur, sila, bur and iku (see below) are treated as though English and left in normal font.) Akkadian words are generally italicized (as are modern titles of literary compositions and a few unique artefacts such as the *Stele of the Vultures*).

Some ancient names have been rendered in various ways by modern scholars. Here I have used Akkade (and not Agade or Akkad, see Westenholz 1999: 31), Inana (not Innana or Inanna), Kiš (not Kish), Mesalim (not Mesilim, see Steinkeller 2013 151[85]), Ur-Nammu (not Ur-Namma), Urukagina (and not Uruinimgina or Irikagina). For the philologically accurate but inconvenient transcription of the site name Abu Salabikh see p. 2[5].

Metrological terms

See in general Krebernik 1998:304-5. The capacity unit gur at Fara, and so presumably, though not demonstrably, at Abu Salabikh, held 240 sila, and for convenience we may treat 1 sila as = 1 litre. Hence 1 gur = 240 litres. However, the gur at Pre-Sargonic Lagaš held only 144 sila and this equivalence is used when quoting data from there (see Powell 1989-90, 494-7). For area measures see p. 94 fn. 14 (1 bur = 6.48 ha.).

Elevations

Heights expressed as +9.99 are heights above an arbitrary site datum of +0.00 defined as 10 m below the highest point, and 14.74 m above sea level (ASE 2:18); approximate heights not surveyed in accurately are indicated by ~9.99.

The site grid

As shown in Figs. 1.3, 2.1, 2.5 etc. the site grid is oriented to True North and divided into 100 m squares (e.g. 6G). These are further subdivided into 10 m squares numbered 00-99 from NW to SE as shown e.g. in Fig. 2.7. For 'quadrants' (a.b.c.d) see ASE 2, p. 2 Fig. 2.

Note on the location of finds

Artefacts catalogued received an AbS number, and were sent to the Iraq Museum in Baghdad. We believe some of them (in particular the cylinder seals) were stolen during the USA invasion in 2003. Artefacts not catalogued were registered in a card index using their numbers assigned on site, in the format 6G66:66 where 6G66 is the 10 m square. These remained in the excavation house on site, but many of them were lost when the house was ransacked in 1991. Finds remaining in 2017 (predominantly potsherds and animal bones) were transferred to storage in the Diwaniyah Inspectorate with the invaluable assistance of the Inspectorate staff and Prof. Abbas al-Hussainy.

Abbreviations

For bibliographical abbreviations see p. 211. Note also these:

ASE *Abu Salabikh Excavations* (Vols. 1-5)
FI Fire installation
ED Early Dynastic (I-III)

Chronology

4000-3200	Uruk	Proto-literate
3200-3000	Jemdet Nasr/ Uruk III	
3000-2750	Early Dynastic I	Pre-Sargonic
2750-2600	Early Dynastic II	
2600-2350	Early Dynastic III	
2350-2150	Dynasty of Akkade	Old Akkadian
2150-2000	Third Dynasty of Ur	Ur III
2000-1800	Isin-Larsa Dynasties	Old Babylonian
1800-1600	1st Dynasty of Babylon	

Note: as will be obvious, these are round figures, but probably not more than a century inaccurate. In the light of our work at Abu Salabikh there seems no good reason to abolish 'ED II' as is currently in fashion. For our best current estimates for the date of the ED II-III levels at the site, see ASE 5: 8-15.

Introduction

The aim of this book is to convey how fieldwork at the site has generated knowledge which helps us to resurrect the nature of one of the world's earliest cities in its maturity, and hence of the literate urban civilization to which it belongs. It starts, therefore, from the material record, with an inductive reconstruction of human activity at the site working towards generalities, rather than deploying our varied excavated results in response to a deductive approach driven by theoretical enquiry – though of course both processes are always at work consciously or subconsciously.

Mesopotamia and Egypt witnessed the emergence of literate urban societies at about the same time. With the invention of cuneiform and hieroglyphs, they share the great advantage for us that the material trappings of their innovative culture, as recovered by archaeologists, are given an extra dimension by the evidence of the written sources. As we see them today, it is fair to say that because in Mesopotamia they wrote on clay, far more early written sources have survived there than in Egypt, and when it comes to urbanism, the plethora of cities in south Mesopotamia especially outstrips what is currently known of contemporary Egypt.

Any description of life in south Mesopotamia before the Dynasty of Akkade has to take place in the shadow of two great cities: of Ur, as revealed in the archaeological work of Sir Leonard Woolley, and of Girsu, from where the greatest wealth of written sources derive. If archaeology is perceived as the 'past tense of anthropology' it becomes imperative to use both bodies of evidence to complement and enhance each other. This book is constructed round our single site, with its geographical and chronological parameters, but to give its evidence its full value, it needs to be placed in its wider context, and accordingly I have not hesitated to use what is known of south Mesopotamia in earlier, and especially later (including ED IIIb, Ur III and Old Babylonian) eras, and at other cities across the alluvium. The cultural continuity in both time and space is sufficient to offer reasonable, though not of course compelling parallels.

Hence this book aims to advance our understanding of Early Dynastic Mesopotamia in three main ways. In the first place, it is an account of excavations carried out in the 1970s and 1980s at one, small but perfectly formed, Mesopotamian city. The initial chapters offer a general description of the city and its architecture as we uncovered it. Throughout the aim is to match the excavated results with the textual evidence from early Mesopotamia, not only the administrative documents, some of which come from the site itself, but also where appropriate from the Sumerian literary canon with its mythological and historical-philosophical compositions. This integration of the written with the excavated evidence is the second main thread of the book. The third component builds on the first two, and seeks to reconstruct the role of this city, and of cities in general, in the wider world of 3rd millennium Mesopotamia.

Awkwardly known by its modern local name, Abu Salabikh, it may have been, and we believe probably was, the city of Ereš, whose patron deity was the goddess of writing, Nisaba. Given the size of its library, it must have been in the premier league of the cities in the south, but there are significant questions about its gradual demise, and its relationship with the politically dominant dynasty up north at Kiš. Since the first season carried out by Vaughn Crawford and Donald Hansen in 1963, it has become increasingly clear that south Mesopotamia in the first half the 3rd millennium was culturally and linguistically divided in two parts, and that Abu Salabikh itself falls just north of the dividing line. Hence, although the library currently constitutes the principal source for Sumerian literature and scholarship around 2600 BC, the first language of some, if not a majority, of the population was an early form of Akkadian, with close ties to Kiš and cultural links up the Euphrates to Ebla in northern Syria. 'Sumer' begins with Nippur

and stretches further south, and tempting though it is, it would not be accurate to refer to our site as a 'Sumerian city', even if, as we suspect, its patron deity was a Sumerian goddess. These linguistic and cultural issues intersect with what is known of the political scene, and are discussed in the concluding chapters.

Abu Salabikh – and Ereš – was only one tessera in the south Mesopotamian mosaic, and concentrating attention on a single place and time necessarily restricts the general validity of much that is here. The chances of discovery mean that there is a range of topics which simply do not arise because of the limitations of our excavated record. One will hunt in vain for information about armies, astronomy, beer, birds, boats, medicine, turtles, weights, or family life, to name but a few. On the other hand, the restrictions have left freedom to address issues which are previously unresolved, or surface here for the first time, at greater length and in more detail than a more usual general work would permit, issues which may have significance beyond our specific time and place. As far as possible, 'facts' or at least statements of what I believe to be facts, are based on the primary evidence, that is, the excavated record at the site and the verbatim text of inscriptions, and as far as reasonable these sources are cited. In this way the readers can better assess the validity of my deductions. Reference is regularly made to the published excavation reports (see p. 209), and given our still imperfect mastery of Sumerian, translations are often less than certain and hence are often accompanied by the verbatim transcription.

This is essentially an interim account of work in progress – or perhaps rather of work in suspense. The fieldwork on which it draws came to an abrupt halt in 1990, and as of now it has not been possible to restart. An attempt to resume the process of surface clearance in 2022 had to be aborted for a variety of reasons, and at the time of writing there is no immediate prospect of a resumption. Nevertheless, the cost effective retrieval of the city plan, on both the Main Mound and the South Mound, is a prospect well worth pursuing, perhaps in advance of further excavation.

Chapter 1

The site and the environment

The recent landscape and the site's location and discovery (Fig. 1.1)

Claudius James Rich's description of the country between Baghdad and Hilla in 1811 could have been written about most of south Iraq until the present day 'perfectly flat and ..... uncultivated waste. That it was at some former period in a far different state is evident from the number of canals by which it is traversed, now dry and neglected, and the quantity of heaps of earth, covered with fragments of brick and broken tiles, which are seen in every direction – the indisputable traces of former population'.[1] He was more interested in the monumental remains of Babylon, but later in the 19th century some of these

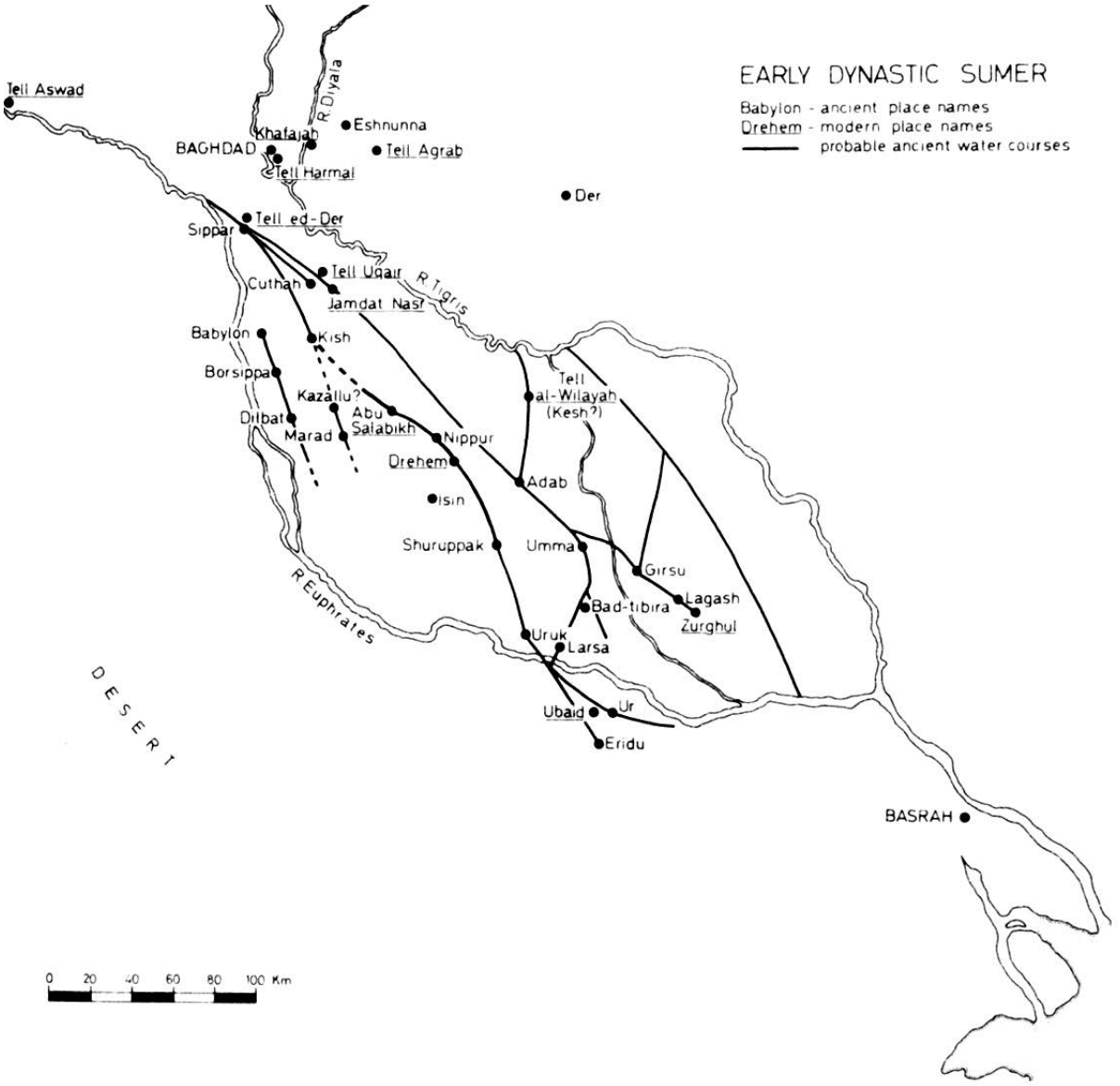


Figure 1.1. South Mesopotamia in the mid-Third Millennium. Water courses all subject to correction.

[1] Rich 1839: 45-6.

heaps of earth attracted the attention of archaeologists. An American expedition broached the mounds at Nuffar (ancient Nippur), and further south in 1900 the excavator of Babylon, Robert Koldewey, turned his attention to a site called Fara, which proved to be ancient Šuruppak, described in the *Epic of Gilgamesh* by Ut-napištim, the Babylonian Noah, as 'situated on the banks of the Euphrates'. The Euphrates had long since shifted west, and the Germans did not spend long there, but the site was revisited in the 1930s by an expedition from Philadelphia led by Erich Schmidt, who described the landscape as 'almost depressingly monotonous. As far as the eye can see the yellowish brown sandy desert stretches ..... Scattered dots mark patches of low scrub which grows in the shallow depressions turning to swamp in time of inundation .....'.[2] This is south Mesopotamia all over: once there were watercourses and cities, but now all that is left is heaps of rubble and the banks of dry canals. The western archaeologists braving these hostile conditions were less interested in the landscape than in what they might find in these abandoned cities – in the temples and palaces where they hoped for sculptures (although as it turned out, for that they needed to keep to Assyria), and written records from the pre-Classical civilization of the land of Sumer and Akkade.

The Fara expedition was only one among several western projects which shone new light on Mesopotamian origins in the 3rd millennium, resuming or launching fresh investigations at major sites in the newly formed Iraq after the 1st World War. Alongside Ur and Girsu (Tello) in the south, significant results were obtained at Uruk and Kiš, while Tell Asmar (Ešnunna), Tell Agrab and Khafajah, three of the sites excavated by the Oriental Institute at Chicago in the region of the river Diyala north-east of Baghdad, were also extensive Early Dynastic settlements. Fundamentally important though the results were, they lacked context: the ancient cities could be marked on the map of modern Iraq, but this was not the land they inhabited, as encapsulated by the title of Mary Chubb's account of the Chicago expedition 'City in the Sand'. Between each site the 3rd millennium map remained a complete blank: no villages or even small towns were recorded, and neither the two twin rivers nor the canals they fed had the same courses as they do now. Conscious of this, in 1937 Thorkild Jacobsen, as a member of the Chicago team, launched the 'Ceramic Surface Survey' in the central Diyala region,[3] visiting the sites which in the absence of agriculture showed up as larger or smaller tells in a barren landscape, locating them on the map, and, as the title of the project implies, using the potsherds gathered from the surface to assign a date or dates to their occupation. One assumption underlying his work was that alignments of contemporary sites, big or small, would indicate the line of the water courses along which settlements were bound to be concentrated.

When fieldwork resumed in the 1950s, Jacobsen and his colleagues Fuad Safar and Vaughn Crawford extended this survey programme to 'central Sumer' and in 1956-57, when they were joined by Robert McCormick Adams, to 'Accad'.[4] It was in 1957 while conducting the Accad survey that Adams and Crawford came upon a group of mounds with the modern name of (Ishan) Abu Salabikh.[5] Numbered site (A)275 in Adams' subsequent ground-breaking publications, it was recognized as a fair sized Early Dynastic settlement, to all appearances abandoned later in the 3rd millennium, although subsequent analysis of the surface collection revealed a few sherds of Akkadian or later date. In conducting the regional surveys there was one decisive constraint, which is that they were confined to those parts of the southern alluvium which were not currently under cultivation. Since agriculture in south Iraq is dependent on a reliable water supply it is necessarily located within the reach of modern irrigation

[2] cited Martin 1988: 13.

[3] Jacobsen 1960: 174-5.

[4] Jacobsen 1960: 175.

[5] Crawford 1957: 7. The modern name of the site (ابو الصلابيخ, in transcription *'abū al-ṣalābīḫ*) refers to the frequent pieces of overfired clay, or clinker (in the singular *ṣalbūḫ*), scattered across the site. The word *tell* is sometimes put before the name but, as recorded by Adams, in Gibson 1972: 207, it is locally described rather as an *išān* and this is the name given on the 1942 map (Postgate & Moorey 1976: 134). For usage in English text the Arabic definite article and the diacritics have been omitted.

(mainly from the Euphrates and its offtakes below the latitude of Baghdad), and over the centuries both rivers have shifted their main bed away from the centre, leaving a desert strip between them in which most of the major ancient settlements lie. In this zone the view across the landscape was relatively unimpeded (other than by abandoned canal banks), and except after heavy rain it was not difficult for the surveyors to rattle across the surface and reach any visible mounds. As it happens, Abu Salabikh, like the modern village called Qariyet al-Asife just to its south, lay (and still lies) more or less at the eastern fringe of fields irrigated by smaller canals taken off the Daghghara branch of the Euphrates (one of which passes just to the north of the site), and could therefore be seen and visited right at the southern limit of the 'Akkad survey' (as it was now spelled). To reach it driving east from our local township called, appropriately enough, Somer[6] entails unmetalled tracks in a zig-zag itinerary following canal banks and avoiding field boundaries and date plantations, whereas after taking off from the site of Nippur in the untilled desert one can drive more or less directly to reach Abu Salabikh from the south-east. Until the Greek irrigation firm Scapaneus dug a huge drainage channel passing down the east side of the site, one had an unimpeded view across dead flat terrain to the Sassanian or Islamic brick monument known as Zibliyyat, which sits amid a huge spread of early medieval glass and ceramic sherds.

The Chicago expedition

While excavating at Nippur in the 1960s Donald P. Hansen and Vaughn E. Crawford made 'two brief soundings, six weeks in the spring of 1963 and two weeks in the winter of 1965' at Abu Salabikh on behalf of the Oriental Institute of the University of Chicago.[7] By great good fortune Robert D. Biggs was present for both seasons as epigrapher. The initial motivation for work at the site was the prospect of investigating Uruk period, 4th millennium, levels. There was known to be Uruk period settlement on the south-west mound, and on the north-east side of the largest north-eastern mound 'a great many clay cones predating the Early Dynastic period' had been noted on the surface. Uruk period levels at Nippur, where the work of the Chicago expeditions was concentrated, were virtually inaccessible owing to the depth of later overburdens, and Abu Salabikh seemed to promise easier access to the earliest literate period of Mesopotamian civilization.

In the event Uruk levels did not materialize on the main mound, despite the undeniably Uruk period clay cones, but something quite unexpected and of enormous significance did. On the highest point of the north-eastern mound, referred to by the excavators as 'Area E', and for the most part lying 'only a few inches below the surface'[8] were hundreds of often fragmentary clay tablets.[9] Their cuneiform script clearly belonged to the stage of development previously known almost exclusively from the site of Fara, the ancient city of Šuruppak, some 68 km to the south-east. It was not only the size of the assemblage, but also the size of some of the individual tablets, with examples over 30 cm wide or high, which was surprising. When Robert Biggs announced that they included not merely lexical texts but literary compositions he met with some scepticism from colleagues, but this was soon dissipated when he was able to show that they undeniably included early versions of the *Instructions of Šuruppak* and the *Keš Temple Hymn*, both known from the repertoire of the scribal schools of Babylonia some 700 years later (see pp. 88-9). Curiously, shortly after his definitive publication of the entire collection, an Italian expedition in Syria discovered the entire archive room of the almost contemporary palace at ancient Ebla (Tell Mardikh), which included similarly outsize literary and lexical tablets, some of which duplicate Abu Salabikh texts.

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[6] In former years called 'Jil'ah' or more formally Qal'a(t) Šakhīr, but renamed to avoid confusion with another 'Jil'ah' further east on the Tigris.

[7] Hansen 1974: 5.

[8] Biggs 1974: 19.

[9] Some of the first fragments recovered in the first season may have been 'disturbed by modern diggers looking for other objects' but there is no reason to think that they had removed any of the tablets (Biggs 1966a: 74 footnote 7).

The British School survey

The discovery of such an early library – for what else could this have been? – was of sufficient interest to merit a notice in the London 'Times' in February 1965, and it caught the eye of my father who snipped it out and sent me the cutting while I was in my second year of studying Mesopotamia. It sounded distinctly improbable and must have left an impression, because in 1971, when I found myself in the Baghdad base of the British School of Archaeology in Iraq contemplating possible fieldwork options, Abu Salabikh suggested itself as a good place to explore the Mesopotamian world before Sargon of Akkade. By that time Donald Hansen's interest had shifted to the contemporary but far larger city of Lagaš, at Al-Hiba in the south-east corner of the South Mesopotamian plain, and a collaborative project at Abu Salabikh, with Robert Biggs as the director on behalf of the Oriental Institute at Chicago, was dreamt up. The first move was to carry out a contour survey of the mounds, which took place in February 1973 over three weeks of clear blue skies and crisp air. It entailed a theodolite, a volume of 7-figure log tables, training sessions on the roof of the house in Karradet Mariam from David Oates, and at the site an ever ready and compliant Sherqati holder of the stave, with an endlessly patient representative from the Directorate General of Antiquities, hosted by the antiquities guard, all three of whom feature in Fig. 1.2.

As shown on the resulting contour plan (Fig. 1.3), the site consists of four separate mounds, none of them rising more than 5 m above the surrounding fields and pasture. As became apparent, the earliest of these was probably the 'Uruk Mound' on the south-west, standing no more than 3 m high. The 'West Mound', about 100 m further to the north, was smaller and lower. The Uruk Mound shows no signs of occupation after the Uruk period, while the West Mound, though also occupied at the same time, has a capping of housing dating to Early Dynastic I. These two western mounds are separated from the larger

Figure 1.2. Visitors to the site survey, 1973. Khalaf Taleb al-Angoud, McGuire Gibson, Julian Reade, Hilary Stuart-Williams, S. Nan Shaw, Diana Kirkbride Helbaek, Nahidh Abdurrazzaq, Miguel Civil, Bedr Abbas.

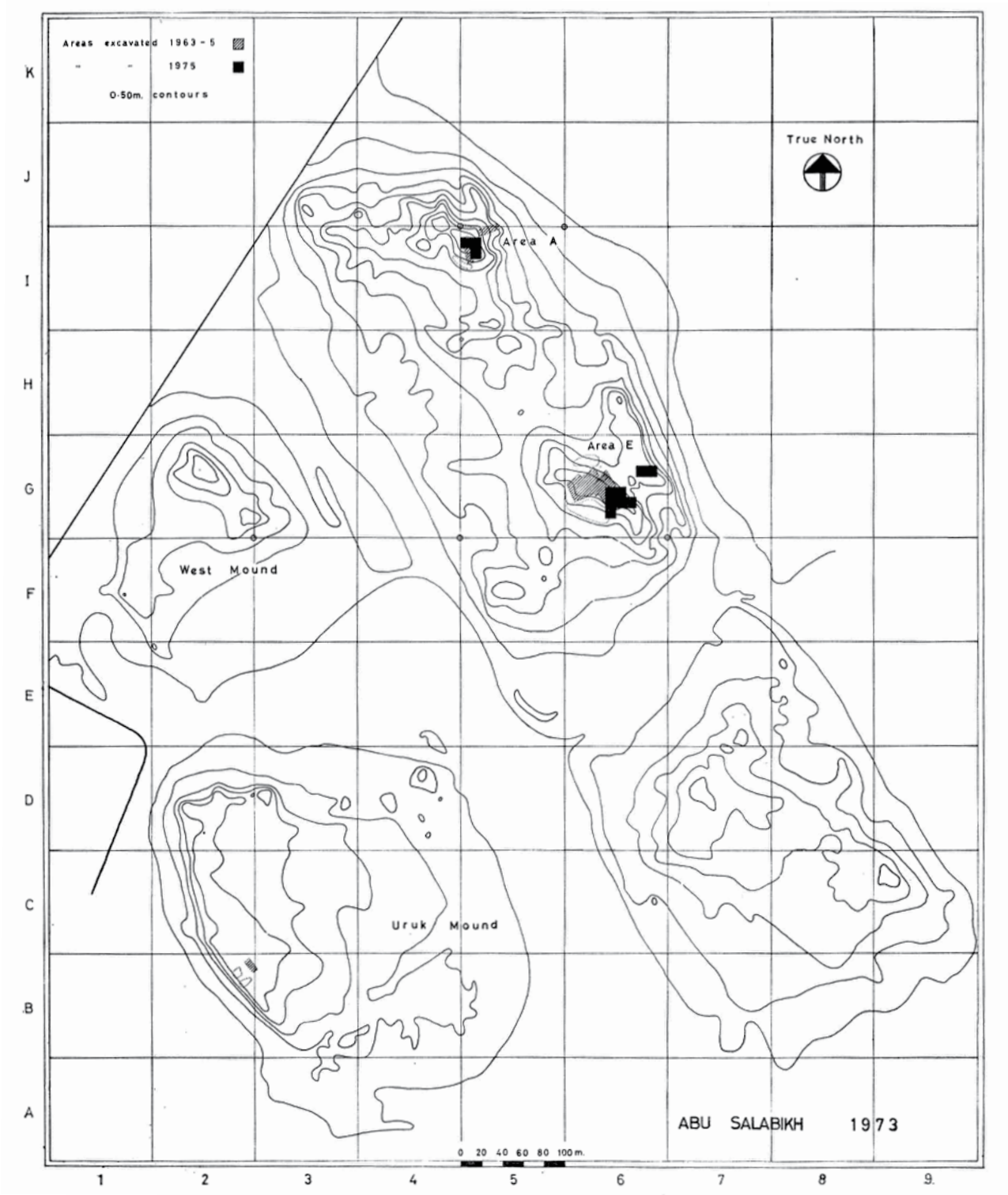

Figure 1.3. The central mounds after the 1973 survey, showing Chicago Areas A and E. (Iraq *38: 136).*

Main Mound and South Mound by what seems like a linear depression (although it is not significantly lower than the surrounding plain), referred to by the locals as the Shaṭṭ al-Hawa 'the river of wind'.[10] It

[10] The same name was also given by them to 'an apparently quite recent relict water course' some 1 km to the west of the mounds (Wilkinson 1990: 82; see Fig 9.4).

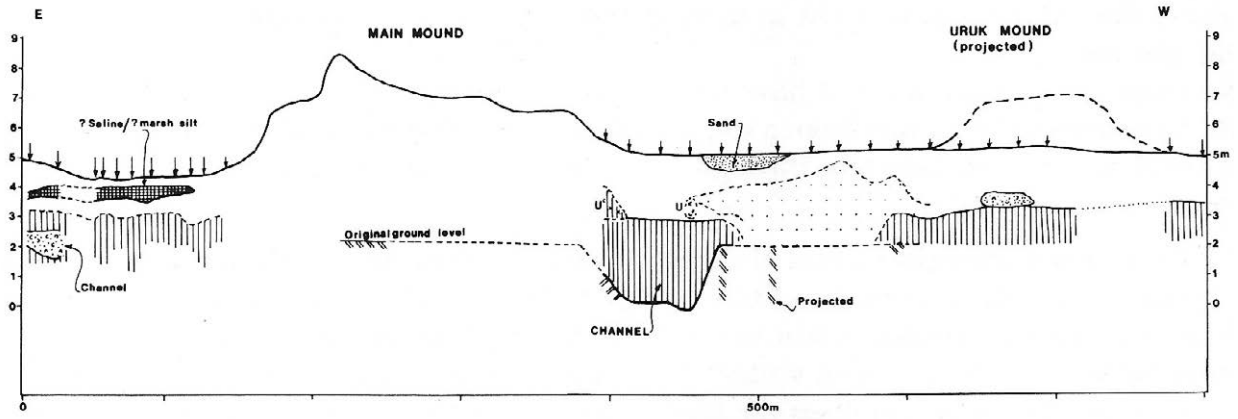

Figure 1.4. Composite cross-section through Main Mound and West Mound, showing water beds (T.J. Wilkinson Iraq *52: 81, Fig. 5)*

does indeed look suspiciously like a channel, and was described by Hansen as 'probably the ancient bed of the river or canal which cut through the city' (1974: 5).

If this was indeed a river, it must have been a branch of the Euphrates, and implicitly this must have been the opinion of Thorkild Jacobsen (1960: 175), when he drew his reconstructed Euphrates course through Abu Salabikh in the North-West via Nippur, Drehem and Fara before arriving at Uruk/Warka. In the other direction the river would have flowed down from Kiš some 55 km to the north (see Jacobsen 1960: 176[3]) and no major sites appear to be recorded on that stretch. The aerial photographs used in his later surveys by Robert Adams to reconstruct ancient water courses do show a meandering Euphrates course further to the east attributed to the 4th millennium BC,[11] but comparable traces are not shown for Abu Salabikh itself. Plausible as it appeared to reconstruct a watercourse flowing between the mounds, some confirmation was evidently desirable. In 1988 and 1989 Tony Wilkinson brought his auger with him and carried out extensive geomorphological research in and around the site. This revealed, deep beneath the modern land surface between the Main Mound and the West Mound, and at least 3 m below the original 3rd millennium BC ground level, a channel 50 m or more in width (Fig. 1.4).[12] This was no mere canal, but the deposits within the river bed indicated only sluggish flow, and Wilkinson suggests that over time the main course could have shifted to the east, where it would have flowed between the east side of the Main Mound and the Eastern Mounds, two outlying occupation areas now visible only as salt-capped patches.[13]

Site formation

As the augering programme progressed, it also brought up evidence for buried archaeological deposits, and for the 3rd millennium BC land surface. The modern land surface lies over 3 m higher, telling us that over the centuries the shifting water courses have shrouded the Early Dynastic landscape under deep alluvial deposits. This explains why, for instance, 4th millennium meanders as recognized by Adams further to the east would not have shown up here from the air, and not far south of the Uruk Mound Wilkinson observed at least two small occupation clusters dating between Uruk and Kassite times which had been exposed in the sides of modern drainage channels, in a situation similar to that of the Ubaid period mound of Ras el-Amiyah further to the north (see Fig. 9.4). It follows that the side slopes of the visible mounds of the main site must extend down beneath the modern land surface, though not necessarily very much further horizontally. The sounding into the Ash Tip in the south-east of the Main

[11] Adams 1981: 62-65, Figs. 11-13. Satellite imagery (LANDSAT) was only available at a late stage (1981: 33).
[12] Wilkinson 1990: 80-81.
[13] Clearly visible on the satellite image (Fig. 1.5), shown in plan Fig. 2.1.

Figure 1.5. Satellite view of site, north to the top. Showing location of 5G and 6H Houses. Image thanks to Elizabeth Stone, courtesy Digital Globe Corporation.

Mound reached virgin soil at a level of +2.10 (Figs. 5.1-2), which is some 2.90 m below the surrounding land surface, and also somewhat lower than the land surface detected in the auger transects (at +2.75-3.25 m, Wilkinson 1990: 77).

This means that back then the Main Mound settlement would have stood much higher above the surrounding countryside than it does now, and that is not the only respect in which appearances are deceptive. When the site was first surveyed it was generally described as dating to the Early Dynastic (and earlier), for the good reason that virtually all the surface potsherds belonged to that period. Later, Adams' detailed analysis of the surface collection isolated a few later pieces: 'a small number of later sherds (two large-spouted bowls, a channel-rim bowl, and a sherd with horizontal ribs, all of Akkadian or slightly later date, were included in the 1957 collection' (Adams 1981: 294). An explanation for this was forthcoming in 1975 when a large vertical ceramic drain was excavated in a corridor (Room 49) in Area E (Fig. 1.6), and turned out to be packed round with quantities of potsherds to aid drainage, sherds which were unmistakably later than any from the stratified architecture and which can be assigned to the Late Akkadian or Ur III period.[14] One does not sink sewers into a deserted tell, and this one, and a similar one about 16 m further to the south-east must have belonged to buildings which have completely disappeared from the scene. The implication is that an entire architectural stratum, or rather more than one, have vanished from above the Early Dynastic levels now at the surface of the mound, and that the city, or at least part of it, was still occupied by an urban society till the end of the 3rd millennium. This was subsequently confirmed at other places where later pottery was found in intrusive cuts which must have been dug from above the present mound surface, and an Ur III presence at the site was also indicated by inscribed bricks of Amar-Suen from one of the occupation spreads east of the Main Mound.

The realization that the site had been inhabited long after the Early Dynastic had interesting implications, not merely for attempts to identify it with a known historical city, on which see Appendix

Figure 1.6. Late vertical ceramic drain sunk into south corridor (photo Postgate & Moon 1984: 6; plan Iraq *38: 144 in 6G65b. Cf. similar drain in 6G76 ASE 4 Fig. 1.27, location Fig. 1.24).*

[14] Postgate and Moon 1984.

Figure 1.7. Dust storm approaching, looking east from camp. 1983.

1, but also for the methodology of regional survey in the south Mesopotamian plain. For not only are some of the smaller settlements round the city buried beneath alluvium and invisible except where exposed by irrigation channels, but it emerges that some of the highest strata of complete settlements have vanished into thin air.[15] This is testimony of the erosive effects of nature, from above and below (Fig. 1.7). The gentle slopes of the mound are furrowed by winding miniature wadis channelling rainfall away to the skirts of the mound, but carrying with them silt from the occupation deposits. The buildings were almost exclusively of mud-brick, and would obviously be washed away in time, but on close inspection much of the sediment in the wadis is made of minute fragments of pulverized pottery (Fig. 1.8). A well worn mantra of Near Eastern archaeologists states that one of the reasons for studying the innumerable potsherds is because they don't decay like organic materials, but down south this turns out to be only partly true. After rain the surface of the mounds at Abu Salabikh (even more than some of the surrounding landscape) glistens white as if it has suffered a snowfall. This is however salt. Many of the library tablets excavated in 1963 and 1965 were riddled with salt and some sprouted salt crystals on their surface: 'The problem of dealing with such tablets (some more than a foot square and up to three inches thick), which had been very severely affected by the formation of large salt crystals in all cracks, was a very difficult one'.[16] They were undoubtedly particularly vulnerable because they were so close to the surface, and on the surface of the mound one can see perfectly respectable kiln-fired potsherds disintegrating year by year. Hence, while the Akkadian and Ur III strata would obviously have contained contemporary potsherds (of the style of those which have survived because they were buried deep as packing round the sewers), just as the mud-brick and occupational debris was being washed away from beneath them, they too in time must have succumbed to the effects of the salt as they were repeatedly soaked and dried, and almost the only artefacts surviving on the surface are closely contemporary with the walls and rooms immediately beneath. There is an exception, the *ṣalbūḫ*: when kilns reached excessive temperatures the contents were fired extremely hard, turning olive green and often vitrified.[17] Such kiln wasters

[15] For a similar conclusion at Fara cf. Martin 1988: 14.

[16] Biggs 1966: 74.

[17] On the degree of vitrification reflecting the maximum temperature reached during firing see Tite et al. 1995: 46-7.

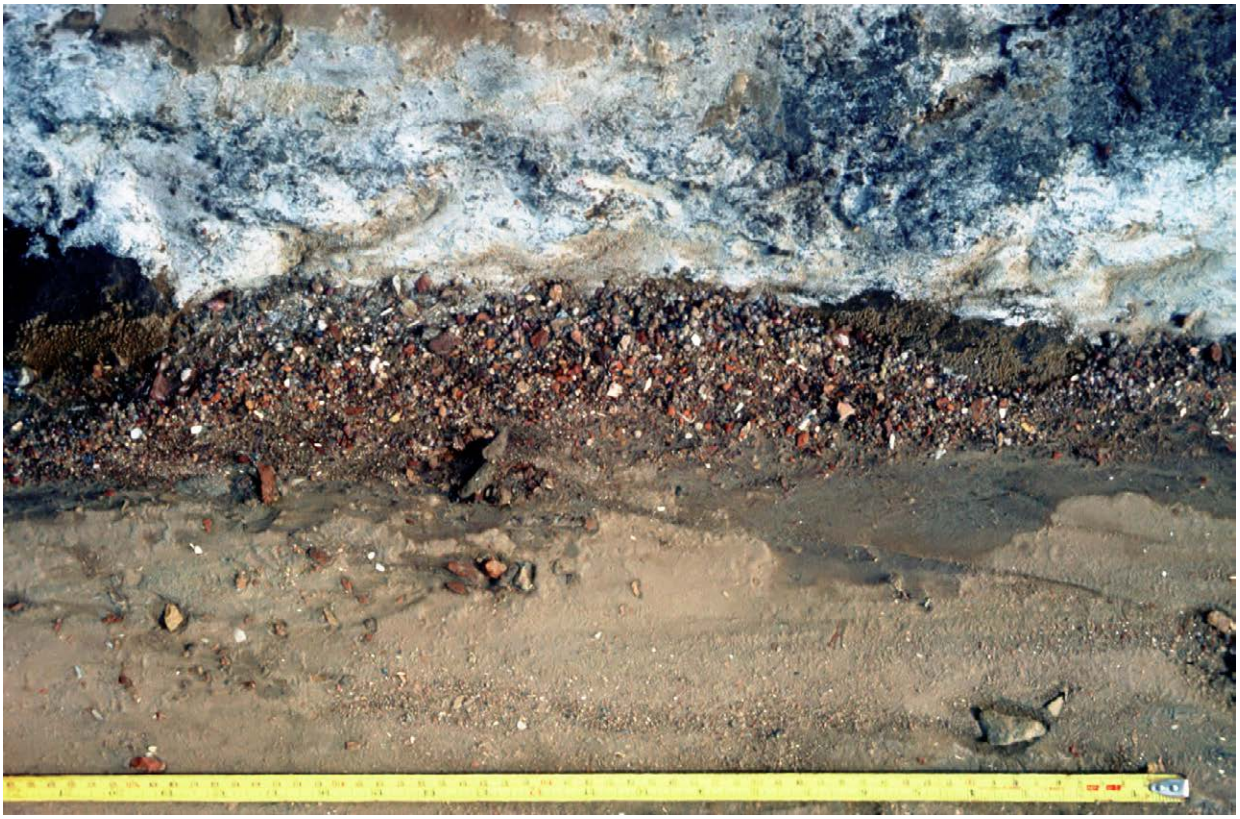

Figure 1.8. Miniature wadi, on Main Mound, showing disintegrating sherds.

resist the destructive effects of the salinity; ironically though, probably because the ceramic kilns were moved out of town (see Chapter 7.3), those we saw were not from the later period, and among the commonest surface finds were deliberately hard-fired Uruk period clay sickles which seem to have survived from the 4th millennium.

Chapter 2

The mounds and the city layout

The Main Mound

Having completed a map of the major mounds (though not some outlying 3rd millennium occupation, as shown in Fig. 2.1) the next step was to resume excavation, and permission for the British School of Archaeology in Iraq to undertake this, with the Chicago Oriental Institute represented by Robert Biggs, was generously granted by Robert McC. Adams, at that time Director of the Institute, and of course by the Directorate-General of Antiquities under its Director, Dr Isa Salman. After assembling at the British School's Baghdad base on the Tigris in Karradet Mariam, the team took up residence at the site in September 1975 and wound up the season in December. In the following years (1976-1980) we worked each autumn, but after that, in the 1980s, commitments in the UK dictated a spring season: this did have its advantages, since it meant that team members were able to adjust gradually to the increasing temperature instead of landing in the sweltering heat of September, while the tents (and the mud tracks connecting us to the outside world) were dry at the close of the dig. Whether the daytime plague of midges in the spring was preferable to the night time invasion of one's personal space by the sand-flies in the autumn was a matter for debate.

When we reopened the excavation in 1975 it was only common sense to start where Chicago had left off. A coherent plan of the architecture in Area E, from where the library had been recovered, had revealed a sprawling layout of rooms clustered around three or more courtyard units (Fig. 2.2). The rooms to the south of the main concentration of tablets had been christened the Southern Unit, and its plan was not yet fully exposed, so this seemed an obvious starting point. This was not in expectation of further cuneiform treasures but rather to resolve the outstanding uncertainties as to the nature of the entire building complex. Hansen concluded his discussion of the Area E complex with the opinion that the buildings 'are probably the residential or administrative dependencies of a temple which is yet to be found in the immediate vicinity of Area E'.[1] Our first season did much to reinforce this view, although if there is a temple the precise location of the central shrine remains to be proved (see Chapter 5). The plan of the south-eastern part of the Southern Unit was duly completed, and a further small cluster of inscribed tablets recovered from the floor of Room 48. More spectacularly four grave shafts were identified beneath the floor of the Unit's reception room (Room 39), one of them still unrobbed, with a wealth of grave goods (see Chapter 4), giving credence to the 'residential' label in Hansen's discussion. In squares 6G66, 76 and 86, beyond a corridor along the south side of the Unit, a steeply sloping ashy tip, followed down for at least 6 m over three seasons, yielded a varied assemblage of artefacts which taken together could only be plausibly interpreted as waste from a cultic institution and so reinforced the conviction that we were in a temple complex (see Chapter 5).

Less extensive work elsewhere on the site began the exploration of the rest of the city. At the north-east corner of the Main Mound the highest point on the site was called Area A in 1963, when a sounding sunk from the summit had encountered four burials at a depth of 5 m. They were richly equipped with pottery, stone bowls and copper items including a mirror, and had been sunk beneath an open space south of a group of rooms approximately contemporary with the Area E complex.[2] The combination of these tombs with the dominant location, and with some features of the building layout further to the north, leads

[1] Hansen 1974: 18.

[2] *Iraq* 46: 99; Crawford 1964: 13.

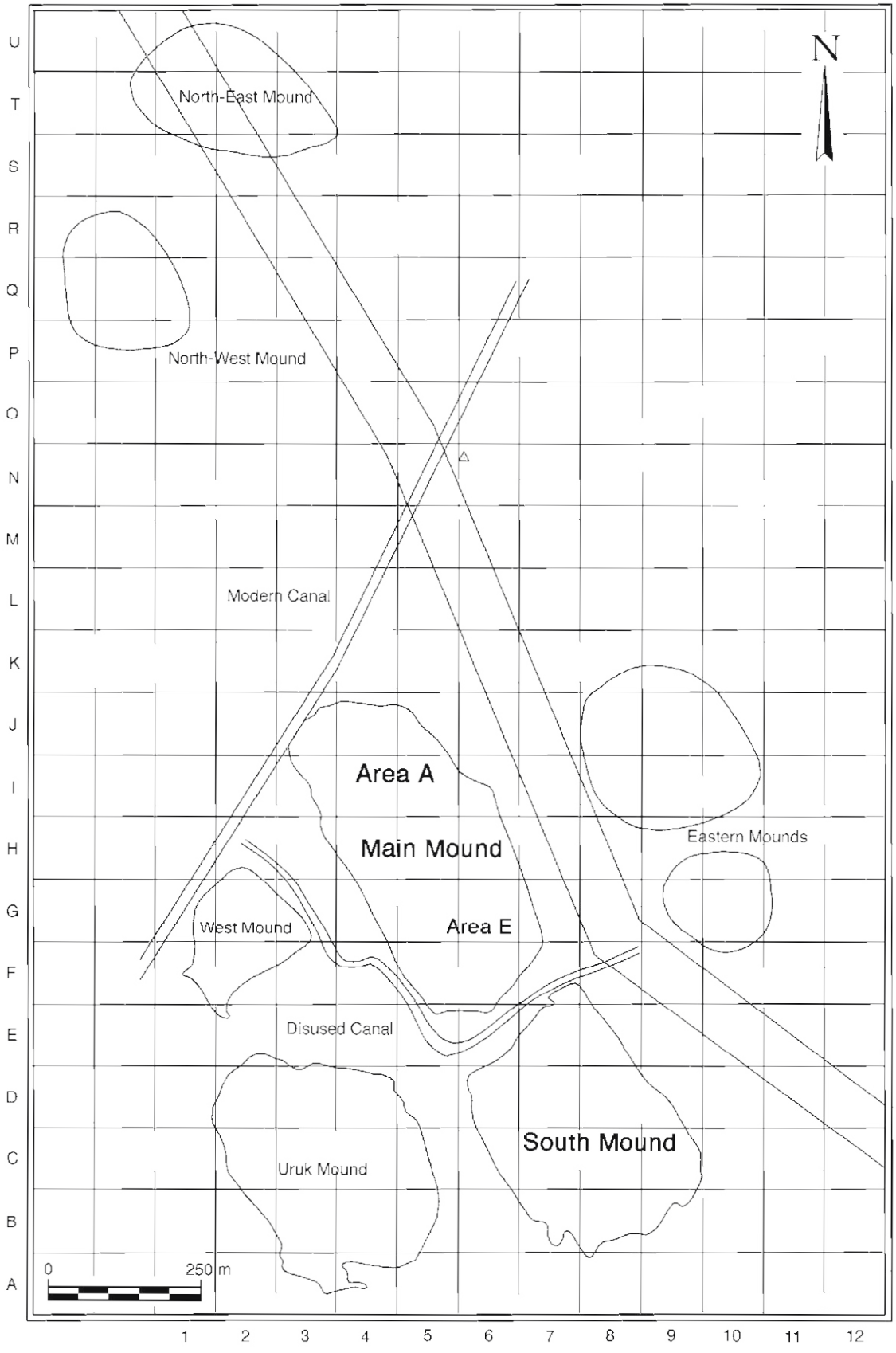

Figure 2.1. Site with outlying mounds (ASE 1 p. 2)

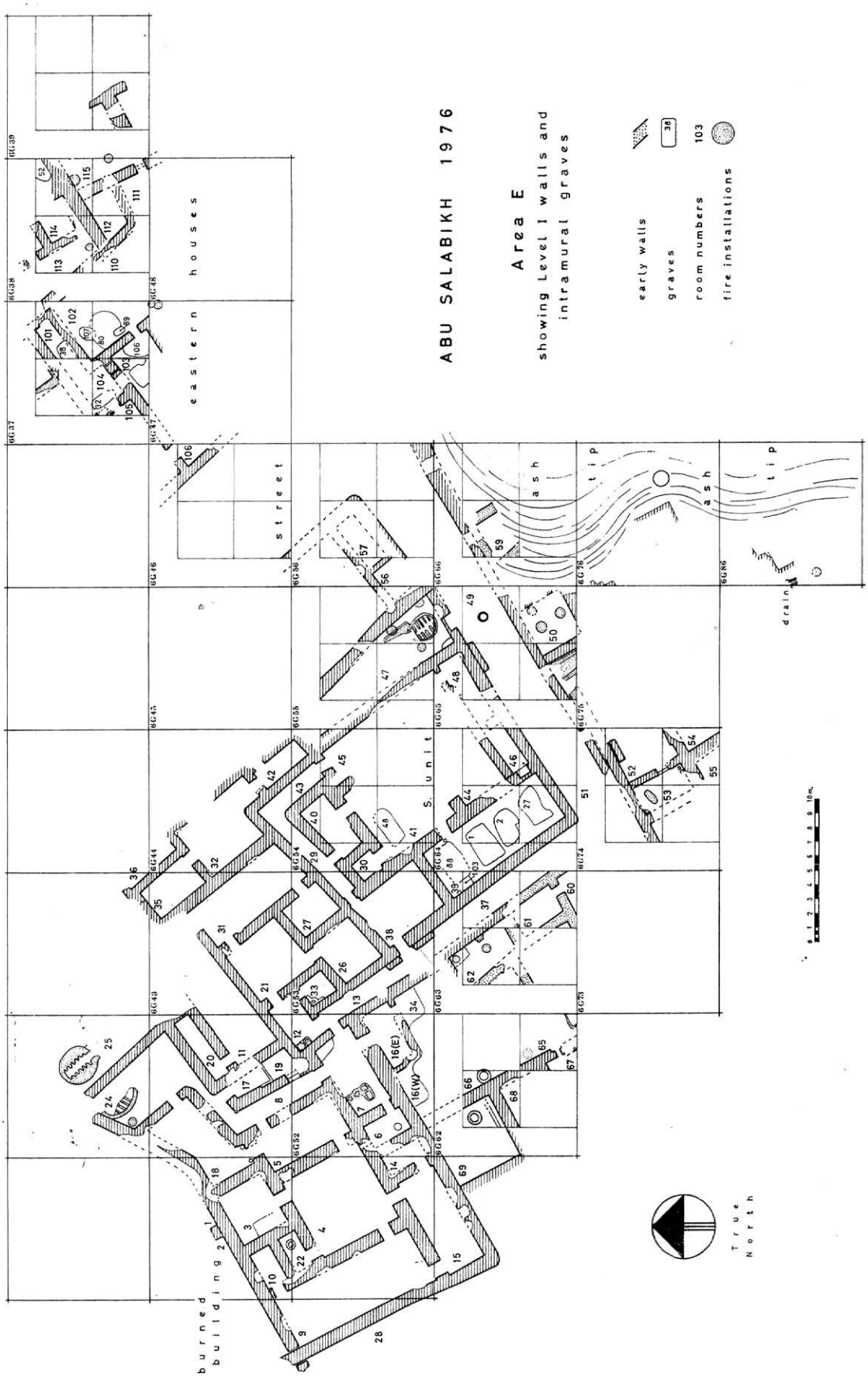

Figure 2.2. Area E 1963-65, 1975-76 with completed plan of Southern Unit. (Iraq 39: 279)

*Figure 2.3. Strip cleared across the city wall at the north end of Main Mound, looking north. The north and south faces of the wall are delimited by the dark deposits each end of the trench. (*Iraq *49: Pl. XXIVd; plan p.108 Fig. 4, square 3J).*

to a suspicion that this may have been a secular administrative establishment (see Chapter 9), but there is no certainty on this score. Beyond Area A, at the very north end of the Main Mound, attracted by an unusually dark area of the surface with the traces of kilns and a concentration of kiln wasters, trenches in our last two seasons (1988-9) exposed some simple domestic architecture (*Iraq* 42: 103-4). In a courtyard, and in a rectangular space along its south-east side with the dimensions of a reception room, the floors were relaid more than once and all deposits were black with ash, replete with many pottery wasters and frequent discarded clay sealings of early ED III date. The obvious deduction that we were looking at a potter's workshop was reinforced by part of a large terracotta disc set into the floor of the room; cutting through the disc and its associated floor was the undisturbed burial of an adult with the bare minimum of grave goods (see p. 123). In ED III at least, this part of the city was an industrial sector, though whether this embraced more than potters' workshops remains unknown.

Although one isolated kiln was exposed by a visiting bulldozer alongside the modern canal in square 4L some 200 m north of the city wall, it is certain that this potters' quarter stood within the city wall, because at various points we have been able to locate the wall itself. Since it is built of mud-brick, or just mud, it is no more resistant to the effects of erosion than the rest of the site, and does not, as one might have expected, survive as a raised bank (as the Early Dynastic wall of Uruk does). At the extreme north-west corner (3J) it is represented simply by a wide (18 m) strip of relatively clean earth neatly delimited by occupation debris inside and out (Fig. 2.3). Elsewhere the location of the wall was securely established on all four sides by surface clearance. As described below (p. 21), the tip lines against the eastern wall show that there was a steep drop at its outer face, where the surviving deposits indicate that the city was still discarding its debris at least into the Akkadian era (Fig. 2.4).

Thanks to the erosive power of the wind and rain the city wall was not the only architecture recoverable by scraping away a thin crust, because across the great majority of the Main Mound Early Dynastic house walls lie immediately beneath the surface. After our experience of this phenomenon on the West Mound (see below), it was realized that this offered the opportunity to expose wide swathes of the urban

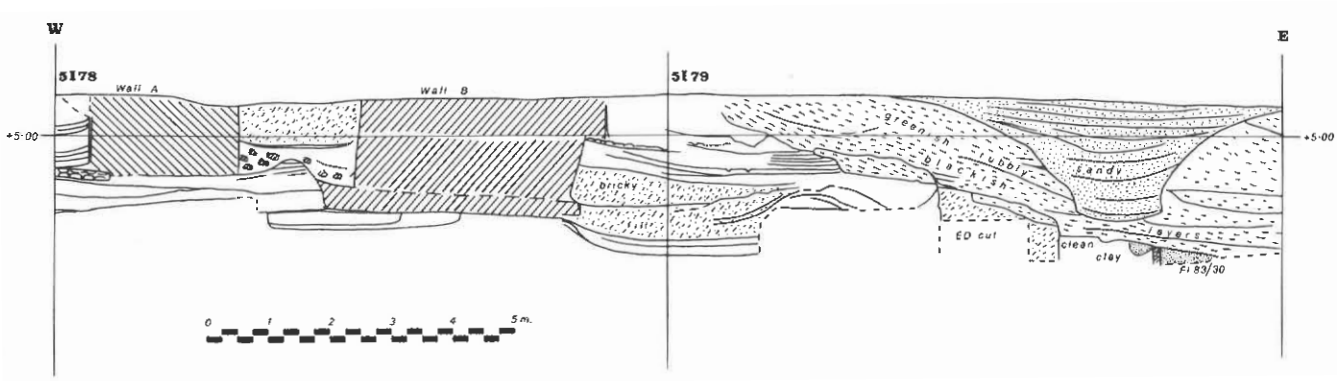

Figure 2.4. Section along north side of squares 5I78 and 5I79, showing late tip lines sloping off outer face of earlier city walls. (Iraq *46: 105 Fig. 6; plan p. 102)*

plan, and from 1981 onwards surface clearance became a major component of each season's fieldwork. In 1981 an area averaging 40 x 70 m was cleared south of Area A, and this was extended southwards in 1983 with a strip of 120 m in length to join up with Area E. In the later seasons (1985-89) the main effort was devoted to the southern half of the mound west of Area E, with 20 x 20 m 'windows' elsewhere and isolated strips strategically placed to intersect with the city wall at intervals.

Taken all together, by the end of work in 1989 we had exposed about 25% of the entire Main Mound, either from excavation or predominantly from surface clearance (Fig. 2.5). The resulting plan begins to give us a picture of the city as a whole, with its streets and lanes, some waste tips and an industrial area. The majority is of course given over to residential quarters, but these are by no means uniform. Along the east side, between Areas A and E, the mound surface is lower lying, and although the street network is consistent with the neighbouring areas house walls are thinner and houses smaller than elsewhere. On excavation they turned out to be significantly earlier than the buildings excavated in Areas A and E, and it remains to be established whether the difference in scale is a consequence of their earlier date, or more to do with social stratification. Higher up on the mound, especially to the north and west of Area E, there is a dense and predominantly rectilinear patchwork of housing, divided by streets and lanes. The surface clearance procedure has a dual value: while delivering the overall layout of the city, it also allows us to identify individual features or buildings which would repay further investigation. Two buildings in particular stood out for their size and coherent plan, and these were selected for detailed investigation (see p. 23). The bigger of the two, known as the 6H House, stands on the east side of a main street leading north from the Area E complex, and is notable for its size but also for the number of intramural burials within its four walls. Beyond Area E to the south-west the 5G House was smaller but still a fair size, and meticulously planned and maintained.[3]

The West Mound

While most of our attention has been devoted to the Main Mound, which we can be sure was a self-contained walled settlement during virtually the full length of the 3rd millennium, this was only one component of the site as a whole. The 'Eastern Mounds', areas of late occupation already mentioned to the east of the Main Mound, which show clearly as flat salty patches in the satellite images, remain uninvestigated (see p. 19), but the three other mounds have not been entirely neglected. Across the old river bed, the city wall encircling the Main Mound shows that whatever settlement lay beneath the West Mound was not part of the core Early Dynastic I-III city. The surface sherds indicated that it was in fact earlier than at least the upper levels of the Main Mound and since settlements from the first

[3] These two houses are exhaustively described in ASE 5 and are the prime source for much of Chapter 3.

half of the Early Dynastic period had been little investigated here or elsewhere, work on this mound seemed likely to be rewarding. The mound itself was small enough for us to strip the entire surface and expose the walls of the highest surviving phase (Fig. 2.6). The plan (Fig. 2.7) shows a layout, datable from the associated pottery to ED I, which is noticeably different from the later urban plan of the Main Mound. Enclosure walls, up to 80 m in length, and in places two side by side, do not surround the whole

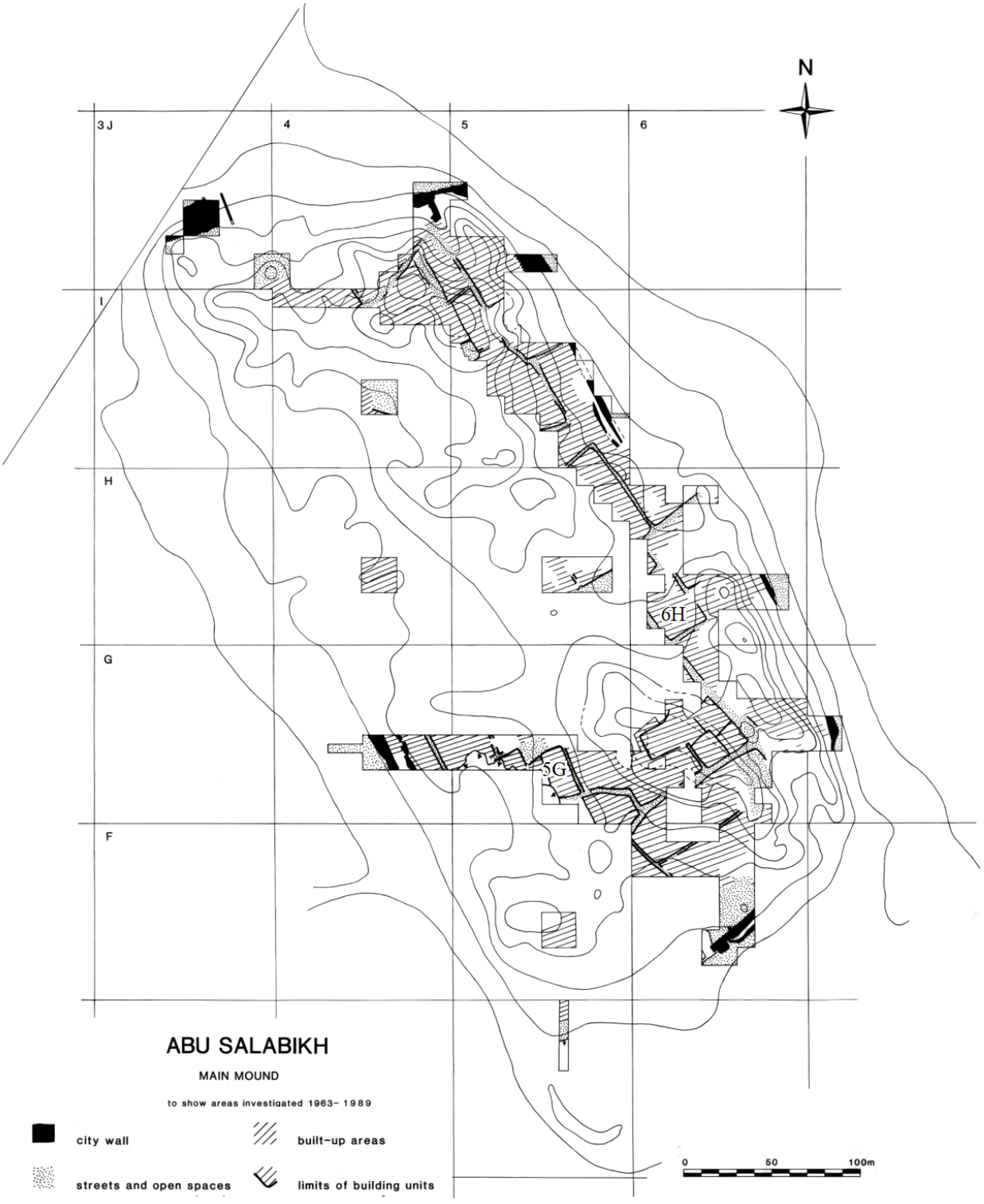

Figure 2.5. The Main Mound plan after conclusion of clearance programme in 1989. (Iraq *52: 96 Fig. 1.)*

Figure 2.6. Surface clearance in progress on the West Mound, 1977.

settlement like a city defence, but serve to separate discrete housing areas. Much has obviously been lost to erosion round the sides of the mound, but the best preserved sector is clearly tight-packed with a narrow dog-leg lane separating the houses.[4] These Early Dynastic I buildings only survive close to, or below, their floor level, and seem to have been erected on top of a deserted mound formed from part of the earlier 4th millennium settlement which is mainly represented by the Uruk Mound to the south. It remains to be established whether there was a significant break in occupation before the Early Dynastic I buildings were laid out, as it has been suggested that the Uruk period strata in the south-eastern part of the West Mound are of Middle Uruk date.[5]

The Uruk Mound

A small and relatively recent irrigation channel flowed from west to east just south of the West Mound, but it must have been taking advantage of a pre-existing gap between the West and Uruk mounds, and it is unclear whether there would have been continuous occupation along the west side of the river, although both mounds were occupied at the same time. Work on the Uruk Mound was first undertaken in 1963 when a small sounding was sunk close to the west side. In 1978 T. Cuyler Young carried out a further sounding, and it was then extensively investigated by Susan Pollock in 1987-89.[6] Her work established that there was a long-lived 4th millennium occupation from Early to Late Uruk. The domestic architecture used the distinctive Uruk-period Riemchen bricks, and along the west side was a very substantial enclosure wall, up to 20 m wide in places and extending from north to south for

[4] See ASE 1. A possible example of internal enclosures at Old Babylonian Maškan-šapir is noted in Stone 1991: 239: 'traces of internal walls have been identified from aerial photographs at Mashkan-shapir'.

[5] See Pollock 2015: 272-3.

[6] Pollock 1987; 1990; Pollock et al. 1991; Pollock 2015.

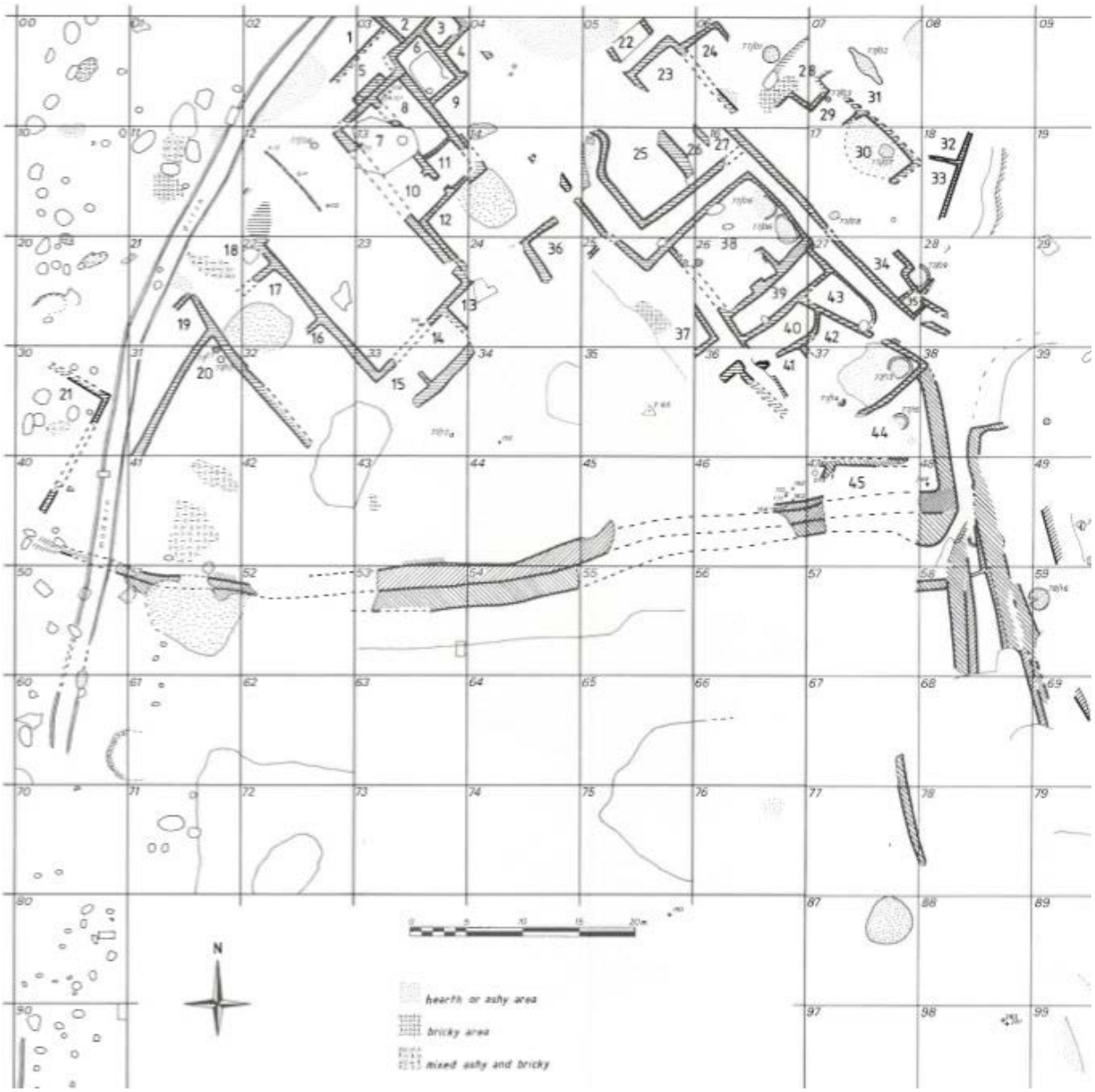

Figure 2.7. West Mound: ED I architectural layout, 1977-8. (after ASE 1 Fig. 354).

about 300 m, which at present is the only certain south Mesopotamian Uruk-period defensive wall. The comprehensive surface clearance of the mound did not yield any significant traces of occupation later than the Jemdet Nasr period, and, even allowing for the evidence from elsewhere at the site that entire occupation strata have been eroded, it seems probable that this mound, unlike the West Mound, was not reoccupied in the 3rd millennium.

The South Mound (Fig. 10.8)

The city wall delimiting the Main Mound was identified at the south-east end (in square 6F) and probably at the south-west corner in 5E. This made it certain that the South Mound lay outside the walled city, extending some 400 m to the south-east along the east bank of the old river course. It stands only about 2.50 m above the modern plain, and the surface pottery belongs to the ED III period, suggesting

that this was a later suburb. As with the Main Mound, walls lay directly beneath the surface, and some surface clearance (in squares 6D55-56, 65-66) exposed a number of fire installations and flint and bead working debitage in two spots (see pp. 132-3). In May 1989 favourable weather conditions revealed the outline of a substantial building, measuring at least 50 x 50 m which could be approximately planned without any clearance of the surface. A corridor running along the north-west and south-west sides immediately inside the outer wall invites comparison with palatial buildings elsewhere on the alluvial plain, such as Kiš and Tell al-Wilayah.[7] One deduction could be that secular administration, or in other words the seat of local government separate from the temple, had expanded beyond the capacity of its traditional site (perhaps Area A), and had transferred to a new quarter with more space for a custom built establishment. Alternatively, this could reflect the advent of a higher (and extraneous) political authority – in other words, the palace of a king as opposed to the local ensi. Plans to test these ideas were scuppered by the cessation of work in the wake of the Kuwait invasion, but it remains a clear and well defined objective for future work (see further Chapter 10).

Outlying mounds

As work proceeded through the 1970s and 1980s we became gradually aware that 3rd millennium occupation was not restricted to the obviously visible mounds. As the satellite imagery (Fig. 1.5) shows, there are two patches of highly saline soil outside the city wall to the east, referred to as the Eastern Mounds. No excavation has taken place here, but two fragments of brick with a standard Amar-Suen inscription were found on the surface of square 10K.[8] In 1977 the Greek engineering firm Scapaneus launched a major drainage project which entailed dredging 10 m wide ditches running approximately north-south. Thanks to the intervention of the Directorate-General of Antiquities, and in particular Dr Behnam Abu al-Soof, the course of the canal was angled so as to avoid cutting into the visible mounds, as can be seen in the satellite photo (Fig. 1.5), but not far north of the modern canal which runs past the north end of the Main Mound two more occupation spreads were noted and called the North-West and North-East Mounds. The drainage ditch missed the North-West Mound but cut through the North-East Mound. There were ED III graves at the surface of the North-East Mound, and a small sounding into the sloping east side of the ditch exposed an earlier grave and floor surfaces, of ED I date.[9]

The layout of the city on the Main Mound

The 25% of the Main Mound plan so far exposed gives a valuable first insight into the layout of the Early Dynastic city, and inevitably raises as many questions as it answers (Fig. 2.5). Streets, from 5 to 8 m in width, stand out clearly, as do much narrower lanes between the houses. Where there were neither thoroughfares nor buildings the surface clearance may not give a clear identification of the use of space, but excavation at the south-east corner revealed the extensive rubbish tip which provides the explanation in one area (see pp. 75-7). A question which has been much debated about Mesopotamian cities in general is whether or not there were 'squares' or 'plazas', either for the citizens to assemble or to accommodate commercial activities. The evidence of the texts has proved hard to interpret with confidence, and runs into philological disagreements. In Old Babylonian Akkadian texts one component of the urban scene has usually been normalized as *rebītum*, assuming it is related to *arba'* 'four' and so may fairly be rendered 'quadrangle'. However, the authoritative *Assyrian Dictionary* of the University of Chicago eschews this etymology (without identifying an alternative), and the Sumerian equivalent is usually /sila.dagal(a)/ which literally means 'wide street'. As pointed out by Edzard, in the lexical lists we also find Sumerian equivalents written **sila-4-ba** and **sila-4-ka** , which tends to reinforce the

[7] Matthews and Matthews 2017.

[8] AbS 1798 (IM 85829) reads [**e$_2$**] ^{d}**en-lil$_2$-ka / nita$_2$ kalag-ga / lugal uri$_5^{ki}$-ma / lugal an ub-da limmu-ba**, ll. 6-9 of the 'standard nine-line inscription' (Frayne 1997: 245-7). AbS 1799 (IM 85830) has only the last line of the same text.

[9] *Iraq* 40: 78-80.

association with 'four'.[10] These are composed with the Sumerian word for a street **sila**, with its Akkadian equivalent *sūqu*, and could imply a meeting of four ways.[11] Another Sumerian word for 'street' is **e-sir$_2$**, while if one is looking for a term for an open space the best candidate seems to be Sumerian **tilla$_2$**, which is mentioned in the Old Babylonian lawcode of Lipit-Ištar as the habitat of a prostitute. While none of these words certainly designates a broad open space within a city, and as yet we have no certain example on the ground (which could be very difficult to identify), in the absence of complete city plans it is premature to maintain that south Mesopotamian cities had no 'squares' and only wide streets.

In other parts of the world a city square often served and serves as a commercial hub, both for periodical markets and long term commercial institutions, but the copious later documentation from both north and south Mesopotamia would lead us to assume that the default location for such activities was on river or canal banks where ships and boats off loaded. The Akkadian word *kārum,* which is found in Sumerian as **kar**, and refers to the bank of a waterway, could refer in due course to commercial organizations and even market exchange rates. It is not mentioned much in Early Dynastic texts, but we may reasonably assume that the same would have applied then. One of the outstanding issues which need resolving at Abu Salabikh is where the quayside – which must surely have existed, perhaps along the west side of the Main Mound – was located, and how it would have related to the city walls.

Thoroughfares

From the plan so far recovered it is clear that the city was crossed by main streets, up to 8 m in width, and intersected by much narrower lanes, some of which were culs-de-sac. The lane running along the south-east side of the 6H House seems to terminate in an area of burning, perhaps from a demolished fire installation, and the rich deposit of emmer husks was either dumped there from within the house or results from a dehusking process in the lane itself (see p. 104). We cross-sectioned the lane along the north-east side of the 5G House, and this revealed how, unlike internal rooms, the successive fine striations curve noticeably up towards the walls on each side; for obvious reasons, the streets and lanes were not swept clean as often as house interiors. As observed by Elizabeth Stone at the Old Babylonian city of Maškan-šapir 'streets and open areas tended to build up rapidly, due to the accumulation of trash, so that the floor levels of neighboring buildings were at a lower level'.[12] This is exactly what we see in Room 66 of the 6G House, where the floor had in due course to be raised to match the level of the street outside, and previous to that the threshold needed building up.[13] In different parts of the city, where streets especially were revealed by the surface clearance, characteristic striated deposits with frequent small potsherds were readily recognized as street debris.

The city wall(s)

While at some Mesopotamian sites, both in the southern alluvium and on the northern plains, there are conspicuous high banks which are the eroded fortification walls of an ancient city, there is nothing in the contour of the Abu Salabikh mounds to indicate their presence. A hint that they had existed came during our first excavation season in 1975, when a grader sent by a friendly local official misinterpreted its instructions and instead of smoothing the ruts in the access tracks scraped clean a swathe of the surface close to our tents at the north end of the mound, exposing eight rows of plano-convex bricks delimiting the north-east edge of the Main Mound. In subsequent years surface clearance in various

[10] Edzard 2000: 295.

[11] CAD R: 319. The lexical passages are Izi D.ii.5'-6': **sila-4-ba** = [*su-uq er-bet-ti*] and **sila-4-ka** = *r*[*e-bi-tu*] (MSL 13: 181). One must bear in mind that the number four could apply equally to the meeting of four ways, or to a space with four sides.

[12] Stone 1991: 238[3].

[13] ASE 5: 108. Compare Woolley's observations about the rise in street level at Old Babylonian Ur: Woolley and Mallowan 1976: 24.

parts of the mound (clockwise 5J, 6H, 7G, 6F and 4G), approximately along the 5 m contour line, showed that a substantial wall had enclosed it on all sides, although the mode of construction was by no means uniform. The most revealing location was in a trench dug across the line of the wall in 5I78 and 5I79 (Fig. 2.4): here the city wall was built 3.40 m wide, with a foundation plinth projecting 0.50 m on the inside, in uniform plano-convex bricks. From its base to the modern surface it still stood 2 m high, and the horizontal alluvial deposits surrounding the visible mound conceal the fact that outside the wall to the east the ground dropped sharply so that there we were recovering Late Akkadian or Ur III pottery from levels well below the wall base. Inside the city when the wall was first built there was a second, narrower, enclosure wall (2.2 m wide) running parallel to the outer wall with a space of 1.6 m between them. Later this was built over by the walls of houses of ED II date, which were built up against the inner face of the outer city wall. Presumably this main wall remained in place throughout the Early Dynastic, although now eroded, and the ceramics in the tip lines against its outer face indicate that this city enclosure continued at least into the Akkadian era.

Our trenches did not reach down to the base of the city wall at any point, and because of the water table, this would have been difficult. One cannot be sure, therefore, if the wall was built at the same time as the first buildings on the site of the Main Mound. However, there is no evidence for occupation at the Main Mound before the Early Dynastic period, and it is tempting to assume that the enclosure wall was installed at the same time as the city on the east side of the river was first laid out. What is striking is how varied the construction methods were – accumulated earth in the north, 18 m wide, carefully laid brickwork on the east, and a much wider brick wall in the south where there is a dead straight wall face of 16 rows of neatly laid brick, at least 4 m in width. This might be taken to indicate different times of construction, but that would be unsatisfactory for creating a single enceinte. Instead, it may be that different sectors of the new city wall were assigned to different sectors of society. When Sargon II of Assyria was organizing the building of his new capital at Khorsabad (Dur-Šarrukin), the construction of the city wall was farmed out to the governors of different provinces.[14] Nearer in time is Gudea's account of the building of the new Ningirsu Temple at Girsu, the Eninnu: the population was conscripted and he makes explicit reference to different groups or 'clans' (**im-ru-a**). The 'clan' is a social unit by which workforces are identified 400 years earlier at ED III Šuruppak,[15] and one may assume that similar social divisions were present at Abu Salabikh.

There is nothing in the plan of the Main Mound as we currently see it that points to a physical division of the city into sectors, but the layout of the West Mound, which must date to immediately before the foundation of the Main Mound, or even overlap with it, does show clearly discrete residential sectors divided by enclosure walls, in places two running parallel, presumably each erected by the inhabitants of the adjacent spaces. The West Mound shows no sign of an all-encircling city wall. One cannot rule it out with certainty, but it is not a foregone conclusion that a conurbation necessarily had one. In the light of later practice it might seem obvious that any 'city' would have its city walls, but we are not entitled to assume this without some supporting evidence. The Uruk period city wall revealed on the Uruk Mound by Susan Pollock was built with rectangular 'Riemchen' bricks. It was as much as 20 m wide and enclosed a space stretching at least as far as 300 m. Remarkably, this is the only clear instance of a south Mesopotamian city enclosure of this date, despite the imposing walls of Habuba Kabira on the Syrian Middle Euphrates. Admittedly, though city walls of the Uruk period are not well attested elsewhere, it does not mean they did not exist: as Abu Salabikh itself demonstrates, a city wall need not have survived as a visible feature in the landscape.[16] Yet it seems possible that large conurbations were

[14] See Parpola 1987: no. 64 (ABL 486).

[15] Jacobsen 1957: 121.

[16] For another possible Uruk period wall see Stone 2013: 159 Site 245 with note 10 on p. 175. However, there is a distinct possibility that the south-eastern part of the site was in fact Early Dynastic. On site inspection is needed.

first protected by enclosure walls during the Early Dynastic period. The most famous city wall in south Mesopotamia is at Uruk: the opening lines of the *Epic of Gilgamesh* invite the hearer to 'inspect the wall .....', and in the Sumerian poem we know as *Gilgamesh and Akka* the ruler of Uruk surveys the hostile forces of Kiš from the parapets. The wall itself survives to this day and is indeed of the correct date, being built in plano-convex brick, and standing high above the land surface each side. Some authors have suggested that such walls tend to be a secondary development, consequent on the rise of inter-city rivalries and the dangers of military offensives, one noting that 'in early Mesopotamia, too, the very large circumference of the enclosed area indicates that the walls were erected only after substantial city evolution had taken place'.[17] At Abu Salabikh at least it does look as though a new city enclosure was created to accommodate a densely occupied urban settlement early in the Early Dynastic period, but with the exception of Al-Hiba and, perhaps WS 245 (see footnote 16) further examples are lacking at present.

Whether or not they existed becomes a pertinent issue when the settlement patterns of the 3rd millennium are considered: it has often been suggested that a drop in the density and number of rural settlements was partly a consequence of the concentration of population behind the walls of fortified centres. Whether the two phenomena are causally linked in this way is hard to judge. The issue is whether the countryside was in fact unoccupied: as discussed below (pp. 158-60), both at Abu Salabikh and later at Girsu and Umma, there is clear evidence of rural settlements, in much greater numbers than are attested in the surveys of sites. The possibility is that the remains of relatively recently established, and hence low lying, villages or farmsteads would be shrouded by alluvial deposits and hence have escaped the attention of modern archaeologists.

[17] Gat 2002: 131.

Chapter 3

Buildings and builders

Houses

While the 25% of the city plan so far recovered reveals the existence of waste tips, public buildings, and numerous thoroughfares, most of the space is devoted to simple houses. Whereas in Early Dynastic I on the West Mound it seems there were enclosure walls within the urban layout, on the Main Mound there is a dense patchwork of rectangular buildings which can generally be recognized as individual houses of varying sizes, separated by streets or lanes, but with no sign of similar walled precincts. In some respects it is these houses which offer archaeologists their greatest interaction with the lives of the inhabitants, for, mundane as they may seem, the walls and rooms excavated are the very materials which constitute one of the main assets of a household, assets with a value reflected in the cuneiform sources which supply a different angle on the same material. Houses are what we mostly recover, and houses were of paramount importance to the inhabitants and demand our attention accordingly.

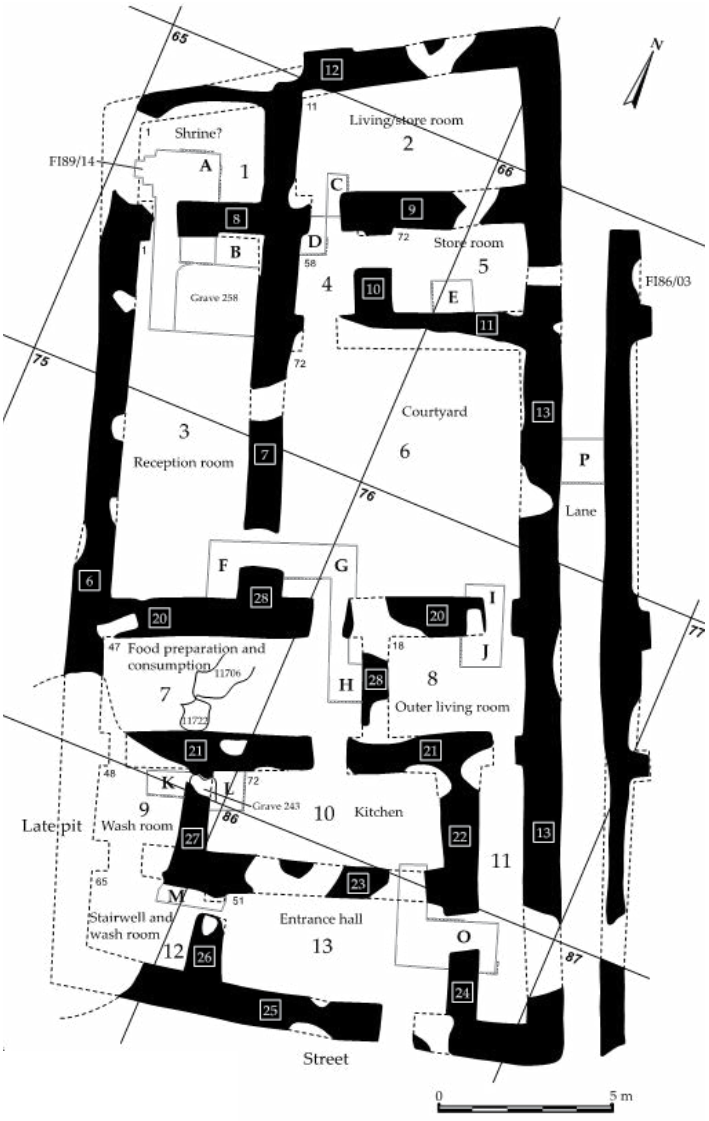

Figure 3.1. 5G House to show rooms and soundings. The room labels suggest the principal activities but some rooms are likely to have been multi-functional (after ASE 5 Plate 6)

One striking feature of the houses on the Main Mound is their size. The 5G House (Fig. 3.1) and 6H House (Figs. 3.2-3) occupy 390 and 500 m^2 respectively, and this puts them at the top end of contemporary house sizes in south Mesopotamia, as is shown by the figures assembled by Henrickson (1981: 52). Admittedly, these two houses were selected for investigation partly because they are relatively large, but there are others of a similar size revealed by the surface clearance in the southern half of the Main Mound. Elsewhere, on the east side of the Main Mound between Areas A and E, there are considerably smaller houses, but they are mainly earlier than ED III and this may be one reason for the difference. As for the 5G and 6H Houses, it is true that one building at contemporary Fara is larger, but the exceptional thickness of its walls marks it out as something more than a normal

Figure 3.2. Excavation of 6H House in progress: Rooms 67 and Grave 234 behind, viewed from the west.

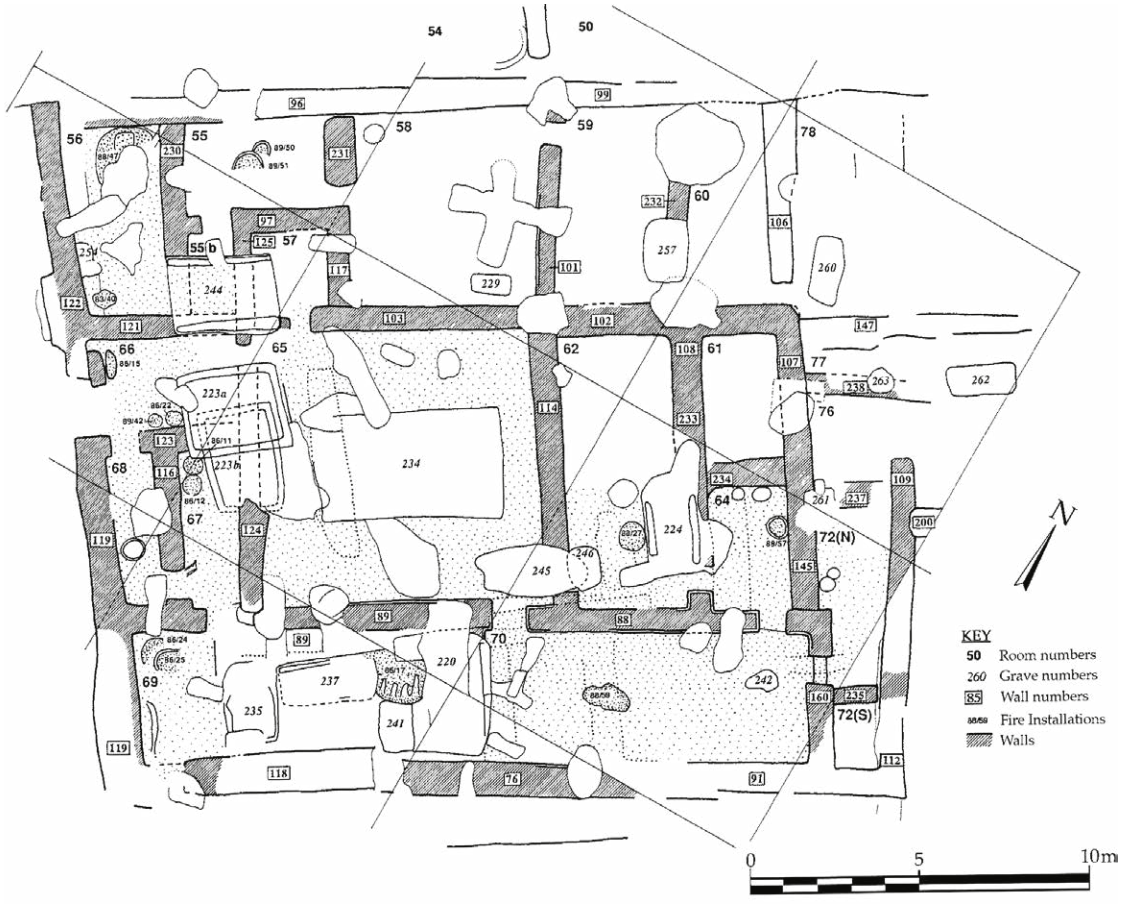

Figure 3.3. 6H House Level IC (after ASE 5 Plate 12).

residence.[1] The Old Babylonian houses at Ur do not reach sizes approaching 390 or 500 m^2, but this must partly reflect pressure on space within the walls, as houses from about the same time at Larsa are said to occupy between 500 and 1000 m^2.[2]

From Šuruppak, Nippur and Girsu we have a number of documents recording house sales, and the areas specified are regularly much smaller than most of our houses as excavated. Using the equivalence of 1 **sar** = 36 m^2, the two ED IIIa house sales from Šuruppak concern areas of 48 and 60 m^2, three from Nippur also measure 48, 60 and (more than) 36 m^2. The same size range can be seen in the later Early Dynastic at Girsu (18, 24, and 48 m^2), and in the Akkadian period at Nippur (two of 36 m^2).[3] Private houses in Ur III texts are similarly small,[4] and so too are many described in Old Babylonian house sales. This discrepancy is partly to be explained by the realization that what may appear in a sale document to be a very small house may in fact be no more than a notional area, constituting the difference between two unequal parts of a house which is being divided between joint heirs, necessitating the sale document to compensate for the inequality.[5] When all is said and done, it remains true that the 5G and 6H Houses, and others known in plan but not yet excavated, are evidence of an affluent sector of the city population.

House construction

Site preparation and laying foundations

While making mud bricks need not have been a highly skilled or extravagant procedure, it is clear that building a house was recognized as a specialized undertaking. A lexical list from contemporary Šuruppak lists the builder (**šidim**) between musicians and the barber, the farmer and the potter,[6] while in IAS 490,[7] 142 workmen with 14 overseers all designated as 'builders' are listed between '187 carpenters' (**nagar**) and '45 smiths' (**simug**). We can tell from the inscriptions of Gudea of Lagaš that the builder's craft was well respected. Following on from his predecessor Ur-Bau, who describes his elaborate procedures for purifying the soil on which he reconstructed the Ningirsu Temple,[8] Gudea's cylinders, by far the longest text we have from the classic age of Sumerian, celebrate his construction of a new Eninnu temple for the patron deity of the city, Ningirsu. We are told of the measures taken to clear the site, of his personal involvement in making the bricks, and then his participation in laying out the new building. To start with in a dream he is vouchsafed the 'plan of the house' (Cyl. A.vi.5), and shown a holy zembil (carrying basket) and a holy brick-mould (A.vi.6), which he uses in xviii.10-11.[9] The god Enki 'set straight the plan of the house for him' (xvii.17) and in Edzard's translation Gudea 'applied the measuring rope to what was exactly an iku, he had pegs driven in alongside and personally made sure (it was correct)'.[10]

Gudea's concern that his new temple should be accurately constructed is encapsulated in the building plan shown resting on his lap in his *Statue B*, accompanied by a graduated measuring rod which undoubtedly corresponds to a cubit (Sumerian **kuš$_3$**), its length close to 50 cm (Fig. 3.4).[11] Well before the Dynasty of Akkade citizens were aware of the importance of accurate survey: house sale documents from Šuruppak

[1] As pointed out by Matthews, *Iraq* 49: 118.
[2] Charpin 1985: 95.
[3] These figures all come from Edzard 1969 (Nos. 24-37).
[4] Waetzoldt 1996: 146.
[5] On house sizes in the OB period see Miglus 1999: 77-8.
[6] *Early Dynastic Lú B*, MSL 12: 13.
[7] a stray tablet found in 6G61 to the west of the Burned building, Room 23 of Area E, on which see further, p. 119, Table 7.2.
[8] Edzard 1997: 19.
[9] Cyl. A xviii.23-26, followed by xix.21.
[10] xvii.26-8; in fact the text only says 'wood', not pegs.
[11] The measuring rod is repeated and better preserved on *Statue F*; for the precise metrological details see Powell 1989-90: 462.

Figure 3.4. Gudea, ensi of Lagaš. Statue B: the temple plan on his lap, with a graduated ruler faintly visible in front.
© RMN-Grand Palais (Musée du Louvre)/ Philippe Fuseau

and Nippur include at the end payments to the surveyor 'the man who applied the rope to the house' (**lu$_2$ e$_2$ eš$_2$ gar**), and he is sometimes given the title of **um-mi-a** for which 'expert' may be our closest rendering.[12] Obviously for measuring houses a cubit rule (ca. 45-50 cm) would have been insufficient: while there exists a heavy copper or bronze graduated rod 110 cm long from Nippur weighing 41.5 kilos,[13] it cannot have been put into daily use, and in the texts we have units of measurement called a 'reed'. For greater distances, though, a rope is obviously more practical. The so-called 'rod and ring' held by divine figures in the iconography are probably a rigid measuring stick accompanied by a coiled rope, symbolizing their role as impartial surveyors of the world (Fig. 3.5). In the metric system which was already operating in the mid-3rd millennium a 'rope(-length)' was fixed at 120 cubits (the equivalent of 10 **nindan** or 20 reeds), so about 60 metres.[14]

Ropes are essential to the process for other reasons. The primary role of the rope was of course to indicate a straight line, giving the shortest distance between two points. Mesopotamians were well aware of this, indeed one way of saying 'dead straight' was 'in accordance with the rope' (in Akkadian *kima qê*), and in the *Epic of Gilgamesh* one is invited to admire how the city wall of Uruk (constructed in the Early Dynastic period) is dead straight, using the same phrase, which also describes how Neo-Assyrian engineers cut

[12] Edzard 1968 Nos. 26-29; Nos. 25 and 78 have instead **gid$_2$** 'stretch (the rope)'.
[13] Powell 1989-90: 462.
[14] Powell 1989-90: 464-5.

their way straight through the mountains 'in accordance with the rope'. At Uruk on a brick platform next to the 'White Temple' the excavators found the plan of a similar late 4th millennium temple outlined on the plaster, with long red lines 3-4 mm wide, which must have been done by slapping a string soaked in paint onto the flat surface.[15] This use of a string is very likely referred to by Gudea in two places where he mentions 'perfectly applying the string' or 'hitting the brick with a string'.[16] To achieve vertical as well as horizontal accuracy some kind of plumb-bob must also have been used. It appears that neither the Sumerian nor the Akkadian word for this surely essential item has been identified, but possible limestone examples were found at Kiš.[17] On linguistic grounds, the best candidate would seem to be *ašqulālu* in Akkadian, but at present this is only attested as the name of a plant – presumably with hanging drupes. The literary canon confirms the significance of the procedures for building. In the poem which enumerates Enki's activities as he established the world order, we read that 'He tied down the strings and coordinated them with the foundations, and with the power of the assembly he planned a house and performed the purification rituals. The great prince put down the foundations, and laid the bricks.'[18] And then he placed the god Mušdama, Enlil's master builder, in charge.

Figure 3.5. Ur-Nammu stele: upper register with measuring rod and line. Lower register, Ur-Nammu with building tools and basket over his shoulder. © Courtesy of the Penn Museum, image 141417.

It is obvious from the closely packed layout of some sectors of the Main Mound that the boundaries of each property would have been carefully observed, and the contemporary house sale documents from Šuruppak and elsewhere show that referring to a house as a 'property' is indeed appropriate. A good number of house sale records were excavated at Fara by the German expedition, and others have appeared on the antiquities market. Unlike sale documents from later in Mesopotamia they are not sealed, but their formal nature is

[15] Heinrich 1938a: 21-22.

[16] **gu mu-ba-ra me šu im-du$_7$-du$_7$** (A.xx.13) and **sig$_4$-ga gu bi$_2$-dub$_2$** (A.xx.27).

[17] Mackay 1929: 203 with Pl. XXXVIII.7, and Pl. LIX Nos. 33, 34 and 37.

[18] *Enki and the World Order*: Black et al. 2004: 222, 341-8. **gu mu-un-gar us$_2$-e si bi$_2$-in-sa$_2$ /a$_2$ unken-na-ka e$_2$ bi$_2$-in-gar šu-luḫ-e si bi$_2$-in-sa$_2$ / nun-gal-e uš ki nam-mi-in-tag šeg$_{12}$ ki nam-mi-in-us$_2$** (ETCSL c.1.13). An alternative rendering would be: 'He put in place the ropes and organized the foundations, with the power of (or: by the side of) the Assembly he put in place a house, and organized the purification'.

underlined by the listing of witnesses, including not only the surveyor but also scribes, an officer (**maškim**) and heralds. While there was usually only a single purchaser, there were generally several recipients of the supplementary payments, and it is plain that the procedure was a very public affair.

The consistent similarity in physical appearance and verbal formulation of these tablets leads one to assume that there was a measure of centralized control over the procedures, including drawing up the documents. In later centuries once a sale transaction was completed the conveyance document would remain in the hands of the new owner, as proof of purchase, but so many very similar documents have been recovered from Šuruppak, mostly in very good condition, that it seems they may have been centrally stored, and that, if not the unique originals, then at least a duplicate would have been deposited with the city authorities. This may seem a bold assumption, but it is likely in any case that the city authorities exercised some measure of control over the conveyance process, since this was the specific role of an official given the Akkadian title of *kakikkum* in later texts. From the lexical evidence and the form of the word it appears to be of Sumerian origin, although its etymology is uncertain and it is not yet attested in any 3rd millennium texts.[19] Our understanding of his role comes from Old Babylonian times, from Ur in the south and the Diyala region in the north. In both places his function seems to be as an official responsible for house sales. Both at Ur and at Ishchali he appears alongside a judge, while authorizing house sales, and at least in Diyala sealing the conveyance tablet, in the same way as the *šasukkum* administers the fields (see pp. 92-3).[20] Although the great majority of the ED IIIa real estate sales come from Šuruppak, there are scattered examples from Uruk, Nippur and Adab, all surprisingly similar in format and wording. None have been found at Abu Salabikh, and perhaps we should not expect them in a temple library and administrative archive; so far, the single tablet referring to house purchase is IAS 555, from the 6H House. It is certainly not a normal sale document, but there is no reason to doubt that it concerns house sale in some way.[21]

Bricks and mortar

Gudea's close personal involvement in the building of the Eninnu was following in a centuries old tradition, encapsulated in the door plaques from Girsu which show Ur-Nanše, founder of the Pre-Sargonic Lagaš dynasty we know best, attended by numerous named members of his family, carrying on his head a basket of the kind which to this day still has its Akkadian name *zembil*, for shifting the mud needed for the bricks and mortar of the Ningirsu temple (Fig. 3.6). Bricks were important, and before Enki organized the laying of foundations he had entrusted Kulla, the brick-god, with responsibility for the brick mould and the manufacture of mud-bricks.[22] This was a simple technology, still normal today (Fig. 3.7), requiring little more than a flat space, plenty of suitable soil and water, and usually an open-ended rectangular wooden mould. The preferred season was the summer, when the bricks dry very fast, and chopped straw was available after the harvest, though not always added. Baked bricks were only used in special contexts: subsequent members of the Lagaš dynasty put on record the impressive quantities of baked bricks they claim were created for some of their building projects, typically those where water-proof materials were needed: Enmetena, who had a penchant for statistics, built a reservoir using '648,000 fired bricks and 1840 standard **gur** (2649.6 hl.) (of bitumen)', and Urukagina similarly used '432,000 fired bricks and 1820 standard **gur** (2620.8 hl.) of bitumen'.[23]

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[19] *kakikkum* seems to have the Sumerian genitive ending, implying that it is composed of /ka-ki.ak/, where **ki** could be the normal Sumerian for 'ground'. The **ka** defies interpretation, however, although one might compare another Akkadian loan from Sumerian, *kazzidakkum*, which refers to 'flour' (**zid**$_2$; CAD K: 267-8).

[20] See CAD K: 43-4; Whiting 1977.

[21] see Krebernik and Postgate 2009: 1.

[22] *Enki and the World Order* (ETCSL 1.1.3): 335-40.

[23] Cooper 1986: 66 and 80, using the Lagaš **gur** of 144 **sila**$_3$ (and correcting the figure on p. 80 to 2620.8, after Cooper, pers. comm. 28.xi.22). For bitumen without bricks see Eanatum, p. 42.

Figure 3.6. Ur-Nanše of Lagaš in royal builder role, with his family all identified by name. (de Sarzec 1884-1912: Planche 2 bis).

Figure 3.7. Making mud-bricks for the excavation house, down by the canal. September 1976.

As observed during the surface clearance and in excavation unfired mud-bricks displayed a surprising variety of colours and consistencies, even within a single house. Some were of virtually pure, often yellowish, clays which must have been carefully selected, while others were dark brown or blackish, with many foreign bodies, looking as though they had been taken from deposits of rubbish. Wendy Matthews' micromorphological analyses of thin sections taken through brick samples in the 5G and 6H Houses reinforce the impression of the diversity of the raw materials.[24] Nevertheless, almost without exception the bricks had the typical Early Dynastic plano-convex shape, rectangular in plan with a flat base and convex top side. In the lowest course of a wall the bricks were often laid on their flat base, looking like brick walls from other times and places, but above this for the most part they were laid in 'herring-bone' fashion, as described in Delougaz 1933, with each new course tilted alternately to right and to left. Because of their convex shape large interstices may be left for the mortar, which is usually not identical with the substance of the bricks themselves (Figs. 3.8-3:10). Sliced horizontally, as when the mound surface is being scraped clean, this can leave the pattern of bricks in a wall looking very haphazard and often difficult to interpret.

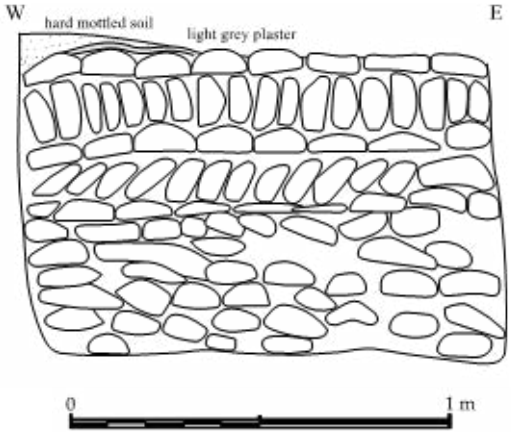

Figure 3.8. Plano-convex bricks: brick-lay in south wall of Gr 244 (ASE 5: 288 (Fig. 6.2). Cf. ASE 5: p. 289 Photo 6.107, p. 291 Photo 6.111.

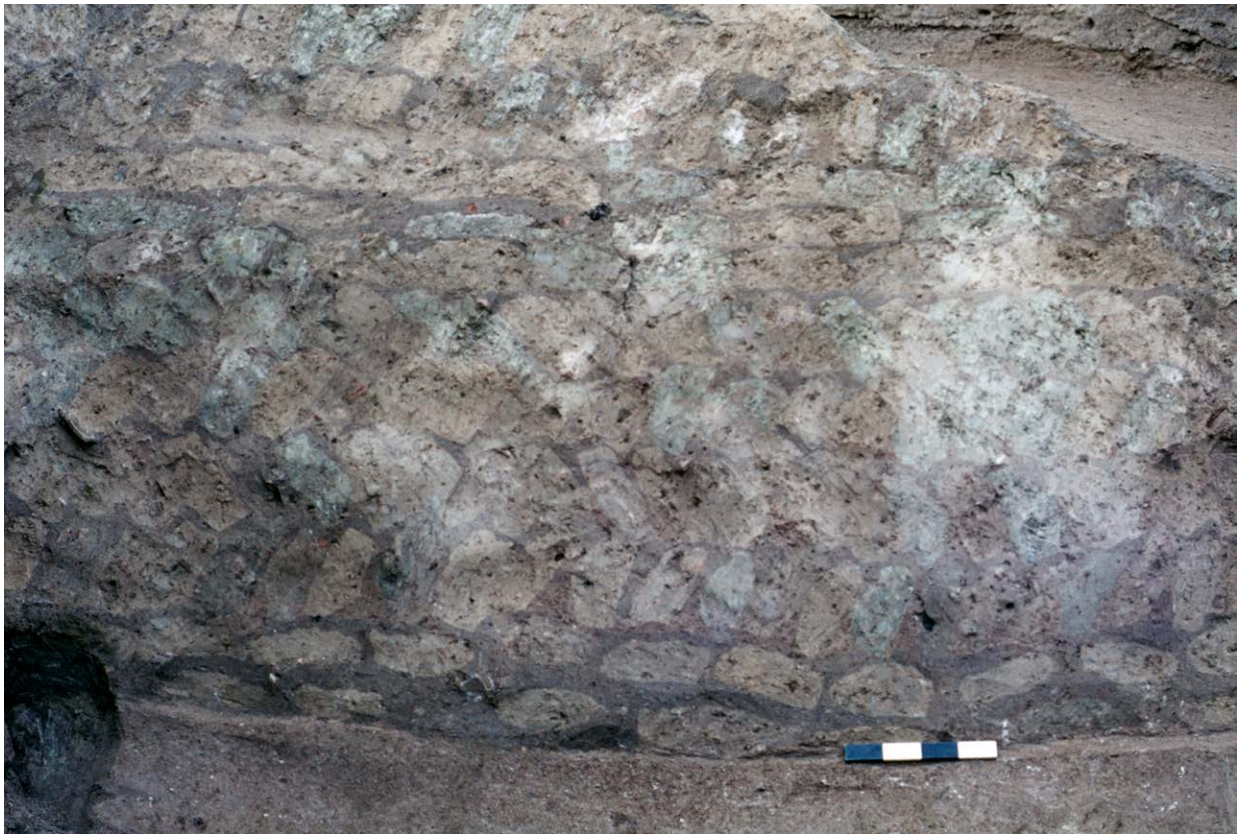

Figure 3.9. Plano-convex bricks: the east wall of Room 39 in the Southern Unit, from west (1976).

[24] ASE 5: 24 and 411.

Figure 3.10. Plano-convex bricks: earlier (Level II) east wall of courtyard in 6H House, as visible in the north side of Grave 246 (ASE 5: p. 304 Photo 6.123)

The raw materials: clay and plaster.

Almost the only natural resource of the alluvial plain is its infinite supply of mud, but the quantity should not divert our attention from its quality. In the establishment of the world order Enlil directs events, but it is Enki who is charged with putting his decisions into effect. He is the creative god, and in later mythology he is the god who provides the solutions for human kind, whether it is in the process of human reproduction or rescuing them from the flood. His domain is the **abzu**, in Akkadian *apsu*, and it can be seen expressed visually surrounded by water on Akkadian cylinder seals (Fig. 3.11). Thorkild Jacobsen described it as 'the sweet waters of the underground water-bearing strata of Mesopotamia, waters which may be reached when one digs down deep to lay the foundations of a temple, but which also appear in pools and marshes where the surface of the plain naturally dips down below the water table'.[25] It is there, in the water table sharing the metres deep alluvium of the south Mesopotamian plains, that the ultimate creative material is found, clay or mud, Akkadian *ṭiṭṭum*, which in the Old Babylonian *Epic of Atrahasis* is mixed with the flesh and blood of the slaughtered god to create humankind.[26] In later centuries, texts giving instructions for the creation of figurines to be used in magical apotropaic rituals carefully prescribe the source of the clay to be used: 'when you make the statues, creatures of Apsû, in the morning at sunrise you shall go to the clay pit and consecrate the clay pit; with censer, torch and holy water you shall purify the clay pit' etc.[27]

[25] Jacobsen 1946[21] (reprinted 1970: 360).
[26] Lambert and Millard 1969: 59.
[27] Wiggermann 1992: 13.

Figure 3.11. Akkadian period seal showing Enki seated within the waters of the apsu. BM 89771; Boehmer 1965: Abb. 501). © The Trustees of the British Museum.

Floors

The builders at Abu Salabikh certainly sometimes levigated raw clay or silt, but only rarely did they fire it. In washrooms and their outflows baked bricks with bitumen plaster were used to protect floors and walls from the effects of water (Fig. 3.12),[28] and probably also for the superstructure of their latrines, as is suggested by parallels elsewhere and by the brick fragments recovered from the sewer in the 6H House. In the 5G House, in the Area E Burned Building, and in Room 80 in the South-East Complex a bitumen runner about 1 m wide gave a waterproof pathway joining room to room alongside the walls of a courtyard. Inside the rooms floor tiles were not used in south Mesopotamia, and stone flags even if available would have been prohibitively expensive for domestic houses. Although a layer of red mud-bricks was laid in the central courtyard of the 6H House before the ground surface was plastered, we have not noted any mud-bricks inside rooms (and they would not of course have been waterproof). Otherwise, internal floors were usually treated with mud-plaster of varying quality and thickness, depending on the room's function or importance (see below p. 52). These cannot have been water resistant or very hard-wearing, and rooms could

Figure 3.12. Drainage sluice at west side of 6G86, with thick bitumen water-proofing. Note reddish baked bricks.

[28] Baked brick and bitumen were used in Area E. See Hansen 1974: Room 6 (Fig. 12, p. 13), Room 17 (p. 13), Room 22 (p. 13, Fig. 14), Room 33 (p. 11, Fig. 8). The bitumened drain in Fig. 3.12 is unusually massive, and probably belongs to the exterior wall of the South-East complex gushing out into the Ash-tip area.

be repeatedly resurfaced. The Southern Corridor in Area E had a regular sequence of well-plastered relatively clean floors over 2 m deep, clearly different from the dirtier street sequence into which it led at the eastern end, while in the 5I31 sounding at the south side of Area A a presumably enclosed but unroofed space shows a succession of black ashy horizontal surfaces, perhaps completely unplastered, also for a depth of at least 2 m (Figs. 3.13-14). Here, and in the thoroughfares, the deep and regular accumulation of surfaces differs from internal spaces where rooms were no doubt swept clean and the floors raised significantly from time to time, with sometimes thick intervening packing layers, as the ground level outside had built up.[29]

On some of the floors removable floor coverings were no doubt in use, principally mats, which can be made from local resources, either reeds, sedges, or palm fronds;[30] if woollen textiles were used as carpets remains unknown.[31] What seems certain is that coming in from outside in wet weather the family must have had some way of washing the mud off their feet and their shoes, if they had them. The bitumen pathways round some of the courtyards show that an attempt was sometimes made to enable residents to venture outside in wet weather without bringing mud into the house. In some doorways it is clear

Figure 3.13. Cross-section through deep sequence of plastered floor lines in corridor south of S. Unit (6G65). 1986.

Figure 3.14. Cross-section through deep sequence of striated ashy lines in open space south of Area A (5I31; see Fig. 9.2).

[29] Frustratingly, micromorphological analysis did not supply criteria to establish whether these contexts were roofed or unroofed (W. Matthews and Postgate 1994: 202).

[30] On the different materials (in antiquity and more recently) see Postgate 1980c.

[31] Micromorphological thin sections from the 6H House as studied by Wendy Matthews often suggest the presence of matting or other floor coverings.

that a raised threshold would have served to stop rainwater flooding into the room.[32] A few rooms in Area A were given a white gypsum or lime plaster floor: Room 13, excavated in 1976 was immediately accessible from an open area to the south, and this could possibly explain the need for a waterproof surface, since it can hardly have been a dedicated washroom, but the 1963 report on rooms further north also mentions gypsum flooring, so this may have been a consistent feature throughout this complex.[33]

Worshipper statuettes of the Early Dynastic period and all Gudea's statues, whether standing or seated, are bare footed, and this no doubt reflects their location within a shrine, although I know of no textual source referring to the removal of shoes when entering a building, a practice prevalent today in many lands. The earliest sandals Salonen (1969) was able to illustrate with certainty are worn by Naram-Sin in his late Akkadian victory stele. From the texts we know that leather sandals were frequently issued to messengers along with water-flasks by the Ur III state, and the same already happened under the Akkadian dynasty. Most of the sandals mentioned are as expected of leather, with fancy variants, in the Ur III period, but 'silver sandals' are listed in the Adab funerary text,[34] and in an Akkadian tablet from Girsu.[35] Leather sandals would not have survived the millennia in south Iraqi conditions, but at Abu Salabikh in Grave 130, a late (ED IIIb) grave just east of the South-East Complex in the western edge of the Ash-Tip, one young woman was buried with her silver eye-patch and a pair of silver sandals (Fig. 8.4).[36] Perhaps two centuries earlier, since it came from Room 71 of the 6H House, is a small shell pendant in the shape of a foot, with sandal straps clearly indicated (Fig. 3.15).

Figure 3.15. Shell ornament, showing sandal with straps (AbS 2576. ASE 5: F99 Photo 5.13, Plate 41). L. 2.2 cm.

[32] See ASE 5: 73. Note Woolley's comments on thresholds in Woolley and Mallowan 1976: 24.

[33] *Iraq* 39: 275. See p. 150.

[34] Foxvog 1980: 70 l.18; Gelb et al. 1991: p. 101 ii.5. for LAK 173 = 'sandal' see Steinkeller 1981-82: 140: BIN 8 267 and 280; for Early Dynastic lexical attestations Civil 2008: 120: 27.

[35] de Genouillac 1921: 9276.

[36] Postgate 1980a: 94, Plate Xc; Green 1993: 14 (Fig. 1.24 for location). Cf. Moorey 1994: 236. Is the Sumerian **e-sir$_2$** 'shoe, sandal' in origin 'street(-wear)'?

Figure 3.16. Selected washing slabs from Graves 1, 26, 37, and 71 (two). ASE 2 Pl. XXVId.

Dedicated washrooms could only have been accessed by passing through the main rooms, and as suggested in 1980[37] one solution to the problem of muddy feet may be provided by stone slabs which are a feature of several of the best preserved Abu Salabikh graves (Fig. 3.16), and are also found at Kiš and at the Diyala sites, although rarely if at all further south. Sometimes loosely and misleadingly labelled as 'gravestones', they were called 'rubbing stones' by Mackay, and according to Delougaz et al. 1967: 59 'such stones were commonly found in graves and are difficult to explain'. They are rarely encountered outside graves, but like metal, stone was a rare commodity and would normally have been salvaged when a house was renovated. The obvious use for such unshaped slabs would have been to stand on when washing one's feet. A similar practice is no doubt reflected in the Neo-Assyrian palaces, where the architects regularly installed a rectangular stone 'ablution slab' just inside the entrance to the royal throne rooms: one can hardly have approached the royal presence with muddy feet.

Today's archaeologists mostly live in houses where water is available at the turn of a tap, and can be drained away through metal pipes, but there are plenty of rural dwellings in the Middle East where water for washing as well as drinking has to be stored in containers and provision has to be made for disposal of the waste. While the value of a stone slab for family and visitors to stand on while washing the feet (whether just inside or just outside the door) is obvious, one has also to consider how hands could be washed: this may well have been necessary in parts of the house distant from the dedicated washroom, and there are no 'basins' built into the rooms. It seems obvious that a movable system would have been needed, which provided both enough water, and a means of catching the waste. Also included in several of the Abu Salabikh graves, in Early Dynastic Mesopotamia such a system had in fact been

[37] Cf. Postgate 1980b: 69, 74.

created and is illustrated in Figs. 3.17-19, comprising five or sometimes four components. The wide-mouthed jar holds the water, the bowl rests on it or on the cylindrical stand, which has holes in the side, and the waste water collects in the large bowl instead of spilling over the floor. Certainly associated with these is the small beaker-like vessel, which I have suggested would have contained the soap.[38] In some of the graves (e.g. Grave 96) the 'gravestone' and the washing set were found close together. Recurrent suggestions that the equipment was used for brewing beer[39] are implausible for more than one reason, and confidence that the four or five-part sets were used for hand washing comes from the experience today of very similar equipment still used in Iraq for al fresco meals and in houses without plumbing (Fig. 3.20). These sets are found across the northern alluvium, including Kiš and Dilbat and as far north-west as Mari, but, like the 'gravestones', not from Nippur, Šuruppak or sites further south. In Akkadian times they are known from Tell Madhhur and Tell Razuk far up the Diyala across Mount Ebih (the Jebel Hamrin).[40]

Walls

So much for the floors. Since walls at the site rarely survive as much as 1 m in height, there is less we can say about them. In our ED III houses most walls were about 70 cm wide, often erected on a wider mud-brick foundation or plinth below floor level. Floor plaster was often carried continuously up the interior wall faces. In some cases at least exterior walls, facing the street, were mud plastered. Whether there was any form of wall decoration is an open question. Back in the Uruk period the temple at Tell Uqair had scenes

Figure 3.17. Ceramics from Grave 26: four-part washing set on right. (ASE 2 Pl. XXIIc)

[38] For soap and the soap container see Postgate 2020.
[39] See most recently Zingarello 2020.
[40] Comprehensively studied by Zingarello 2020; for Dilbat: Armstrong 1992: 223.

Figure 3.18. Washing set and slab in situ Grave 96 (detail from ASE 2 Pl. XXb).

Figure 3.19. Grave 96 five-part washing set after conservation (ASE 2 Pl. XXVIc).

Figure 3.20. Metal washing set (selebçe): Baghdad suq near Al-Mustansiriyah, 2021.

with leopards painted on its walls over mud plaster,[41] and in the Old Babylonian palace at Mari up the Euphrates a huge painted investiture scene was found fallen flat on its face in the inner courtyard. Although gypsum was a commodity regularly recorded by scribes of the Ur III period, sometimes specified as 'ground gypsum' (**im.babbar kum**),[42] nowhere at Abu Salabikh do we have gypsum plaster used for walls and only very rarely for floors (see above, p. 34). Significantly, the Mari scene is bordered by unmistakeable representations of the gathered tassels of a woven textile, and tablets from the palace record large numbers of weavers who could have created the eventual wall tapestry for which the painted scene was a temporary stand-in. If there was any wall decoration in Early Dynastic reception rooms, it seems likely that these would have been textile wall-hangings – but none of these are likely to have survived in the Mesopotamian climate, and without walls standing higher, we cannot hope to find traces of the arrangements for suspension such as are familiar from public buildings much later in the north. There the Assyrian architects installed concave-sided glazed terracotta plaques high up in the walls with a central peg (*sikkatu*), and there seems little doubt that these were intended for suspending tapestries, and represent a latter-day version of a technical solution required to fix pegs securely into friable mud-brick.

Doors and door plaques

Examples of wall plaques for suspending textiles do not survive from the 3rd millennium, and may well not have existed, but square stone plaques let into a wall as the emplacement for pegs for another purpose are well known. One suspects that in everyday situations these may have been of wood, which does not survive, but in more formal contexts they were carved out of stone (rarely in the Akkade Dynasty metal), and provided with decoration of their own. Their technical function is quite clear: they were inserted in the wall face next to a doorway, and, to secure the door, string would be wound round the peg driven through the central hole, and at the other end round a component of the door itself. On some plaques there is an unworked flange outside the square frame of the design, which was plainly intended to be plastered over flush with the wall surface, and in two cases at Nippur there are additionally small dowel holes in the sides to secure the plaque to the wall.[43] If it was desired to 'lock' the room, a single clay sealing

[41] Lloyd et al. 1943: 139.
[42] Snell 1982: 273.
[43] Hansen 1963: 147.

could be applied to string and peg, with a seal rolled across it, so that access could only be had by breaking the seal or cutting the string.[44] Given the cultic nature of some (but by no means all) of the scenes, these were sometimes called by art historians 'votive plaques' ('Weihplatten'), but they served a practical purpose which would have been equally useful away from a cultic environment, and at Abu Salabikh two fragments of stone plaques were recovered from rooms in the 6H House (Fig. 3.21), and a small piece of plaque pecked to take inlay came from a pit in Room A7, in Area A, both secular contexts.[45] A later utilitarian example was found at Isin in the early 2nd millennium, where next to a door leading off a courtyard the base of a large ceramic jar pierced by a hole had been let into the wall 70 cm above the floor.[46]

Figure 3.21. Fragment of door plaque AbS 2709, from Room 64 of 6H House. (ASE 5: 171 **F51** *Photo 5.4).*

Door sockets

Since doors were of wood, or even of reed, they do not survive in Mesopotamia (unlike in Egypt), but we can get a fair idea of their construction from the cuneiform sign **ig**, the Sumerian for 'door' (Fig. 3.22). Once rotated 90° to its original orientation, we can see that it is a rectangular item with crossed diagonals and a vertical line on one side, ending at the base in a V-shaped element. The two diagonal lines any carpenter would recognize as struts necessary to ensure the accurate rectangular shape of the planks forming the door itself, while at the base we have the shoe for the door post to which the door is fixed, and which rotates as it is opened and shut. The shoe may in some cases have been metal, but in all cases without the stone socket the post would have gradually sunk into the ground. In alluvial south Mesopotamia good quality stone must have been a valuable commodity, given its weight and the distance it had to be transported – as observed by Woolley 'in this alluvial land where stone was far-fetched and dear-bought'.[47] In the Old Babylonian period we know that vesicular volcanic basalt destined for domestic grindstones was trafficked down the Euphrates (see p. 130). While worshipper figures in the Early Dynastic were predominantly carved from yellowish limestones, very likely from the western desert, harder metamorphic rocks displaced them in the Akkade and Ur III periods, and these must have been imported. At Abu Salabikh, aside from the grindstones, flint and occasional obsidian for tools, and of course semi-precious stones for jewellery (see pp. 135-9), stone is rare. At other sites large pieces of metamorphic

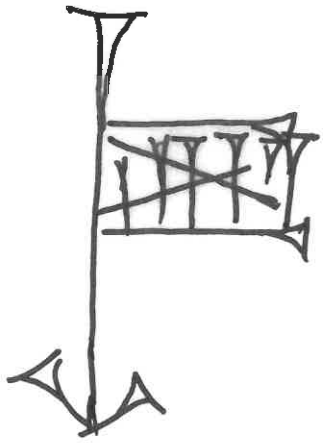

Figure 3.22. The sign IG = door (after IAS 493). Rotated to original orientation: note diagonal struts and V-shaped base of pole.

[44] For how sealings were applied to doors, as well as other applications, see Otto 2010 with diagrams by C. Wolff.
[45] ASE 5: 171 F51, Photo 5.4; 217, Gr. 220:65, Photo 6.14; Moorey in *Iraq* 38: 166 (AbS 850).
[46] Strommenger and Spycket in Hrouda 1981: 57 with Plate 20 and Plan 10.
[47] Woolley 1934: 114 .

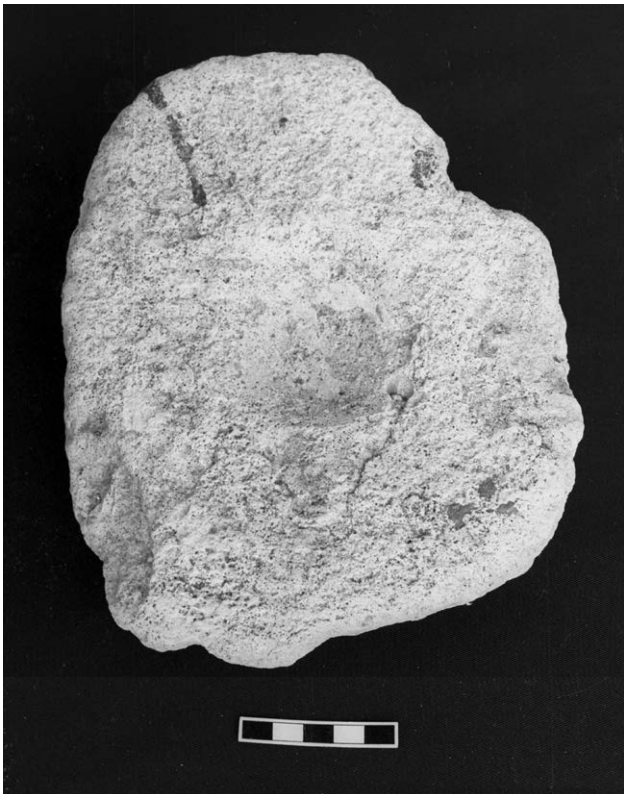

Figure 3.23. Door socket 5IS:117 from 5I66 sub-surface, no architectural context. Upper surface flat with central depression, lower surface gently rounded. 24.5 x 18.5 cm., Th. 5.5 cm.

stone are commonest serving as 'door-sockets'. These sockets have a circular depression in their upper surface to accommodate the base of a door post, were obviously especially needed where the doors and their doorposts were tall and heavy, and are therefore characteristic of temples and palaces. They were esteemed, and from as early as the Early Dynastic period rulers often had them inscribed with a dedication to an appropriate deity. Archaeologists have found them especially useful, because the inscription has often allowed them to identify the building they were excavating: so for instance at Tell Asmar, ancient Ešnunna, a pair of door-sockets with an inscription of Šu-Sin were found at the base of a hole by the door each side of the doorway into the cella.[48] From before the Akkade Dynasty similar inscribed door-sockets are known from Girsu in the state of Lagaš including one of Ur-Nanše, the first ruler of the dynasty, and another of Enmetena, on which he celebrates the door of white cedar he installed in a Nanše Temple.[49]

Ordinary household doors obviously did not require large boulders – some of the inscribed examples measure more than half a metre across – and no doubt often made do with baked bricks. In the 6H House there were several instances of circular holes in the ground from which a socket-stone might have been extracted; a well preserved socket was exposed in Room 18 in the Area E Burned Building,[50] and one survived at the doorway into Room 39 in the Southern Unit. In the 6H House in Room 69 a post-hole was noted on the inside face of the wall east of the south-western doorway, and this suggests that the door there was inside the room and would swing shut against the interior face of the opposing jamb. The same could apply to the door at the east end of Room 70, where there were postholes in both IC1 phases. In the 6H House there was only one example of an actual socket-stone with a central depression, and it was out of context.[51] Elsewhere on the site other examples were mainly found in Areas A and E, and it may not be coincidental that Areas A and E were both not normal domestic contexts.[52]

Stairs and second stories

One of the most controversial issues in the history of Mesopotamian architecture is the presence or absence of a second storey. The prime exponent of the case for two storeys is J.P. Margueron, excavator

[48] Lloyd in Frankfort, Lloyd and Jacobsen 1940, pp. 16, 19 and 134. The term 'socket' is usual, but it is also sometimes needed to refer to the cylindrical hole in the ground into which the stone itself was placed. Perhaps conscious of this Seton Lloyd uses the term 'pivot stone', but this does not coincide with the usual meaning of pivot and is best avoided.

[49] Frayne 2008, 109-10 Ur-Nanše No. 23; 224-5 En-metena No. 20.

[50] Hansen 1974, 16 Fig. 18.

[51] ASE 5 F46, from Room 58, this fragment no more than 6.3 cm. across.

[52] E.g. in Room A4 (AbS 471 rectangular socket-stone), and in Rooms E46 (AbS 446), and E47 (AbS 483), also 6G49 (AbS 2380, max diam. 10.7 cm), 6FS:110 (Room 3 in 6F12), and from the surface of 5I66 (limestone: 5IS:117 24.5 x 18.5 x 5.5 cm; Fig. 3.23).

of both Larsa and Mari, and Woolley firmly believed that the Old Babylonian courtyard houses at Ur had two storeys. As early as ED IIIa at Abu Salabikh larger houses at least had built in staircases, but these did not necessarily lead to a whole second storey, because just as today many household activities may have taken place on supplementary space afforded by the mud roofs of traditional houses, and clearly the occupants would want the access to their roof to be contained within their four walls, not via a ladder from the street. As today, the roof of a mud-brick house would regularly have been supplied by cross-beams supporting reed mats overlain by a liberal application of mud which would need to be rolled flat and/or replastered after the first spring rains. Palm trunks were probably most often used, but timber was also trafficked, and poplar (or willow), and even pine are also attested and would have spanned greater widths.[53]

In Old Babylonian times the word *rugbum* is used for a 'room on the roof', and one imagines that, if only to provide shade, temporary or at least flimsy structures could have been erected, but this need not amount to a second storey in the way Woolley and Margueron imagine it. None of our buildings at Abu Salabikh is preserved remotely high enough for remains of a second storey to be detectable, and identifying staircases is far from secure. In the 6H House we are fairly certain that on the right when entering through the main door from the street one would find a doorway with a steep step leading to stairs up to the roof, and we also suspect that there was a staircase in the south-west corner of the 5G House. As in later centuries, the dark cramped space under the stairs served to accommodate the house lavatory (see below, pp. 44-5). A different arrangement may have resulted in a dog-leg in the layout of the Area A building (see p. 152; Fig. 9.3a) and of the rooms east of courtyard 80 in the South-East Complex (see p. 80, Fig. 5.8), which may hint at a different way of incorporating a staircase, though this is far from certain.

Fire installations

While recording the results of excavation and surface clearance we routinely referred to any features which showed signs of the use of fire as 'fire installations', no doubt influenced by M.T. Barrelet's 1974 article on 'dispositifs à feu'. The advantage of a general term like this is that it can refer to any such feature without the need to be more precise as to its structure and purpose. However, as one season followed on another, it became clear that most of the fire installations on the Main Mound fall neatly into three main categories. Leaving aside the hearths, which are described on p. 52, the two principal domestic installations are ovens and tannours.[54] The tannours are very similar to the bread ovens in use today after which they are named. Strictly circular, and 50-70 cm in diameter (ASE 5: 75 Table 3.4) they have vertical clay walls, which are not fired ceramic as in modern tannours, and they have no stoke-hole at ground level and so were presumably operated from above as today. Whether this means they were strictly only bread ovens, or had other culinary functions remains to be determined, and in no case do we have the top of the tannour preserved.[55]

The ovens are large two-storey brick constructions. They are oval in ground plan, and usually situated at one end of a long rectangular room. In the 6H House there were two, perhaps consecutive rather than contemporary, and in one instance at least it clearly belonged in the house kitchen (Room 69). The other is at the north end of Room 58, and may have been installed there when Room 69 was repurposed. A

[53] For some identification of carbonized specimens see Moorey & Postgate1992. There are two views of roof construction and maintenance in 20th century (AD) Iraq in Postgate 2021c: 97 Figs, 4-5.

[54] For firing temperatures suggested for tannours and ovens by laboratory analyses see Tite et al. 1995: 48-9.

[55] Tannours and their modern counterparts are discussed in Crawford 1981: 108-9. There is no proof that flat unleavened breads were slapped onto the interior of the tannour as is the practice today, and if the omni-present bevelled-rim bowls of the Uruk period were moulds for everyday bread, as some (including the author) suspect, there must have been a major shift in culinary traditions after the 4th millennium.

Figure 3.24. Oven FI 75/5 at south end of Room 47 (6G55d), viewed from north. 2.10 x 1.80 m. Plan: Fig. 2.2. Note fire-reddened brickwork.

similar oven occupied the north end of Room 25 in Area E (Hansen 1974: 17), and another at the south end of Room 47 in the Southern Unit, where unusually some brickwork from the floor of the upper chamber has survived (Fig. 3.24). All that remains of these ovens is usually the lower level, with an opening for the insertion of fuel and parallel piers each side to support the floor of the upper chamber. Their scale and elaborate construction have sometimes led to these ovens being described as kilns, with the implication that they may have served an industrial purpose. However they are found within residential units, and rarely if ever are they associated with clinker or slag from ceramic manufacture or metal working.[56] They may measure as much as 2 x 2 m,[57] and two ovens in the Temple Oval at Khafajah were somewhat larger (2.10 x 2.50 m): see the discussion in Delougaz 1940: 130-133, who does not believe that these ovens would have been used for baking pottery or bricks. Our ovens are on a domestic scale, but their size indicates that they belong in a fair-sized kitchen suitable to a large courtyard house where they must have provided hot meals and baked products for the family.[58] Much larger, sometimes circular, ovens which have been excavated at Ur, Al-Hiba and in the Plano-convex building at Kiš may well have been designed for brewing but we have not encountered any at Abu Salabikh.[59]

In Room 69 of the 6H House, while the oven occupied the east end, at the west end of the room there was a simple circular hearth; and in the later phase there was a full-sized tannour in the adjoining side room

[56] For the pottery kilns in the ED I-II sector south of Area A see p. 121.

[57] ASE 5: 75; *Iraq* 38: 155 2.00 x 1.90.

[58] For Babylonian recipes some centuries later see Bottéro 1995.

[59] See at Kiš Zaina 2015: 190-191; at Ur Woolley 1939: 12-13 Pl. 66 (Room EE). For a discussion of ovens in temple kitchens at Ur, Nippur and Al-Hiba see Ashby 2017: 171-82.

Figure 3.25. Baked clay hearth FI 76/1 in situ beneath later east wall of Room 62. 6G63:191. Max. W. ~60 cm. (Iraq 39: 283.)

(Room 67). Smaller fire installations take a variety of forms and are often grouped together, including for example a tannour and a brick lined hearth, either circular or rectangular (Crawford 1981: 105-6). Examples of this in Area E are found in Room 7 of the Burned Building, and Room 12 (circular oven and a fireplace). One so far unique type of hearth is the rectangular baked clay slab with a low rim (6G63:191; Fig. 3.25) which was still in place in Room 62 of Area E, against the east wall of the room, beneath Grave 85. In the early (ED II) houses along the east side of the Main Mound in several places there was a small hearth created by embedding in the ground the inverted rim and shoulder of a large jar, usually with its spout, but this practice may not survive into the ED IIIa phase to which most of our houses belong (Fig. 3.26).[60] For the fireplaces in the reception rooms see below, p. 52.

Wash rooms

Among the rooms excavated in Area E north of the Southern Unit some clearly served as wash rooms (Rooms 6, 22, 33), but this may be a luxury foregone by smaller houses; we have not even identified a clear wash room in the 6H House, although Room 9 in the 5G House seems a good candidate. In the Burned Building Rooms 6 and 33 had baked plano-convex bricks laid across the floor and forming a dado round the walls, waterproofed with bitumen. Room 6 had a bitumen drainage channel leading water into the courtyard. Bitumen had to be imported, and the bitumen wells at modern Hit (ancient Idu) were certainly well known to the inhabitants of South Mesopotamia; indeed the town's Sumerian name was Tuttul (**tul.tul**) meaning 'Wells'. Bitumen came in various forms for which Sumerian and Akkadian had specific terms which we are not always able to identify, but it was a staple commodity as is shown

[60] For laboratory analyses of samples from three open hearths, and two jar hearths see Tite et al. 1995: 48.

Figure 3.26. Inverted jar top (5IS:125) serving as hearth FI 81/16 (ED II). 5I87 sub-surface. Rim diam. 14 cm. (Plan: Iraq *44:124 fig.7).*

by its inclusion in the items imported into Ur III period Umma (Snell 1982: 218). Its principal use was as a waterproof substance, though it could be used like clay to form items like jar-stoppers or small containers. Occasionally thresholds were bitumen plastered (Fig. 3.27),[61] and the pathways in courtyards are also given a bitumen surface to resist the effects of rain (see p. 32). Outside the washrooms, the combination of bitumen and baked bricks was referred to by Lagaš ensis for irrigation constructions (see p. 28).[62]

Drains and sewers

Though the 6H House did not have a dedicated washing space, it did provide us with a clear example of a lavatory. Necessity is the mother of invention, and just as in contemporary cities in the Indus valley, the tightly packed urban residences of Early Dynastic cities introduced a technological solution for the disposal of human waste. Deep circular shafts were dug beneath the houses, into which were inserted columns of large superimposed cylindrical ceramic rings, several metres deep; the sides of each ring were perforated to allow liquid to escape, and in some cases at Abu Salabikh the gap between the shaft and the pipe was packed with potsherds to give an aerated space, just as modern gardeners still use sherds at the base of their flower pots. Two such sewage pipes were sunk through the Early Dynastic levels of Area E, which, to judge from the potsherds packed around them, must have been sunk from a much higher level some

[61] Other instances led into Room 58 in 6G75 (*Iraq* 46: 97) or into Room 168 from the courtyard Room 80 in 6G94.

[62] The Old Babylonian houses at Ur seem not to have made use of bitumen, although it was used in temples, to the extent that Woolley remarks that 'one is tempted to suppose that 'bitumen' had become a monopoly of the state' (Woolley and Mallowan 1976: 21).

Figure 3.27. Bitumen coated threshold between Rooms 6 and 8 in 5G House. (ASE 5 p. 42 Photo 2.5.)

centuries later. They are difficult to excavate in their entirety, and we did not attempt this: five segments of the drain in 6G65b were uncovered (Fig. 1.6), while in Room 68 of the 6H House, in the space beneath the stairs a similar pipe had at least three segments, probably four, and was followed down for about 2.5 metres before we reached the water level and had to stop.[63] It was not packed round with sherds, but from the contents it was plain that it was close in time to the excavated rooms of the house itself – these included cylinder seals in Early Dynastic style, parts of sickles made of flints set in bitumen (Fig. 7.16), and a single cuneiform tablet, which turned out to give the wording of an incantation against intestinal illness (Fig. 3.28). While modern scholars tend to treat incantations as 'literary' texts, and there is no doubt that they were assembled and recorded by the scribes, from domestic houses at Sippar in the Old Babylonian period tablets with individual incantations were found alongside everyday legal and business documents, and seem to have been routinely part of a household's possessions, not the preserve of the scribal profession.

As well as these helpfully datable items, which were presumably accidentally lost down the sewer and deemed irretrievable, there were also chunks of baked brick, some with bitumen adhering, and as mentioned above, it is likely that these derived from the superstructure, examples of which were excavated by the Diyala project at Ešnunna (Tell Asmar).[64] Baked bricks and bitumen were obviously desirable to resist the effects of water usage. The installation we excavated was later than the rooms of the house into which it was sunk, but it is almost certain that it occupied the same location as a predecessor contemporary with the rooms; a drainage channel was cut beneath the courtyard walls and probably carried rainwater into the earlier version of the drain (see plan Fig. 3.3). As for the location of the lavatory, the space (one could not call it a room) under the stairs was no doubt secluded and less than ideal for most other activities, and so was well suited for this purpose. Half a millennium later this was still the practice in the Old Babylonian houses at Ur, where access was just inside the courtyard, as for Room 3 in No. 3 New Street, or from within the entrance lobby as in Room 3 in No. 1 Quiet Street, where the stairs take off on the left as you enter and the lavatory, which was under the stairway, was accessed from a doorway immediately to the left on emerging into the courtyard.[65]

[63] The ceramic rings measure typically 60-70 cm in diameter. Three examples were identified in Area A: 5IS:120 in 5I97, 5IS:123 in 5I86, and one cutting the south wall of Room 13 (ASE 2: 179 Fig. 116). There are also ceramic rings of a similar size which are probably only draining waste water. For a photo of 8 superimposed segments from a drain at Ur see Woolley 1926: Pl. LXa, and see his description of Old Babylonian examples: Woolley and Mallowan 1976: 22-3. At Kiš see Langdon 1924: Pl. XXVII (behind workman).

[64] Delougaz et al. 1967: Pl. 70C, constructed over a vertical drain 57 cm in diameter, as described on p. 176.

[65] Woolley and Mallowan 1976: 113-5.

Figure 3.28a. Incantation against internal illness IAS 549 (AbS 2714 from drain in Room 68). (Photo Iraq *52 Pl. XVd.)*

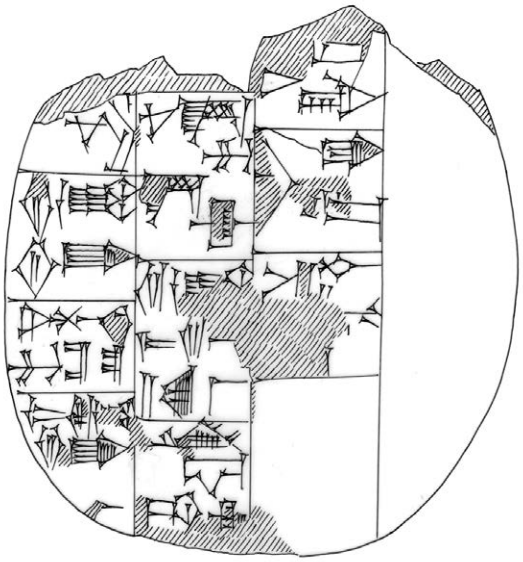

Figure 3.28b. Copy of IAS 549. (Edition M. Krebernik, Iraq *71: 11 with copy p. 31.)*

The inhabitants

Compared to the Old Babylonian housing quarter revealed by Woolley at Ur, our sample of two excavated houses – and one only partially – seems pathetically inadequate, and even in our first few seasons we were aware that our budgets and methods would never allow us to rival his achievement. It was a chance remark of T. Cuyler Young's, as we stood overlooking square 6G37 during his visit to the site in 1981, which brought home to us that in some of the squares we were excavating we were recovering little more than the outlines of the walls, and that the surface clearance we were already using on the West Mound could deliver much the same result for much reduced expenditure of time (and money). Hence in 1981 we began a more systematic programme of surface clearance on the Main Mound, and this continued until our final season on site in 1989.

Like most south Mesopotamian ancient sites, the combination of concentrated salts and the elevation above any winter floods means that the topmost layer of soil is partly a saline crust and partly an underlying layer of dusty soil which can be readily scraped away to reveal the surviving mud-brick architecture and associated deposits, often no more than 10-15 cm below the surface. In spring, when the mound surface is relatively moist, this will reveal the lines of the mud-brick walls and other features, where not cut into by later occupants. Our surface clearance was undertaken strictly in 10 x 10 m squares, artefacts were saved from the surface and from the underlying soil, and the architectural layout, where present, was planned. Since the walls and associated deposits are being regularly eroded down year by year, the details we see on removal of the surface soil are very precise, to the extent that the plaster coating on wall faces is often clearly visible, sometimes in multiple applications, and accordingly doorways and other features can be recorded with complete accuracy. It is also possible to see disruptions of the layout and usually to attribute this to pits, whose outlines are sometimes clearly visible, and with the slope of the mound to see where one architectural stratum overlies or is overlain by another. Satellite imagery, both at Abu Salabikh and even more at other Early Dynastic sites such as Al-Hiba, as also magnetic techniques, can show the location of house walls and other features, but without the same degree of accuracy, and cannot match the precision of old fashioned surface clearance.

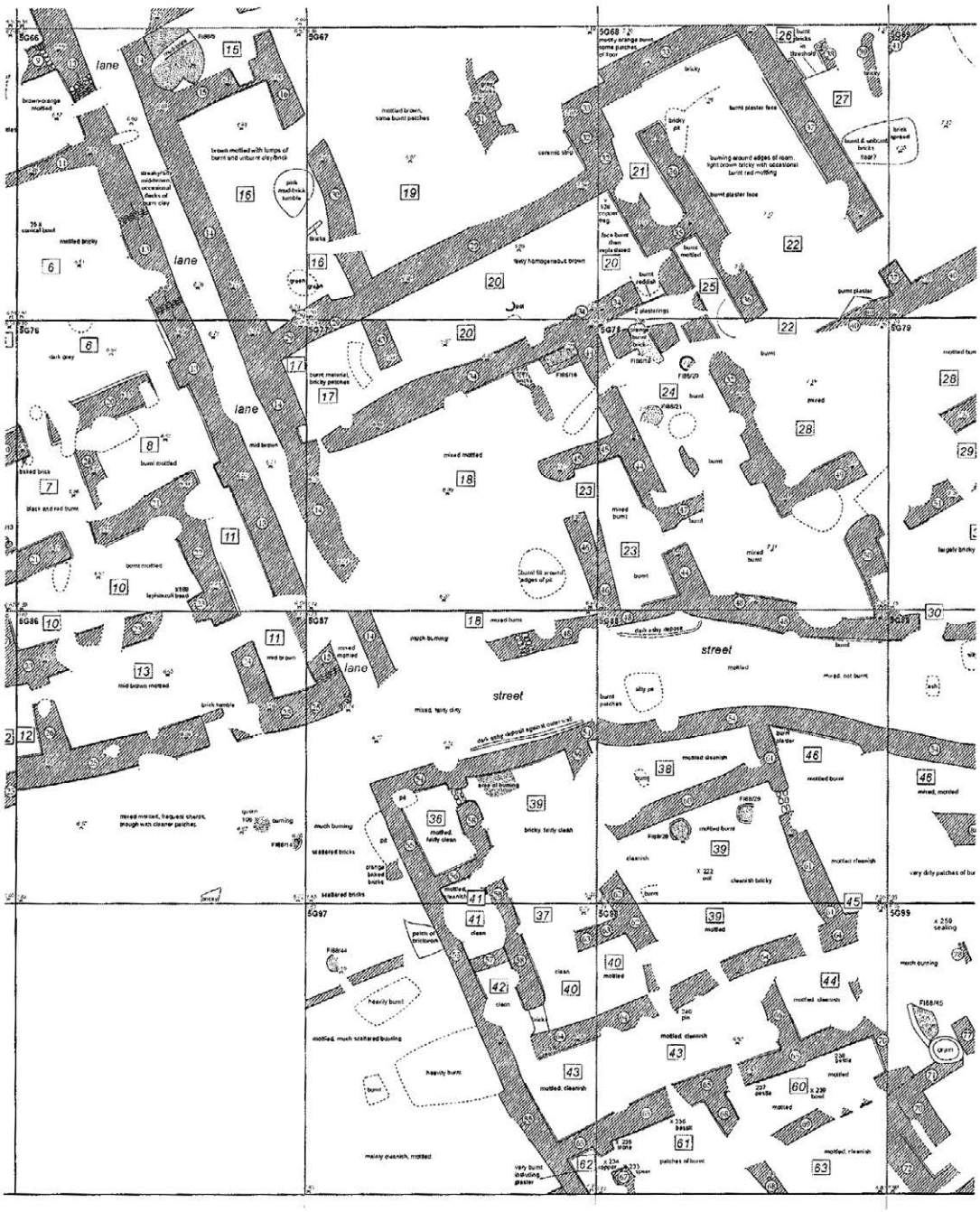

Figure 3.29. Digitized plan of SE sector of square 5G (V. Herring), 10 m squares.

A sample of the resulting plan is shown in Fig. 3.29. It is usually possible to identify streets and lanes, and within the four walls of a house the courtyard and a number of presumably roofed rooms.[66] In parts of the site there was no well-defined architecture, and at least some of these will have been waste areas or other open spaces. The recovery of about 25% of the layout of the Main Mound gave the opportunity to speculate about the total population of the city. Where a relatively complete house plan is retrieved, we can usually decide which spaces are covered rooms or courtyards open to the sky. Accordingly Fig. 3.30 gives a plan which indicates the presumed different uses of space in each 10 m square. The same

[66] Within the 6H House in addition to the courtyard there is at least one (Room 64) and probably another unroofed space (Room 58), but for most houses one unroofed courtyard area looks to be the norm.

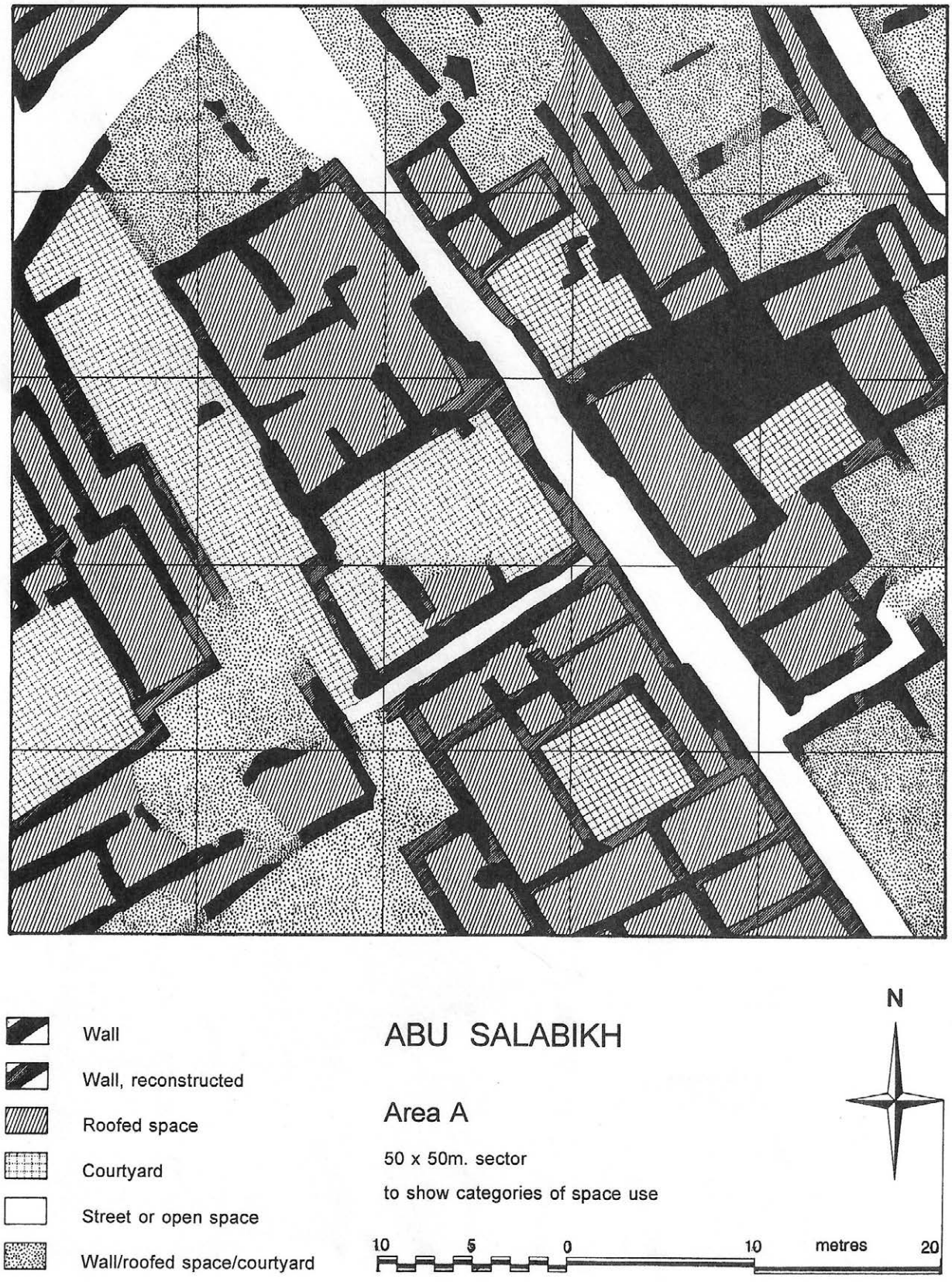

Figure 3.30. 50 x 50 m sector of Area A, to show use of space (K. Spence. Matthews & Postgate 1994: 54.)

categories were applied across the entire scraped area, to give cumulative figures for most of the east side of the Main Mound. By excluding walls, thoroughfares, open space and the internal usually square courtyards, one can estimate the total area occupied by roofed, residential space. The results can be summarized here without rehearsing the rather protracted methodology required to reach them.[67] To estimate population from the area of total roofed residential space two alternative figures from other demographic studies of housing world-wide were adopted, either 7 persons or a less crowded 4 persons per square metre. This suggests a maximum of 1205 and a minimum of 248 persons per hectare, which after including the South Mound in the calculations gives a maximum of 18,437 and a minimum of 10,557 souls for the entire ED III city.[68] Realistically, it seems improbable that over 1200 persons would have squeezed into one of our urban hectares, and it is likely that the true figure would have been in between. This was a first attempt, which will certainly require revision in many respects with the passage of time, and it is immediately obvious that the population density of smaller and/or earlier houses may have been greater than houses in the 5G and 6H squares, from the plans of which some of the calculations were made. To control for this, we would need to determine the usage of different rooms in greater detail, something which can only partially be achieved on the basis of surface plans.

House plans and courtyards

When confronted in the ground or on the page by the plan of a house there is often little to identify the intended purpose or actual usage of the different spaces. The evidence of fire and water facilities means that some of the specialized rooms could be relatively easily identified, but reconstructing how other components of the house plans were used has proved a laborious and sometimes controversial process. In larger houses we should probably expect to see rooms devoted to storage, which might have been closed with sealings and door plaques (pp. 38-9). A combination of factors suggests that in the 6H House one of the rooms in the northern range could have been a storeroom, and it is possible that Room 5 in the 5G House served the same purpose, though perhaps unsealed. Many of our houses have a central courtyard. A clear indicator of an unroofed space is of course the bitumen runner which is found in the 5G House, and as already mentioned in the courtyards of the Burned Building (p. 32). These are the exceptions, and in other instances it is simply the shape and dimensions of the courtyard that betray its identity. In the 6H House the central courtyard of the Level II building was constructed as a precise square 8 x 8 m. The width of the span makes it certain that this was an unroofed space. It had no bitumen pathway, but uniquely in that house – and indeed so far in any Abu Salabikh house – the courtyard had been paved with mud-bricks and loose ashy soil in the interstices, overlain by a plastered floor.

The Sumerian for 'courtyard' is **kisal**. The word was borrowed into Akkadian as *kisallum*, and on Old Babylonian ground plans it serves to identify the courtyard (see below p. 51). A **kisal.luḫ** was a 'courtyard-sweeper', and this too was borrowed into Akkadian, emphasising that both languages shared the concepts. Comparison with the varied responsibilities of the modern Arabic *farrāš* may suggest that keeping the floor swept was only one of the functions of the **kisal.luḫ**. One issue outstanding is whether there were features such as brick benches or fire installations in the courtyards: we have not identified any, but we have only a small sample, and in the 6H House any such features may have been removed by the insertion of the massive Grave 234, while in the 5G House we did not excavate enough of the courtyard space to be certain.[69]

[67] For the detailed analysis see Postgate 1994c.

[68] This is perhaps an opportunity to remark that the title of the article Postgate 1994c 'How many Sumerians per hectare?' today seems embarrassingly inappropriate, given that the citizens were certainly not all, and probably not even a majority Sumerian.

[69] Nor are there any definite features in the Area A or Area E courtyards.

Reception rooms

The most characteristic part of our houses is the 'reception room'. This convenient label inevitably glosses over our ignorance of its real purpose, or rather purposes. Positioned almost invariably with direct access to a central courtyard, it is a recurrent and essential feature of our house plans, and regardless of the size of the house, these rooms have remarkably similar dimensions and their lengths range only between 8.20 and 10.40 m.[70] Most descriptions of reception rooms and their purpose have recourse to the housing quarters of Ur in the Isin-Larsa period. Discussions of the usage of the different spaces have often concentrated more on the size and layout of the rooms as instantly visible from the architectural plans than on evidence which might be preserved on the floors, or, when still standing high enough, in the walls of a room. In recognition of this we need to review recent treatments of Old Babylonian room usage before turning to the house plans at Abu Salabikh.

At Ur P. Miglus distinguishes between an 'Empfangsraum' or, to use Woolley's term, 'reception room', and a 'Hauptsaal' or 'main room', which he also calls the 'family room', and since this distinction is adopted by Starzmann in her analysis of Early Dynastic houses at Fara it needs to be examined in relation to the houses at Abu Salabikh.[71] In the courtyard houses at Ur the reception room is positioned along one side of the courtyard and is directly accessible from it. Its size varies with the size of the house as a whole, and in some instances the wall with a façade facing the courtyard is thicker, and the entrance wider, as though to emphasise its importance.[72] The 'main room' is of similar shape and size, though often larger, and usually further back, away from the courtyard.[73] Woolley characterizes such rooms as '(domestic) chapels', in light of the altar-like installations usually found at one end of the room.[74] He was of the opinion that the 'business end' of these rooms was roofed, whereas the other half was open to the sky, but this reconstruction has been doubted.[75] In one case Woolley notes that 'The chapel was brick-paved throughout', by which mud-bricks are probably meant. For those who see this sort of room as the main living quarters of the household, it would be surprising for it to be half unroofed; and it might also seem surprising, though not inconceivable, that everyday activities took place in the same space as a cultic installation.

There are very few strictly archaeological criteria in the Ur reports to allow us to explore such issues further, but some insights may be gleaned from the textual sources. In an inheritance text written at Nippur in the reign of Rim-Sin two of the items listed are '1 door of planks for the doorway of the *papāḫum*' (**1 giš ig mi-ri$_2$-za ka$_2$ pa-paḫ**) and '1 door of reeds for the doorway of the living room' (**1 giš ig suḫ$_4$ ka$_2$ ki-tuš**).[76] The relative importance of the two rooms may be gauged by their doors: the *papāḫum* has a wooden door, as does the front door of the house leading out onto the 'square' (**tilla$_2$**, l. 60), while the living-room door, like the 'interior door' (**murub$_4$**, l. 61) is much less substantial.[77] The Akkadian for **ki-tuš** is probably *šubtum*, and both mean a 'dwelling place' which may fairly be rephrased as 'living-room'. This all agrees with the perception of one formal room probably with direct access from a courtyard, and another more private further back in the house, as seen at Ur. Although one might have expected a cultic installation to be in the more formal space (the *papāḫum*), at Ur the altars and associated facilities

[70] Matthews 1987: 115.
[71] Miglus 1999: 69-73; Starzmann 2007: 73-74.
[72] Woolley and Mallowan 1976: 24; e.g. p. 119 Room 8.
[73] Shepperson 2017: 140.
[74] Woolley and Mallowan 1976: 29.
[75] among others by Miglus 1999: 69-70.
[76] In the Hendursag chapel at Ur Woolley reports that the door of the sanctuary consisted of 'a plain wooden frame with panels of straight reed stems set vertically' (Woolley and Mallowan 1976, 127 with photo on Pl. 54b); another example on p. 143 Fig. 39. From Ur III administrative documents we know that some reed doors were treated with bitumen.
[77] Prang 1976: 3, 22-23, with an Excursus on doors on pp. 24-6.

are located in the family living-rooms. The plan of a building in Sippar Iahrurum, drawn on an Old Babylonian tablet now in the British Museum, shows a small 'shrine' (*e-ši-ir-tum*) at the back of the building which is only accessible via a rather large room called the *papāḫum.*[78] In the contemporary Old Babylonian documentation the *papāḫum* crops up more than once being built or repaired as a separate unit, and it had a roof, on which one could dry garlic, and in one case an attic (*rugbum*) above.[79] In the early 2nd millennium it is noticeable that in several instances the scribes precede the word with the logogram É 'house' (and in one instance at least write explicitly *bi-it papāḫim*), so that whatever the word meant originally, they are thinking of it as the 'house' or 'room of the *papāḫum*'.[80] Later on the word *papāḫum* almost invariably refers to a temple sanctuary, and is already used in this way in tablets found at Mari for the main cultic room leading off the courtyard of temples in north Mesopotamia, although in one case there is a smaller sanctum sanctorum (called *kummum*) further in.[81]

It might seem at first sight illogical that any ritual activities were confined to the family quarters and not given space in the formal setting of the reception room. However, if we consider what ritual, not to say religious, activities may have taken place in a normal family household, two categories suggest themselves. The first would be the worship of a deity peculiar to the family: cities, crafts, clans, and even individuals had their patron deities, and so too no doubt had families. The second would be the care of the family members already deceased, whose welfare in the afterlife was the accepted responsibility of their descendants. Both categories essentially involve the family, and hence it is understandable if either or both were hosted in the 'family' room and not in the formal reception room which was open to visitors. What is far from clear at present, is to what extent these two ritual activities were perceived as separate, or conflated in ritual speech and actions.

Moving back into the 3rd millennium, when we come to discern whether these two kinds of room were also present earlier we encounter the difficulty that excavated houses from both the Ur III and the Akkadian Dynasties are few and far between. One of the Ur III period houses excavated at Tell Asmar had a large, almost square (about 4 x 5.5 m), room with a central fireplace, which the excavator saw as 'probably the main room of the private part of the house', and in its western corner a rectangular white-plastered altar with architectural decoration.[82] It is not clear from the plan or the excavator's report if this particular house included a formal reception room, but the combination of what appears to be a main living room and an altar crystallizes the difficulty we have in distinguishing the different functions of the formal reception room, probably known as *papāḫum*, from the room referred to by the architects of the day as the 'living-room' (**ki-tuš**). As it happens, an Akkadian period tablet from Girsu has an annotated house plan which uses the two terms under discussion. Above the 'courtyard' (**kisal**) in the drawing is a large room spanning the full width of the building and designated 'living room' (**ki-tuš**). It is reached via a long room accessed directly from the courtyard, which is designated **pa-paḫ**. The dimensions of the living-room are given as 8 x 12 cubits, the *papāḫum* is smaller, 6 x 12 cubits.[83] Taken with the Old Babylonian Nippur house, this seems to substantiate the view that courtyard houses from the Akkadian period till well after the Ur III Dynasty had two significant rooms of the kinds identified by Miglus as 'reception' and 'living' rooms, and that the 'reception room' was accessible initially to anyone entering the house, while the 'living-room' was secluded. In other words, the special role of the reception room was indeed to 'receive' visitors, while the living-room was where the family would be

[78] King 1900, II: 242 no. 107.
[79] CAD P: 101.
[80] For these issues see recently Gruber and Roaf 2016. They too observe, pace Starzmann, that the two types of room do not feature in the plans at Abu Salabikh (see pp. 52-3).
[81] Charpin 1983.
[82] Hill 1967: 179 with plan Pl. 28 and photo of the altar Pl. 72A.
[83] For the plan drawn to scale and the dimensions see Gruber and Roaf 2016: 39 and 43.

found, and this helps us to understand why the Old Babylonian altars were in the less publicly accessible quarters.

Reception rooms at Abu Salabikh

If we now revert to Abu Salabikh, the question is whether our ED IIIa houses in the southern half of the Main Mound conform to the later norms. The 6H House (Level IC) has a very clear main reception room (Room 70), and a secondary room whose floors received similar high quality treatment, and also had a central fireplace (Room 62). In the 5G House, which is smaller, there is a clear reception room (Room 3), giving access to a small room at the north end (Room 1), to which we shall return (pp. 73-4). Other rooms in Area E can be recognized as reception rooms thanks to their size, shape, and position within the building.[84]

The one regular feature of a reception room seems to have been a centrally placed hearth, curiously reminiscent of the coffee making arrangements of today's *mudhif* ('guest-room', not reed-hut) in south Mesopotamia. These hearths seem not usually to have had vertical clay walls, though they may have a raised surround, and they are clearly not the same as the circular clay tannours found in kitchen contexts. We know from Old Babylonian textual references that importance was attached to the maintenance of some kind of hearth or oven (the precise definition of a *kinūnum*, probably a Sumerian loan-word, is hard to determine), because a family without an heir to carry on the family line was referred to as one whose 'hearth was extinguished'. We might therefore extrapolate backwards in time and guess that a well maintained household ensured that there was always a fire somewhere throughout the year – obviously not for heating in summer, but at least in the kitchen for cooking.

The reception rooms excavated at Abu Salabikh are remarkably free from brick or clay furnishings such as one finds in kitchens and houses across the Middle East today. Apart from the hearth, on the ground there is little to mark out a reception room, except the attention devoted to its floor and wall surfaces. Superficial observation, backed up by detailed micromorphological analysis shows beyond doubt that in some such rooms the floors were kept unusually clean, and their layers of clay plaster surfaces were purer and often thicker, and renewed more frequently. Judging solely from a close inspection of a cross-section through its floors a room can often be plausibly identified as a formal reception room. In the 6H House the main reception room (Room 70) had two sequences of clean orange and green plaster floors, and the same is true of the secondary reception room (Room 62). Similar, though not identical, very clean green and orange floors were present in the 5G House, and observed from time to time during the surface clearance programme. The most extreme example of consecutive plaster floor lines is in Room 168 in 6G84-94, where there were 15 plaster lines with only minimal intervals of brown fill (Fig. 3.31).

It remains unclear whether we should expect such floors to have been regularly protected by reed-mats or textile carpets (see p. 33). Undoubtedly people did not spend their time indoors standing upright, and must have sat or squatted on the floor or on wooden or reed furniture. A Girsu text from the reign of Lugalanda lists a chair (or stool) of boxwood and a footstool of (another) wood, and chairs (or stools) and beds are found in Ur III lists of household furniture.[85] On Early Dynastic cylinder seals one of the commonest motifs is the banquet scene, in which drinkers regularly sit on stools, which may have been of wood, palm-frond ribs or reed stems (Fig. 3.32). More examples are illustrated in Porada 1948 Pl. XVII-XIX, and there in nos. 109 and 112-113 the rectangular motifs with diagonal crosses (like the sign IG, Fig. 3.22) are presumably doors intimating that the drinking is taking place in a room indoors.

[84] Matthews 1987: 116.

[85] **1 giš dur$_2$-gar du$_8$.a giš.taškarin** Allotte de la Fuÿe 1909: 75.i.4; **1 giš gir$_3$.gub giš.mes ḫa-lu-ub$_2$** ibid. v.5: see Powell 1992: 103 s.v. **tiškarin**. For Ur III furniture see Waetzoldt 1996: 147-9.

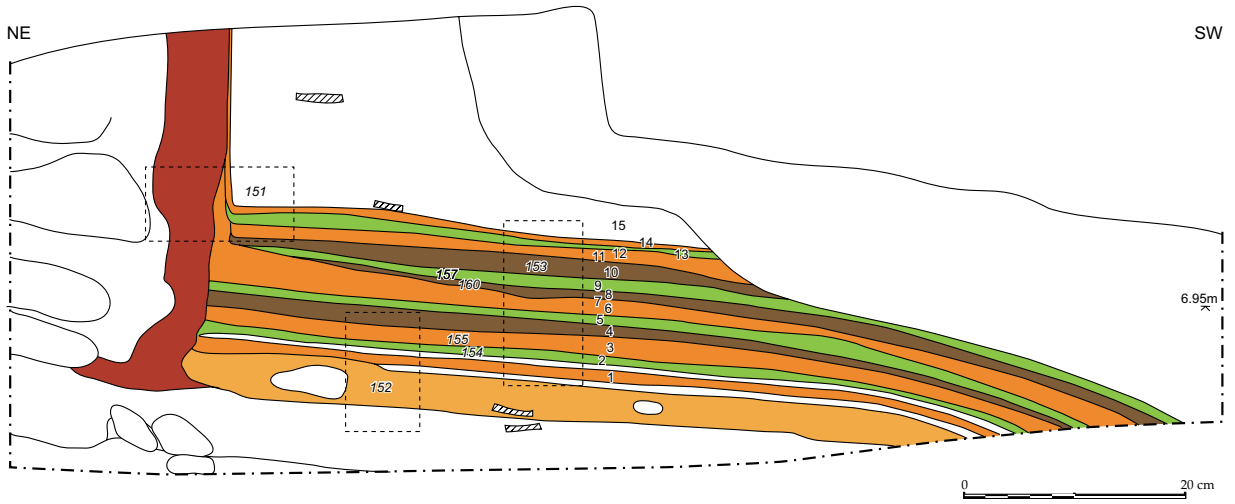

Figure 3.31. Section through green and orange floor plasters at south end of Room 168 in South-East Complex. (ASE 5: 4 Fig. 1.1).

Figure 3.32. Lapis lazuli cylinder seal AbS 1950, showing furniture in use (H. 2.8, Diam. 1.1 cm). From S end of Grave 176 (see Fig.4.10)

None of the reception rooms at Abu Salabikh seems to have had an altar or other cultic installation, and those in the 6H House resemble most later reception rooms in that they had no intramural burial beneath them. However, the reception room in the 5G House (Room 3) did have a grave, probably hosting more than one burial, beneath the floor in the north end, and the Southern Unit Room 39, with the location and dimensions of a reception room, had four separate grave shafts under the floor (see pp. 54-8). Since there were graves, sometimes many, beneath the floors of many of the Ur 'chapels' (i.e. living-rooms) one is tempted to assume that the ED IIIa reception rooms at Abu Salabikh may have fulfilled a dual function as both a formal reception room and a family living-room, and that it was only over time that these two functions were separated out and required two different rooms. A possible hint in this direction is given by the evidence for cultic activity in Room 39, and by Room 3 in the 5G House with its adjoining Room 1 (see pp. 73-4).

Chapter 4

Burials and memorials

Burials – below ground.

As our evidence stands at the moment there is little more that can be said about the reception rooms and their function, with one exception. The Southern Unit in Area E, where some at least of the inscribed tablets were kept, has a regular plan with a central courtyard (Fig. 2.2). The room along its south-west side, labelled Room 39 by the Chicago team, has both the size and shape of a typical reception room, measuring 9.50 x 3.75 m, and it was refloored more than once with thick clean plaster (as visible in Hansen 1974: 8 Fig. 5). As to be expected, there was a fire installation, but it was not a simple hearth. Centrally placed, towards the north-west end of the room near the entrance, in Donald Hansen's words 'a large bowl with ring base was set into the floor' (visible in Hansen 1974: Figs. 6 and 7). 'At the bottom of the pot was a thick layer of black ash. There were circular red burned areas to the north and south of the pot. A series of post holes(?) without any apparent pattern was found near the firing places. The holes ranged from 2 to 5 cm in diameter and were 2 to 13 cm deep. They all tapered to a point, and most were filled with brown ashy earth. Their use is uncertain' (ibid., p. 11). This was undeniably intriguing and called for further investigation when work was resumed in 1975. After clearing away the accumulated debris of 10 years we could recognize the successive floor levels, and while the large bowl had of course been removed, there was plenty of evidence for post holes or the like (Fig. 4.1). Such features are remarkably uncommon in the house floors we have excavated to date, and it seemed probable that they belonged with the bowl and the burning activities associated with it.

Figure 4.1. Postholes in floor overlying Grave 1 (SE corner of grave shaft at top of shot). For cross-section through two post-holes sunk from different floors see ASE 2:20 and photo Pl. Ib. (ASE 2: Pl. Ic)

Figure 4.2a. Grave 1 inhumation, looking west. (ASE 2 Pl. IIc)

The explanation for these features was not long in coming, because in the floor of the room, beneath where the bowl had been, there was the clear outline of a rectangular cut. True to the policy of excavating the latest first, we followed the vertical sides of a shaft down, and at a depth of 2.65 m from the top, we exposed an undisturbed inhumation with its associated grave goods (Fig. 4.2). The deceased lay in a flexed position over a large example of the sandstone slabs which were often included in burials (see p. 35). The right hand held a fine stone bowl before the face (Fig. 7.15), and a jar with a conch shell ladle in its mouth must have been almost touching the lips, both together representing food and drink. Several elements of silver, lapis lazuli and carnelian jewellery came from round the head. Large numbers of pottery vessels, including a washing set and more than 100 everyday conical bowls (Fig. 4.3) were arranged at each end, and to each side of

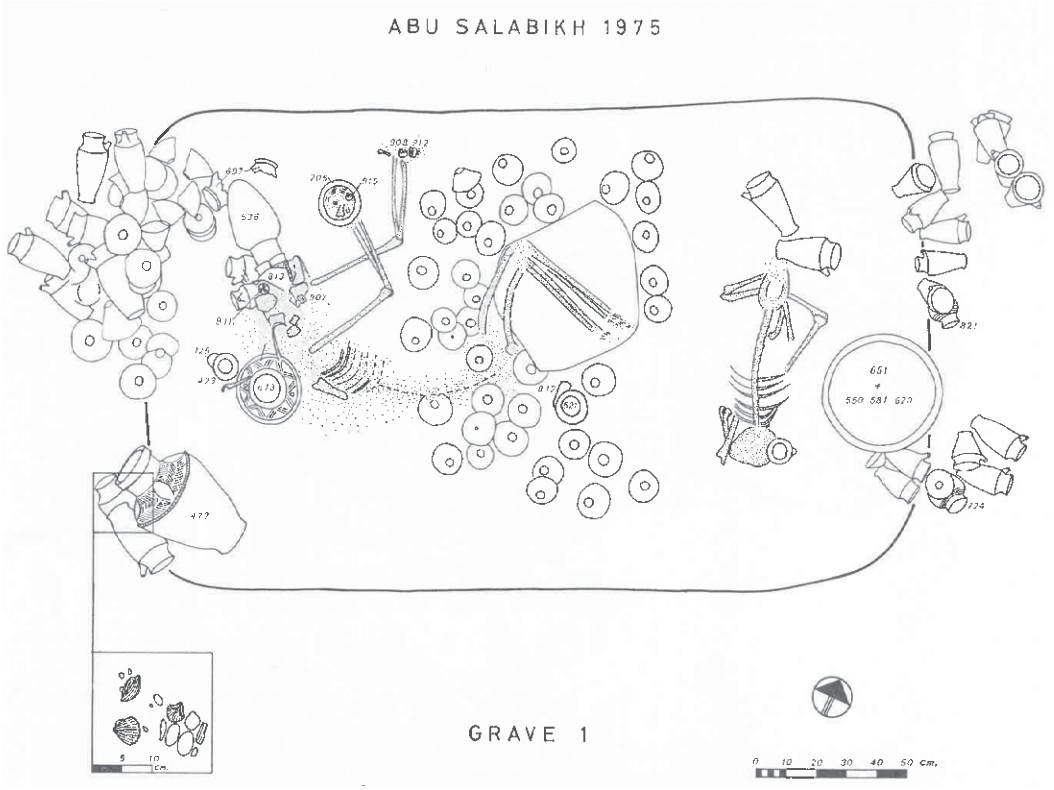

Figure 4.2b. Plan of Grave 1 inhumation. For numbered plan see ASE 2 Fig.8 (p. 26).

Figure 4.3. Grave goods from Grave 1. (Iraq *38 Pl. XXIIa)*

the body, and at the foot end of the grave were large still articulated parts of a sheep. The human bones were pressed flat and disintegrated, so that no sex determination was possible: in general, the dead of both sexes were regularly accompanied by carnelian and lapis lazuli jewellery, but an absence of weapons and the presence behind the legs of a large mortar and pestle suggest that this was a female.[1] All this was shrouded in a covering of reeds and a layer of clay and the shaft then back-filled. More than a metre above the main burial, arranged in the north-east corner, was a little group of four pots including a stemmed dish and a conical bowl containing fish bones, along with a copper ring and two cockle shells holding cosmetics (Fig. 4.4). Still closer to the top of the shaft, near the opposite corner and another metre higher, were three ungainly clay 'feet' with a round-based pottery jar they had evidently been designed to support (Fig. 4.5). Such feet have been found elsewhere, though not so obviously associated with a vessel, and another set of three (AbS 371A-C) was found lying on the floor against the west wall of the room in 1965.[2] These must have been left there when the floor of the room was raised above them by about 70 cm.[3] Since Grave 1 was dug from the higher IB floor level, the 1965 set must have been associated with an earlier occasion and a different burial.

This is certainly connected to the fact that Grave 1 was only unique because it had never been disturbed. Also positioned transversely across the room, parallel to this grave, were three similar shafts which plainly had held similar inhumations (Fig. 4.6). They had all been seriously damaged in antiquity, leaving only some displaced pots and a few scattered bones (including a skull from Grave 2 identified as male). A fifth similar grave (Grave 48) must belong in the same sequence, but was no doubt relegated to the courtyard once all four available slots in the room had been taken; it was less disturbed, with the skeleton and a five-part washing set still intact. The earliest was probably Grave 88 at the north end of the room. This had been badly robbed, but it was sunk below the lowest well-plastered floor, which is the IC floor on which the three 'feet' were found by the wall: they had been left there when the level of

[1] Mortars were also included in Graves 223a and 223b (ASE 5: 198), and at Grave 1 in the Plano-Convex Building at Kiš (photo Zaina 2015: 179 Fig. 2).

[2] E.g. AbS 1371 in Grave 73 (ASE 2:128 no. 20), and AbS 1355 in an ED II non-burial context (6G54c Level III below Southern Unit). See Moorey, *Iraq* 38: 165, referring to similar feet at Khafajah: Delougaz 1940, Fig. 51.

[3] That is, from level IC2 to IB, see ASE 2: 22.

Figure 4.4. Grave 1: secondary deposit in NE corner of shaft (stemmed dish, conical bowl and small jars). (ASE 2: 23-4 Nos. 6-9)

Figure 4.5. Grave 1: at left, NE secondary deposit. At right SW deposit: jar (AbS 579) supported on tripod feet (AbS 814) ['feet' probably wrong way up]. (ASE 2 Pl. XXIIb)

Figure 4.6. Room 39 with grave shafts (from N to S: Graves 88, 1, 2 and 27). Late ash pit visible at left.

the room was raised and the floor relaid, and there seems every reason to believe that they would have been used in the same way to support a vessel, and perhaps left there deliberately for the benefit of the Grave 88 occupant. Just above them a second group of three feet was found resting on the higher floor (AbS 370A-C). Although the tripod feet in Grave 1 were included within the filling of the shaft, their bowl no doubt performed a similar function, as a recipient of food or liquid, and the same must apply to the large bowl subsequently set into the floor above the shaft of Grave 1, perhaps an updated version of the same provision.

The neat disposition of the four shafts in Room 39 is noticeable. Although they were not all contemporary, their orderly arrangement within the room must mean that it was known where the earlier burials had been positioned, which is understandable if they had installations above the filled-in shaft similar to Grave 1. In other buildings the positioning of the burials may not always have been so orderly. The prime example of intramural burial in the city is given us now by the house some 100 m to the north, on the east side of the main street, which is known for short as the '6H House'.[4] Here there is a considerable variety in the location, size and shape of as many as 20 burials sunk beneath the floors of the house during its occupation (Fig. 3.3). The nearest equivalent to Room 39 is the long room in the south-west corner of the house (Room 69), where four rectangular shafts – all thoroughly robbed – were sunk beneath the floor, without encroaching on each other. A fifth grave (Grave 220) did cut into the earlier Grave 241 at the east end of the room, but, although not all similarly oriented, the sides of all five shafts regularly respected the rectilinear lines of the house walls. It is possible that in the now eroded Level IB to which these graves must date, the room in question was a reception room, although in the original (IC) layout of the house it had been a kitchen.

[4] Fully published, along with the 5G House, in ASE 5.

The earliest burial in the 6H House was however in the courtyard – and indeed nearly occupies it entirely. There is at least one pragmatic reason for this location, which is that the courtyard was the only space within the house big enough to accommodate the contents of the burial, because these included at least two equids (see below). This massive tomb, measuring 3.40 x 5.50 m, must surely have been intended for the household head (Gr. 234; Fig. 4.7). It was subsequently accessed via intrusive shafts and comprehensively robbed; at some stage there may have been another person inserted at the west end, but it seems likeliest to have been essentially a one person affair. This was usual, to judge from the 6H House alone, although two young persons who must have died at the same time were laid to rest side by side in Grave 246 (see below). In other graves the later disturbance often makes it difficult to be sure if one or more individuals are represented, and in Room 3 of the 5G House Grave 258 did appear to have experienced at least one secondary burial. Quite exceptional at present is Grave 185, a slightly earlier (ED II) burial we encountered just below the surface in 5I55-56 over 100 m further north (Fig. 4.9). As many as 12-14 individuals were here lying on the same surface but in no clear order, and a variety of pottery vessels were placed around and among them. Edward Luby, who recorded the osteology, notes that there is no sign of violence. The dead were both male and female, nine were adult, and three were children between 5 and 18 years. Although so close to the surface (thanks to erosion), neither the skeletons nor the pottery show signs of any secondary disturbance, and it would seem as though a cross-section of the citizens had died on a single occasion, for reasons we can hardly hope to reconstruct.[5]

Figure 4.7. Grave 234 cleared to base. Looking north. (ASE 5: 253 Photo 6.66).

[5] The frequent disturbance and perhaps re-use of intra-mural tombs makes it difficult to estimate the number of deaths accommodated during each phase of a house, which combined with the unknown time span of each phase makes it too hard to speculate on the numbers of occupants and on whether all would have been buried within the house, which looks possible in the 6H House though perhaps less so in the 5G House.

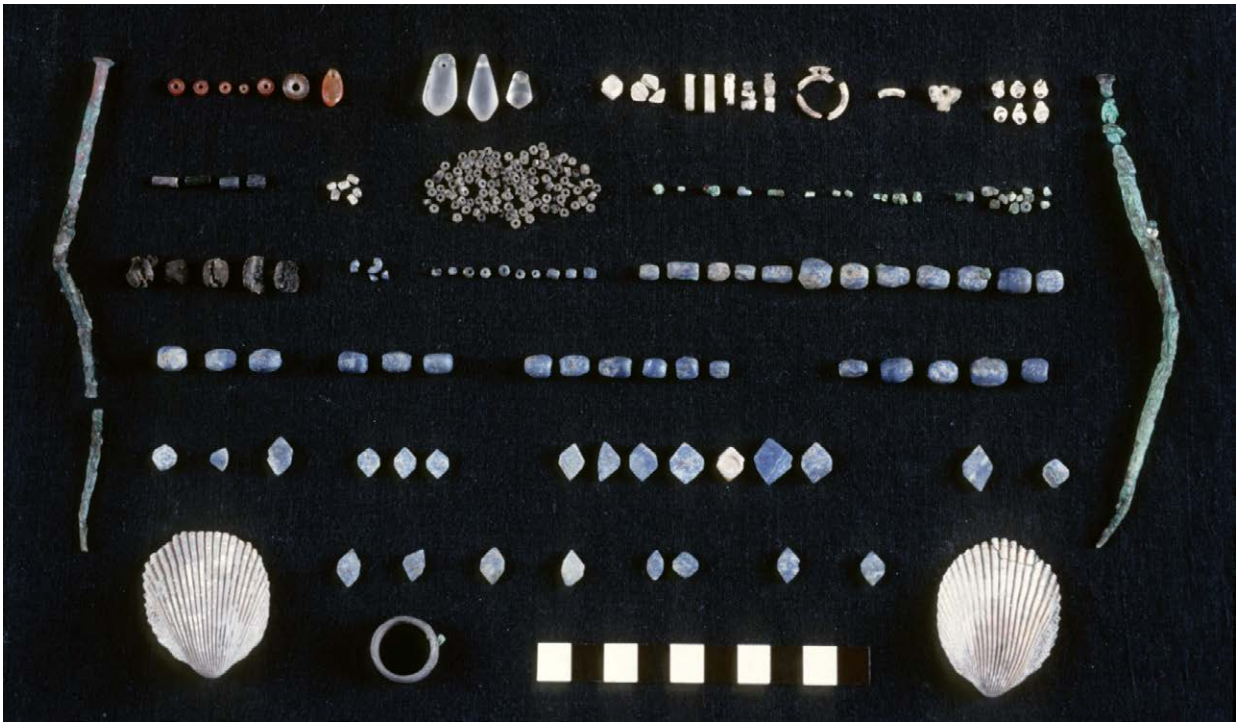

Figure 4.8. Jewellery from floor of Gr 234 (AbS 2396). (ASE 5: 258 Photo 6.75)

Figure 4.9. Grave 185 central sector, looking south. (For plan see Iraq *49: 106 Fig. 4.)*

Grave goods

Next to nothing is known about burial practices in the Uruk period which precedes the Early Dynastic, and although Woolley excavated a cemetery which we would now attribute to the intervening Jemdet Nasr, no domestic houses from either period have been excavated so it is not known if the intramural burials of the Early Dynastic were a fresh departure. At Tell Uqair, site of an Uruk period temple about 25 km to the north-north-east of Kiš further up the Euphrates, an Early Dynastic cemetery was created in what must already have become an ancient tell, and at Abu Salabikh one has to wonder whether irrigated fields were too precious a resource to waste on the dead, obliging families to make use of the ground beneath their feet. Yet there may of course have been perfectly valid symbolic reasons for keeping deceased family members on the premises; and they were not left uncared for, as the prevalence of goods placed with them in the tomb attests.[6] While we cannot hope to experience the psychology of the society, it seems fair to say that some kind of 'after life' was envisioned for them, and that there was concern that the deceased should be properly equipped, enabling them perhaps to play a similar role after their death as before it. Someone buried with a pestle and mortar is likely to have had culinary experience in life, which for us is a stronger hint of their gender than the jewellery which probably accompanied both women and men. One reason for saying this is given by Grave 176, where a rich assemblage of jewellery was stacked at the south end of the grave, next to a large upright-handled jar, and clearly separate from the body of the deceased (Fig. 4.10):[7] it seems very possible that these were intended as gifts to be presented to strategically important recipients on arrival in the underworld, a practice which is described in both Sumerian and Akkadian versions of the Gilgamesh legends (vividly and at length in Tablet 8 of the Babylonian epic).[8] Similarly the Sumerian poem the *Death of Ur-Nammu* relates that 'To Nergal, the Enlil of the Underworld, in his palace, Ur-Nammu offered a mace, a large bow with quiver, and arrows, an artfully made ....-dagger and a multi-coloured leather bag for wearing at the hip'.[9] So even the spindle and distaff included in the Grave 176 group of valuable items (see pp. 114-5) need only reflect the gender of the intended recipient, rather than that of the occupant of the tomb.

Figure 4.10. Grave 176 finds: foreground 2 conch shells (AbS 1959, 2000); centre 5 copper pins, spindle and distaff crossed (see Figs. 7.2-3), rectangular copper plaque (AbS 1996); top left 2 silver roundels (AbS 1960-61), 2 cylinder seals (lapis lazuli AbS 1950 [Fig. 3.32]; limestone AbS 1986); top centre 2 copper discs (AbS 1998). (Postgate 1982a, Pl. 3b)

[6] For texts reporting on grave goods see the examples assembled in Frayne 2008: 250-1.
[7] *Iraq* 44: 131; Postgate 1982a: Plate 3b (after p. 36).
[8] George 2003: 661-3, ll. 134-185.
[9] Black et al. 2004: 59.

Figure 4.10a. Grave 176: Spindle and distaff in situ (see Figs 7.2-3)

Figure 4.10b. Grave 176: Robert Payton attending to upright-handled jar (AbS 1972).

Seeking unequivocal markers of a male occupant the first thought might be to look for weapons. As it happens, undisturbed burials with obvious weapons or even tools, which at this date would normally be of copper, are scarce at Abu Salabikh. The best example is undoubtedly the relatively early grave in a house across the street from the Central Complex in Area E, Grave 80.[10] Here the dead person was accompanied by about 135 conical bowls, 8 spouted jars, and a small bottle close to the head. There was no jewellery, but two cosmetic shells, and at the north end of the grave beyond the head a copper knife blade and two other copper implements. The most striking feature of the grave was that 1.35 m above its base there were white impressions left by wooden planks placed across the back fill, and close to the sides of the shaft at this level were a number of copper projectile heads – the business end of arrows or javelins, seven in all (Fig. 4.11).[11] Given the way they were arranged around the shaft these do not look like bundles of gifts for subsequent distribution but more likely tell us something about the occupant's

[10] ASE 2: 140-9.

[11] Other copper weapons, or at least tools, in the graves include daggers (in Graves 51, 84 and 93), a knife in Grave 89, and axes in Graves 19, 27, 51, 53, and 76 (cf. Martin, ASE 2 : 13).

Figure 4.11. Javelin heads from shaft of Grave 80. (ASE 2 Grave 80 nos. 4-7)

lifestyle. The tally of 135 conical bowls naturally also asks to be explained. It is not unique: in Grave 1, which we believe has a female occupant, there were more than 100 (see Fig. 4.3), in Grave 244 (in the 6H House) 88, and at least 70 in Grave 205. It has been suggested that these bowls were intended for the deceased to offer food to recipients encountered in the hereafter; an alternative explanation would see them as deposited in the tomb by participants in the funerary ceremonies to symbolize their attendance. Normally there were no remnants of food detectable and bowls were sometimes stacked (as in Grave 244). In general conical bowls were accompanied by spouted jars, the two commonest forms among grave goods, and where there were more bowls there were usually more jars, suggesting that they should be seen as together enabling the consumption of both food and drink.

Equid burials

There is another criterion that we can probably accept as an indicator of the occupant's gender. Just as it seems unlikely that the males would have been buried with a culinary pestle and mortar, so the presence of two complete draught animals tends to suggest a male occupant.[12] 'Draught animal' is a deliberately non-specific phrase. To be slightly more specific, we can say that in at least two graves a

[12] Though note the chariot and equid trappings included in the funerary items of the king's mother at Ebla (Biga 2007-2008: 261), and later at Girsu in Ur III '1 sledge of boxwood (and) 1 team female **kunga**-equids' among funerary goods for a lady (Recht 2022: 147 citing P220725 and Cohen 2005: 163-6).

pair of equids formed part of the grave goods. The term 'equid' (as opposed to equine) refers to any member of the genus Equus, which includes not only the horse (*E. caballus*) and the donkey (*E. asinus*), but the onager (*E. hemionus*), a wild – and reputedly untameable – species which roamed the desert and grassy plains between Iraq and Jordan until the middle of the 19th century AD. Much ink was spilt last century on the pattern of exploitation of these three species in Mesopotamia, and it took a long time for the written evidence to be reconciled with the archaeology: the first introduction of the horse, no doubt from the Iranian plateau or the steppes beyond has always been a matter of great interest. The word for horse, *sīsum* in Akkadian, makes its appearance in different guises in almost every Near Eastern language and then in Indo-European from Greece (*hippos*) and Rome (*equus*) to Iran (*aswas*) and India, and it first surfaces in Mesopotamia in documents of the Ur III Dynasty (**anše si$_2$-si$_2$**). Perhaps surprisingly, horses are not shown in 'art' – or better in iconographic contexts – until later, but there are clear representations from Early Dynastic times of some species of equid serving to tow war chariots.

One of the best-known scenes is on the *Standard of Ur*, found among the grave furnishings of PG 779,[13] which has inlay decoration showing war and peace on its two opposed sides. Fallen enemies in the war scene are trampled by teams of equids towing a lumbering vehicle with four solid wooden wheels, a driver and a spearman (Fig. 4.12). The question has always been, what are these animals? They are clearly not horses. F.E. Zeuner, pioneer in the study of domestic animals in the early civilizations, identified them as onagers (i.e. *E. hemionus*), which are indeed alluded to in cuneiform texts from early in the 3rd until well into the 1st millennium, when the Neo-Assyrian palace reliefs have realistic hunting scenes depicting their capture. While the etymology of their Akkadian name, *serrēmu*, remains obscure, in Sumerian they are called 'desert donkey' (/anše edin.ak/ – perhaps to be precise 'desert equid'), and the desert was their habitat. Travellers from Xenophon in the 4th century BC to Layard in the 19th century AD describe the herds of onagers they sighted on the north Mesopotamian plains, but today they have sadly been hunted to extinction.

Figure 4.12. Teams of equids towing battle carts advancing and in action. Standard of Ur *(Woolley 1934 Pl. 92). © The Trustees of the British Museum.*

[13] Woolley 1934: 61.

The trouble is, that pace Zeuner, zoological experts no longer believe that the onagers – the 'wild asses' could be tamed for use as draught animals. Yet in the battle scenes these are clearly not mere donkeys either. The solution gradually became apparent, that the inhabitants of south Mesopotamia, and probably others further afield, had been deliberately crossing onagers with donkeys. We know this is possible because the same procedure was still being followed in Rajasthan last century, and hybrid animals were kept in the Schönbrunn zoo in Vienna in the 1920s (see Gray 1972). Once the possibility that they were using hybrid animals was entertained, one enigma was solved, because in the 3rd millennium administrative texts from the Ur III and preceding Akkade Dynasties there seemed to be too many different 'equid' species. If we are looking at not only donkeys and onagers, but also their hybrid offspring, then we need at least three words for them, and the word for the 'hybrid' turned out to be the forerunner of a later term which we transcribe in Sumerian as **kunga**, but is equated with the Akkadian word *parû(m)*, which, in later centuries, when there were horses available, means a 'mule' with a horse and a donkey as parents. Confirmation that this is what they were up to was provided from two sources: from Akkadian Dynasty documents listing holdings of 'equids' and from the bones of the animals themselves.

The clearest textual evidence is provided by two administrative tablets from Umma.[14] No. 74 lists:

> 37 female onagers
> 10 'mules', 2 (year old)
> [1?] female 'mule', 1 (year old)
> [x+]3 male onagers, 1 (year old)
> 1 female onager, 1 (year old)
> 6 adult male donkeys
> Total: 62 equids. Ur-AB, equid-herd.

This shows that all the animals listed – the onagers (**anše edin-na**), the hybrids (**anše.**BARxAN = **kunga**), and the donkeys (**anše.**LIBIR) – were in the keeping of one herdsman. That more than half the herd were onager females suggests that the hybrids were normally the offspring of male donkeys and female onagers, but at least some male onagers were also present.

As for the osteological evidence from the detailed examination of the skeletons, experts would usually claim to be able to distinguish an onager leg from a donkey leg, but almost by definition a hybrid from the two species is going to be more difficult to identify for sure. There were two sub-species of onager in the region, and the one in the Syrian desert (*E. hemionus hemippus*) was as small as, or smaller than, some asses. One discriminating feature in the leg bones is the relative proportions of the different bones (metatarsals+tibiae+femora), see Clutton-Brock 1986. Equids were buried in contemporary elite tombs at the site of Umm el-Marra west of the Euphrates in northern Syria, and recent laboratory work on DNA sequencing has provided confirmation that some at least of these animals were indeed onager and donkey hybrids.[15]

The rationale for breeding these hybrids is obvious: pure bred onagers could not be domesticated, and war chariots towed by mere donkeys would not have been too fearsome. By crossing them, you achieved an animal which was faster and perhaps taller than the donkeys, but could be tamed to the reins and yoke. Evidently, when the horse arrived in the Ur III Dynasty, it combined these attributes in a single species and, as they say, the hybrid became history – although it was not forgotten: more

[14] Foster 1982: 128-9 Nos. 74 and 75. See Postgate 1986 : 197[9] for other earlier and later contexts where onagers are mentioned alongside other equid species.

[15] For the issue of differentiating the hybrids from the osteology and DNA see Recht 2022: 19, and for the DNA most recently Bennett et al. 2022.

than a thousand years later poets still described both Adad, the storm god, and Šamaš, the sun-god, as traversing the heavens towed by their 'mules' (*par*û). As observed by Maekawa, both in Pre-Sargonic and Ur III texts it is likely that the word **anše**, which we normally translate as 'donkey, ass' could serve as 'a generic word for several kinds of equids such as ANŠE.DUN.GI, ANŠE.BARxAN and anše-edin-na'.[16] Hence when in *The Death of Ur-Nammu* we meet the lines

> 'His donkeys (**anše-ni**) were to be found with the king; they were buried with him.
>
> The donkeys were to be found with Ur-Namma; they were buried with him'[17]

it is reasonable to assume that by 'donkey' we may understand 'equids' and probably more specifically 'hybrids'.

Ur-Nammu's mausoleum was excavated by Woolley at Ur, but his dynasty's tombs had been thoroughly robbed. Half a millennium earlier at Abu Salabikh we now know of at least three burials with equids. Grave 234 sunk into the courtyard of the 6H House was no doubt the size it was because it needed to accommodate a pair of animals – even though most of both skeletons had long since disappeared, enough articulated bone from the original deposit remained in situ to make this secure. What is much less certain is whether the pair were accompanied by a vehicle. The only reason for a pair would have been to tow a wheeled vehicle, and that is how they are shown in the iconography, either in pairs or, as on the *Standard of Ur*, perhaps because of the weight of the four-wheeled chariots, in teams of four. Since Grave 234 was over 5 m in length there would have been room for both the human occupant and a vehicle, but nothing that remained in the grave could be attributed to a 'chariot'. We excavated at least two other graves with equid skeletons, beneath rooms south of the Southern Unit, but in each case (most of) the associated human skeletons and no doubt much in the way of grave goods had disappeared and we have been left with little more than the equids themselves (see p. 84; Fig. 4.13). The completely preserved pair, Grave 162(N), seem to have been fitted snugly into the grave shaft, and there was certainly no space behind them for any vehicle.

Yet the absence of chariots may be more apparent than real. The evidence we have suggests that the heavy solid-wheeled carts were constructed in wood, and no doubt also leather, and so had few metal parts which would survive in the Mesopotamian soil. In the Ur royal cemetery the impressions of wooden wheels were photographed by Woolley, but we have not come across similar cases. In an Akkadian period tomb up the Diyala at Tell Madhhur beyond the Jebel Hamrin there was a suspiciously empty space behind a pair of equids.[18] A few copper items did survive there: these included small two pronged spikes (or 'bidents') inserted into a mushroom shaped bone holder, and a pair(?) of what were perhaps hand grips. The clue to the bidents is given by the Ur graves, in which similar examples were inserted into the rear end of wood (or reed) javelin shafts, and must therefore be 'spear-throwers', an ethnographically well-attested device designed to guide a string to aid the thrower.[19] Javelins are shown in clusters in the quivers attached to the chariots on the *Standard of Ur* (and on the *Stele of the Vultures*), and the presence of the bidents in the Madhhur tomb strengthens the case for restoring a vanished chariot behind the yoked pair. Copper bidents of this kind are not infrequent in random contexts at Abu Salabikh. On the *Standard of Ur* and the *Stele of the Vultures* we also see a 'rein ring' which was fixed on the yoke-shaft to guide the reins. These were also of metal, and examples at Ur came from several tombs, but we have not found any at Abu Salabikh. There were however, from Grave 162, at least three copper

[16] Maekawa 1979: 42.

[17] after Black et al. 2004: 58 and ETCSL.c.2.4.1.1:70-71.

[18] For an impressionistic drawing of this grave see Roaf 1982: 46.

[19] Cf. Woolley 1934: 68 and 304; the bone mushroom shaped fittings from Ur and Madhhur (into which the copper bidents fitted) are not found at Abu Salabikh.

Figure 4.13. Grave 162 (N): pair of equids. (Iraq *46, 96).*

rivets which could have had a function in chariot construction.[20] Otherwise the only chariots at the site are the baked clay models, and their detachable wheels, which turn up various contexts, including the temple Ash Tip, but not among grave goods.[21] To sum up, the pairs of equids in Graves 162 and 234 can only have been intended as draught animals, and it seems likely that they towed chariots rather than ploughs (or carts as in some graves at Ur and Kiš), though no physical remains survive to reinforce this guess.

The human occupants

One reason why the equid pair in Grave 162 was undisturbed could be that later generations, or more precisely the next generation, knew full well that there was nothing there worth digging for. The extent to which the graves in the 6H House had been interfered with, in the case of Grave 234 even before the Level IB rebuild, when the house was presumably still in the hands of the family, leads one to wonder if rich graves were not perceived as a form of nest egg for thin times. This can only be the merest speculation, but correspondence from Old Babylonian Mari makes clear reference to the retrieval of grave goods from the tombs of recent rulers, without any sign of compunction.[22] It may well be that curses on later funerary inscriptions were speaking from collective experience when they called down divine punishment on those who violated the tomb.

[20] The rivets are AbS 2197 (L. 3.75 cm), AbS 2198 (L. 5.1 cm), and AbS 2199 (L. 5.9 cm), and all three bear yellowish traces of some decayed organic material; see *Iraq* 46: 97, with poorly reproduced photo: Pl. VIIb.

[21] McAdam 1993: 87-90.

[22] Charpin 2008: 78-9, citing A.2177 in Ziegler 2000: 17-18.

Quite apart from the loss of the grave goods, for us an even more unfortunate consequence of the large scale looting is that we no longer have the skeletons to allow us to identify the age and sex of the occupants, and even where we do, the bones are often pressed flat, making it very problematic to be certain of the sex. Age is of course easier to define, and one prime example of this in the 6H House is Grave 246, in which two children were laid to rest together, one about 8 and the other 4 years younger (Figs 4:14-15). With them in the grave, as well as many personal ornaments in shell and semi-precious stones, were small limestone cosmetic containers, and some child-sized pots (Fig. 4.16). There was no clue to what caused this double loss to the family, but the grave goods make it clear that they were valued members in death as in life. The contrast with the skeleton deposited in Grave 242 just to the east, in Room 70 and probably a little earlier, in the transition from the IC to the IB phase of the house,[23] could hardly be greater. This person, aged about 9-10 years, lay without a visible cut for a grave and without any sign of covering or of accompanying items. She or he cannot have had the same social status as the children in Grave 246, but on the other hand must have belonged in some way to the household to be disposed of within its walls. At the other side of the house, in Room 56 which functioned at least at times as a kitchen, another poorly equipped grave was sunk beneath the floor (partially cutting into the base of the outer wall of the house). This was for a female, of between 30 and 40 years, and Edward Luby comments on the pathology of the skeleton that 'it is likely that this individual suffered from some form of environmental stress which led to a serious disruption in the deposition of enamel in the anterior permanent dentition' (ASE 5: 286). In both these instances, it is hard to avoid the conclusion that we have household members of low social status, in other words, servants or slaves.

As will be seen in Chapter 9.5, the concept of a free born citizen was probably explicitly defined, and this was of course in contrast to those without the same status. The Sumerian word for slave, variously transcribed by philologists, was probably in origin the same as the Akkadian *wardum*,[24] and there is rich documentation in the Ur III court documents for the legal recognition of the status of slaves and the potential for them to be manumitted. There is a group of sales of persons from the Akkadian period edited by I.J. Gelb, and a number of slave sales from Girsu at the end of the Early Dynastic period,[25] but neither at Šuruppak nor at Abu Salabikh in the ED IIIa period are slave sales attested. Nevertheless, by comparison with other cities at other times it seems likely enough that the occupants of Graves 242 and 254 were slaves, either born into slavery or serving out debt pledges.

Memorials – above ground

What was immediately clear during the excavation of Grave 1 was that the bowl and doubtless also the postholes in the floor above were not coincidentally present but belonged with the tomb. Curation of a burial place may take many forms. Headstones over a grave are not a Mesopotamian practice, but in later centuries in Mesopotamia there is a wealth of varied textual evidence for graveside rituals. The general term in Akkadian is *kispum*. This is used in Old Babylonian times for funerary rituals for both royalty and commoners, and can apply to single acts or to a collective ceremony which might be regularly celebrated on specific days of the month. A communal public ritual seems to have taken place throughout the centuries in the summer months, principally but not exclusively in the month of Apum (see below), and this is very well documented at Mari on the Euphrates, where administrative scribes recorded food and drink issued for the *kispum*. It seems to have taken place twice in the month on the 1st and 16th, which is a tradition stretching back into the 3rd millennium at Lagaš,[26] but other references associate a *kispum* with the disappearance of the moon at the end of a month (*bibbulum*). The *kispum*

[23] Not identical or contemporary with the IB and IC phases in Area E.

[24] In addition to the logogram variously transcribed IR_3 or ARAD, in the Early Dynastic texts from Šuruppak there is the term ḪAR.TU which has also been taken to be a version of the same word (Steinkeller 1993: 121).

[25] Edzard 1968: Nos. 40-58.

[26] Birot 1964: 23.

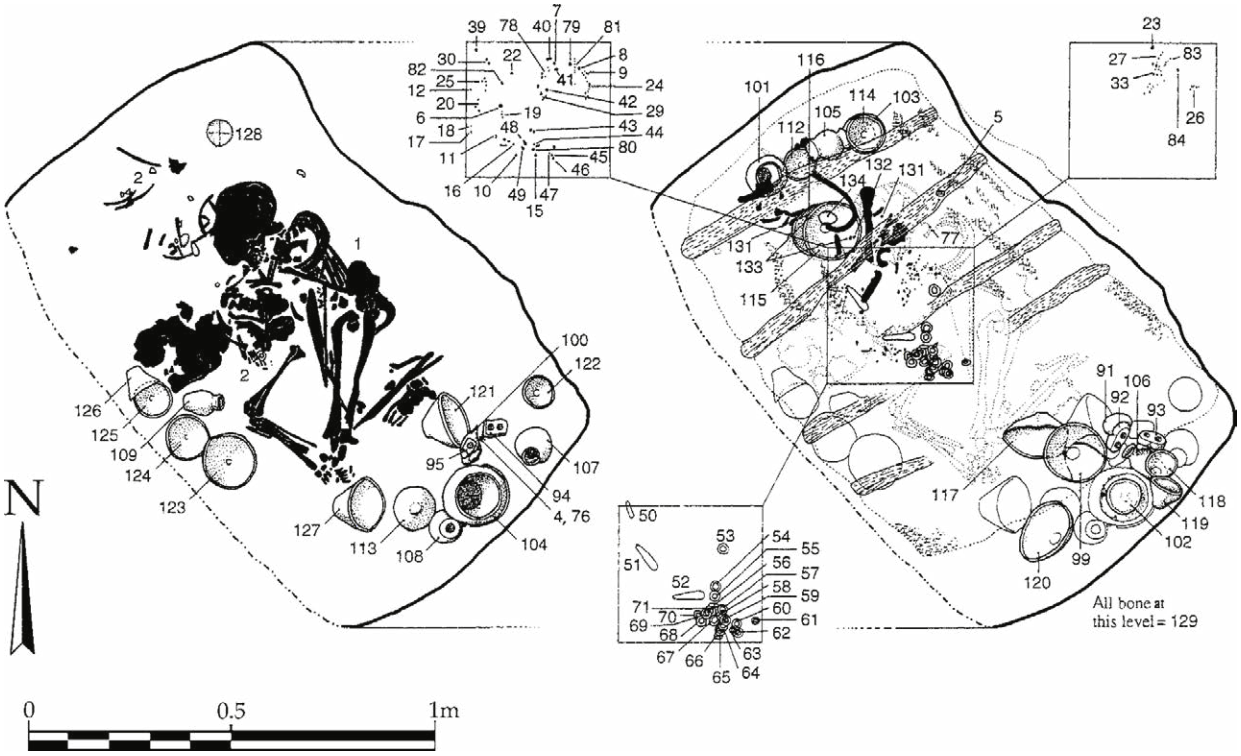

Figure 4.14. Grave 246 double inhumation before and after removal of overlying plank impressions. (ASE 5 Plate 29 Plan 44)

Figure 4.15. Grave 246 child skeletons. (ASE 5 p. 206 Photo 6.126)

Figure 4.16. Grave 246 grave goods (ASE 5 p. 308 Photo 6.130). Note stone cosmetic holders and child-size vessels.

ritual could be a simple family event: an Old Babylonian letter complaining at having received nothing from the correspondent wails 'What am I to issue throughout the year for the end-of-the-month *kispum* (**ki.se$_3$.ga** *bi-ib-bu-li-im*) of your father's house?'.[27]

One of Hammurapi's subjects once told him that his son had been missing for eight years previously, and said 'I did not know that he was still alive, and so I performed repeated funerary rituals for him as if he were dead',[28] while a father's donation to his daughter in contracts at Susa prescribes that 'while I am alive you will give me food, when I am dead you will carry out the *kispum* ritual (*ki-is-pa ta-ka-si-[ip]*)'.[29] These were obviously internal family events, and demonstrate that the ritual was aimed at the individual personality. Carrying out rituals over the grave obviously reflects acknowledgement of the continued presence of the person in some capacity, and a belief in some kind of afterlife. Although our Early Dynastic texts don't mention the term **gidim**/*eṭimmum*, which we generally translate as 'ghost', it was no doubt in use. That the ghost of a specific individual was 'resident' in the tomb is expressed in a passage from a Mari letter (about 1750 BC): the local governor at Terqa, upstream from Mari, reports to the king that the ecstatic priest of Dagan has come to him with a message from the god, that he should write urgently to the king 'let them celebrate the funerary rites for the ghost of Iahdun-Lim'.[30]

The Sumerian equivalent, **ki se$_3$-ga**, seems to mean literally 'placed on the ground', which could obviously refer to a food offering. Later references make it clear that liquids were also poured as part of the ceremony – water, but also beer, wine, oil and honey.[31] This would have been a messy procedure,

[27] Kraus 1964: no. 106.
[28] van Soldt 1994: no. 21.
[29] Scheil 1932: no. 285,15-16.
[30] *ki-is-pí a-na i-ṭe$_4$-em-mi-im* ša *ia-ah-du-un-l[i-im] li-ik-ru-bu* (Kupper 1950: 40,16-18). Iahdun-Lim was Zimri-Lim's father and predecessor on the throne.
[31] see CAD A/ii: 201 *apu*.

and the texts mention ceramic pipes which were no doubt let into the ground to funnel the liquid to where it was required. An Old Babylonian hymn in Sumerian to Inana in her manifestation as Ninegal includes a couplet which reads 'The (under)ground pipe (**a.pap**) is opened for you, the water of the naming ceremony is poured for you'.[32] In Akkadian another word for the pipe is *arūtum* and it appears in texts almost to the end of cuneiform, as the place into which water is poured for the dead. That it was indeed intended for the dead is made explicit in a curse from a Kassite boundary stone (*kudurru*), where an offender's fate is that 'down below let his pipe not accept the cold water'.[33]

It has to be admitted that the archaeological evidence for libation facilities installed above a tomb is scanty, and as far as I know no ceramic pipe has been found leading down into an Early Dynastic grave. The clearest evidence comes, as so often, from Ur where in the Early Dynastic cemetery two of the 'royal' tombs had a platform high up in the grave shaft or adjacent to it. The more elaborate one was a square bitumen surface with a revetment of plano-convex bricks and an outflow one side towards the shaft,[34] while the other was a lime-plastered space 'high up in the tomb-shaft' sloping down to a 'limestone edged hole'.[35] In neither case does there seem to have been a ceramic pipe, as one might expect, but since in the lexical lists **a.pap** and *arūtum* are both given the 'pottery' determinative **dug**, one day no doubt a water pipe over a grave will be exposed.

In Neo-Sumerian times there is a mass of evidence for the **ki a-nag** 'libation place' (literally 'the place of giving water to drink') which was evidently a funerary facility for deceased rulers (as well as commoners). We do not know if it was a separate structure or part of an existing building – in the case of a ruler, no doubt in a temple or a palace – nor is it clear if it was erected over the recipient's burial place.[36] Offerings at the 'libation place' of Ur-Nammu, Šulgi and Amar-Suen are recorded, and associated in some cases with a 'chair' (**^{giš}gu-za**).[37] In the Old Babylonian palace at Mari *kispum* offerings were made in the 'house [or room] of chairs',[38] and it is no coincidence that of the seven seated statues of Gudea *Statue B* begins with a list of the beer and food regular offerings explicitly prescribed for the statue (i.8-12), and demands that it should stand in the 'libation place' (**ki a-nag-e ha-ba-gub** vii.55), while *Statue I* requests a future ruler to 'mention my name' (**mu-gu$_{10}$ he$_2$-pa$_3$-de$_3$** iv.7).[39]

In the Inana hymn quoted above, the pouring of water over the grave is combined with calling a name or names (**mu pad$_3$**). This was evidently an essential component of the ritual. A prime example of how this might have been done is given us by a late Old Babylonian prayer edited by Claus Wilcke (1983). It begins 'Sin (the moon-god) you are god of heaven and earth. In the morning I am pouring water to you for the family of Sin-naṣir, son of Ipqu-Anunitum. Release the family of Sin-nasir, son of Ipqu-Anunitum, that they may eat his bread and drink his water.' There then follow the names of 18 male forebears over 5 generations, 5 family members who were *nadītum* priestesses of Šamaš and two named wives who will have been Sin-naṣir's mother and grandmother. The prayer ends with the repeated plea 'Release the family of Sin-naṣir, son of Ipqu-Anunitum, that they may eat his bread and drink his water', and Wilcke

[32] ETCSL c.4.07.4: 70-71. A possible connection with the Semitic month name *Ap šarrāni* 'libation of the kings' remains to be explored.

[33] CAD A/ii: 324.

[34] PG 1237, Woolley and Mallowan 1976: 114; Pl. 69b.

[35] Woolley 1936: 46; Pl. 12a.

[36] See Jagersma 2007 in general, and on this specific point cols. 296-7. The numerous Gudea statues, and the text Çığ et al. 1954-6: 417 which attest a libation place (**ki a-nag**) of Ur-Nammu and a 'chair' of Šulgi at Nippur make it unlikely that every libation place was at the graveside.

[37] E.g. Sallaberger 1993: 147. A short note preserved in the Pushkin Museum lists butter rations issued to a range of deities, and to the 'libation place of Gudea' (**ki a-nag gu$_3$-de$_2$-a**), followed by male and female members of his dynasty (Perlov 1980).

[38] Birot 1980: 142.

[39] Edzard 1997; Statues B, D, F, H, I, Q and R show Gudea seated. In contrast to the standing statues which represented the ruler worshipping a deity, these seated figures are designed to receive offerings and mentions of his name.

was of course right to realize that the family had already passed into the underworld. We don't have the wording of a 'name calling' like this from earlier centuries, but there are plenty of indications that it was a long-standing tradition.

Looking on the practical side, it seems unlikely that all 18 male forebears, let alone the named (and unnamed) female members of this family could have been accommodated in a single grave. Admittedly, as Woolley observed in Old Babylonian graves at Ur, previous occupants could have been shoved unceremoniously to one side once they were no more than bones, and he considers the possibility that what he calls larnax burials were used when the preceding burials were too recent to be treated in that way. While a single *kispum* ceremony might therefore have taken place immediately over one grave, one must I think assume that some of those included in the family ritual may have been in outlying tombs, even if they were all within the four walls of a single residence. This becomes relevant when considering the relationship between the household shrines excavated in the Ur Old Babylonian houses and the burials beneath the floors. At one end of the household chapels were rectangular brick altars with architectural decoration imitating the façade of temples, and in one justly much reproduced photograph we can see pottery bowls resting on the intervening bench.[40] More than once Woolley states that the chapels were associated with burials beneath the house: 'The ordinary procedure was to construct a brick-built burial-vault under the pavement of the private chapel, where the house boasted such, or failing that under the floor of the principal room or even of the central court (as in the small house No. 5 Gay Street). This was a family vault wherein all the adult members of the household might expect to be laid'.[41]

It is difficult to be sure from the published account which of these 2nd millennium burials were physically beneath a 'chapel' floor, and if one thinks of Sin-naṣir's family at Sippar it seems obvious that no single burial chamber would have always sufficed, so that there should be no surprise if reception rooms and courtyards were also used. Where a house boasted a dedicated 'chapel' complete with altar, Woolley's assumption is that this was the location for the family's funerary rituals, but there is very little evidence from preceding centuries for comparable house shrines or chapels. The combination of features associated with Grave 1 (and probably also Graves 2 and 88) in Room 39 of the Southern Unit strongly suggests that this room hosted such rituals (see pp. 56-8), but there is no sign there of anything we would recognize as an altar. Nevertheless, the features observed in the room seem to point clearly to some kind of offering directly over a grave. While there was no clear sign of burning associated with the tripod feet, inside the large bowl over Grave 1 was 'a thick layer of black ash', and 'there were circular red burned areas to the north and south of the pot', as can be seen in Hansen 1975, 8, Fig. 6.[42]

In Ur III times as in later years a *kispum* ceremony might require dates, flour, bread and beer,[43] and one of Hammurapi's Governors in the south, Šamaš-hazir, wrote to a subordinate 'Let the staircase door be sealed. Don't issue one single (piece of) wood, except for the bundles you issue one at a time for a/the *kispum*'.[44] It seems unlikely that liquids were heated, but perfectly possible that the flour was used on

[40] Woolley and Mallowan 1976: Pl. 43b.

[41] Woolley and Mallowan 1976: 33.

[42] It was tempting already in 1975 to compare the burials in Room 39 with the much later and more elite burial arrangements for the priestesses of Ningal at Ur well discussed by Weadock 1975. A further temptation might be to assume that all five of the occupants (to include Grave 48 in the neighbouring courtyard) were female, and then to wonder if this temple, perhaps with Nisaba as its patron deity, had hosted a community of priestesses (sensu lato) with scribal expertise. Unfortunately it is not possible to be sure if any of the scribes mentioned in the Abu Salabikh colophons bore female names (for a list see Krebernik and Lisman 2020: 205-9), and initial analysis of the human skulls from Grave 2 identified them as male (ASE 2: 38 No. 7), an identification which we have been unable to confirm either by re-examination of the bones or by liaison with the human osteologist.

[43] Jagersma 2007; Tsukimoto 1980.

[44] Stol 1981: no. 20, 11-15.

an open fire for pancakes or similar; fire traces might also be evidence of incense burning (the more attractive if, as in Room 39, it was under cover). We know that in the final Pre-Sargonic years at Lagaš, and in Ur III Umma various tree resins from cedars and other trees were imported by the merchant community presumably from eastern or western mountains,[45] and on one occasion at Mari '1 litre of cauldron-oil' and '1 litre of cedar oil' were issued 'for the tomb (*kimahhum*) of Ahatani, the bride of Mutu-Bisir' (Bottéro 1957: no. 58).

All in all, it seems likely that already in the Early Dynastic period rituals involving food and drink, possibly also incense, and the naming of names would have taken place over the grave. It is possible that the frequent single post-holes were made by standards of some kind. This seems a sufficient explanation for the features observed in Room 39, but at Abu Salabikh we do not have material archaeological evidence for activities undertaken directly above any of the other graves. Although we do have clear examples of a room floor being replastered after the grave had been inserted beneath the floor (Graves 234 and 244), these floors have not usually survived intact across a wide enough expanse to retain the necessary evidence. What does seem clear is that while houses at Abu Salabikh routinely had a reception room, which in some instances hosted a burial or burials, unlike the Old Babylonian houses they did not have a separate family 'living room' of the kind Woolley described as a 'chapel' (see p. 50).

The shrine in the 5G House

At Abu Salabikh there is however one very suggestive feature which could be seen as a forerunner of the more elaborate facilities some six or seven centuries later. In the north-west corner of the 5G House, in a housing quarter west of the temple precinct, a small square room with a slightly sunken floor leads off the main reception room (Room 1, Fig. 3.1). Up against the western outer wall of the house it has a fire installation unlike any other we have so far encountered. It is not a circular construction like most of the round ovens called tannours, but a small round pit sunk below the floor of the room, filled with black ash, so certainly some kind of fireplace. Above and below the floor line it is recessed into the plastered face of the west wall of the room as a wide vertical groove, or an open chimney. In the absence of any comparable features in houses excavated at contemporary sites the nearest parallel for this seems to be in the Old Babylonian houses at Ur. There, a standard feature of the 'private chapels' in the wall behind the altar was 'a square recess, like a hearth, flat-topped, from which there was carried up in the wall a deep groove or open chimney'.[46] Woolley wrote 'I should explain the recess as a hearth for burning incense' (and in Woolley and Mallowan 1976: 29 it has become 'undoubtedly' that); there is no mention of the debris of burning but for him to describe the feature in this way one must assume some was present. The photograph of the north-west end of the chapel in No. 4 Paternoster Row shows clearly how the 'chimney' was let into the thickness of the back wall, which is closely paralleled by FI89/14 in Room 1 of the 5G House.[47]

The parallel with Ur is reinforced by the close association with the reception room (Room 3), and the idea that it might be something to do with a domestic cult is borne out by the six clay figurines of sheep which were recovered from the lower levels of the ashy fill (Fig. 4.17). Attributing meaning or function to figurines is a procedure fraught with uncertainties: crude little clay model animals turn up all over the Near East at sites of almost any date, but unequivocal evidence for how they were used or what they stood for is extremely hard to find. They are not especially common at Abu Salabikh, and that six were found together in this one feature cannot be by chance. The only other context where we have a concentration of figurines, both animal and human, is in the huge Ash Tip which accumulated against

[45] Bauer 1972: nos. 118-119; Nikolskii 2008: 301; Snell 1982: 156-68.
[46] Woolley 1931: 363.
[47] Woolley 1982: 209; Woolley and Mallowan 1976: Pl. 44a; for other examples of such 'chimneys' see Pl. 41b and 43a.

Figure 4.17. Six sheep figurines from the fill of the hearth in Room 1 of 5G House (FI89/14). (ASE 5 p. 184 Photo 5.36)

the east side of the temple area (pp. 75-6). From just the part of the tip which we excavated, a total of 81 animal figurines were recovered, of which 10 were recognizably of pigs and 11 of sheep or goats; many could only be classified vaguely as 'quadrupeds'.[48] The dilemmas we face in assigning functions to these and other figurines from the Ash Tip are discussed below (p. 78), but here at least there was just the single type of model. With all due hesitancy it seems likely that these six sheep (and they do seem to be sheep, or possibly goats, but not pigs or equids) were, in E. McAdam's words, either 'token offerings', or 'pledges of real offerings ... which would be made at a later date' (1993: 91). The small size of the room, and the insertion of the fire installation into the wall make it unlikely that it involved any rituals carried out directly above an underlying grave, as in Room 39, and it is equally not obvious what role the animal figurines would have fulfilled if this was a purely funerary installation. To address this, one needs to look elsewhere on the site, and so we may now turn our attention to the sector of the city where we believe the temple must have been situated.

[48] McAdam 1993: 83-91.

Chapter 5

The temple and the tablets

The temple

The temple Ash Tip

Not all of the southern half of the Main Mound is composed of the tightly packed housing quarters exposed towards the centre. In the space south-east of the Southern Unit it emerged that there was a massive rubbish tip.[1] We don't know how far it extended eastwards – probably only till it met the continuation of the street, rather than all the way to the inner face of the city wall[2] – but a sounding placed just outside the building in 6G66 went down through 6 metres of steeply sloping layers of ashy detritus resting on virgin soil (Figs. 5.1-2). The angle of tilt made it clear that the latest additions to this dump must have been thrown out either from the roof of the Level IC building or more likely from a later structure altogether, and this was confirmed when the potsherds recovered from the tip were examined

Figure 5.1. Section through the Ash Tip, North Baulk of 6G66 looking North.

[1] Principally excavated and sieved by Anthony Green, and published under his Editorship as *The 6G Ash-Tip and its contents: cultic and administrative discard from the temple?* (ASE 4).

[2] It is conceivable that it was enclosed on the south and at least partially on the north-east, making a sunken rectangular space alongside the south-west side of the street, measuring some 16 x 32 m (cf. Matthews et al., 1987: 102). In any case, even the lowest levels of the tip belong from their ceramics to ED III despite resting on virgin soil.

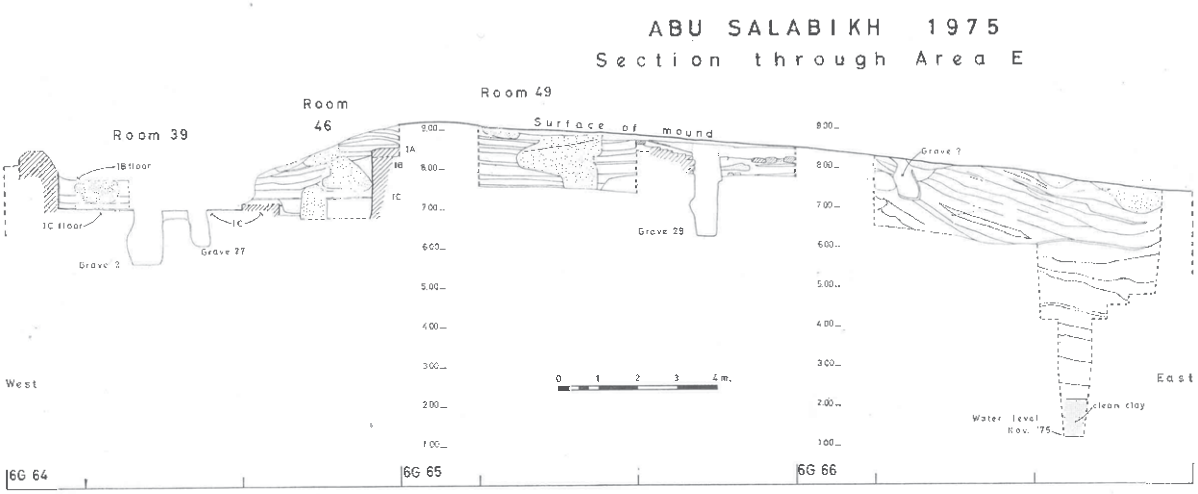

*Figure 5.2. Section from Southern Unit through corridor and Ash Tip. (*Iraq *38:145.)*

and clearly belonged to a later phase of the ED III sequence.[3] The existence of a large rubbish tip directly south-east of a major public building is reminiscent of the situation at Ur, where the entire Royal Cemetery was accommodated in the massive accumulation of detritus usually referred to in Woolley's reports as the 'Seal Impression Strata'. This designation reflects the fact that many clay sealings with cylinder seal impressions were retrieved from there, and since by observing their 'reverse' impressions we know that the majority come from either containers or door locks,[4] it is a fair assumption that when in use these sealings had protected the store-rooms and storage vessels containing the property of the temple of Nanna, the city-god of Ur, and no doubt also of Ningal, his spouse.

At Abu Salabikh, just as at Ur, the black ashy layers of the Ash Tip (as we refer to it) yielded numerous lumps of clay from among which Roger Moorey in particular retrieved a harvest of impressed sealings, 301 of which were studied by Martin and Matthews.[5] Almost half of these came from door(-peg) sealings, with the others distributed across a range of other objects, not only pots but wooden, reed and leather items, no doubt predominantly containers.[6] As with the ceramics, the style of the cylinder seals rolled across the 'obverse' points clearly to the ED IIIb phase, so later than the buildings surviving to the west. Cylinder seals have always attracted the attention of art historians. They form a continuous sequence from the Uruk period in the 4th millennium to the end of cuneiform civilization, but the wealth of ever changing detail in the style and subject matter of their designs offers a rich field of research and is often used as a chronological indicator. Perhaps rather surprisingly, the function of cylinder seals (and the less common stamp seals) changes considerably towards the end of the 3rd millennium. Whereas administrative documents in the Ur III period normally have a seal rolled across them, tablets with seal impressions are almost non-existent in the Early Dynastic period, despite being well attested immediately before in the Jemdet Nasr phase. The ED IIIa property conveyance tablets from Šuruppak (and from Adab, Nippur and Ur) are carefully drawn up, with witnesses to each transaction consistently listed, but never sealed. Even the elaborate clay sealings formed round pegs, on which some house or field sales at Girsu and Lagaš before the Dynasty of Akkade were recorded, were almost always left unsealed.[7] As for other kinds of document, throughout the Early Dynastic period, 'private'

[3] Moon 1993: 156.

[4] ASE 4: 44-5; Zettler 1989.

[5] ASE 4: nos. 1-261.

[6] ASE 4: 35-40.

[7] with the single exception of Allotte de la Fuÿe 1908-13: DP 32 (photo Postgate 1994d: 60), though there could have been impressions on lost parts of other fragmentary pegs (e.g. Steinkeller and Postgate 1992: 21-3; DP 31; Nikolskii 1908.1:531, 7-8 (=

transactions, such as loans of money or commodities, and other forms of legal obligation, were not recorded on individual tablets as they were later, and so there was no role for seals there either. Nevertheless, cylinder seals were in use, and examples are not infrequent at Abu Salabikh, both in occupation layers and placed in burials alongside other grave goods, e.g. in Graves 14 and 76, close to the head. As the evidence of the Ash Tip, the Seal Impression Stratum at Ur, and the XIIIf-I house at Fara irrefutably shows,[8] their main purpose at this time was to identify and protect commodities. Rolling a cylinder over a lump of clay sealing performed the dual functions both of identifying which person (or institution) either owned or exercised control over the contents, and of testifying that the contents had not been tampered with. Once the sealing had served its purpose it would naturally have been discarded, for us to find among the debris. In this situation the obvious assumption is that the persons sealing were on the staff of the temple or in some way associated with it, and it is interesting that in some of the door-sealings the routine cylinder seal rolling is overstamped by a stamp seal, most often with a lion's head, implying two levels of oversight (Fig. 5.3).[9] One, though perhaps not the only, such stamp seal was found in Room 52 south of the corridor (Fig. 5.4).

Figure 5.3. Sealing from Ash Tip with lion stamp seal impression (6G76:763). (ASE 4: 48 Fig. 2.14)

Figure 5.4. Limestone stamp seal with lion head (AbS 704). From Room 52 in 6G74. (Iraq *42 pl. XId)*

Edzard 1969: nos. 31, 32a, 33, 34); Biggs 1976: no. 11).

[8] Martin 1988: 92-95.

[9] Martin and Matthews 1993: 27, 47-40: nos. 4-16.

Figure 5.5. Selected miniature jars from the Ash Tip.

Figurines

Although sealings have been recovered from elsewhere in the city, their sheer number and concentration in the Ash Tip rules out a private enterprise, but this does not of itself indicate whether we are looking at a religious or a secular institution. Equally ambivalent from the same context are the numerous little discs cut from potsherds and some possible clay tokens which seem likely to have been used as counters by those needing to keep quantitative track of commodities.[10] However, the assumption that this was in fact a temple, which is based initially on the administrative documents found in the Southern Unit, is reinforced by some of the other contents of the Ash Tip, in particular the figurines and miniature pots. The hand-modelled clay miniatures imitate different shapes recognizable in the repertoire of full size vessels (Fig. 5.5). Assemblages like this have been noted occasionally elsewhere: on a shelf in the Sin Temple III at Khafajah,[11] at Lagaš,[12] where too they may have been associated with a temple, and perhaps most notably in Early Bronze Age Palestine at the small seaside shrine of Nahariyah, where miniature vessels were distributed in large numbers throughout the building. There, as their excavator wrote 'It is clear that such small vessels could have had no practical use, and were therefore meant as models offered to the deity in lieu of full-sized vessels'.[13]

Similar considerations apply to the figurines. Although miniature clay models of domestic animals, and more rarely of humans, are found scattered elsewhere across the site, the concentration of both kinds in the Ash Tip is exceptional. From our excavated sample alone, we counted 81 animals and 47 people (Figs. 5.6 and 5.7).[14] The explanations which come to mind were well summarized like this: 'it is impossible to know whether the human figurines were made to stand in place of the worshipper and the animals and chariots as token offerings, whether they were pledges of real offerings of goods or services which would be made at a later date or whether they were offered to attract the attention of the deity to concrete or spiritual favours being requested'.[15] It is not of course a foregone conclusion that the rationale for human and animal models (and indeed for the miniature pots) should be the same. Much larger figures in stone were placed in contemporary temple cellae to stand in lieu of their human originals and pray unceasingly for divine favour. The figurines might be a poor person's version of the same, but clearly this cannot apply to the animals. On the other hand, it is true that humans were sometimes dedicated to the service of a deity and hence might fall into the same category as a sheep offered to a temple. There are therefore plenty of ambiguities remaining and no indisputable conclusions.

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[10] ASE 4: 125-34, nos. 553-721.

[11] Delougaz and Lloyd 1942: 20 Fig. 16; these are earlier, of late Uruk date.

[12] Al-Hiba: Hansen 1973: Fig. 18.

[13] Ben-Dor 1950: 19.

[14] McAdam 1993: 84-5.

[15] McAdam 1993: 91. It is tempting to think that one figurine of a musician, showing a harp or lute (AbS 1346 from Room 62 in Area E, 6G63a), represents a specific individual.

Figure 5.6. Selected human figurines from the Ash Tip.

Figure 5.7. Selected animal figurines from the Ash Tip.

Possible location of the temple and associated rooms

While the contents of the rubbish tip must derive from the activities of a temple, identifying the physical location of the temple building itself has proved less straightforward. The steep downward slope from west to east makes it certain that the tip lines in squares 6G66-86 must have come from a building further west (Fig. 5.8). This strongly suggests that the building from which the figurines, miniature pots, tokens and sealings derived is represented by the architectural layout provisionally named the South-East Complex, lying south of the corridor which runs along the exterior of the south-east wall of the Southern Unit. Unfortunately, the layout of the South-East Complex is hard to reconstruct. On the east side the Level IC architectural plan looks to have been eaten away by later activity before the Ash Tip lines were deposited. To the south-east its limit is clearly the thoroughfare mainly exposed in 6G95, which must be a continuation of the lane originating in 6F21 and traced through 6F12 and 13. To

Figure 5.8. South-East Complex (1989). Excavated walls in black, walls planned from surface hatched.

Figure 5.9. Moving the 1965 spoil heap from over the South-East Complex (view from SE in 1989).

the west the extent of the South-East Complex remains unknown. This is partly the consequence of the voluminous spoil heap from the 1965 excavations, which, in accordance with one of the ineluctable rules of archaeology, now appears to have buried beneath it one of the potentially most significant parts of the site. Looking to the squares which have been cleared beyond the spoil heap to the west it is clear that the South-East Complex cannot have stretched beyond the lane in 6F10 and 6F21, and very likely reached no further than 6G82 and 6G92. Parts of the accessible area (in 6G74-75, 6G84-85 and 6G95-96) were excavated between 1978 and 1983, and in 1989 the Directorate-General of Antiquities allowed us to move westwards by hiring a mechanical digger to clear away part of the spoil heap (Fig. 5.9). This meant we were able to extend our investigations further west into 6G84 and 6G94. Here, forming the long south-west side of a courtyard with a bitumen runner (Room 80), was a room (numbered 168) measuring 12.10 x 3.95 m,[16] making it similar in outline and position to reception rooms in contemporary buildings such as Room 39 in the Southern Unit or Room 3 in the 5G House, but larger than any of them (with the possible exception of Room 90 in 6F05-06). The threshold leading from the courtyard into the southern end of the room was, unusually, bitumen plastered, but what is particularly suggestive is the tightly layered succession of plaster floors sectioned by Wendy Matthews towards the south-east end of Room 168 (see p. 52; Fig. 3.31). Here the micromorphological sample reveals 15 consecutive plasterings within 20 cm, and under magnification these floors proved to have been meticulously maintained. To quote her words 'The remarkable absence of any traces of occupation deposits throughout this sequence of 15 plaster floors is unique at Abu Salabikh and attests specialised function and maintenance which must be considered in the context of institutional or religious activities'.[17] Although, as already described, the reception rooms of contemporary large houses also had sequences of carefully laid plaster flooring, the cleanliness of this room and the number of replasterings is quite exceptional, and combined with its unusual size does suggest that this was a specially significant room, either the deity's principal reception room – i.e. cella – or, perhaps more likely, an antechamber to it. To substantiate this hypothesis requires further excavation, both extending outwards to expose the remainder of the floor surface in the highest surviving level and the plan of the building further west, but also downwards to explore the underlying earlier structure. Had we been able to carry out our projected field season in 1991 more of the spoil heap

[16] *Iraq* 52: 98.
[17] ASE 5: 3.

in 6G83 and 93 would have been cleared and excavation continued, but one of Mesopotamia's recurrent periods of disruption intervened and this has not been possible.

From an architectural standpoint there are two broader issues to address. In the first place, there is the matter of the location within the overall city layout of this potential cella, and by extension of the temple's core. A detailed study of the topography of mounds in south and north Mesopotamia has shown that there are significant advantages in a location on the south-eastern slopes,[18] and the indications are that the building would have been located here when the Main Mound as a whole was established only a few centuries previously (in contrast to the Khafajah Sin Temple or the temple complex at Warka which reach well back into the 4th millennium). It might seem strange at first sight that if this was the most important part of the temple complex it should lie noticeably lower than, for example, the Southern Unit: the walls of Room 168 in 6G94 remained standing no higher than +7.15 above site datum, with the floor lines at between +6.70 and +7.00, whereas at the mound surface in 6G75 the south wall of the corridor delimiting the Southern Unit was in places at +8.80 and the floors at about +8.40. Beyond Room 168 to the south the mound surface continued to slope down, and the house courtyard in 6F14-15 was no higher than +6.50. Since we do not have a street or lane running approximately north-south in this sector of the plan, it is not possible to see if this slope reflects a southward drop of ground level at the time these buildings were occupied, or is merely the consequence of later erosion, and as yet we have no substantial body of excavated artefacts which might give detailed dating evidence for the occupation of the unit formed round Courtyard 80 to compare with the Southern Unit, but the difference in absolute height need not reflect a difference in time. At Tell Agrab, excavated by Seton Lloyd as part of the Chicago Oriental Institute's programme of work in the Diyala region north-east of Baghdad, a contemporary Early Dynastic temple adjacent to the city wall lay lower than the surrounding buildings.[19] Similarly, recent surface observation of Area F at Fara, ancient Šuruppak, shows that the building in square IIIa-b, with walls 5 m thick and a courtyard approximately 18 x 17 m, seen as 'undoubtedly the most likely candidate for a temple',[20] is found in a low lying area of the site between the higher northern and southern parts of the main mound, though how much lower does not seem to be stated.[21]

One reason for this may have been that as with some domestic houses (cf. p. 20) the constant efforts to keep the interior of the building clean – temples usually had a 'courtyard-sweeper' (**kisal.luh**) and the relaid floors in Room 168 have minimal packing from one to the next – meant that ground level outside, in adjacent streets and lanes, rose faster and left the interior of the building at a lower level. As Shepperson notes 'At the Inanna Kitîtum temple at Ishchali evidence was found of frequent efforts being made to keep the level of the temple above the rising ground levels of the domestic architecture packed closely around the temple'.[22] For the same reason in the 1970s visitors to the church of Mar Toma in Mosul found the church itself in its walled compound lying several metres below the modern ground surface, still where it was about a millennium ago.

Although the exceptional treatment of the floor surface in Room 168 suggests that it was itself exceptional, without the plan of any rooms adjacent to it on the west and with no internal features indicating special activities it would be premature to be more specific about its precise role. It may have been an anteroom to the cella proper: in the roughly contemporary Šara Temple at Tell Agrab in the Diyala region the main sanctuary (M14:2) was also located along the south-west side of a courtyard, but separated from it by a 'long rectangular vestibule, M 14:1', whose floor and walls had a 'heavy coating

[18] Shepperson 2017: 72.
[19] Delougaz and Lloyd 1942: 220 with Fig. 168; contour plan Pl. 26.
[20] Martin 1988: 103-5.
[21] Otto and Einwag 2020: 298.
[22] Shepperson 2017: 153.

of gypsum'.[23] This room was over 9 m long (measured off Pl. 26), but the cella itself was 5.5 m in width and nearly 19 m long; the subsidiary shrine (L13:6, p. 248) was slightly less than 10 m long and about 3.5 m wide (measured off Pl. 26). The cella of the Sin Temple at Khafajah in Level VIII (Q42:1; Pl. 10), dated to ED II and was also located along the south-west side of the courtyard; it was as much as 15 m in length[24] and about 4.75 m wide (measured off Pl. 10), and was separated from the courtyard by a long narrow antechamber (Q42:2), initially 10 m and subsequently 12 m long (p. 55); it had what appears to be an altar at the south-east end of the room, but it is unclear if the floor received special treatment like the main sanctuary, which was mud-brick paved. Obviously the mere size of Room 168 is insufficient to identify its function, and it is worth noting that the bent-axis cella of the ED II/III Level VII Inana Temple at Nippur (Locus 179) measured no more than approximately 9 x 3.6 m.[25]

Even if we had a definite plan of the temple's core room(s), it would tell us little about the building's elevation and hence appearance to the visitor. For now, the best we can do is refer to the high narrow doorway cut into the column of one of our stemmed dishes (Fig. 5.10), which had miniature doves perched in the small square window at the top. Another issue which needs to be resolved is the means of access to the courtyard and hence to Room 168 and any associated spaces. Unfortunately the plan of the building to the north and east of the courtyard cannot be confidently restored in its entirety, but some points are clear. Access to the complex must have been provided by the doorway with raised threshold in the south-east wall of the South Corridor, leading in to Room 52, which to judge from the doorway, with threshold leading in to Room 53 to its south-west, was probably an unroofed entrance space. It is unclear whether it also gave access to Room 54 to its south-east and thence to the narrow corridor, perhaps created by a staircase, which debouches into Room 82 – compare the narrow passage numbered Room 8 of the Burned Building in 6G42/52 alongside which Hansen wrote that 'a staircase existed'.[26] It is unfortunate that Grave 165 prevents us from knowing if there was a doorway leading from Room 82 into the south-east corner of the courtyard (Room 80). If there was not, one must assume that Room 80 was reached via the doorway in its north-east corner and the rooms to its north (53, 79 and 55), but their plan is too fragmentary to be certain of this. Further to the east there is even less clarity. There are rooms along the inside face of the South Corridor wall, but to the south of this the walls have mostly disappeared and the later Ash Tip has taken their place. The south-eastward continuation of the main street into 6G67 must mark the maximum possible extension of the South-East Complex in this direction, but it is quite uncertain if the original layout reached so far and was later disused to the extent that the Ash Tip encroached on it by as much as 20 m. From temples elsewhere and from our understanding of how they operated, one would expect there to have been facilities for the storage, preparation, and

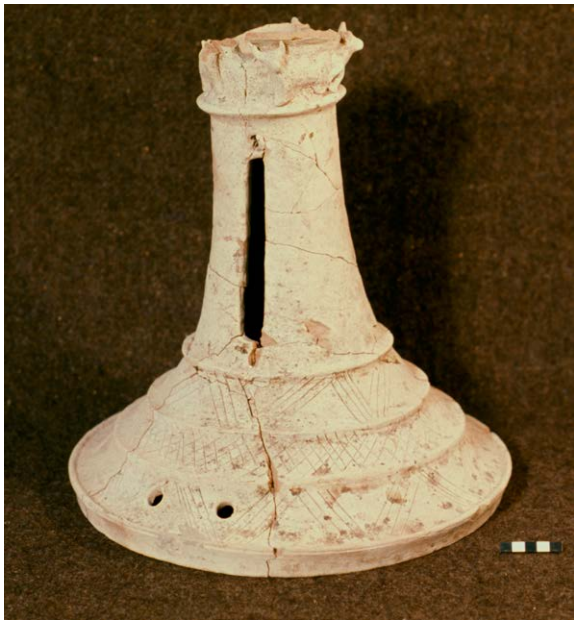

Figure 5.10. Stemmed dish from Grave 51 (AbS 947). The missing dish was supported by four bulls, the slits excised each side of the stem represent a temple doorway and in the square windows above each were two minute clay doves (not showing in this photo). (ASE 2:107-8, Pl. XXVII)

[23] Delougaz and Lloyd 1942: 231.
[24] Delougaz and Lloyd 1942: 54.
[25] measured from Zettler 1992: 32-3 Figs. 7-8.
[26] Hansen 1974: 13.

consumption of food and drink for the divine occupants (and subsequently their human servitors), along with secure rooms for the furnishings of the sacred spaces, the adornments of the divine images and other precious materials constituting the temple's 'capital'. Here there is at least plenty of evidence for culinary activity on the north side of the sector at different times: Room 50 in particular has three tannours or hearths, and there are three of different sizes in Room 53 and three more in Room 58 to its east.[27] Whether the complex would also have provided residential accommodation for the core staff of the temple is an open question, one which regularly arises with temple plans elsewhere, as for example addressed by Richard Zettler for the Inana Temple at Nippur.[28] In this context the most significant feature of this area, which does not much assist in identifying the room functions, may be the two burials numbered Grave 162 (Fig. 4.13). The northern grave contained a neatly disposed pair of equids with their heads to the south-west; no other grave contents, either human remains or grave goods, were obviously associated with them. Immediately to the south, and probably slightly later, was the base of a much larger roughly rectangular shaft, with a second pair of equids, their heads to the north-west, in the north corner. The centre of the shaft, where one might have expected the human remains, was robbed out, but scattered fragments of human bone remained along the south-west side and confirmation that this had been a rich burial was provided by two cylinder seals, two cosmetic shells, a copper toilet set, and numerous lapis lazuli, carnelian and frit beads. Whether the three copper rivets[29] retrieved from different parts of the fill derived from a vehicle must remain uncertain in the absence of parallels: if a chariot was present it was probably constructed of perishable materials including wood and leather, but some traces might have been expected and there was definitely no room for a chariot in Grave 162 (N) (see p. 66). The burial of pairs of equids – probably the hybrids – not only required major disruption to everyday life in the building, but must also have been a major expense, and we are presumably right to assume they accompanied an adult male. Hence it seems likely that these two burials were of male members of the temple personnel, either normally resident in the South-East Complex itself, or buried here rather than in their own domestic house(s) by virtue of their status in the temple hierarchy.

The Southern Unit

Such considerations are also relevant when we move north and cross over the corridor into the complex of three connected units first excavated as 'Area E' in 1963 and 1965 (Plan: Fig. 2.2). Here on the west (in 6G40-42 and 6G50-52) the 'Burned Building', described in Hansen 1974: 11-13 with Fig. 1, has a classic courtyard house plan. It has a readily recognizable reception room (Room 9), though with no hearth, a well equipped kitchen (Room 7), with an attached bitumen-lined washroom with a baked brick floor and drain, and another washroom across the courtyard also bitumen-lined (Room 22). Perhaps belonging to this unit are one or both of the two large ovens off to the northeast (in Rooms 24-25). Hansen suggests that the main entrance to the building 'may well have been located in this eastern part',[30] but the only clear access we can see is the doorway in the east end of the kitchen (Room 7) which leads into a corridor running north-south. Turning to the left on leaving the kitchen took one into a group of six rooms, which, given that they include a square central space, a washroom and cooking facilities, seem to be a small self-contained domestic unit (Rooms 12, 21, 26-27 and 31), while turning right at 5 m further south one reaches a doorway flanked by buttresses which gives access to the Southern Unit.

At first sight this looks like another domestic courtyard unit, and there is a kitchen with a large oven along the north-east side which must mean that the occupants lived and ate, even if they did not actually sleep, there. That it was in fact a residential facility may be indicated by the reception room

[27] FI81/1, FI81/2 and FI81/34 in 6G75 NB, 6G75a and 6G75c respectively.
[28] cf. Postgate 1994b.
[29] Photo in *Iraq* 46: 97, Plate VIIb; see pp. 66-7.
[30] Hansen 1974: 13.

(Room 39), which has already been described in Chapter 4 because of the sequence of four tombs sunk beneath the floor and the evidence for posthumous rituals it provides, but the Unit has another claim to fame, which is that here is the only place where we can be sure that cuneiform tablets were more or less in their original location. Already in 1965 seven fragments of tablet were found on the IC2 floor in the north-west corner of Room 44.[31] Two other tablets (AbS-T 181-182) were in the fill above floors within Room 39 itself, so only in a secondary context, as were IAS 519-521 found in 1975; but also in 1975, just above the floor of Room 48 at the south-east corner of the Unit, and sealed by a later floor, a further 17 fragments were lying, which after conservation and study became IAS 522-532.[32] The 1965 tablets are lexical and (in the case of IAS 391) literary, but the 1975 texts include four scribal exercises (IAS 522-525), at least one large lexical text (IAS 527), and five administrative documents (IAS 528-32). These well stratified pieces therefore have the same mix of literary, lexical and administrative texts as encountered in the much larger accumulations of tablets recovered from late pits at the mound surface above the rooms north of the Southern Unit. As observed already in 1965 'the courtyard (rooms 41, 44, and 45) was filled with many ashy strata. In the plan ... the circles at the south edge of the excavation represent ovens and firepits high up in the debris. These were in use after the building was abandoned and probably account for the ashy debris in the courtyard'.[33] The huge pit which took out the centre of the Southern Unit measured 12 m from north to south and is clearly visible on the left side of Fig. 4.6. It had been sunk at least 3 m deep from above the surviving mound surface to well below the IC floor level, and the tablets in Room 44 and the south-east corner of Room 48 only survived because they lay outside its southern limit. Since there are no identifiable palaeographic differences between these few stratified pieces and the main body of the library the conclusion seems justified that here, in Rooms 44 and 48 and perhaps also Room 46, is the original provenance of the entire assemblage, and hence that, to borrow a mediaeval term, the Southern Unit may have been a scriptorium.

While the shared corridor which separates the Southern Unit from the South-East Complex makes it certain that the two structures were partially contemporary, when we sank a small sounding beneath the courtyard in 6G54 it emerged that the IC floors of the Southern Unit belonged to an early, if not the earliest, phase of the building, and that immediately previously the area had been an unroofed space occupied by fire installations, which probably included pottery kilns and contributed to an accumulation of layers of burnt debris. Some of the ceramics indicated that this belonged to the previous period traditionally designated ED II. The consequence is that the activities accommodated in the Southern Unit must previously have taken place elsewhere, and we should see it as an architectural innovation specifically designed to house them. It seems possible, therefore, though by no means certain, that they were rehoused from the rather scanty eastern side of the South-East Complex where they had previously been, that was subsequently allowed to degrade to the state in which we now see it. This would in effect mean that the temple had extended its footprint northwards across the corridor, and the noticeably clean floor sequence in the corridor (by contrast to the very dirty street into which it leads) tends to confirm that the two buildings were closely associated.[34] Even so access between the two was not direct, because coming from the south, one could only enter the Southern Unit via the doorway into the kitchen at the east, Room 47, or by walking 15 m up the lane to the main buttressed entrance leading into the L-shaped corridor by which one could finally arrive in its central courtyard (Room 41).

[31] Hansen 1974: 6: AbS-T 140-145=IAS 1, 3-5, 18-19, and 391.

[32] Biggs and Postgate 1978.

[33] Hansen 1974: 6.

[34] The obvious explanation of the difference in the nature of closely striated surfaces in the Corridor and the street to its east is that the clean corridor sequence was an interior space protected from the elements and kept clean, while the street was unroofed, but this could not be substantiated through the micromorphology (see p. 33).

Temple activities - writing

Whether or not our reconstruction of events is precisely correct, what is certain is that some lexical and literary tablets shared the same location as some administrative documents, and since some of these (both stratified and unstratified) clearly derive from an institution, it would be perverse not to see the literary and lexical tablets which form the great majority as also a product of the temple. Undeniably the temple must have had scribes to keep their records, or we would not have found the small number of administrative texts we have. Although they were very much in the minority, these few purely administrative documents, both among the major assemblage of tablets from the 1963 and 1965 seasons and in the much smaller clutch found in Room 48 of the Southern Unit, suggest that the scribes keeping the accounts and those copying the lexical lists and the literary and religious texts worked in the same place, and were perhaps one and the same. We don't know who wrote the administrative tablets, because they did not 'sign' such documents, but the opposite is true of the hundreds of literary and lexical texts which constitute the library. Many of both types have colophons naming the scribes, and perhaps their assistants, and at least 14 names mentioned in the administrative tablets recur among the colophons.[35] Because personal names are only occasionally given their professions, and we know especially from Šuruppak that more than one person might share the same name, it is hard to be certain in any one instance, but it seems very probable that some of the writers of the tablets are mentioned in the administrative texts and hence were members of the temple establishment.

What startled the world's small cohort of experts in Sumerian when Robert Biggs first described the Abu Salabikh tablets was not just their size and contents – which to some extent had been foreshadowed by some of the tablets from Šuruppak published by Deimel as 'Schultexte aus Fara' – but the frequent colophons naming the scribes responsible. The most striking feature was that as many of 40% of the personal names in the colophons and the administrative texts were Semitic, more than those identifiable linguistically as Sumerian.[36] Names such as Išdub-il or Ilum-malik, if not strictly 'Akkadian' (after all the Akkade Dynasty was yet to come) undeniably belong to a closely related language or dialect, and one that is well attested across a wide tract of northern Mesopotamia in the Pre-Sargonic period, from Mari on the Euphrates, Tell Brak in the Habur basin, and as far north-west as Tell Beydar.[37] At Tell Mardikh, ancient Ebla, the onomasticon of the ruling dynasty and the administrative personnel is also transparently early Semitic, though some would hesitate to identify it as a version of Akkadian.[38] Since the specific dialect introduced across Mesopotamia under the Kings of Akkade is generally called 'Old Akkadian', it is convenient to call the earlier version(s) 'Proto-Akkadian' (which is not to claim that they stand in a direct line of succession).

While there is no doubt that in 2600 BC there were plenty of Proto-Akkadian speakers in the south Mesopotamian urban scene, though perhaps more north of Nippur than to its south (see p. 178), their language was surely a late comer, given that the entire scribal tradition inherited from the 4th millennium was formed round Sumerian. The two languages are fundamentally different: while Akkadian is recognized as one of the main branches of the Semitic language group, which includes Amorite, Ugaritic, Aramaic (with Hebrew and Phoenician), Arabic and Ethiopic, Sumerian has no known close relatives, although as an agglutinating language with an ergative verbal system it shares features with languages still spoken today, such as Basque and numerous Caucasian languages, which no doubt have survived being swamped by the arrival of Indo-European languages thanks to their mountain abodes. Hurrian (with Urartian), Elamite, and other less well known languages in the Taurus and Zagros

[35] Pomponio 1991; four further names in Krebernik and Postgate 2009: 16-18; see Krebernik & Lisman 2020: 205-9. One temple scribe has a prebend in IAS 508 (Table 6.2B).

[36] Krebernik 1998: 265.

[37] cf. e.g. Veldhuis 2014b: 241-2.

[38] Reasons for considering Eblaite as 'an archaic Akkadian dialect' are clearly set out in Streck 2011: 340 and 351-2.

ranges resisted the Semitic and Indo-European intrusions as late as the 1st millennium BC, but in the south Mesopotamian environment Sumerian had no such geomorphological defences against the influx of Semitic speakers, and by about 2000 BC – the precise timing is debated – it had virtually become a dead, though respected, language on the school curriculum, alongside Akkadian.[39]

Despite the prevalence of Proto-Akkadian personal names among the scribes, what they wrote on the tablets is predominantly Sumerian, but there are very occasional exceptions, especially in the everyday administrative tablets. The record of flocks (IAS 519) uses the Semitic words for 100 (*mi-at*) and 1000 (*li-im*), and in IAS 508 we have the word *ū* 'and', which has no exact equivalent in pure Sumerian, and twice the preposition *in*, known in later Akkadian, and also foreign to Sumerian, which uses postpositions. These alone are enough to suggest that scribes bearing Semitic names (if not others) were occasionally allowing themselves to think and write in Proto-Akkadian. It was admittedly a surprise to find that our largest corpus of early Sumerian literature was the product of scribes without Sumerian names, but more generally this was not by any means the first indication that much of the population of the northern half of the alluvium was not linguistically Sumerian. There are two month names used at Abu Salabikh which are shared with northern regions,[40] and the 'Šamaš hymn' mentioned below (p. 138), which describes merchant activities, is entirely composed in Proto-Akkadian, as the Ebla version proves. Doubtless in due course a comparable body of texts will be excavated at the northern metropolis of Kiš, from where it is thought that particular tablet may have come, and it has been suggested that four equally early land conveyance documents from Nippur and Kish were drafted in (Proto-)Akkadian.[41] In the *Sumerian King List* the First Dynasty of Kiš all bear Semitic names,[42] and the city was certainly a major scribal centre, as is evident from the frequent mentions of Kiš at Ebla.[43]

Some of the lexical texts in the Abu Salabikh library turned out to stand squarely within a millennium long sequence of Sumerian written tradition. Back at the beginning of writing, principally though not exclusively known from the finds (licit and illicit) from Uruk in the south, the scribes organized their craft by compiling lists, including lists of professions, of animals, fish, and birds, plants and wood, and 'pots and garments'.[44] Since at this pristine stage the writing system consisted almost entirely of pictographic signs each of which conveys meaning but does not represent a sound, it is at first sight impossible to state with certainty that the words which correspond to the meaning belong to one language or another, so it has always been hard to determine if the scribes who wrote the tablets were thinking in Sumerian or a different language. On one level it seems improbable that the Sumerian of the 3rd millennium so completely eclipsed a different language which underpinned a writing system developed in the late 4th that it has left virtually no trace in the continuous lexical tradition, and is never mentioned (in stark contrast to the survival of Sumerian in later Mesopotamian tradition). This establishes a presumption that, insofar as the tablets from Uruk Eanna IV and III are recording words, as opposed to mere data, the language is Sumerian, although this is not universally agreed, see notably Englund 1998: 73-81.[45] Because of the possibility of individual words being borrowed from one language

[39] Sumerian has no known relatives and the writing system has made a full understanding of its grammar, especially the verbal system, hard to achieve. Grammars include Thomsen 1984, which though now dated is a useful all round description giving full weight to areas of uncertainty. Since then Attinger 1993 and Edzard 2003 are important. There are several more recent introductory grammars, but they are all somewhat idiosyncratic, presenting the author's understanding of some aspect(s) of the verbal system especially as definitive rather than speculative (e.g. Jagersma 2010; Foxvog 2016; Zólyomi 2017; Sallaberger 2023).

[40] IAS 508 ITI *i-si*; IAS 513 [IT]I *za-'a$_3$-tum;* Krebernik 1998: 257.

[41] Gelb et al. 1991: 13; though cf. Krebernik 1998: 270[427].

[42] See most recently the Ur III version, Steinkeller 2003a.

[43] Archi 1981a; 1987.

[44] Wagensonner 2020: 7.

[45] On this issue cf. Rubio 2006. A recent article which summarizes previous attempts to find indisputable Sumerian in the archaic tablets, and introduces a new proposal ('exit' [later **e$_3$**] written with **e**), is hardly conclusive (Monaco 2014).

to another, and, as far as we can tell, the absence of syllabically written grammatical elements in the earliest tablets, proof remains elusive, as the most recent attempts demonstrate: the reading **maš-gan**$_2$ found in several archaic tablets certainly looks like a borrowing from Akkadian *maškan(um)*, but this hardly proves which language was borrowing – indeed it could instead be taken as evidence that the tablets were written in Akkadian![46]

The original lexical lists were inherited by their successors across south Mesopotamia, and half a millennium later we have copies, using the contemporary sign forms but otherwise fairly faithful to the originals, from Šuruppak and now from Abu Salabikh too. They survive in the scribal repertoire through the Dynasty of Akkade, but after that the lexical work tools of Sumerian were fundamentally overhauled, we presume under the Ur III Dynasty, and the original lists fell into disuse. While we had known that the contemporary scribes at Šuruppak were using such texts, the Abu Salabikh library completed some partially preserved lists and added fresh examples, but an even bigger surprise came in 1974 when the Italian archaeologists working at Tell Mardikh south of Aleppo came down on an entire room stuffed with thousands of cuneiform tablets from the archive of the kings of Ebla. After some initial hesitation about the date of the texts (and they don't all have to be strictly contemporary), it is apparent that they were mostly written shortly before the intervention of the Dynasty of Akkade. In addition to elaborate administrative records of people and commodities, they include lexical and some literary texts, among them versions of some of the texts in the Abu Salabikh library. It is quite possible that some of the tablets in the archive room were in fact written in south Mesopotamia and brought up the Euphrates via the city of Mari, with which the Ebla kings engaged in diplomatic exchanges.

Very likely some of the imported tablets were lexical texts, but they could be adopted and edited by the local scribes. Miguel Civil's magisterial edition of *The Early Dynastic Practical Vocabulary A* (2008) is actually reconstructed after two tablets from Ebla, with alternative readings culled from the more fragmentary unilingual Abu Salabikh versions. There are significant differences in how the entries are rendered in the script, and one of the Ebla exemplars has Semitic equivalents which are very probably added at Ebla. When it comes to 'literary' compositions there seems to have been less borrowing. The 'Šamaš hymn', which is found both at Ebla and at Abu Salabikh is an exception, perhaps not coincidentally because it is in 'Proto-Akkadian', rather than Sumerian. As Biggs noted, when writing of the specifically literary texts found at Abu Salabikh 'none of these texts ..... have been found at Ebla' (1986: 33), though subsequently an Ebla duplicate of the Ama-ušum(gal) text from Fara (SF 31) and Abu Salabikh (IAS 278) has been identified.[47]

Quite apart from the colophons with their unexpected Proto-Akkadian personal names, these literary texts were full of surprises.[48] Perhaps most striking was the collection of wise sayings attributed to a certain 'Šuruppak', evidently named after the city of that name. The version from Abu Salabikh (IAS 256, with IAS 323) and a slightly later tablet from Adab could be included in the edition of the much later version from the Old Babylonian schools by Bendt Alster, who introduced it as 'one of the oldest known poems in the world'.[49] With the help of the more explicitly written 2nd millennium tablets we can see that these proverbs, or perhaps better aphorisms, are presented as paternal advice on situations of everyday life, including family relations, commerce and agricultural scenarios. Some make instant sense to us, such as 'Do not batter the farmer's son – he will batter your irrigation channel', others are more gnomic, such as 'The palace is a huge river, its interior is a goring ox'.[50] Another collection of

[46] although the use of **gan**$_2$ as a syllabic sign must result from the word /gan(a)/ meaning 'field' in later Sumerian, and if this is accepted as a 'genuine' Sumerian lexeme, it provides stronger evidence for Sumerian (if this is really still needed).

[47] Edzard 1984: 33 no. 20; Krebernik 1998: 321.

[48] for a summary see Krebernik 1998: 317-325.

[49] Alster 1974: 7.

[50] Alster 1974: 17.

proverbs is duplicated on a contemporary tablet from Šuruppak itself,[51] and this too survived into the 2nd millennium, when one tablet has Akkadian translations. Such texts reinforced our awareness that the origins of the rich Sumerian literary tradition could be traced back half a millennium to Šuruppak and Abu Salabikh, despite a dearth of manuscripts from the Akkadian and Ur III dynasties, and a further example of this was provided by the four fragments from copies of the *Keš Temple Hymn*, previously only known from a version current in the Old Babylonian schools, which is surprisingly faithful to the surviving early passages (with one significant exception which will be described in Chapter 10). It remains obscure why the temple at Keš was singled out from among all the other major cult centres for special treatment, but a well preserved compilation, known to us as the *Sumerian Temple Hymns*, and traditionally ascribed to the daughter of Sargon of Akkade (though dating to the Ur III Dynasty in the form which has reached us) does devote a short 'hymn' to each of the city temples in turn. In the Abu Salabikh library (and as yet only there) there is a precursor to this in the shape of the composition recently edited as *The Sumerian Zame Hymns*:[52] it too makes the rounds of the city shrines and their patron deities, although the hymns of praise are mostly much shorter and the list of cities understandably differs, reflecting earlier centuries. Whether there is any relationship between the two compositions, separated as they are by some half a millennium, remains to be decided.[53]

There are as yet no copies of this text from later times or from other cities, such as Šuruppak or Adab, but this is probably thanks to the scarcity of contemporary and later sources, and the same would apply to a number of other broadly 'literary' texts in the library. A poem concerned with Lugalbanda, the legendary ruler of Uruk, and Nin-sumuna is one example,[54] as is *Ezina (Ašnan) and her seven children*. Other fragmentary texts clearly refer to mythological events, naming a range of deities and using formulae familiar from later Sumerian literature. Some of these have duplicates among the Šuruppak texts – see Krebernik 1998: 320-5. While in these cases the ED IIIa scribes have posed problems for us because many of the grammatical elements are not yet expressed in writing, even greater obstacles are provided by a group of tablets which almost always use the same cuneiform signs, but in an entirely different orthographic tradition we refer to as 'UD GAL NUN'.[55] The great majority of such tablets, which come both from Šuruppak and especially from Abu Salabikh, are 'literary texts', while a few are lexical. Although a single example is known from Ur III times, this divergent tradition was not destined to survive into the 2nd millennium, and it may have been a short lived idiosyncrasy of the scribal community.

[51] Alster 1991-92.
[52] Krebernik and Lisman 2020.
[53] cf. Krebernik and Lisman 2020: 20 with their citation from Wilcke.
[54] Lisman 2019.
[55] For a recent survey see Zand 2014.

Chapter 6

The temple estates

Temple activities – fields and villages

If the Ash Tip contents reflect the daily in-house activities of the temple during ED IIIb, some of the tablets recovered from the other side of the corridor, in the Southern Unit, reveal its extra-mural undertakings of a century or two earlier. The tablets found in situ on the IC floor in Room 48 include two land allocation tablets (IAS 528-9), two concerned with personnel (IAS 531-2) and one listing sheep and goats (IAS 530). These, and the lexical fragments found with them, are indistinguishable both palaeographically and in respect of their content from the main heap of tablets found above the rooms north of the Southern Unit, and they are valuable in that they, unlike the others, appear to be in a primary context, in other words to 'belong' in the Southern Unit. Since most of Room 48 in Level IC and the space to its north had been removed by the large (12 m N-S and at least 3 m deep) pit dug from above the surviving mound surface, any administrative documents which might have been stored there would no doubt have suffered the same fate as the major assemblage comprising the 'library'. However, a few other administrative tablets escaped this general displacement, perhaps because they were not with the main group but stratigraphically later, and two of these are particularly revealing and indicate that the Southern Unit at least was attached administratively and perhaps physically to a temple.

IAS 518, which was found in the backfill of Grave 48 in the courtyard, lists field allocations which can only derive from a temple, and IAS 519, all about sheep and goats, comes from the fill of Grave 27, the southernmost grave in Room 39. IAS 518 (Fig. 6.1a-b) merits an extended description. The scribe has listed 23 field parcels. Each entry gives the size of the parcel (the first one 3 bur, then 13 of 2 bur and 9 of 1 bur). The sum total is given at the end of the tablet 'Total: 38 bur, prebend fields. The field surveyor'. A **bur**$_3$ is the largest unit in the Sumerian area system: it corresponds to 18 iku, where the iku is a square with sides of 120 cubits or 60 m, meaning that in metric terms the bur is 6,480 m^2 or 6.48 hectares (all figures necessarily approximate). The total area listed is therefore in the region of 246 hectares. Purely to illustrate the scale of the area the surveyor covered, this would be the equivalent of a strip of land 1 km wide and 2.46 km in length.

The size alone is enough to suggest that we are looking at an institutional operation, but this is in any case certain because each individual plot is described as ŠE.GAN$_2$ **šuku** which may be translated as 'ration field', or to use the technical term, 'prebend field'. Fields identified with the term **šuku** are already attested earlier in the ED I 'archaic' texts from Ur,[1] and are well known later from other cities and periods, referring to fields which are allocated to the personnel of, or persons associated with, an institution for their subsistence. Although 'prebends' in the shape of remuneration to temple officials survive well into the 1st millennium BC, the practice of assigning large tracts of land dies out gradually over the centuries, but it is well documented in the Ur III period at Girsu,[2] and in the Old Babylonian period it was still going strong, referred to with the same term (*šukūsum* in Akkadian). Of the Girsu records Maekawa wrote 'In principle, allotment plots were distributed to those who belonged to the institutional household in return for their regular services to the household, and their 'titles' or 'occupations' do present what kind of regular services they made to the household'.[3]

[1] Steinkeller 1988: 22-3.
[2] Maekawa 1986: 103-116.
[3] Maekawa 1986: 108.

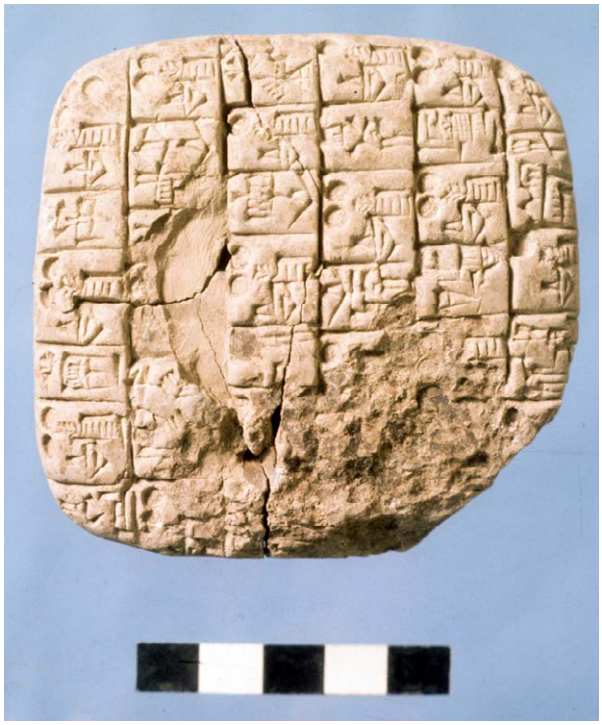

Figure 6.1a. List of field prebends (IAS 518). Obverse. (Iraq 40, 105-7.)

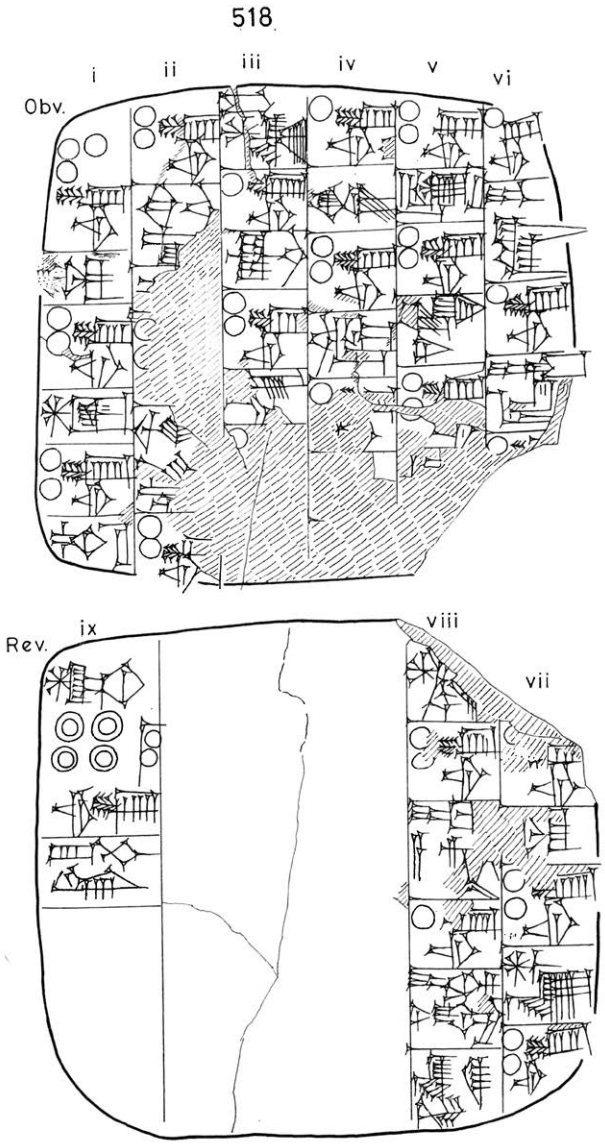

Figure 6.1b. Hand copy of IAS 518. See Table 6.1.

The list of prebend holders in IAS 518 is revealing and the details are most conveniently shown as in Table 6.1.

Most of these entries are self explanatory, but the very first poses questions. One would be inclined to see the first holder listed and the holder of the largest plot as the most important, and the single sign NIN amply confirms this. Unfortunately there is then a double ambiguity, in that this sign may be read either /nin/ or /ereš/, and we cannot be sure whether we should understand it as 'lady' or more explicitly as 'queen'. However, given that the second entry is undeniably a known male deity there is little doubt that NIN, however read, refers to a female deity to whom Šara acts as consort. One might have hoped that this would immediately provide a clue to her identity, but things are not that simple.[4] The god Šara is best known as the patron deity of Umma, the important city on the Tigris north of Lagash,[5] but he is not regularly enough associated with one same goddess to determine the identity of ours. Given that there are other grounds for thinking that the city at Abu Salabikh was Ereš, this could indicate that she is Nisaba, the patron deity of reeds and hence of writing, but since there is no certainty as to the city name her identity has to remain an unknown quantity (see Appendix 1). What does seem clear is that this institution had a female deity at its head, with Šara as her junior ranking consort, given his second position and lesser allocation of land.

[4] Tantalizingly traces of an erased sign remain to the left of the NIN in l. 2 (Fig. 6.1b), which could easily be reconciled with the sign NAGA, used to write the name Nisaba (e.g. IAS 268.iv'.91; Krebernik and Lisman 2020: 61).

[5] Huber Vulliet 2009.

Table 6.1. Prebend allocations in IAS 518

Area in **bur$_3$**	Identity of holder	Profession	
3	NIN		'Queen'
2	^{d}šara$_2$		'The God Šara'
2	en$_5$-si		'The Governor'
2	Di-Utu	engar	'Farmer'
2	Balum-ilum	engar	'Farmer'
2	Amar-Suen		
1	AK-Utu		
2	Šubur		
1	[PN]		
1	Har-KA		
2	Utu-ursag		
1	[PN]		
2	Ur-EN$_2$+E$_2$-si		
2	Dug$_4$-ga-ni		
2	[PN]		
1	Ibar....		
1	Ikum-mari		
1	[PN]		
1	NIN		
2	Me-Enlil		
2	...hal[am ...]		
2	Idur-abir		
1	Imnirum		
			en gi^{ki}
Total: 38		lu$_2$ gan$_2$ gid$_2$	'Field surveyor'

The goddess and Šara evidently maintained nominally separate establishments, even if physically and administratively attached, and since they cannot have administered their land holdings in person, it seems necessary to assume that this was done for them by human personnel of the two temples – or 'houses' as they would have been described. The purpose of a prebend-holding is to provide sustenance for the holder, directly or indirectly, and the 3 bur assigned to the goddess (and perhaps also the 1 bur listed against her title NIN towards the end of the list) will no doubt reflect the greater number of personnel in her temple service. That such persons must have existed is self-evident, but priestly offices are not mentioned on this tablet, or any others, so the staff of both deities are presumably subsumed under the single divine entry in each case.[6]

The third prebend-holder is human, and identified merely by his office as **ensi**, or governor. In the Pre-Sargonic period this was the title of the independent rulers of Lagaš, and of most other cities in the Mesopotamian south. Under the Dynasty of Akkade and the Ur III kings the traditional title of **ensi** was usually retained by the civilian governors of the different provinces, and it is broadly correct to say that it was the highest secular office in a city (see pp. 148-50). The obvious assumption is that this entry refers to the governor of the city at Abu Salabikh, whatever its name, and that he ranks at the head of the human prebend holders in accordance with his listing straight after the two deities. His role at Abu Salabikh is explored further below in Chapter 9. There then follow two named individuals described as 'farmers': these were not simply cultivators of a specific agricultural plot, but had administrative responsibility for a sector of the temple's land and those working it,[7] and we may suppose that they were allocated 2 bur each in recognition of their service to the temple, perhaps alongside deriving their regular subsistence from their personally owned plots.

For the remaining 17 named individuals we are regrettably not told their roles or professions, but in a few instances their name recurs in other administrative texts. It is possible that Šubur, here occurring as the 8th entry, is featured after the total in a list of grain (IAS 495 r.ii.4) with the professional title **sa$_{12}$-sug$_5$**, which is

[6] for the problematic entry **en gi ki**, which presumably states the location of the fields, see Appendix 2.

[7] as expressed in Cripps 2007: 23 'under the overall responsibility of an **engar** 'farmer/cultivator'.' Note that 5 **engar** are listed straight after the NIN in IAS 529 (p. 206).

associated with the administration of land and can be translated 'land registrar'.[8] If so, it is no surprise to find him here. While the 'farmers' will have been in control of the actual cultivation processes, which we will be considering later, and the surveyor responsible for drawing up the list in IAS 518 would have provided the technical data, their activities were obviously dictated by the needs of the administration, and they were both very likely operating at the behest of the 'land registrar'. This office is well attested at contemporary Šuruppak,[9] and with the term borrowed into Akkadian as *šassukkum* it is still important in Old Babylonian times: sales of fields in the kingdom of Ešnunna, on the Diyala east of modern Baghdad, are authenticated and sealed by a *šassukkum*, who may be the son and grandson of previous holders of the office and acted in parallel with the *kakkikum* who had similar responsibilities for urban plots.[10] Later, under Samsu-iluna, fields along the Tigris were administered by a *šassukkum* and we have a fragmentary tablet on which a survey is recorded by him together with two surveyors (*abi ašlim* 'rope wielders') and 'the accountants, their colleagues'.[11]

At Abu Salabikh already there was more than one land registrar (**sa$_{12}$.sug$_5$** Table 6.2.D IAS 528), and they were probably not strictly what we would consider 'employees' of the temple but rather acting on behalf of the secular governance, just as the ensi himself was not subordinate to the temple but will have been a secular appointment. Both officials were no doubt accorded prebends from the temple land-holdings by virtue of the importance of their office within the city as a whole. Nor need this have been their only privilege: in two other lists of fields an ensi appears to hold 4 bur (IAS 529, not specified as a **šuku** prebend), and 3.2 bur (IAS 508, designated as 'prebend' (**šuku**) but also accompanied by the word **šam$_2$** which should imply 'purchase(d)'). IAS 528 also lists fields, some of which are prebends: the first holder listed appears to be the ensi of a city.

Land tenure in the Middle East throughout history has never been simple. Although in IAS 518 and some other tablets 'prebend fields' are listed, in some cases the 'grain fields' (ŠE.GAN$_2$) do not have the term **šuku**, and at Girsu a couple of centuries later, and again under the Ur III Dynasty, it has long been known that temples had three distinct systems to organize the cultivation of their agricultural estates.[12] Some of their land (in Pre-Sargonic Girsu called **nig$_2$ en-na**) was directly under the temple's control, some (**šuku**) was assigned to prebend-holders under the arrangement already described, and the remainder was rented out (to no doubt carefully selected tenants). We should not therefore be surprised to find tablets in the temple archives recording land holdings which are not specified as 'prebends', while a few documents from the 6H House, well away from the temple, also list **šuku** plots alongside other types of land holding (Table 6.3). To assess the implications of this the Tables 6.2-3 show the evidence we have for the different sorts of holding, with the identity of the holders and location of the fields where available. The first thing to note is that wherever the text is sufficiently well preserved, prebend holdings are given with the identity of the holder. Where a field is not a prebend, the holder's identity may be given (citing either their name, or profession, or both), but in some cases the scribe simply writes **šu.tab**. This cannot be a description of the field or its classification, but must somehow refer to the person(s) associated with it. In Sumerian **šu** means 'hand', and **tab** means 'double' (giving the word *tappûm* 'partner' in Akkadian). At present the combination **šu.tab** seems only to be attested in an Akkade Dynasty document from Nuzi, way up east of the Tigris, in a land registration text rather similar to ours here.[13] The Sumerian **šu.tab** must be the origin of the Babylonian term *šutapu,* translated 'partner, co-

[8] This is only a possibility, because the single sign **šubur** may refer either to a person or to a place (as in IAS 552). In IAS 495 if it were a person one might expect it to precede the professional designation **sa$_{12}$.sug$_5$** (as it does in TSŠ 49, see Visicato 1995: 77), but place names are normally given the post-determinative KI, so it is difficult to opt for one interpretation or the other.

[9] See Pomponio and Visicato 1994: 208; Visicato 1995: 30-31.

[10] See p. 28; Whiting 1977: 67-9.

[11] **ša$_3$.tam.meš** *tappišunu* Leemans 1973: 281-2.

[12] Summarized in Postgate 1994d: 186.

[13] Meek 1935: 153.

Table 6.2 A-D Land holdings in tablets from Area E[14]

A

IAS	Lines	Area: še+gana$_2$	Category	Role / Person	Place
505	i'.1'	[.....]	[.....]	[... P]N	
	i'.2'*	0.1.0	šuku	guruš	
	ii'.1'*	0.1.0	šuku	guruš	
	iii'.1'*	0.2.0	šuku	[.....]	
	iv'.1'	4.[...]	šuku	[.....] / P[N]	
	r.i'-2'	[.....]	[.....]	[.....] / lu[gal$^?$]	nigin$^?$ ( ) bar[$^{ki?}$]
	r.i'.3'-5'	1.0.0	šuku	guruš / lugal	ereš$_2^{ki}$
	r.i'.6*	Total: 3.2.[0]	šuku	[.....]	[(.....)]
Total		<10.0.0(+)>			

* collated *Iraq* 40, 116.

B

IAS	Lines	Area: še+gana$_2$	Category	Role /person	Place
508	i.1*	Total: [(x+)]7.2.0	šuku [.....]	[.....]	
	ii.1-2*	3.2.0	šuku šam$_2$	en$_5$-si	
	iii.1*	0.2.0	šuku	dub-sar	
	iii.2	1.0.0	eš$_2$-gar$_3$	[(.....)]	
	iv.1-2	1.0.0		en$_5$-si	
	iv.3-	13[(+x)]	[.....]	[(.....)]	
	r.i.1'-2'	[x.x.x]	[šu]ku šam$_2$ ti.ki.gar *u*$_3$ šuku.šuku		[*i*]*n* ur$_4^{ki}$
	r.ii.1'	[.....]	[.....]	[(.....)]	gu$_2$-a^{ki}
	r.iii.1'-2'	6$^?$.0.0	sig$_7$ še+gana$_2$	šeg$_9$ nun ma	*in* ur$_4^{ki}$
Total		<33.0.0(+)>			
Date	r.iv.1'	2 mu iti i-si			

* see *Iraq* 40: 116; also for the exchange of Obv. and Rev.

1 4

[14] For further examples (IAS 504, 506, 529), and comment on the composition of these texts see Appendix 3. In the Tables totals enclosed in angle brackets (< >) are additions of the figures as shown, without regard to missing lines, and are not totals given by the scribes. The area measures shown as x.y.z are **bur**$_3$.**eše**$_3$.**iku** where 6 **iku** = 1 **eše**$_3$ and 3 **eše**$_3$ = 1 **bur**$_3$ and 1 **bur**$_3$ is approximately 6.48 hectares. (Within English text the numerical subscripts are omitted).

C

IAS	Lines	Area: še+gana$_2$	Category	Role / Person	Place
511	ii.1-[2]*	0.2.0	šuku	gu[ruš]/ [.....]	[.....]
	iii.1-3	2.0.0	šuku	e$_2$ / ad	⌜.....⌝
	iv.1-2	0.1.0	šuku	guruš / A:X:pa-bad$_3$	
	v.1-3*	2.2.0	šu-tab		adda.ki [d]a:an
	v.4-[5]	2.0.0	šu-tab munus		[.....]
	vi.1-2*	1.1.0	šu-tab		lal$_3$-la-AD^{ki}
	vi.3-4*	0.2.0	šu-tab munus		ki:X:giš A^{ki}
	vii.1-2	[.....]	e$_2^?$ ⌜x⌝[...] e$_2^?$ t[u]		A^{ki}
	vii.3*	0.2.0	šu-tab		
	vii.4*	2.2.0	šu-tab munus		
Total		<13.0.0(+)>			

*For collations see *Iraq* 40: 116.

Distribution of some entries between columns is uncertain.
iv.2: For this PN cf. Biggs OIP 99: 97 (LAK 350 rotated), and p. 34.

D

IAS	Lines	Area še+gana$_2$	Category	Role / Person	Place
528	i.1'-3'	[.....]	[(...)]	[e]n$_5$-si	UNUG^{ki} / AŠ.SAG
	i.4'	8.0.2	šu-tab		
	i.5'	6.0.0			
	ii.1-4	[x].0.0	šuku	ugula e$_2$ / amar:gi:nun / sa$_{12}$-sug$_5$	
	ii.5-7	3.0.0	šu-tab	*kur:a$_2$:X:lagab$^?$ / sa$_{12}$-sug$_5$	
	ii.8	3.0.0	šuku	guruš	
	iii.1	1.0.0	t[a$^?$]munus [x]		
	iii.2	6.0.0	šu-tab		
	iii.3	3.0.1	munus(?)		
	iii.4-5	3.0.0	šuku munus	ugula e$_2$	
	iii.6-8	[(1+)]2.0.0	DU ANŠE$^?$	inim-zi / PA.USAN	
	iv.2'-3'	[x.x].3	šu-tab	iš-dub–il / engar	x[.....]
Total		<34.1.0>			

* ii.6 collated (*Iraq* 40: 109)

i.3: Whether the place name is Uruk or not remains doubtful. In other contexts AB may alternate with the same sign with inscribed wedges (gunu) as for example in the place name Zabala which may be found written INANNA.AB or INANNA.UNUG (the second component going back of course to the pictographic stage in which it was used in several of the toponyms included on the city seals). In the *List of Geographical Names* **kun-kul**-AB^{ki} (l. 152) is shortly followed by entries with **kul**-UNUG^{ki} (with inscribed horizontals, 155-6; Biggs 1974: p.74). The syllabic spellings in the Ebla version indicate that /ab/ is intended in each case. In the *Zame hymns* Krebernik and Lisman 2020 transcribe **ab$_4$(**UNUG).

The ruling after **en$_5$-si** makes it unlikely that the toponym is part of the ensi's title and since the signs AŠ.SAG (or 1 SAG) are separated from ensi by the place name, they do not seem likely to be his personal name. They recur elsewhere in the administrative texts (IAS 495.r.v.5; 529.ii.5'; 536.iii.3), and a comparison with 2 SAG in IAS 523.r.iv.3 and 3 SAG in IAS 494.i.6 suggests that the initial wedge is indeed the numeral 1.

iii.8: for the signs rendered here PA.USAN (and referring to an animal herder), see Bauer 1972: 498 and Appendix 4.

worker' and found in commercial but also agricultural contexts, and curiously only resurfacing in the Middle Babylonian period.[15] A similar usage of **tab** may be recognized in two ED IIIa sale documents (one for a field, the other for a house), where Krecher suggests translating **guruš.tab** as 'Hilfsarbeiter(?)'.[16] The obvious conclusion is that they are in some sense 'additional workers', and that the **šu.tab** at Abu Salabikh similarly refers to 'additional hands', perhaps collaborators or partners with the preceding holder. It is therefore intriguing that in tablets from the 6H House a **šu.tab** entry is followed in at least five instances immediately by **munus** 'woman' (or perhaps more abstractly 'female').

Of the plots not described as 'prebends' two further technical terms are used which need some comment. Field plots in IAS 508 (and 552, see Table 6.3) are described as **eš$_2$.gar$_3$** a word which seems to be first attested here but surfaces later in Akkadian as *iškāru(m)* when it means a 'work task'. As well as an abstract obligation, it may refer to both the raw materials issued to a worker and the resultant finished product, and this is easily reconciled with two other instances of the word in IAS 494.i.2 and 495.vi.5 where it refers to a quantity of grain. Curiously the concept is very frequent in the Ur III documentation, but almost always written **a$_2$ ǧiš-ǧar-ra**. It is used for example for wool issued at Girsu to the state weaving establishments, but also can apply to figs, fish, birds, and even turtles. In a single instance[17] we find it referring to 12 bur of agricultural land described as 'outside fields, to be ploughed', belonging to the 'House of Inana', with the closing remark 'work assignment of the temple clerks' (**a$_2$ ǧiš-ǧar-ra šabra-ne**). Here it seems perfectly reasonable to apply the well established concept of a work task to fields in need of cultivation, implying that the fields in question are the property of the temple, which has identified some of its estates as requiring the labour input from the **šabra** (who are in the second rank of temple personnel), and hence to describe these fields as ' work-task fields'. This therefore provides a category which could be applied without too much hesitation to the **eš$_2$.gar$_3$** fields at Abu Salabikh some 500 years earlier.

In one instance (IAS 508.ii.1-2) a prebend plot attributed to the (or an) ensi is also termed 'purchase' (**šam$_2$**), and this term recurs later in the same text where it is not clear if it is part of a summation since it may not be associated with an individual. That fields could be sold is not in itself implausible, since there are at least 30 conveyances of fields from contemporary Šuruppak,[18] which do not say anything to indicate they were other than passing from private ownership to another private individual. Is the temple selling off one of its prebend plots into the ownership of the ensi, or is this a plot which the temple has newly purchased to provide him with a prebend? There is not enough evidence to answer this or indeed to exclude other possibilities.

Whether the field texts from the 6H House refer to the temple's estates or are a secular phenomenon they include a large (5 bur ~32 hectares) prebend for the 'land registrar'(IAS 552 iv.1) and clearly reflect the control of large tracts of agricultural land by the elite sector of the city, secular or religious. One needs to bear in mind that the 38 **bur** (~246 hectares) listed in IAS 518 are exclusively prebend plots. The formulation of that text, with space at the end, strongly suggests that it was a complete and comprehensive survey, but the entry **en gi^{ki}** at the end of the list bears all the hallmarks of a place name, so it may only apply to the temple's holdings issued as prebends in a single locality. The other tablets from the temple area mention at least five other localities (with the **ki** determinative). One is **ereš$_2$**, which can only be the city of which Nisaba is the patron deity. It is the final entry in the collection of temple hymns attributed to Enheduana,[19] but also features as the 25th entry in the *Zame Hymns* from

[15] CAD Š/iii: 397-8.

[16] Krecher 1973: 196 no. 1.vi.8' and no. 11.iii.8, iv.1; **guruš tab-ba**(**-e-ne**) are not infrequent in Ur III texts from Ur and elsewhere.

[17] Reisner 1901: no. 17.

[18] Edzard 1968; since when another 16 texts have been published, as listed by Visicato, in Martin et. 2001: 139, with one more in Cavigneaux 2020.

[19] Sjöberg and Bergmann 1969: 48-9.

Table 6.3 Land holdings in IAS 552 from the 6H House (for IAS 553-4 see Appendix 3)

IAS	Lines	Area ŠE+GANA$_2$	Category	Role / Person	Place
552	ii'.1-2	0.2.0	šuku	guruš / u$_3$-MES$^?$-kur-ra /ugula	
	ii'.3	[.....]	[šuk]u	bahar$_2$	
	ii'.4	1.0.0	šu-tab munus	AK engar	
	iii'.1-2	1.0.0	šuku	guruš / amar-NE:ta / ugula:e$_2$	
	iii'.3-4	0.2.0	šuku	maškim / NE-na-Lum / ugula	
	iv.1	5.0.0	šuku	sa$_{12}$-sug$_5$	
	iv.2	0.2.0	šuku	dub$^?$-sar	
	iv.3	0.2.0	⌜x x⌝		
	iv.4	5.0.0	šu-tab munus		
	iv.5	10.0.0	[.....]		
	v.1	1.1.0	eš$_2$-gar$_3$		
	v.2	0.2.0	šuku	engar / ur-^{d}šara$_2$	
Total		<26.2.0>			
	Rev.				šubur^{ki}

ii'.1-2, iii'.1-2, iii',3-4: in these three entries we seem to have a generic profession (**guruš** or **maškim**) followed by a personal name with the title of **ugula**(.**e**$_2$).

v.1: note that **eš$_2$-gar$_3$** is not followed by further details, as may also have been the case in IAS 508.iii.2 (Table 6.2.B).

Rev. No copy of the reverse of this tablet was provided in *Iraq* 71, and the transliteration given there on p. 13 is based on a collation and informal copy by Jeremy Black.

the Abu Salabikh library. In the administrative tablet IAS 508 a place called **gu$_2$-a$^{(ki)}$** , also listed in the 'lexical' text IAS 96.ii.5=LGN 68, is mentioned once, and **ur$_4^{(ki)}$** (cf. Frayne 1992: 12 LGN 44) twice , while a place called **bar$^{(ki)}$** in IAS 510 (not a field text) is probably also listed in IAS 505 and IAS 503 viii.2. Add to these **lal$_3$-la-ad^{ki}** (IAS 511; Frayne 1992: 9 LGN 136), **šubur^{ki}** (IAS 552; perhaps IAS 495 r.vi.6 without **ki**), the 'village of Ištaran' in IAS 554, **kun-kul-ab^{ki}** in IAS 504 and 538,[20] and the incompletely read toponym in IAS 504, and one cannot avoid the conclusion that administrative reach of the city dwellers at Abu Salabikh (and perhaps specifically of their 'land registrars') encompassed a range of settlements in the countryside, and in addition, that most agricultural land was assigned to a named town or village.

The badly fragmented tablets from both the temple area and the 6H House also demonstrate that the temple's prebend lands (in **en.gi^{ki}**)[21] are by no means uniquely extensive. On other tablets from the temple (Table 6.2) more than 90 bur would appear to be listed (though it is conceivable that some plots feature both as individual entries and in a total), and in IAS 552 (Table 6.3) more than 26 bur, with a further 10 bur in the other tablets from the 6H House (see Appendix 3). Considering the missing parts of most tablets, it is reasonable to claim that we have evidence for over 130 bur (~842 ha. or approximately 1 x 8.42 km) recorded in the texts which have reached us. Given that the major city of Nippur is no more than 15 km downstream, this must have constituted a significant proportion of the available irrigated countryside.

[20] on this toponym see Appendix 3 on IAS 504. See also note to IAS 528 (Table 6.2).

[21] For this 'engimatic' toponym see Appendix 2.

Irrigation

Land which could not receive regular irrigation at the right times might be useful to shepherds but not to farmers. Enkimdu – the patron god of cultivators – is consistently described as the 'man of the dykes and canals', underlining the reality that no crops would be growing without the water, and the water would only be there if it was assiduously managed, which required constant vigilance. Quite who carried out the management is less clear. There is an office of 'canal inspector' (**gu$_2$-gal**, Akkadian *gugallum*) but he rarely features in administrative texts of any era. When in the *Epic of Gilgamesh* the poet describes the onslaught of the deluge he relates that 'Adad, the canal inspector pulled up the regulator poles' to release the flood waters, and this could be taken to imply that he was fundamentally an irrigation engineer, rather than an urban official. There are occasional mentions of the **gugal** in the 3rd millennium texts, earlier often written differently (though already syllabically) **ku$_3$.gal$_2$**, but he is not mentioned in Abu Salabikh administrative texts and does not seem to have interacted much with the city administration at Šuruppak.[22]

It is likely that by the nature of a canal system it was not the sole responsibility of a single settlement, so that the inspector's authority needed to be recognized by all settlements dependent on a given watercourse and therefore stood somewhat apart from local hierarchies. The management of irrigation round Daghghara in exactly our part of south Iraq was studied in the 1950's by the anthropologist Robert Fernea, at a time when the 'top-down' overreaching control of the system had been inherited by the Iraqi government from the post-war British local administrators: the entire system was not overhauled, and the traditional (though not very old) 'bottom up' tribal arrangements with their detailed understanding of local conditions were largely respected or at least tolerated. He writes 'The old tribal politico-economic system, outmoded and inefficient as it may appear to have been, had within it checks and balances between the natural and social orders which developed through many centuries and which helped sustain the productivity of the region'.[23] Much the same might well have been written about the environs of Larsa, further to the south in the 19th century BC, before the entire southern alluvium was annexed by Babylon under Hammurapi. There an archive reconstructed by S.D. Walters gives us telling details of the administration of the local canals. The correspondence is largely concerned with the supply of labour, and one official writes to his junior about an uncooperative local 'since he has sworn on oath on behalf of his village, he is answerable to you for his defaulting'.[24] The communally imposed work would mostly have been more clearance of silt from existing water courses and ensuring adequate drainage, as described by Walters (p. 147). Round Daghghara in the 1950's the locally required labour for canal maintenance was enlisted through the tribal hierarchy and Fernea comments that 'the total amount of time devoted to the cleaning of canals is remarkably small', with most informants saying 'seven or eight days' (per annum). Doubtless back in the 26th century BC we would also be able to differentiate what Fernea once terms 'traditional leaders' and 'a national entity',[25] though the national entity would at times be centred on the city itself, even if in later centuries overridden by a superior regime, whether Mesalim or Hammurapi. It is significant that a study of the Ur III texts from Umma has shown that some at least of the administrators of the canal system there were highly placed in society,

[22] For ED IIIa texts written **gu$_2$-gal** see MSL 12: 16 l.25 (lexical). Written **ku$_3$-gal$_2$**: at Fara (Pomponio and Visicato 1994: 107 TSŠ 58.iv.10); at Abu Salabikh (*Names & Professions List* OIP 99: p. 64:104 [corresponds to [**ga**]**l-ukkin** in Ebla version Archi 1981: 184 l.108!); in Ur III many examples (BDTNS); Steinkeller 1989 no. 56:10, a witness, written **ku$_3$-gal$_2$** (with further literature). Steinkeller 1988: 87 comments 'this shadowy functionary is exceedingly rare before Middle Babylonian times'. Cf. pp. 183-4.

[23] Fernea 1970: 153.

[24] *kīma ālišu ina mamītim ittama ana tagîrtim izzazkum* (Walters 1970: 41 no. 34:9-15). [Stol's (1991: 215), and following him CAD's, translation of *ta-gi-ir-tim* as 'denunciation' derives the word from *nuggurum* (T: 38b), but unlike Walters does not take account of the verb *ug-ta-e-er* in No. 35 (same correspondents).]

[25] Fernea 1970: 132 and 152.

being close relatives of the provincial governor (ensi).[26] Similarly, personal names from ED IIIa Šuruppak which associate the term **gu$_2$-gal** with the titles 'king' and 'queen' may be seen to reflect the critical role of the irrigated agricultural regime in the stability of the state.[27]

Agricultural practices and equipment

The hard work on the fields was carried out, or perhaps rather organized, by the 'farm(manag)ers' (**engar**). The work to be done naturally varied with the seasons, and some of the month names of Mesopotamia refer to agricultural activities, including harvesting, sowing, and in the summer brick-making. For much more detail we have a 'wisdom' text which is known as the 'Farmer's Instructions' or 'Almanac' in the definitive edition of Miguel Civil. This text surely dates in the form we know it from the Ur III period and much of its content can be harmonized with the evidence of the prolific administrative texts,[28] combined with what is known today of conditions for cultivation in the southern alluvium. As it takes us through the annual sequence of tasks it exposes the resources the farmers would need to deploy. Attention is focused on growing cereals, and especially barley and emmer wheat, and their annual cycle begins in the autumn and concludes after the harvest has been threshed in May or June. To summarize the opening guidance of the farmer to his son, the sequence begins with soaking the summer-baked ground surface and clearing the weeds and levelling the field in preparation for sowing. This required a seeder plough called **apin**, designed not simply to turn the soil but to drop the grain methodically and economically through a funnel into prepared furrows, so maximizing the yield from a given measure of seed corn. The son is enjoined to check over the equipment, including the seeder-plough itself, with its yoke, straps, and seed basket, but also to make sure there are spare oxen and a spare plough.

It is significant that his advice begins explicitly with instructions for attending to the water management. Without water there would be no crop, but too much water at the wrong time could be equally disastrous. Our young farmer's task is confined to his own fields, but the irrigation regime is of course dictated by the entire system, the Euphrates or Tigris itself, the major canals with their regulators, and their offshoots upstream from him. He would be expected to control the minor ditches from which water would flow into the channels between each mounded furrow in which the lines of seed were deposited. This would be applicable to field plans we have from the Ur III period in the south (i.e. from Girsu) which often show long, thin strips, so with narrow frontage on the essential canal or ditch, ensuring that a greater number of cultivators had direct access to it (Fig. 6.2). Mario Liverani writes that irrigation was supplied by channels leading from the levees of the main rivers down to the furrows in the elongated fields with an 'appropriate sloping from levees to marsh depressions'.[29] He notes that in texts from Kiš, as in the Diyala cities, field plots were rather square or rectangular, and he suggests that 'elongated strips received furrow irrigation, while the square fields received basin irrigation'. Modern irrigation engineers observe that whereas furrow irrigation works for slopes of up to 5%, basin irrigation would normally require slopes of only 0-0.1%.[30] The basin technique forms square plots of very horizontal land surface bordered by low banks to contain irrigation water.[31] In antiquity each individual plot was enclosed by an earthen bank called **eg**, or in Akkadian *ikum*: while the size of the plots certainly varied, the term *ikum* is used to refer to the areal unit we consider to be approximately 60 x 60 m (1/18th of a bur), hinting at the rough order of magnitude.

[26] Rost 2019: 45-6.

[27] Schrakamp 2018: 123. Much detail about irrigation technology is found in the *Bulletin on Sumerian Agriculture* Vols. 4 and 5; more recently see Rost and Hamdani 2011 and Rost 2019.

[28] e.g. Maeda 1979: 21.

[29] Liverani 1997: 222.

[30] Charles 1988: 17, citing Arnon 1972.

[31] described by Charles 1988 in the light of Buringh 1960, Poyck 1962 and others.

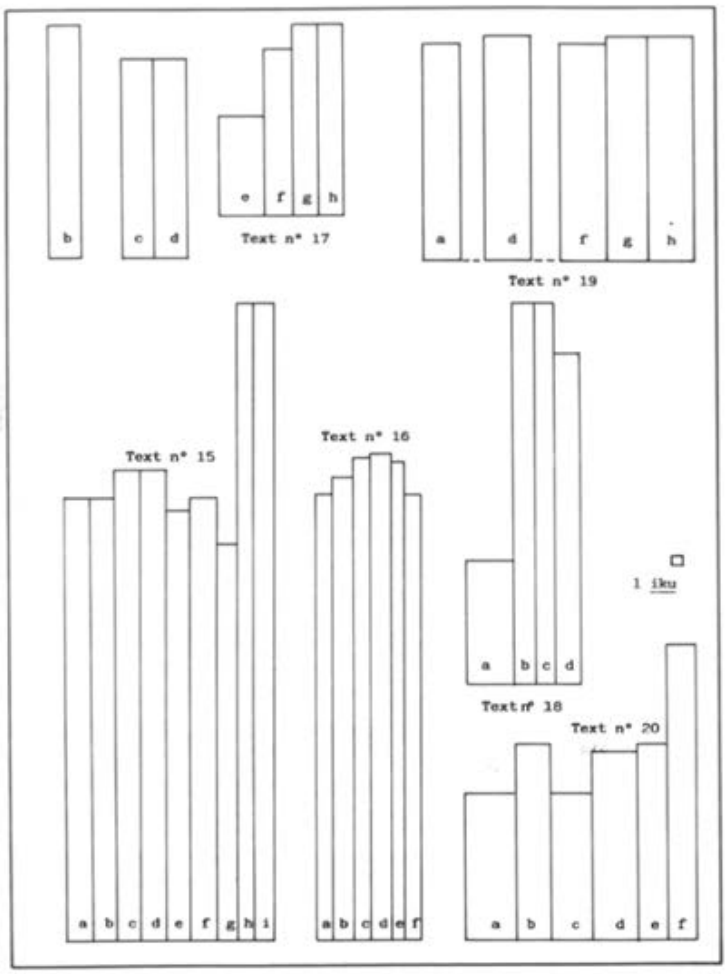

Figure 6.2. Ur III field plans. (After Liverani 1990: 163 Fig. 11)

Two broad reasons for the different systems are suggested: the landscape, or the society. The first points to the ecological distinction between the northern and southern zones, which are termed the 'alluvial' or 'flood' plain (down to about the latitude of Hilla (near Kiš) on the Euphrates and Kut (on the Tigris), and the 'delta' to the south.[32] In the north the alluvial zone is frequently flooded but with less salinization because in normal times the water table remains fairly deep, while the delta is a zone of very heavy sedimentation in which the rise of salts still poses serious problems for farmers.[33] While it is conceivable that the choice of system has to do with the gradients in the two zones, the **eg** / *ikum* is a fundamental unit in Sumerian areal measures, south and north, and it seems perfectly possible that basin irrigation was also practised further south. The other explanation for the difference in field shapes points to the social context. In Liverani's words, the fields are smaller in the Kiš area because of 'family-based ownership and organization of the land',[34] whereas the long strips in the south are better suited to an institutional administration. The large size of some of the strips recorded strongly supports this, and it is likely that plots controlled by a temple or palace did not need to be partitioned periodically, whereas inheritance practices would tend to divide holdings into increasingly small fractions to meet the claims of multiple male heirs or swelling village population.

How all this might affect the countryside round Abu Salabikh remains unclear. From this date we have no field plans, but at Šuruppak we have information from the Fara texts about small properties, both in the family sector (sale contracts refer to fields of an average size of ca. 4 iku each) and in the allocation of landed properties to temple officials (average size of ca. 6 or 7 iku).[35] This is entirely consistent with the size (often several bur) of the plots recorded in our land registers from both the temple area and the 6H House which are evidently under institutional control, but in the absence of plans the texts do not tell us whether these were strips or basins. Although Abu Salabikh is well to the south of Kiš, and some 65 km south-east of Hilla – and so according to modern authorities well within the 'delta' zone – it would be wise to withhold judgement as to the preferred field shapes for the time being.

[32] For the 'flood plain and delta plain' see Charles 1988: 7; 'plaine alluviale' and 'plaine deltaique' (Sanlaville 1989). Steinkeller (1999: 304-6) accepts Liverani's correlation of basin irrigation with the flood plain.
[33] Sanlaville 1990: 4.
[34] Liverani 1990: 173.
[35] Liverani 1996: 1.

Cultivation

After preparing the ground the Farmer then provides detailed instructions for the depth and spacing of the seeds, and for harrowing and irrigating the plot as the crops are growing, with occasional rites to be carried out to protect them. The *Farmer's Instructions* mentions four occasions when 'ritual offerings' (Sumerian **siskur**) are needed: when the seedlings first break through the surface (ll. 64-6 'after the seedlings break from the ground, perform the rites against mice. Turn away the teeth of small birds/locusts.'), daily when the sheaves are stacked (l. 87), when the threshed grain is lying on the ground (l. 101) and finally in the evening and at night, when it has been winnowed and is ready to go (l. 106). The poet does not spell out for us what the different rites entailed, but the Ur III accountants have left us some hints: the 'rites of the threshing floor' (**sizkur ki-su$_7$**) seem regularly to have required a whole sheep, but at other times of year they record the issue of various kinds of flour, and dates: these agree with Maeda's list from the Ur III texts, including rites for sowing, harvesting, and for clearing the threshing-floor. As we might expect, such rituals were certainly prevalent earlier, for at Pre-Sargonic Girsu the Bau Temple scribes recorded beer, bread and occasionally a sheep and a goat issued on the occasion of the 'clearing of the threshing-floor' (**ki-su$_7$ šu-su-ga**).[36] While the wording of any of the prescribed incantations is not recorded in either the *Farmer's Instructions* or on the accountants' tablets, we can get an idea of how they may have sounded from later texts. As late as the library of Assurbanipal in the 7th century BC compendia of such prayers were recorded, but closer in time and place is a four-column tablet from the Iraqi excavations at Tell Haddad, beyond Ešnunna on the Diyala.[37]

Traction, trampling and transport

Our Farmer's final instructions address the organization of the workers when it comes to the harvest, the transport of the sheaves to the threshing floor, using ox-drawn carts, and the threshing itself which is done either with a threshing-sledge set with flints and towed by oxen, or by letting the oxen themselves trample it. All this chimes well with the independent evidence of the voluminous administrative records of the Ur III state on the one hand, and what is known of agricultural practice in south Iraq thereafter, right down to the present day. Hammurapi's law stele (§§268-270) envisages the hire of animals for threshing, with oxen earning twice as much as donkeys, and 20 times as much as a goat. It is interesting that the *Farmer's Instructions* do not mention donkeys, but we know that they were regularly used in the Pre-Sargonic period for ploughing, as well as no doubt for threshing. Many administrative notes recording donkeys were excavated by Koldewey's team from the 'Tablet House' at Fara, in some cases in numbers running into thousands,[38] and at Abu Salabikh IAS 491 lists barley issued both to **gu$_4$ apin** 'plough oxen' and to **anše apin** 'plough donkeys'. IAS 494 records a total of 154 gur (ca. 36,960 litres) of grain as 'donkey consumption'. A Pre-Sargonic account from the Bau Temple at Girsu mentions 'donkeys to carry grain from the threshing floor'.[39] Donkeys were certainly important for long distance overland transport, a role well known in the tin and textile trade between Aššur and Cappadocia in the early 2nd millennium, but also alluded to in the legend of Enmerkar the ruler of Uruk and his opposite number in Aratta on the Iranian plateau, when their grain consignments were despatched in donkey caravans: 'He measured out in full (?) the barley for the granary, adding for the teeth of locusts. He had it loaded on the pack-asses at whose sides reserve donkeys were placed. The king, the lord of broad wisdom, the lord of Unug [=Uruk], the lord of Kulaba, despatched them directly to Aratta'.[40] However for everyday duties the donkeys would have been kept for traction, local transport, or threshing, and the probability is that their principal use was as plough animals. They did however have one further role to play, and that was in the production of offspring.

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[36] Maeda 1979: 26-31.

[37] George et al. 2010; Cavigneaux and Al-Rawi 2002.

[38] Martin 1988: 89.

[39] Allotte de la Fuÿe 1908-13: 148.ii.5-iii1; Civil 1994: 93: **2.0.0 še / anše ki-su$_7$-ta / še la$_2$-de$_3$ / i$_3$-gu$_7$** (pace CDLI, photo supports Civil).

[40] ETCSL Enmerkar ll. 329-334. **še guru$_7$ ka i-ni-in-si zu$_2$ buru$_5^{mušen}$-e bi$_2$-in-tah / anše barag la$_2$-e um-mi-in-la$_2$ / anše-bala-e da-bi-a ba-an-sig$_{10}$ / lugal en ğeštug$_2$ dağal-la-ke$_4$ / en unug^{ki}-ga en kul-aba$_4^{ki}$-ke$_4$ / har-ra-an aratta^{ki}-ke$_4$ si bi$_2$-in-sa$_2$.**

Donkeys, onagers and their offspring

Domestic donkeys were needed to generate the valued hybrids which we have assumed formed one component of our richest grave furniture (see p. 66). It seems likely that the hybrids do not belong in this chapter, being too elite for mundane agricultural purposes: as things stand at present, we can only be certain they towed wheeled vehicles, and the only wheeled vehicles we know of towed by equids are the battle chariots pictured on the *Standard of Ur*, the *Stele of the Vultures*, and Early Dynastic cylinder seals (though not later). McAdam 1993: 86-7 makes a case for seeing the manes clearly indicated on some of the equid figurines from the temple Ash Tip as belonging to onager(-hybrids), rather than domestic donkeys, which seems plausible. If our inhabitants needed them in death, presumably they owned them in life. Some were present above ground at Abu Salabikh: on site equid bones are well represented even outside the graves, most conspicuously in the shape of an entire skeleton thrown out into the upper layers of the Ash Tip (Fig. 6.3). The difficulty of discriminating the osteology of the donkey, the onager and their hybrids is notorious, and neither the teeth nor the leg bones alone are an adequate basis for identification (see p. 65). Common sense suggests that most of the bones scattered loose about the site would have come from the regular agricultural work donkeys, but this would be hard to prove. There is no reason to think that the human population included donkey meat in their diet, but in the Ur III period at least donkeys provided meat for the dog kennels. Compared to donkeys, the hybrids are relatively rare in the Ur III administrative corpus: alongside 347,394 sheep and goats and 28,601 oxen a Drehem account covering 60 months lists 2204 donkeys and 727 hybrids.[41] Both were sometimes fed to the dogs at Drehem, and another text from there records the skin of a hybrid alongside 26 donkey hides.[42] Equid

Figure 6.3. Equid skeleton cast onto Ash Tip. (Iraq *38: Pl. XXIVa)*

[41] Postgate 1994d: 161 citing Calvot 1969.

[42] Tsouparopoulou 2012; Hilgert 1998: no. 478.

Figure 6.4. Tell al-'Ubaid milking scene. Limestone figures set in a black shale background (see Hall and Woolley 1927: 91, Pl. XXXI). Iraq Museum.

skins would have provided leather, as we can tell from the experience of Carsten Niebuhr on his way to Persepolis when a donkey in his company dropped dead and the owner 'immediately set about skinning the animal so that he could sell the hide to his companions, who made shoes there and then out of the pieces by piercing holes near the edges and slotting strings through them'.[43] One thing which remains to be determined is where the donkeys were kept. The micromorphological study of deposits in the 5G and 6H Houses (and elsewhere on the site) gives no sign of animal dung which might suggest that cows (or indeed donkeys or sheep and goats) occupied the houses, and the house plans do not suggest a plausible stable. IAS 503 v.3 records grain issued to the 'hybrid(s) of the king' (**kunga lugal**), and to the 'house of equid teams' (**e$_2$ BIR$_3$**[44] **anše**, in vii.2 of the same text). Perhaps these were also hybrids, since one does not usually yoke donkeys (unlike oxen), but it does seem to show that somewhere there was a structure for stabling draught animals, whether within or without the walls.[45]

In Old Babylonian households cows were welcome occupants, in small numbers: they may be listed with their own names in the inventories of patrimonial house divisions,[46] and they would have ploughed and given milk (and eventually leather). While both sheep and goats also gave milk, it is clear from the inlay frieze which adorned the Early Dynastic temple of Ninhursag at Tell al-Ubaid just north of Ur (Fig. 6.4) that cows' milk was valued and carefully processed in quite large quantities, and already back in the Uruk period texts record milk production from cows,[47] while carved scenes from that time show cattle and their offspring in loving detail. It has been suggested that in late 4th millennium settlements the buildings were more dispersed, leaving plenty of space to accommodate animals, both flocks and cattle,[48] but at Abu Salabikh in the mid-3rd millennium it seems more likely that even if the occasional sheep was fattened up in the courtyards, the larger animals, cattle and equids, would have been housed outside the city walls.

Crop processing, botany and food

Threshing the harvest was of course an essential activity, as the texts confirm. Matching a Sumerian (or Akkadian) word to a Linnaean species is never easy, but it is fairly clear that the main cereal crop was barley, closely followed by emmer wheat (**ziz$_{2;}$** *Triticum dicoccum*); bread-wheat is absent from the archaeological deposits, while the same picture is given by the administrative texts, although this may be

[43] Hansen 1964: 313.

[44] For BIR$_3$ Attinger offers a possible reading **sur$_x$**, which would be the same as **suru$_5$**, a reading of **la$_2$**, 'to attach'. The meaning is unaffected.

[45] Cf. also IAS 507 r.ii.2.

[46] Postgate 1994d: 97.

[47] Green 1980; Englund 1995, with details of Pre-Sargonic evidence from Girsu, pp. 45-6.

[48] See Stone 2013: 160-161.

Figure 6.5. Michael Charles operating flotation machine next to the canal in 1985.

deceptive.[49] Compared to many sites, the botanical remains, predominantly recovered by flotation (Fig. 6.5), are quite sparse, but the samples from the 6H House support these generally agreed identifications, with a preponderance of barley and emmer, and of course also include a variety of less frequent species, some no doubt cultivated, but others weed species accidentally harvested and surviving sieving along with the cereals.[50] Yet others probably enter the record as components of dung used as fuel. Only in the lane just south of the 6H House was there a large accumulation of chaff (glume bases) from emmer.[51] The grains of barley (more often 6-row than 2-row[52]) and free-threshing wheat could be freed from their chaff on the threshing floor outside the city, whereas emmer would normally be stored as spikelets and subsequently pounded in a mortar to free the grains from their surrounding husks. This could well have been carried out within the house walls, or as in this case just outside, and the hard labour it entailed is implied by the Sumerian proverb 'You constantly rotate (the pestle in) the mortar like a fearful slave girl',[53] and by the legal formula according to which slaves being sold were made to step over a pestle, symbolizing their characteristic servile activity.[54] Contracts for processing emmer in this way on an institutional scale were recovered from the Sin-kašid palace at Uruk.[55]

[49] Barley (ŠE) is best represented but emmer (**ziz$_2$**) is also recorded at Abu Salabikh in the administrative texts (IAS 494.iii.1; 495.iv.3, vii.5 (horizontals crossed by diagonal); 512.i.1 (sign resembling AŠ$_2$); 514.ii.2' (see Biggs 1966a: 87, perhaps now to be discounted).

[50] ASE 5: 396.

[51] ASE 5: 404.

[52] Charles 1989: 192; ASE 5, 404.

[53] **geme$_2$ ni$_2$-te-a-gin$_7$ naĝa$_3$** *e-si-ta-am* **bi$_2$-ib$_2$-gur-gur-re** *tu-uš-ta-na-ag-ra-ar* (translation emending ETCSL 6.1.03.39 UET 6/ii: 335).

[54] Documented for the Sargonic period and later, see Steinkeller 1989: 34-42; Steinkeller and Postgate 1992: 109.

[55] Sanati-Müller 1988.

A study of isotopes in cereal grains from sites in the Mediterranean and southern Iraq indicates that the Abu Salabikh barley received less water than the emmer, but it was concluded that 'the predominance of six-row barley, which has a higher water requirement than the two-row form, ... shows that the irrigation system was of sufficient efficiency and scale to allow cultivation of crop varieties with high water requirements. In fact, cereal watering conditions at Abu Salabikh compared favourably with cereals grown at sites in much wetter climatic zones'.[56]

The samples recovered from the 6H House included only two other food plants in small quantities, figs and sesame. Their presence is no surprise, although for many years it was mistakenly thought that the principal oil plant in early Mesopotamia (ŠE.GIŠ.IA$_3$), called in Akkadian *šamaššammū* ('plant oil', the origin of the word sesame), was linseed (see below).[57] In ED IIIa figs (**peš$_3$**) are listed among other fruit offered to a temple at Šuruppak, including apples (**hašhur**), grapes (**geštin**) and dates (**zu$_2$-lum**), while how much fruit was appreciated may be judged from this passage from the myth of *Enlil and Sud*: 'dates, figs, large pomegranates, *gipar* fruits, plums(?), *halub* nuts, almonds, acorns, Dilmun dates packed in baskets, dark-coloured date spadices, large pomegranate seeds squeezed out from their rinds, big clusters of early grapes ..... were dispatched by Enlil towards Ereš'.[58] Many other plants were surely cultivated: some, like root vegetables such as beetroot, we would not expect to show up in flotated samples of carbonized seeds, and other are probably missing simply because the samples taken are not rich enough. The evidence from both sides is patchy: we would have expected to find pomegranates mentioned in the texts,[59] but still more surprisingly our excavated samples at Abu Salabikh included no date stones. This may not have been by chance, since there is no sign of distinctive date palm phytoliths in the micromorphological thin-sections from the 6H House.[60] Even if growing conditions in the vicinity of the city were unsuited to date palm groves, which might have to do with unfavourable water levels in the river or canals, one would have expected the citizens to have imported so nutritious and easily preserved a foodstuff and to have left some stones in the ground. Another crop not surfacing in the flotation samples from the house is flax (or linseed as it is often referred to when cultivated for the oilseeds rather than the fibres). Later at the end of the Early Dynastic period and then very much in Ur III times it was grown to make linen, but it features neither among the plant materials recovered from the flotation programme nor in the (admittedly few) administrative texts from the site. Although linseed (*Linum usitatissimum*) is not universally seen as a culinary ingredient it can yield a vegetable oil, but the principal cooking oil of the 3rd millennium, and indeed later, was sesame oil. Sesame too fails to appear in our tablets, but a few sesame seeds from Abu Salabikh combine with the texts analysed by Hartmut Waezoldt to show indisputably that it was grown as a summer crop in Ur III times, and even earlier.

Although we tend to concentrate on the supply of water to growing cereal crops, one should not forget the orchards and date groves which provided the fruit in the diet. To judge from recent practice they would have been positioned on the upper part of the levees each side of a canal, and Girsu texts mention shadufs often operated by blind workers. Although we presume that at all times the main fruit crop would have been dates, other less lofty fruit trees can thrive beneath the shade of the palms. Today they are mostly citrus, but also pomegranates as in antiquity, and the texts mention other fruits including pears and quinces, with others whose identification is less secure.[61]

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[56] Charles ASE 5: 404.

[57] The sorry tale is recounted by Powell (1991).

[58] Š 883+981: Steible and Yildiz 2008: 190-7. Black et al. 2004: 110.

[59] That pomegranates may not have been specially esteemed was suggested in Postgate 1987: 121, but they are included for example with grapes, apples and perhaps pears (**gi$_6$-par$_4$**) in the Ur III account BM 18352 (Maeda 1987: 325). Powell (2003: 19 suggests that they may not have been introduced to the south before the Akkade dynasty. Their inclusion in the list cited from *Enlil and Sud* may therefore be an Old Babylonian anachronism. Or not.

[60] ASE 5: 410.

[61] For food plants and fruit featuring already in 4th millennium lexical texts see Wagensonner 2020: 10; also Veldhuis 2014a: 100-102.

Reeds and palms

One of the literary 'Debate' poems known from the Old Babylonian libraries at Nippur (though as yet unedited) is known to us as *Tree and Reed*.[62] Reeds are not a major part of human diet,[63] but they deserve none the less to be treated among the crops. As well as supplying fuel, they would have been an important fodder crop, for the oxen especially. Today reeds together with bulrushes form the staple diet of the water buffalo which have returned to the marshes,[64] and although cattle would not themselves have populated the reed beds in the same way, they also eat reeds.[65] The lexical tradition lists numerous kinds of reed, and numerous things made from reeds. Like the ribs from palm fronds, reeds give stiff but light frameworks for containers – e.g. crates for fruit or cages for birds – and quite robust furniture. One Ur III account tablet lists bundles of 'split reeds', palm ribs and fronds, and 180 box-tree twigs for making 30 tablet containers 50 cm. high.[66] Reeds were also an important building material (e.g. for reed doors, see p. 50), and reed mats were not only floor coverings but used in boats and, to judge from today, to lay across roof beams beneath the layer of mud. Many of the graves at Abu Salabikh show the white phytolith traces of loose reeds used as linings both above and below.

Pigs

Unlike equids, it seems quite possible that pigs would have roamed loose through the city's streets, lanes and rubbish tips. In the light of the taboo against eating pigs familiar in the more recent Middle East, this may come as a surprise, but the archaeological evidence indicates clearly that pigs were exploited by the urban population, as their bones are plentifully represented in the animal remains excavated in the Main Mound. Textual evidence for this is very scarce: pigs are not mentioned in the admittedly scanty administrative records found at the site, but nor are they at Šuruppak. Even in the Akkadian and Ur III documentation they hardly feature, although the Ur III 'Garšana' archive which has found its way onto the antiquities market does record pigs; this must reflect a difference in the context by comparison with the major archives from Girsu, Drehem and Umma, since the Garšana texts seem to derive from a military establishment. The scarcity of references to the pigs may simply be ascribed to their social (and hence also administrative) context: they must usually have been kept and exploited by sectors of the society which had no need to maintain records. Pigs are well known scavengers and would hardly have been kept in domestic houses, and at Abu Salabikh the retrieval of a couple of shed milk teeth from the relatively late ash pit which was sunk into the Southern Unit suggests that some at least were indeed roaming the streets.[67]

It is likely enough that some sectors of society dined occasionally on pork, and pigskin was presumably cured, although we have no proof of this. Our best evidence though for the exploitation of the pigs is the prevalence of lard in everyday Mesopotamian life in the 3rd and early 2nd millennium. While the pigs themselves seem to be below the scribal radar, their lard was definitely valued. Called simply 'pig fat' it features among some of the staple commodities the price of which rulers attempted to fix in the Old Babylonian period, as for example in the *Lawcode of Ešnunna*. Here it is listed alongside barley, oils (including sesame oil), wool, salt, potash and copper. These are not principally menu items, and fat from

[62] Vanstiphout 1990: 273.

[63] though cf. Thesiger 1964: 162; Ochsenschlager 1992: 54.

[64] Thesiger 1964: 45.

[65] The precise identification of plant-names written with Sumerian **gi** is not attempted here. The **gi-zi** which is very commonly gathered in Ur III texts is understood by Civil (1987: 44) to be full-grown reeds, no doubt primarily *Phragmites australis* (Arabic *qaṣab*), while he also suggests (1987: 50) that the Sumerian **numun**$_2$ was the 'bulrush' *Typha domingensis* (Arabic *bardi*). For the up-dated Latin names see Hepper 1992 with references to the *Flora of Iraq*.

[66] Waetzoldt 1992: 131 (MVN 14. 229). For the multiple uses of reeds in Ur III texts see Waetzoldt 1992 throughout, and more generally Postgate 1980c. For ropes and string which are also principally vegetable products see Waetzoldt 2020.

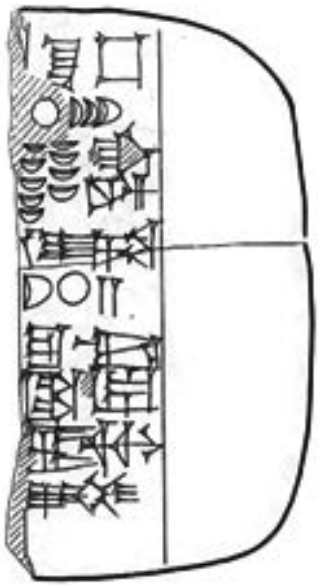
[67] ASE 5: 8; the ash pit is visible in the section to the left in Fig. 4.6.

sheep or cows is not listed. Similarly at Girsu before the Akkade Dynasty lard is listed among the package of commodities received by the seller(s) in various sale documents. The conclusion seems warranted that at least some, or more likely the majority, of the lard was destined to be amalgamated with the alkaline potash (**naga**) to provide soap, either for domestic use or in the production of textiles.[68]

The temple flocks and their shepherds

IAS 519, retrieved from the back fill of Grave 27 at the south end of Room 39 in the Southern Unit, is only half a tablet (Fig. 6.6), but fortunately for us the half with the totals on it:

Figure 6.6a. Account of sheep and goats, totalling 13,972 animals (IAS 519 Obverse). (Iraq *40: 106-7)*



'Total: 13,000 + 900 +72, male sheep, female sheep, lamb(s), female goats, male goats (and) kids.'

Figure 6.6b. IAS 519 Reverse; hand copy. The scribe uses the Akkadian numbers for 100 (mi-at*) and 1000* (li-im*).*

There are other points of interest in this short text, but for the time being it is the sheer numbers that grab one's attention. This is obviously institutional, not a single individual's property, and it implies the existence of a cadre of shepherds. It also raises the question of where these animals were to be found. While we do know that in later centuries numbers of animals were kept within walls and fattened up for one festival or another, these were usually the young males, and the remainder of the flocks would surely have been kept outside the city walls, but where? The presumption is that the terrain stretching along the water courses (and in the case of Abu Salabikh this probably means one strand of the Euphrates), and so irrigable directly from regulators or offtakes, would be prime agricultural land and off limits to hungry sheep and goats for much of the year.

[68] Postgate 2020.

The potential for dispute is obvious, and like other social or natural issues, the Sumerians conceptualized this in their literature. When the land surface was entirely given over to field crops, where were the sheep and goats supposed to graze? Still vividly recalled is an occasion driving from Baghdad to Mosul, when the driver's western impatience with sheep straying into the road was roundly rebuked by his Sherqati passenger, who pointed out that the shepherd had nowhere other than the verges between each side of the tarmac and the adjacent fields for them to graze. Back then in the south it seems to have been the canal banks (which obviously could not be gravity-flow irrigated). One of the pleasantest Sumerian 'debates' is that between *Dumuzi and Enkimdu*, the patron deity of irrigated agriculture, in which, in a spirit of compromise with echoes of Oklahoma, Farmer Enkimdu tells Dumuzi 'Why should I compete against you, shepherd. I against you, shepherd, I against you? Let your sheep eat the grass of the riverbank, let your sheep graze on my stubble '.[69] This reflects the fact that with the agreement of the farmer the shepherds may have been able to graze their flocks on the young shoots of a sown field, a procedure explicitly envisaged in one of Hammurapi's laws: 'If a shepherd has not reached an agreement with the owner of a field to let his flocks feed on the plants, and has allowed his flocks to feed without the permission of the owner of the field, the owner of the field shall harvest his field, and the shepherd who let his flocks feed on the field shall deliver to the owner of the field in addition 20 gur per each bur' (§ 57). This is still practised today and apparently does not seriously diminish the eventual harvest as it leads to 'tillering' – that is the plants produce multiple stalks.[70] But this did not carry on all year, and it was surely the case that the shepherds led a peripatetic existence seeking out grazing where they could. Records of field surveys from Pre-Sargonic Girsu show that a system of alternate year fallow was practised, and Ur III scribes use the technical term **buru$_{14}$-bala**, literally 'crop rotation' for the same practice, equal areas being cultivated and left fallow each year.[71] Flocks may have been allowed to graze on the fallow without payment. One of many poetical compositions celebrating Dumuzi the shepherd god and his partner Inana concentrates on the wide range of plants his sheep might sample: they include not only the young shoots of barley, but a variety of wild plants and multiple kinds of reed, emphasising for us that they will have strayed away from the regimented irrigated fields.[72] Undoubtedly too some of the quantities of reeds recorded by the Ur III dynasty scribes as culled (**sig$_7$**) and/or transported will have ended up as fodder for sheep and cattle closer to the cities, though they will have served many other purposes as well. The search for grazing is of course why in the mythological narratives Dumuzi moves around the south Mesopotamian landscape so much. And notice that Geštinana, his sister, is called the deity of the outback (**edin**) which means not so much 'desert' as the alluvial land beyond the reach of irrigated cultivation.[73]

What the texts don't always tell us, is who owns the flocks. Over the centuries most shepherds will have been tending other people's animals, and it is obvious that with 13,972 sheep and goats the temple must have employed a fair number of shepherds. Unlike agricultural workers though, the need to find grazing has always meant that the shepherds and their flocks were not subject to day-to-day supervision, and there are times in Mesopotamia when we know sheep (and goats) and shepherds could be absent for months at a time. Society had to find a way of regulating the ownership and custody of the flocks which was fair to both sides. When the flocks were entrusted to their shepherd it was not like handing over 1 mina of silver or 10 gur of barley: animals reproduce, and they also generate commodities, both edible and inedible. On the other hand, they are not so easy to conserve: they may stray, they may die of

[69] **a-na-aš mu-da-ab-sa$_2$-e-en / udu-zu u$_2$ peš$_{10}$ ḫe$_2$-em-mi-gu$_7$ / išin-ĝa$_2$ udu-zu ḫe$_2$-em-mi-lu**. Translation from Black et al. 2004: 88, though rather than 'stubble' it might be more accurate to render **išin** as 'grain-stalks' (so Sefati 1998: 331) which would imply grazing earlier in the growing cycle.

[70] Poyck 1962: 52, though referring to cattle.

[71] For Pre-Sargonic surveys see Yamamoto 1980: 176-8; for the detailed Ur III evidence on fallow I am much indebted to Prof. K. Maekawa (pers. comm.), who also refers me to Steinkeller 2017: 565.

[72] Civil 1987.

[73] Black and Green 1992: 88. In Akkadian she is known as the 'mistress of the outback' (*bēlet ṣēri).*

natural causes, or become victims of some of the predators out there, most traditionally a lion. Clues to how these competing issues might be resolved can be found in laws and documents from later centuries. When an animal died the practice was to salvage the sinews and present them as proof that the animal had not been sold on to a third party. This could not be done when a lion had made off with it, and in that case, as we learn from records drawn up under the Ur III dynasty, the shepherd could exonerate himself by swearing a solemn oath. This remained the practice in later centuries, so Hammurapi's stele prescribes: 'If a divine infection has occurred in a sheepfold, or a lion has killed, the shepherd shall clear himself before a god, and the owner of the sheepfold shall accept the liability for the loss in the sheepfold' (§ 266). Quite what the 'divine infection' (*lipit ilim* = 'touch of a god') constituted in modern terms is of course uncertain, but the next clause deals with a similar but opposite situation when the shepherd is held to blame for an illness (called *pissatum*) affecting the cows and flocks in the sheepfold, and is obliged to make restitution to their owner (§ 267).

From the centuries after the collapse of the Third Dynasty of Ur we have copious documentation of the animal husbandry in both the public and private sector. The ownership of flocks could be a sound investment, because annual gains were built into the contracts, and any losses would affect the shepherds in the first instance. While the size of the flocks should increase year on year, the wool production supplied the annual income. Given the size of the operation regular government employees were needed to organize and monitor the cohort of shepherds, and they were known as *nāqidum* (written in Sumerian texts as **na.kad**) for which the mediaeval English 'flock-master' seems an appropriate translation, although they also could have charge of cattle, making 'herding contractor' a technically more accurate phrase. From Larsa in the south the archives of a government agency overseeing the state flocks give us a clear sight of the numbers involved and the contractual relationship between the palace and its shepherds, while in a range of contracts from one of the townships further north, we can see similar provisions drawn up between the independent owners of flocks and their shepherds. An expected annual productivity rate in respect of the birth of new animals was set against expected deaths. The shepherd normally kept all the milk products, and a fixed amount of wool per adult animal plus any animals in excess of the agreed rate, while tradition also allowed him a food ration and a clothing allowance, as well as the pay of a subordinate.[74]

Strange as it may seem, given the size of the temple's husbandry enterprise, shepherds (Sumerian **sipad**) are not mentioned on any of the administrative tablets from the temple, or indeed from elsewhere, but two other employees involved in animal husbandry are not infrequent. These are the **na-kad** /*nāqidum* or 'flock-master', and a profession written PA.USAN (sometimes read as /munsub/); they are listed together in the list of professions called *Old Babylonian Proto-Lu* towards the end of a section on animal herders.[75] At Šuruppak the two professions are certainly not identical, because they may both occur on the same tablet, and they both feature alongside merchants (**tam$_2$-kar$_3$**) and other professions which are surely city-based. This is a comparable situation to the 'farm managers' (**engar**) who organized the cultivation, acting on behalf of either a temple or a secular institution. Later on the *nāqidum*, usually written **na.kad**, is well known as a flock-master organizing the state's sheep and goat husbandry at Larsa in the Old Babylonian period, and later still at Tell Ali near Nuzi in the north. This profession is not mentioned at Abu Salabikh but is not infrequent at Šuruppak,[76] whereas a PA.USAN is found both at Fara and in three of the Abu Salabikh administrative tablets: one called Išlul-il is mentioned in a short note about a cow, and an Ilum-aha features in another laconic note concerned with adult and young oxen.[77]

[74] With more detail, Postgate 1994d: 159-60.

[75] MSL 12: 49-50. 477 **na.gada** 478 **munsub$_3$** (i.e. PA.USAN on which see Bauer 1972: 498 and Appendix 4).

[76] See e.g. Steible and Yıldız 2015: 171; Cripps 2007: 180 (Text 28.iv.4 and r.i.5).

[77] At Fara: Steible and Yildiz 990 i.4; vii.3 and 2015: 171 (10 occurrences under mu$_6$-šub). At Abu Salabikh IAS 510 ii 1; 528 iii 8; 537 ii 2.

This professional term drops out of use later in the 3rd millennium, but the scanty evidence of the lexical texts, especially the Akkadian equivalent *kirdippu* 'groom (for leading donkeys and horses .....)' confirms that he was engaged in the management of larger animals, perhaps both cattle and equids.[78]

To sum up, what textual evidence we have indicates that our temple, and perhaps other owners of flocks based in the city, would have employed one or more 'flock-masters' who supervised the shepherds and mediated between them and the nominal owners. Given the long periods during which the shepherds could not be directly monitored, we have ask how the relations between sheep owners, their administrators and the shepherds were regulated. Although from contemporary Šuruppak there are multiple examples of lists of out-payments to people identified by name and/or professions, these are unilateral documents retained by the administration which would not have served the purpose of attesting to a mutually agreed liability. In the interests of sustainable relations between these different sectors of society bilateral documents were used in Old Babylonian times: both at Larsa and later further north in the reigns of Hammurapi's successors the contracts between individual shepherds and the 'owners' were sometimes if not always sealed.[79] Neither at Abu Salabikh nor at Šuruppak are there any 'bilateral' – in other words 'legally validated' – documents recording animal herding contracts between individuals and other individuals or an institution, but given the absence of **any** contract documents in the Early Dynastic period, whether sealed or unsealed, this is no surprise. Other mechanisms may have been in use. One possible device may be alluded to in the Debate between *Lahar and Ašnan* – aka '*Sheep and Grain*':

> 'Every day an account of you (the sheep) is made,
> The tally sticks are planted in the ground.
> Your shepherd tells the owner, how many ewes and how many little lambs,
> How many goats and how many little kids there are'. (after Civil 1969: 168)

Much later, east of the Tigris and a long way north someone in the city of Nuzi had a clay oval or 'bulla' which was not only sealed but had a description of its contents written on the outside, beginning 'Stones of the sheep'. Sure enough, when opened up there were 48 (or possibly 49) pebbles inside, and the inscription lists 49 animals and adds the note that the seal belonged to 'Ziqarru the shepherd'.[80] By good fortune – though not of course coincidence – a tablet from the same room presents the same information, and gives the name of the owner (Puhi-šenni), specifying that the animals 'are given to Ziqarru, son of Šalliya, the shepherd'. This is the only example of a bulla containing pebbles that we have found, but other Nuzi tablets refer to 'stones' (Oppenheim 1959), and the professional competence of the tablet and its corresponding bulla testify that this was a well recognized procedure. Despite the considerable lapse of time – from Level IC of the Abu Salabikh temple to the Nuzi citadel, more than a millennium – we are looking at a similar situation, and it should be no surprise if the owners conducted their relations with shepherds from outside the city with unwritten recording mechanisms. We have not found comparable sealed hollow bullae, and pebbles in the southern alluvium are few and far between, but in the temple Ash Tip there are any number of small pottery discs and other clay items which could have served as counters.[81]

[78] CAD K: 225b.

[79] See Postgate and Payne 1975: 2-3. In Table 1 there at least Nos. 2, 9.12-14 and 20 were sealed, the impressions in some cases very faint. For an example of 'he impressed his seal' in the earlier Larsa contracts see Riftin 1937: no. 59.

[80] Abusch 1981.

[81] See Green, ASE 4: 125-34.

Consumption

What is perfectly transparent is that the city-based administration was concerned to run agriculture and animal husbandry on an industrial scale, and the rich literature copied in the schools of later Babylonia, at Ur, Nippur, Isin and elsewhere, and reaching back to the scribes of Abu Salabikh and Fara more than 500 years earlier, is evidence that on this issue the population of south Mesopotamia was fully self aware, not to say self analytical. The value placed on sheep, goat and cattle husbandry is reflected in a number of the 'literary' Sumerian texts from the Old Babylonian corpus, as discussed in Limet 2014. The poem just quoted, *Sheep and Grain*, responds to their awareness of the rural infrastructure of their urban civilization. These were the two pillars of their life style and prosperity, and here they are pitted against each other in a way which, under the guise of a contest, underlines how essential they both are.

> 'They brought wealth to the assembly
> They brought sustenance to the Land. ....
> They filled the store-rooms of the Land with stock.
> The barns of the Land were heavy with them.
> When they entered the homes of the poor who crouch in the dust they brought wealth.
> Both of them, wherever they directed their steps, added to the riches of the household
> with their weight.' (Black et al. 2004: 227)

For the modern city dweller the prime value of sheep husbandry might be thought to be a supply of lamb chops or mutton stew for the table. Indeed, the poet does make Grain allude to this: 'Your big billy-goats and rams are dispatched for my banquets',[82] and we know that at Abu Salabikh the sheep at least contributed to the urban diet: large and small joints of mutton accompanied the innumerable conical bowls in most of the well-preserved burials.[83] Not the skulls, but what we might consider prime cuts. As one might expect, culinary recipes from Old Babylonian Larsa included beef and mutton[84] without mentioning goats or pigs, but while it can be difficult to tell goat from sheep bone, some of the Abu Salabikh burials did also include some pig bone. It is interesting that in the temple Ash Tip there is a higher proportion of bones from young (and no doubt succulent) sheep than in the 6H House 100 m away up the street.[85]

Nevertheless, there can be little doubt that the production of meat was a secondary consideration for the owners of flocks. The strength of Sheep's case in the contest with Grain rests predominantly on the textiles: we read that before the gods had created sheep (and goats) 'There was no cloth to wear; Uttu (the goddess of weaving) had not been born – no royal turban was worn', and 'The people of those days did not know about eating bread. They did not know about wearing clothes; they went about with naked limbs in the Land'.[86] Later on, Sheep boasts that 'The flounced (rug), my textile of white wool, makes the king joyful on his dais, my fleece swishes against the body of the great gods'.[87] So if we asked the temple at Abu Salabikh why it possessed nearly 14,000 sheep and goats, the short answer would surely have been 'for the wool'.

[82] Black et al. 2004: 228.
[83] as presented in ASE 2 and ASE 5.
[84] Bottéro 1995: no. 26.i.63 and iv.17.
[85] Greenfield in ASE 5: 365. For administrative texts listing animals – sheep and some goats – supplied to deities at Šuruppak see Steible and Yildiz 2008: 154-165. For an example of animals offered to temples in Ur III times see Postgate 1994d: 162.
[86] Black et al. 2004: 226.
[87] cf. Postgate 2018: 13.

Moreover, while the author/s of *Lahar and Ašnan* were in no doubt that the flocks and crops were the twin mainstays to keep the population of the Land in the manner to which they were accustomed, they did so in very different ways. Grain and its products do not keep for ever, fields don't reproduce, so year after year, without major feats of fresh hydraulic engineering, harvests can only have remained at a similar level. Despite Grain's victory in the debate, animal husbandry contributed in two very positive ways to an expanding economy. On the one hand under favourable conditions the annual increase in the flocks constituted predictable capital growth (so long as the grazing could be accessed), and on the other the annual shear supplied a regular income in the form of wool and its products which became the principal component in the Mesopotamian economy: unlike grain, flocks were a capital investment. While other lands may have had natural resources in the form of stone and metal, geology has only given south Mesopotamia inexhaustible supplies of mud. The wool (and to a lesser extent goat hair) from their flocks compensated for this dearth of raw commodities and played an essential role in enabling the import of a wide range of goods.[88]

[88] For the comparable situation in the late 4th millennium see in general Algaze 2001.

Chapter 7

Textiles, clay and stone

Crafts and craftsmen

In the myth of *Inana and Enki* we are given a long list of the '**me**', a difficult Sumerian term for which the closest English term is perhaps 'essence' but which here may be more conveniently rendered 'function'. The **me** are being transferred from Enki's domain at Eridu in the far south to Inana's city of Uruk. Among a wide variety of functions, including for example 'royalty', 'priesthood' but also such things as 'kissing', 'heroism' and 'ransacking cities', the poem has a section which lists 'carpentry, marquetry, scribal craft, leather working, laundry, building, and reed mat production'. This is hardly an exhaustive list – for instance there is no mention of textile production – but the abstract nouns (formed in Sumerian with the prefix **nam**-) referring to each craft serve to acknowledge that the different craftsmen have their specialist skills to contribute to the make up of society.[1] We do not of course know when this myth was first written down, let alone first composed, but a concern to recognize the significance of different professions is already apparent in the late 4th millennium when a lexical text sometimes called the *Standard Professions List* began a career which lasted into the 3rd millennium, with copies in the Abu Salabikh library and later still at Kiš and much further north at Gasur (Nuzi).[2] The earliest version (up to l. 66) was faithfully copied by the later scribes, but by ED III many of the entries are obscure to us, and probably obsolete, though one recognizes, for instance, the 'land registrar' (l. 28: sag.dùn = **sa$_{12}$-sug$_5$**), who is also attested in the ED I archaic texts from Ur.

A later list of professions called *Early Dynastic List E* is almost exclusively known from Abu Salabikh copies and has many more recognizable terms, including the stone-bowl worker (**bur-gul**) and the lapidary (**zadim**), who are not mentioned in the Inana poem but are well known in Early Dynastic texts. The editors write that 'it is quite likely that this text, ...was composed approximately in the Fara period ... for the signs used and the occupations listed ... are well-known in the Fara period or later'.[3] A much longer text of which several copies were identified in the temple library is known as the *Names and Professions List* since both professional terms and personal names feature, often interleaved with each other and with occasional place names. It must surely have been composed close in time to the other Abu Salabikh texts since some of all three types of entry – place names, personal names and professions – turn up in the administrative texts. To take one example, ll. 151ff. list a 'chief carpenter, a chief smith, and a chief leather-worker'. However, as Biggs noted 'it apparently originated earlier than the generation of scribes who copied the tablets. None of the scribes are included in the text itself, for it was already part of the local scribal repertory'.[4] That it may have been local to Abu Salabikh is plausible, since as noted by Biggs several of the personal names are Semitic, and the place-name BAR^{ki} (l. 65) is otherwise known from three of the administrative texts.[5]

[1] See Farber-Flügge 1973: 57-8 (ll. 65-72).
[2] MSL 12: 4-12.
[3] OIP 99 p. 82; edited MSL 12: 16-21.
[4] OIP 99: pp. 62-71.
[5] IAS 503 rev.viii.2; 510.ii.4 and rev.; 536.v.1.

Textiles and other fabrics

Wool and goat hair (also flax)

If as we have seen the temple must have disposed of large quantities of wool, we have to ask what it did with it. The simple answer is 'make cloth'. If cloth was to be woven threads had to be spun, whether from wool, goat hair or flax. There does not seem to be a profession known as a 'spinner', and the obvious presumption is that as still today in many parts of the world spinning was a regular daily activity of the individual household, traditionally by the female members. One of the commonest 'small finds' on any Near Eastern excavation is the spindle whorl: an often approximately hemispherical disc with a central perforation which slotted onto a wooden or metal rod to give it the rotation and tension for the thread being spun. While it is sometimes difficult to be sure of the exact purpose of such an item – e.g. some might rather be decorative beads – 'spindle whorl' tends to be the default assumption for the keeper of the artefacts catalogue. Barber gives the indicators in terms of the diameter of the whorl itself and of the central perforation, and points out (p. 52) that archaeological reports frequently fail to give the most critical dimension, viz the weight (and this is regrettably true for our earlier seasons at Abu Salabikh).[6] Items which resemble spindle whorls are not very common at the site, but of the eight registered examples three were weighed, and give a surprisingly wide range of 12.4 g, 21.1 g and 33.9 g. The sizes are however rather less diverse, ranging from a diameter of 3.0 to 4.9 cm (see Table 7.1).

In places like Cyprus, Anatolia and Central Asia spindle whorls were decorated with delicate impressed patterns, perhaps in part to identify ownership, but candidates for spindle whorl at Abu Salabikh are less distinctive. One clay whorl (No. 7 in the Table) does have a simple pattern, described as '6 rows of shallow incised dots radiating from the central perforation, each row with 5 dots' (Fig. 7.1).

None of our spindle whorls came from the temple Ash Tip, and the dispersed range of provenances fits well with a presumption that spinning was a household-based activity. The spindles themselves were no doubt predominantly of wood, which does not survive, but copper spindles complete with copper whorls were also used. Being of reusable metal, it is not surprising that these are not found scattered across the site like the stone and clay whorls, but one example accompanied a group of precious items at the south end of Grave 176 in the temple zone (6F05; Fig. 4.10, 4.10a). There two copper rods lay crossed on the grave floor, of a similar size to the copper dress pins found with them, but with blunt ends and each with a different kind of copper disc. These were identified by Barber from the photograph as a spindle and distaff:[7] the spindle (L. 20.3 cm; Fig. 7.2) has its convex copper whorl (di. 3.8 cm) fitted 1.4 cm down the shaft from the top end, while the distaff (L. 23.8 cm; Fig. 7.3) has a smaller disc (di. 2.4 cm) very close to the top, no doubt to hold the threads in place ready for spinning. The identification of the spindle (AbS 1994) is beyond doubt, since one can see 'preserved in the corrosion the traces of a fine cord wound round the shaft

Figure 7.1. Spindle whorl AbS 1319. Diam. 4.2 cm, H. 1.5 cm. The underside is flat and undecorated.

[6] Barber 1991: 51-2.
[7] Barber 1991: 57.

Table 7.1. Abu Salabikh 'spindle whorls'

	AbS	Material	Diam.	Diam. of perforation	Weight	Provenance
1	2142	dark grey stone	3.0-3.1	0.45		4J97 surface
2	2378	clay	3.4	0.9	12.4 g.	7G51 surface
3	1800	grey stone	3.5	0.35		6G44 pit
4	1195	green stone	3.65	0.45		6G54c Level III
5	2355	yellowish-white stone	3.7	0.7	21.1 g.	6H66 surface
6	1780	stone or clay	3.7	0.9		6G47 pit
7	1319	clay, dots	4.2	0.85		5I surface
8	2376	clay	4.9	0.8	33.9 g.	7G40 surface

Figure 7.2. Copper spindle AbS 1994. South end of Grave 176, found crossed with AbS 1995 (Fig. 7.3). L. 20.3 cm; Diam. of disc 3.8 cm. (See Fig. 4.10a.)

Figure 7.3. Copper distaff AbS 1995. Grave 176, crossed with the spindle (AbS 1994). L. 23.8 cm; Diam. of disc 2.4 cm. (See Fig. 4.10a.)

many times' (site registrar). A contemporary and very similar spindle with two distaffs, both with a squared-off end like the Abu Salabikh example, were found at Kiš in the A Cemetery and were already recognized as a spindle, and (with some hesitation) as distaffs.[8]

In literary compositions a spindle (**giš.bala**, Akkadian *pilaqqu(m)* or *pilakku(m)*; the whorl is the 'head' – **sag.du)** seems to be symbolic of femininity and was sometimes associated with Inana (Ištar), and later also with the child-birth demon Lamaštu. Immediately after a 'lapis lazuli spindle' the *Early Dynastic Practical Vocabulary A* lists a lapis lazuli item called **kirid** (Akkadian *kirissu(m)*), and in *Enki and the World Order,* when Enki is doling out the destinies, i.e. assigning functions, he tells Inana 'I clothed you in garments of women's power, I put women's speech in your mouth, I placed in your hands the spindle and the **kirid**'.[9] The **kirid** is generally taken to be an ornamental pin, but later the Sumerian word is regularly written with an initial **giš**, implying it is wooden, which would be improbable for a dress pin, and the likelihood is that this is the word for a distaff, which doubtless was usually wooden, accompanying a wooden spindle. It seems possible that the comb (**ga-rig$_2$**) was also associated with the spinning processes rather than for the ladies' coiffure; on Ur-Nammu's arrival in the netherworld we learn that he presented Namtar's wife Ḫušbisag with 'a silver **kirid** adorned with lapis lazuli (and) a comb of womanhood'.[10]

Weaving

Spun thread, whether wool or flax, has a variety of uses, including stitching, embroidery and knitting, but it is likely that its principal use in historical times was for weaving. Much has been written in recent years about textiles in the Near East, mainly about weaving, and there is copious evidence under the Ur III Dynasty for institutionalized textile production in the provinces of Lagaš and Ur, controlled by the city authorities in establishments with as many as 6,000 predominantly female workers.[11] It is more difficult to identify a weaving industry in the textual sources from earlier centuries, and the archaeological evidence is equally sparse. Broadly, looms are either vertical, using gravity and loom weights to tension the warp, or pegged out horizontally on the ground. Elsewhere in the Near Eastern Bronze Age clusters of baked clay loom weights are not infrequently excavated, but at Abu Salabikh we have not come across any such assemblages and the occasional perforated artefacts in clay or stone occur singly and are susceptible of other interpretations. There are baked clay discs with an asymmetrical perforation from the Ubaid levels of Tell el-Oueili next to Larsa, as also from Uruk, Eridu and Uqair, but unless and until a number of similar weights are found together as a group there are other explanations, like net sinkers, which may be equally plausible.[12] The 'weaver's shuttle' from the Plano-Convex Building at Kish remains unpublished.[13] However, scenes on cylinder seals in the Uruk period, though admittedly mostly from south-west Iran, clearly illustrate weaving in action and these were probably horizontal looms, not requiring weights. Wooden contraptions fixed in the ground do not survive well in ancient sites, and there are no certain examples from Early Dynastic Mesopotamia.[14]

If the physical evidence for weaving before the Ur III Dynasty is lacking, one has to consult the textual record, but moving back in time it proves equally hard to identify weaving workshops and workers.

[8] Mackay 1925: 168 with Pl. XL and LVIII.

[9] Civil 2008: 64 nos. 44 and 45; ETCSL, *Enki and the world order*, 432-434.

[10] adapted from ETCSL *Ur-Namma A*, 111-113. A lapis lazuli comb is listed in Civil 2008: 63 no. 42 (who writes 'a comb of womanhood'). In one of the richest tombs at Ur (PG/580) Woolley found a pair of silver spindles with lapis lazuli heads (Woolley 1934: 53 U. 9777; no dimensions or illustrations).

[11] Waetzoldt 1972 (Girsu); Jacobsen 1970: 216-29 (Ur).

[12] Lebeau 1983: 136, Pl. C.6.

[13] mentioned by Zaina 2015: 188.

[14] see Breniquet 2008: 164-6 for a tentative and not wholly convincing identification of a horizontal loom at the much earlier site of Tell Oueili.

Later, weavers were known in Akkadian as *išpāru(m)* and this word appears in 3rd millennium Sumerian texts as **uš-bar**. Yet even in the Ur III period it does not appear to refer widely, if ever, to a male profession, virtually all occurrences being either **geme$_2$ uš-bar** 'weaving slave girl' or as the designation of a garment. As the Chicago *Assyrian Dictionary* observed in 1960, 'in the Ur III and OB periods, the work of the *išparu* was either done at home and for domestic consumption, or in the workshops of temples and palaces, where the weavers were mostly women or slave girls organized under an overseer'.[15] Many of these were the spoils of war, as is clear from the **arua** texts recording personnel dedicated to temples, and from the inscription of Šu-Sin (the fourth king of the Ur III dynasty) relaying that after campaigning in the mountains to the east 'he presented the female workforce (**nam**-[**geme$_2$**]) of those towns which he had captured to the weaving-house of Enlil and Ninlil and the house of the great gods'.[16] The texts from Girsu and Ur are evidence that towards the end of the Ur III Dynasty there were large scale sweatshops producing textiles for the state, the workforce being mainly female slaves.[17]

Before this not even slave girls are recorded as weavers. Under the Akkade Dynasty this may be because we lack the documents, and according to I.J. Gelb an administrative list from above the Northern Palace at Ešnunna records '585 women and 105 men working in a weaving establishment'.[18] They may have been weavers, although the tablet does not use the term **uš-bar**, and at Pre-Sargonic Girsu this word only occurs describing 'woven cloaks' (**bar-dul$_5$ uš-bar**).[19] The mere fact that this word (whether it means 'weaver' or rather 'woven') is used suggests that not all garments were manufactured that way, and where textiles (in the widest sense) are mentioned, the default assumption should perhaps be that they are not woven. Nevertheless, at least some weaving was practised: while unlike Egypt actual fabrics do not survive in Mesopotamian conditions, they did sometimes leave impressions or white traces displaying a coarse weave, e.g. in Graves 16 and 112 (Fig. 7.4).[20] As mentioned above, scenes on early cylinder seals of the 4th and early 3rd millennium often patently show weaving in action, and there can be no doubt that woven cloth was being produced. Some of the actors are clearly women, and the combination of the textual and archaeological sources suggests that at this time too, to cite the Chicago *Assyrian Dictionary* again, the weaving may have been 'done at home and for domestic consumption'.

Figure 7.4. Woven cloth textile impression in Grave 182.

[15] CAD I/J: 256.
[16] Frayne 1997: 304.
[17] See Waetzoldt 1972; Oppenheim 1948: 14 on B3, 69 on G10.
[18] Gelb 1972: 3-4 citing MAD 1 No. 163, where in a list of grain ration issues to the personnel of a house (E_2) some of the women are summed up as *ša-at* TUG_2.NI (ii.28) or just TUG_2.NI (iv.5).
[19] Bauer 1972: no. 129 on i.4; 154.i.4, ii,6, v.7, vi.5 **bar**-TÚG-**uš-bar;**181.viii.1 **bar**-TÚG.
[20] Photos in *Iraq* 40: Pl.XIIIa and Postgate 1980a: Fig. 6 and Fig. 8.

The felter

Woven or not, textiles (sensu lato) were an important component of the material culture: at ED IIIa Šuruppak amounts of 'cloth' (**tug$_2$**) and 'linen' (**gada**) were issued to highly placed recipients along with lapis lazuli,[21] and in the contemporary field and house sale documents from there the 'supernumerary payments' (**nig$_2$-diri**) regularly included an entry of some minas of wool, followed by the single sign **tug$_2$** 'cloth(ing)'. In his edition of these documents Edzard deduces that this must mean wool already processed into cloth,[22] and this may be the case for the Š742 text. In neither case can we be sure if it was or was not a woven textile. However, in some of the sale documents this is followed by a (single) garment written with the signs TUG$_2$ ME GAL$_2$. This combination is not found in later centuries, but it must be fair to deduce that it was a valued commodity, worn on formal occasions. It is reasonable therefore to compare contemporary representations on cylinder seals or in statuary. These regularly show men in skirts and men and women, including rulers, in full-length fleecy dresses. This costume continues to be shown till the end of Early Dynastic period and on Sargon's stele, but his son Maništušu is clearly wearing a woven cloak with the characteristic tassels (Fig. 7.5). Likewise, on Ur III cylinder seals gods are shown wearing flounced robes whereas their worshippers are in a plain cloth dress with fringes, hence surely woven (Fig. 7.6). This may well have been the 'woven robe' (**bar-dul$_5$ uš-bar**) listed in Girsu texts (above). Ceremonial dress changes more slowly than everyday fashion, and although the ED IIIa item written TUG$_2$.ME.GAL$_2$ disappears from administrative and legal documents, a garment written simply TUG$_2$.ME (to be read /tuba/) is listed in the lexical tradition, and surfaces in the literary corpus after the Ur III Dynasty. There it is the dress of Inana, and some other deities, and also occasionally of a king. The ceremonial context is very clear in this excerpt from a hymn to Ur-Ninurta of Isin: 'As you take your seat upon the royal dais with its firm foundations, may you hold your head high, Ur-Ninurta. May the good crown be your glory. Inspiring fear and trembling, O lion of kingship, may you wear the royal robe (**tug$_2$-ME(=ba$_{13}$)-še$_3$ ḫe$_2$-em-mur$_{10}$**)'.[23]

Figure 7.5. Statue of Maništušu, showing robe with tasselled fringe
© RMN-Grand Palais (Musée du Louvre) / Mathieu Rabeau

[21] Steible and Yıldız 2000 (Š742).
[22] 'schon zu Stoff verarbeitete Wolle' (Edzard 1968: 19).
[23] ETCSL Ur-Ninurta A: 39.

*Figure 7.6. Ur III seal of Ur-Nusku, merchant (**tam$_2$-kar$_2$**), in long fringed robe, being introduced to the enthroned deity by his personal goddess, who both wear the traditional flounced robe. (Porada 1948 No. 277).*

So the kings on ceremonial occasions, and the gods consistently, had retained their traditional attire which can hardly have been woven.[24]

Table 7.2. IAS 490

	guruš	**ugula**	cohort size		
1-3	160	27	~6	**nagar**[25]	carpenters
4-6	142	14	~10	**šidim**	builders
7-9	40	5	8	**simug**	smiths
10-12	26	5	~5	**bur-gul**	stone-workers
13-15	13	4	~3	**tug$_2$-du$_8$**	felt-workers
Total	382	55			

If woven clothing was not the norm in the Early Dynastic it helps to explain why weavers are equally not in evidence before the Ur III period. There is though one class of textile workers who do make an appearance, and they are the **tug$_2$.du$_8$**. In lexical lists they are listed before the washermen (**azlag**) and the reed-mat workers (**ad.KID**)[26] and at Šuruppak they worked in teams, as we have an overseer (**ugula tug$_2$-du$_8$**) associated with 3.0.1 bur of field.[27] The same picture emerges from one of the Abu Salabikh administrative texts, IAS 490. Its well organized contents are tabulated here, recording the numbers of five categories of productive craftsmen and their overseers, to a total of 382 (though the individual entries in fact only add up to 381).[28]

There does not seem to be any reason to doubt that this list, for whatever purpose, was recording the existence, or the expected existence, of these specialist craftsmen, grouped into work units of 3 to 10 men, under overseers appointed by some higher authority. Its mere existence presupposes that some person, on behalf of some institution, had both access to the data here presented and the authority to

[24] The rare occurrences at this date relate to kings: Šulgi, e.g. Sjoberg 1961: 65 (TLB II 2.i.9-10 ^{túg}**ma$_6$**(=ME)), Ur-Ninurta (Falkenstein 1950: 108 l. 37); the garment is compared to 'the awesomeness of kingship' in l. 52 of the Samsu-iluna hymn edited by Falkenstein, who makes the comparison with the robe worn by rulers in the iconography (1949: 225).

[25] A carpenter (**nagar**) is listed as a prebend holder in the field allocation text IAS 553 (see Appendix 3) immediately after a leather-worker (**ašgab**), one craft profession not listed in IAS 490.

[26] MSL 12: 17, 32-34.

[27] Pomponio and Visicato 1994: no. 96 (WF 46).

[28] See Biggs 1966a: 85-7 (AbS T 80).

collect and commit them to clay. The tablet itself was found on its own in the Area E temple zone, but just outside the western courtyard unit to the south-west ('Room 23' in 6G61), and at present we have no information about the architectural layout there, so it is impossible to know if we should consider it strictly part of the temple precinct, and it would be fruitless to speculate as to the precise identity of the institution and its managerial staff. Nevertheless, it i London (Any) s clear evidence that there were four cohorts of the craftsmen designated as **tug$_2$-du$_8$** and monitored, if not actually directly controlled, by a central agency.

The translation 'felt-worker' follows the study of Steinkeller (1980), foreshadowed by Oppenheim, and the predominantly Ur III evidence presented there leaves little doubt that the processing of wool into felt artefacts was one of his roles. A version of the Sumerian term (LU$_2$.TUG$_2$.DU$_8$.DU$_8$) is glossed *ka-me-du* in a late lexical list,[29] and that the *kāmidum* handled felt is fully supported by the Old Babylonian letter cited under his entry in CAD K: 121, which mentions a *šugurrum* measuring 1 nindan in length by ½ nindan and 1 cubit in width (6 x 3.5 m), dimensions which would have been out of the reach of loom-woven textiles. Even larger was an Ur III felt item measuring 18 x 5 metres.[30] The Sumerian etymology of *šugurrum* would support the suggested meaning 'roll',[31] and this was probably not a finished product, but the interim form in which felt was manipulated. A roll is the obvious convenient way of handling large flat items like carpets, and recent ethnographic accounts of traditional felt manufacture regularly describe a stage at which the large sheets are rolled up ('The layer of loose wool is then tightly rolled up with the blanket and the resultant bundle worked, that is, fulled or milled, by rolling it forward and backward').[32] At Nuzi in the 14th century a felt artefact could be 10 cubits (~5 m) long and 5 cubits (~2.5 m) wide.[33] In Assyria around 1300-1200 BC the felt-worker was called *sāpi'u* and his felt *tahapšu* and it was stored on 'poles' (PA), which could have been a convenient way to handle heavy rolls.[34] The texts make it clear that the felt-maker's output included boots, shoes and hats, and it seems likely that felt was also used for floor and probably also wall-coverings, and for rugs and similar products needed for transport on land or water. Sheep wool was probably the principal raw material, but the **tug$_2$.du$_8$** 'seems also to have produced ropes and belts from goat hair'.[35]

In all probability, it was the **tug$_2$ du$_8$** who also manufactured the unwoven formal clothing items, e.g. fleeces, discussed above, while linen (from flax) must have been woven and was perhaps the preserve of smaller scale domestic weaving enterprises.

Pots and potters

With their animal husbandry the citizens were generating a regular annual supply of raw material, and the other ever-present raw material was the alluvium's inexhaustible supplies of mud (see p. 31). Apart from its varied architectural uses, it also provided the scribes' tablets and a wide range of containers in the shape of pottery. Potsherds occupy a disproportionate amount of archaeologists' time: they survive well, while the ceramic traditions were constantly evolving and hence constitute a bench mark for the passage of time, so that chronological charts are very often constructed round the pottery wares. Potters, like weavers, are not listed in IAS 490, and the reason for this may well be that individual households undertook their own production. Between Area A and Area E, on the east side of the Main Mound, in

[29] MSL 12: 234.ii, A 14 directly before LÚ.MUG glossed *se-pu-u*, who is also a felt-worker.

[30] **1 tug$_2$ du$_8$-a ur$_3$-ra SU.A** 3 nindan long and 0.5 nindan + 4 cubits wide MVN 1: 226. ii.21-23 (Steinkeller 1980: 95; see p. 100 for the size, and note the variety of products mentioned in the text).

[31] for this meaning see Civil 1987: 41-3,

[32] Sustmann 1958: 24; cf. Wulff 1966: 224.

[33] Cancik-Kirschbaum 1999 : 86 citing Müller.

[34] Postgate 2013: 164[26]; Jakob 2003: 434-5 'Rollen'.

[35] Steinkeller 1980: 93 with additional evidence on pp. 94-6.

Figure 7.7. Late ED I pit kiln FI 81/15 cross-sectioned, showing vitrified walls. Internal dimensions 1.60 x 1.90 m. Location: Iraq *44:124 Fig. 7 NW corner of 5I47.*

the lower-lying stretches of square 5I (5I78-98, 5I45-55) surface clearance and subsequent excavation exposed houses from the centuries preceding the main ED III remains preserved to north and south. The rooms and houses here were smaller than the 5G and 6H Houses. In two places there was what one might call a simple 'pit kiln',[36] instantly recognizable by the powdery white ash, mixed with over-fired fragments of brick and pottery.[37] FI 81/15 comprised an oval basin measuring 2.00 x 1.70 m, lined with clay and brick which had been vitrified by the heat, with layers of black ash beneath yellow and white clinker and ashes to a depth of 50 cm (Fig. 7.7). This all suggested a kiln, and most telling were occasional pieces of unbaked clay in the unmistakable shape of a 'solid-footed goblet', the type fossil of ED I (ASE 3: nos. 97-107). Analysis of the lighter coloured deposits in the British Museum Research Laboratory showed that they 'contained calcium carbonate as aragonite, as well as gehlenite, diopside and glassy spherules. These suggest that the operating temperature of the kiln was at least 850-1050° C.'.[38] The two 5I kilns are located next to the inner face of the city wall, either in or adjacent to houses, and they indicate that before ED III pottery production might take place within a regular housing quarter. Similar but earlier pit kilns from the first phases of the ED I period were found at the surface of the West Mound, where one gave a comparable result of 850-1050° C from the vitrified lining and ash.[39] In Area E, dating to ED II, in an open area preceding the construction of the Southern Unit (6G54), there were 'deposits, which evidently consist of kiln waste, with thick white ashy layers and burnt rubbly material including

[36] FI81/20 in 5I36, FI81/15 in 5I47.
[37] *Iraq* 44: 123-127; *Iraq* 46: 100-104.
[38] Tite et al. 1995: 49.
[39] FI 81/25; *Iraq* 44: 105; Tite et al. 1995: 49.

many pieces of highly-fired clinker'.[40]

Figure 7.8. North end of Main Mound looking north in 1988, with potter's house (square 4I00) in foreground. Grave 249 shaft bottom right. (Cf. Iraq *52 Pl. XVIIb)*

*Figure 7.9. Stratified clinker and ash rich kiln debris cut through by shaft of Grave 249 (in foreground), and (in background) lying on floor sealing grave. (*Iraq *52 Pl. XVIIa)*

Neither this simple type of kiln, nor concentrations of kiln debris are usual in the later ED III houses on the Main Mound, and this is no doubt because pottery production had moved elsewhere. As Siriol Streeten (née Mynors) concluded in the light of her neutron activation and petrographic analyses, the presence of two ED I kilns in the 5I housing quarter 'argues for production of pottery in residential areas. The advent of a standardised technology evident in ED II and ED III fabrics implies a change in organization'. She concludes 'pottery produced in bulk would necessitate an industrial area devoted to potters workshops and perhaps with large permanent kilns'.[41] Two years after this was written we began the investigation of a suspiciously black area at the north end of the city, on the slope some 50 m north of the substantial building(s) in Area A (Fig. 7.8). Both the soil colour and a number of fire installations exposed by surface clearance (in squares 3J89+99, 4J80+90 and 4I00) led us to suspect an industrial area, and in 1988-89 excavation of part of a house in 4I00 conclusively confirmed our suspicions.[42] Here both the courtyard and the adjacent room of a partial house plan had been refloored more than once and the unusually dark packing between the floors contained not only frequent clinker but also some unfired potting clay and over 20 clay sealings (Figs.7:9-10). The most telling item was resting on one of the earlier floors in the room south-east of the courtyard, half a ceramic disc 66 cm in diameter and 4.2 cm thick (Fig.7.11). The associated evidence for

[40] *Iraq* 39: 281.
[41] Mynors 1986: 125.
[42] Potter's house: 4I00 *Iraq* 52: 103-4 plan Fig. 5.

ceramic production instantly suggested that this was a piece of potter's equipment, though not of course a rotating wheel. Similar examples are known from Adab and (probably earlier) at Khafajah and Tell Gubba on the Diyala, while parallels in Minoan Crete confirm the association with pottery production.[43] The disc would have served as a fixed platform on which a wooden wheel could rotate, its vertical axle in the central socket encircled by concentric grooves, while the spaced perforations would have allowed the water to escape downwards.

When the floor level was raised about 10 cm the disc itself was left in place beneath the black ashy packing. In the overlying floors we saw a slightly sunken rectangular outline, and this was explained by the subsidence of a vertical shaft cutting through the south-west side of the disc, over which the floors had been laid. The shaft was required to lay an occupant of the house to rest (Fig. 7.12): on the floor of the grave (Grave 249), 1.2 m down,[44] the skeleton lay in the usual flexed position between and partly on top of nine conical bowls, with a spouted jar towards the end of the grave, and a single animal bone (4I00:155) apparently held before the face in the fingers of the left(?) hand.[45] There was no sign of any elaborate textile or reed wrapping and the bones were poorly preserved but belonged to an adult; neither the skull nor the pelvis enabled the sex to be determined, so our use of 'he' is no more than a presumption.

Whether or not this was in his day the leader of the workshop, there seems little doubt that the building was dedicated to pottery production over a period of time. That it was a specialist enterprise seems to be guaranteed by the frequency of clay sealings discarded and incorporated in the industrial waste used to raise the successive floor levels. At least 5 of these had the clear impression of a door sealing on the reverse.[46] Unfortunately the conical bowls (4I00:146-153 and 157) and the spouted jar (4I00:154) were set aside at the end of the 1989 season for cataloguing in the next field season, but this never took place and

Figure 7.10a-c. Three sealings from the clinker layers shown in Fig. 7.9. Top to bottom: AbS 2858, AbS 2847, AbS 2849.

[43] See *Iraq* 52: 103-4.

[44] Highest point +7.27 lowest +6.07.

[45] This bone was drawn as about 7 cm in length, but has unfortunately not survived the ransacking of the excavation house, so there is no way to look for wear traces which might tell us if this was a tool for burnishing or a similar activity.

[46] R. Matthews ASE 4: 41.

Figure 7.11a. Ceramic disc in situ on floor (bisected by shaft of Grave 249).

Figure 7.11b. Ceramic disc 4I00:9. Note central hole and small perforations to drain excess water. Diam. 66 cm; Th. 4.2 cm.

Figure 7.12. Grave 249 inhumation beneath floor of Room 90 of potter's house. (Iraq *52: Pl. XIVd.)*

they have not been retrieved. To judge from the spout and shoulder of the spouted jar as visible in the photograph, it is very similar to the jars from Grave 244 in the 6H House, at the beginning of ED IIIa (see ASE 5: 9). This is undoubtedly later than the 5I housing quarter associated with the pit kilns, and it suggests that along with an increased standardization of production, as suggested by Mynors on the basis of the petrography, ceramic manufacture had migrated from individual households to a more concentrated industrial zone and to professional artisans – not included with other craftsmen in the IAS 490 list, but no doubt called 'potters' (**bahar**$_2$). This would explain why they had need of storage space secured by the door sealings, and the stylistic repertoire of the seals impressed on them agrees with a dating around the transition from ED II to ED III.[47] Our potter was surely not alone, because the area of dark black deposits with occasional remains of fire installations not yet investigated extends across the surface well beyond the confines of a single house. Later ED III occupation has been lost here to erosion: it seems probable that this northern end of the city remained an industrial zone, but in 1985 a two-storey pottery kiln of ED III type, and associated with ED III pottery, was accidentally exposed by a mechanical shovel some 200 m outside the city wall to the NE, in square 4L.[48]

[47] Harriet Martin, pers. comm.

[48] FI 85/13: *Iraq* 49: 102; Tite et al. 1995: 49-50. Compare the later 'quartier des fours' at Larsa, Huot 1989: 51.

Stones

Stones and stone workers

Figure 7.13. Pattern of sample specimens in SW corner of Grave 1, including black and white pebbles, a flint blade, one small and two larger cockle shells. See Fig. 4.2b inset. (ASE 2: 26 (Fig. 8), 36-7 nos. 203-217 (AbS 1039); Pl. IIId)

Living in the alluvium, Mesopotamians had to import stones of all kinds, and this concentrated their minds on their varied nature. The first 100 lines of the *Early Dynastic Practical Vocabulary A* (known from Abu Salabikh and Ebla) are devoted to stone, initially to lapis lazuli and then to miscellaneous other stones and items made from them. Half a millennium later one of the longest Sumerian myths, called *Lugal-e* for short, revolves around a contest between Ninurta, the patron deity of the city of Nippur, and a malevolent force called **asag**, whose combat troops are stones. Once they have been defeated Ninurta exercises the victor's power, or maybe even right, to decide their fate, and this depends on the nature of each different type of stone. 'Evil' stones are condemned to suffer: flint to be struck, emery to be ground, while 'virtuous' stones have a gentler fate: most notably diorite,[49] which is privileged to be fashioned into statues of a ruler, and here the poet is almost certainly harking back to Gudea, ensi of Lagaš, the numerous statues of whom are found in several modern museums, especially the Louvre. It was certainly valued: on the side of *Statue B* we read that the statue is 'neither of silver, nor lapis lazuli, nor copper, nor tin, nor bronze: It is diorite!'. Other virtuous stones are haematite which serves the cause of justice by providing accurate weights and finely carved cylinder seals, or decorative stones like red carnelian and blue lapis lazuli. In all, *Lugal-e* gives us 19 categories of stone each with their essential nature and purpose, and two categories of semi-precious decorative stones including numerous individual types. Awareness of the different properties was of course much older than the poem, which must have originated in the Neo-Sumerian or Old Babylonian period, and occasionally we can see that stones have been valued for their intrinsic nature rather than their use: in the corner of Grave 1 at Abu Salabikh there was a neat and clearly somehow symbolic arrangement of small items including cockle shells, a flint blade and pebbles of different colours, including one pure white and another black (Fig. 7.13). Similar concepts may lie behind some foundation deposits beneath Early Dynastic buildings, which seem to involve sample substances, in particular at Mari and Khafajah.[50]

As one excavates, some of the main uses of the different stones rapidly become evident. The need for large or medium sized boulders to take the weight of temple doors has already been mentioned, as have the sandstone slabs most often found in graves (p. 35). These were naturally selected for their properties, but would have remained largely unworked, as are some of the medium-sized river pebbles which show traces of use. Most stone we recover in the excavation has required the attention of one

[49] 'diorite' is the conventional Assyriological rendering of NA_4.ESI (lit. 'hard stone'). On the nomenclature and possible provenances see e.g. Heimpel 1987: 69-70 and the comments of Yule and Guba 2001.

[50] Described in Ellis 1967: e.g. at Mari 'uninscribed rectangular tablets of lapis lazuli and white stone' (p. 47, Early Dynastic) and 'numerous small objects of many sorts – shells, bits of lapis lazuli' etc. (p. 59, Ur III); and at Khafajah 'small rectangular pieces of gold, copper, lapis lazuli, and slate' (p. 132, Early Dynastic III 'collections of materials rather than objects' p. 132, Early Dynastic III).

Table 7.3. Stone cubes

	AbS	Material	Dimensions	Weight	Provenance
1	2203	coarse grey/white, granite-like	3.7 x 4.0 x 4.5	122.25	5I98 pit
2	2148	granite w. white, black & yellow streaks	4.0 x 4.0 x 4.1	193.2	5H19 surface
3	2546	marbly white	4.9 x 5.1 x 6.2	238.3	4G56 surface
4	2548	coarse whitish w. dark patches of cortex	5.15 x 5.25 x 5.3	248.8	4G59, Gr 240
5	2558	whitish chert	5.4 x 5.8 x 6.2	336.5	4I02 surface
	6GS:31	grey stone	3.0 x 3.1 x3.2		6G04 surface
6	2149	fine greyish w. dark specks	3.4 x 3.5 x 3.5		5H19 surface
7	2205	grey granite	3.5 x 3.6 x 3.7		6G04 surface
8	2204	white stone, quartzite(?)	4.0 x 4.2 x [x]		6G13 surface
9	5IS:312	red stone	5.0 x 4.8 x 3.4[+]		5I 00 surface
10	6GS:136	grey/brown stone	4.1-4.5 x 3.8 x3.8		6G surface

or another class of craftsman to reach their desired shape, such as a number of stone cubes from the Main Mound whose similarity suggests that they had a specific function (Table 7.3). It is impossible to know what their purpose was, though in due course wear analysis might furnish some answers. One possibility is the stone which is mentioned in the *Epic of Gilgamesh* as the characteristic tool of the reed-mat maker summoned for the construction of Ut-napištim's boat, and is already listed in the *Early Dynastic Practical Vocabulary A*.[51] This was no doubt needed to flatten the stiff stems of reeds (most likely *Phragmites*) a process more recently carried out by women folk with a wooden mallet, as observed in the southern marshes by Wilfred Thesiger.[52]

Stone bowls

In the *Early Dynastic Practical Vocabulary A*, ll. 67-90 are devoted to stone bowls, for which the generic term in Sumerian is **bur**. They were the product of the **bur-gul** (Akkadian *burgullu(m)*), which etymologically means 'bowl basher'. He features in the *Names and Professions List*, and in the 24th line of the *Early Dynastic List of Professions*, followed by the 'lapidary' (**zadim**),[53] and he remained a member of the industrial workforce throughout Mesopotamian history. In IAS 490 26 stone-workers are organized into 5 cohorts (see p. 119 above). Making a stone bowl was surely laborious. One stage in the process made use of a roughly hemispherical stone, with a notch each side to secure a split wooden vice, which was then rotated, perhaps using a bow drill or centrifugal weights to speed up the process.[54] An example with the expected concentric wear marks on its convex face was found on the surface of the South Mound (Fig. 7.14). These must have served to grind out the interior of the eventual bowl perhaps using emery, but a great deal of further chipping and polishing was undoubtedly needed.

Stone bowls were special: a ritual procedure which symbolized political hegemony over a city entailed the ruler making an offering in a stone bowl to the patron deity of the city. This is attested at Adab, and at Nippur, and the earliest example is probably at Khafajah, where a stone bowl with the name of (En)mebaragesi, the father of Akka, must have come from a temple (see in more detail Chapter

[51] Civil 2008: 78: **na$_4$ ad**-KID. For similar examples from Fara, Nippur and Tello see Rahmstorf in Chambon and Otto 2023, 30 with Plate 9.

[52] 1964: 92-3 with Photos 29-30; cf. Postgate 1980c: 102[9]; Ochsenschlager 2004: 139.

[53] OIP 99: 67 l.179; MSL 12: 17.

[54] as described and illustrated in Moorey 1994: 56-7.6.

Figure 7.14. Quartzite(?) borer for stone bowl manufacture (AbS 2551). Note concentric scoring on sides. Max. diam. 8.3 cm; Diam. of base 3.4 cm. From 6D44 surface (South Mound).

10.1). It is easy today to appreciate the attractiveness of a stone bowl when compared to the average pottery vessel, and the greater ease of cleaning the stone by comparison with more absorbent ceramic surfaces gives them a functional value as well, which partly explains why the word **bur** explicitly refers to a stone, not a ceramic, bowl. Much later, in Palestine, Jewish rituals specified the use of stone bowls in the cult, and it is likely that this was a regular practice in Mesopotamian temples too.[55]

Not that they were reserved for divine meals, as these qualities were also appreciated by humans, and stone bowl sherds are present all across the mound's surface. In Grave 1 the one stone vessel (apart from the mortar) was the elegant carinated marble bowl immediately in front of the face (Fig. 7.15).[56] Other stone bowls in the graves are mostly no longer in position, and not very common, but the frequency of stone bowl sherds in Graves 223a and 223b in the 6H House may be taken as evidence that their occupants had been richly provided for initially. A stone bowl was similarly placed

Figure 7.15. Stone bowl from Grave 1. AbS 705 (ASE 2 Pl. XXVIIIa). Diam. of rim 15.2 cm.

[55] Postgate 1997: 210.

[56] Visible on the right in Fig. 4.2, and just right of centre, second row from the front in Fig. 4.3.

immediately in front of the face in an Early Dynastic burial at Kish.[57] From two graves in the 6H House we recovered a stone stemmed dish,[58] and it seems likely that these had the same relationship to the more frequent ceramic stemmed dishes as stone bowls had to the ubiquitous conical bowls.

Mortars

A special kind of stone bowl was the mortar. One was placed in the Grave 1 burial, together with its pestle, and one of two which remained in the much robbed Grave 223 in the 6H House also still had its pestle with it.[59] These were the same size, 12.4 or 12.5 cm in height.[60] A larger example from Grave 223b (No. 91) was taller (18.0 cm), and so resembles an inscribed 'diorite' mortar from Girsu identifying itself as a 'bowl for crushing garlic' (**bur sum gaz**: Frayne 2008: 175), which is 19.5 cm high, and was dedicated to Ningirsu by Enanatum I. On a different scale must have been the black diorite mortar illustrated in Cooper 1984: Plate IV, with a surviving height of 35 cm and the internal diameter of the bowl given as 39 cm. It is described as the 'tall mortar of (the goddess) Nanše' and was probably dedicated to her temple. The Sumerian word /naǧa/ (written KUM) can be safely translated 'mortar', whereas the garlic mortar mentioned above was simply called a 'stone bowl' (**bur**), reflecting the difference between a culinary crushing vessel and a mortar for pounding, a distinction explained with great clarity in Moritz 1958: 22-3, with the relevant Greek and Latin terminology. Unfortunately the inscription of Eanatum (Frayne 2008: 160-1) does not reveal which substances were pounded in the mortar, but from its size it is likely that it was used for the dehusking of some grains, predominantly emmer, with wooden mallets: given that stone mortars of this size would have been hard to move (despite the fact that this one was found in an old house in London!), we have noted no stones of the requisite size at Abu Salabikh and nothing comparable has been reported from other contemporary sites, it is likely that more often wooden mortars would have served the same purpose. That they must have existed is virtually certain, because unlike barley and free-threshing wheat, emmer (*Triticum dicoccum*) has to be dehusked and to this day the process is carried out, usually outdoors, with long-handled wooden mallets in a cylindrical mortar, often of wood.[61] IAS 550 mentions at least 1 gur (~240 l.) of emmer and IAS 512 a much larger amount.[62] Dehusking the emmer in a mortar must have been a regular domestic task and where there were slaves or servants this would certainly have been included in their duties. When in later centuries slaves, male or female, were sold, a standard legal clause entered on the sale document recorded the symbolic act of being made to 'step over the pestle', which suggests that the pounding of emmer in a mortar with a wooden pestle may have been perceived as distinctive of the work of a slave. It was certainly a household activity, since a large accumulation of emmer husks was recovered from the lane just south of the 6H House (see p. 104).[63]

In later lexical texts mortars are listed for grain, sesame and dates; the 'stone mortar' (*ša abni* Thureau-Dangin 1910: 89.10) and perhaps the 'bitumen mortar',[64] are more likely describing their material rather than their contents. In later Akkadian texts the *esittu(m)* was used for crushing ingredients in

[57] Y494,Watelin 1934: 20-21.

[58] also called 'fruit stand'; ASE 5: Grave 234 No. 104 and Grave 244 No. 19.

[59] A very similar pestle and mortar are shown with pottery including a washing set in the Kiš Plano-Convex Building, Grave 1 (Langdon 1924: Pl. XV.2; Zaina 2015: 179 Fig. 2). No dimensions are published but the approximate size is evident by comparison with the other vessels.

[60] ASE 5: Grave 223a:8-9.

[61] cf. Hillman 1984: 129-131.

[62] Alongside the more frequent **še** 'grain' or specifically 'barley', emmer (**ziz$_2$**) is mentioned in IAS 492; 494; 495; 512; 550.

[63] From the Old Babylonian palace at Mari a large mortar (62 x 30 x 11 cm) was found in Room 145 (Parrot 1958: 248), and a selection of stone (perhaps basalt and/or diorite) vessels, circular and oblong, with and without feet, some of which may have served as mortars, is illustrated in Parrot 1959: Pl. XXXII.1796.

[64] *ša kuprim* Bottéro 1957: no. 263.iv.6'.

pharmaceutical and culinary recipes.[65] The lexical entries for 'mortar' list GIŠ.GAZ = *esittu(m)* with the wood determinative implying that wooden ones may have been more common: they naturally do not survive in the ground; one must imagine that the weight and strength of the solid stone examples which have survived would have been better able to resist the pestle, and that they would have been more valuable.

Grindstones

Wheat and barley can of course be, and were, eaten as whole grains – or made into beer – but what is certain is that for bread – as well as many other menu items – flour was required and stone was needed. The usual equipment consisted of a slab of volcanic tufa, black or dark grey with small cavities which leads to them being referred to as vesicular basalt, with a rubber of close grained metamorphic stone, which was called in Akkadian the 'rider' (*narkabum*). No completely intact example has yet been found at Abu Salabikh: there are plenty of small or medium-sized fragments, some at least coming from stones with a flat or slightly concave upper and convex underside, but broken pieces turn up frequently in ash tips and other deposits, and the micromorphological cross-sections through domestic rooms show up minute fragments which have evaded the domestic cleaners.[66] It is understandable that they would only have been discarded once broken, and significantly they are not found among the grave goods, unlike stone bowls, mortars and sandstone slabs. Yet it seems probable any household would have had at least one grindstone with its rubber, and in the royal palace at Tell Mardikh an entire room was uncovered with the stones set into benches round the room[67]. The daily grind was no doubt regular drudgery for one or more members of a household, alongside the dehusking with pestle and mortar required by the emmer wheat.

Even if grindstones were not considered suitable among the grave goods, they were still valued. Two long lists of items dedicated to temples at Umma in the Ur III period, which mostly comprised humans and domestic animals, also included a few grindstones, some with their upper stone or rubber, some without.[68] Later still, at Nippur in the Old Babylonian period, when paternal estates had to be divided between the heirs, grindstones are often mentioned. Like doors (see p. 50) they seem to have been treated as essential, if movable, components of the house. Care is taken to specify whether they include the rubber,[69] and the material is also specified: often with an enigmatic term written *zi-bi*,[70] but also with the name of the land Simurrum (in the east Tigris region), or as **adbar**,[71] which we know from Assyrian texts can be basalt. There is also a type of grindstone with the designation **bahar**$_2$ 'potter'. This has been interpreted as a stone used for grinding up potsherds,[72] but a more likely explanation comes from the Old Babylonian city of Maškan-šapir, only some 22 km to the north-east of Abu Salabikh, where the excavators discovered 'grindstones' made from highly fired clay replicating the properties of volcanic grinders, which they describe as 'synthetic basalt grinders'.[73] The correct translation is

[65] Bottéro 1995: 96-7. For further references see CAD E: 337, but note that the translation should read 'mortar', not 'pestle', as pointed out by Civil 2008: 141 fn. 378.

[66] The largest surviving fragment we recorded (5HS:748), from the surface of 5H56, was rectangular with rounded corners, with a gently concave upper and convex lower surface, 44 x 24.5 cm. For the minute fragments in the thin-sections see W. Matthews ASE 5: 409 7.3.3.5.

[67] photo in Postgate 1994d: 238.

[68] Gelb 1972: 24 B.21-2: 3 NA$_4$.HAR **šu-se$_3$-ga** 2 NA$_4$.HAR **šu nu-tuku**; cf. NA$_4$.HAR **šu nu-tuku šu-gi$_4$** ('no hand, old') cited Stol 1979: 91 (UET 3 272.iv.38-9) ; in Pre-Sargonic **šu-šu-se$_3$-ga** Civil 2008: 76.

[69] For this meaning of **šu-se$_3$/si-ga** see Civil 1976: 94; MSL 10: 23; Civil 2008: 77.

[70] For the unexplained *zi-bi*, which appears to be the 'normal' lower stone, see Civil 2008: 77 (though a connection with *ze'pu* seems unlikely).

[71] For some early spellings see Civil 2008: 77[170].

[72] e.g. by Prang 1976: 19-20.

[73] Stone and Zimansky 2004: 46 and 362; Stone et al. 1998; cf. Civil 2008: 138 on 347.

probably therefore 'ceramic grindstone', and this may also explain why this type is only worth ¼ of a shekel of silver,[74] whereas the three *zi-bi* stones in the same property division are valued at 3, 3 ⅔ and 5 ¼ shekels respectively.[75]

There are no such synthetic grinders at Abu Salabikh, some 9-7 centuries earlier, and no shortage of the volcanic originals. As to where the grindstones came from, at present we can only speculate, although petrography would surely give results. The most obvious source is from the low volcanic cones in the region between the Jebel Sinjar and the river Habur. Much earlier, in an Ubaid period house, the Soviet expedition to Yarim Tepe southeast of the Sinjar found a room packed with grindstones, suggesting that they were already being traded, and it has been suggested that Sinjar was indeed the, or at least a, source in the early 2nd millennium.[76] There does not appear to be any more recent evidence for Jebel Sinjar being used as a quarry for grindstones, and lexical texts suggest that Simurrum and Hašimur, both east of the Tigris, were other sources. The most detailed evidence comes from Mari in the 18th century BC, where customs officials taxing the cargo of boats passing down the Euphrates collected duty of 6 ⅔ shekels of silver on a load of 200 grindstones (NA_4.HAR.HI.A Burke 1964: no. 82). On another occasion the boatman had no money and had to sacrifice 6 of his 56 grindstones to meet the customs dues (Burke 1964: no. 90). This could be taken as attesting a river-borne route down the Habur, joining the Euphrates upstream from Terqa, or simply from further up the Euphrates itself, at Halebiyeh, where the river cuts through a basalt flow.[77]

Flint and obsidian

Even more frequent than fragments of grindstone in the occupation debris are flints (and cherts). Also present are occasional obsidian tools, and it is not clear whether the Sumerian and Akkadian terminology differentiates them from flint. After Ninurta has defeated the Stones, flint (**gir_2-zu_2-gal**, Akk. *ṣurru*) is cursed and condemned to 'be rent like sacking: man will weaken you, the stoneworker shall be put onto you, he shall split you with a chisel' (cf. Postgate 1997: 216). Knapping flint was obviously an activity distinct from making stone bowls or mortars, and would have taken place elsewhere, but we are not sure of the flint-worker's professional title, unless it was the word *qurqurru(m)* used in *Lugal-e* (ll. 552-3), the Akkadian equivalent of Sumerian **tibira**, a craftsman known to work with a variety of materials.[78]

In the Early Dynastic period stone tools are gradually giving way to copper, but there are two or three specialized tasks where flint is still the regular solution. Chipped or flaked stone – whether flint or obsidian – had been the preferred source of blades, and of projectiles such as arrows or javelins. Still in the Meskalamdug tomb in the Royal Cemetery at Ur we find arrow heads of flint,[79] but none have yet turned up at Abu Salabikh, and perhaps these were valued for traditional rather than practical reasons.[80] It is likely that flints were also used to provide the cutting edge on the underside of threshing sledges (see above, p. 101). It is hard to be sure if this was the function of isolated roughly chipped blades which are often recovered, but Adams (1975) makes a good case for identifying a group of 51 chunky triangular flints collected from the surface of an Uruk period tell as belonging to a threshing sledge. Certainly in use in Early Dynastic times were hand-held sickles made of wood, with a row of serrated flint blades set in bitumen to supply the cutting edge: these have been found at several sites, and at Abu

[74] The same low value of ¼ shekel at Nippur: Poebel 1909: no. 26.ii.17 (1 NA_4.HAR $BAHAR_2$ KU_3.BI IGI.4.GAL_2).
[75] Jean 1926: no. 120; from Larsa?.
[76] Stol 1979.
[77] As suggested by Charpin 1993: 94.
[78] for a **zadim giš-ti** 'arrow(head) lapidary' in an Akkadian text from Susa: see Schrakamp 2010b: 218-9; Zarins 2020: 26.
[79] Woolley 1934: 371.
[80] Later still, in the late Akkade period a distinctive type of pressure-flaked flint projectile heads is widely attested and has been associated with Gutian archers (Zarins 2020: 25-32).

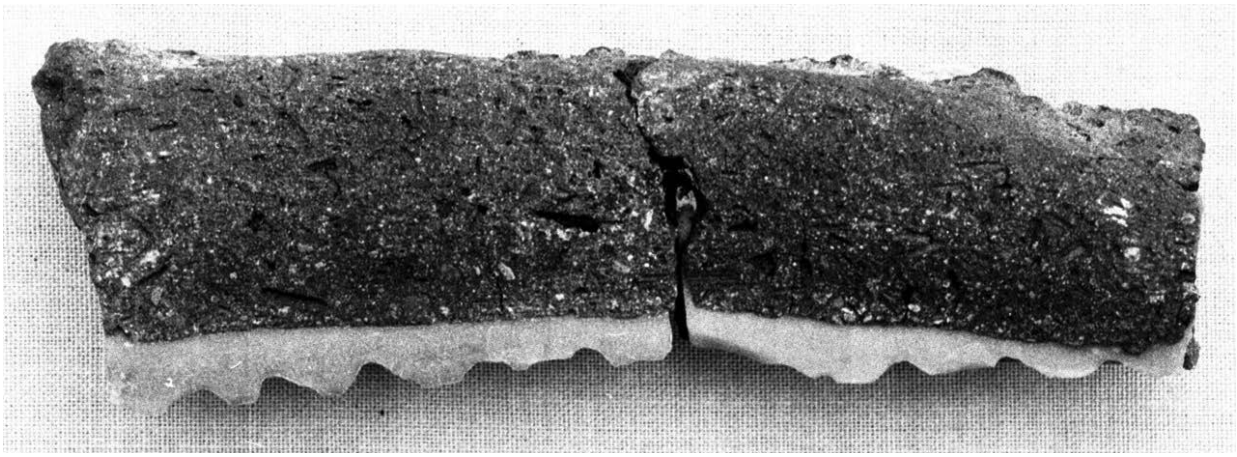


Figure 7.16. Two flint sickle blades set in bitumen, from the sewer in 6H House Room 68 (6H91:45). (ASE 5: 175 Photo 5.9)

Salabikh one such was found on the floor of a building in Area A, while parts of two others had fallen down the latrine in the 6H House (Fig. 7.16). Their construction is described and illustrated in Crowfoot Payne 1980: 107-8, with parallels from other sites including Kiš and Nippur. As she notes, flints set in bitumen were already in use at Hassuna in the 6th millennium, while at early 2nd millennium Maškan-šapir chipped flint and obsidian tools were present on the surface (Stone and Zimansky 2004: 347-8). The earliest examples of the Early Dynastic kind of sickle may be those from the small rural site of Sakheri Sughir, excavated by Henry Wright in the 1960s. The settlement belongs at the beginning of the Early Dynastic period, and as at Abu Salabikh the flint blades are serrated and show the well-known sickle sheen from use on plant stems (Wright 1969: 56-8). In later years, at least in some social contexts, these flint tools were replaced by copper sickles, which may well have been more effective, if more expensive. Reaching back in time, during the Uruk period in the latter part of the 4th millennium clay sickles are one of the commonest artefacts: they are fired extremely hard, and often have the olive-green tinge which is familiar from over-fired pottery. Although the clay tapers off towards the 'blade' it can never have been an efficient cutting edge, and one has to presume that they were designed not to cut the stems but perhaps to provide a rigid implement against which the reaper could uproot the bundle of stalks grasped in the other (usually left) hand. Broken examples are very common across the surface of the Main Mound at Abu Salabikh, though not in excavated contexts, and it seems likely that being virtually indestructible, they are stray survivals from the 4th millennium. Yet conceivably clay sickles were still in circulation because better suited than flint for harvesting reeds and rushes, for which a tool was undoubtedly also needed.[81]

A more delicate role for flint was attested by the contents of a shallow circular pit which had been sunk into the floor of the external space Room 14 in Area A.[82] It was 1.35 m. in diameter, hence big enough to squat in, and from the fill of the pit we recovered several kilos of flint, including over 1000 flakes. This was certainly a flint-knapper's work place, sunk below floor level to protect bare feet from the sharp flakes. Knapping flint was obviously an activity distinct from making stone bowls or mortars, and would have taken place elsewhere. The debitage from his activity in the Area A pit mainly derives from the manufacture of fine drills, and in among the waste pieces were at least 14 finished drills with a few com-

[81] cf. Benco 1992: 131-2. Note also the technological and wear analyses of sickle blades from Abu Tbeirah by D. Moscone and D. D'Errico in Romano and D'Agostino (eds.) 2019: 447-459; also Schrakamp 2010a.

[82] For the precise location see ASE 2: 179 Fig. 116 and Fig. 148.

pleted blades.[83] The drills will have been used, predominantly if not exclusively, to bore the perforations needed for stringing jewellery and no doubt also cylinder seals, but there was no waste from more ornamental stones, and that stage of the process must have been performed by others elsewhere, probably with the help of emery powder, which is also on the losing side in *Lugal-e*. On the heavily salt encrusted surface of Early Dynastic mounds few things survive longer and advertise their presence better, especially after rain, than shiny red stone, and at Abu Salabikh at the south end of the South Mound (8B-C) on the surface, Joan Crowfoot Payne coincidentally spotted a patch of raw and partly worked fragments of carnelian, lapis lazuli and shell, along with some of the same drill bits, so that at some stage (not necessarily contemporary with the Area A flint-knapping), bead making was being conducted there.

[83] Crowfoot Payne 1980; Unger-Hamilton *et al.* 1987. Microlithic borers like this were frequent at Kiš and are described in detail in Crowfoot Payne 1978; at Tell al-'Ubaid, Hall and Woolley 1927: 51, Pl. XIII.5; Woolley 1934: PG 958 on p. 207 "some small flints" among a bead maker's stock in trade, but not more precisely described. On the Main Mound at Abu Salabikh a patch with flint and stone debitage was noted in the 6G80 surface scrape.

[54] "Emery: your brothers will pour you out like flour, ...from your carnelian drilling you will be called by that name" (cf. Postgate 1997: 216 Text 2.1) and the passages in CAD Š/ii, 320-1 s.v. šammu 4 (though unaware of Heimpel's identification with emery).

Chapter 8

Ornamental stones and metals

Shells

As on our South Mound, so also at Early Dynastic Lagaš on the western slope of the north-eastern mound surface observation located 'a zone littered with broken shell (*Conidae* and *Strombidae*) waste' with 'numerous microlithic tools (drills, saws, borers and 'bullet' cores) scattered among the broken shells'.[1] We can be fairly certain that this activity was the preserve of the 'lapidary', as we may translate the Sumerian **zadim** which is etymologically simply 'stone worker', just as silversmiths were **ku$_3$.dim$_2$**. In the Ur III period the lapidary is listed with other craftsmen working alongside silversmiths, (copper) smiths, and workers in leather, felt and reed,[2] and on one occasion the scribe recorded the receipt of 2 minas and 13 shekels of copper 'for the tool(s) of the lapidary'.[3] Neither **zadim** nor **ku$_3$.dim$_2$** are included in the list of craftsmen in IAS 490, but we would not expect whole gangs of lapidaries or silversmiths, since artefacts in lapis lazuli, carnelian and silver were hardly needed in such large quantities as stone bowls, and were of course much dearer.

It may seem surprising that shells are also being worked alongside the better recognized semi-precious stones, but our failure to realize that in those days shells were also considered to be stones was acknowledged by Landsberger when he wrote 'I trust I will be excused for my unsuccessful attempt to find the word for 'mussels'; it took Oppenheim ...to discover that one looks in vain in Ḫḫ. XIV for such creatures, because they were classified among the stones(!)'.[4] Carving and trimming shell must have been similar to, though a lot easier than, working the stones, and so it is no surprise that the debitage from carnelian and lapis lazuli located by Joan Crowfoot Payne on the surface of our South Mound was accompanied by fragments of shell. Within buildings evidence of shell working was noted in Room F17:9A of the (late Early Dynastic or early Akkade) North Palace of Ešnunna: 'near a small brick platform which may well have served as a bench, we found fragments of similar inlays together with a quantity of the double shells from whose linings they were cut',[5] and at Kiš Zaina also reports 'two groups of shells found inside storage jars' in Room 1 of the 'Plano-Convex Building' (2015: 186-8), though the two cockle shells illustrated there (Fig. 12) would probably have been used as cosmetic holders and would not have required much input from the lapidary.

Moorey gives an extensive discussion of the species and applications of shells in Mesopotamia, hampered, as he explains, by the lack of specialist identifications.[6] They fulfilled various needs for the Early Dynastic population. Species which can be grouped in English as 'cockle shells', and are normally identified as *Laevicardium,* were used with little adaptation as small containers for cosmetic paints, and are frequently included among grave goods. At Ur, of course, Woolley found examples in silver and gold.[7] Univalve whorl beads of the genus *Conus* were shaped into white circular ornaments, as they are to this day, and strung alongside red carnelian and blue lapis lazuli beads. Occasionally we also meet shapes

[1] Black, in Black and Killick 1985: 222.
[2] Loding 1981: 9.
[3] Loding 1981: 14: UET 3.494.
[4] Landsberger 1965: 296; the shells in the pattern of materials in the corner of Grave 1 (see Fig. 7.13) were therefore likewise thought of as stones.
[5] Lloyd in Delougaz et al. 1967: 192.
[6] Moorey 1994: 129-140.
[7] Woolley 1934: 245, Pl. 137 and 164.

such as fish (AbS 2664), birds (AbS 2401; 2412; 2480), and even a foot (AbS 2576; Fig. 3.15) carved from white shell and incorporated into necklaces, and for inlay work such as found at Kiš or Ur the lapidaries used shell to supply white decorative elements.[8] The core (i.e. the columella) of large gastropods was also regularly used for cylinder seals, probably less valuable than their lapis lazuli counterparts.

Contemporary texts do not make much reference to the shells, but two entries in the *Early Dynastic Practical Vocabulary A* seem to allude to shells known as 'donkey vulvae'.[9] These are familiar from later texts, where the Akkadian is *biṣṣūr atāni,* which must reflect the 'characteristic ventral slit' of a cowrie shell, to borrow Oppenheim's phrase. At Abu Salabikh single cowries, the largest only 4.2 cm long, turn up occasionally and some have a piercing, suggesting they were also strung. They may well be listed under another name among items imported from Dilmun down the Gulf by Old Babylonian traders of Ur for the Ningal temple.[10] It remains uncertain if those listed there include the largest of our shells, usually called conch shells.[11] Hollowed out and sliced open on one side they functioned as a container, sometimes identified as a lamp but more likely serving as a ladle or scoop.[12] One of these measuring 16 cm. in length and decorated with a black design lay close to the face of the deceased in Grave 1;[13] this was a relatively small example, as the two in Grave 176 measured 21 and 23 cm (Fig. 4.10). In the graves at Ur Woolley found not only numerous natural conch shells, mostly with bird's head decoration, but also imitations of the shape (and size) in stone, copper, silver and – in one case inscribed with the name of Meskalamdug – in gold.[14]

Ornamental stones

Even if we are not able to identify them with certainty in the accounts of the Old Babylonian merchants trading down the Gulf, it is fairly certain that in the 3rd millennium the conch shells would have been imported from there alongside various other products including carnelian, some if not all of which certainly came from as far away as the contemporary urban civilization in the Indus valley. Most are beads simply carved into a range of shapes, but there are also examples with a white linear design created by bleaching, a technique prevalent in the Indus Valley.[15] Over 70 examples were excavated at Ur by Woolley; at Abu Salabikh we have recovered just one, found along with eight other carnelian and lapis lazuli beads some of which were still in their order as strung, from a disturbed burial at the west

[8] Though not exclusively: as Moorey notes 'bone, stone. shell and mother-of-pearl were used interchangeably' (1994: 129). No composite inlay work has been recovered from the site, but detached individual pieces turn up occasionally, e.g. AbS 1873 (shell, from Ash Tip), AbS 1909 (stone, Grave 173 in 6F), AbS 2353 (stone, 6H House; ASE 5: 171-2), AbS 2421 (shell, surface of 5G28).

[9] Civil 2008: nos. 051 and 080.

[10] Oppenheim 1963: 408-9. The three words *ayartum, kapaṣum* and *laḫ(i)anatum*, cannot yet be assigned to their species, though they were weighed rather than counted individually which suggests that they were not large. Possibly *kapaṣum* was the cockle shell since the lexical lists mention ones made of bronze and stone. It is possible that the word **šuba**, Akkadian *šubû*, refers to shells in general as suggested by Schuster-Brandis (2008: 446-8). Given the numerous varieties mentioned in lexical and ritual texts this seems likely (though not certain). Most shells are white, and in the (much later) Lamaštu incantations *šubû* 'stones' are prescribed together with white wool, presumably to match the colour as they are followed by obsidian (*ṣurru ṣalmu*) together with black wool (Farber 2014: 188).

[11] Previously identified as a species of *Xancus*, but now as *Lambis truncata sebae* (Moorey 1994: 130).

[12] Woolley (1934: 253) opted for lamps while acknowledging that they show no sign of burning. Reade suggests that the example from Level VIII at Tell Taya in north Iraq, decorated and measuring 17.8 cm, might have been used as a cup (1973: 167 with Pl. LXVIIIe), and Moorey 1994: 133 opts for liquids.

[13] ASE 2: 30, no. 49; visible to the left of the stemmed dish in Fig.4.3.

[14] 1934: pp. 136, 183, 283, 302, 377; Plates 101 (2 shells), 102 (shell with bird décor), 163 (gold), 182 (stone), 240 (metal Type 115).

[15] Reade 1979; these designs have mostly been described as 'etched' but recent detailed study by Kenoyer indicates that they were rather achieved by bleaching the surface with some solution derived from alkaline plants (2020: 170). It remains clear that the technique(s), if not necessarily the beads themselves, derive from the Indus region.

Figure 8.1. Vase AbS 1004 in situ. (Just below the mound surface, overlying the brickwork of the NW wall of Room 112 in square 6G38c.) (ASE 3:67 no. 321)

side of square 6G63c, west of the Southern Unit in Area E.[16] While the majority of our carnelian has come from necklaces and other ornaments in the burials, the most impressive collection of precious stones had been secreted in a jar found just below the surface in 6G38c (Fig. 8.1).[17] Along with strings of 224 carnelian, 239 lapis lazuli, 139 green stone and about 850 tubular shell beads the jar held individual beads in gold, silver, copper, ivory, mother-of-pearl and frit, four pendants in rock crystal, and lapis lazuli pendants in a variety of shapes: vase, hedgehog, recumbent calf, and four birds (Figs. 8.2-3).

The jar holding the jewels was no longer in any meaningful context, but the space numbered Room 110 belongs in a complex of rooms which probably belong to a domestic residence, and it may of course have been buried beneath a house floor which has been completely eroded; it does not seem likely to have been associated with a public building, whether temple or palace. The range of items is nevertheless impressive: it bears comparison with the jewellery belonging to the goddesses Ninhursag, Annunitum and Ninegala at Ereš as recorded on three Ur III documents.[18] Alongside bronze dress pins and other items often enhanced by gold or silver, these lists mention beads of lapis lazuli, carnelian and shells. The '2 recumbent calves of lapis lazuli'[19] remind us that collections like this were not necessarily all of recent manufacture, but may well have contained items which had been preserved for years or indeed centuries. That goddesses had a wealth of jewellery should be no surprise, and while they – that is their images – were no doubt bedecked with some of their treasure, it is likely that the majority was dormant and

[16] AbS 1291 (no Grave number).
[17] 6G38:29 = AbS 1004 unit 806; Rm 110 fill, plan *Iraq* 39: 279 Fig. 3. *Iraq* 38: 158; jar ASE 3: 67 no. 321.
[18] Paoletti 2012: 431-2 (Anunitum), 456-8 (Ninhursag), 560-2 (Ninegala).
[19] Hilgert 1998: no. 483:33.

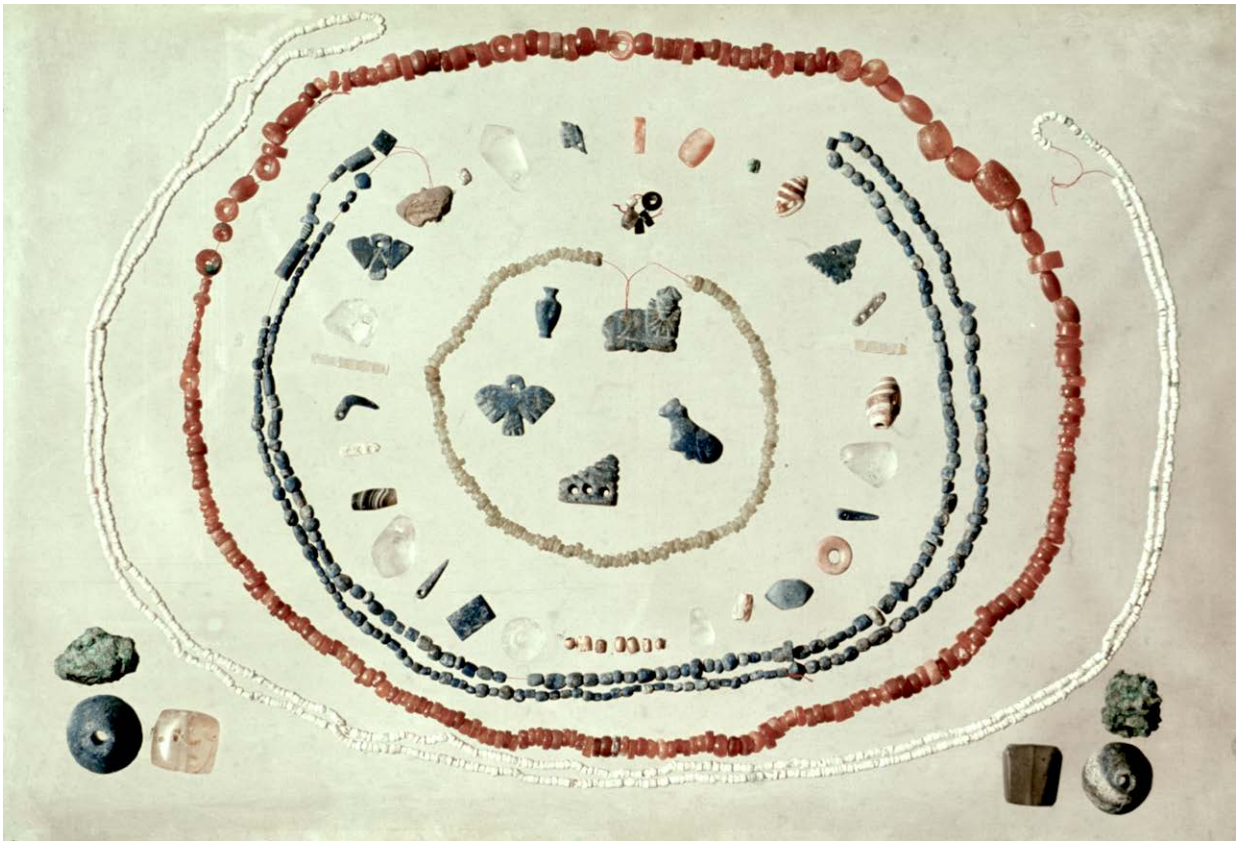


Figure 8.2. The jewellery which had been stored in AbS 1004. (Iraq *38: 158)*

Figure 8.3. Lapis beads from AbS 1004: recumbent calf (AbS 975), vase (AbS 963), eagle (AbS 955), recumbent bull (AbS 977), and shell(?) (AbS 978).

constituted a form of capital kept in store alongside precious metals. The goddess most often associated with jewellery was Inana, and her ornaments often feature in the Sumerian literary compositions of the Old Babylonian tradition. At the beginning of the myth of Inana's contest with the personified Mount Ebih (Jebel Hamrin) we read 'Inana, the child of Suen, put on the garment of royalty and girded herself in joy. She bedecked her forehead with terror and fearsome radiance. She arranged carnelian rosettes (**na$_4$.gug gi-rin**) around her holy throat. She brandished the seven-headed **šita** weapon vigorously to her right and placed straps of lapis lazuli on her feet'.[20] Of another text about her relations with Dumuzi, known as *Ploughing with the jewels*, the translators write 'The '*šuba* stones' seem both to be a metaphor for Dumuzid's semen and, understood more literally, to refer to jewels worn by Inana'. It seems likely that these were not carnelian but shells (see p. 135).

[20] from *Inana and Ebih*: 53-8, after Black et al. 2004: 335-6.

It is interesting that in this collection carnelian was not selected to supply the most striking components – this was left to rock crystal and especially lapis lazuli. Despite an understandable tendency to think of the red and the blue stones as very comparable, there is reason to think that in those days lapis lazuli was particularly esteemed and played a wider role within society. We transcribe the Sumerian word as **za.gin$_3$**; the Akkadian is *uqnû(m)*, which travels through the Near East to appear in Greek as *kuanos*, and in English as cyan. It was first identified in the ED IIIa texts from Abu Salabikh and Fara by Biggs (1966b). The *Early Dynastic Practical Vocabulary A*, known from Ebla and Abu Salabikh,[21] begins with a long list of items ostensibly made from lapis lazuli including the spindle (**bala za.gin$_3$**) immediately followed by the (probable) distaff (**kirid za.gin$_3$**).[22] A roughly contemporary tablet from Šuruppak records the issue (presumably) of textiles and lapis lazuli to about 40 individuals.[23] Everyone receives 1 unit (presumably 1 mina, or ca. 450 g, although this is not specified) of lapis lazuli, and a varying amount or number of textiles, including a few of linen. If the standard unit was indeed 1 mina (and the alternative shekel would seem unduly mean), this implies a considerable quantity of the stone, and while this is not a commercial transaction, and there is no suggestion that lapis lazuli was functioning technically as a currency, it does show that there was enough in circulation for it to be generally available as a class of valuable good. It seems to have been transmitted as a raw material: quantities of unworked and worked lapis lazuli were found in rooms of the palace at Tell Mardikh (Ebla), and similar amounts measured by weight are met in Ebla texts mentioning Mari.[24] Later, in the Assyrian colonies in Anatolia, unworked lapis lazuli is considerably cheaper than finished products, but its value fluctuates with time and space.[25] Lapis lazuli (but not carnelian) is sometimes mentioned alongside silver as the quintessential material of treasure: when the army of Umma under Lugal-zagesi ransacked the temples of Lagaš, in what was probably an unparalleled act of sacrilege, the lament recorded by a Lagaš scribe lists them one by one and reports that their 'precious metal(s) (**ku$_3$**)[26] and lapis lazuli' were plundered (and in one case tipped down a well).[27]

While carnelian came from the south, lapis lazuli came from the east. This is reflected in a unique literary composition sometimes known as the (archaic) *Šamaš hymn*, found in the Abu Salabikh library, with a duplicate at Ebla, where we read 'the mountain trader has brought lapis lazuli and silver' (**ga-eš$_8$ / kur za.gin$_3$ u$_3$ ku$_3$.babbar / i$_3$-de$_6$**), and 'he is accumulating(?) silver, lapis lazuli (and) lead(?)' (**ku$_3$.babbar za.gin$_3$ lu$_3$.lu$_3$ ab-si**).[28] Both silver and lapis lazuli must have originated in mountains (**kur**) but for the average inhabitant of lowland Mesopotamia this may have been a rather misty concept. Although this trade was probably interrupted towards the end of the 3rd millennium, presumably the consequence of political unrest at one or more points along the line, it was vividly remembered. One of the Sumerian poems about the rulers of Uruk, known to us as *Enmerkar and the Lord of Aratta* recounts an elaborate and no doubt largely fictional exchange of insults and goods between Enmerkar and his opposite number in the city of Aratta, to reach which the messengers had to cross seven mountain ranges. The opening scene is set 'before foreign trade was practised, before [gold, sil]ver, copper, tin, blocks of lapis lazuli, [and mountain stones] were brought down together from their mountains'[29] and there follow requests for the Arattans to despatch lapis lazuli and other commodities for the beautification of the temples in Eridu and Uruk-Kulaba. This may in fact reflect an awareness that in Early Dynastic times temples might really be decorated with semi-precious stones. Inana's temple in Aratta is called 'The lapis lazuli house'

[21] AbS T 343=IAS 33.
[22] Civil 2008: 27 l. 44-45; see pp.114-5.
[23] Steible and Yıldız 2000.
[24] Pinnock 2006; Archi 2017.
[25] Michel 2001: 329-50.
[26] It is not always clear if the word **ku$_3$** includes gold as well as silver.
[27] Cooper 1986: 78-9.
[28] AbS T 227=IAS 326. Biggs 1996b; Lambert 1992; Krebernik 1992; 1998: 320.
[29] after ETCSL, ll. 17-19.

(l. 559). The best example we have of architectural decoration in the Early Dynastic was excavated at a small mound north of Ur called Al-'Ubaid, where the entrancing milking scene (p. 103, Fig. 6.4) decorated the exterior façade of a small temple to Ninhursag. The figures are carved from shell, set on a background of dark bituminous stone, but by comparison with, for example, the *Standard of Ur* it is likely enough that richer or more prestigious temples had similar friezes with lapis lazuli as a major component. In the compilation of *Sumerian Temple Hymns* (of Akkade or Ur III date) the temple of Nisaba at Ereš is addressed as 'Shining house, house adorned with lapis lazuli', and lapis lazuli features also in its descriptions of the temples at Keš and Larsa.[30] While *Enmerkar and the Lord of Aratta*, probably composed during the Ur III dynasty, with its hereditary links to the city of Uruk, refers to the trade in lapis lazuli only alongside other minerals, blocks of lapis lazuli are singled out for mention in ll. 40-41, and towards the end of the narrative it appears that Enlil, the supreme deity responsible for south Mesopotamian politics, imposes the task of exchanging gold, silver and lapis lazuli on the population of Aratta.[31]

Fortunately, unlike gold and silver, we do have a fair idea of where the lapis lazuli must have originated. Like the modern investigations which have reconstructed it, it must have been always an interregional operation: the mines of Badakhshan, in north-eastern Afghanistan, are the source of most Old World lapis lazuli in circulation today, and this was already the case in the 3rd millennium BC. French excavations at Shortughai on the Oxus where it flows between Afghanistan and Tajikistan revealed the presence of a community with links to the Indus civilization exploiting the mines, while over 1000 km to the south at Shahr-i Sokhta, near the Helmand river and today in the barren wastes of Seistan, an Italian team discovered a 3rd millennium settlement, which was engaged in processing raw (semi-)precious stones for onward passage to meet the demand of consumers in Mesopotamia. Workshops, working tools, and wasters allowed Maurizio Tosi and his team to reconstruct in detail the techniques of these early Iranian craftsmen. In addition to lapis lazuli, which was probably the raison d'être of the whole system, they processed carnelian and turquoise, although for some reason little if any of the turquoise seems to have reached Mesopotamia at this date.[32]

Foreign traders

A number of documents from Ebla, referring to transactions with Mari on the route up the Euphrates from Sumer, specify that quantities of lapis lazuli had been exchanged (**šu.bala ak**) for silver. One of the texts specifically names the merchant as Iti and describes him as a foreign trader (**ga-eš$_8$**). This professional designation features in the *Early Dynastic (Lú) List E* from the Abu Salabikh library (and other cities),[33] and describes the trader bringing the silver and lapis lazuli from the mountain(s) in the *Šamaš hymn*, and it gives the term used in *Enmerkar and the Lord of Aratta* to describe 'foreign trade' in general (**nam-ga-eš$_8$**). Sumerian distinguishes consistently between the 'foreign trader' (**ga-eš$_8$**, Akkadian *ka'iššum*) and the '(inland) merchant' (**tam$_2$-kar$_3$**, Akkadian *tamkārum*), who features in the same lexical list after a few entries concerned with boats. It is sometimes difficult to keep them apart in translation, but the distinction between them was still observed into the Old Babylonian period. Ur-Nammu claims to have restored the foreign trade (**nam-ga-eš$_8$**) bringing the Magan boats back,[34] and it seems likely that the 'sea-borne trade' (**nam-ga-eš$_8$ a-ab-ba-ka**) down the Gulf to Magan (Oman) under the Ur III

[30] **e$_2$-mul-mul e$_2$ za-gin$_3$ gun$_3$-a,** Sjöberg and Bergmann 1969: 48: 529, and 22:95 (Keš) and 27:172 (Larsa).

[31] Note the use of **bala** in ll. 616-19 to mean 'exchange': **^{d}en-[lil$_2$] [lugal] kur-kur-ra-ke$_4$ ḫu-mu-un-kar$_2$$^?$-re ni$_2$-ba / eš$_2$-gar$_3$ im-ma-an-du$_3$-a-gin$_7$ / nam-lu$_2$-u$_{18}$-[lu] aratta^{ki}-a-ke$_4$ / kug-sig$_{17}$ kug na$_4$[za]-gin$_3$ bala ak-de$_3$ eš$_2$-gar$_3$** x x 'Enlil, king of all the lands [.....] the people of Aratta in accordance with the tasks which he has now established, [.....] their task of plying (= exchanging) gold, silver and lapis lazuli' after ETCSL t.1.8.2.3.

[32] For a cross-cultural review of lapis lazuli world wide see von Rosen 1988. Ratnagar 1981: 30-36 gave a very good overview of Shahr-i-Sokhta and its industry, and the most recent, well illustrated account is to be found in Matthews et al. 2022: 314-322.

[33] MSL 12: 18 l. 83 (IAS 54 and 55; duplicates known from Kiš and Gasur).

[34] Frayne 1997: 39-41.

dynasty was largely if not wholly controlled by the state. At Girsu at least there was a 'chief trader' (**ga-eš$_8$ mah**),[35] while later the Gulf route fetched up at Dilmun (Bahrain) and was in the hands of individual entrepreneurs known as 'those who go to Dilmun'. The economic basis for the trade remained similar, however, and it was probably mainly aimed at accessing the copper being mined in Oman. Under the Ur III dynasty the boats set out with a cargo of barley and wool, along with some processed food and woven textiles (apparently mainly of low quality), and brought back copper, along with miscellaneous luxury and often exotic items which included carnelian.[36]

On the foreign traders a question crops up in each phase of early Mesopotamian history: were they employees of a temple, or of the palace, or independent entrepreneurs? The answer is, at some times, all three, the situation surely changing from one time to another, and the same issue applies to the inland commercial agents, the merchants or **tam$_2$-kar$_3$**. The two best documented south Mesopotamian overseas trading systems are at Ur, in the Ur III period, and then again under the Isin/Larsa dynasties, while for the inland commerce the most illuminating archive is at Umma in the Ur III period. There a merchant community generated annual balanced accounts documenting the bilateral relations between individual merchants and a communal institution, whose name and identity is never mentioned and remains to be determined – temple or palace, secular or religious? What emerges very clearly from these detailed balance sheets, is that the merchants had a dual role in the state's economy. On the one hand they acted as agents for the institution, collecting contributions in kind, predominantly wool and dates, from the stock-breeders and gardeners, while on the other hand they undertook, or commissioned, overland ventures, which brought in exotic products, most notably aromatics and spices, but also potash, bitumen,[37] and gypsum.[38] These they must have paid for with the capital which accrued to them from the internal commodities, which were registered as their 'debt', and, using silver as the standard of value, were balanced against their 'credit' represented by the value of the imported goods.[39] While there is no doubt therefore that the merchants acted as agents of an institution, this need not mean we should see them as 'employees'. It is possible, indeed probable, that they, and their opposite numbers in the other south Mesopotamian cities, also pursued their own commercial activities independently of any contractual relationship with palace or temple. As mentioned above, after the fall of the Ur III dynasty we read of sea-faring merchants going 'on their own',[40] while the Ur III documents from the city of Ur seem to show the Gulf traders as more or less tied to the state, and similarly at Lagaš;[41] but the documents in question come from the state archives and if the merchants had their independent activities we would not expect to hear of them on the same tablets. Reaching back before the Akkade Dynasty, merchants for the Bau Temple at Girsu receive cereals, fish, flour, garlic and wool, from home producers, and bring in exotic items, such as aromatics and equids from Der, timber from Elam, and copper from Dilmun.[42]

Earlier, in ED IIIa, we have no comparable documentation from either Šuruppak or Abu Salabikh. None of the administrative texts from Abu Salabikh mentions either a foreign trader or a merchant, though

[35] Bauer 1972: 232 no. 68.ii.13 with other references p. 239.

[36] See Leemans 1960: 18-22; Potts 1990: 143-9. In Legrain 1937, no. 341 955 carnelian beads weighing 1 mina 3 ½ shekels transferred from the Ganun-mah store at Ur are described as 'the tithe of the overseas trading venture' (**zag-10 nam-ga-eš$_8$ a-ab-ba-ka**), showing that as later on carnelian was one of the principal commodities from the Gulf.

[37] Bitumen was probably mostly brought down river from the wells at Hit, and served a multitude of purposes. In addition to waterproofing architecture, matting and pottery, it was shaped into a variety of useful shapes, such as the core of metal foil beads, tool handles (AbS 2089-90), cones (AbS 2151-2156), and stoppers for jars (AbS 1362-1368); see also ASE 5 artefacts F90-96.

[38] For indications that the Umma merchants might travel across frontiers, like a 'foreign trader' see Snell 1982: 63.

[39] Snell 1982; van Driel 2002: 1-23.

[40] Oppenheim 1954.

[41] Garfinkle 2020.

[42] Postgate 2003:12.

a merchant (**tam$_2$-kar$_3$**) is listed in one of the contemporary texts from Šuruppak.[43] Presumably in both cities there was scope for merchant activity in both internal and external spheres. Some involvement of the city's institutions can be taken for granted: as we have seen in Chapter 6 the temple resembled a large agricultural estate, and the institutional land administrators must have needed to realize the value of their produce both via the collection and distribution of the produce from their farms, and by supplying capital for city merchants (whether dependent or independent) to trade abroad. Whereas the exotic materials – whether the metals which we can partially monitor, or the perishables which we can't – must have been acquired from outside the city's current borders, either as part of the regular merchants' activity or by means of a major overland enterprise of the kind undertaken by the **gaeš**.

Silver and gold

Silver was undoubtedly valued for its beauty and scarcity, and the earliest significant silver artefacts from Mesopotamia are from the Kleinfunde deposit in the Eanna Temple at Uruk at the end of the 4th millennium. Silver artefacts have only rarely been recovered from the following centuries, no doubt in part because so few contexts of the early 3rd millennium have been excavated, and in the ED III period by far the most silver comes from the Ur cemetery. Moorey lists a few bowls and other containers, hair-ornaments, imitation cockle shells as cosmetic holders, spear heads, axe heads and other components of weapons, and a variety of decorative items.[44] At Abu Salabikh, roughly contemporary with the Ur graves, silver is virtually exclusively used for personal ornaments. The burial richest in silver is Grave 1:

Figure 8.4. Grave 130 grave goods, from top left: cylinder seal (AbS 1708); 1 central silver, 2 copper, 2 lapis lazuli beads forming the necklace (AbS 1697); silver roundel (AbS 1554); middle row: silver eye patch (AbS 1733, on gauze backing); silver sandals (AbS 1732); bottom row: copper bowl (AbS 1730); copper toilet set (AbS 1731); small jar perhaps unrelated. (Iraq *42: 94 Plate Xb, d)*

[43] Visicato 1995: 42 (WF 100.vi.6).

[44] Moorey 1994: 236.

16 beads, 6 rings, 2 roundels,[45] and 2 dress pins. Other richly endowed burials include Grave 176, which had two roundels, beads and a pin head of silver (Fig. 4.10), and some of the graves in the 6H House.[46] As Moorey observes, the most remarkable silver items were in Grave 130, the burial of a young person with a silver eye patch, a roundel, and sandals with a silver sheathing, as well as a bead 4.5 cm long (Fig. 8.4). The bead was the central item of a small necklace, flanked by a lapis lazuli bead 2 cm long on each side, and outside them beads 1.5 cm long, of copper sheathed with gold foil (Fig. 8.5). This was an unusually rich array of ornaments, and it may not be coincidental that the grave belongs to the latest surviving phase at the site, being sunk into the ED IIIb levels of the Ash Tip.

It is surely symptomatic of the city's economic ranking that here the superficially 'silver' beads were often made of a bitumen core wrapped with silver foil and with a perforation lined with copper. Similarly, as in Grave 130 the very rare instances of gold beads are almost all not solid metal but gold leaf over another material: gold caps over lapis lazuli or silver pin heads in Grave 176, and beads in Graves 162, 183 and 243. Exceptional are the seven sheet gold beads from the jewellery hoard in Room 110 (Fig. 8.2). As yet, beads are the only gold found at the site.[47] In the 2nd millennium textual evidence shows that Egypt was a prime source of gold, but at this date trace element and isotope analyses of gold items in the Ur cemetery point to alluvial sources in Afghanistan (near Shortughai on the Oxus) or north-western Iran (Takab region).[48]

Figure 8.5. Grave 130: long silver and lapis lazuli beads in situ below jaw (see Fig. 8.4).

[45] For the 'roundels' or rosettes which may have been hair ornaments here and at other sites see Martin 1985: 12.
[46] ASE 5: Graves 220, 223, 234, 246 and 257.
[47] At other dates we see a gold:silver value ratio of 1:10, but there are no relevant data from ED IIIa.
[48] Jansen et al. 2018.

Silver as a means of payment

The narrative composition IAS 326 (the *Šamaš hymn*) reports that the foreign trader brought silver as well as lapis lazuli from the mountains. In truth, we have no idea where silver came from, although on the balance of probability it may have come from the Taurus in Anatolia.[49] But it is no coincidence that it is named alongside lapis lazuli which also seems almost to have functioned as a currency in Early Dynastic times (see pp. 138-9). Thanks to its high value and widespread acceptance beyond the borders of Mesopotamia silver was an important element in overland trade: in their leather 'bag'[50] the merchants could carry the necessary capital more or less on their person. Provided the metal was well refined, and already in the Šuruppak texts the scribes may specify 'purified silver' (**ku$_3$ luh-ha**[51]), it must have represented a generally recognized form of currency. The earliest documents we have which might reveal the existence and usage of currency are texts recording real estate sales. Field and house sales from ED IIIa Šuruppak record the basic 'price' in either minas of copper or shekels of silver, supplemented by a range of payments in kind. Broadly contemporary are two inscribed stones probably from Isin, each recording a number of separate field purchases with the basic price consistently given in silver.[52]

While silver was evidently valued as a form of currency and as a convenient way to store wealth, and was manufactured into highly esteemed ornaments, these were perhaps its principal uses. The debate between *Copper and Silver* gives us an insight into contemporary attitudes towards silver suggesting that it played a restricted role in daily life:

> 'Men caulk tiny, very strong boxes for you, as they do a boat. They cover you over with their oldest rags, and someone digs a hole for you in the middle of the cattle-pen. Or they pour clay on top of you, as on a jar with a sealed mouth, and then, in the darkest place inside the house, someone buries you in the most obscure corner of a grave.'[53]

and indeed, archaeologists have occasionally come across just such buried hoards of silver (Moorey 1994: 238).

Unlike grain, or wool, which are also both sometimes used as a means of payment, silver's worth was not affected by the changes in the seasons, and this is one reason why it came to be used as a repository of wealth and an accountant's standard of value. Sargon's successor as king of Akkade, Maništušu, 'purchased' (perhaps compulsorily) vast stretches of land in the northern alluvium, as far south as Marad, and although his *Obelisk* still records a variety of supplementary payments in silver artefacts and textiles for each transaction, the basic purchase price is stated in barley, and then converted into silver at the rate of 1 shekel of silver to 1 **gur.sag.gal$_2$** of barley.[54] It is not clear if the 'sellers' received the basic price physically as silver or grain, but it is clear that silver was being used as an abstract standard. This foreshadows practice at Umma in the Ur III period, where the value of both the 'credit' and 'debit' commodities handled by the merchants is expressed in weight of silver. There is no reason to think that wherever silver value is recorded, there was an equivalent physical amount of silver present, although

[49] See the exhaustive discussion of Moorey 1994: 236.

[50] **kuš.nig$_2$.na$_4$** / *kīsu* MSL 7:131 170-2.

[51] Edzard 1968: nos. 6; 25; 28-29; not all 'Fara period'.

[52] Gelb et al. 1991: nos. 14-15.

[53] ETCSL c.5.3.6 D.18-23: **lu$_2$-u$_3$-ne pisan tur-tur kalag-kalag-ga ma$_2$-gin$_7$ a-ra-an-du$_8$-uš / tug$_2$niğ$_2$-dara$_2$ sumun-sumun-na-ni za-ra a-ra-ni-in-sub$_6$-eš / šag$_4$ e$_2$tur$_3$-ra-ka lu$_2$-u$_3$ a$_2$ a-ra-ni-in-ra / dug ka-bi uš$_2$-ša-a-gin$_7$ ugu$_2$-za im i$_3$-bi$_2$-in-du$_8$-eš$_2$ / e$_2$ šag$_4$-ga ki ku$_{10}$-ku$_{10}$-ga-ba / ki-tum$_2$ ki sah$_6$-sah$_6$-a-bi-a lu$_2$-u$_3$ ki a-ra-ni-in-tum$_2$**.

[54] Gelb et al. 1991: 116-40.

the amounts of 'purified silver' mentioned in the sale texts alongside a variety of other commodities (see above) were no doubt real.

Both silver and copper are measured by weight, copper mostly in minas (ca. 450 g.) and silver mostly in shekels (ca. 7.5-8 g.). The term 'mina' (we use the Greek form borrowed ultimately from Mesopotamia), written **ma-na** in Sumerian and Akkadian documents alike, derives from the Akkadian (or archaic Semitic) root for 'to count', and the shekel, still in use in Israel today, from the Akkadian for 'to suspend' hence 'to weigh'. While amounts of wool or grain could easily be weighed or measured out, a precise weight of metals may not have been so easy to achieve: in some Ur III sale documents we are told the name of the 'smith' (**simug**) or 'merchant' (**tam$_2$-kar$_3$**) who weighed the silver. In a Pre-Sargonic text from Adab a 'house overseer' was the man who weighed the silver and measured the grain, while in a Sargonic text it was a merchant who 'held the balance'.[55] Thanks to its greater value, silver is usually expressed in shekels, but that does not necessarily mean it was unworked bullion. Indeed the shekels themselves in Sumerian may have begun life as miniature axes: Sumerian did not adopt Akkadian *šiqlum* but uses its own term **gin$_2$** (/ğin/), which is equated in the lexical lists with both *šiqlum* and *pāšum* 'an axe'. 'Axe' may be the original meaning, since the sign **gin$_2$** itself, used to write both the Akkadian and the Sumerian words, is in its pictographic stage a cutting tool. Probably more convenient was silver in the form of rings: spiral rings are already known from the Akkadian period, and the advantage of rings over blocks of metal is that small parts could be snipped or broken off to give a precise weight, and in Ur III texts silver rings of 5 shekels are frequent, alongside occasional lighter and heavier examples.[56] Yet silver could circulate as a variety of artefacts: in the Old Babylonian palace at Mari silver is distributed among palace dependants in a range of forms – drinking vessels, axe-head, and rings.[57]

Copper

At Abu Salabikh we have come across no instances of the silver hoards such as occur occasionally elsewhere, but we have to presume that both silver and copper were used as a means of payment as they were at contemporary Šuruppak. Unlike silver, though, copper was an important commodity for crafts, agriculture and warfare. Although we have plenty of textual evidence that copper was imported in considerable quantities from Dilmun (Bahrain or neighbouring lands) to Ur in Old Babylonian times, and from Magan (Oman) to Lagaš in the Pre-Sargonic texts, it was clearly not an elite commodity like gold, silver and lapis lazuli. Yet it may have been the backbone of the trade, supplying a substance which was critical to a wide range of activities throughout society, not merely the conspicuous consumption of an elite. We have no need to imagine for ourselves how fundamental to life copper had become: in the debate poem between *Copper and Silver* copper itself enumerates a range of tasks which silver (unlike itself) does not perform: clearing weeds with a hoe, crafting ploughs with an adze, chopping wood with an axe, reaping the harvest with a sickle, building houses with an adze and a chisel (lines D.24-37). Even when silver dredges up instances where copper's activities miss their target, it only serves to emphasise how generally useful it is:

> 'The copper hoe has its digging taken over by the wooden hoe in the harder ground. The copper sickles need to have the hard weeds burned. The copper axes which chop trees, stripping and pulling out tamarisks and ash shrubs, have their blades dulled. The copper saws have to lie down for a rest beside the mountain trees'.[58]

[55] For these passages see Steinkeller 1989: 93 and 95.

[56] Postgate 1994d: 203.

[57] Dalley 1984: 65-9.

[58] ETCSL c.5.3.6 D.63-66: **^{urudu}ha-bu$_3$-da ^{giš}al ki kalag-ga-ke$_4$ du$_5$-bi dab$_5$-ba-a / ^{urudu}gur$_{10}$ u$_2$ kalag-ga-a izi dub-dub-ba / ^{urudu}ha-zi-in ğiš sağ šar$_2$-re ^{ğiš}šinig ma-nu zil bur$_{12}$-e$^?$ zu$_2$-bi gul-gul-la / ^{urudu}šum ğiš hur-sağ-ğa$_2$-ke$_4$ gu$_2$-ba nu$_2$-nu$_2$-a.**

One has the impression that the author(s) of the composition are more in sympathy with the honest toiler in the fields, than with the members of society who handle silver, and indeed at the end of the poem (before a doxology addressed to Ur-Nammu) we read that 'Silver and Strong Copper having carefully had a debate, Strong Copper had the lead over Silver in Enlil's house'.[59]

At Abu Salabikh scraps and fragments of copper are not infrequent in most contexts, but complete artefacts are mostly recovered from the burials, robbed or unrobbed: there are knives and similar weapons, and 'projectile heads'.[60] The most intriguing example comes from Grave 80, where it seems individual arrows must have been implanted vertically round the grave shaft at intervals after it had been partially back filled. Only the copper arrowheads remained (Fig. 4.11), though traces of the perished reed shafts were visible in the corrosion of the tangs. Not infrequent are 'bidents', small two-pronged copper artefacts probably serving as a 'spear-thrower' fixed (with or without a mushroom-shaped bone fitting) into the back of a javelin to hold a string (see p. 66). Javelins were stacked in the quivers on the front of the war chariots as shown in the *Standard of Ur* and such bidents are shown in one of the quivers on the *Stele of the Vultures*. At Abu Salabikh if there were chariots accompanying the pairs of equids in Grave 162 and 234, which remains uncertain, they had entirely disintegrated (and the only possible copper remnants were three rivets 3-4 cm. in length from Grave 162).[61] Such items seem predominantly to be military equipment, although adzes and knives could also have served craftsmen. Otherwise there are occasional copper bowls, with diameters ranging between 8 and 18 cm, but numerically the main copper items are ornamental – dress pins, rings and beads, as well as the spindle and distaff in Grave 176. The rings are typically 2-5 cm in diameter, and the dress pins, some with horned human heads, are often 13-15 cm in length, though two examples in Grave 176 measure 20 and 25 cm, and one of the pins in the Room 29 assemblage (see below) was exceptionally 30 cm long.

Away from the graves complete copper artefacts were understandably few and far between. Just below the surface in 6G71, in a building not far west of Area E, various copper items were found associated with a smashed jar (6GS:247): fragmentary chisels, wire, pin shafts, flanged sheet metal, an adze, and parts of vessel handles and spouts. The total weight came to nearly 6 ½ kg (AbS 2825-7). Another mixed group of copper items was found beneath the floor of the Room 29 corridor at the south end of 4J97.[62] This included a spear head and two adzes, three dress pins (one with a silver and lapis lazuli head) and three plain needles (AbS 2187-2193). A short way to the south-west in 4I06 two adjacent ovens were constructed against the west wall of a courtyard (Room 71), and we recovered a number of copper items which could evidently not be retrieved from the inaccessible space behind them: a pin (or perhaps a spindle or distaff, AbS 2303a), a javelin head (AbS 2303b), a chisel (AbS 2311), and part of a pin (AbS 2310).[63] This was not a hoard, but even four such items in a single context is a rarity, underlining the care that was usually taken to keep track of metal tools. Hoards of this kind do occasionally turn up in all periods: in the Early Dynastic III North Palace at Tell Asmar (Ešnunna) a rich assemblage of copper was found in a jar let into the wall and plastered over for concealment,[64] a collection of copper vessels and tools was buried beneath the floor of an ED III administrative building at Lagaš.[65]

The most unusual object from Abu Salabikh (AbS 2693), is restored from 8 joining fragments of a copper artefact of unknown purpose, which were found in a spouted jar along with an adze (AbS 2694) just

[59] **ku$_3$ urudu niğ$_2$ kalag-ga-bi a-da-min mi$_2$ dug$_4$**-[**ga**] **/urudu niğ$_2$ kalag-ga ku$_3$-ra e$_2$ ^{d}en-lil$_2$-la$_2$-ka dub-sağ**-[**am$_3$**] ETCSL c.5.3.6 I.10-11.

[60] so called to hedge our bets as to whether they were arrows or lances/javelins, on which see Martin, ASE 2: 14-15.

[61] *Iraq* 46: Plate VII (see p. 67).

[62] *Iraq* 46: 98-100.

[63] The ovens in 4I06 show on the plan Fig. 9.3a (and *Iraq* 49: 111 Fig. 6). *Iraq* 49: 101.

[64] Frankfort 1934: 35-39.

[65] Hansen 1973: 69, Figs 12-13.

below the surface in 6H65. Rejoined they would make a solid metal bar, curved at one end and 52 cm long, with transverse grooves at the blunt end presumably to help grip, altogether weighing 2.9 kg (or about 6.4 minas).[66] To judge from the contemporary sale documents from Šuruppak, this was enough raw metal to have served as the basic price of a house or a field.[67] It may not have mattered what form the copper took: presumably ingots from the original smelting furnaces (perhaps as far away as Oman) would have been delivered to smiths (**simug**) in the destination city, but thereafter one imagines 'copper' as a commodity went into circulation as cast artefacts. This consideration goes some way to explain the hoes inscribed with the name of the goddess Ninisina and apparently cast from about 13 kg of copper, which served as the purchase price of an orchard in the environs of Isin: 'its price, 29 minas of copper – (of this copper) the *hapūtu* hoes were cast (and with) the name of Ninisina were inscribed'.[68] This instance is unique in detail, but the scribe-accountants regularly record the weight of artefacts they are documenting, just as the simple weight of gold ornaments today often determines their value for jewellers in the Middle East regardless of their workmanship. The massive collection of agricultural implements retrieved from Old Babylonian Tell Sifr by Loftus in the 19th century AD[69] were presumably destined to be melted down and refashioned, whether they were part of a temple's stock or belonged to a merchant (as suggested by Charpin, remarking that the find was 'beside' archives of the merchant Ṣilli-Eštar).[70] We are not in a position to judge whether the value of a copper item depended to any degree on its workmanship, in the same way as lapis lazuli artefacts in the Old Assyrian texts at Kaneš were valued more highly than the raw stone.[71]

A couple of the administrative tablets from Area E mention copper: IAS 502 from a cut into Room 15 seems to be a list of mixed commodities, associated with personal names (recipients or suppliers?) including barley, pottery vessels and amounts of copper weighed in minas. IAS 501 from the large cut into Room 20 is a small fragment which says, quite clearly 'Total: 39 copper javelin (heads), received' (Biggs 1966a: 87[108]). This seems unsurprising, but confirms that copper was handled both by weight and as finished artefacts. At Abu Salabikh we have so far not exposed any traces of metal working, though IAS 490 lists 45 smiths (**simug**) – 40 workers (**guruš**) and 5 overseers (**ugula**). The sign for '(copper-)smith' (**simug**) is patently the pictograph for a kiln, and it also stands for the verb /de/ 'to pour', or in the context of metal-working 'to cast'. Hitherto the best archaeological evidence for working copper has come from the small Old Babylonian township at Tell adh-Dhiba'i in the eastern suburbs of modern Baghdad. Here Lamia al-Gailani came on a coppersmith's workshop with much of its specialist equipment, including bellows, crucibles and clay moulds: these are very distinctive and if encountered would be readily recognized as metal-working equipment.[72] Kilns and other processes of copper-working would not have fitted comfortably into a normal residence, and it may well be that in ED III at least the smiths shared an industrial quarter at the north end of the city with the potters.

The Early Dynastic texts regularly use the logogram for 'copper' (**urudu**), and occasionally spell it out syllabically (**a-)ru$_{12}$-da**. 'Bronze' (**zabar**) is rarely mentioned: as Moorey says 'bronze as a raw material seems rarely to have been the object of commercial transactions in Mesopotamia'.[73] Tin-bronze artefacts are well attested in the Ur Royal Cemetery, and Ur III texts mention proportions of 6 copper to 1 tin (or

[66] Described and illustrated in Müller-Karpe 2004: 2 no. 31, Tafel 3.
[67] e.g. WF 37; see the Tabelle 1 of purchase prices in Edzard 1968: 21.
[68] Steinkeller and Postgate 1992: 27-9 Text 4 xvii.9'-14': **nig$_2$-sam$_2$-bi / 30-la$_2$-1 urudu ma-na / ha-bu$_3$-da urudu / ib$_2$-ta-de$_2$. de$_2$ / mu ^{d}nin-IN-na / bi$_2$-sar**.
[69] Moorey 1994: 262.
[70] Charpin 1993: 95.
[71] See Michel 2001: 350.
[72] Moorey 1994: 266-7.
[73] Moorey 1994: 252.

similar), which agrees well with laboratory analyses.[74] Our intention to submit copper samples from Abu Salabikh for analysis was thwarted by the invasion of Kuwait, but the likelihood is that much of our copper contained arsenic either naturally or added deliberately since arsenical copper is widespread at this date.[75] In the poem IAS 326 the foreign trader is handling not only lapis lazuli and silver, but a commodity written **lu$_3$-lu$_3$** which has not been definitively identified but might be an 'admixture' to copper.[76] Centuries later a material called *luliu* in Akkadian is mentioned in the same context as copper. It has been suggested that it was antimony or even arsenic but the arguments are complex and unresolved.

[74] Moorey 1994: 251-4. For textual instances see Limet 1960: 67-73 (for an improved reading of the figures in RTC 23 vindicating the scribe's arithmetic see Hallo 1963: 139 s.v. lal.)

[75] Moorey 1994: 252-4.

[76] For **lu-lu** and **lu$_3$-lu$_3$** 'to mix' cf. Limet 1960: 68 and Hallo 1963: 139.

Chapter 9

The ensi and his city

The title and role of the ensi

A century old debate about the power structure of cities before the Akkadian empire still rumbles on, but few historians would now subscribe to the view that each city was ruled – governed, administered – by its principal temple to the exclusion of a parallel primarily secular institution conveniently summarized as 'the palace'. There is no mention of a palace (**e_2.gal** 'big house') in the Abu Salabikh administrative texts, but there are two titles which could denote a secular ruler: 'king' (**lugal**) and 'governor', an inadequate but non-committal rendering of **ensi**. As we have seen in Chapter 6, p. 92, after the goddess and the god Šara the next prebend-holder in the land-allocation tablet IAS 518 is an ensi, a title held by the rulers of several of the most important Early Dynastic cities. The two deities have their own fields assigned, and since they can hardly have attended to them in person, the effective beneficiaries of their allocations must have been personnel on the staff of the temple whom we would probably consider as the priesthood, whatever their specific titles. By contrast, the ensi is not a temple office, although, as will become clear, there was a close bond between an ensi and the city temple.[1]

Most of what we know about the role of the ensi was already summarized by Jacobsen in 1957: that it is a Sumerian term is evident from those contexts the word is followed by the vowel of a grammatical suffix such as the ergative /e/ or the genitive /ak/ (using the syllabic graphs **-ke$_4$** or **-ka**), which demonstrate that it is itself a genitive compound, i.e. /en.si.ak/, something also shown by the Akkadian loan word *iššiakkum*, which was one of the titles of the rulers of Aššur in the 19th century BC.[2] Given its Sumerian form, Jacobsen is right to attempt an etymology, and although his proposal to draw on the lexical equivalent **si** = *mērešum* 'cultivation'[3] has not attracted much explicit support, it remains a distinct possibility that the title was given originally to a person entrusted with the management of a city's cultivated domain, not least because in Babylonia after the fall of the Ur III dynasty the title was given to less high ranking persons responsible for agricultural land.

Be that as it may, during the 3rd millennium in several of the south Mesopotamian cities the title was held by the effective ruler of the city and its associated territory. Best known to us are the ensis of Lagaš, but this title was also held by rulers at Umma, Uruk and Nippur among other cities (and later becomes the standard designation of provincial governors under the Ur III kings). At Šuruppak in ED IIIa, and at Adab in ED IIIb we meet the title NIG$_2$.**en$_5$-si**, also attested once at Uruk.[4] It is not known how this title should be rendered in normalized Sumerian, but the obvious assumption that it is an enhanced or specialized version of the simple title ensi is generally made and no doubt correct. Back at Abu Salabikh

[1] For a recent re-evaluation of the roles of temple and palace in the Early Dynastic cities, see Schrakamp 2013 (and further in Chapter 11).

[2] It is not clear to me why Steible (2008: 94) describes the word as 'nicht Sumerisch'.

[3] MSL 14: 341.166. Subsequently Jacobsen (1991: 115) opted for a different etymology, citing the lexical equation **si** = *imērum* 'donkey'. Both equations are listed lexically only once, but 'manager of the cultivated land' seems inherently more probable than 'manager of the donkeys'. For a detailed survey of suggestions for the etymology of ensi, see Marchesi and Marchetti 2011: 109. It may well be the case that the /en/ element is not the familiar title **en**, since why then would it not be written with the EN sign? PA+TE must stand for a lexeme governing the genitive /si.ak/ but it has not been found on its own. It is probably not coincidental that other professional titles are 'diri' writings with the PA sign (e.g. PA.UDU=**sipa**, PA.USAN).

[4] Pomponio in Pomponio and Visicato 1994: 17-18; Krebernik 1998: 312; Steible 2008: 95; Steible and Yildiz 2014; for an ensi at Uruk, probably at the time of the Akkade Dynasty see Cooper 1986: 104 UK2.4 (also RGTC 1: 171-2). For the order of signs and Adab passages see Marchesi and Marchetti 2011: 172.

our texts mention an ensi on several occasions. Apart from the virtually intact surveyor's list of field prebends (**šuku lu$_2$ gan$_2$-gid$_2$**, IAS 518) in which the ensi comes third after 'the Lady' and Šara, in IAS 508 he features as the holder of a large 'purchase prebend' plot (**3.2.0 bur$_3$ šuku šam$_2$ / en$_5$-si**), and of another field of 1 bur later in the same list. Field allocations to the ensi are also listed in IAS 528 and 529.[5] Taken together, there seems little doubt that some of the temple's prebend fields were assigned to an ensi, and the natural assumption is that this was the city-governor at Abu Salabikh, with secular authority separate from the temple hierarchy.

The ensi's primary role in a city was to act as the highest secular authority, and this was separate from but complementary to the city's religious hierarchy. Perhaps the most explicit statement of how the status of an ensi was viewed comes from Gudea of Lagaš when he refers to any of his successors 'whose personal god may be summoned by Ningirsu from among the people as my (personal) god (has been)',[6] since this must imply that entitlement to the role of ensi was not determined by birth, and could be accorded to a member of the population (without explaining quite how this was decided). The same concept lies behind his claim, in *Statue B*, that Ningirsu 'had chosen Gudea as the legitimate shepherd in the land', and 'selected him by his hand from among 216,000 persons',[7] a phrase which perhaps consciously harks back to his distant predecessor Enmetena who claimed on a stone bowl from Nippur to have been chosen 'from among 3,600 men',[8] in this case claiming that kingship was granted under the auspices of Enlil; Urukagina uses the same phraseology when he claims that Ningirsu had 'given the kingship of Lagaš to Urukagina (and) taken him by the hand from among 36,000 men'.[9] These were both referring to kingship, which was even less a priestly office than the role of ensi.

Mesopotamian gods might have multiple names, and Nin-Girsu simply means 'Lord of Girsu', where Girsu is the name of the city now slumbering under the ruins of Tello. Up the Tigris the patron deity of the city of Aššur is called simply Aššur, and cases like this exemplify the role of the city's patron deity as simply the divine personification of the city itself. One may be tempted to ask in such cases 'Which came first, the City or the Deity?', but a similar concept clearly underlies the fact that in cuneiform the city of Ereš is written with the same sign as the name of the goddess Nisaba – she is usually preceded by the determinative **dingir** 'deity', while the city has the determinative **ki** 'place' after the sign. Being the city deity of Ereš was not however Nisaba's only role in the Mesopotamian world, because she is the patroness of writing. This may be because of an association with reeds, which supply the stylus, so that well into the 2nd millennium well trained scribes signed off their completed literary tablets with 'Praise to Nisaba'.[10] Likewise the patron deities of most of the cities of Mesopotamia had their specialist portfolio as well as their urban constituency. The patron god of both Larsa in the south and Sippar in the north was the sun god, Utu (in Sumerian) and Šamaš (in Akkadian) respectively, of Ur the moon god Nanna (in Akkadian Suen or Sin). The temple embodied the ideological identity of the city, and the mutual collaboration of the secular and the religious authorities was therefore essential, and regularly acknowledged in the rulers' inscriptions.

The precise formulation of this symbiosis varied from city to city, and in some cases the religious and secular authority may have been vested in the same individual. At Umma at times during the ED III

[5] In IAS 528 the title is followed by a place name, apparently UNUG^{ki}; however this will not be a city of which he is governor, but the location of the field (see Chapter 6), and is not certain to be Uruk.

[6] Edzard 1997: 52 but reading in iv.1 **ug$_3$-ga$_2$ gu$_3$ u$_3$-mu-na-ni-de$_2$-a** with the cuneiform. (Gu$_3$-de$_2$-a's own name means "summoned".)

[7] Edzard 1997: 32.

[8] Frayne 2008: 222-3.

[9] Frayne 2008: 261 vii.29-viii.6.

[10] Though Krebernik and Lisman have suggested that she began life as deified saltwort, the plant which is written with the sign NAGA, the major component of the sign read **ereš$_2$** or **nisaba** (2020: 116-117; on the addition of the ŠE element to the sign cf. Michalowski 2001).

period there seems to have been a temple officer (**sanga**) who also functioned as the secular and military leader. Similarly at Uruk the **en**, who held the highest religious office, seems also to have acted as ruler (leaving us in doubt as to the role of the ensi). Despite such varying terminology, the role of the ensi in the secular governance of each city was probably fairly similar. As so often, the most explicit example of the ensi in action comes from Girsu, in the state of Lagaš, where the written records are so much superior. When recounting his flagship project for the rebuilding of Ningirsu's temple called the Eninnu, Gudea seems to have mobilized his entire population. To précis his elaborate account (*Cylinder A* xiv.7-28) he tells us that he imposed a levy on the towns and villages in different sectors of the territory, enlisting the participation of the residents in three clans (**im-ru-a**), each with their patron deity (Ningirsu, Nanše and Inana) and each represented by their standard (**šu-nir**). In the abstract, and probably also physically, the office of ensi was embedded not in the temple hierarchy, but in the city: unlike the priesthood, he is 'ensi of City X' not 'of God X', and at Abu Salabikh prebend lands are allocated to him, as to other clearly secular officials like the land registrar, in his secular capacity. We would not therefore expect him to be physically based within the temple precincts, but for both practical and ideological reasons to have a separate establishment.[11]

The Area A building.

There are two high points on the Main Mound, named Area A and Area E by the Chicago team in the 1960s. Area E was where they came upon the library more or less at the surface, while in Area A, some 250 m further to the north but also on the east side of the city, the most distinctive results came from a deep sounding. This was partly aimed at reaching Uruk period levels, which did not in the end materialize, but in the words of Vaughn E. Crawford 'in the stratification pit, four by six meters, there were not only various architectural levels but also, at a depth of five meters, four burials all interred at the same time with the graves having as gifts a fine series of terracotta pots, stone bowls and metal work, particularly one large copper mirror'.[12] In 1975 onwards further work on this high part of the site exposed architecture approximately contemporary with the ED III levels in Area E (Fig. 9.1). This revealed that the 1963 sounding had been sunk in an unroofed space remarkable for a deep succession of regular horizontal layers of ashy deposits (Fig. 9.2; Fig. 3.14). The sounding mostly falls within square 5I31 of the site grid, and here in 1976, in a space numbered Room 14, we came across one more grave.[13] This, Grave 81, was the burial of a child, with ceramics belonging before ED III. It was located just to the south-east of the 1963 sounding with its four inhumations and they must all have been buried in the same open space. This was not a rubbish tip (like the Ash Tip in Area E) because the stratification was strictly horizontal, but without its west and south limits it is hard to know if it should be described as a courtyard, given that its deposits do not resemble those in courtyards we have excavated in Area E and in the 6H House. It was in part at least a working area, because the flint-knapper's pit occupied its north-east corner and was full of, and surrounded by, flint waste and numerous finished tools (see pp. 132-3). The small room leading off this space to the north (Room 13) was floored with gypsum plaster, here mixed with fine pebbles. This is very unusual elsewhere on the site, but the field report on the 1963 season mentions that here the 'floors in several rooms were covered with a gypsum plaster'.[14]

[11] Hence the view that 'the ruler – usually bearing the title of ensik, 'steward' – was elected to his office by the divine owner of the city-state' and 'functioned as an earthly representative of the deity...' (Steinkeller 2019: 28) is technically defensible, though perhaps gives a rather biased impression in favour of the religious establishment.

[12] Crawford 1964: 13. The mirror (AbS 203) has a diameter of 29 cm and came from Burial 4; from Burial 2 came a spouted jar (AbS 206) and a strainer (AbS 185), both in copper and illustrated in Müller-Karpe 2004: Taf. 1-2 (Nos. 8 and 18), with descriptions on p. 2.

[13] *Iraq* 39: 278; ASE 2: 149-51.

[14] D.P. Hansen, report to Directorate-General of Antiquities.

Figure 9.1. General view of Area A in 1976 looking north. Rooms 3, 4 and 7 on right to south of ranging-pole; 5I 31 sounding bottom left; flint pit at surface to east of sounding.

Figure 9.2. Area A 1976: deep sounding in 5I31. Water table in main sounding. Grave 81 in extension to the SE (top left in picture).

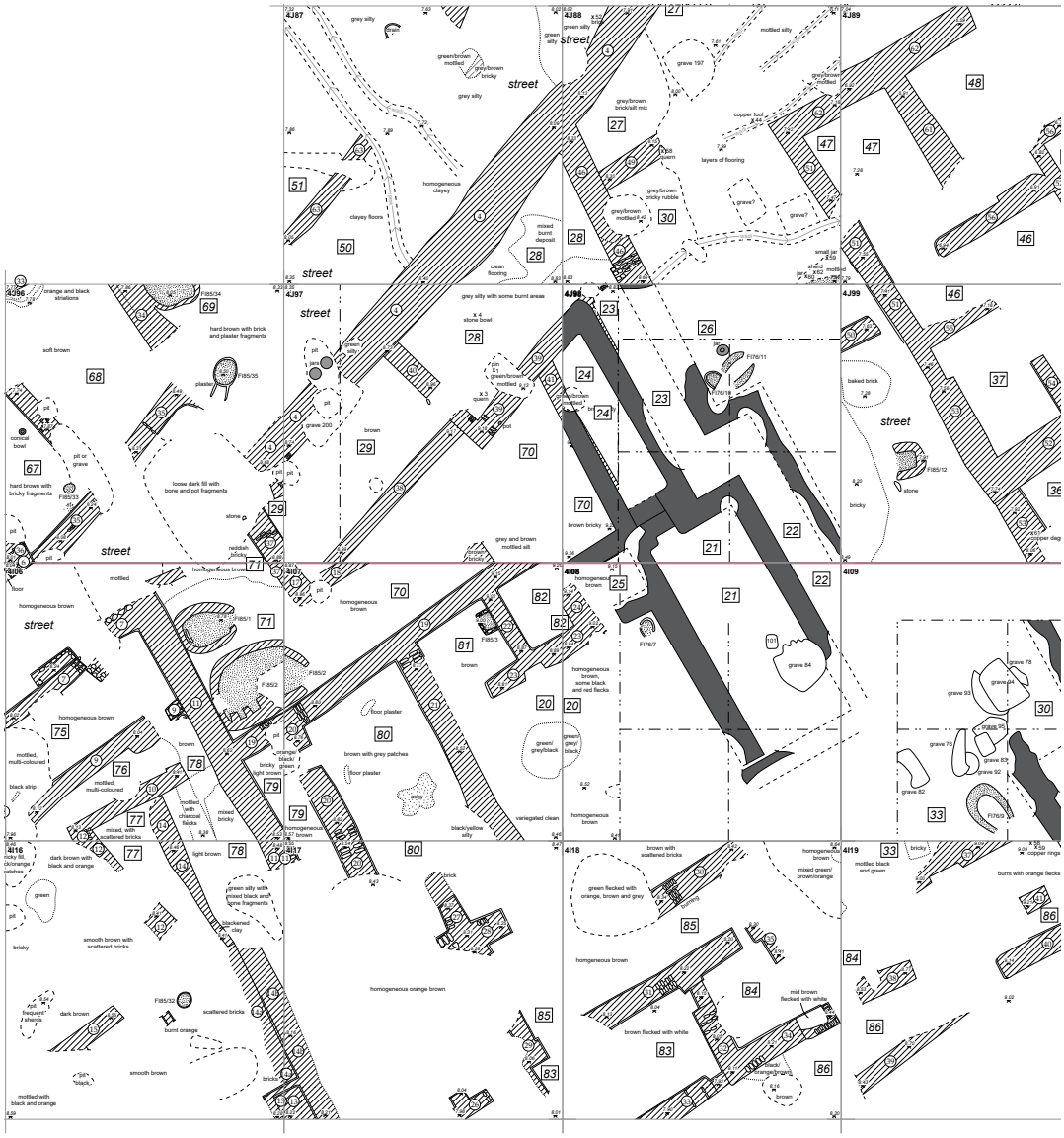


Figure 9.3a. Plan of Area A (West half)

To the north of the early burials and this workplace is an assemblage of rooms which do not resemble standard residential houses (Plan Fig. 9.3b). Because the contours of the mound mean that the walls in squares 5I10-11 and 5I20-21 are eroded away to both east and west it is difficult to reconstruct the lay-out of the rooms. The south-west wall of Room 1 continues to the south-east to form the south-west wall of Rooms 2, 3 and 4, and we observed no doorway through it, so that it seems to separate Rooms 11-13 and the open space Room 14 from the rest of the building, yet it is a single wall and a single structure. From its size and shape Room 4 (8.4 x 4.1 m) resembles a reception room, although we saw no central hearth, and this suggests that it forms the south-west side of a courtyard unit, with Room 5 as the courtyard, Room 15 (planned from the surface clearance in 1985-86) being the west end of its south range, and Rooms 6, 7 and 8, not visibly connecting with the rooms to their north, representing the north range, Room 3 forming an annex to Room 4. Rooms 2 and 9 would then be the south range of a second courtyard unit with Room 1 (3.8 m wide) providing the reception room along its south-west side. Like Room 1, Room 2 (7.2 x 2.9 m) had been burnt, and the stone tools and pottery scattered

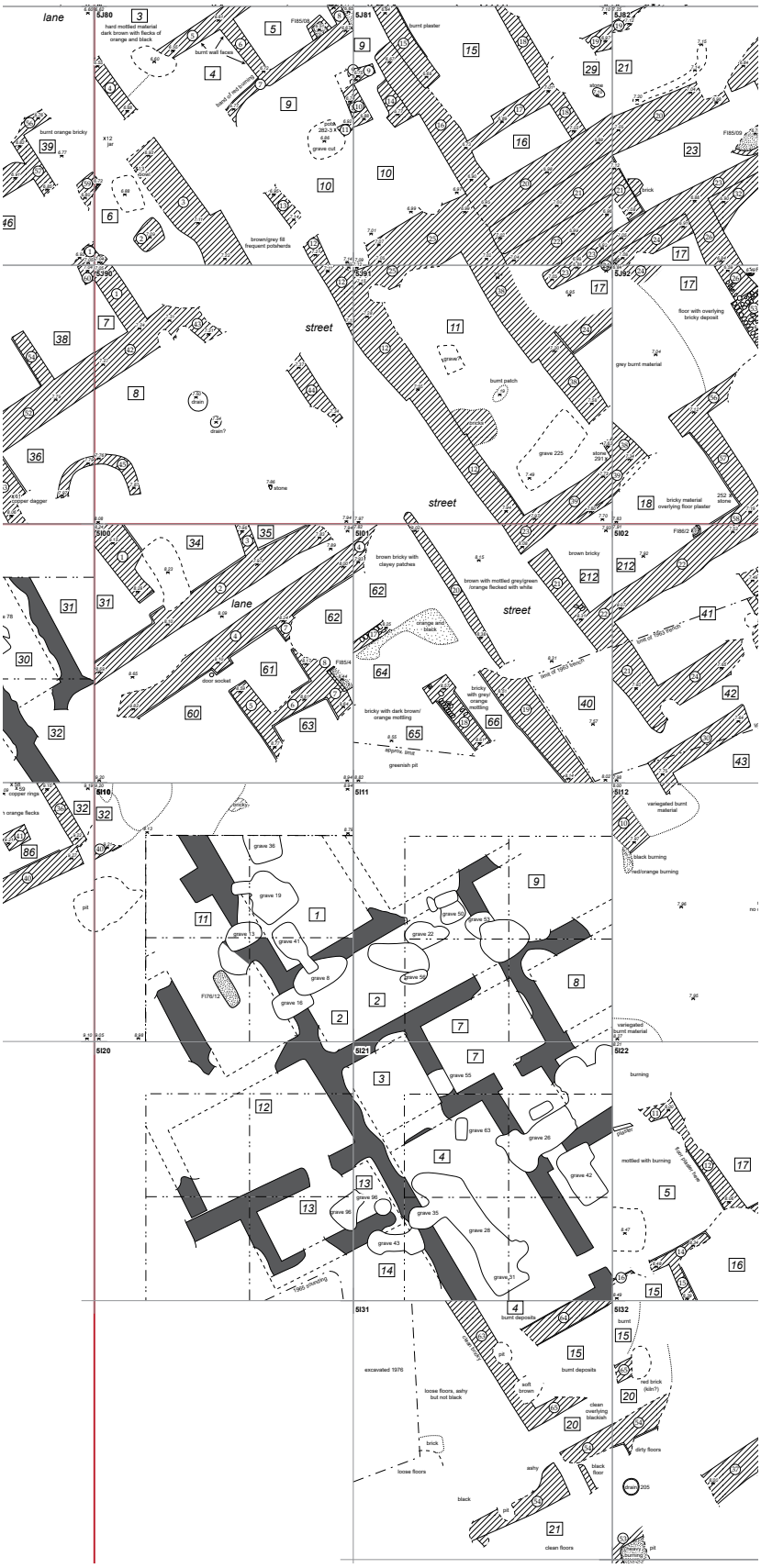


Figure 9.3b. Plan of Area A (East half)

across the floor suggest that it was a work room – no fire installations were noted in situ in any of these rooms. Taken all together, it looks likely that there were two courtyard units aligned back to back along the north-east side of the central wall, but to its west too little survives of the rooms to allow of any coherent plan. Yet since they share party walls, these rooms are all part of a single complex, like the courtyard units in the western part of Area E, and it remains reasonable to refer to them together as the 'South Building'.[15]

The general impression that the South Building is rather more than two or three domestic houses is reinforced when one follows the surviving walls for 30 metres to the north-west, into squares 4J87-88, 4J97-98 and 4I08-09, which we have referred to collectively as the 'North-West Building'. The most obvious feature is the unusually thick (up to 2 m) wall running from south-west to north-east to form a clear limit to the complex, at an angle entirely out of alignment with the consistent rectangular layout of both the rest of the North-West Building and the South Building beyond. In the absence of any doorway in the exposed stretch of 21 m it is plainly an exterior wall, and its angle must presumably have been dictated by the broad (3.5-4 m) pre-existing thoroughfare with buildings on the far side. A stratigraphic sounding in 4J97 WB showed that this enclosure wall was a long-standing feature of the area, with earlier incarnations dating to before ED III.[16] The architectural layout it delimits was no doubt erected in compliance with the general preference, both elsewhere within the city walls and in south Mesopotamian conurbations in general, for a north-west – south-east orientation. The street itself must have led to a gateway in the city wall where it turns its north-east corner (in 4J49-59).

The other distinctive feature of the surviving plan is the narrow corridor numbered Rooms 22 and 23, with its dogleg (which might be caused by a staircase). This must have been conforming to the existing layout of the rooms on one side or the other, but the erosion has removed the outer parts of the plan which might have told us which side dictated this. What is visible does not at first sight suggest further courtyard units like those in the South Building, and there is an unusual scarcity of intrusive graves compared to that part of the complex. It should be stressed, though, that most of these walls are detected by surface scraping, not excavation. Where we did excavate, in the West Baulk of 4J97, a copper hoard was found beneath the floor of the long room (Room 29, see p. 145).

In Rooms 1 and 2 of the South Building a destructive fire had left some items in situ on the floor (*Iraq* 39: 274), including a tortoise shell (AbS 1008) and a set of three clay 'tripod feet' (AbS 1028) similar to those found in Room 39 (p. 56). Two upright-handled-jars from here and another from Room 7, south-east of Room 2, are all assigned to 'ED IIIA early ',[17] as is ASE 3: no. 722 from Grave 1 in Room 39 of the Southern Unit. These then confirm that the highest surviving phase of the building is approximately contemporary with Level IC in Area E. One cuneiform tablet (IAS 516) was found in a pit dug from above surface into Room 7 (on the north side of the south-east courtyard). It is palaeographically comparable to the Area E tablets,[18] and the surviving part gives a sequence of personal names each receiving (presumably) 1.1.0 gur, a considerable quantity (about 300 litres) of an unspecified commodity, most likely barley or emmer. While there is little more to be said about the content, with more than 17 men listed it is clearly not restricted to the affairs of a single household (and it is unlikely that individual households would have maintained written records of this kind), so it seems fair to conclude that in the latest uneroded phase of its occupation this part of the city was engaged in administrative activities. Taking this indication together with the evidence for flint knapping and the more-than-domestic architectural layout, the conclusion seems justified that this second high point on the Main Mound was devoted to

[15] Forerunners to the plans in Fig. 9.3 are in *Iraq* 38:138 Fig. 2; *Iraq* 39: 272 Fig. 1, 274 Fig. 2; *Iraq* 46: 99 Fig. 2; area plans *Iraq* 49; 111; ASE 2 Fig. 148.

[16] *Iraq* 46: 99-100.

[17] ASE 3: nos. 721, 730 and 740.

[18] or possibly slightly later, *Iraq* 38: 141.

an institution, very likely secular, which is a good candidate for an establishment from which the ensi could exercise his governance. As with the temple, we have no way of recovering the formal or informal bilateral relationships under which men received allocations of commodities in return for some form of service exacted by the institution, but couched in modern terms, to administer his city and exploit its land the ensi must have been closely engaged with city-based employees, such as for example the land-registrars (**sa$_{12}$-sug$_5$**), and doubtless others such as craftsmen, not to mention scribes.

The ensi and the countryside

That the ensi should have responsibility for, and authority over, not only his 'city' but also over the associated agricultural land reflects the simple reality that without the fields the citizens would starve: a city without its hinterland would not have been viable. The prime importance of a rural domain with secure irrigation is vividly illustrated in the Early Dynastic period by the persistent boundary dispute between the state of Lagaš and its neighbour to the north and west, the city(-state) of Umma, which is commemorated in numerous inscriptions from Girsu, dating from even before the conflict described on Eanatum's *Stele of the Vultures* down to the last ruler, Urukagina.[19] That Umma and Lagaš should have come to blows over a strip of territory surely reflects the fact that there was shortage of agricultural land, because of the demographic pressure on the cities, not merely Girsu but also the enormous Early Dynastic conurbation of Lagaš itself (Al-Hiba), and a third smaller city of Nigin further to the south-east. The texts emphasise the need for an accurately surveyed and agreed boundary, marked out by boundary stelae, and in the first generation of which we read this was secured by the oversight of Mesalim king of Kiš as arbitrator. According to the Lagaš account, a lease of land was negotiated at one stage and huge debts reckoned in thousands of bushels of grain were incurred, and Lebensraum for cereal cultivation is evidently what it was all about. In the debate between *Sheep and Grain* the central importance of both resources is duly acknowledged, but in the dénouement it is Grain who prevails: Enki tells Enlil 'Of the two, Grain shall be the greater. Let sheep fall on her knees before Grain ... From sunrise to sunset, may the name of Grain be praised ... Whoever has silver, whoever has jewels, whoever has cattle, whoever has sheep shall take a seat at the gate of whoever has grain, and pass his time there'.[20]

In the political propaganda of the rulers, and in the more philosophical 'literature' brought to us by the scribal elite, the gods and goddesses of the pantheon are deployed as a sort of metaphorical code for human politics. So in their accounts of the territorial dispute with Umma the ensis of Lagaš refer to the territory of their city-state as 'the field of Ningirsu': 'In the fields of Ningirsu, whichever were cultivated, he destroyed the barley'.[21] The edge of the desert is 'the field beloved of Ningirsu', and the formal ownership is emphasised by writing of the 'boundary' (**ki-sur-ra**) of Ningirsu.[22] In this formulation, by virtue of his identity as the patron deity of the entire city, he is also the patron of its dependent territory, perhaps including the two other cities, Lagaš and Nigin, with their territory (although this is not self-evident). Just as the ensi's domain is as much the countryside as the city, so too the deity, though his temple is the visible expression of the city's identity, owns the countryside, an integral component of the single territorial organism known as **ki.lagaš**, 'the place of Lagaš'. Šara, the patron deity of Umma, will similarly be involved from the other side, and in Enmetena's cones the mediation of Mesalim is linked on the divine plane not to **his** patron deity (who is not explicitly mentioned) but to the god Ištaran who is known as the divine arbitrator.[23] In ED IIIb he fulfils this role in an Umma inscription of Giššakidu, which gives details of the boundary of Umma 'according to the

[19] The ongoing disputes are described in Cooper 1983.

[20] Black et al. 2004: 229.

[21] Frayne 2008: 278.vii.7-9: GANA$_2$ ^{d}**nin-gir$_2$-su$_2$-ka en-na uru$_4$-a še-bi i$_3$**-PAD; cf. Cooper 1986: 34-7, 79.

[22] Frayne 2008, 140 Rev. x.31-33 **gu$_2$-eden-na a-ša$_3$ ki-ag$_2$-^{d}nin-gir$_2$-su$_2$-ka**; Rev. xx.17-18 **ki-sur-ra**.

[23] Cooper 1986: 54-6. Ištaran is at home in Der on the eastern frontier. His name is not coincidentally written with the two signs KA ('speak' or 'word') and DI ('judgement'); see further p. 188. On Der see Frayne 1997: 95.

monument of Šara', specifying boundaries, and concluding 'He did not go beyond its boundary levee. He restored its monuments and, at Ištaran's command, erected a (new) monument on the spot'.[24] Later, in the reign of Ur-Nammu, the first king of the Ur III Dynasty, a long text was created setting out in detail the provincial boundaries and their markers in the northern alluvium.[25] For each province we are told that Ur-Nammu fixed the boundary (**ki-sur-ra**) of the local deity, reflecting the indissoluble link which remained between the patron deity and his or her rural domain. It is clear that the entitlement of one deity (representing one city) to a given territory was recognized by others (even if disputed in detail), and that the equal ranking of the deities and hence of their cities was generally respected, with Ištaran recognized by all sides as a neutral arbitrator (perhaps because his city, Der, being way off east had no common boundaries with the other cities of 'the Land'). When this respect evaporated it led to outrage, as vividly expressed in the lament for the final sack of the temples of Lagaš by Lugal-zagesi, with its call for divine vengeance for this infraction of the divine order: 'The man of Umma, since he destroyed Lagaš, has committed a sin against Ningirsu, ... May Nisaba, his deity, make Lugal-zagesi, the ensi of Umma bear his sin'.[26]

Agricultural regimes

Given the ensi's divinely imposed obligation to govern the countryside, alongside any military actions required on the borders, it is no surprise to come across documents concerned with agricultural administration in our city buildings, both among the temple archives and in the house in 6H, and these may help to consider the nature of the hinterland. One issue to address is the quantitative area of land (by which of course we mean irrigable and cultivable ground) required to provide food for a given number of consumers. This can be described as 'sustaining area per individual',[27] and it is not by any means a simple or definitive calculation. For a comparison with the modern exploitation of the same landscape, Poyck's detailed study of agriculture in the Hilla and Diwaniyah provinces is a prime source. In the tracts of land dependent on Euphrates irrigation which he studied, excluding relatively small areas of intensive date palm cultivation, he reported 'agricultural population density' in a range between 17 and 44 persons per km^2. He notes that the numbers were higher (36 and 44) where the land was cultivated by its owners, and lower (17 and 25) in areas where the cultivation was in the hands of tenants of large or medium landowners.[28] While some landowners were based in Hilla or Diwaniyah, he notes that most 'were the tribal chiefs of the tenants' practically all 'living on their property in the country'. They 'administered their lands through agents who organized all the usual activities and supervised the cultivation process' (p. 55). Comparing this to our evidence from the temple, there are interesting differences and similarities. On the one hand, it seems that in 2600 BC the 'landowner' was based in the city, but in AD 1960 on the land, yet in each case the administration of the domain was entrusted to an 'agent', in earlier times the **engar**, whom we may recognize as the 'farm manager'.

One issue which is still debated, is the extent to which this hinterland could have been exploited by daily commuting from within the city walls, or villages were needed to exploit it to maximum efficiency. How far from a given field its cultivators could reside before the commuting time made the establishment of a new settlement only common sense, an issue discussed in Adams 1991: 87, may have been affected by social, political and even military considerations.[29] Decisions would be needed as to whether the security of residence within a fortified settlement would compensate for an otherwise excessive daily commute, and for having to leave houses, grain stores or crops unattended overnight. This may have

[24] Frayne 2008: 301-3; Steinkeller 2003: 623[14].
[25] Frayne 1997: 50-56; Steinkeller 2011: 25-27.
[26] Cooper 1986: 79.
[27] Adams 1981: 86-8.
[28] Poyck 1962: 35.
[29] These issues are given full weight in Gat 2002 (pp. 125-7); see further below, pp. 158-9.

varied from place to place, but for the government in the city a constant concern must have been the logistics of matching the available workforce to the tasks required to sustain regular harvests. At times the engineering objectives would have exceeded the labour force available in the immediate vicinity, and centralized planning and mobilization would have been required. In the debate between Dumuzi the shepherd and Enkimdu the farmer, rather than being described as the producer of crops Enkimdu is characterized as 'the man (or 'the king') of dyke and canal', and this is also how he is described in *Enki and the World Order*,[30] underlining the paramount importance not only of maintaining the supply of water but also of confining it to where it is needed. The regular water supply to the fields was essential for a successful harvest, but curiously, although we know of a profession associated with irrigation (*gugallu(m)* or **gugal**), the role sometimes assigned to the god Adad (Sumerian Iškur), this official features only rarely in the administrative documentation at all times.[31] Rulers from Ur-Nanše, the founder of the Lagaš dynasty in ED IIIb, proudly record their irrigation works, and in the Ur III period there is a plethora of administrative records relating to canals and other irrigation works. Yet at Šuruppak and in the much smaller Abu Salabikh corpus there is no mention either of such works or of the official(s) we might expect to be organizing them. It may be that by the nature of their task, the irrigation inspectors were not subordinate to any one urban administration and therefore do not feature regularly in the administrative archives.

Last century round Hilla the larger landowners lived in the countryside, not in the city, and not in villages but on their own land. By contrast, in the south of the area studied by Poyck, i.e. nearer to Diwaniyah, 'the farmowners live in villages. In these villages the system of communal landownership is still in practice. Under this system the village land is owned by the community consisting of a number of families; the land is not divided in any sense. Periodically – usually every two years – the elders of the village re-allot the land in satisfaction of the shares in accordance with the crop rotation. Under this system no cultivator permanently cultivates the same piece of land'.[32] Middle Eastern village communities were using the lottery mechanism to organize their collective land use in the 2nd millennium BC, and doubtless earlier. Although there is no clear evidence that crop rotation in the modern sense was practised, a regime of biennial fallow was operating in north Mesopotamia, no doubt already controlled by the village elders. Middle Assyrian documents reveal a system by which families inherited property rights to arable land which did not give them absolute ownership of any one plot, only to one of several within a defined zone on the half of the village-administered fields not being fallowed that year, so that, in Poyck's words 'no cultivator permanently cultivates the same piece of land'. Which plot was assigned to one was decided by the drawing of lots, and this age old practice has been described in recent Syria at Tell Toqaan and in various southern Iraqi contexts.[33] Such regimes mean that the sale of land rights, if at all feasible, must entail the cooperation and consent of the village authorities, and of neighbours, who would often also be relatives (see below). There is clear (though rare) written evidence that a biennial fallow was also operated in south Mesopotamia (see p. 108), and because field crops were entirely dependent on the irrigation system which also had to be communally maintained and administered, similar constraints may well have been applied to the tenure of plots entailing annual or biennial allocation determined by a lottery. This however is pure speculation because there is no documentary evidence for the drawing of lots at this date.

[30] ETCSL c.1.1.3 l. 324: ^{d}**en-ki-im-du lu$_2$ eg$_2$ pa$_5$-ra-ke$_4$**.
[31] See above, p. 98.
[32] Poyck 1962: 27.
[33] Adams 1982: 6-10; Postgate 1982: 309-10.

Villages in the landscape

The maps of settlement distribution in the Uruk region and later for the Nippur region, generated from the surveys of Adams and Nissen, indicate a scarcity of visible rural settlements in the surrounds of some of the major conurbations, suggesting that the development of urban centres at the beginning of the 3rd millennium was accompanied by a reduction in the numbers and perhaps also size of smaller settlements (whether we call them villages, hamlets or farmsteads). There is however one problem with this kind of survey data for which it is very difficult to compensate. The idea that the countryside was more thickly dotted with villages in the Uruk period depends on the visibility of such sites in the survey, and may not sufficiently take into account the effects of erosion and the cycle of abandonment and resettlement. When a countryside has been deserted and subsequently resettled, the settlements themselves, whether they are open plan villages or fortified 'manor houses' (**anzaqar**, *dimtum*),[34] will start the process of becoming a tell from the level of their current land surface. There are no hard and fast rules dictating how many metres a site may build up in a century, but if they are satellites of a long-standing settlement, they will always stand lower than it, unless they have occupied a pre-existing mound. This could mean that as a result of alluviation a village founded in (say) 2900 and occupied until 2500 would not show at the surface, unlike one founded in (say) 3500 and occupied for the next 1000 years.[35]

At Abu Salabikh we know that the surface on which the Main Mound was erected, at the beginning of ED I, about 3000-2900 BC, lies at least 3 m below the modern land surface (Fig. 1.4). Hence, any small outlying settlements which had accumulated to less than that height would not show above the fields or desert surfaces in the course of a survey. Indeed, sliced through by a modern drainage ditch, some 400 m to the south-west of the (presumably uninhabited) Uruk tell, Wilkinson located a small Early Dynastic settlement buried beneath 40-70 cm of alluviation (site 11), and about 1.7 km further south site 16, with evidence of Uruk and Kassite date, was buried 1.7 m deep (Fig. 9.4). Another sign of the alluvial shrouding is given by the pair of 'mounds' east of the Main Mound, marked out by salt (see Fig. 1.5) but flush with the modern land surface, from where Ur III bricks of Amar-Suen were recovered (p. 19).

Villages in the texts

This invisibility may provide a partial explanation of an apparent contradiction, in that unlike the archaeological survey evidence, the textual record suggests that there were numerous small settlements associated with the cities or townships. From his detailed knowledge of the voluminous administrative records from the city of Umma in the Ur III period P. Steinkeller listed at least 110 rural settlements in the province of Umma.[36] This in fact agrees with Adams' results which showed a rapid increase in the size and number of settlements during the second half of the 3rd millennium. While agreeing that 'Early Dynastic rural settlements were much fewer in number than at the end of the millennium', in the same breath Steinkeller suggests that 'their total number was undoubtedly much higher than indicated by the surveys' (p. 195). His quotation from G. van Driel deserves to be repeated here once more: 'It is safe to assume that small settlements, especially if they were only occupied for limited periods, will be easily overlooked in a large scale car-based archaeological survey. The small settlements have little relief, are easily covered by silt or dunes, deflated or even ploughed under. Many may have disappeared

[34] Only attested later (though for one possible instance of [**an-za**-]**qar** see Lecompte 2015: 216). At Abu Salabikh, as also later in Ur III texts, there are place names using the Semitic word *uṣār(um)* (IAS 494.ii.5: u_2-*ṣar* **gana**$_2$ and IAS 495 rev.i.8': u_2-*ṣar*^{ki}), which may be roughly understood as a 'farmstead' (Gelb 1957: 71; RGTC 2: 235-6), or, with Heimpel, 'one Akkadian form of the common Semitic word for corral' (2009: 309).

[35] Adams himself was conscious of these biases in his data, as pointed out by Steinkeller 2007: 197.

[36] Steinkeller 2007: 196.

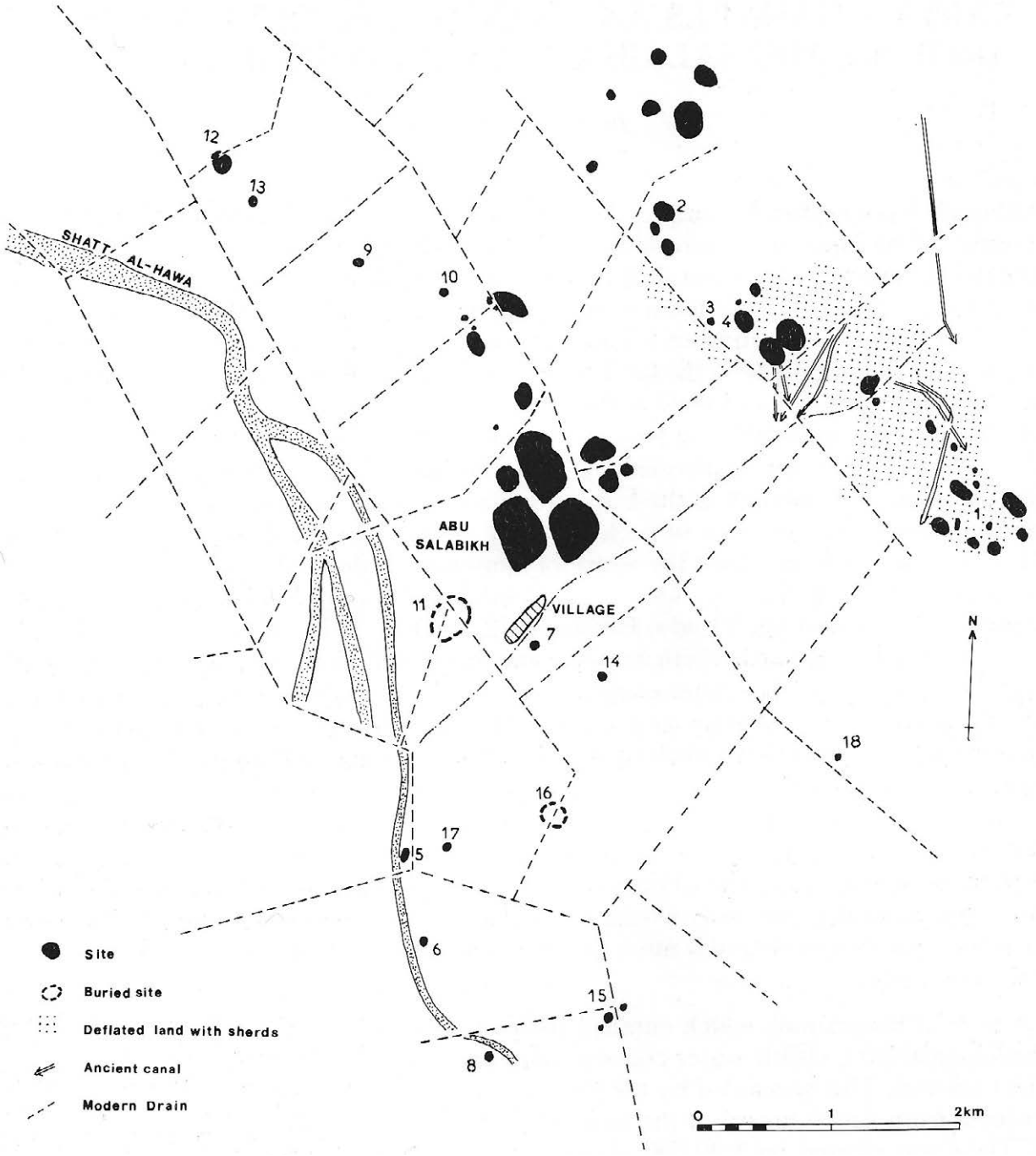


Figure 9.4. The landscape with sites surrounding (Wilkinson 1990: 76 Fig. 1).

completely'.[37] Wilkinson's results at Abu Salabikh illustrate how right van Driel was, and show that until we know more about the fluctuating regime of the Euphrates and its periods of silt deposition it will be extremely difficult to assess the precise significance of the presence or absence in a landscape of small settlements detectable by surface survey.

[37] Van Driel 2001: 111-12.

Steinkeller's main data set is Umma in the Ur III period. A similar study was undertaken for Girsu by Lecompte (2015), based on the archives from the closing years of the Early Dynastic, and he too is able to supply plentiful examples of smaller settlements dependent on the main city of Girsu. There is some scrappy evidence also from Nippur and further north in the orbit of Kiš, and although he does not mention them a number of dependent settlements feature in the field allocation texts at Abu Salabikh, as described on pp. 96-7. At risk of stating the obvious, the mere fact that the documents supplying these details were excavated (licitly or illicitly) in large urban sites shows how the cities were not only dependent on their hinterland, but also administered it. It is also obvious that the only satellite settlements we hear of will usually be those the city controlled. There is at present no way of knowing if there were other villages or farmsteads which had escaped central control. Turning once again to Lagaš, or more specifically Girsu, it is instructive that when Gudea inaugurated his 'Fifty House' (E-ninnu) for the city's patron Ningirsu, he made space in it for some divine or semi-divine hangers on. At different points in the new temple he instated: The Hero Six-headed Wild Ram, the Hero Seven-headed Lion, the Dragon, the Palm Tree, the Bison's Head, the Lion, the Dragon-fly, the Copper, the *Magillum*-boat, and the Bison.[38] And then he says, following Black's rendering 'Because these were slain heroes, he arranged **ki a-nag** (i.e. funerary libation places) in front of them'.[39] In later literary compositions Ningirsu, now assimilated to Ninurta, is described as having defeated some of these very figures in battle, and although he does not say so explicitly, the implication of Gudea's narrative is that their installation as 'dead heroes' in the Eninnu signifies the termination or at least absorption of their previous cult. We know for sure that some of them had been the recipient of cultic attentions: as Black showed, a 'Wild Ram' received offerings according to an Akkade Dynasty document from Girsu, and even before the Akkade Dynasty offerings were made to the 'Palm Tree' and 'Copper'.[40] To use Black's word, this seems to have been a process of 'rationalization', in the modern sense of abolition, of miscellaneous old-fashioned local and perhaps rural cults with symbols which did not belong in the anthropomorphic hierarchy which henceforth dominated Mesopotamian religion.[41] On a small scale it foreshadows the practice well documented under the Assyrian empire of taking the divine statues of conquered lands back to Assyria in an attempt to suppress local political identities, and so tightens the city-based ensi's grip on his domain.

The ensi and the populace

Although, like mediaeval kings in the Near East or Europe, some Mesopotamian rulers travelled extensively within their realms, they doubtless spent most of their time in their 'great house' (**e_2.gal**), in the capital city with its patron deity's temple. We presume that the palace would have served as the ensi's principal residence, where the accumulated wealth of the ruling house was stored. It would also have been the centre, though not the only building, from which the government operated. At Abu Salabikh we have suggested that this may have been in Area A (pp. 150-5), although we have as yet no textual mention of the 'palace'. By contrast at contemporary Šuruppak the **e_2.gal** is often mentioned, but there is no obvious candidate among the excavated buildings for a palace. Institutional administration was distributed in different parts of the city, and one has to imagine specialized 'offices'.[42] One such office was concerned with donkeys in large numbers (Martin 1988: 127), and so can probably be seen as part of the city's agricultural enterprise (although they would also have had

[38] *Cylinder A* xxv.24-xxvi.14.
[39] Black 1988: 21.
[40] Black 1988: 24.
[41] On the downgrading of older divine forms incorporating animal elements in favour of the purely anthropomorphic figures of the classic Mesopotamian pantheon see for example Jacobsen 1970 [1963]: 16-18. and with much detail Wiggermann 1992: 151-64.
[42] Pomponio and Visicato 1994: 4-5.

a role in transport), and otherwise the majority of administrative documents are concerned with the management of people.

Because of the specialized nature of the Fara texts, the details of the social hierarchy remain very unclear. Much the most frequent term for the inhabitants of Šuruppak (in city and countryside) is **guruš**. This is the term used in IAS 490 (p. 119) for the men grouped by their crafts under 'overseers' (**ugula**), and in several of the land allocation texts. It can be approximately understood as 'adult male in service'. They were not technically 'slaves', for which the term transcribed **ir**$_{11}$ but borrowed – like **ugula** – from Akkadian (*wardum*) was in currency.[43] They may therefore in some respects have been 'free citizens', but we have no way of knowing at this date what ideological, social or economic mechanisms generated the constraints under which they worked, or what form their remuneration, if any, would have taken. TSŠ 613 records '108 **guruš**, fugitives (**lu**$_2$**-zah**)': these were probably members of the local population, as the tablet gives the additional information that some are 'in the palace', the others 'in the city' (**guruš ša**$_3$ **e**$_2$**-gal** or **ša**$_3$ **iri**).[44] By contrast important records from the building in XVIIc,d list hundreds of **guruš** from six major cities, Uruk, Adab, Nippur, Lagaš, Umma, and Šuruppak itself.[45] While the underlying circumstances are not transparent, and probably responding to 'international' events, these men must have been conscripted under some military or civilian constraints.

At Girsu after the Akkade Dynasty Gudea as ensi was able to conscript a workforce from three 'clans' (**im-ru-a**) for the major building project of the new Ningirsu temple. We have no way of knowing if membership of a 'clan' was based on family relationships, residential location or some other criterion, or if they would have been described as **guruš**. In the Šuruppak archives as many as 539 children (DUMU.DUMU) divided into seven 'clans' (written **im-ru**) are also attested, but there too the nature of the grouping is uncertain and although they are different from the children listed as 'in the palace' (**ša**$_3$ **e**$_2$**-gal**) we cannot tell if they would have supplied **guruš** to the government projects or were not designated as such by virtue of membership of a class of free citizens.[46] To judge from later texts, free citizens, who we may guess constituted the assembly, would have been known as 'children' (**dumu**) of the city, which included both men and women.[47] One more specific term which does appear to refer to social status in a city is /dumu gir/ (written both **dumu-gi** and **dumu-gir**$_{15}$) but unfortunately the precise meaning of the epithet /gir/ remains unresolved. It is certainly also found qualifying animals (a dog: /ur.gir/), and a language (Sumerian: /eme.gir/); written with the sign **gi** (as opposed to ŠE$_3$ = **gir**$_{15}$), it has also been suggested for a donkey (/dur.gi(r)/, the king Šulgi(r), and for the 'land of Sumerian' – /ki en.gi(r)/ (see Appendix 2). Steinkeller suggests that it should be understood to mean 'native'.[48] An alternative would be 'normal, proper'. Westbrook reviewed the rather scanty evidence for /dumu.gir/ and concluded that the term 'arguably refers not to any free person but specifically one freed from slavery',[49] but this can hardly be maintained on the basis of the evidence he adduces and the approximate meaning 'free citizen' seems fairly secure.[50]

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[43] Possibly also written HAR(=**ur**$_5$).TU, see Steinkeller 1993: 121; Krebernik 1998: 263[267].

[44] see Martin 1988: 99; for 'palace' vs. 'city' see Steible 2008: 90.

[45] Pomponio and Visicato 1994: 10-20 (WF 92; 94).

[46] Visicato 1995:17, 22, 25 (TSŠ 245); Selz 1998: 292, 329.

[47] Falkenstein 1956: no. 185; also nos. 74 and 178.

[48] Steinkeller 2005.

[49] Westbrook 2003: 338.

[50] Westbrook cites Falkenstein 1956: no. 75 where a woman is determined by the court to have become a **dumu gi**$_7$**-r**(**a**). Cf. also no. 177 freedom of **1 dumu ir**$_{11}$ **dumu g**[**i**]. Kraus 1970: 55-60 remains a definitive presentation of the evidence (though the assumption (p. 60) that **gi**$_7$/**gi** by itself could mean 'Sumerian' is mistaken), updated by Wilcke 1975. The sense that **dumu-gir**$_{15}$ implies free membership of a city may be reinforced by the line **dumu-gir**$_{15}$ **lu**$_2$ URU+GANA*tenû*^{ki}-**me** in Jones and Snyder 1961: no. 252.ii.25.

Legal documents and the law

In the Early Dynastic period virtually all our written sources are generated by institutions, whether secular or religious, and in consequence we only hear of the citizens when they interact with the palace or the temple. There is however one class of document which relates to what today we might call the 'private sector', and that is records of the transfer of title to real estate, broadly conveyances. While writing was developed by institutions – entirely or mainly temples – in the 4th millennium to keep records of commodity movements in and out of their control, from the first three or four centuries of the Early Dynastic period we have texts, mostly incised on stone, which relate to the transfer of land rights, and are known as 'archaic kudurrus' after the 'Babylonian boundary stones' of the 2nd and 1st millennium, which also reflect the importance attached to such transactions by committing them to stone. The archaic ones come from most parts of the country, and given their great variety in physical appearance and textual content they must always have been rather exceptional.[51] By contrast we have from Šuruppak in the ED IIIa period a considerable number of real estate conveyances on normal clay tablets which are remarkably standardized, and show that socially recognized procedures for formalizing and recording the transfer of property title were by this time well established. Most of these are for fields ($GANA_2$). Some are for houses, but both types are very similarly drawn up. The item to be transferred is mentioned, its size stated, followed by the core purchase price, in copper or silver, or both. Much of the document is often taken up by a list of supplementary payments, both in metal and in kind, including textiles and food, a practice already seen in the archaic kudurrus; the final lines may give the year and the location of the field. While in most texts there is just one purchaser and one (or a few) sellers, it is clear that other persons are named in the document to confirm that they had been present and consented to the transaction. Usually we can only guess what their interests were, but as noted above, in other times and places village communities – or indeed city based groupings – may have had liens on the property because of the communal cultivation systems in place, or had formally recognized rights which needed acknowledgement. Although their precise provenance from the mounds at Fara is unrecorded, the very standardized physical form of both field and house sales indicates that there was a public engagement in the documentation, whether on the part of the palace, a temple, or the city authorities. It is probable that 'land-registrars' ($\mathbf{sa}_{12}$-$\mathbf{sug}_5$) must have been directly answerable to whichever institution was involved for the administration of land, since they are well attested at Abu Salabikh as well as contemporary Šuruppak, where eight persons with this title are listed.[52] About six centuries later in the Diyala region his counterpart for the administration of urban (as opposed to rural) properties was known in Akkadian as the *kakikkum*, which is presumably originally Sumerian (see p. 28), but not yet attested at this date. At Abu Salabikh only one small tablet relates to a house purchase (IAS 555), but the mere existence of even so small a text as this, and of the body of conveyance texts from Šuruppak, presupposes some concept of public law. The legal principles and conventions can hardly have been initiated afresh by each ensi, and his role must usually have been to ensure they were implemented in accordance with tradition as one of the duties of the ruler as the divinely appointed shepherd of his people.

The ensi and place(s) of judgement

At Lagaš the border dispute with Umma and the digging of new irrigation canals are all about assuring the citizens' food supply, and in their inscriptions, which are often but not invariably associated with building projects, the ensis of Lagaš vaunt their successes in promoting the prosperity of their citizens. This goes hand in hand with their concern to succour the less fortunate in society, making explicit mention of the widows and orphans. Enmetena writes: 'He cancelled obligations for Lagaš, having

[51] Gelb et al. 1991.

[52] Pomponio and Visicato 1994: 208.

mother restored to child and child restored to mother. He cancelled obligations regarding interest-bearing grain loans'.[53] This is the earliest known attestation of a state-decreed annulment of personal debts, a practice which is very well documented in the Old Babylonian period, and resurfaces in later centuries in Judah and at Athens, where it is known as a seisachtheia and associated with Solon. The early royal inscriptions are very laconic and reveal little in the way of motivation, but the last Pre-Sargonic ruler of Lagaš, Urukagina, was less inhibited: after a detailed account of social reforms he had initiated he states that 'as for the citizens of Lagaš – those living in debt, ..., the thief, the murderer – he cleared the prison(s) of them (and) established their freedom'.[54] Such claims, which there is no reason to distrust (as long as our translation is correct!), are clear indications that these rulers like their successors acknowledged their obligation to promote the mental and physical health of their citizens – expressed in Akkadian as 'well-being of heart and well-being of flesh'. Just as Hammurapi announces that his laws are 'to prevent the strong from oppressing the weak, and to support the orphan and widow', so already 600 years earlier Urukagina 'solemnly promised Ningirsu that he would never subjugate the waif and the widow to the powerful'.[55]

While it is clear that the ensis saw the provision of justice to their citizens as part of the obligations imposed on them by the city god, at this date details of how it was administered are few and far between.[56] At Abu Salabikh we have no direct evidence for the administration of justice, but practices and principles at other times in Sumer and Akkad create some expectations. The earliest document we have that is clearly generated by the administration of justice is at present the laconic text reading 'Šeštur is owed 3 ½ minas 1 ⅓ shekels of purified silver. At that time Ur-Emuš decided that case. Lugalanda was the ensi'.[57] Here it is probable that this is an Ur-Emuš known from other texts as a Chief Merchant (**gal tam$_2$.kar$_3$**), and that the mention of the ensi reflects his ultimate judicial authority (rather than supplying a date). A Pre-Sargonic ensi of Nippur, Ur-Enlil, delivered judgement in a case recorded on a tablet from south of the Inana Temple.[58] Under the Akkade Dynasty we find a slave ownership dispute decided by a temple manager (**sanga**)[59] and other texts from Isin and Nippur show temple managers and ensis deciding cases.[60] In later court records, principally under the Ur III dynasty, single judges are rare, and we have consortia of two, three, four and seven judges.[61] The role of 'judge' (**di kud**) was not a regular career, but entrusted to highly placed or well respected members of society with a wide range of professions, including scribe, a sea-faring merchant, an aide (**sukkal**), a captain (**nu banda$_3$**), a soldier (**aga-us$_2$**), a treasurer (GA$_2$-**dub-ba**) and an extispicer (**maš-šu**-GID$_2$.GID$_2$).[62]

In Ur III times, and no doubt also earlier, verdicts were sometimes reached by a citizens' collective. At Umma under Amar-Suen a previous decision of the ensi was reaffirmed by a 'completed judgement of the son(s) of (the town) Aebarra' (**di-til-la dumu-a-e-bar-ra**),[63] and on another occasion a dispute over a grain debt was resolved by the 'completed judgement of the son(s) of Zabala'. These citizens may have

[53] Cooper 1986: 58.
[54] So broadly after Frayne 2008: 264, who follows Steinkeller 1991 in reading **e$_2$-eš$_2$-bi** and translating 'prison', in place of earlier interpretations such as Cooper's **é-hun-bi**. Admittedly, the passage remains enigmatic in some respects, since later seisachtheias do not usually extend their release to criminals, and the evidence for the use of imprisonment at this early date is scarce.
[55] Cooper 1986: 73.
[56] As is clear from the invaluable survey in 2-3 of Wilcke 2003 (pp. 28-48).
[57] Edzard 1968: no. 78.
[58] Buccellati 1969: 6.
[59] Edzard 1968: no. 78.
[60] Wilcke 2003: 38.
[61] Falkenstein 1956: 21-23.
[62] Falkenstein 1956: 33.
[63] Falkenstein 1956: no. 48.

been the 'elders' (in Sumerian **ab-ba ab-ba**) who were consulted by the judges in a real estate dispute;[64] in Old Babylonian times 'the city' and 'the elders' are mentioned in the same breath and decisions or actions taken by them must presumably have resulted from an assembly, partial or plenary, and sometimes representing a village or a city ward. To resolve a real estate dispute at Dilbat in the reign of Samsu-iluna the defendant 'convened the men, members (lit. 'sons') of the ward (*mārī bābtim*) who knew them, and the men, the members of their ward, examined their statements'.[65] Also after the demise of the Ur III dynasty a legal saga which entered scribal tradition saw the trial of a wife accused of complicity in her husband's murder sent from Nippur to the reigning king at Isin, and then referred back by him for the Assembly (*puhrum*) to reach a verdict.[66] No doubt the concept of communal justice was deeply ingrained, though in the absence of equally explicit statements from the 3rd millennium documentation this is hard to prove. In one Ur III text 'The Assembly' (the Sumerian text using *puhrum* as an Akkadian loanword) fixes a divorce payment,[67] while the potential for 'The Assembly' to express and implement the common will is encapsulated in the (possibly fictional) tradition that in the turbulent times at the end of the Akkade Dynasty 'Kiš assembled, and elevated Iphur-Kiš [meaning 'Kiš assembled'!], the son of Ṣummirat-Eštar a lamentation priestess, to the kingship'.[68] According to this narrative the assembly met 'on the common boundary of Tiwa and Wurumu, in the field Ugar-Sin, between E-sabad and the House of the goddess Ninkarrak', and it is understandable that a gathering of the entire population of the city (and perhaps also hinterland) of Kiš might not have been accommodated within either of the twin urban agglomerations. In Ur III times a governor of the city of Kazallu also held the title of 'assembly expert' (**gal-zu ukkin-na**), and Šarrum-bani, a governor of Abiak under Amar-Suen, claims the same title in a letter to king Šu-Sin, showing that the higher echelons of the administration were at least in some situations engaged with an 'assembly'.[69]

Where a Mesopotamian assembly usually met is not an established fact. There is no simple equivalent of the Greek agora. The Sumerian for 'assembly', written with the sign UKKIN (glossed $^{uk\text{-}kin}$ or $^{un\text{-}ki\text{-}na}$ in lexical tradition), is understood by some to derive from /uğ+ğen/ = 'people+come', and does not enlighten us on this point. However, lexical texts from the early 2nd millennium put *puhrum* (and **ukkin**) in the same section as **murub** 'centre' and **kisal** 'courtyard' (CAD P: 485), which may be a useful hint. Both domestic houses and temples had courtyards referred to as **kisal** (literally 'wide space'), and courtyard-sweepers (**kisal luh** – male and female). Temples such as the Temple Oval at Khafajeh or the similar ovals at Ubaid and Al-Hiba could have accommodated hundreds of citizens, seated or standing. On the other hand, if we have correctly identified the location of the temple at Abu Salabikh the Room 80 courtyard, measuring only ca. 8.1 x 6.1 m would hardly have hosted a large assembly. Except for the Kiš episode the texts do not tell us where the assemblies met, and the nature, indeed the very existence, of open public spaces in Mesopotamian cities is an issue which remains controversial and unresolved (see p. 20). What is also far from clear is whether judicial proceedings which did not involve the general public in the shape of a plenary city assembly would have been in open or closed sessions and indoors or outdoors, and if indoors, in which building(s).

There is however one structure mentioned in the written sources which is clearly associated with the exercise of justice, and might suggest an open location. When describing the breakdown of law and order during the collapse of the Ur III Dynasty in the *Lament over Sumer and Ur* the poet wrote 'Verdicts were not given at the Dublamah, the place where oaths used to be taken, the throne was not set up at its

[64] Falkenstein 1956: no. 101.11.
[65] Schorr 1913: 279 (VS 7.16); Walther 1917: 64; Westbrook (ed.) 2003: 367[22]; see CAD P: 487-8.
[66] Jacobsen 1970 [1959]: 193-214.
[67] Van Dijk 1962: 70-1.
[68] J. Westenholz 1997: 234-5 and 242-3.
[69] See Wilcke 1975: 50[36] for the textual sources.

place of judgement, justice was not administered'.[70] The word **dubla** is known from the lexical tradition to refer to a base or 'plinth',[71] often with the addition of **mah** a 'high plinth', and inscriptions of king Amar-Suen of the Ur III Dynasty on door sockets found at Ur record his restoration of the **dub-la$_2$ mah**, which had become dilapidated. He describes it as 'his place of judgement' (**ki di-ku$_5$-da-ni)**, and rather more ominously as 'his net from which no enemies of Amar-suena escape'.[72] Šu-ilišu, the second king of the dynasty of Isin which ruled the south after the fall of the Ur III Dynasty, uses the same phrase 'his place of judgement' to describe the **dub-la$_2$ mah**. This inscription was also on door sockets excavated by Woolley in the vicinity of a building at the south-east corner of the temple enclosure at Ur, which he duly (though perhaps incorrectly, see below) identified as the 'E-Dublalmah'.

That some judgements took place at a structure called **dubla** (**mah**) is confirmed by occasional judicial documents from Ur III and Old Babylonian times. At the conclusion of a case it was normal to require one or both parties to take an oath. Often we read that they were sent to a temple to take their oath before the divine statue or standard, but on one occasion at Ur in the reign of Ibbi-Sin the witnesses and the court marshal (**maškim**) took their oath 'at the **dub-la$_2$ mah**',[73] and once in the reign of Nur-Adad a dispute over the unpaid purchase price of a field came before the king, who committed witnesses to the Dublamah to take an oath.[74] Gudea incorporated a **dub-la$_2$** (without **mah**) into his new Ningirsu temple (*Cylinder A* xxiv.18, 26): he compares it to a wild bull and it was provided with **lahama** figures, probably the long-haired gate guardians seen on seals. As Lambert has shown *lahmu* figures (usually associated with doorways or gates) are also mentioned standing at or by a **dub-la$_2$ gal** in the Ekur at Nippur in the *Curse of Akkade* (131-3) and the same text refers to a **dub-la$_2$** at Akkade itself (228-230).[75]

At Girsu Gudea describes another construction called Šu-galam at rather greater length: in *Cylinder A* viii.6 it is called an 'awesome place, the place of passing judgement, the place where Ningirsu surveys the lands'.[76] The same term is used by Išme-Dagan of Isin, who describes the gate of Ešumeša, Ninurta's Temple at Nippur as the 'gate in front of Šu-galam, the place for deciding fates'.[77] The word **galam** refers to a staircase or ramp (and is used in the name of the Enlil ziqqurrat at Nippur), and would fit with a high place from which, as Gudea says, Ningirsu can survey the lands. Whether in these two cases the Šu-galam is another way of referring to a **dubla** platform it is too early to say, but what can be said is that both terms are associated with the exercise of justice, and with an elevated situation. Drawing on the familiar saying (which is only just a century old in its present form) that 'justice must not only be done, but must be seen to be done', it is reasonable to conclude that the kings were concerned to establish a public facility where justice was meted out in full view of the populace.

Exactly where remains to be considered. In the case of Gudea, both the **dubla** and the Šu-galam are part of his newly constructed E-ninnu, the city temple of Girsu. At Nippur the Šu-galam faces the gate of the Temple of Ninurta, the city's patron deity (not the Ekur of Enlil, whose patronage covered the whole land). At Ur the **dubla mah** is undoubtedly close to the enclosure wall of the temple of Nanna (Suen), but precisely where is less than certain. Woolley assumed that it was the Kassite period cella-like building which he firmly calls the Edublalmakh, but this is a misunderstanding, as seen by Lambert,

[70] Michalowski 1989: 65, ll. 438-9.

[71] The evidence for this, and more detailed evidence for the **dubla** in general will be presented in Postgate, in *Ur 1922-2022 Centenary* volume, forthcoming.

[72] Frayne 1997: 253-4, ll. 19-25. It is worth considering whether the phrase **u$_6$ di kalam-ma,** translated here 'wonder of the land' should not rather be 'observation point of the Land'.

[73] Falkenstein 1956 No. 114.iii.12-14.

[74] Charpin 1980: 43-4: TS 1. X.Nur-Adad: i. 20-21 **lugal-e lu$_2$ inim-ma-bi-me-eš / dub-la$_2$$^{!}$-mah$^{!}$-še$_3$ nam-erim$_2$-še$_3$ / in-na-an-sum$^{!}$**.

[75] Lambert 1985: 194-5.

[76] **ki huš ki di-kud-de$_3$ ki ^{d}nin-gir$_2$-su-ke$_4$ kur-kur-ra igi mi-ni gal$_2$-la**.

[77] Frayne 1990: 46 no. 15,15'-16': **ka$_2$ igi šu-galam ki nam-tar-re-**[**dam**].

because there are contemporary inscriptions referring to restoration work on the 'old Great Gate' (KA$_2$.GAL **mah libir.ra**) which had long ago been abandoned'. Kurigalzu's bricks recording his reconstruction of the **E$_2$ dub-la$_2$ mah** 'the old house which had been built long ago and had become old' were found by the south-west door of the gatehouse. This has led me to propose that a rectangular plinth dating back at least to the founder of the Ur III Dynasty and shown on Woolley's plans just south-west of the gatehouse building may have been the original **dubla mah**, in which case it would have stood in open ground just outside the temple proper, next to the gateway, rather as we hear of the Šu-galam at Nippur. As Shepperson has shown, in *Enlil in the Ekur* we read that Enlil and Ninlil 'decide the fates together at the place facing the sunrise' (2017: 168), and 'if the presence of light is understood as the presence of the god of justice, and sunlight is considered to induce people to speak the truth, then it seems highly likely that judgement should be performed in sunlight; in the presence of Šamaš, the supreme judge' (p. 169).

To sum up, there is good evidence that in Neo-Sumerian and Old Babylonian times city justice was exercised at, or rather on, an officially established platform which was, where we can tell, close to but outside a temple. Oaths at the conclusion of a legal case were sometimes sworn there, though perhaps more often in a temple proper, but the legal affair was transacted under the ultimate authority of the ensi, in a publicly accessible and visible place conveniently close to a temple gateway. This conforms to our understanding that the ensis (as later the kings) were entrusted by the city deity with responsibility for the exercise of justice within their realm. Unfortunately, with our only partial knowledge of the city plan at Abu Salabikh there is at present no prospect of identifying any such installation, not least because we have not certainly fixed the site of the city temple or any associated gateway.

Chapter 10

Kingships and patron deities

Some ceremonial bowls

The territorial dispute between Lagaš and Umma lasted more than a generation: when Eanatum, ensi of Lagaš gives a detailed, and doubtless one-sided, account of events at the boundary, he reports that he respected 'the place where Mesalim erected a stele' and restored it to its place.[1] It had clearly been there for some time, probably since the reign at Girsu of Lugal-šag-engur (an ensi who came before Ur-Nanše, the founder of Eanatum's dynasty), because the well-known lion macehead found at Girsu is inscribed 'Mesalim, king of Kiš, temple builder for Ningirsu, set this up for Ningirsu. Lugal-šag-engur is the ruler (ensi) of Lagaš'.[2] So it would seem that at about the same time as our scribes at Abu Salabikh were writing their tablets Mesalim was recognized as an overlord by both Lagaš and also, we must assume, by Umma, and so was entitled to negotiate or simply impose on his inferiors the agreed boundary. This is an early instance of the behaviour of later overlords, who sometimes intervened to fix boundaries in territories they controlled: thus Utu-hegal, scourge of the Gutians, 'restored to Ningirsu the border of Lagaš which the 'man of Ur' had claimed';[3] this was perhaps the self-same stretch of land which, according to an earlier ensi of Lagaš, Puzur-Mama, had been Lagaš territory since the days of Sargon but had been annexed by Ur-Utu the ensi of Ur under (and presumably with the connivance of) his Akkadian overlord Naram-Sin, who was doubtless influenced by a 'gift' of 2 minas of gold.[4] Many centuries later we find the Assyrian king Adad-nirari III erecting boundary stelae between two vassal states west of the Euphrates.[5]

It is apparent that Mesalim also liked to formalize his sovereignty by undertaking or subsidizing building work on the temple of the city patron, Ningirsu, and a similar engagement of his with a local religious establishment is attested elsewhere in the southern alluvium. Fragments of two inscribed stone bowls excavated by Banks from the Esar temple at Adab, on the Tigris upstream from Umma, both bear the name of Mesalim, and like the Girsu lion mace one of them follows this with the name of the ensi of Adab, Nin-kisal-si, while the other describes Mesalim as the 'son beloved of Ninhursag' (a goddess local to the area) before the rest of the inscription is broken away. The clue to these bowls is given by the first example which includes the laconic phrase 'he offered[7] the stone bowl' (**bur mu-gi$_4$** Fig. 10.1).[6] The word **bur** in Sumerian refers specifically to a stone (not ceramic) bowl, as is evident from the professional name **bur-gul** 'stone bowl beater' (see p. 127), and it is no coincidence that these two inscriptions are found on stone bowl sherds.[7] Two millennia later Assurbanipal relates that he made *burgû* and *bursaggû* offerings to Marduk, a Babylonian practice foreshadowed by Merodach-baladan. These rather scarce references to a 'burgi' ceremony seem all to have this in common, that the person presenting the offerings is a ruler, although we cannot be sure that this was invariably the case. The examples we have are from 'kings' (**lugal**), i.e. overlords; but they are few and far between and it would be no surprise if mere ensis also took part in this ritual. Indeed, much closer in time a damaged and enigmatic inscription on a fragment of sculpture perhaps attributable to Gudea mentions an offering

[1] Frayne 2008: 142.
[2] After Cooper 1986: 19; see Frayne 2008: E1.8.1.1.
[3] Frayne 1993: 282-3; as in other languages **ki-sur-ra** 'border' also implies 'territory'.
[4] **2 ma-na ku$_3$-sig$_{17}$ kadra ib$_2$-ši-ak** (Volk 1992).
[5] Grayson 1996: 203-4 no. 2 and 204-5 no. 3.
[6] The precise meaning of the verb **gi$_4$** in this phrase remains uncertain; it does not always have the implication of 'returning'.
[7] The stone bowl sherd 7N-213 (Fig. 10.2) has the sign **bur** incised next to the dedicatory inscription of Inana's herdsman (Goetze 1970: 53).

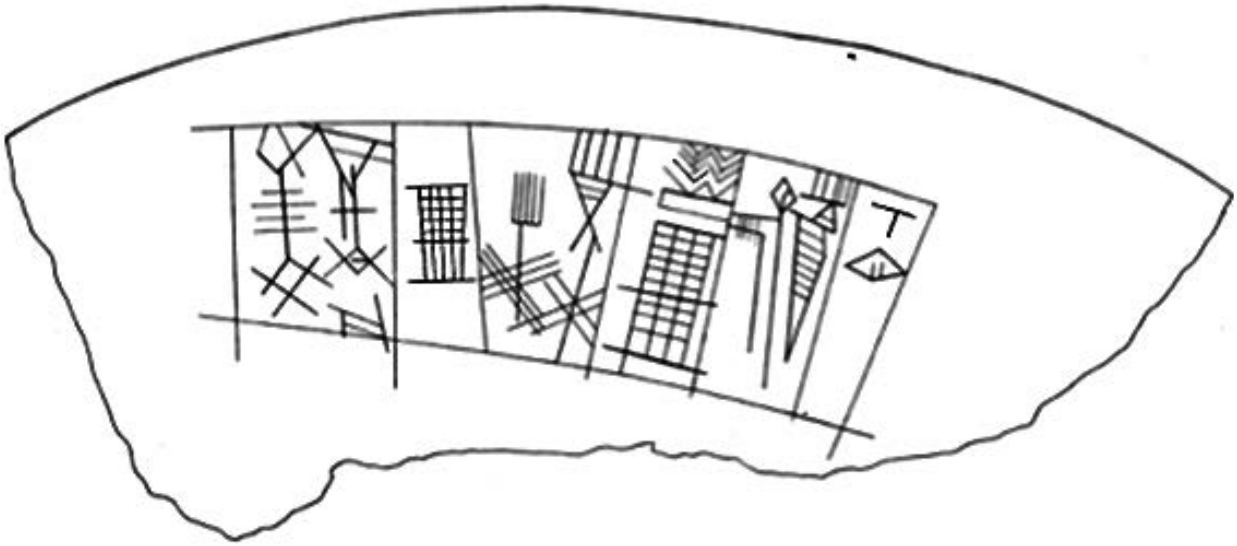

Figure 10.1. Stone bowl sherd with inscription of Mesalim (Luckenbill 1930 No. 5). Me-DI / lugal kiš / e_2:SAR / bur mu-gi_4 / <nin>-kisal-<si> / NIG_2-en_5-si adab^{ki} (see Cooper 1986: 19 for the signs in l. 6 omitted in this copy).

of '1 ox, 4 sheep and 1 goat' with the phrase **bur-gi_4-a-bi** ('its stone bowl offering').[8] At Nippur numerous stone bowls with dedications to the goddess Inana by local residents, including high ranking officials and their wives, were recovered from her Early Dynastic temple.[9] In any case, the formality signalled by the carving of an inscription onto a bowl (in one case decorated) is a clear sign that the ceremony had symbolic value, although we cannot be sure if these were also used in a lower social version of the **burgi** ritual (Fig. 10.2).

Figure 10.2. Stone bowl sherd from Nippur, with dedication to Inana by a herdsman (PA.USAN); bowl headed **bur** *(7N-213 Goetze 1970: 45, 53).*

In any case, that kings participated in the ritual to symbolize their supremacy at the local shrine was unexpectedly confirmed when in 1971 Robert Biggs made known the Early Dynastic Abu Salabikh version of the *Keš Temple Hymn*, preserved in at least three separate fragmentary copies. This, though a full 700 years earlier, was clearly a forerunner of the version copied in the Old Babylonian schools, and edited in Gragg 1969. With due allowance for the developments in scribal conventions much of the two versions is identical, but there was one telling difference: where in the later version we read in Biggs' translation 'In the temple the king put a stone bowl in place' , the archaic version has 'the king of Kiš'.[10] Since we know that Mesalim, calling himself 'King of Kiš' presented stone bowls to the temple at neighbouring Adab, one cannot avoid putting two and two

[8] Steible 1991: 228 Col. iv.10'-11': **bur-gi_4-a-bi**; Jacobsen 1957: 135[100]. A text describing a royal inauguration at Uruk mentions the aspiring **en** as discarding his 'burgi' name (**mu bur-gi_4-a-ni**), Sjöberg 1972: 111-2.

[9] Goetze 1970.

[10] Biggs 1971: 202. OB version: **e_2-e lugal bur-ra am_3-mi-gub** (l. 107, [with variants in the verbal prefixes]); ED version: **e_2 lugal kiš^{ki} bur am_6-ma-gub.** Given the multivalence of the sign DU it might here also stand instead of **gub** for 'he brought' (**de_6**) the bowl.

together and seeing this as a reflection of a royal intervention in the temple affairs of Keš, symbolizing the same statement of sovereignty as already seen at Girsu and Adab, whether it was Mesalim himself or one of his predecessors or successors (e.g. Enna-il or Mes-nun(a)[11]) who was recognized as King of Kiš.

Inscribed stone bowls were not an innovation of Mesalim. (En-)mebaragesi, a predecessor of his claiming the title of 'King of Kiš' left his succinct inscription on at least two stone bowls. One was excavated at Khafajeh in a room south-west of the courtyard of the Temple Oval,[12] and bears the name Me-barag(e)-si, while another stone bowl sherd, which found its way onto the local antiquities market (IM 30590 'confiscated at Kut') and was published by Dietz Edzard, has in addition to his name his title **lugal kiš**. These show that already the kings of Kiš had extended their control over the Diyala region east of the Tigris.[13]

The practice of a ruler making a presentation to a temple in a stone bowl therefore has a long history, and already in the 4th millennium it is not far fetched to compare the well known offering scene on the limestone *Warka vase*, where food offerings are presented in large bowls to the goddess Inana of Uruk (Fig. 10.3). Some smaller containers shown there look like woven baskets, and it is impossible to be certain that the majority of the large conical bowls are stone rather than ceramic, but the tall cylindrical vessels standing behind the deity resemble the vase itself and thus were surely likewise of stone. That stone vessels might be used for formal presentations to a deity is not surprising. The impermeability and smoothness of close grained stone are attractive qualities, and in Roman times Jewish communities around Jerusalem prescribed stone vessels for service in the cult.[14] The use of an inscribed stone vessel clearly signifies a ceremonial action with symbolic implications. At any given temple over the centuries, indeed the millennia, this particular kind of offering symbolized the ruler's sovereignty over the community whose identity is enshrined in the temple in question. It may not be irrelevant to compare the much later ceremony when Assyrian kings received the 'left overs' from the god's table, a clearly symbolic act acknowledging their sovereignty over the Babylonian city in question. The making of regular offerings to a city temple was an affirmation of a city's corporate identity, and by becoming the recipient of the divine left overs the Assyrian king was asserting his suzerainty over the city and its citizens. In his Marduk inscription cited above, Assurbanipal mentions first the **bur.sag.ga$_2$** offerings: these are listed lexically before **bur.gi$_4$** in Proto-Lú but not encountered in our surviving Sumerian or Akkadian documentation from the pre-Kassite period, yet there is a distinct possibility that this is another way of referring to the 'first fruits' offerings which are otherwise known in Akkadian as *rēšēte* (in Assyrian *rešāte*).[15] Kings often record that they established regular 'first fruits' offerings for particular temples, and it is obvious that Assurbanipal's disposition for Marduk reflects his claim to the overlordship of Babylonia.

Kingship, the gift of a deity

In legendary – though not necessarily entirely fictitious – time Enmebaragesi's son Akka of Kiš confronted Gilgamesh in front of the walls of Uruk. Akka is called 'king of Kiš' and in the narrative Gilgamesh is referred to as a 'king' (**lugal**), but his formal title throughout is '**en** of Kulaba', using the term **en**, which we later translate as 'lord' and goes back into the 4th millennium, being perpetuated in stone on the Uruk vase (Fig. 10.3). It does seem probable that at Uruk for centuries secular and religious leadership was incorporated in a single person with this title, and however 'legendary' the Gilgamesh

[11] For Enna-il see Steinkeller 2013: 148[67], and for Me-nunsi 2013: 150[81].
[12] Jacobsen 1940: 146.
[13] cf. Steinkeller 2013 on this point.
[14] Postgate 1997: 210.
[15] For a first-fruits (**nesağ**) delivery from Ur to Nippur, in which Enna-il (of Kiš ?) seems to be involved, see Steinkeller 2013: 148[67]. For the Neo-Assyrian 'left-overs' see Parpola 2004.

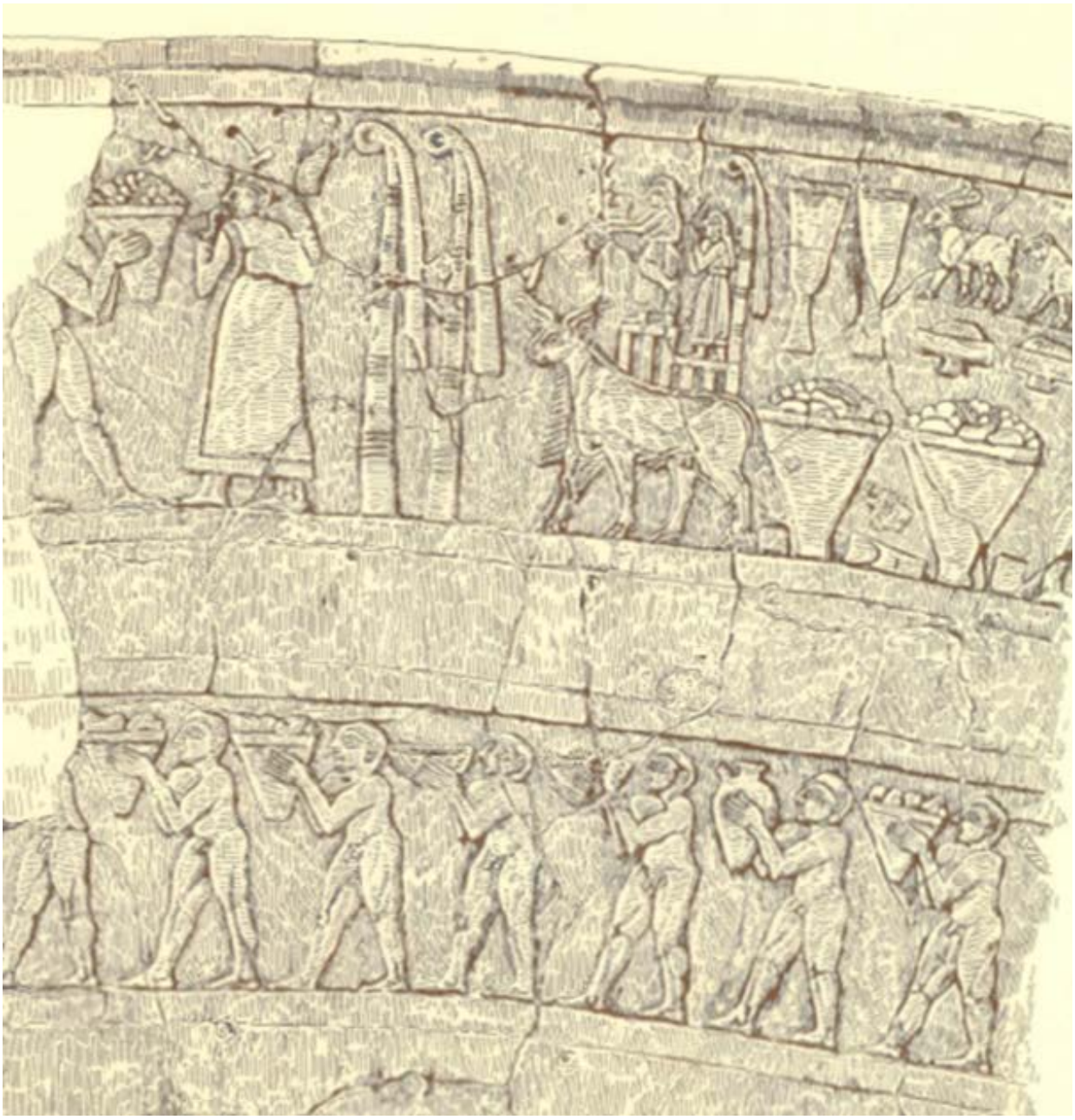

Figure 10.3. Warka vase detail of upper registers. The first figure standing on the bull holds a damaged EN sign, presumably indicating his ruling office. (Heinrich 1938b: Tafel 38)

traditions may be, this remains the case later in the Early Dynastic when Lugal-ki(gi)neše-dudu, informs us that when 'Enlil, lord of the countries' had 'called him favourably (**zi**[16]) (and) had combined **en**-ship with kingship for him, he exercised the **en**-ship in Uruk (and) the kingship in Ur'.[17] Another (probably later) inscribed bowl of his goes further, because it gives him the title of 'king of Kiš'.[18] Both these bowls were found in the remains of Ekur, the temple of Enlil at Nippur, and the mere fact that he was able to

[16] Cf. **igi zi bar-ra an lugal kur-kur-ra** referring to Lugal-zagesi Frayne 2008: 435, 13.

[17] Frayne 2008: 414. The same pair of titles (**en** of Uruk and king of Ur) is accorded to the defeated Lugal-zagesi by Sargon (Frayne 1993:20 Caption 2).

[18] Cooper 1986: Uk. 1.2.

dedicate his bowls there is a clear sign that in addition to control of Ur and Uruk his secular authority has reached that far north, reinforcing the claims of the inscriptions. His bowls do not come from the temple of Ninurta, the city god of Nippur: he is not making a claim to rule a city, as we saw with Mesalim at Adab, because Enlil, sometimes described as the 'King of the countries' (**lugal kur-kur-ra**), is not the patron deity of the city of Nippur, who is Ninurta, or of any other city, but of the entire human political world of south Mesopotamia: when in the poem *Enki and the World Order* Enki turns his attention to Nippur 'Enlil was delighted with Enki and Nibru was glad. He demarcated borders and fixed boundaries', which sums up his political authority.[19] Like smaller social groupings, from families to cities, the region's identity is encapsulated in the persona of a patron deity, and it cannot be a coincidence that his temple is placed at the centre of the south Mesopotamian plain, in a city which never had any pretensions to regional hegemony. Rulers who succeeded in imposing their control over a swathe of the southern alluvium, necessarily including Nippur itself, celebrated and symbolized their sovereignty by making offerings, presumably in person, to Enlil in his temple of Ekur, since he was the overarching patron deity of the whole region. It seems improbable that any ruler could have made such offerings to Enlil when another was effectively in control of Nippur, and hence we may fairly assume that those whose inscribed bowls we have were, for a while at least, acknowledged as 'king' at (but not of) Nippur.

The inscriptions on the bowls are in fact a principal source for reconstructing the cut and thrust of the rival Early Dynastic city states, although the reality was undoubtedly more complicated than we can hope to recover from the sparse (and biased) sources. A picture of the bewildering overlapping power bases emerges from Cooper's Table of the 'Rulers of the Presargonic Period' (1986: 14). The earliest of the Ekur bowls are perhaps from Lugal-ki(gi)neše-dudu, followed by his son Lugal-kisal-si, and then En-šakuš-ana, and finally Lugal-zagesi, on whom see below. While they all use slightly differing titles to describe their supremacy, none of them is local to Nippur, which has its own ensis, but they all claim royal status (**lugal** or **en**) in relation to Uruk, Ur, or Umma.[20] At both Ur and Kiš, at opposite ends of the alluvial plain, the rulers used the title of 'king' (rather than ensi), and both feature in the later heavily biased composition known as the *Sumerian King List*. The title 'king' (**lugal**) usually, if not always, implied overlordship over neighbouring cities which would retain their existing rulers (ensis) as seen with Mesalim.

Two of the Ur kings also claimed to be 'king of Kiš',[21] but in fact we have no hard evidence that a 'King of Ur' ever conquered or ruled a king of Kiš, or that a 'King of Kiš' ever conquered or ruled over Ur, while no 'King of Ur' or 'King of Kiš' is represented among the bowls retrieved from the Ekur.[22] It is open to question therefore whether, with one exception, any single ruler could claim control over the entire alluvial plain before the Akkade dynasty. The exception is Lugal-zage-si, originating from Umma, whose defeat by Sargon of Akkade technically marks the end of the Early Dynastic period, and whose 132-line inscription was reconstructed by Hilprecht from about 70 stone bowl fragments retrieved from the Ekur in the 1880s. His titles are 'King of Uruk (and) King of The Land', where 'The Land' renders the Sumerian **kalam** (Emesal **kanağ**).[23] The equivalent of this word in Akkadian is *mātum*, which comes to

[19] Black et al. 2004: 223.

[20] Cooper 1986: 92-93.

[21] Cooper 1986: 98.

[22] The stone bowl of Utuk/Uhub found at Nippur (Frayne 2008: 63) is doubly enigmatic in that if correctly restored he is given the title of e[nsi] of K[iš], a title not otherwise mentioned, and the bowl appears to be dedicated not to Enlil but to Za[baba]. The second may be accounted for if this bowl was brought as booty to Nippur by a king who had defeated Kiš. Whether an ensi of Kiš was subordinate to a 'king', or did not claim that title for himself, might become clear if we had similar inscribed bowls from the Zababa Temple at Kiš.

[23] His predecessor En-šakuš-ana may have been making a similar claim by taking the titles **en ki en-gi** and **lugal kalam-ma** (Frayne 2008: 430 ll. 4-5). A secondary dialect of Sumerian referred to with the term **eme-sal** ('fine tongue'), which was preserved in later texts for the speech of women and lamentation priests, was systematically written with phonemes (vowels and consonants) different from the main dialect's – e.g. /dug/ 'good' rendered /zeb/.

mean 'land, country' in the widest possible sense, but **kalam**, though never precisely defined, refers to the alluvial plain, and kingship of the **kalam** implies domination of the whole south Mesopotamian world, thus encompassing both Ur in the south and Kiš in the north. This region lay in the gift of Enlil: 'When Enlil, the king of countries, gave the kingship of the Land (**nam-lugal kalam-ma**) to Lugal-zage-si'. Neither the title 'King of the Land' nor 'King of Sumer' is used by the Ur III kings;[24] instead they use 'King of Sumer and the land of Akkade'.[25] Under Šulgi the territorial reach of the Ur III empire expanded well beyond the borders of both 'The Land' and Uri/Warûm (on which see below), and in the absence of a ready made patron deity for the expanded domain it appears that Šulgi stepped into the breach, referring to himself as 'god of his land'.[26]

Although we sometimes translate **lugal-kur-kur-ra** as 'King of (all) countries', the phenomenon of a 'regional patron' able to confer kingship is not confined to Enlil. In the later 3rd and early 2nd millennium it is clear that the god Dagan, whose principal temple seems to have been at Tuttul (Sumerian: 'Wells') at the confluence of the Euphrates and the river Balih, was perceived as the patron of the 'Banks of the Euphrates', by which was meant the settled zone along the river from the north end of the alluvial plain, up through Mari and Terqa to at least the Euphrates bend at Emar (Fig. 10.4).[27] This territory was recognized as a coherent entity, like 'The Land' (**kalam**), and, like 'The Land', its name is not taken from any one city. So the Amorite ruler of Mari Iahdun-Lim can write of himself as 'strong king, controlling the Banks of the Euphrates, Dagan proclaimed my kingship'.[28] Earlier, Sargon, the founder of the Dynasty of Akkade, wrote that 'Sargon, the king, bowed down to the god Dagān in Tuttul. He gave to him (*iddi(n)šum*) the Upper Land: Mari, Iarmuti, and Ebla as far as the Cedar Forest and the Silver Mountains.'[29] implying that in his day Dagan's patronage extended well west of the Euphrates in a region referred to as the Upper Land.

Retreating to south Mesopotamia, and further back in time, we find another region whose 'kingship' lay in the gift of a patron deity, this time Inana/Ištar. On the *Stele of the Vultures*, celebrating his defeat of a range of cities to the north and east, Eanatum, who from his own account was the most territorially aggressive of this dynasty, summarizes his successes: 'To Eanatum, who is commissioned by the god Ningirsu, to Eanatum, the ruler of Lagaš, the goddess Inana, because she loved him so, gave the kingship of Kiš to him in addition to the rulership of Lagaš'.[30] Likewise, for Lugal-ki(gi)neše-dudu, whom we met above summoned by Enlil to kingship, when he takes the additional title of 'king of Kiš' it is Inana who 'combined lordship with kingship'.[31] This is also inscribed on stone bowls dedicated at the Ekur, and the association of Enlil and Inana in accounts of military expansion recurs throughout the centuries. The Umma ruler Gišša-kidu refers to himself as the 'strong ensi of Enlil, the king chosen by Inana'.[32] When in turn Sargon defeated Lugal-zage-si from Umma his titulary could run: 'Sargon, King of Akkade, bailiff of Ištar, king of Kiš, priest of An, king of the Land, ensi of Enlil'.[33] Later her association with kingship is made explicit in one of his grandson Naram-Sin's inscriptions which includes among its curses 'May

[24] For a single exception see Wilcke 1975: 50.

[25] One suspects that this includes the cities east of the Tigris irrigated from the Diyala, such as Ešnunna (Tell Asmar), which share a similar environment and material culture.

[26] **dingir kalam-ma-na** Frayne 1997: 160 (no. 58); for Akkadian *il-mātišu* von Schuler 1967; Frayne 1997: 141 no. 33. See Wilcke 1974: 179-80 for similar statements in 'literary' texts, and by his successors Amar-Suen and Ibbi-Sin 'true god of his land' (**dingir zi kalam-ma-na**).

[27] see Postgate 1994e: 5-6.

[28] Frayne 1990: 603-4. He claimed to have 'removed the frowns [*hippī (pānī)*] from the (people of the) Banks of the Euphrates' (Akkadian: p. 603, l. 21-23).

[29] Frayne 1993: 28-9; also 30-31.

[30] Frayne 2008: 148) **e$_2$-an-na-tum$_2$ lu$_2$ inim-se$_3$-ga ^{d}nin-gir$_2$-su$_2$-ka e$_2$-an-na-tum$_2$ ensi$_2$-lagaš^{ki}-ra ^{d}inana-ke$_4$ ki an-na-ag$_2$-ga$_2$-da nam-ensi$_2$-lagaš^{ki}-ta nam-lugal-kiš^{ki} mu-na-ta-šum$_2$.**

[31] Cooper 1986: 102.

[32] **ensi$_2$ kalag-ga ^{d}en-lil$_2$-ke$_4$ lugal mu pa$_3$ ^{d}inana-ke$_4$** Frayne 2008: 373.

[33] after Frayne 1993: 13, 1-11.

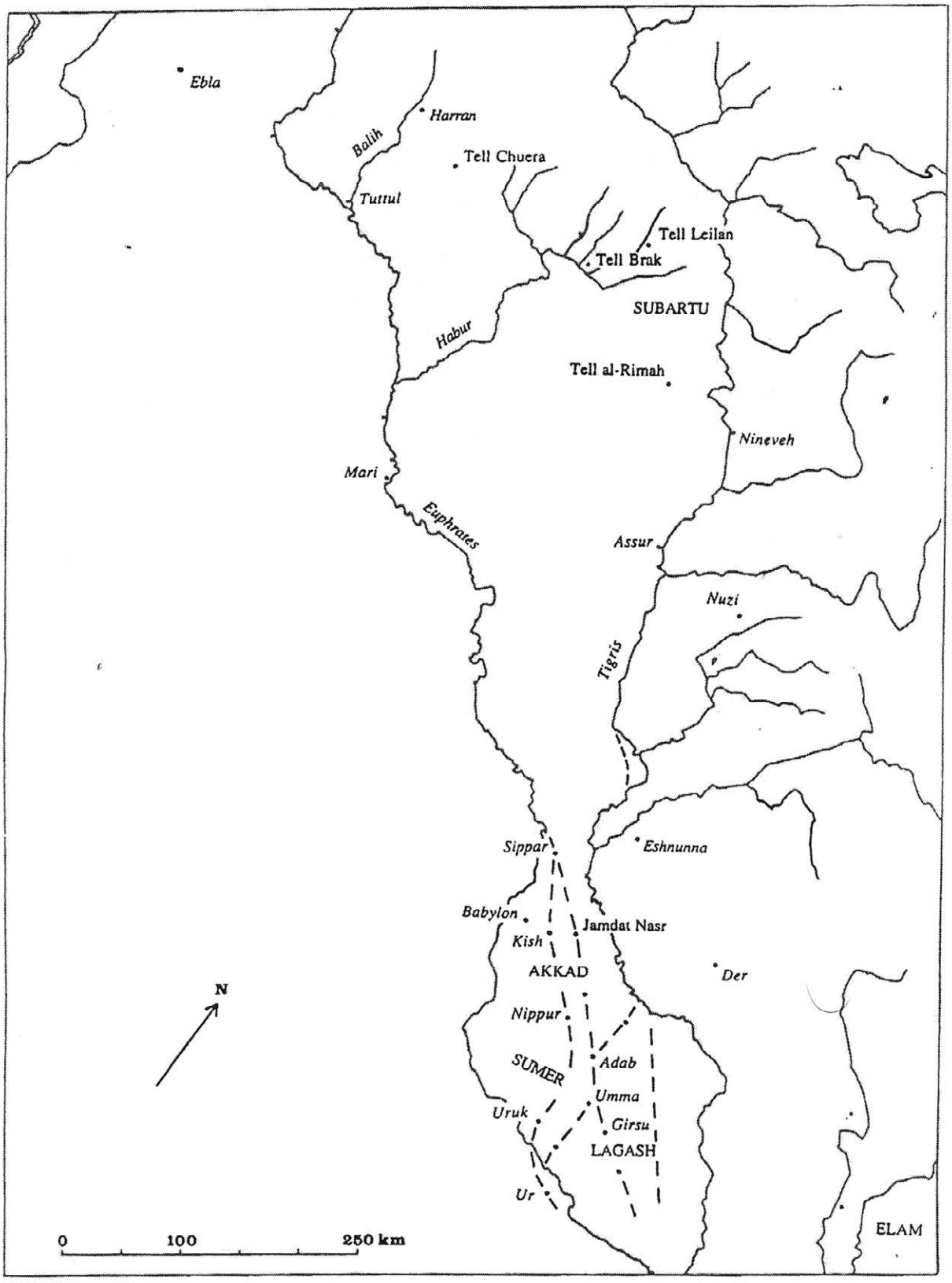

Figure 10.4. North and South Mesopotamia in the 3rd millennium to show Tuttul on the Euphrates (after Postgate 1994e)

he not hold the sceptre for Enlil or the kingship for Aštar',[34] while another of his campaign accounts ends with an oath by 'Ištar ([d]INANNA) Annunītum and Enlil',[35] and he attributes his suppression of the great rebellion to 'the love which Ištar showed him'),[36] or ascribes his victory over the (previous) 'Kišite' to 'the judgement of Ištar Annunītum'.[37] When, after the collapse of the Akkade Dynasty, Utu-hegal is tasked by Enlil to free the land from the Gutian invaders he launches his campaign by seeking the aid of Inana 'He went to Inanna, his lady and prayed to her 'My lady, lioness of battle, who attacks the foreign lands, Enlil has commissioned me to bring back the kingship of the land of Sumer''.[38] Inana, with her Semitic name Aštar, later Ištar,[39] has many roles, as the Sumerian literary corpus and later literary texts often emphasise, but in such passages the choice of her epithet, or indeed alias, Annunitum, which is to be understood as 'warlike', makes it clear that this is her military persona, very well attested throughout Mesopotamian history and expressed by the Ur III king Amar-Suena when he calls her 'mistress of battle' (**nin(/ereš) me$_3$**), and already by Enanatum when he refers to her as 'Queen of the countries' (**nin(/ereš) kur-kur-ra**),[40] just as Enlil is 'King of the countries'. In the scenes on cylinder seals she is shown wielding a variety of weapons (Fig. 10:5). Any doubts about her warlike aspect may be lifted by reading the poem *Inana and Ebih*, which describes her furious assault on Mount Ebih (today the Jebel Hamrin), representing the turbulent population of the hills and mountains north-east of the alluvial plain. To quote just one of numerous similar passages: 'Great lady Inana, knowing well how to plan conflicts, you destroy mighty lands with arrow and strength and overpower lands. In heaven and on earth you roar like a lion and devastate the people. Like a huge wild bull you triumph over lands which are hostile. Like a fearsome lion you pacify the insubordinate and unsubmissive with your gall'.[41] The poets are clear that her hostile attentions are directed both to people and to 'lands', and it is also clear that in addition to

Figure 10.5. Cylinder seal showing Ištar with weapons (Boehmer Abb. 382). A27903: Courtesy of the Oriental Institute of the University of Chicago.

[34] after Frayne 1993: 102 iii.9-13: GIDRU *a-na* [d]*en-lil$_2$ šar-ru-tam$_2$ a-na* [d]INANNA *a u-ki$_2$-il.*

[35] Frayne 1993: 94 viii.4-7.

[36] *in rimati* [d]INANNA *tar'amušu* ... Frayne 1993: 113 10-12.

[37] Frayne 1993: 105 ii.14'-16'; also – without 'Ištar' but with the addition of her father An – 106 iii.26'-20'. Admittedly, Ištar was also the patron goddess of the city of Akkade, on which point see below (p. 176).

[38] Frayne 1993: 285 27-32.

[39] It is often difficult to know if the graph [d]INANNA should be read as Sumerian /inana(k)/ or Semitic A/Ištar and they do appear to be the same goddess. For normalizing her name in early texts as /aštar/ (as opposed to later /ištar/) see Krebernik 1991: 135-6.

[40] Frayne 2008: 176.i.1-2.

[41] Black et al. 2004: 334.

her role as the archetypal warrior in the abstract, she has a geographical remit relating to a region (as opposed to any one city). Obviously these two roles of hers are not unconnected, but by analogy with Enlil, if she is described as giving kingship to a ruler Inana must have been the patron deity of the region over which he is claiming sovereignty, and the region in question is centred on Kiš.

The patron deity of the city of Kiš, as already recorded in the ED IIIa Sumerian *Zame Hymns* from the Abu Salabikh library, was Zababa,[42] and neither Inana/Ištar nor her abode in Hursag-kalama is included there. Her association with Kiš is enshrined in the temple of Hursag-kalama which gave its name also to the twin city, shown by the archaeological evidence at Tell Ingharra to have stood as much as 2 km to the south-east of the Uhaimir ziqqurrat, which was presumably attached to the Zababa Temple.[43] This does not make her a second patron deity of the city, but patron of the region, rather as Enlil and his temple of Ekur are accommodated in the city of Nippur, where it stood centrally to the whole land (**kalam**), north and south. The dual nature of the Kiš conurbation is clear: Kiš is referred to as 'two cities' in the inscriptions of Sargon,[44] and in the Prologue to his Stele Hammurapi lists both Zababa's temple of E-mete-ursag and Hursag-kalama of Ištar, giving Kiš, uniquely among the cities in his realm, two principal temples. At Ingharra there are two ziqqurrats, which must have belonged to the temple itself, and just to the south is *Palace A* with its inlaid plaques showing scenes of war and its aftermath (Fig. 10.6). The ziqqurrats and the palace are all of Early Dynastic date, but the associated temple presumably lies at a depth of some 5 m below the floor of the Neo-Babylonian building complex excavated by Watelin.[45]

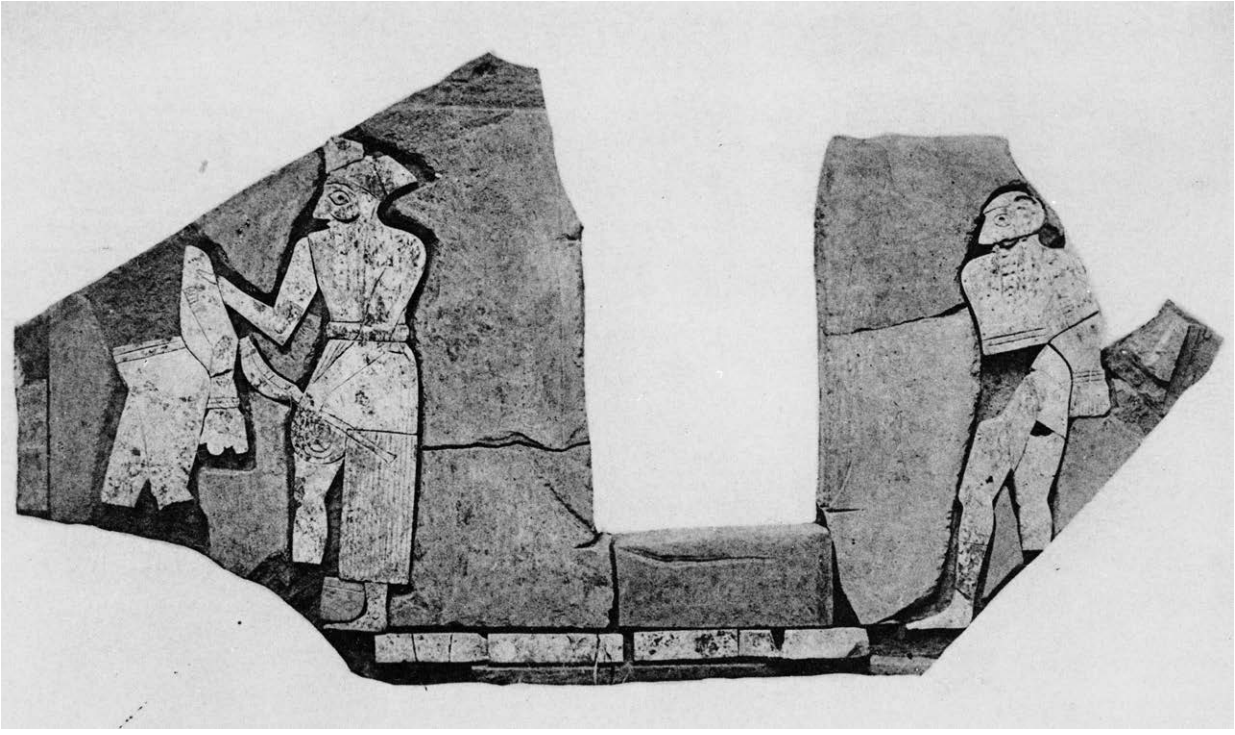

Figure 10.6. Inlaid wall plaque from Kiš Palace A. (Langdon 1924, Pl. XXXVI.)

[42] Krebernik and Lisman 2020.
[43] Moorey 1978: 81-2.
[44] Frayne 1993: 12 (Akkadian version); Hasselbach 2005: 157.
[45] Moorey 1978: 85.

Enlil's temple at Nippur is called the E-kur, where **kur** could refer to a 'country' or 'mountains', or of course both, while more explicitly the associated ziqqurrat was called E-hursag-gal-kur-kur-ra 'House: great mountain of the countries'. The mountain theme is also present in the Ur III name of the cella E-hursag-galam(.ma), and can be seen as referring specifically to the mountainous quality of a ziqqurrat.[46] Likewise the name of Ištar's temple Hursag-kalama means 'Mountain of the Land', and one is tempted to see this as reflecting both the ziqqurrat and her role as a regional patron, the use of **kalam** explicitly extending the remit beyond the individual city. The parallel with Enlil is perhaps expressed in the presence of his spouse Ninlil within the temple as recorded in later texts.[47] Much later, the temple of the god Aššur (in his city of Aššur) was given a Sumerian name E-hursag-(gal)-kur-kur-ra from at latest the reign of Adad-narari I in the 13th century, and this seems likely to be a conscious reference to the territorial ambitions and achievements of the Assyrian state by analogy with earlier regional regimes. It is probably not coincidental that when Tiglath-pileser III imposed Assyrian sovereignty over Babylonia in the 8th century he made 'pure sacrifices in Hursag-kalama' (not 'Kiš') 'to Aššur, (his spouse) Šerua, Bel, (his spouse) Zarpanitu' and other deities.[48] That in her Kiš-persona Ištar acted as a sort of northern equivalent of Enlil may also be relevant to her role as the patron deity of the Akkade Dynasty (as opposed to the city of Akkade, whose deity was Ilaba), where she is sometimes given the epithet Annunītum 'Warlike',[49] and where she was perhaps annexed along with the territory which she had previously entrusted to the 'king of Kiš' (a title Sargon himself adopted).[50]

The geographical terminology

If Ištar/Inana was a 'regional patron' the question naturally arises, what this region was called. If Enlil is the patron of the Land (**kalam**), she cannot be. The **kalam** to the best of our knowledge does include the northern part of the alluvial plain, including Kiš, and one suspects also Sippar, Akšak and Cutha among other cities. The kings of Akkade unquestionably ruled this region, but with one possible exception[51] **uri** does not feature in their titulary, no doubt because it was subsumed under the titles 'King of Akkade' (written usually *a-ka$_3$-de$_3^{ki}$*), or 'King of Kiš'. Although in later centuries the city name Kiš has become conflated with an Akkadian word *kiššatum* which means approximately 'totality', there are no grounds for thinking that 3rd millennium rulers who claimed the title **lugal kiš** did not, at some point, have control of the city (and, no doubt, its associated hinterland), but unlike 'the land (of) Lagaš' (**ki.lagaš**), or 'the land (of) Uruk' (**ki.unug**), we do not meet the phrase *ki.kiš (or *māt Kiš*).[52] The Dynasty of Akkade did not use the title 'King of The Land' (**lugal kalam-ma**), nor did the Ur III kings, referring to themselves as 'King of Ur',[53] followed by 'King of the lands of Sumer and Akkade' (**lugal ki.en-gi ki.uri**), and they never call themselves 'King of Kiš'. Although in their Sumerian inscriptions the land of Akkade is called

[46] George 1993: 100-101; Waetzoldt 2005: 331-2.

[47] Moorey 1978: 82.

[48] Tadmor and Yamada 2011: 97.

[49] Frayne 1993: 98 rev. vi.6-7; A. Westenholz 1999: 41.

[50] This may be reflected in the fact that the collection of *Sumerian Temple Hymns* includes the Inana Temple at Uruk, and her temple of Ulmaš at Akkade, but not the Hursag-kalama at Kiš, whereas Šulgi's temple has been inserted into the collection with the name E-hursag.

[51] In a sycophantic Akkadian inscription Šar-kali-šarri is called DINGIR *ma-ti* URI^{ki} where the URI sign is described as 'with the right portion greatly elongated so as to resemble the 'feet' of a NÁ sign' (Frayne 1993: 205-6).

[52] At some point the title 'king of Kiš' came to mean 'king of the totality', but exactly when is not clear. Steinkeller's insistence that it served 'as a generic designation of a universal ruler' and that without the post-determinative KI, the kings of Akkade used it to mean more than just 'king of Kiš' (1993, 120[35]), may well be valid for the Akkadian Dynasty, but although in 2013: 146 he dates this development to ED IIIb, this usage of KIŠ may have been their innovation and can hardly be proven for any of their predecessors, including the latest, Lugal-zage-si: he does not mention Kiš but claims kingship of (1) Uruk (2) The Land (**kalam**) and (3) 'the countries' (**kur-kur**), while Sargon's corresponding claim seems to be (1) Akkade (2) The Land (**kalam**(**.ma**)) and (3) KIŠ (without KI). KIŠ therefore seems to replace **kur-kur**.

[53] Wilcke 1974: 177[6].

ki.uri, the Akkadian spelled out syllabically reads *šar ma-at šu-mi-ri-im u$_3$ a-ka-di-im*.[54] This makes it clear that in Akkadian the northern half of the Mesopotamian alluvium had been newly designated the 'Land of Akkade' in consequence of its annexation by the Akkadian Dynasty, named after the city of Akkade whose precise location on the north-east side of the alluvial plain has yet to be identified.

In Sumerian, however, the northern alluvium seems to have retained the older name we transcribe as **uri**, which has been convincingly equated with the toponym which survives in a few early Old Babylonian texts in the shape of *Warûm*. The logogram we transliterate **uri** is attested once in an extremely laconic Old Akkadian text recording numbers of 'sons of Uri' (**a uri-me**) alongside 'Sumerian(s)' (**eme-gir$_{15}$**), and then much earlier in ED IIIa Šuruppak documents which mention **gal-uri** and **ugula-uri**, who would seem to be officers in charge of Uri soldiers.[55] In the absence of any other regional name, it is likely that Uri/Warûm referred to the northern alluvium (and not, pace Steinkeller, only to the Diyala region), and we hear so little about it before the Akkade Dynasty because we do not have the quantity or quality of documentation from Kiš that we have from cities further south.

On the other hand texts from the Akkade dynasty clearly recognize **ki.en-gi** as the regional designation of the south half of the alluvium. Regardless of the etymology of this toponym, which is discussed in Appendix 2, it was firmly equated with the Akkadian *šumerum*, which we render as Sumer, and in its Sumerian form it is certainly attested as far back as the beginning of ED III. For our purposes, the intriguing question is where the boundary between the northern alluvium (for which **uri** is the only regional name known to us) and the south should be drawn. As recognized by Claus Wilcke, a precise answer to this seems to be given by the (later) *Sumerian Temple Hymns* collection, which describes the Ekur, Enlil's temple at Nippur, with the line 'to its right and left (are) **ki.en-gi** (and) **ki.uri**': even today, 'right' means south (as in the Yemen) and 'left' means north, implying that Nippur then stood at the boundary between the lands of Uri in the north and Sumer in the south.

That this is indeed what the poet meant is supported by other evidence that there was a fundamental dichotomy between the north and the south of 'The Land' (**kalam**). This can be seen in three aspects, environmental, linguistic, and cultural. While all virtually all settlements on the south Mesopotamian alluvial plain shared the same dependency on irrigation agriculture for their daily bread, and the landscape was universally flat, the natural environment was by no means uniform. Thorkild Jacobsen perceived a number of regions he characterized as 'Southeastern marshes', 'Southern orchards', 'Herding regions' and 'Farming regions'.[56] His insights are always enlightening, and it is obvious that the cities of the far south, Ur, Eridu and Lagaš, would have had more to do with fish and turtles, and that easy access to marshes, wherever they were, would have favoured reed-based industries. When it comes to regular cereal cultivation Mario Liverani has observed differences between north and south in the disposition of their fields, implying 'furrow' vs. 'basin' irrigation, as discussed above (see p. 99), and this may to some extent have been dictated by the geomorphology of the river systems.[57] In Early Dynastic times the north has fewer large cities (notably Sippar, Cutha, and towns in the Marad area) and it has been suggested that large tracts of the northern zone were uncultivated and occupied by pastoralists even in the Ur III period, though again the effects of alluviation shrouding lower land surfaces should not be underestimated.[58]

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[54] Frayne 1997: 145.

[55] So, plausibly, Steinkeller 2013: 137[12]. Similarly perhaps after personal names in the *Names and Professions List* ll. 37 and 60 (OIP 99: p. 64 transliterated **kinda**).

[56] Jacobsen 1970: 21-34)

[57] See pp. 99-100 and Steinkeller 1999, 304-5 (citing Nissen 1988).

[58] Zarins 1990: 31-65.

It is partly to these environmental conditions that Steinkeller attributes his conclusion that 'The socio-economic and political organization of northern Babylonia showed significant differences as compared with the conditions obtaining in the south' (2013: 146), but there is also a clear linguistic divide to take into account. While it was undoubtedly a surprise to find that more of the scribes responsible for the extensive Sumerian texts in the Abu Salabikh library had Semitic (Proto-Akkadian) than had Sumerian personal names, it had been clear for some time that a language which could be described as 'Proto-Akkadian' was present in the northern alluvium in the early 3rd millennium. The Abu Salabikh administrative documents reinforce this impression: two have month names which are attested further north, well beyond the alluvium, and they use the numbers 100 (*mi-at*) and 1000 (*li-im*) which are Semitic. There are toponyms composed with the Semitic term *u-ṣar*, and one tablet uses the preposition *in*, indicating that the scribe was 'thinking' in Akkadian. When first found, the only texts comparable to the Abu Salabikh corpus were the contemporary literary and lexical texts from Šuruppak, but the royal archives at Ebla, south of Aleppo in Syria changed the scenery. We cannot do better than quote Biggs who notes that 'distinctive features of the scribes' handwritings (specially the signs UD, MU and NUN) link Fara, Adab and Nippur in one group. When one realizes that Abu Salabikh is close enough to Nippur that the Nippur ziggurat can be seen from Abu Salabikh with the naked eye on a clear day, it may seem surprising that Abu Salabikh is not a part of this group. Its handwriting ties are rather with Ebla and – as far as I can judge from the limited contemporary evidence available – with Kiš. In other words, there are secure links with what we think of as the Sumerian tradition of the south, but at the same time with the predominantly Semitic areas to the north, and it seems, in a sense, that Abu Salabikh stands as a boundary between the two'.[59] Forty years on these are precisely the issues which still confront further research. Thus Veldhuis can write 'The concept of the 'Kiš Civilization' describes a cultural continuum that connects Abū Ṣalābīḫ, Mari, Tell Beydar (Nabada) and Ebla'.[60] In his detailed account of the Fara and Abu Salabikh tablets Krebernik has noted many detailed minor points in which the palaeography from the two sites differs: these may be because the writing system at Abu Salabikh is 'somewhat more advanced than that of the Fara texts',[61] but in the absence of much contemporary material from Kiš itself it is hard to know if that is because it is slightly later, or due to northern influence. More recently Steinkeller refers to 'the literary sources from Abu Salabikh and Ebla, which are written in the 'Kišite' variety of cuneiform'.[62]

The clear signs of linguistic and cultural association between Kiš and Abu Salabikh are matched by the close similarity of the material remains at the two cities. While the artefactual repertoire of the region during the first half of the 3rd millennium is often treated as more or less homogeneous from the Diyala sites in the north-east as far south as Ur and Eridu, there are some differences which seem to distinguish the northern from the southern half of the alluvium, with the border about the latitude of Nippur. At Kiš and Abu Salabikh the so-called 'grave stones' which, as noted above (p. 35) are probably ablution slabs, are a northern feature along with the four-part washing sets, neither being reported from Nippur or sites further south. The very distinctive 'upright handled jars', sometimes referred to as 'granny pots', together with the 'stemmed dishes', sometimes called 'fruit-stands',[63] are also very much at home at Kiš and in the Diyala region, and as far south as Abu Salabikh and Nippur, but only rarely at cities at the same latitude such as Adab, Isin and Tell al-Wilayah, and absent at Ur or Uruk. Stemmed dishes alone are reported from other southern sites, such as Lagaš, Ur and al-Ubaid, but not hitherto at Uruk, Umma, Eridu or Larsa.[64]

[59] Biggs 1981:133.
[60] Veldhuis 2014b: 242.
[61] Krebernik 1998: 258.
[62] Steinkeller 2013: 140 ad vi.6'; further p. 147.
[63] E.g. Grave 1 (Fig. 4.3), stemmed dish and upright-handled jar back right; Grave 26 (Fig. 3.17) stemmed dish at centre.
[64] Moon 1982: 66-7.

It is clear that in the course of the Early Dynastic period the balance of power between north and south shifted and the dominance of Kiš was eroded.[65] This is most obvious from the inscriptions of Eanatum, who as we have seen was able to claim the title of 'King of Kiš', if only briefly late in his reign (Cooper 1983: 26). The offerings to the Ekur made by various southern rulers towards the end of the ED III, imply that Nippur was not consistently under the domination of Kiš, and this culminates in Lugal-zagesi's claim of the kingship of the Land and of wide ranging campaigns even further afield, which foreshadows the political and territorial domination of the Akkade Dynasty encompassing the whole of the southern alluvium as well as swathes of the north. However, in the early years of the ED III period, to which both the Abu Salabikh library and archive, and the tablets from the 6H House belong, what evidence we have suggests that Kiš was still in the ascendance. When kings of Kiš were recognized in the temples at Adab, Keš and Lagaš it seems unlikely that Abu Salabikh, on the banks of a Euphrates branch which must have flowed past or near to Kiš itself, would not also have fallen within their political grasp, no doubt along with Nippur, only some 16 km downstream.

A king at Abu Salabikh

Hence, when our administrative texts from both the temple and the 6H House mention a 'king' there is an a priori assumption that this could be a 'king of Kiš'. In IAS 518 the first three prebend holders are the goddess, the god Šara, and the ensi. There is no mention of a 'king' (**lugal**), but IAS 503 appears to list small plots assigned to a 'slave of the king' (**ir$_{11}$ lugal**) and a 'brother of the king' (**šeš lugal**), who also seems to receive a quantity of grain. A slightly larger amount of grain (**še**) is also listed for 'the hybrid equid(s) (**kunga**) of the king' (v.2-3). Later in the same document a larger amount (presumably of grain, though the sign is broken away) is also listed for the 'house of the equid (**anše**) team(s)'. These are not specified as belonging to the king, but one suspects that these might also be hybrids, and either spoken or written usage could permit the more general term. Elsewhere a prebend plot of 1 bur is listed for royal dependants (**guruš**), with the location given as Ereš (Table 6:2A IAS 505 rev. 1.0.0 ŠE+GAN$_2$ **šuku guruš / lugal / ereš$_2^{ki}$**).[66] In IAS 494 the summation appears to record '154 gur of grain – consumption of equid(s). (Of) the king)' **še.gur še anše gu$_7$ / lugal** (iv.21-22), while in the previous column an entry not included in this total mentions slightly more than '18 gur (of) the king remaining on hand (**šu gal$_2$**)'.[67]

These mentions of the king all come from the temple area. From the 6H House on the one fragmentary tablet mentioning the king (IAS 551; Fig. 10.7) 'field(s) of the king' (GANA$_2$ **lugal**) occur five times in the surviving lines. Also mentioned twice in association with fields may be a 'house of the child(ren)' (**e$_2$** DUMU, and once clearly plural: **e$_2$** DUMU.DUMU). Neither the layout of the text on the tablet nor the significance of some of these entries is transparent but the king's involvement is beyond question. Possibly significant is the absence on this tablet of the term for 'prebend' (**šuku**) – one would not expect a ruling monarch to be assigned 'prebends'. IAS 551 can only derive from an institution, which must have administered the other land assignments from the 6H House (IAS 552-554). The prebend holders include leather workers (**ašgab**), carpenters (**nagar**), farmers (**engar**), a policeman (**maškim**), a land registrar (**sa$_{12}$-sug$_5$**), and a scribe. None of these can be definitively associated with a temple or a palace to the exclusion of the other, and the likelihood is that if the 6H House administration was separate from that of the temple, it must be associated with the ensi, even if some of the land under his control was allocated to a royal family. 'Public' archives were found in fairly ordinary looking houses at Fara (see ASE 5: 144). There is though no question of the domestic house itself functioning primarily as a public building, and we are obliged to look elsewhere in the city if we are to locate a dedicated secular

[65] even if, according to Eanatum's *Stele of the Vultures*, still allied with Umma: 'Kiš itself must abandon Umma, and, being angry, will not support it' (Frayne 2008: 130-1 vii.1-5; Cooper 1983: 24 citing no. 2.vii).

[66] which as noted above, should be taken to mean 'the king: (At) Ereš', NOT the 'king of Ereš'.

[67] see Biggs 1966a: 87-8.

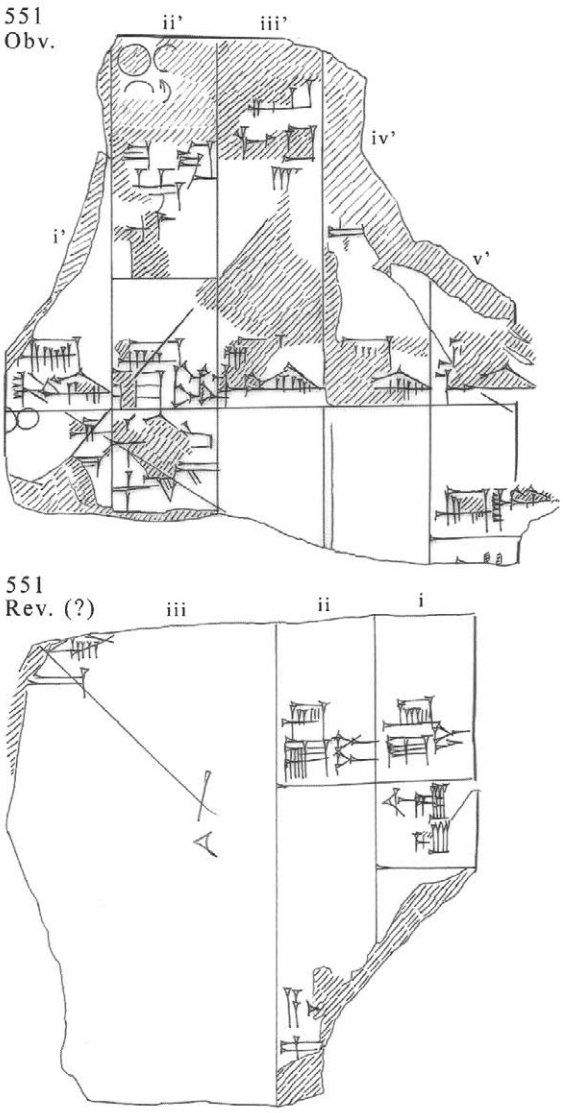

Figure 10.7. Land allocation text IAS 551 from 6H House. (Iraq 71: 12, 31)

government establishment. On the Main Mound, this has to be Area A (see Chapter 9), but there is another option for the king's base.

The South Mound

If the king, or rather the king's slaves and equids, fell within the administrative scope of the scribes in the temple and the 6H House, one has to presume that they were sometimes or permanently physically present, and if so to consider where exactly they may have been housed. Imposing one's establishment on a thriving city must have posed a problem: from what we know of conditions elsewhere we would expect the overlord to respect the temple and its staff, and to leave intact both the existing relationships between the ensi and the citizens, and the ensi's residential and administrative establishments. The city was densely built up (at least in the sectors already planned) and evacuating or demolishing either public or private buildings to accommodate the overlord and any of his formal and civilian or military activities would hardly have been conducive to local acceptance of the situation. In 1989 the identification from surface features of a large building on the South Mound suggested how this situation was resolved. Unlike other parts of the city plan, it was not even necessary to scrape off the surface soil, because favourable weather conditions (in the shape of a rain storm) meant that clear wall lines showed up on the untouched surface. The walls observed and rapidly planned by Roger Matthews and crew revealed a building of at least 50 x 50 m, with double walls forming an encircling corridor all along the north-west and south-west sides (Plans Fig. 10.7-8).[68] In housing areas to the north the surface indications included numerous fire installations, while 'large quantities of flint-working debitage' were noted in 8C55 and 8C65, to the south-east of the main building, and nearby (probably further west) debitage from working lapis lazuli, carnelian and shell had also been noted (see pp. 132-3). Industrial activity of this kind would be perfectly normal in or around a palace, as seen in the Plano-Convex Building at Kiš.[69]

Confidence that what we were looking at was indeed a large government building, which would probably have been called a 'palace' (**e_2.gal**), was strengthened by comparison with contemporary buildings elsewhere. Examples of Early Dynastic palaces were assembled in Heinrich 1984: at Kiš (north half of Palace A), at Tell al-Wilayah, and at Eridu palatial buildings all have an enveloping corridor similar to this one. Moreover, more recently satellite imagery has revealed that the walls of no less than three palatial complexes lie (as at Abu Salabikh) directly beneath the surface of the mounds at Kiš, or to be

[68] Matthews and Matthews 2017.

[69] Zaina 2015.

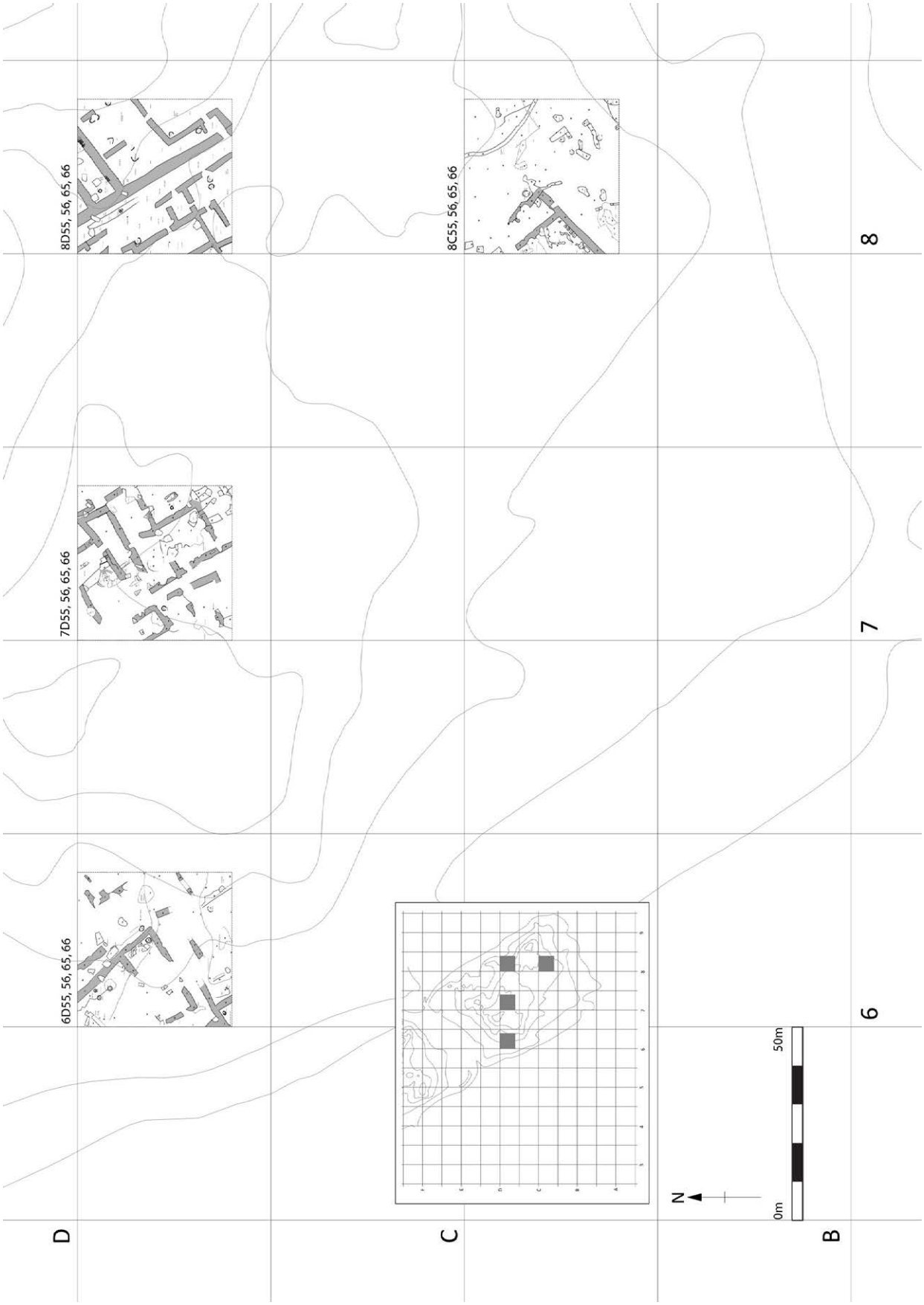

Figure 10.8. South Mound general plan. (Matthews and Matthews 2017: 367 Fig. 2) (the 20x20m squares are erroneously drawn at twice the scale of the main plan)

exact, at Hursag-kalama: they are 'on the same mound as the plano-convex building' which is about 800 m north of the Ingharra ziqqurrats but clearly belongs to Hursag-kalama, not to Al-Uhaimir (Kiš proper) which is about 2 km to the west.[70] The Plano-Convex Building and the newly identified Kiš palaces, and also those at Eridu and Wilayah, are thought to date towards the end of the Early Dynastic period.[71] The surface collections from the South Mound are not sufficiently diagnostic to indicate when within ED III the upper layer belongs, nor can we be sure without excavation precisely when the South Mound as a whole was first occupied. Nevertheless, the administrative texts from Area E and the 6H House, with their mentions of a 'king', are ED IIIa in date, and we cannot rule out the possibility that the major building between 7C and 8D dates from the same time. This is another issue which could be easily resolved by a resumption of excavation.

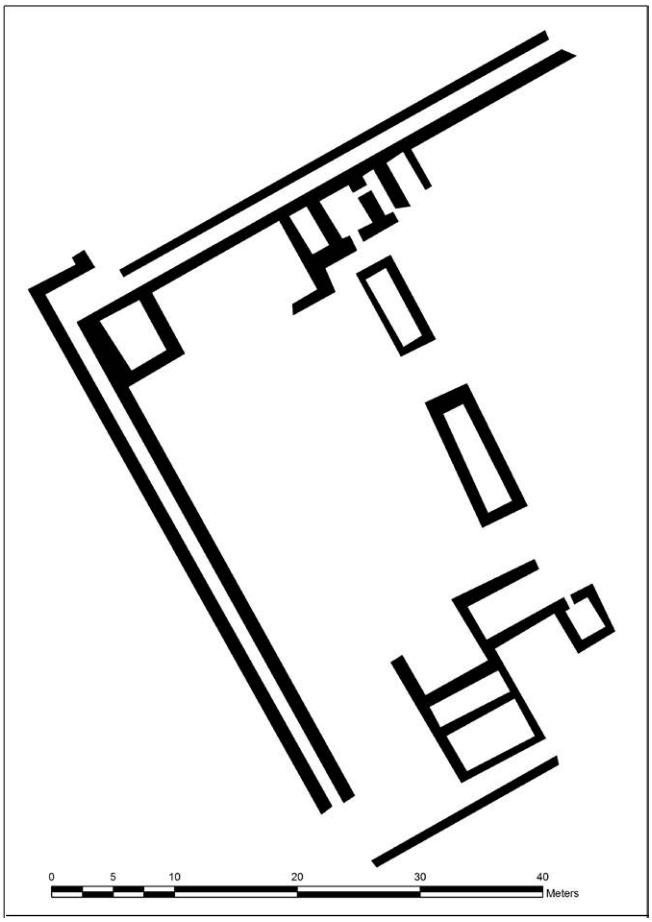

Figure 10.9. South Mound plan of palace walls at surface 1989. (Matthews and Matthews 2017: 366 Fig. 1)

As pointed out by Stone, major secular buildings at this date tend to be positioned at some distance from the long standing residential and religious zones of cities. The practical constraints mentioned above are one obvious reason for this, but there may well have been more strategic considerations as well, such as insulating a newly installed civilian and military cadre from the traditional citizenry. As noted in Chapter 2, pp. 20-22, the Main Mound was probably enclosed from its establishment early in the Early Dynastic period by a city wall, including the south end nearest the South Mound, and with the density of occupation, it would have been necessary to build the palace apart. It is unknown whether the South Mound had its own enclosure wall: by comparison with the Main Mound, it would not necessarily be detectable at the surface. It is also uncertain whether (as suggested by Stone) there was in antiquity a water course flowing immediately south of the Main Mound, between the two parts of the city, which would have given extra isolation, but it seems possible.

[70] Stone 2013: 164-5 with Figure 8.4; Ur 2020: 229 with Fig. 2.12.

[71] Stone 2013, 175[13-14].

Chapter 11

Cities and states: recognition and rivalry

The South Mesopotamian world

So far we have concentrated on our one city, and its political masters, internal and external. Yet while the city itself formed an organic entity with its surrounding countryside, it also needs to be understood as a member of the south Mesopotamian world as a whole. The river courses connect one city with another and dictate transport routes, but they also make those downstream critically dependent on events further north, whether natural or man made. Essential resources, such as grindstones, and the components of trade and display, can only have reached our citizens over a landscape already partitioned between other cities. Moreover, the 30 or more cities we are aware of in the south Mesopotamian alluvium at this time have certain similarities imposed on them by the environment, such as the necessity of irrigation and the lack of mineral resources. They also have a shared history and cultural heritage.

Environmental determinism

The potential for (gravity-flow) irrigation and its necessity for successful agriculture feature in any analysis of the genesis of urban life in the south of Mesopotamia. This argument, associated with the term 'hydraulic civilization', reaches back to the theories of Carl Wittfogel in the 1950s, building on the observation that to sustain its civilization Mesopotamia shared with Egypt, the Indus Valley and China a dependence on a large-scale irrigation system. There are two components to this. On the one hand the climate dictates that any extensive agriculture requires society to exploit and control the river system, while on the other hand the resulting rich harvests would have generated surpluses which enabled some sector of the population to default from the daily grind of food production, and specialize in non-productive activities such as crafts and administration in the service of a hierarchy, whether religious or secular. In Wittfogel's perception, a complex social order was thereby crucially created, and at the same time the technical demands of establishing and maintaining the irrigation system would have required an overarching political hierarchy, which could exercise control across a wide geographical space, with some places – i.e. cities – dominating other settlements, whether these were solely villages in close proximity or more equally ranking towns or cities. Political control and specialized activities concentrated in the cities.

In this scenario it was the combination of a very flat alluvial plain and copious water from the Tigris and Euphrates that enabled and sustained Mesopotamian urban life in the 4th-3rd millennia BC, and this has been described as 'environmental determinism' – 'they had to irrigate, and because they irrigated they achieved prosperity and created a political hierarchy'. In its precise formulation it has attracted some scepticism and it certainly needs to be qualified. One element in the Wittfogel argument is the assumption that Mesopotamian irrigation was designed on a broad regional scale, that would have required a supra-local political hierarchy to manage it. This may no longer hold water. Although we do hear of major canals being inaugurated in the late 3rd and early 2nd millennium, from the surveys of Robert Adams it is not clear that any supra-local systems were established earlier in the 3rd millennium, meaning that the control of irrigation may not have outstripped the boundaries of each of the individual city-states, or only occasionally. Furthermore, ethnographic observation of irrigation systems in other parts of the world, including Mexico and Kenya, show that it is perfectly feasible for a canal regime to serve a number of small communities, maintained collectively and co-operatively without the intervention of hierarchical supervision: 'a large canal irrigation system (say 10,000 ha or

larger) need not have a politically centralized management'.[1] The 20th century AD administration of irrigation between Hilla (or anciently Kiš) and Diwaniyah (or anciently Abu Salabikh and Nippur) was studied by Robert Fernea, and one of the insights his work provides is that large-scale administration depended on social co-operation at the village (and tribal) level to manage the smaller components in the system, and in this light it may well be that co-operation could come first locally, and was in due course expanded into the larger canal networks.

The south Mesopotamian environment promoted urban development in another way, giving the potential to support population centres in relatively close proximity and opportunities for the canal and river network to favour transport of greater volumes of goods than possible overland. Exchange between the different cities was thereby facilitated, while the existence of agricultural surpluses, including wool, provided the capital to engage in import-export trade with the surrounding regions from which the essential supplies of timber, stone, metal etc. had to be brought.[2]

The Uruk phenomenon and its heritage

At the end of the 4th millennium the writing system which developed into the 3000-year tradition of cuneiform script was created in south Mesopotamia. By far the best evidence for this comes from the city of Uruk, and although we lack any comparable exposure of contemporary levels at other major sites, such as Ur, Larsa or the cities of Lagaš (Girsu, Lagaš and Nigin), it is at present a reasonable assumption that Uruk was the epicentre of the scribal enterprise, while the exceptional size and sophistication of the associated architecture and some of the iconography on seals and other artefacts may reflect the city's political supremacy at the end of the 4th millennium BC. The cultural reach of Uruk extended far to the north and east, and there are at least two settlements in the northern alluvium from which documents have been excavated, both about 25 km north or north-east of Kiš. These are Tell Uqair, excavated by the Iraqi Department of Antiquities under Fuad Safar and Seton Lloyd in 1940-41, and Jemdet Nasr, where Langdon excavated a large building yielding over 200 tablets in the 1920s. The remarkable aspect of these texts is not that writing had spread this far north in the alluvial plain, but that they are virtually indistinguishable from contemporary tablets excavated at Uruk, sharing the script, other external features and textual content. To judge from other times and places, what this implies is the presence of a unitary administrative structure, and on current evidence it is a fair guess that the centre of the administration was at Uruk itself.[3] However, some caution is indicated: most large Early Dynastic sites show signs of occupation in the 4th millennium, but because of the deep 3rd millennium strata it is hard to know how extensive the earlier settlements were. Soundings into Uruk period levels are invariably very restricted and artefacts recovered from that period few and far between.[4] We should therefore expect that in addition to Tell Uqair and Jemdet Nasr many other contemporary settlements would yield similar tablets if we knew where to excavate. The reason why these two sites in the northern alluvium have done so is probably not because they were exceptional outposts of the administrative system, but because they were no longer extensively occupied during the subsequent Early Dynastic periods, and hence remained easily accessible to modern excavators.

[1] Hunt 1988: 201; from the standpoint of East Africa Davies 2009: 31 emphasises that while 'the requirements of irrigation management lead to new forms of authority', as Wittfogel maintained, 'his misunderstanding was that these forms of authority should be hierarchical or, to use his own term, 'despotic''.

[2] These environmental advantages (over e.g. northern Mesopotamia) are discussed at length in Algaze 2007. There he characterizes the 'trade' aspects, and sees them as consequent on the enabling agricultural surpluses (for which see Algaze 2001). This is logically unimpeachable, but it is difficult to be sure of the chronological lapse, which need not have been long.

[3] See important detail in Matthews and Richardson 2018.

[4] Note the comments of Algaze 2007: 359[4] with the entirely plausible suggestion that Umma in the Uruk period may have been 'somewhere in the range of 129 hectares'.

Ironically, the continuity of occupation of most major southern sites means that we know much more about the Uruk phenomenon outside south Mesopotamia than within. What is clear is that although some of the material attributes of the 4th millennium levels at Uruk are distributed widely across the Near East, including ceramics and seal(ing)s, fully fledged written documents are more or less confined to the south of Iraq.

From Uruk to Early Dynastic

The dissolution of the Uruk phenomenon is detectable not only by the disappearance of the widely dispersed standardized ceramics, but also by changes in the record of occupation provided by the characteristic Near Eastern tells as documented by archaeological regional surveys, most especially those of Robert Adams. If we concentrate on the evidence for continuity of occupation at the sites recorded it emerges that 'a substantial proportion of smaller sites was abandoned at (or before) the end of the Uruk, whereas virtually every site occupied during the Jemdet Nasr period 'remained in occupation during ED I, new sites being founded then as well', which seems to constitute 'clear evidence for a major social disruption towards the end of the Uruk period'.[5] It is also the case that the wide geographical distribution of the recognizable south Mesopotamian artefact repertoire has contracted drastically from the beginning of the Jemdet Nasr period.

This is hard to illustrate from the material record, because the first centuries of the Early Dynastic period (ED I) have only rarely been broached by archaeologists. Two exceptions, which merit singling out here are at Uruk and Abu Salabikh. At Uruk Hans Nissen carried out a careful examination of an ED I housing quarter: the striking feature was that in a new architectural layout stretches of enclosure walls were exposed, some possibly only waist height, which appear to have been delimiting housing sectors.[6] Rather similarly, on the West Mound at Abu Salabikh we were able to plan a wider expanse of ED I housing which was also newly laid out above Uruk levels, and included long and substantial enclosure walls, in places two running side by side, separating housing quarters (see pp. 15-17; Fig. 2.5). This small sample of two, from widely separated sites, none the less shows a desire to delimit housing sectors within the settlement, which at Abu Salabikh at least is not at present reflected in the Main Mound city plan as recovered. In both places there is a clear disjunction between the Uruk and ED I periods (with the intervening role of the Jemdet Nasr, or Uruk III, remaining rather ambiguous), giving good reason to suspect some form of social disruption before the establishment of the ED I buildings.

Early Dynastic cities: writing and sealing

Nevertheless, there was equally a strong element of continuity and the most conspicuous proofs of this are supplied by the writing system, meagre though the evidence is at this date. Throughout the 3rd millennium and indeed later the technology of most written documents remains the same as it was when first invented – clay tablet and reed stylus. The script and its repertoire of characters become increasingly standardized and less obviously pictographic with each century: the incised characters are gradually replaced by the impressed strokes which in due course become recognizably 'cuneiform'. Yet more telling is the content of the tablets. Down through the 3rd millennium scribes were copying lexical texts which had first been compiled in the 4th millennium (Eanna levels IV and III) when the script was newly conceived.[7]

In ED I The best evidence comes from Ur, where alongside a body of early administrative tablets Woolley recovered large numbers of clay sealings from the temple rubbish tip lines which he referred to as the

[5] Citations from Postgate 1986c: 93 and 96.
[6] Nissen 1970.
[7] cf. Veldhuis 2014a.

Seal Impression Stratum. Many of these show the impression of large cylinder seals on which were incised a number of rectangular boxes each containing pictograms, most of which can be securely identified with the names of major south Mesopotamian cities. The collocation of a number of well known cities on a single seal can only be understood as reflecting a co-operative system which in some way recorded the distribution of commodities, whether this was on a symbolic level between the temples of the patron deities or was a more substantial phenomenon affecting a broader cross section of society. City ideograms were already grouped together on a seal in the 4th millennium, as shown by impressions on tablets from Jemdet Nasr and Tell Uqair north-east of Kiš, when the hegemony of Uruk seems to have stretched so far north.[8] The cities we have identified from the Early Dynastic sealings include: Ur, Nippur, Larsa, Uruk, Keš, Adab, and Eridu.[9] Others we cannot yet match to a known later city name, but those we can identify were all occupied already in the 4th millennium, though their sizes at that time are not usually knowable.

Early Dynastic cities: the Šuruppak texts

Another century or two later there is more evidence for collaboration between the cities of Sumer, though in a more political than commercial context. In his seminal article of 1957, Thorkild Jacobsen used the Šuruppak texts to demonstrate the existence of an inter-city association which he christened the 'Kengir League'. The choice of the word 'League' (as opposed, for example, to 'amphictyony') may have been recalling the 'Hanseatic League' of mediaeval Europe, which was formed with predominantly commercial objectives, and would in fact have been more appropriate for the ED I Ur sealings, while the administrative documents from Šuruppak are listing contingents of men from a number of cities. Full details of these texts are presented by Pomponio and Visicato: two tablets from XVIIIc,d (WF 92 and WF 94) list 670 and 650 men (**guruš**) respectively, associated with Uruk, Adab, Nippur, Lagaš, Šuruppak itself, and Umma.[10] The summation of each tablet mentions **ki.en-gi**, but given the laconic formulation of the tablet we have to fill in the background. As Pomponio points out, a third tablet, WF 101 lists 670 battle troops (**guruš me$_3$**), alongside '1612 **guruš** (of$^?$/at$^?$) the Assembly (**ukkin^{ki}**)', each group being described as 'consuming bread (**ninda gu$_7$**)'. Whether or not these are the same 670 men as in WF 92 (as seems likely), this clearly supports the idea that some at least of the manpower listed were military. A number of tablets from north of XVh give a record of grain presumably issued or at least assigned to numerous individuals. In one large seven-column tablet (WF 70) they are listed in five groups each assigned to a 'herald' (**nimgir**), and most of them are also identified by a toponym, either a major city (Adab, Nippur, Lagaš, Umma, Uruk with Kullab) or a less well known place.[11] Pomponio has described the six well known cities (including Šuruppak) as a 'Hexapolis', implying some association of equals along the lines of Jacobsen's 'league'.[12]

The evidence shows that this was not merely a meeting of like-minded entities keen on cooperation but had been formalized to the extent that it is perhaps fair to describe it as a 'league'. While the participation of the cities named is evident, there are two different terms for locations which seem to refer to the operation of the league itself. One is Sumerian **ukkin**, well known in other contexts as the 'assembly' of a city (see p. 164), and mentioned in WF 101 (above). Despite other ideas,[13] there is no solid reason to believe the sign here stands for anything other than '(place of) assembly'. Its appearance should not

[8] See Steinkeller 2002: 250-7 and Matthews and Richardson 2018 for the possible implications of this.

[9] Matthews 1993: 41.

[10] Pomponio and Visicato 1994: 10.

[11] Pomponio and Visicato 1994: 53.

[12] Martin 1988: 98-99. Note that the Fara texts do mention **maškim**-officials from other well known cities, including IM^{ki} and Keš (WF 103 from XVIIc), and Nippur (WF 25 from north of XVh, and WF 117 from IXf). For a more recent assessment of the background to these texts as a 'military alliance against Kiš' cf. Steinkeller 2013: 150.

[13] e.g. Steinkeller apud Visicato 1995: 64; Selz 1998: 307-8.

be too surprising, since to agree the actions of a league some mechanism must have existed to achieve consensus, and city leaders will have been familiar with the institution and workings of an assembly from their own home base. In WF 101 **ukkin** is given the post-determinative KI used for place names. At this moment in time it may therefore have had a spatial/geographical identity at a fixed location where the members' representatives assembled, with or without their citizens, and the mere fact that these records were stored at Šuruppak might hint that it was in that region, serving as the meeting place for the participants in the 'league'.[14]

The other term which does not refer to a specific city is **ki.en-gi**, well known in other contexts as the Sumerian name for Sumer. Its occurrence in the Šuruppak archives has led to a range of interpretations, partly fostered by some of the ambiguities of the early cuneiform orthography. There has been some reluctance to accept that this may indeed be referring to 'Sumer',[15] but it seems unnecessary and perverse to reconstruct two different but identically written topographical terms if we can avoid it, and with Jacobsen it is perfectly possible to understand **ki.en-gi** in these contexts as meaning 'Sumer'.[16] It is significant that the cities named in the barley rations and lists of troops are all within the southern zone, with Nippur as the most northerly. To sum up, a century or two later than the impressions from the Ur *Seal Impression Stratum*, there is clear evidence for an association of cities including Nippur on the north, Adab on the north-east, Lagaš on the south-east and Uruk on the south-west. These all surely fall with the confines of **ki.en-gi**, vindicating Jacobsen's coinage 'Kengir league'. Interestingly Ur is not mentioned, and significantly, as noted by Pomponio and Visicato, 'Kiš in the Fara texts is never mentioned together with the cities of the Hexapolis'.[17]

Mutual recognition

Whether or not we are correct in seeing this 'assembly' as a political collective alliance, there is no doubt that the individual cities recognized one another as members of the same world. Many of the tablets in the Abu Salabikh library have copies of a composition now known as the *Sumerian Zame Hymns*.[18] Starting with Nippur, Uruk and Eridu this collection of short poems – some very short and hard to understand – celebrates 70 cities and their deities and temples. Most of the Early Dynastic cities we know of are there, from Lagaš, Ur and Eridu in the south to Kiš and Sippar in the north, along with some which are totally unfamiliar. As far as we can see, Mari on the Euphrates and Aššur on the Tigris are not included, so the list is restricted to the alluvium (i.e. **kalam**), and it is noticeable that Susa is not represented nor indeed Der, which is more surprising because it probably does feature in the ED I city-seals,[19] despite lying about 160 km to the east of Sippar. This composition foreshadows by several centuries the collection of *Sumerian Temple Hymns*, which also makes the rounds of the south Mesopotamian cult centres; it was evidently popular among the Abu Salabikh scribes and must surely also have been known at contemporary scribal centres although no copies have been identified among the Šuruppak tablets.

'Literary' texts have hardly been recovered from other Early Dynastic sites, except for a few from Adab, but a unique composition from Lagaš (Al-Hiba), published by Robert Biggs, reinforces the perception that the cities of south Mesopotamia were seen as equal members of a club. It has a series of riddles, each of which names a canal, a deity, a fish and a snake and leaves the reader to identify the city to which

[14] See Pettinato 1977: 173-6. **ukkin**^{ki} is included alongside regular toponyms in the ED III *List of Geographical Names* (Pettinato 1981, 241 l. 277).

[15] e.g. Pomponio 1994: 11.

[16] In the Šuruppak administrative texts the **ki** is regularly written to the right [as we orient the tablets] of **en-gi**, but virtually all Sumerologists concur that this represents **ki. en-gi** (see Appendix 2).

[17] Pomponio and Visicato 1996: 247. See also Visicato 1995: 67-8.

[18] Krebernik and Lissmann 2020.

[19] Matthews 1993; 2018.

they apply. The first entry, using the forms of names as they were known to us in 1973, was translated by the editor:

> 'Its canal is Nina-gin ('Going to Nina')
> Its deity is Nanše, the mighty lady
> Its fish is 'the man-eater'
> Its snake is [.....]'

This is clearly the third city of the state of Lagaš, its name currently normalized by Sumerologists as Nigin (Arabic Zurghul), and there follow more than 30 similar entries two of which mention Zabala and Keš, while others probably apply to Girsu and Murum, though in most cases we don't know enough to solve the riddle.[20]

That the cities of Sumer felt themselves to be members of a single world emerges also from Eanatum's *Stele of the Vultures*.[21] After recounting his victory over Lagaš' northern rival Umma he enumerates a series of oaths imposed on its ensi: one 'by the life of Enlil', one by Ninhursag, one by Enki, one by Suen (^{d}EN.ZU), one by Utu, and one by Ninki. In each case after the oath is taken 'by the great battle-net' of the deity in question, Eanatum anoints two doves with kohl and cedar (resin) and sends them to their temple in their respective cities: to the Ekur of Enlil at Nippur, to Keš for Ninhursag, to Enki at Eridu (although these names are broken), to the [Ekišnugal] of Suen at Ur, and to the Ebabbar of Utu at Larsa; the location of Ninki's temple is broken away. The concept that all these deities and their cities were being apprised of the commitment to which the ensi of Umma is obliged to swear illustrates the perception of a common culture which recognizes the identity of each participant and their shared membership of the Mesopotamian world with its single pantheon. It is striking that further on in the text of the stele Eanatum mentions his defeat of Ur, and yet Suen/Nanna's temple at Ur is included among the 'city witnesses' of the treaty between Lagaš and Umma. As Aage Westenholz remarks: 'However devoted the Sumerians were to the gods of their home city-state, they always acknowledged the gods of other Sumerian city-states as gods, even during war'.[22] It is also worth noting that although in other inscriptions Eanatum claims victory over Kiš, and other northern cities like Akšak and even Mari, these are not included among the 'witnesses' to the treaty, who all belong to the southern, Sumerian zone of the alluvium.

The recognition by one city of the equal standing of another is of course implicit in the demarcation of territorial frontiers between them. In the case of Lagaš and Umma this is attested already when both were under the overlordship of Mesalim, but, despite the hostility between the two, their disagreements over the location of the boundary – even though it was marked out by stelae – show that their equal status was mutually acknowledged. According to Eanatum, although Mesalim used the title of King of Kiš and was acting at the behest of Enlil as the deity controlling the politics of the land, the technical process of measuring and demarcating the Umma-Lagaš boundary took place 'at the command of Ištaran'. Ištaran was the patron god of the city of Der, towards the frontier with Elam, and from this and other similar passages it is clear that he was recognized by the cities of the Land as the divine adjudicator, at least when disputes were territorial.[23] A long late Early Dynastic text known after Edmond Sollberger's first publication as the *Frontière de Šara*, and now attributed to Gišša-kidu who claims the title of 'king of Umma', enumerates the boundary stelae of Šara, the patron god of Umma, with their location and the distances between them, and concludes 'He erected a stone (stele) in that place at the command of

[20] Biggs 1973.
[21] Cooper 1986: 34-7; Frayne 2008: 126-40.
[22] Westenholz 2002: 35.
[23] 'the god of borders and treaties' Steinkeller 2003: 623[14] (see p.155[23]).

Ištaran',[24] where the apparently singular nouns probably apply to all the previously listed stelae and their places. With so many self-governing cities crammed into the alluvial plain and the limited reach of irrigation systems it is no surprise that territory was jealously guarded and disputes could flare. To describe their territory the ensis of Lagaš write simply about 'the field of Ningirsu', and the concept of measuring and demarcating agricultural land was of course very familiar: each city had its own land registrars (**sa$_{12}$-sug$_5$**, see pp. 92-3) to administer its fields. Boundaries must usually have been passed down from one generation to the next, and the first king of the Ur III Dynasty has left us a detailed cadaster recording the boundaries between provinces in the northern alluvium, which had also once upon a time – before the Akkade Dynasty – been self-governing cities. Although the mediation of Ištaran is no longer invoked, since in each case 'Ur-Nammu the king established the boundary', the boundaries are still accredited to each city's patron deity, such as Meslamta-ea of Apiak or Lugal-marada of Marad.[25] Cases where an overlord intervened to settle boundaries between his inferiors were mentioned above, p. 167.

Back in the Early Dynastic numerous clay nails from the city of Bad-tibira (Al-Madain) record that Enmetena built a temple for Inana and Lugal-emuš, and 'at that time Enmetena ensi of Lagaš and Lugalkiginneš-dudu, ensi of Uruk, established brotherhood'.[26] Further light on the amicable relations between Lagaš and Uruk at this time is thrown by longer texts recording temple construction at Girsu, which add the information that 'He cancelled debts for Lagaš, returning mother to child and child to mother. He cancelled grain loan debts', and then, after referring to his construction of the Emuš temple at Bad-tibira 'He cancelled debts for the citizens ('children') of Uruk, Larsa and Bad-tibira. He returned them to Inana's control at Uruk, he returned them to Utu's control at Larsa, he returned them to Lugal-emuš' control at the Emuš'. This is the first attested case of a ruler cancelling the debts of his subjects, a practice which became regular many centuries later in the Old Babylonian period. The exact circumstances under which some of the population of these three southern cities found themselves in need of release from indebtedness at the hands of the ensi of Lagaš are lost to us, but at least it is clear that relations between the cities were relatively amicable, and that the essential bond between a city and its patron deity, and each one's autonomous identity, were universally recognized.

City-states, peer polities, or ESMs

Both in Classical Greece and elsewhere, it is usual to call cities which functioned as independent polities 'city-states', and much ink has been spilt on examining this phenomenon cross-culturally. Here we cannot reopen questions of definition, but may refer to two collected surveys where many of the relevant issues are thoroughly treated.[27] Hansen 2000 (with 2002) refers to 'Thirty city-state cultures'. This term has sometimes, but by no means universally, used to describe 3rd millennium cities in south Mesopotamia, and it is not entirely inappropriate. It should imply that the city IS the state and the state IS the city. This makes the concept of 'state formation' as a stage in a progressive evolutionary development difficult to apply. If it were agreed that a given settlement should count as a city, it would remain a city, nominally and in reality, whether or not we also attribute to it the role of a 'state'. Whereas the designation 'city-state' should presumably be abandoned once the social controls which justified the addition of 'state' administratively and geographically override the autonomy of a single city – as happened for instance under the Dynasty of Akkade. Conversely, if the larger polity disintegrates, the processes could be reversed, and 'statehood' could be restored to a single city. This is inconvenient, and an alternative, the term 'Early state module' (ESM) was introduced by Renfrew and Cherry (1986)

[24] Frayne 2008: 374 l.l.81-82: **inim ^{d}KA.DI-ta ki-ba na bi-ru$_2$**.
[25] Frayne 1997: 50-56.
[26] Cooper 1986: 58.
[27] Renfrew and Cherry 1986; Hansen, M.H. 2000; 2002.

to refer to the same phenomenon. The advantage of this term is that unlike 'city' or 'city-state' it allows us to recognize a category of settlements which share certain characteristics not necessarily implied by either word. The ESM can comprise a central city (with possible dependent but previously independent subsidiaries along the same lines) together with the agricultural landscape it controls. In south Mesopotamia neither can exist without the other, because the city requires the agricultural produce and the countryside requires some measure of central co-ordination to secure the irrigation (and other administrative needs) for the crops. In the same volume the term 'peer polity' is also used, and this has the advantage on the one hand of using the non-committal 'polity', and on the other of singling out the fact that in many instances this kind of settlement is found clustered together with similar and 'equal-ranking' polities.

While we have therefore at least three terms to describe the individual components, we lack a generally accepted word to describe the assembled cluster of similar polities. The equal ranking implied by 'peer polity' is not the only relevant attribute, since it emerges clearly from both surveys that, whatever term we use, there is a range of shared features which recur beyond Mesopotamia in different times and places, and justifies assigning them to a single category. Renfrew wrote that 'such autonomous territorial units, with their administrative centres ... together constitute what is often termed a civilisation'.[28] Likewise in the Mesopotamian context Yoffee: 'I refer to the larger social order and set of shared values in which states are culturally embedded as a 'civilization'.[29] However 'civilis/zation' is not entirely satisfactory both because it is too broad, not to say vague, a term, and also because it does not allude to any of the characteristic attributes, although Renfrew was well aware of these, writing 'a civilisation, seen here as a cluster of states sharing a number of common features'.

The 'Kengir league' has often been described as an amphictyony, and for understandable reasons. In the Greek world the best known amphictyony was the association of small cities centred on Delphi, and Apollo's temple there with the oracle came to play a significant role across the whole of the Greek world, although the place itself exercised no political domination.[30] Elsewhere round the Mediterranean we have examples of a 'pentapolis' (on the Adriatic coast of Italy), a 'decapolis' (in Palestine), and a 'dodecapolis' (in Etruria): these at least convey the idea of a single territorial cluster comprising a number of equal ranking cities. Hence in south Mesopotamia Jacobsen's 'Kengir league' has been rechristened a 'hexapolis' by some scholars,[31] though this should only apply to the six cities in question. It is of course impossible to determine at any one time how many 'cities' we should recognize as 'members', but if a neologism might be permitted, one that comes to mind is 'pleiopolis', implying a league comprising a(n unspecified) number of, or several, cities. What remains clear is that the similarities justify us in seeing the south Mesopotamian urban scene as a 'pleiopolis' consisting of a number of peer polities, and it is time to spell out what these similarities are and to see how they recur in other times and places.

In the first place, the members are grouped, and economically and culturally similar and interactive. In Mesopotamia, as elsewhere such as Greece, they share a pantheon and so recognize each others' patron deities who interact in the mythology and so replicate on the divine plane the shared life of the individual cities. Each city recognizes the membership of the others, as illustrated above (pp. 187-9). For such a club to function, whether on a political or economic level, a mechanism for co-ordinating the interests of each member is needed. At times, this must have entailed a physical as well as an ideological convergence – a meeting of people as well as of minds. In Classical Greece, while the best

[28] Renfrew 1986: 1-2.
[29] Yoffee 1986: 17.
[30] E.g. Snodgrass 1986.
[31] Especially Pomponio and Visicato 1994: 10-17.

known amphictyony was centred on Delphi, the central place of another league was at Kalaureia, an island off the east coast of the Peloponnese near Troezen, sacred to Poseidon.[32] At about the same time in the west of Italy the central place for the Etruscan 'dodecapolis' was at Velzna / Volsinii near Orvieto where Livy tells us there was the shrine of Voltumna.[33] Typical of such central places is their lack of political weight: the island at Kalaureia was sometimes named 'Peace' (Eirene), Delphi was recognized as a neutral location, and only ideologically, not politically, powerful, foreshadowing the role of Geneva today.

The Mesopotamian scene

Mesopotamia is perhaps unusual in that we have to reckon with two political constructs. From the evidence we have, the membership of the Kengir league was restricted to the southern half of the alluvial plain, and the only hint of a neutral and central location is the 'Assembly place' (**ukkin**^{ki}), in the late Early Dynastic lists from Fara (see p. 187). By contrast 'The Land' (**kalam**), had a very well recognized central place at Nippur, which like Delphi or Kalaureia at no point appears to be a seat of political domination, but hosts the shrine of Enlil, the patron deity of 'The Land' (see above, p. 172). It does not seem far-fetched to suggest that the location at Nippur would have been chosen first for pragmatic reasons in view of its central position while the ideological role accorded to the Ekur followed both logically and chronologically. The epithet 'central' is appropriate, given Nippur's position halfway down the plain, and in accordance with the line in the *Sumerian Temple Hymns* which describes the Ekur at Nippur saying 'to its right and left (are) **ki.en-gi** (and) **ki.uri**', that is Sumer to the south and Uri/Warûm to the north.[34]

Like most clubs the world over, one almost invariable feature of amphictyonies and similar systems is a subscription: the ex votos to the treasuries at Delphi may be the most spectacular, but already in Mesopotamia we can see the same processes at work. As outlined in Chapter 10, pp. 167-9, rulers with a claim to 'kingship' were in the habit of presenting offerings in stone bowls to Enlil at the Ekur. From Girsu at the end of the ED III the wife of the ruler (Urukagina) sent a varied consignment of fish as offerings to deities at Nippur.[35] Victorious kings no doubt dedicated the spoils of war to the Ekur in gratitude for the sponsorship of Enlil which had secured them the victory. Like captured banners in mediaeval churches, luxury goods from remote parts would have been stored or even displayed in the temple to symbolize and celebrate the subjugation of the ruler's opponents. This is evident from some of the stone vessels recovered from the site with inscriptions of kings of Akkade mentioning the vessel's geographical origin: these sometimes state explicitly that it was 'booty', e.g. from Elam (Rimuš) or Magan (Naram-Sin).[36] In the myth called *Ninurta's Return to Nippur* (or after its first line, *Angimdimma*) an elaborate account of Ninurta's triumphant return and entry into the Ekur with his bizarre collection of battle trophies must in part be modelled on real ceremonies enacted by the kings in that very temple:

'Let my father therefore bring in my battle trophies and weapons for me. Let Enlil bathe my heroic arms. Let him pour holy water on the fierce arms which bore my weapons. Let him set up a holy dais in the throne room for me. Let him set my heavenly chariot upon a pedestal. Let him tether my captured warriors there like butting bulls. Let him have my captured kings make obeisance to me there, as to the light of heaven'.[37]

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[32] Kelly 1966.

[33] Following Stopponi 2013.

[34] Sjöberg and Bergmann 1969: 18; Wilcke 1975: 41.

[35] Westenholz 1977: 21: **nidba-še$_3$ e-keš$_2$ / nibru^{ki}/ šu be$_2$-tag.** The deities' names surviving are Inana, Nin-[...], and Šara, but others were presumably listed in the broken parts of the tablet.

[36] Potts 1994: 227-38.

[37] Cooper 1978: 85-7, ll. 153-8, after ETCSL's slightly adjusted translation (c.1.6.1).

By contrast, to our knowledge the only central place for the **ki.en-gi** league in the south may have been the 'Assembly' (**ukkin**^{ki}) mentioned above, and we have no hint of any associated patron deity.[38] What must have served a unifying attribute of the southern cities is that they shared a common language, since their name for 'Sumer' refers explicitly to the Sumerian language (as set out in Appendix 2). Similarly, the Greek language served as a common marker of Hellenic culture. By implication, if Uri/Warûm began north of Nippur, Sumerian speakers may not have reached into the northern half of the alluvium, so that 'The Land' **(kalam)** comprised both a Sumerian and a Semitic linguistic zone. There is indeed ample evidence, not least from Abu Salabikh itself, that Proto-Akkadian was present, not to say prevalent, north of Nippur. More of our scribes bear Proto-Akkadian than Sumerian names, and here and there their Semitic terminology sneaks into the administrative texts (see p. 87). surely betraying that they were Akkadian speakers. Yet their written output was almost exclusively Sumerian, and the Sumerian *Zame Hymns* from the Abu Salabikh library include not only Kiš, which is the predominant city of the Semitic speaking northern alluvium, but also Sippar, Cutha and (unsurprisingly for us) Ereš.[39] Hence there was no major cultural divide, despite some 'northern' traits in their written tradition (see below), and both north and south together constitute 'The Land'.[40]

It remains unknown when the concept of 'The Land' was formulated, and when the major linguistic and minor cultural differences emerged to create the northern and southern zones. To judge from the evidence for writing and other material artefacts in the Uruk period at Tell Uqair and Jemdet Nasr north of Kiš, there was a degree of cultural uniformity across the entire alluvial plain in the late 4th millennium. This may suggest that Proto-Akkadian speakers infiltrated the area in later centuries, before ED II, and in addition to the pure linguistic difference there are characteristic 'northern' features in the writing system which were first clearly identified by Gelb, and are now described in detail by Veldhuis.[41] Piotr Steinkeller has explicitly suggested that the 'original 'Kiš' was a Sumerian settlement, with a genuine Sumerian population, culture, and institutions',[42] and that the later Semitic population of Kiš (and, we may add here, no doubt also of Abu Salabikh) was the result of 'the settling of large numbers of Proto-Akkadians in and around the site',[43] which seems very plausible in the light of similar intrusions into the alluvium for which we have evidence during later periods of instability, by previously non-sedentary groups, as for instance the Amorites and Aramaeans.[44]

[38] Pace Jacobsen, there is no evidence that Nippur acted as the central place for **ki.en-gi** in the same way as it did for The Land (as pointed out by Klein 2001: 534).

[39] Krebernik and Lisman 2020: 26. Interestingly Dilbat, Marad and Kazallu are not included, but even with their participation it seems likely that the density of urban centres in the northern zone was less than in the south. Cf. Stone 1998: 23 'in the early third millennium B.C., the north was a unified territory controlled by the city of Kish – the only truly urban center at the time', though this might overstate the case given the lack of excavation at other major sites.

[40] It should be noted that in the Akkadian language inscriptions of the Akkade dynasty **kalam** is used as the equivalent of *mātum* when referring to Elam (e.g. Frayne 1993: 56, 27-8; 130, 6-7), and Šubartum (130, 12-13), but without further qualification in Sumerian texts it normally means 'THE Land'.

[41] Veldhuis 2014b.

[42] most recently 2013: 146.

[43] 2013: 147.

[44] See Zarins 1990 for the possible previous nomadic (or perhaps better transhumant) lifestyle of such newcomers to the urban scene.

Chapter 12

Abu Salabikh in context

Viewed from early Mesopotamia, the etymological link between cities and civilization makes perfect sense. While the word 'civilization' is unfashionable in some archaeological literature, and does of course have a wide range of applications, it is useful in this context. It has wider scope than, for example, 'urbanization', which strictly should only describe a mode of settlement, or 'state formation' which is too tightly tied to political development. When Yoffee (2006) and Renfrew (1986) used 'civilis/zation' to refer to a congeries of similar urban and political entities (for which the term 'pleiopolis' was proposed in Chapter 11, p. 190), they were recognizing that the similarities are not only in the social and political sphere, but also in material culture. We should equally not ignore the positive resonance of our word 'civilization', which allows us to think of the society as being 'civilized'. This positive concept should be linked to the Latin civis 'citizen' and civitas 'citizenship', not merely etymologically, but also semantically, and it should be in our minds when we approach the archaeology of sites like Abu Salabikh.

Wielders of power – kings and ensis

The political history of the south Mesopotamian plain is unavoidably written for us in the inscriptions of both ensis and kings and conveys their ideological world view. The simple opposition we see in our written sources between an ensi, a social role embedded in the city, and a king (**lugal** or *šarrum*), has to be recognized as a valid phenomenon on both practical and ideological grounds. Kings exercised militarily imposed control, whether inherited or acquired, over cities and territories beyond their home base, a situation which in the shared religious metaphor was perceived as subject to the will of Enlil at Nippur, as the divine patron of 'The Land' (**kalam**), or, with specific reference to the northern zone dominated by Kiš, of Inana/Istar at Hursag-kalama. By contrast an ensi was indissolubly linked to his own city or cities, including their rural hinterland, for whose well being he was ideologically responsible, as expressed in his inscriptions by the duties imposed on him by the city's patron deity.

So whereas the relationship between an ensi and his city is tight and theoretically stable (even if the individuals filling the post of ensi change over time), the kingship belongs on a different plane, overriding but not replacing local ensis (and similar city rulers), and colliding violently with others claiming kingship, so that stability was a rare commodity. The *Sumerian King List*, probably composed under the Ur III Dynasty, may appear to adopt the uncritical view that there was a single 'kingship' which was passed from city to city without any overlap, though this may underestimate the sophistication of its compilers. In any case, the scattered instances of royal inscriptions from the ED II-III periods vindicate the concept that the entitlement to and tenure of kingship was a transitory state. While we have good textual evidence that the Akkade kings imposed their direct administration over some if not all of the cities they controlled, whether at Adab or Umma, Susa or Ur, we have no reason to think that the kings in Pre-Sargonic times significantly usurped the functions of the ensis. Though they were certainly able to install military and perhaps sometimes civilian administrative cadres, there is nothing to suggest that these replaced the existing city-based structures controlling for example land tenure or social law; rather they probably functioned alongside. To paraphrase Tennyson the city could claim that 'kings may come and kings may go, but I go on for ever', and of the interregnum between the Akkade dynasty and Ur III the historian of the *Sumerian King List* petulantly remarks 'Who was king, who was not king?'. We may give the last word on the impermanence of kingship to the author of the *Lamentation over the destruction of Sumer and Ur*, who wrote:

> Ur was indeed given kingship (but) it was not given an eternal reign
> From time immemorial, since The Land was founded, until the population multiplied,
> Who has ever seen a reign of kingship that would take precedence (for ever)?
> Michalowski 1989: 59: 366-8

Hence, when fortunes changed and the power of a given kingship evaporated, the city-based and ensi-governed social structures could largely remain in place. At Lagaš, after the demise of the Dynasty of Akkade but shortly before the takeover of the Ur III dynasty, we have Gudea's word for it that the ensi would have been selected from among the citizens, and this conferred legitimacy, deriving at least in the ensi's eyes from the will of the people.[1] Indeed two of his predecessors as ensi of Lagaš even claimed 'kingship' was accorded to them by a people's will (see p. 149), and we have the tale of the selection of a king of Kiš with the name Iphur-Kiš (meaning: 'Kiš assembled'), all suggesting claimants of kingship also chose to attribute their tenure of the role to popular consent; but when they moved outside their home base the consent of the local population was no longer the basis for their claim, it was rather the demonstrable fact that their military and political success must be due to divine favour.

The relative stability of an ensi-based regime, and at least before the Akkadian kings the minimal external intervention in the city's internal affairs, must have contributed to relatively stable continuity in the society and economy of the city itself, and hence, when taken across the length and breadth of The Land to the continuity of Mesopotamian civilization as a whole. Agricultural and pastoral practices no doubt remained in the hands of the same social groupings, insofar as the security and water supply of the countryside were preserved. Within the city some industries were probably dominated by the institutions, and surplus agricultural production and exotic imports would have been moved about by a merchant class, while technical expertise would be handed down by potters, metal smiths and stone workers.[2] Perhaps the clearest evidence for the continuity of city life is the fact that the library at Abu Salabikh included compositions which were still being copied by scribes almost a millennium later in the schools of Nippur.

Temple, palace and city

Embedded in each city was of course the temple of its patron deity (along with other smaller temples with smaller constituencies). If we have judged aright, the Abu Salabikh library was indeed attached to its city temple. While for ideological reasons temples may have been sheltered from aggressive events, internal or external, they must generally have functioned in close collaboration with the ensi and his entourage. For several decades of the 20th century the scholarly community nursed a major difference of opinion as to the internal political structure of the early Mesopotamian city. On the one hand the ground breaking work of Anton Deimel, and less acknowledged but equally fundamental, of Anna Schneider, formed the basis of a view that the entire ED state of Lagaš was governed by ensis via the temple estates whose existence is attested by the 1600+ cuneiform documents from the temple of Bau. Until the 1950s this was a standard orthodoxy, described by Falkenstein. Serious doubts materialized with the publications of Igor M. Diakonoff, in particular, who took note of the fact that the city of Lagaš (Al-Hiba) was not merely a city-sector of Girsu (Tello), because the two cities were in fact 16 km apart, so invalidating the calculations by which it had appeared that the recorded land holdings of the Bau Temple would have accounted for the entire cultivable area available. Moreover both he and I.J. Gelb pointed to numerous Pre-Sargonic documents from a range of south Mesopotamian sites, mostly carved

[1] This is not of course to claim that each ensi was actually or even symbolically 'elected' by democratic processes, since we know that both Gudea and the earlier ensis of the dynasty founded by Ur-Nanše were closely related to their predecessors and successors.

[2] Liverani 2006: 44-50 has some pertinent thoughts on the distribution of different crafts between sectors of society in the 4th millennium.

on stone and bearing records of land sales, which attested the involvement of members belonging to local communities, not to temples. A recent comprehensive survey of attitudes towards the issue of religious versus secular governance comes down emphatically in favour of the 'palace' as the dominant institution.[3]

Though the palace (**e_2.gal**) is not mentioned in any of the Abu Salabikh administrative tablets, it is very much in evidence in the contemporary Fara documents, sometimes in apposition to 'the city' (**iri**). The palace was doubtless the long-standing institutional base of the ensis of Šuruppak rather than a new installation by an intrusive 'king', and at Abu Salabikh our assumption is that the city's ensi also occupied a 'palace', in which case this may have been the fragmentary structure in Area A (see pp. 150-4). Subsequently of course we suspect that the building on the South Mound would also have been known as a 'palace', newly erected by the king mentioned in the administrative texts. These are no more than guesses, but if plausible, they allow us to agree that secular authority must have been at least on a par with a religious establishment in the government of the city and its hinterland.

That the temple was not the only institution is in fact confirmed by the administrative documents, like those which mention the king (and perhaps his sons), found within the four walls of the 6H House. Some secular administration must have been carried out here, in Level IB at least, and at a guess it would have been devolved from the ensi's establishment to an apparently wealthy family. This was the largest residential house so far identified at the site, and it raises the question of the extent to which the population of the city – we might call them the Third Estate – were socially and economically independent of the two institutions. IAS 490 (p. 119) bears witness that some institution, probably the temple near to which the tablet was excavated, had some form of control over a large corps of 437 craftsmen and other workers. In view of their skills, most of those listed seem likely to have lived within the city walls, and it must remain an open question whether they were full-time staff – not to say servants or slaves – of the temple, or carrying on their trades for their own profit, though liable to conscription as and when required by temple or palace. Questions like this are often discussed in the context of the Pre-Sargonic and Ur III city at Girsu, and our scrappy documentation is certainly not able to resolve them.

None the less, it is worth bearing in mind that the activities of an independent secular workforce are unlikely ever to have been systematically recorded in writing, so that we must not allow the ampler documentation from temple and palace to bias our view as to the relative importance – indeed size – and potential independent power of the Third Estate. It is only in recent years that Sumerologists have teased out evidence for independent commercial activity under the Ur III Dynasty from archives which were drowned out by the overwhelming quantity of state bureaucracy.[4] Not that the general populace entirely escaped demands from above. Although we have no documentary evidence, it is almost axiomatic that 'fully paid-up' citizens were expected to make their subscriptions to the city temple in the form of regular offerings of food and perhaps also drink, partly to sustain the temple personnel and partly to give the temple resources for distribution to any workforce at their disposal or the needier members of the citizenship at large. Equally, the ensi, with his responsibility for maintaining the irrigation system and the city's military potential must have been able to conscript the citizens to dig or to fight.

Inter city rivalry and collaboration

Our city was only one of some 30 or more compressed into the alluvium, which must have created a population density unmatched in later centuries and millennia. Little has been written about the effect

[3] Schrakamp 2013.

[4] E.g. Garfinkle 2020.

on ancient Near Eastern societies of varying degrees of proximity, or settlement density: conditions in crowded Bronze Age Cyprus must have been very different from the Anatolian mainland just to the north simply because of the spaced out distribution of settlements there. Abu Salabikh itself was only some 16 km from Nippur down the Euphrates, and from Nippur to Isin, Šuruppak, and Adab, substantial settlements by any standards, was only 21, 31 and 34 km respectively. Some of the other most productive pleiopoleis known to us – Classical Greece, Renaissance Italy – were also similarly crowded. Members of a pleiopolis had much in common, as we can tell from the material remains but also in our case from the plentiful written testimony to a shared pantheon and written tradition. Water-borne traffic was essential to the Early Dynastic world, and fragments of flat-bottomed model boats occasionally turn up in our Early Dynastic and later levels.[5] Elsewhere boats feature prominently both in 'literary' texts and iconography, silver boat models were buried in the tombs at Ur, and in Sumerian mythology gods and goddesses are poled up or floated downstream from one cultic centre to another.[6] Cities linked by a single watercourse must have seemed closer to each other than some nearer as the crow flies but on a different channel.

The shared environment certainly promoted cultural conformity but that does not necessarily imply harmonious relations. With apologies to our Swiss colleagues, it would be a shame not to repeat the thought of Orson Welles that 'in Italy, for thirty years under the Borgias, they had warfare, terror, murder, and bloodshed, but they produced Michelangelo, Leonardo da Vinci, and the Renaissance. In Switzerland, they had brotherly love, and they had 500 years of democracy and peace. And what did that produce? The cuckoo clock.' Proximity fosters imitation, but also competition, and competition generates innovation. This must surely apply to Early Dynastic Mesopotamia, when considering metal or ceramic industries which we can observe, since their products survive, but it must also apply to language and thought. Somewhere in south Iraq there must be comparable libraries to ours at Abu Salabikh, but at present the *Zame Hymns* are the clearest proof that we could desire of the shared religious order stretching from Kiš in the north to Eridu in the south.

Religion

Little has so far been said about religion in the city, though we believe in the existence of a major temple in the south-east sector of the Main Mound, and of a single domestic shrine in the 5G House. Yet it must have been an essential factor in the life of the city, if only because the temple hosted the library and its own administrative cadre. Whether, as we guess, the deity residing in the temple was Nisaba or another goddess, she will, like her colleagues in the pantheon, have had a dual role, as patron both of the city and of some other aspect of the Mesopotamian world. Nanna, in Semitic Suen or Sin, was the patron deity of Ur, but also the moon(-god) for all participants in the shared pantheon, while Utu, the sun(-god) was patron of Larsa, and, under his Akkadian name Šamaš, of Sippar north of Kiš. Since the deities belong to a single system the specialist powers of a city's patron deity were recognized by the population of all other cities across the Land. The *Zame Hymns*, and later in Ur III the *Sumerian Temple Hymns*, lay out the allocation of deities to their various cities, but such texts do not tell us much about the portfolio of responsibilities attached to each deity. For that we are mainly dependent on the corpus of what we tend to call 'literary' texts, in the first instance the output of Old Babylonian schools, and later a whole range of writings from the next millennium or two. However already in the ED IIIb at Lagaš the oath-taking ceremony reported in the *Stele of the Vultures* illustrates two cities' recognition of some of the major

[5] As baked clay figurines: AbS 1477 (from just below surface of square 2G47 on the West mound, so probably ED I); AbS 2476 (ASE 4 no. 743 Fig. 9.1, AbS 1555 (ASE 4 no. 744 Fig. 9.1) and 6G76:810 (not included in ASE 4), all three from 6G76, in Ash Tip; see Green, ASE 4 p. 141; 6FS:219 (6F66 sub-surface); AbS 2171 (from 5I79 NB two fragments, post-ED). See Widell 2009; De Graeve 1981 does not cover 3rd millennium evidence.

[6] Heimpel 1997: 563 with Fig. 11 gives a summary of 'festivals in myths and divine journeys' which also attest to the participation of the different cities in a single theological system.

deities whose home base is elsewhere: Enki at Eridu, Suen (Nanna) at Ur, Utu at Larsa, Ninhursag at Keš.[7] To judge from later traditions, Utu as the all-seeing sun served as the god of justice, while Ninhursag is one of the goddesses primarily associated with human reproduction. The long poem entitled *Enki and the World Order* is built round the concept of Enlil decreeing the roles of the members of the pantheon and giving Enki the task of implementing his decrees.[8] When it comes to Nisaba we read 'My illustrious sister, holy Nisaba, is to get the measuring-reed. The lapis lazuli measuring tape is to hang over her arm. She is to proclaim all the great powers. She is to heap up dykes and define borders, she is to be the scribe of the Land. The planning of the gods' meals is to be in her hands.' While Enlil 'heaped up the dykes and implanted boundary-stakes' (ll. 368 ff.)[9] it is Nisaba who 'is to demarcate boundaries and mark borders. She is to be the scribe of the Land'.[10] This underlines the primary role of writing at the time – to place on record the legal and administrative data which ensured an ordered society.

Citizens would undoubtedly participate in the cult of their patron deity, entailing visitations and contributions in the form of regular offerings, simply as an expression of solidarity with their community, a mark of their belonging as 'sons' of the city. What remains obscure at present is how the populace exploited the specialist roles of the different deities, whether their own or patrons of other cities. It is only a guess that those with a particular requirement of a legal kind might approach the god of justice, Utu (at Larsa) or Šamaš (at Sippar), or those with military ambitions seek the intervention of a warrior god such as Šara. For families suffering from the lack of an heir, it is a fair guess that appeals for offspring would have been addressed to the divine world, though neither archaeological nor written evidence for this is readily available. We believe that several female deities (or one goddess with multiple names) would have been associated with fecundity: in Early Dynastic times undoubtedly Ninhursag and Nintu(d) to name but two. The principal shrine of Ninhursag in the mid-3rd millennium was certainly at Keš, but doubtless there were other local cults with similar patrons.[11] Some such concerns must underlie the figurines with scenes of sexual activity found in the 2nd millennium temple of Ištar at Aššur. Less speculative is the cult of Gula, the goddess of healing, from whose temple at Isin excavations recovered many figurines representing a dog, her particular animal. Just as medical petitioners throughout the Greek world appealed to the curative powers of Asklepios, especially at his sanctuary at Epidauros, so Gula's temple at Isin was undoubtedly a place visited by those with medical needs, and it is no coincidence that in the comic story of the *Poor Man of Nippur*, the offended hero impersonates a doctor from Isin.[12] Given the mobility of petitioners (one can hardly call them pilgrims) in the Greek world, it is likely enough that similarly citizens of one Mesopotamian city might stray into others in search of divine assistance. Just as physicians seem to have found medical expertise, and perhaps training, at Isin, when Nisaba was venerated as patroness of writing (and surveying!), it is not too far-fetched to suspect that her temple may have been recognized across The Land as a source of scribal expertise, or to put it bluntly, a school, and as a repository of traditional scholarship. Is the library at Abu Salabikh to be seen in this light?

[7] See p. 188. Similar involvement of non-local deities (Enlil, Inana and Enki) in addition to Ištaran, who specializes in international relations, is seen in the *Frontier of Šara* text (cf. Steinkeller 2003b: 623[14]).

[8] The different deities and their roles are conveniently tabulated for us in Heimpel 1997:562 (Fig. 10).

[9] **in mu-un-dub bulug-ga mu-un-si-si** *Enki and the World Order* (ETCSL c.1.1.3): 370

[10] **in ḫe$_2$-dub-e ki ḫe$_2$-sur-re dub-sar kalam-ma he$_2$-em** *Enki and the World Order* (ETCSL c.1.1.3):417

[11] Gods and goddesses did of course have 'branches' at places apart from their head offices, thus for instance Ninhursag, whose principal temple was at Keš, also had a small and splendidly adorned shrine at Al-Ubaid close to Ur. Syncretism is certainly also in action.

[12] The Mesopotamian and Greek parallels are fully discussed in Avalos 1995 (esp. Gula Temple on pp. 202-222, with another Isin doctor).

North and south

As has been mentioned more than once already, the *Sumerian Temple Hymns* appear to place Nippur at the point of transition from the northern to the southern zone – from **Uri**/Warûm to **ki.en-gi/**Sumer – and the evidence is accumulating that Abu Salabikh, only 16 km further north, may have been a city occupied predominantly by Proto-Akkadian speakers, however much they wrote Sumerian in their scribal centre. This prevalence of Akkadian places the city firmly within the northern zone, with a language and a material culture shared with Kiš, for centuries the base of northern 'kingship', and the chances are that the 'king(s)' who feature in our administrative documents are indeed one or more of them 'king of Kiš', placing the city at some time within their royal domain – unsurprisingly, since Mesalim for one was acknowledged further afield at Adab and as far to the south-east as Lagaš.

If Abu Salabikh belongs in this northern Proto-Akkadian zone, it might seem a strange place to have a centre of Sumerian expertise. However scribal craft is very traditional: the thousand year life cycle of some of the lexical texts has already been mentioned, and even where the cuneiform system was redeployed to write Akkadian a knowledge of Sumerian was fostered, many logograms remaining integral to the scribes' repertoire. Sumerian compilations and compositions were kept in the palace at distant Ebla. Some 'northern' idiosyncrasies have been recognized in the cuneiform used at Kiš, and palaeographic differences between Abu Salabikh and Šuruppak have been detected. Nevertheless, although the personal names may be taken to suggest that our inhabitants were very likely bilingual, there may be only one single literary text using Proto-Akkadian, and Semiticisms sneak into their administrative output only very occasionally. The great majority of the tablets are purely Sumerian. We should perhaps not be surprised: the Assyrians wrote their historical inscriptions in Babylonian dialect (though Neo-Assyrian script), but it does not mean that they were Babylonians themselves. Like Sumerian, it was the language of scholarship.

Although *Zame Hymns* cover both northern and southern zones, they include few cities alongside Kiš in the northern zone, and the same distribution is reflected in the lower density of major Early Dynastic sites known to us on the ground. This should remind us that not all the population of a territory was made up of urban dwellers or their rural dependencies. In south Iraq the fundamental contrast between the desert and the sown is dictated by the absence or presence of irrigation, but the English word 'desert' conveys the wrong idea of the uncultivated lands: the Akkadian *ṣērum*, meaning literally 'back' and the Sumerian equivalent **edin** refer to the swathes of land currently languishing beyond reach of irrigation, and in English the Australian 'outback' is a better choice of words. The outback was not unpopulated. At the right times of year it provided grazing for sheep and goats, probably mostly flocks owned by dwellers in cities, towns and villages. In pursuit of the best grazing the shepherds (as opposed to the herding contractors, **na.kad** / *nāqidum*) will have roamed the countryside, and it is never easy to know if they were members of a sedentary community sent out for months with the flocks, or belonged to transhumant groups who no doubt maintained their own livestock but also undertook herding for the settled population. In recent centuries the transhumants in the 'outback' have been Arabic speaking bedu, but before them were tribal groups of Aramaeans, and before them Amorites. In each case we see their gradual incorporation into the urban scene, and in the same way it is plausible that mobile pastoralists frequented the interstices of the Proto-Akkadian urban network, speaking the same language. When the Akkadian-speaking urban and rural populations first entered the northern zone remains to be firmly established, but it is tempting to associate the process with the earliest centuries of the 3rd millennium, after the dissolution of the homogeneity of the Uruk period in the southern alluvium.[13]

[13] This is the view of Steinkeller (2013: 146-8), to which I broadly subscribe, whereas Zarins wrote that 'we cannot arbitrarily suggest that the symbiotic interaction began only in ED I-II' (1990: 37).

The final years

The Abu Salabikh library is unique, with only Šuruppak coming a long way back in second place, and without comparable examples there is no way to be certain that at the time it was exceptional. There must be other such collections to be discovered in due course. Still at least there need be no hesitation in recognizing the ED III city as a scribal centre, and if as we believe it was in fact Ereš, the city of Nisaba, this clearly points in the same direction. Sadly, during the 2nd millennium Nisaba's role as the deity of scribal craft was taken over by Nabu, patron deity of Borsippa and a son of Marduk, the god of Babylon. The last mention of the city of Ereš outside literary texts is the year name of Hammurapi's father Sin-muballiṭ (see Appendix 1), and we have seen no clear archaeological evidence for human occupation at Abu Salabikh that late. For whatever reason – and shifting water courses come to mind – like other major 3rd millennium cities such as Eridu and Keš, both Ereš and Abu Salabikh (whether one and the same or not) were abandoned. Some of Eridu's cultic activities were eventually transferred upstream to Babylon, and if there was a flourishing scribal enterprise at Abu Salabikh it is hard to imagine that the practitioners would not have migrated elsewhere. Since Nippur, which became a, if not the, principal centre of Sumerian traditional scholarship during the Old Babylonian period, was only 16 km distant, it seems very likely that it was here that they ended up. There are several references to Nisaba at Nippur,[14] and although in Ur III times three minor temples at Ereš still had their jewel hoards (see p. 136), the shift could easily have been initiated even before that, given that our tablets are some 4-500 years earlier. This scribal migration is pure speculation, and Nippur surely had its own educated scribes in the Early Dynastic period, but neither its city god Ninurta nor Enlil in the Ekur has Nisaba's reputation for scribal expertise.

In any case, it's an ill khamsin that blows nobody any good: the eventual demise of the city and the merciless erosion of the Ur III and Akkadian strata has presented us, just centimetres beneath the surface, with the entire layout of a small but not insignificant member of the south Mesopotamian pleiopolis in the formative centuries of literate urban civilization. Planning the remaining 75% of the Main Mound and the South mound is a task for another decade or two, and will make this book obsolete, but is entirely feasible and desirable.

[14] Summarized in Steinkeller 2013b: 628.

Appendix 1

Ereš and Nisaba

The first mention of Ereš as a possible candidate for the site's ancient name comes from Biggs 1974: 24, who after considering previous suggestions that the site may have been Keš, remarks 'Without better evidence, detailed investigation of other possibilities, for example, Eresh, would not be appropriate here'. His reason for mentioning Ereš was no doubt the entry in a land assignment text IAS 505, which reads **lugal ereš$_2$^{ki}** (as noted by Biggs 1974: 96). In 1975 with the resumption of work at the site the question of its ancient name naturally resurfaced. For various reasons Keš had become implausible, and the most plausible suggestion did appear to be Ereš: this was of course suggested by Biggs' original remark, but was supported by a review of the scanty historical evidence for the city (see below). The possible location of Ereš was discussed by Steinkeller (2003b), where the scattered sources are assembled and the case for a 'northern' or 'southern' location set out. He opts, provisionally, for southern, and although we are strongly in favour of northern (i.e. Abu Salabikh) his article contains virtually all the relevant material from which only the most significant items are excerpted here.

Early Dynastic evidence

1. **lugal /ereš$_2$^{ki} :** OIP 99: IAS 505.Rv.4'-5' (see Table 6.2A)

The decisive point here is that the structure of the field allocation texts, and in particular the ruling beneath the word **lugal**, indicate that this entry does not refer to a 'king of Ereš', which was always hard to swallow for historical reasons, but to 'the king; (field location at) Ereš'.

It is unlikely that any city (or town or village) other than Ereš would be able or authorized to dispose of fields within its territory, making it highly probable that this tablet was indeed written at and recovered from the city of Ereš.

2. Other passages listed in RGTC 1: 49 and Westenholz 1975: 112, and discussed by Steinkeller 2003b: 628 (including the listing in the *List of Geographical Names,* see Steinkeller 2013: 143[34]). *These do not offer any precise criteria for localizing the city, though the provenance of several texts from Nippur could be thought significant, despite Steinkeller's reservations.*

3. *Zame Hymns*

Krebernik and Lisman 2020: Hymn 25, ll. 88-90 on pp. 60-61: [88] **ereš$_2$^{ki} nun idim**(LAK4) [89] **teme$_2$**(te NAGA) **li?** **nun nar du$_{12}$** [90] **^{d}nissaba$_2$ za$_3$-me**, their translation 'Ereš, place of the venerable princess, (where) the singer sings of the saltwort and juniper? (plants) of the princess: (there said) Nissaba praise'.

This merely confirms that Ereš was viewed as sufficiently important to be included in this country-wide collection of 'hymns' listing cities with their deities and temples.

Akkade Dynasty

1. Inscribed macehead: Foster 1991: 181-3 No, 5:

[...] / **lugal** / *ki-ib-ra-tim* / *ar-ba-im* / *a-na* / ^{d}**nisaba** /*in* **ereš$_2$^{ki}** / **a mu-ru**

'To judge from the script, this inscription may be Naram-Sin or Šar-kali-šarri' (Foster).

One can only lament the lack of a provenance for this artefact.

2. Rebellion against Naram-Sin (Frayne 1993: E2.1.4.6) : among persons he captured Naram-Sin lists the General (**nu.banda**$_3$) of Ereš (p. 105: iv.38'-40') and the ensi of Ereš (p. 107: iv.10'-12'). As noted by Steinkeller (2013: 629) the other captives stem 'from northern Babylonian cities' (including Kiš, Cutha and Sippar). In the similar passage he cites after Wilcke the traces of the sign read **e**[**reš**$_2$ are not 100% convincing, and in any case Nippur is mentioned.

The inclusion of Ereš in the 'anti-Kiš coalition' undoubtedly favours a northern location.

3. ITT 2.4451.Rs.5 (OAkk). **ereš**$_2^{ki}$ features alongside other city names.

This instance does not offer any guidance as to location.

Ur III Dynasty

1. Ur III Cadaster

Ereš is mentioned in a broken section of this text which lists the boundaries of provinces of the Ur III state in the northern zone, including Marad and Kazallu (Frayne RIME 3/2: 54 Ur-Nammu 21 Ex. 3 Frgm 2. ii' 1'-2').

This suggests, but cannot be said to prove, that Ereš lay in the northern zone of the alluvium.

2. Lists of jewellery at Ereš

Three tablets, today in different collections, dating to the reign of Šulgi, list the jewellery of three goddesses in Ereš: Annunitum, Ninegala, and Ninhursag (Paoletti 2012: 431-2; Hilgert 1998: 19-20 and no. 483). Each text mentions Ur-ninmug, ensi.

The provenance of these documents is not known, and they do not help to determine the location of Ereš.

3. Mentions of the governor (ensi) of Ereš

See 1 and 2.

ensi$_2$ **ereš**$_2^{ki}$ mentioned in *Atiqot* 4: 47 no. 52.Rs.1.

The governor Ea-bani is named in Watson 1986: no. 134.35: **E**$_2$**-a-ba-ni ensi**$_2$ **ereš**$_2^{ki}$

No indications of location.

Old Babylonian and later

The sole mention of Ereš is in the 15th year-name of Sin-muballiṭ, Hammurapi's immediate predecessor: MU BAD$_3$ EREŠ$_2^{ki}$ 30-*mu-ba-li*$_2$*-iṭ* BA.DU$_3$ 'The year Sin-muballiṭ built the city-wall of Ereš'. Sin-muballiṭ fought Larsa and his 17th year name records his claim to have captured the city of Isin (Edzard 1957: 152-3). Other year names of his record building (or re-building) the city walls of several other towns, the only one of which can be definitely located being Marad, about 32 km SW of Abu Salabikh.

This strongly suggests that the city was re-fortified to serve in a west-east string of forts running across the land north of Nippur as a defensive line against the forces of Isin and Larsa to the south.

Alternative proposals

Krebernik and Lisman 2020: 20: 'the last cult place ĞEŠ.GI is presumably Tell Abū Ṣalābīḫ, where Lisin is installed as city goddess'. This argument is set out at greater length on pp. 155-6. They concur with the suggestion put forward by M.E. Cohen (1976: 90-92) that because the final hymn is addressed to the goddess Lisi(n) 'we believe that Tell Abū Ṣalābīkh is ancient Gišgi'. This line of argument rests on two questionable assumptions. First, that because the final hymn of the *Zame Hymns* was addressed to the goddess Lisi(n), the entire set of hymns must have been composed at her city of ĞEŠ.GI. Second, that because all the exemplars of the hymn collection have been found at Abu Salabikh, this must be where the hymn was composed. The first assumption is admittedly one possibility, but by no means open to proof. As for the second assumption, while it is true that no copies of the *Zame Hymns* have been found elsewhere, the only other Mesopotamian site to have yielded Sumerian 'literary' texts of this date in any quantity is Šuruppak and this argument has not been applied to other 'literary' compositions of this date for which Abu Salabikh is the sole source. Cohen's argument (p. 92) that as a candidate for the name of Abu Salabikh 'we must exclude any geographical name that occurs in an economic text from the Sargonic period onward', followed by Krebernik and Lisman (p. 156), has been overtaken by events, because the ceramic evidence from the site makes it certain that the city was occupied in the Akkadian period and very probably also in Ur III.

Ereš in mythology

Ereš has a significant role in the Sumerian literary canon The myth we know as *Enlil and Sud* (treated by Civil 1983; Black et al. 2004: 106-111) describes how, on a visit to Ereš, Enlil, the chief god of The Land, who was at the time an eligible bachelor living at Nippur, was smitten by the sight of a young girl, rather endearingly described as being 'like a tall, beautifully shaped cow'. She was the goddess Sud, associated with Šuruppak but here visiting her mother Nisaba. Enlil's initial advances made her scuttle back indoors, but eventually, after a protracted exchange of messages and gifts in the middle eastern way, he gets his girl and she becomes his wife, and is given the name Ninlil. The point here is that the geographical setting of myths of this kind tends to reflect political realities on the purely human plane, and so this story suggests that Nippur and Ereš, as well as Šuruppak where Sud belongs, enjoyed close relations at some time in the 3rd millennium. And this is easy to understand if Ereš is in fact Abu Salabikh, for Enlil only 16 km upstream along the river.

A second text, known as *Enmerkar and En-suhgir-ana* is presented as a contest between Enmerkar, the ruler of Uruk, and his opposite number at Aratta (on the Iranian plateau). The central episode of this debate poem takes place at Ereš, where the Arattan sorcerer succeeds in terminating the productivity of Nisaba's cows and sheep. Why the scene has moved to Ereš is not at first sight clear, but Nisaba may be involved here as 'the goddess of writing and thus of both literature and the bureaucracy essential to successful agricultural administration' (Black et al. 2004: 3, introducing pp. 6-9).

Finally, to most Sumerologists, and perhaps to most students of Sumerian in the Old Babylonian schools Nisaba is very familiar as the patroness of writing: so much so that ^{d}**nisaba za$_3$-mi$_2$** is printed on the title page of every volume of the Chicago *Assyrian Dictionary*.

Appendix 2

ki.en-gi

From at least the ED IIIb period until the end of Mesopotamian civilization the land we know as Sumer, and which was called in Akkadian *māt šumerim*, was written in Sumerian contexts **ki.en-gi**. This Appendix aims to give a brief summary of how the toponym features in the texts during the 3rd millennium, and to account for the author's conviction that the Sumerian name should be analysed as /ki.eme.gir/, that is to say 'the land of Sumerian language'.

Old Babylonian and later: royal inscriptions regularly refer to south Mesopotamia (what we sometimes call Babylonia although that is not a term they used) as 'the land of Sumer and Akkade' (LUGAL KI.EN.GI (u) KI.URI).

Ur III royal inscriptions: the founder of the dynasty, Ur-Nammu, regularly includes in his titulary 'King of Ur, king of Sumer and the Land of Akkade' (**lugal uri$_5^{ki}$-ma lugal ki.en-gi ki.uri-ke$_4$** e.g. Frayne 1997: 83). His successors (Šulgi, Amar-Suen, Šu-Sin and Ibbi-Sin) usually substitute 'King of the four world rims' (**lugal an ub-da limmu-ba**) but do occasionally retain 'Sumer and Akkad' instead. For Sumerian sheep, see below.

Neo-Sumerian: for mentions of **ki.en-gi** in Utu-hegal and Gudea texts See RGTC 1: 87. Note in particular passages where **ki.en-gi** is extended by **-ra** or **-ra$_2$** to convey a genitive suffix, providing confirmation that the third component of the name is /gir/. Gudea's passages confirm that in his day at least Girsu (and no doubt the rest of Lagaš state) formed part of **ki.en-gi**. Utu-hegal writes uniquely of the 'kingship of Sumer' (**nam-lugal ki en-gi-ra**).

Dynasty of Akkade : the Akkade kings do not claim rulership of Sumer (**ki.en-gi**) or the land of Akkade (whether named as *māt akkade* or as **uri^{ki}**). After 'King of Kiš' they tend to enumerate cities vanquished. In an Akkadian language inscription Rimuš does however mention battles with *šu-me-ri$_2$-im* (Frayne 1993: 47, 8-11; 48, 31-43). Administrative records from the reign of Šar-kali-šarri have a time statement 'when the king went (down) to **ki.en-gi**' (RGTC 1, 87).

ED IIIb: a few rulers from shortly before the Akkade dynasty mention Sumer, written as we expect from left to right **ki.en-gi**: Giššakidu (Frayne 2008: 373 l. 9), and Lugal-zagesi. Slightly earlier is the mention in Eanatum of Lagaš' inscription on the *Stele of the Vultures*. There, unfortunately, the text is rather fragmentary and the context is not sufficiently clear to allow us to say with certainty that this refers to **ki.en-gi**. There is an isolated instance of a ruler claiming the title of **en ki en-gi (**En-šakušana Frayne 2008: 430 l. 4).

Probably not referring to Sumer are three documents from the Bau Temple archive at Girsu. These write (**ki**) **en.gi$_4$ ki** (DP 46), **ki en.gi$_4$ ki** (DP 51) and **ki en-gi$_4$** (DP 203). These (which all use the sign **gi$_4$** rather than **gi**) may not be Sumer (**ki.en-gi**) but possibly refer to the southern town of Enegi since in DP 51 the toponym is preceded by the divine name **^{d}nin–a-zu**, who is associated with that city (see Krebernik & Lisman 2020: 126 and below under ED IIIa).

ED IIIa: It is in ED IIIa that the real problems are found. When the three signs **ki**, **en** and **gi** are found in the same case it is never initially certain whether the **ki** comes first, and should be understood as **ki.en-gi** (as in **ki.lagaš** or **ki.unug**), the 'Land (of) Lagaš' or 'Land (of) Uruk', or is the post-determinative regularly used to mark place names, so **en-gi^{ki}**. This is because at this date (ED IIIa) the signs in a single case do not follow a linear order from 'left to right' (as they are positioned on the page in our publications), along a single line (as they usually are in ED IIIb). Nevertheless, in some texts the **ki** sign is consistently placed at the 'right side' (i.e. the base) of the case when it is acting as a determinative to a well known city name. In the published Šuruppak texts cases containing the signs **ki en gi** are present and usually are obviously toponyms. With the tablets rotated so that we read the cases from left to right, the signs may be written in the order **en:gi:ki** (WF 94(?); 142(?); TSŠ 627 (after **en$_5$-si**-GAR); 758 (twice)) or with **ki** on the 'right', and **en** and **gi** written one 'above' the other (WF 92; NTSŠ 168).

At Abu Salabikh the list of field allocations IAS 518 also has a case with **ki** on the 'right' and **en** above **gi** at the 'left' of the case. The **ki** stands on the right also in the literary text IAS 247, which has **gi:en:ki** in two successive lines (ii'.7'). How we should interpret this entry remains uncertain.

In the *Zame Hymns*, there are three places where these three signs occupy a case together (Hymns 20, 22 and 37). Should they be read as **ki en.gi** or **en.gi**^{ki}? Commenting on Hymn 37, the editors say 'it is very unlikely that that EN.GI KI can be interpreted as Kiengi and identified with 'the land of Sumer' ' (2020: 126). Instead they see this as a writing for the city En(n)egi, and this seems strongly supported by the association in the text with the god Ninazu. In Hymns 20 and 22 they suggest that 'The sign combination KI.EN.GI ... is most likely (an epithet for) a location in (the neighbourhood of) Uruk', basing this idea on the association in Hymn 20 with the god Mes-sağğa-unug (p. 112), and assuming, no doubt correctly, that what applies to Hymn 20 can be accepted for Hymn 22. While this seems rather speculative, it does appear that there were at least two 'cities' written with the same three signs in the *Zame Hymns*, and it is noticeable that in one manuscript of Hymn 22 there is no KI, suggesting that it was a determinative, and effectively ruling out a reading /ki en.gi/; but we are left in the dark as to what other toponym besides En(n)egi might have been written this way. Since in any case **ki.en-gi** = Sumer is not a city, it would be unexpected in the *Zame Hymns*, but there is no denying that in other contexts that is what these signs should convey.

A goddess **Nin-ki-en-gi-še**$_3$ features in the great god list from Fara (Col. vi.29), see Krebernik 1986: 174.

Westenholz's claim (1999:30) that in 'Uruk III, around 3000 B.C.), the Kiengi League certainly included both Jemdet Nasr and Ur' goes further than our evidence can sustain, nor in the Fara period were 'Kish and probably even Sippar' within Kiengi as he there implies.

The result of this survey is that if we follow a long line of scholars in accepting the Fara occurrences as standing for **ki.en-gi** 'Sumer' we have to accept that elsewhere they could also stand for **en-gi**^{ki}, and that we, like the scribes, have to decide which place is meant on the basis of the documentary (or geographical) context.

ki en-gi < ki eme.gir 'Land of Sumerian'

This etymology was suggested by the present writer (1994d) and independently by A. Westenholz (1979: 118), though he later opted for a different interpretation. Points to note are that

• both **gi** and **gi**$_7$ (=**gir**$_{15}$) may be used to render the syllable /gir/ (as shown by Steinkeller 2005).

• there is good reason to think that Sumerian often, if not always, elided the vowel of the second of two short syllables (Postgate 2021a: 213-17; 2021b: 32), hence with the loss of the second /e/ in /eme/ ('tongue') the /m/ would have come into contact with the following /g/, explaining why it is realized as an /n/.

• The breed of sheep described in Ur III texts as 'Sumerian' (**eme-gi**$_7$) must be the same as sheep sometimes written **ki.en-gi** (Wilcke 1975: 42-3: 'In dieser Funktion wechselt es [sc. **ki.en-gi**] mit dem Wort für die sumerische Sprache **eme-gi**$_7$.').

• Since in Akkadian the 'land of Sumer' and the language 'Sumerian' enjoy the same basic toponym, it seems only reasonable that the same should apply to the Sumerian terminology:

/eme.gir/	*šumerû*
/ki eme.gir/] > ki en.gir	*māt šumerim*

Appendix 3

Records of land allocations

Although the administrative documents from the site are far fewer than the literary and lexical texts, and many are fragmentary, both individually and as a group they contribute valuable details of the activities pursued in the temple and in the 6H House. The tablets found between 1975 and 1989 have been edited in Biggs and Postgate 1976, and Krebernik and Postgate 2009, and this is not the place to offer further editions, but the implications of those documents which are concerned with the fields are significant enough for it to be worth tabulating the data in some of them in Tables 6.1-3 in Chapter 6. To complete the picture the principal remaining similar pieces receive the same treatment here.

Table 6.1. IAS 518
Table 6.2. IAS 505, 508, 511, 528
Table 6.3. IAS 552
Appendix 3: IAS 504, 506, 529 (Area E), 553, 554 (6H House)

These Tables are not editions, but interpretations. For each tablet only those lines (or cases) with usable information are included. Rulings between lines but within a column are shown by an oblique(/). Totals calculated but not indicated by the scribe are in angle brackets (< >). Area measures are shown as bur_3.$eše_3$.iku as explained in Chapter 6, p. 94[14].

Land allocations in tablets from Area E

IAS	Lines	Area še+$gana_2$	Category	Role / Person	Place
504	i.4	5.2.0	[.....]	[.....]	
	ii.1-2	1.1.3		[...]x e_2 [x] an si	
	ii.3-4	[1+]1.0.0		[...]sud	
	ii.5	[.....]	[...] SU.A	pa_4-^{d}MI^{mušen} x x	
	iii.1				
	rev.				kun-kul-AB^{ki}
Total		<9.0.3 (+)>			

Rev.: The toponym **kun-kul**-AB^{ki} also occurs in IAS 538.iv.4, and appears as **kun.kul.ab** in the Fara text Š 243 (Steible and Yıldız 1993.22(!), read as GIŠ **kun.kul.ab by** Pomponio and Visicato 1996: 171A r.ii.'). This place was no doubt more than a mere village, since it also features in l. 123 of the contemporary *List of Geographical Names* known from exemplars at Abu Salabikh and Ebla (see Steinkeller 2013: 132[1]; at Ebla **gi-ku-la-ba$_4^{ki}$**, Pettinato 1981: 234 l. 123). It is not clear to me if (as assumed by Frayne, 1992: 9) it is identical with plain Kulab without the KUN (on which see Steinkeller 1993: 111), and its presence in our administrative texts makes it improbable that it lay on the easternmost water course ('Kiškattûm') as reconstructed by Frayne (in his Map 2, on which note Steinkeller's comment (2013: 132) 'most of the hydrological reconstructions offered there are completely imaginary').

IAS	Lines	Area še+$gana_2$	Category	Role / Person	Place
506	ii.2'-4'	0.2.0	šuku	engar / u_3-aš-tar_2 / nin	
	ii.5'	[.....]	[.....]	[.....]	
	iii.3'	0.1.3$^{(Iraq\ 40.116)}$	šu-tab		
	iii.4'	0.2.0	šuku	engar / PN	
	iv.2'-3'	0.2.0	šuku	ugula e_2	
	iv.4'	2.0.0	šu-[tab]	[.....]	
Total		<3.2.3 (+)>			

IAS	Lines	Area še+gana$_2$	Category	Role /Person	Place	Other
529	[i.1'-3']	[.....]	[.....] A	nin		
	i.4'	[(x+)]4.0.0	[š]u$^?$-tab munus	engar		
	i.5'	[.....]	[...]	engar		
	ii.1'-2'	[.....]		engar		⌜x⌝ šu-gal$_2$
	ii.3'-5'	[1+]2.0.0	du$_7$	en$_5$-si		1 SAG
	iii.1'	[.....]	šu-tab munus			
	iii.2'	[x.x.]1		engar		
	iii.3'-4'	[		]		⌜1 SAG⌝ (?)
	iii.5'	4.1.0	šu-tab	[.....]		
	iii.7'	[.....]	šuku	engar		

Land holdings in tablets from the 6G House

IAS	Lines	Area še+gana$_2$	Category	Role / Person	Place
553	i.1'	[.....]	[šuku$^?$] ašgab$^?$		
	i.2'	[.....]	šuku nagar		
	ii.2'-3'	4.0.0	šu-tab munus	[...]NI-mah [en]gar	
	ii.4'	1.0.0	šuku guruš	ur-sud$_3$-da	
	iii'.1'	2.[x.x]	[.....]	[.....]	
	iii'.2'	1.0.1	šu-tab munus		
Total		<8.0.1(+)>			

IAS	Lines	Area še+gana	Category	Role / Person	Place
554	i.1'-3'	0.2.0	šu-tab munus	i-kum-ma-ri$_2$	e$_2$ duru$_5$-^{d}KA.DI^{ki}
	i.4'	0.1.3		IGI+LAGAB tur	
	ii.1'-3'	0.2.0	šuku	engar x x / me-^{d}en-lil$_2$	
	ii.4'	0.1.0	šu-tab [...]	e$_2$ [...] engar	
			aš-da-da / i-ti-^{d}id$_2$ / mes-NU$_2$-a		
Total		<2.0.3 (+)>			

i.4': for the sign IGI+LAGAB (also IAS 554.i.4) see Krebernik & Postgate 2009: 14 on this passage, citing Maekawa 1973-4:110: 'denotes mainly the personnel of various occupations within the palace and the e$_2$-mi$_2$ generally'. Recently see Schrakamp 2018, 178 for Ur III examples reading **igi-nigen**$_2$ following Bauer 2003; but his reason for choosing NIGIN$_2$ (as opposed to LAGAB or any other reading of the sign is weak because Bauer elects to restore [NIGIN$_2$], of which there is no trace on the tablet after IGI). Steinkeller writes 'lú-igi-nígin, 'important people'' from WF 95 (2013: 150[81]).

Appendix 4

The profession PA.USAN

A profession which was certainly concerned with animal management and is mentioned at Abu Salabikh was written with the signs PA.USAN, where the sign transcribed USAN (on the basis of Syllabary B II in MSL 3 p. 152 l. 369) is sometimes described as GU_2-*gunû* (MSL 12, p. 71 ad l. 478 'munsub$_3$ written PA+GÚ-gunû' [for the transcription /munsub/ see below], or in later lexical texts as GU_2xNUN or GU_2.NUN, where the 'NUN' is a version of the parallel vertical lines in the latter part of the 3rd millennium sign form. (Though this part of the early USAN sign does resemble GU_2, there is no need to assume that it was originally related to that sign.)

This profession written PA USAN is found in three of our administrative tablets (IAS 510 ii 1; 528 iii 8; 537 ii 2.). One man called Išlul-il is mentioned in a short note about a cow (IAS 510), an Ilum-aha features in another laconic note concerned with adult and young oxen (IAS 537), and Inim-zi is assigned a field plot which seems to bear the unique designation DU ANŠE (Table 6.2D IAS 528). For instances of the same profession at Šuruppak see Steible & Yildiz 2015: p. 171 (10 occurrences listed under **mu$_6$-šub$_3$**). A stone bowl from Nippur dedicated by a PA.USAN is published in Goetze 1970: 53 7N-213 (here Fig. 10.2).

The same writing is still in use in the ED IIIb texts from Girsu (see Bauer 1972: p. 492, ii.10 with commentary p. 498). In the Ur III corpus the BDTNS website (accessed 13.xii.22) lists 12 instances of PA.USAN (transcribed munsub$_x$), including texts from Girsu and Umma, and for example the text from Drehem published in Owen and Wasilewska 2000: 9 No. 32:5, where BDTNS correctly reads PA.USAN (see copy p. 39).

The writing PA.USAN appears not to have come down in every day use into the 2nd millennium, but it survives in the lexical tradition. The earliest occurrences are in two lexical lists from Ebla: once immediately before 'shepherd' (**sipa**, written PA.UDU) (Pettinato 1981: 210 53.ix.15-16), and a second time with an Akkadian equivalent written *aš-gi$_4$-du-um* (obscure to me), and followed by **sipa** and then by **ugula** (Pettinato 1982: pp. 305-6, ll. 958-960). The association with shepherds is reinforced, or rather conflated, by 2nd millennium lists which give us the following entries:

mu-su-ub (var. mu-un-su-ub) : GU_2.NUN : *re-e$_2$-um* (Sb II l. 366, MSL 3: 151)
su-ub : GU_2xNUN : *ša$_2$* PA GU_2xNUN : *re-e$_2$-um* (Aa VIII/1.8 82, MSL 14: 491)
[x x]-ub$^?$: PA.USAN : *re-*[*'u-u*] (Diri V.30 text G, MSL 15: 168)
^{343}PA+USAN : *kir-di-ip-pu* / ^{344}kir$_4$-dib : MIN (=*kir-di-ip-pu*) (Lú IV.343-4, MSL 12:138)

see also

u_2-sa-an : GU_2xNUN : *ši-mi-tan* (Aa VIII/1.8 79, MSL 14 p.491)

Since PA.USAN features alongside shepherds in earlier lexical and administrative texts the first three entries here are uninformative, but the equation with *kirdippu* is more convincing. CAD K 225b describes this Sumerian loanword (meaning 'nose-holder') as referring to a 'groom (for leading donkeys and horses .....)'. This is entirely in accord with the ED IIIa texts and confirms that he is an animal official, or, with Krebernik a 'herdsman, stockbreeder' (2009: 20), or with Bauer 'ein ..... Hirte' (1972: 495; 635). Since the role of a shepherd of sheep and goats is taken by the **sipa**(**d**), and the flock-manager **na-kad** (Akkadian *nãqidum*) is also attested alongside the PA.USAN in Fara texts, the PA.USAN was no doubt responsible more precisely for larger animals, probably cattle and equids (compare the three IAS texts and the Ur III Drehem text Owen and Wasilewska 2000 No. 32 cited above).

There remains the knottier problem of how the logogram PA.USAN should be read. It would be easier if the left column of the SbII and Aa VIII entries above were exchanged, for then it would be reasonable to surmise that the PA should correspond with the /mu/ of the first syllable, and the USAN to /sub/, justifying a transcription such as mu$_6$-sub$_3$ (although these values may only have been generated to meet this case, see Borger 2003: p. 128). This

is no doubt the reason why for some authors $MUNSUB_3$ corresponds to PA.USAN, for others with only USAN. Krebernik (2009: 20) while writing $PA.MUNSUB_3$ doubts that a transcription **mu_6-sub_3** is correct: 'the conventional reading mu_6-sub_3 rests on the restoration of the gloss [mu-su]-ʳub²ˀ¹in Diri V 30 (MSL 15, 168) which needs to be confirmed; another ms. (ibid. ll. 41-3) reflects only the readings $utul_9$, nagada, and kabar.' Troublesome also are the entries in Lú IV which raise the possibility that 3rd millennium PA.USAN is no longer current in the 2nd millennium because it was replaced by the syllabic writing **kir_4-dib**.

It is perhaps not necessary to stress that if /munsub/ is the correct normalization of PA.USAN, it has no semantic or palaeographic connection with $MUNSUB_{1-2}$, which broadly mean 'hair', and therefore has to be numbered $MUNSUB_3$. This should stand for the compound PA.USAN, not for USAN alone, and is probably to be preferred to writing mu_6-sub_3. The lexical evidence seems clear that it is only PA.USAN which means 'herdsman', and not USAN alone, for which the Aa VIII gives Akkadian meanings 'dusk, evening', such as *šimitan*.

One cannot ignore the fact that shepherds are given the compound logogram PA+UDU = /sipad/, which must be resolved conceptually into 'overseer+sheep', and this leads one to wonder if PA+USAN is a similar compound, meaning 'overseer+X'. Clearly not 'overseer+evening', but we have no other meaning for USAN. A bold hypothesis might be to assume that USAN originally stood for two homophones with the value /usan/, one meaning 'evening' the other 'whip', before the introduction of $USAN_3$ (which is frequent in Ur III texts and quite different visually from USAN and means a 'whip' (Akk. *qinnazzu(m)*). Were this correct, and it derives from 'overseer+whip' it would parallel the Old Babylonian compound logogram PA+PA 'overseer+stick' (perhaps to be read *(w)akil ḫaṭṭim*).

Bibliographical matters

Publications about the site

From 1974 onwards interim reports on the excavation and on various aspects of the site and its artefacts appeared in the journal *Iraq* published by the British School of Archaeology in Iraq. When reference is needed to these articles experience indicates that for the reader the simple journal title and volume number is much handier than using the Harvard system employed for the rest of the bibliography, and hence the style *Iraq* 52: 111 is used, often without an author name. Likewise, the text often needs to refer the reader to a volume in the series of definitive site reports *Abu Salabikh Excavations*, Vols, 1-5, and there too the simple style ASE 5: 99 is the most economical. Here for convenience are listed these volumes, followed by the *Iraq* seasonal reports.

Abu Salabikh Excavations 1-5

Vol.	Title	Author(s)	Year
1	The West Mound surface clearance	J.N. Postgate	1983
2	Graves 1-99	H.P. Martin, J. Moon & J.N. Postgate	1985
3	Catalogue of Early Dynastic pottery	J.A. Moon	1987
4	The 6G Ash-Tip and its contents: cultic and administrative discard from the temple.	A.R. Green (ed.)	1993
5	Two Early Dynastic houses: living with the dead	J.N. Postgate (ed.)	2022

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Abbreviations

AOAT	Alter Orient und Altes Testament. Ugarit-Verlag
ASE	Abu Salabikh Excavations
BDTNS	Data base of Neo-Sumerian Texts (http://bdtns.filol.csic.es)
CAD	The Assyrian Dictionary (Chicago Oriental Institute)
DP	Allotte de la Fuÿe, F.-M. 1908-13
ETCSL	Electronic Text Corpus of Sumerian Literature
IAS	Inscriptions from Abu Salabikh (in OIP 99, *Iraq* 40 and *Iraq* 44)
LAK	Liste der archaischen Keischriftzeichen (A. Deimel 1922, WVDOG 40)
MDOG	Mitteilungen der Deutschen Orient-Gesellschaft
MSL	Materialien zum sumerischen Lexicon / Materials for the Sumerian Lexicon (Rome: Pontifical Biblical Institute)
NTSŠ	Jestin 1957
OIP	Oriental Institute Publication. Chicago Oriental Institute
RA	Revue d'assyriologie et d'archéologie orientale
RGTC	Répertoire Géographique des Textes Cunéiformes
RIMA	Royal Inscriptions of Mesopotamia, Assyrian periods
RIME	Royal Inscriptions of Mesopotamia, Early periods
SF	Schultexte aus Fara (A. Deimel 1923, WVDOG 43)
TSŠ	Jestin 1937
WF	Wirtschaftstexte aus Fara (A. Deimel 1924, WVDOG 45)
WVDOG	Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft

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