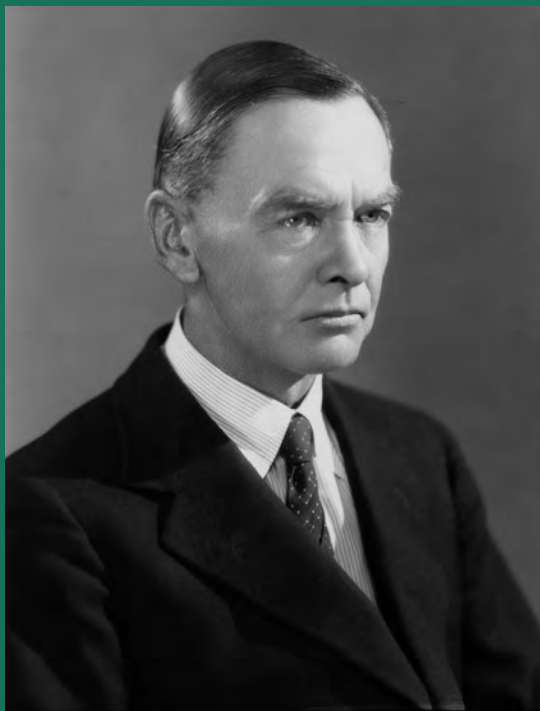




In the 1920s Sir Leonard Woolley's excavations at Ur competed for the public's attention with the tomb of Tutankhamun, but by comparison they encompassed a wide range of periods and contexts, and extended well into the 1930s. His fundamental discoveries and publications brought Mesopotamian archaeology into the 20th century and remain relevant a century later, while the often unique and remarkable finds continue to inspire museum-goers around the world. It is testimony to Woolley's vision, skills and professionalism that scholars today still find his work intriguing and valuable, even if approaches and interpretations have advanced.



In recognition of this, an on-line colloquium was held in late 2022 to celebrate the centenary of Sir Leonard Woolley's first excavation season at Al-Muqayyar, the Babylonian city of Ur. This book publishes 19 papers from the colloquium by international scholars, along with a foreword from Dr Laith Majid Hussain, the then President of the State Board for Antiquities and Heritage, and a recently unearthed report of J.G. Taylor's work at the site, written in 1858.

The papers re-evaluate Woolley's work, re-visit his archives with fresh eyes and apply 21st-century techniques to enrich our knowledge of the 7,000 year old city. They also include results from renewed work at Ur, undertaken by joint Iraqi and international teams of archaeologists. The papers highlight the value of well-documented old excavations and the exciting potential of collaborations to explore new research questions, under the leadership of the Iraqi State Board for Antiquities and Heritage.



**Ur 1922–2022:
papers marking the centenary
of Sir Leonard Woolley's first season
of excavations at Ur**

Edited by J. Nicholas Postgate and David C. Thomas



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Front cover: Ziggurat of Ur from the east. After Royal Air Force photograph, probably 19 September 1937. UE 5, pl. 41.

Back cover: Ziggurat of Ur in 2016. Photo J.N. Postgate

C. Leonard Woolley by Bassano Ltd, 1938. © National Portrait Gallery

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Ur 1922–2022 Centenary Colloquium

16th November 2022

Dr Laith M. Hussein
Dr P. Collins
Dr J. Jotheri
R. Goodman

Prof. J.E. Reade
Dr E. McAdam
Prof. A. McMahon
Dr C. Lecompte
Prof. R. Matthews & Dr. A. Richardson
Dr R. Zettler
Prof. W. Sallaberger

Prof. D. Charpin

The treasures of Ur in the Iraq Museum
Searching for the Sumerians at Ur
The geomorphology of the Ur region
Woolley's flood mud: a high-resolution proxy for the chronological and ecological context of Ur's first inhabitants
The background and status of the Ur ziggurat
The Ubaid period figurines from Ur
Tell al-Ubaid and the Ubaid period
The archaic texts from Ur and their significance
Ur and the city seals: issues and approaches
“Brought In”: collections from sites in Ur's hinterlands
The fragmentary Ur III ritual tablet from Ur: new light on royal representation
Samsu-iluna and the end of the occupation of Ur in the Old Babylonian period

17th November 2022

Dr T. Greenfield

Dr M. Shepperson
Dr B. Hafford
Prof. Dr. A. Otto & Dr. B. Einwag

Profs. E. Stone & P. Zimansky
Prof. J.N. Postgate
Prof. S. Tinney
J. Jawdat

Prof. J. Tenney
Prof. H.D. Baker
Ms M. Sigalas
Dr J.E. Curtis

Were there royal herds? The cattle from the Early Dynastic Royal Cemetery of Ur
Old Babylonian household architecture
Woolley and site formation at Ur: old notes and new excavations
Life and death at Ur during the 19th century BC: new insights from the house of temple intendant Sîn-nādā and his wife Nuttuptum
The Ur III to Early Old Babylonian transition at Area AH
What was the (é.)dubla?
The literary texts from Ur
At the middle of the second millennium: the environment and excavations at Ishan Al-Hazem
Kassite Ur
The history and archaeology of Ur in the 1st millennium BC
Remembering Ur: Woolley's strategy for posterity
The Late Assyrian period at Ur



Preface

On the 17th and 18th November 2022 an on-line colloquium was held to celebrate the centenary of Sir Leonard Woolley's first excavation season at Al-Muqayyar, the Babylonian city of Ur. The colloquium was sponsored by the State Board for Antiquities and Heritage, the Penn Museum at the University of Pennsylvania, and the British Institute for the Study of Iraq. The participants, listed on p. iv, came from Iraq, France, Canada, the USA, Germany, and the UK, and those papers which have been submitted for this volume are arranged in the order in which they were delivered. Some contributions revisit Woolley's own work in the light of the passage of time, others report on fresh initiatives at the site. We have sought to present both the archaeological and the historical evidence, as far as possible integrating the two.

When this volume was nearly ready to send to the printer, we learnt of the report of J.G. Taylor written in 1858. This is now included as the final paper thanks to John Curtis' expert transcription of the sometimes scarcely decipherable manuscript.

Throughout the volume we have used the UE (and UET) volume numbers as listed on p. vi, to refer to the definitive publication of the excavations, believing that this is both convenient and instantly recognizable in place of the author and year system otherwise employed. Many of the images in this volume come from these reports or from artefacts in the British Museum, and are credited as: © The Trustees of the British Museum. These are all shared under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) licence. Our thanks are also due to the Penn Museum for permissions to publish.

This is not the first time that an international event has recognized the importance of Ur: the proceedings of the 62nd Rencontre Assyriologique Internationale were published in 2021: Grant Frame, Joshua Jeffers, Holly Pittman: *Ur in the Twenty-First Century CE: Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016*. (Penn State University Press, Eisenbrauns).¹ New research at the site and the wealth and range of Woolley's discoveries mean that the contributions to this volume complement, rather than duplicate, the Rencontre publication.

Since 2007 the Penn Museum and the British Museum have collaborated in a major project, with lead funding from the Leon Levy Foundation, to scan and put on-line the extensive archives of Woolley's field records kept in their storerooms. This information is now on-line at: <http://www.ur-online.org>. Over the years this has been made possible by the combined efforts of John Curtis, the late Jonathan Tubb and Paul Collins of the British Museum, and Richard Zettler and William B. Hafford for the Penn Museum.

The editors' thanks for help and advice go to Mark Altaweel, Paul Collins, Jacob Jawdat, Ali Khadr, Robert Killick, Graham Philip, Rosalind Wade Haddon, and Richard Zettler.

11 March 2024

J.N. Postgate & D.C. Thomas

¹ <https://doi.org/10.5325/j.ctv1g80954>

Ur Publications

Ur Excavations

- UE 1 Hall, H.R. & C.L. Woolley 1927 *Ur Excavations Volume I. Al-'Ubaid*. Oxford: Published for the Trustees of the Two Museums by the Oxford University Press.
- UE 2 Woolley, C.L. 1934. *Ur Excavations Volume II. The Royal Cemetery*. 2 vols. London / Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- UE 3 Legrain, L. 1936. *Ur Excavations Volume III. Archaic Seal Impressions*. London: British Museum and University of Pennsylvania Museum.
- UE 4 Woolley, C.L. 1955. *Ur Excavations Volume IV. The Early Periods*. Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Johnson Fund of the American Philosophical Society.
- UE 5 Woolley, L. 1939. *Ur Excavations Volume V. The Ziggurat and its Surroundings*. London: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- UE 6 Woolley, L. 1974. *Ur Excavations Volume VI. The Buildings of the Third Dynasty*. London: Published by the Trustees of the Two Museums.
- UE 7 Woolley, L. & M.E.L. Mallowan 1976. *Ur Excavations Volume VII. The Old Babylonian Period*. London: Published for the Trustees of the Two Museums by British Museum Publications Limited.
- UE 8 Woolley, L. 1965. *Ur Excavations Volume VIII. The Kassite Period and the Period of the Assyrian Kings*. London: Published for the Trustees of the Two Museums.
- UE 9 Woolley, L. & M.E.L. Mallowan 1962. *Ur Excavations Volume IX. The Neo-Babylonian and Persian Periods*. London: Published for the Trustees of the Two Museums.
- UE 10 Legrain, L. 1951. *Ur Excavations Volume X. Seal Cylinders*. London: Published for the Trustees of the Two Museums.

Ur Excavations: Texts

- UET 1 Gadd, C.J. & L. Legrain 1928. *Ur Excavations Texts I. Royal Inscriptions*. 2 Vols. London: Printed by order of the Trustees of the Two Museums.
- UET 2 Burrows, E. 1935. *Ur Excavations Texts II. Archaic Texts*. London: Printed by order of the Trustees of the Two Museums.
- UET 3 Legrain, L. 1937, 1947. *Ur Excavations Texts III. Business Documents of the Third Dynasty of Ur*. 2 Vols. London: Printed by order of the Trustees of the Two Museums.
- UET 4 Figulla, H.H. 1949. *Ur Excavations Texts IV. Business documents of the Neo-Babylonian Period*. London: Printed by order of the Trustees of the Two Museums.
- UET 5 Figulla, H.H. & W.J. Martin 1953. *Ur Excavations Texts V. Letters and documents of the Old Babylonian Period*. London: Printed by order of the Trustees of the Two Museums.
- UET 6 Gadd, C.J. & S.N. Kramer 1963. *Ur Excavations Texts VI. Literary and Religious Texts First Part*. London: Printed by order of the Trustees of the Two Museums.
 Gadd, C.J. & S.N. Kramer 1966. *Ur Excavations Texts VI. Literary and Religious Texts Second Part*. London: Printed by order of the Trustees of the Two Museums.
 Kramer, S.N. & A. Shaffer 2006. *Ur Excavations Texts VI. Literary and Religious Texts Third Part*. London: Printed by order of the Trustees of the Two Museums
- UET 7 Gurney, O.R. 1974. *Ur Excavations Texts VII. Middle Babylonian Legal Documents and other Texts*. London: Printed by order of the Trustees of the Two Museums.
- UET 8 Sollberger, E. 1965. *Ur Excavations Texts VIII. Royal Inscriptions Part II*. London: Printed by order of the Trustees of the Two Museums.
- UET 9 Loding, D. 1976. *Ur Excavations Texts IX. Economic Texts from the Third Dynasty*. London / Philadelphia: Published for the Trustees of the Two Museums by the Babylonian Fund.

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Foreword

Dr Laith Majid Hussain
The State Board for Antiquities and Heritage

The ancient city of Ur holds a special place in the annals of humanity because of its historical time depth and its preeminent reputation in antiquity, which is reflected in the important role it plays not only in contemporary cuneiform inscriptions but also in long lasting religious traditions and later historical sources.

Last century the archaeological investigation of the ruins of al-Muqayyar, standing proud with the towering ziggurat for the worship of the moon god Sin, only served to emphasise the importance of this Sumerian capital city. The excavated evidence revealed that its beginnings reach back to more than 5,000 years BC, and exposed the layout of one of the most important and oldest established Mesopotamian cities with its buildings, its harbours, its thoroughfares and its residential housing quarters.

Of the antiquities which were discovered here even a limited selection is now the pride of three world-class museums, distributed between the collections of the Iraq Museum, the British Museum and the Museum of the University of Pennsylvania.

The site of Ur stands very high in the priorities of the State Board for Antiquities and Heritage especially in view of its inclusion, along with the sites of Eridu and Warka and the Marshes, on the list of World Heritage sites, and the ceremonial visit of his Holiness the Pope from the Vatican in March 2021, and in the coming years we are all hoping to initiate further excavation and restoration projects at this site.

The excavations of Sir Leonard Woolley illuminated the golden age of Sumerian civilization in all its glory, both in the time of the Early Dynastic royal cemetery, and then during the reigns of Ur-Nammu and Šulgi, the greatest kings of the Third Dynasty of Ur, under whom was seen the renaissance of Sumerian language and traditions, when we witness great advances in the formation of civilized society and the flowering of artistic and literary excellence.

The city of Ur was the subject of the 62nd Rencontre Assyriologique Internationale in Philadelphia as recently as 2016, with the title “Ur in the 21st century”, yet since then archaeological research has continued and many fresh discoveries about the city have been made, notably by the recent excavations of Elizabeth Stone and Paul Zimansky, from SUNY Stony Brook, and Adelheid Otto and Berthold Einwag from the Ludwig Maximilian University in Munich. These new excavations have shed fresh light on the subsequent history of the city of Ur in the first half of the 2nd millennium BC. The different branches of the research accompanying these projects involved both the study of the remains of animal bones and human remains from within the same context, and intensive survey of the area undertaken with the application of geophysical instruments. So the few years which the two above mentioned expeditions spent on the work at Ur, provided a great opportunity for the application of a range of modern excavation techniques, including remote sensing, which were not available at the time of Woolley’s excavations a century earlier.

In addition to contributions to the present volume celebrating the centenary of the initiation of excavations at Ur, with the final publication of these studies we shall witness in the near future how archaeological, linguistic and geographical approaches will enhance the field of research and generate for us additional issues for investigation in the region of Ur and Eridu and their wider geographical environment.

The collections of the Iraq Museum include numerous treasures from the excavations of Woolley, but now also from the recent Iraqi excavations between 2000 and 2002, some of which took place in the Old Babylonian residential area. Some were located in the vicinity of the south-eastern side of cemetery of the Ur III kings, and the excavations at that time revealed a rectangular building, which probably served as an annex to the group of royal tombs, since it faces the south-eastern entrance to the cemetery of the kings of Ur. It is also worth mentioning that various restoration works were undertaken at that time in the Ur royal tombs and in part of the Old Babylonian residential quarter (AH).

During the recent past we have been striving to prepare one part of the catalogue of the Iraq Museum's holdings from the royal cemetery at Ur. We shall try as best we can to complete this work with descriptions of the artefacts, along with the information linking these pieces to their archaeological contexts. This will be of great benefit to researchers and those interested in material culture, especially by way of comparison with the previous discoveries at Ur or the other cities of Mesopotamia.

We offer our sincere gratitude and appreciation to the British Institute for the Study of Iraq and especially to Prof. Paul Collins and the Council of the trustees of the Institute for their participation in this colloquium and for their ongoing collaboration with the State Board carrying forward our successful decades long partnership. Likewise I offer thanks to Prof. Nicholas Postgate for his efforts in organizing the colloquium and editing this volume.

The Ur excavations in context: empire, war, museums and race

Paul Collins¹
British Museum

As an introduction to a conference volume marking the centenary of the start of the joint British Museum and Penn Museum excavations at the site of Tell al-Muqayyar, ancient Ur, in southern Iraq, I offer a brief overview of previous European work at the site with a focus on the institutional and intellectual context for undertaking the 1922–34 excavations in the aftermath of the First World War.

The earliest recorded visit to the site by a western traveller is probably that of Pietro della Valle (1586–1652). This wealthy aristocratic Roman had ventured to Iran in 1617 to offer his services as a soldier to the Safavid ruler Shah ‘Abbas. After spending a number of years in Iran, della Valle travelled back to Europe via India and the Persian Gulf. From the port of Basra, he followed the River Euphrates north towards Aleppo and the Mediterranean, stopping on route in June 1625 to explore a site in the desert west of the town of Nasiriyah and that was known locally as Tell al-Muqayyar (Mound of Pitch—della Valle et al. 1665:262). Here he made notes on cuneiform inscriptions and investigated a massive solid brick structure that we now understand is the remains of a ziggurat tower, discussed in detail by Julian Reade in this volume.

It was, however, the threat of warfare that brought Europeans to the region in greater numbers with an interest in mapping sites and landscapes. In 1839–40 hostilities had threatened to break out over frontier disputes between the Ottoman Empire, which controlled Mesopotamia, and Persia. Mediation was offered by the British and Russian empires and the four powers agreed a Commission to resolve the disputed boundary, but its work did not begin until 1849. The British representative, Colonel William Fenwick Williams, appointed to his staff a geologist, William Kennett Loftus, and the Commission followed the Tigris south from Mosul to Baghdad, then on via Hillah and Diwaniyah. Williams gave permission for Loftus and the soldier-artist Henry Churchill to travel on the east side of the Euphrates “through the land of Chaldea” while the rest of the party went by steamer to Basra. Throughout his journey, Loftus took careful notes of the ancient sites he passed, such as Nuffar (Nippur) and Warka (Uruk) before reaching Tell al-Muqayyar in January 1850. He mentions the visit in two letters home, although he would publish a longer account some years later (Loftus 1857:127–35):

We visited the Mugayer W. of (the) Euphrates and we have got new inscriptions on bricks to be sent to Major Rawlinson, bulls horns, edicts on tiles, pots, jugs, coins, etc., etc., etc. (23rd January 1850—Curtis 2023: letter 31).²

I don’t think I ever mentioned the fact of our having visited the great Chaldean ruin called the Mugayer, on the W. of the Euphrates, where we found a broken statue, and an altar with an inscription. I see it is noticed in the papers. I don’t intend giving you an account of this huge pile, as it has been pretty correctly described by Frazer (1840 vol. 2:90–3). ... We spent 3 hours on the ruin, and I much regret not having had more time to penetrate to

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² Henry Rawlinson’s translations of these inscriptions would enable him to identify Muqayyar as ancient Ur, see Rawlinson 1862:531.

another unvisited site called also Shehrine (Abu Shahrain), visible about 8 miles to the S.W. (18th June 1850—Curtis 2023: letter 38).



Fig. 1 Sir Frederic G. Kenyon (1863-1952) by Bassano Ltd, 1924 © National Portrait Gallery

Further investigations were undertaken at Muqayyar—as well as Abu Shahrain (Eridu) and Tell al-Lahm (Kuara)—between 1853 and 1855 by John George Taylor, the East India Company's agent and British vice-consul at Basra, on behalf of the British Museum (Taylor 1855; Sollberger 1972).

Some 60 years would pass, however, before archaeological work resumed at Ur. This was in the context of the invasion and occupation of Mesopotamia by armies of the British Empire during the First World War. "It is curious", wrote Henry (Harry) Hall, an assistant in the British Museum, "that the first excavations of the British Museum on this site should have taken place during the Crimean War, and the next during the Great War of 1914–18. In each case war gave an opportunity to archaeology" (UE 1, preface).

Shortly after British forces entered Baghdad in March 1917, General Stanley Maude issued a proclamation to regulate the preservation of archaeological sites and the antiquities trade in Mesopotamia, and promised high penalties to anyone desecrating an ancient monument. Such

moves were welcomed by Sir Frederic G. Kenyon, Director and Principal Librarian of the British Museum (Fig. 1).³ Elected President of the British Academy in 1917, Kenyon would play a key role in initiating and supporting the excavations at Ur.⁴ His first task, as he saw it was to provide the occupying forces with expert archaeological advice in the field:

As soon as British arms began to make progress in Mesopotamia and Palestine, the [British Academy's] Council approached the Departments of State concerned—the War Office, the Foreign Office, and the India Office—with a view to securing a proper recognition of our responsibilities with regard to the antiquities of these countries. The first need was to see that any damage done to ancient sites or objects by the retiring Turks and Germans was recorded to the credit of its actual authors, and not laid to the door of our own troops; the next, to secure such sites or objects against unnecessary injury. ... Permission was given to the British Museum to recommend scholars for attachment to the armies in the East, in order that they might give the local authorities, whether military or civil, the benefit of expert advice, and might utilise such opportunities for archaeological research as the chances of war might bring in their way—Kenyon 1919:3–4.

Captain Reginald Campbell Thomson of the Intelligence Service, an Assyriologist and formerly an assistant in the British Museum, who was on duty in Mesopotamia was commissioned to start the work. Plans to excavate at Uruk, Larsa and Umma were not possible as these sites lay outside "the protected zone" of the British army, and considered liable to attack from the local Muntafiq tribe: Ur was inside the zone, close to the military centre of Nasiriyah with its newly completed railway from Basrah, and so Campbell Thompson undertook a short investigation at the site (although he would

³ Kenyon, who held the post between 1909 and 1931, was a distinguished palaeographer and biblical and classical scholar.

⁴ The British Academy for the Promotion of Historical, Philosophical and Philological Studies was established in 1902 as the United Kingdom's national academy for the humanities and the social sciences.

focus much of his work at Eridu—Hall 1930:viii). Harry Hall took over from Campbell Thompson in February 1919 when the latter returned to England on leave. Using Turkish prisoners of war as his labourers along with some paid locals, he noted that “we should be carrying on another British Museum tradition. For at the time of the Crimean War the Trustees had dug at Ur, employing the British Vice-Consul at Basrah, Mr J.E. Taylor to carry out the work. So I dug at Ur for three months” (Hall 1930).

Meanwhile, Kenyon was seeking to establish the British Academy as the leading body responsible for managing archaeological research in the regions now under British control. The Academy should, he suggested, be “the recognized organ of the State in respect of philosophical, philological and historical studies” (Kenyon 1918:47). In considering the regions being occupied by British forces, Kenyon laid out a plan for managing excavation and, using the example of Palestine, he argued:

... it is certain that after the war there will be a great outburst of archaeological activity in that land. Irresponsible individuals, backed by funds collected from a credulous and ill-informed public, and anxious for plunder or for advertisement, will push their claims to be allowed to excavated certain sites or to pursue certain investigations ... Exploration in such a land as Palestine should be controlled by an official body, of recognized disinterestedness and competence, which can eliminate undesirable competitors, arbitrate between competing claims, and conduct negotiations with similar organizations representing other countries ... We are flying the banner of civilization, which, side by side with our allies, we claim the right of serving and of preserving—Kenyon 1918:48–9.⁵

On 25th September 1918, Kenyon wrote to Mark Sykes (Conservative politician and diplomat), urging the British authorities to take advantage of research “as may be compatible with the exigencies of war and generally show interest in the history and ancient civilization of the countries in our occupation” (quoted in Bernhardsson 2005:87). This mission, Kenyon suggested should be placed in the hands of the British Academy since it was “disinterested”. Despite such claims, Kenyon had the ultimate aim of adding objects to the British Museum’s collections as a result of any future work but nevertheless recognised a concern that this might be perceived as “merely plundering the country (Iraq) in the interest of England.” He therefore recommended that half of any excavated finds should remain in Mesopotamia.

On the suggestion of the Foreign Secretary, Arthur Balfour, the Academy established an Archaeological Joint Committee representing the principal archaeological societies in the country.⁶ With Kenyon as its chairman, it was intended to act as a channel of communication between societies and the departments of State concerned (Kenyon 1952:30). In this role he submitted a memorandum in January 1919 to the British delegation at the Paris Peace Conference. It proposed that Britain should lead the creation of an international commission comprising representatives from the United States, France and Italy to collaborate on archaeological issues and the writing of new legal frameworks. This group would work on the archaeological clauses for the League of Nations Covenant and the Treaty of Peace with Turkey as well as on the official text of mandates for foreign powers to govern occupied territories.

Despite the Foreign Office making it clear that it was adverse to the exporting of antiquities from their country of origin, conversations within the museum community started to explore opportunities for archaeological investigations that would furnish them with objects (Bernhardsson 2005:79). On 2nd June 1919, George Byron Gordon, Director of the Pennsylvania University Museum wrote to

⁵ In co-operation with the Palestine Exploration Fund, a public appeal was launched to support the establishment of a British School of Archaeology at Jerusalem; Kenyon became its first president in 1920.

⁶ These comprised: the Society of Antiquaries, the Royal Institute of British Architects, the Anthropological Institute, the Societies for the Promotion of Hellenic and of Roman Studies, the Egypt Exploration Fund, the Palestine Exploration Fund, the British Schools at Athens, Rome, and Jerusalem, the Byzantine Research Fund, the Royal Asiatic Society, and the Royal Numismatic Society.



Fig. 2 George Byron Gordon (1870-1927)
© Penn Museum

Kenyon seeking cooperation in such an undertaking (Fig. 2).⁷ While his institution had financial resources to support excavation, he noted that Britain had “jurisdiction over the archaeological interests of Mesopotamia, and as the authority is believed to be highly beneficial to the cause of archaeological science, ... it is likely to afford opportunities for excavation and scholarly research that have not heretofore obtained in this region” (quoted in Bernhardsson 2005:113). Kenyon replied (11th June 1919) that “definite assurances can not ... be given until the question of the future government of Mesopotamia has been settled.” However, there was “good ground to hope that an Administration of antiquities will be setup, which will act in accordance with the principles laid down by the Archaeological Committee founded by the British Academy” (Bernhardsson 2005:113, note 71).

Archaeological sites were being “claimed” by Britain, France and the United States based on historic connections. The British Museum’s association with Ur meant it was the key site in the discussions between London and Philadelphia. On 25th February 1920, Gordon wrote to Kenyon:

Having in mind the idea of cooperation I inquired of you during our conversations whether some plan for a joint expedition of the British Museum and the University Museum for excavation at Ur of the Chaldees would be likely to meet with the approval of yourself and the Trustees of the British Museum—Dyson 1977:6.

Kenyon replied (21st April 1920) that conditions were not yet favourable:

The Secretary of State for India, in whose Department the civil administration of Mesopotamia is at present placed, has taken up the position that no excavation can be allowed until an efficient administration of antiquities is set up, and that no such administration can be set up until (1) the treaty of peace with Turkey has been signed, and the mandate given for Mesopotamia, and (2) the Mesopotamian government can afford the expense.

We have represented strongly (1) that prohibition of excavation invariably means illicit digging and smuggling, (2) that the credit of the country requires proper provision for a department of antiquities at the earliest date, (3) that excavations under scientific control should be encouraged, not prohibited, (4) that ample provision can be made for the future needs of a Museum in Baghdad or elsewhere. We have suggested as a working arrangement that qualified explorers should be allowed to bring all their discoveries home, and give them scientific treatment and publication, under covenant to return (say) one half to Mesopotamia if and when required to do so—Dyson 1977:6.

Four days after Kenyon wrote this letter, the San Remo conference of the allied victors of the First World War awarded to Britain the mandate to administer Mesopotamia. The following month,

⁷ Gordon, an experienced archaeologist and anthropologist, was appointed as Director of the Free Museum of Science and Art (subsequently renamed as the University of Pennsylvania Museum) in 1910, a post he held until his death in 1927.

however, resentment against British policies led to mass demonstrations in Baghdad with widespread opposition to the occupation. Dissent soon led to full-scale revolt in late June as the summer heat built. Over the five months of the revolt, perhaps as many as 10,000 Iraqis were killed, while British and Indian deaths numbered around 500 (Tripp 2007). Naturally any thoughts of progressing the Ur project were on hold, as Kenyon noted in a letter to Gordon (3rd November 1920):

It is, of course, the fact that at present excavation is impossible, owing to the disturbed state of the country. It is also the case that the Treaty of Peace with Turkey imposes on that country the obligation to prepare a new Law of Antiquities in accordance with certain principles, and that a similar duty will be incumbent on the Administration of Mesopotamia. Our Joint Archaeological Committee (which inspired the clause in the Turkish Treaty) has been invited to give its views as to the provisions of the law, and also to make suggestions with regard to a draft law of Antiquities for Palestine—Dyson 1977:7.

For Kenyon such provision should be along lines “generally recognised by civilized nations, which allow for the division of the proceeds of excavation between the county of origin and the excavators” (letter from Kenyon to India Office, 25th February 1920, quoted in Bernhardsson 2005:114).

Following the Cairo Conference of March 1921, at which British officials discussed the future of Mesopotamia, Prince Faisal of the Hijaz was appointed ruler of the Kingdom of Iraq. The next year an Anglo–Iraqi treaty was signed that allowed for local self-government while giving the British control of foreign and military affairs; the question of archaeology was included in the treaty as Article 14 that requested an antiquities law be established.

A suggestion at this time that the University Museum might fund a joint survey of archaeological sites was rejected by Kenyon on the basis that the British Museum only had “funds for the acquisition of objects for the Museum; and though we could embark on a speculation, such as the excavation of a site, without a certainty of adequate return, we would not use our money simply for a survey” (Dyson 1977:8–9). By early March 1922, however, the focus had returned to excavation and Gordon was able to report to Kenyon that he could set aside \$25,000 towards the expenses of a season’s work in Mesopotamia for which “we have in mind for the Director of Excavations Mr. Woolley, in case he should be available, as one who I think would be acceptable to both Institutions” (Fig. 3—Dyson 1977:9).⁸

Agreement was reached on 12th June 1922 when Kenyon wrote to Gordon: “I am much obliged by your letter of 5th May. I have laid it before my Trustees, and am authorized by them to arrange with you for a joint expedition to Mesopotamia on the lines indicated therein.” This was on the basis that at the end of each season’s work the finds would be divided as equally as possible between the two institutions. It was recognised, however, that the new Iraq government was “entitled to claim a good representative selection. Even so, there would almost certainly be equally good and complete representative selections for you and us” (Dyson 1977:11, letter from Kenyon to Gordon, 22 August 1922).



Fig. 3 C. Leonard Woolley (1880–1960)
by Bassano Ltd, 1938 © National Portrait Gallery

⁸ Charles Leonard Woolley was an experienced archaeologist who before the War had worked in Egypt and Sudan and at the site of Carchemish on the Turkish/Syria border.

On 22nd October 1922, King Faisal appointed the British administrator Gertrude Bell as honorary director of antiquities and asked her to formulate a new antiquities law. Leonard Woolley arrived in Basra the following day, from where he left for Ur on 26th October, cabling to Gordon: “Expedition starting out” (Dyson 1977:11).⁹

* * *

Although the site of Ur promised returns in the shape of objects for the two museums sponsoring the Joint Expedition, it also offered to make a significant contribution to a major intellectual pursuit: the search for the origins of Western civilisation in the form of a Sumerian people. In the early decades of the 20th century, the focus of scholarship on the archaeological material of Mesopotamia had narrowed from a study of the ancient civilisations and empires to that of their peoples, who were understood invariably in terms of race. The Assyriologist Thorkild Jacobsen describes the prevailing intellectual climate of the time:

There was a virtual unanimity about what had shaped early Mesopotamian history, it was race, Sumerians fighting Semites. Races differed in physique and in character, so cranial measurements, shapes of noses, and even bearded or beardless were matters of moment—Jacobsen 1995:2747.

The concept of race was taken for granted in the West as a way of explaining the populations of the world and their histories. “Types” or “races” of people were understood to have developed in specific geographic locations. There was an assumed link between language, religion, culture, technological abilities and human spirit, and these all came together to form particular emotional and physical characteristics. The result was a world that could be divided between stereotypes—such as rational Europeans and despotic Orientals—as well as by face shape, skin colour, hair type and so on (Challis 2013). Some races were judged to be superior to others; the so-called Aryan racial group (that included European Caucasians) were placed on top; these belonged to the most advanced civilizations, having evolved from more “primitive” forms of living. The more primitive ways of life in the past were thought to find parallels in contemporary societies around the world, with the result that there was a sliding scale along which certain races were judged to be more “advanced” or “backward” than others.

The Sumerian language, which had been identified in the mid nineteenth century—not least through inscriptions originating at Ur—was classified as belonging to the family of “Turanian” languages, sometimes called Scythian. This was believed to be the original “Aryan” language that sat at the root of the languages of Europe, and hence also of its cultures and nations (Cooper 1991:47–66). The study of Sumerian therefore became related to issues of Western identity on the basis that Aryan races were considered responsible for all the achievements of human civilization. It also stood in contrast to the Semitic languages of Mesopotamia. The search was on for what was perceived to be the very essence of nations, races and civilisations as the way to reveal their past.

While it was thought that a Sumerian race could be identified by their language, the same assumptions that underpinned this notion also allowed for them to be recognized through their physical features. Racial differences were formulated by measuring skulls so that by the late nineteenth century humans were being divided into types, from the dolichocephalic (long, thin head) to the brachycephalic (short, broad head). These same approaches were also applied to statues and relief carvings given that they were understood as attempts at records of perception. On this basis, the discovery of inscribed sculpture at Tello (ancient Girsu) of the ruler Gudea suggested by 1903 that it was possible to distinguish the Sumerians (Evans 2012).

⁹ As Gertrude Bell’s antiquities law failed to pass in the Iraqi parliament, the Ministry of Works issued Woolley a provisional permit to dig; the law would be ratified in 1924.



Fig. 4 'Head-dress of Queen Shub-ad' (UE 2, Pl. 128)

(Woolley 1954:66). To ensure greater accuracy, the face was shown to Sir Arthur Keith, one of Britain's leading physical anthropologists, who had made a special study of the skulls from Ur and al-'Ubaid and felt able to determine the races to which they belonged. A wig was added, its shape based on the hairstyle of a terracotta figurine from a slightly later period. Woolley concluded that the results were very satisfactory: "Though the face is not an actual portrait of the queen, it gives at least the type to which she must have conformed, and the whole reconstructed head presents us with the most accurate picture we are likely ever to possess of what she looked like in her lifetime" (Fig. 4—Woolley 1954:67).

The curator of the Pennsylvania Museum's Babylonian Section, Father Léon Legrain, was less convinced. He argued that a skull provided insufficient evidence, and that a better source for reconstructing a head on which the headdress might be mounted was the work of Sumerian sculptors themselves, given that it was assumed they had based their work on living models: "Even if they had not the Greek ideal of a portrait and the subtle Greek power of expression, they were masters of their craft and could carve a statue in hard diorite" (Legrain 1929:238). Using as his model a statue in the Louvre dating from the time of Gudea, Legrain produced a modelled head with:

... high cheek bones, large nose, and large eyes under powerful eyebrows of a true oriental beauty, and in spite of the sculptural effect of her staring eyes she possesses a charming queenly dignity. Her eyes are shown in blue, for the reason that in many statues they are made of lapis lazuli inlaid in shell. We may enjoy the lapis blue, as the Sumerian artists did. It gives depth to her beauty—Legrain 1929:238.

Although Arthur Keith's rather conservative views on race were not universally accepted, his status was such that his word carried considerable weight, and his analysis of the skulls from Ur and al-'Ubaid appeared to offer answers about the origin of the Sumerians. He considered that they were "large brained with strong facial features" that might be expected in "a race of pioneers", and that it was possible to "trace the ancient Sumerian race eastwards among the inhabitants of Afghanistan and

A good example of this approach is provided by the discovery at Ur in December 1927 of the grave of queen Pu-Abi (or Shub-ad as her name was read at the time). It seemed very possible to reconstruct something of the features of Pu-abi despite her skull having been completely crushed. In 1928 the queen's elaborate headdress had been reconstructed and put on temporary display at the British Museum before being sent to the University of Pennsylvania Museum in Philadelphia as part of the division of the finds. For the purposes of the exhibition a plaster cast was made of a well-preserved female skull of approximately the same period as Pu-abi, and Leonard Woolley's wife, Katherine, modelled a face in wax, "making this as thin as possible so as not to obliterate the bone structure" so that it would capture a "true" Sumerian physiognomy

Baluchistan, until the valley of the Indus is reached – some 1,500 miles distant from Mesopotamia” (Keith 1927:216). This conclusion appeared to be supported by archaeological work in the north-west of British India (modern Pakistan). In 1920 Sir John Marshall had initiated excavations first at the site of Harappa and then at Mohenjo-daro that resulted in the discovery of the so-called Indus Valley or Harappan culture that flourished in approximately 2600–1900 BC (Legrain 1944). This eastern origin of the Sumerians chimed with ideas about the Sumerian language as a precursor to the Indo-European/Aryan languages of Europe. As Keith argued, Sumerian “affinities were with the peoples of the Caucasian or European type, and we may regard south-western Asia as their cradleland” and that the “Neolithic people of English long barrows were also related to them – perhaps distantly” (Keith 1927:240). While Woolley accepted such reasoning he was a little more cautious in his conclusions:

To say that these resemblances prove identity of race or even political unity would be to exaggerate the weight of the evidence; to account for them by mere trade connection would be, in my opinion to underrate it no less rashly: it is safest, for the time being, to regard the two civilisations as offshoots from a common source which presumably lies somewhere between the Indus and the Euphrates valleys, though whether the centre from which this radiates so far afield is to be sought in the hills of Baluchistan, or where, we have no means of knowing as yet—Woolley 1928:6.

In this reconstruction the Sumerians would have reached southern Mesopotamia by sea, driving the Semitic speakers north until there was a division of the land to form “Sumer and Akkad”. They were, Woolley considered, “the apostles of civilization”, but, “set down in the midst of peoples physically more powerful and addicted to war as a pastime, intellectual and artistic superiority would have made little headway, could not indeed have held its own against the covetousness it must have provoked, unless that genius had been applied to war not less than to peace” (Woolley 1928:49).

Although race has today been abandoned by biologists and social scientists as a category and notions of diffusionism and even that of a distinct Sumerian people have been challenged (Collins 2021), the work of the Joint Expedition to Ur helped to reinforce contemporary reconstructions of a peaceful Sumerian civilization that had engaged in conflict only in order to defeat more aggressive neighbours, much as the First World War was being viewed by its victors.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 1 Hall & Woolley 1927

UE 2 Woolley 1934

- Bernhardsson, M.T. 2005. *Reclaiming a Plundered Past: Archaeology and Nation Building in Modern Iraq*. Austin: University of Texas Press.
- Challis, D. 2013. *The Archaeology of Race: The Eugenic Ideas of Francis Galton and Flinders Petrie*. London: Bloomsbury.
- Collins, P. 2021. *The Sumerians* (Lost Civilizations). London: Reaktion Books.
- Cooper, J.S. 1991. "Posing the Sumerian Question: Race and Scholarship in the Early History of Assyriology", *Aula Orientalis* 9: 47–66.
- Curtis, J.E. 2023. *William Kennet Loftus: A 19th-Century Archaeologist in Mesopotamia*. London: British Institute for the Study of Iraq.
- della Valle, P., G. Havers & T. Roe 1665. *The Travels of Sig. Pietro della Valle*. London: J. Macock for John Place.
- Dyson, R.H. 1977. "Archival Glimpses of the Ur Expedition in the Years 1920 to 1926", *Expedition* 20/1:5–23.
- Evans, J.M. 2012. *The Lives of Sumerian Sculpture: An Archaeology of the Early Dynastic Temple*. Cambridge: Cambridge University Press.
- Fraser, J.B. 1840. *Travels in Koordistan, Mesopotamia, etc. Including an Account of Parts of Those Countries hitherto Unvisited by Europeans with Sketches of the Character and Manners of the Koordish and Arab Tribes*. 2 vols. London: Richard Bentley.
- Hall, H.R. 1930. *A Season's Work at Ur, al-'Ubaid, Abu Shahrain (Eridu), and elsewhere*. London: Methuen & Co.
- Hall, H.R. & C.L. Woolley 1927. *Ur Excavations Volume I. Al-'Ubaid*. Oxford: Published for the Trustees of the Two Museums by the Oxford University Press.
- Jacobsen, T. 1995. "Searching for Sumer and Akkad", in J.M. Sasson (ed.), *Civilizations of the Ancient Near East*, Vol. 4: 2743–52. New York: Simon & Schuster MacMillan.
- Kenyon, F.G. 1918. *The Position of an Academy in a Civilized State. Presidential Address*. https://www.thebritishacademy.ac.uk/documents/390/Presidential_Address_1918.pdf [accessed February 2, 2023] London: British Academy.
- 1919. *Presidential Address*. <https://www.thebritishacademy.ac.uk/documents/4476/09p001.pdf> [accessed February 2, 2023]. London: British Academy.
- 1952. *The British Academy: The First Fifty Years*. London: The British Academy.
- Legrain, L. 1929. "The Boudoir of Queen Shubad", *Museum Journal* 20/3–4:211–45.
- 1944. "India and Egypt", *Museum Bulletin* 10/3–4:50–1.
- Loftus, W.K. 1857. *Travels and Researches in Chaldaea and Susiana*. New York: Robert Carter & Brothers.
- Rawlinson, H.C. 1862. "Biblical Geography", *The Athenaeum* 1799:529–31.
- Sollberger, E. 1972. "Mr. Taylor in Chaldaea", *Anatolian Studies* 22:129–39.
- Taylor, J.E. 1855. "Notes on the Ruins of Muqeyer", *Journal of the Royal Asiatic Society of Great Britain and Ireland* 15:260–76.
- Tripp, C. 2007. *A History of Iraq*. Cambridge: Cambridge University Press.
- Woolley, C.L. 1928. *The Sumerians*. Oxford: The Clarendon Press.
- 1934. *Ur Excavations Volume II. The Royal Cemetery*. 2 vols. London / Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- 1954. *Excavations at Ur; A Record of Twelve Years' Work*. London: Ernest Benn.

A discussion about the geomorphology of the Ur region, southern Mesopotamia

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Abstract

This paper discusses the geomorphology of the Ur region and how archaeologists built their imagination about Ur throughout time. In this paper, I would argue that three geomorphological features significantly affected the Ur region and must be considered to understand the region's history better. These features are the head of the Persian/Arab Gulf, the Euphrates and Tigris and the Marshes. However, due to the lack of comprehensive and detailed palaeogeographical studies of these three features, their impact on existing of the Ur region is still questionable and always discussed with doubt and uncertainty. Furthermore, there are no precise dates and locations of regression of the Gulf's palaeoshorelines. Moreover, the changes in Tigris and Euphrates courses and how they built their delta are unclear. Finally, the marshes' areas and their evolution during that time are ambiguous. In conclusion, without conducting more detailed and modern studies on these features, the geomorphology of the Ur region will not be fully understood and with it, the suggestions that archaeologists claimed regarding the role of the associated rivers, marshes and coastline on the inhabitants of the Ur region.

The head of the Persian/Arab Gulf

There has been considerable discussion and debate about the location of the shoreline of the Gulf during the Holocene. However, unlike the Iranian side of the Gulf, limited studies have been conducted on the Iraqi side. As for the Iranian side, Heyvaert and Baeteman (2007) reconstructed the palaeogeography of the Lower Khuzestan plain and the northern Gulf area for different points between 8000 and 450 cal BP. They carried out a fieldwork survey on the Iranian side of the Gulf. They used a hand auger to dig 52 boreholes (up to 10m deep) in different locations. They identified four Holocene sedimentary environments: brackish tidal flat, clastic coastal sabkha, brackish-freshwater marsh and fluvial plain. They used radiocarbon analysis to date the sediments. They concluded that the Gulf had covered the plain during the early and middle Holocene, as the sediments were from a brackish tidal flat environment. There was also a sea-level regression after about 3500 BC, indicated by the coastal sabkha environment sediments. A progradation of the coastline followed from around 500 BC, as the fluvial sediments environment was found.

However, as for the Iraqi side, there were limited attempts to study the area, and most of these studies relied on a low and unsystematic number of boreholes. The first example of these studies to use fieldwork was Hudson et al. (1957), who studied the sediments of one borehole dug by the Iraqi Oil Company in the Hammar Marsh, identifying for the first time a 30 m thick marine unit in the marsh, and calling it the Hammar Formation. The lower part of this unit consists of coarse to very coarse sand, while the upper part consists of grey clay. The formation is rich in marine fauna such as gastropods (*Minolta edyma*, *Hinia idyllia*) and lamellibranchs (*Itar bekheri*, *Brachidontes variabilis*, *Corbula sulculosa*, *Abra cadabra*). Hudson et al. (1957) found this marine bed covered by about 6 m of alluvial sediments with ostracods. So, Hudson et al. relied on one borehole only and didn't use any

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absolute dating. In other words, they managed only to identify the sedimentology of the formation, not the period or its area of coverage.

The second example is Jassim et al. (1984), as a part of a limited geological survey of Iraq, who dug 11 boreholes as a section between Barsa and Amara, to a depth between 25 and 35 m. They found that there were four recognizable units accumulated above the Late Miocene formation, from the bottom to the top: Pleistocene fluvial clay, rich in secondary gypsum; Early Holocene sand of fluvial environment; Mid-Holocene silty clay from estuarine to marine settings, and Late Holocene sand to silty clay from a fluvial environment. The thickness of each unit is between 3 and 15m. They did not apply any absolute date in their study and suggested these units were deposited after the Late Miocene sediment.

The third example is Aqrabi (1995; 2001). He built on the findings of Hudson et al. (1957) and Jassim et al. (1984) and suggested that the Hammar Formation covers a broader area to reach the modern-day cities of Nasiriya and Amara. He relied on eight boreholes dug by the Geological Survey of Iraq Company (GSIC); however, the aim of the GSIC in drilling these boreholes was not to study the Holocene cover. In other words, the locations of these boreholes were not enough to determine the vertical and lateral distribution of the Hammar Formation. For example, the distance between Nasiriya and Amara is 120 km, and they dug only three boreholes between them.

Moreover, he used radiocarbon dating for six organic-rich samples from three boreholes to suggest that the Gulf transgressed to Nasiriya and Amara during the mid-Holocene depositing marine/brackish water sediments. Then after about two thousand years, the Gulf receded and deposited tidal flat sediments. However, six samples from a limited area are insufficient to identify a substantial sedimentological progression such as transgression, regression, and regression of the Gulf.

Several archaeological researchers suggested the locations of the Gulf's palaeoshoreline without digging boreholes. Instead, they used textual resources, ethnography, and remote sensing, to estimate the palaeogeography of this region. As an example of these studies, Hritz and Pournelle (2015) suggested that before the mid-Holocene, the area that extends from the location of Samawa, Uruk, Umma and Amara southward to the Gulf was covered by water, merging with the Persian/Arab Gulf and that since that time the Tigris and Euphrates delta has been in aggradation until reaching the modern Gulf shoreline. Another example is Al-Dafar (2015), who supported Hritz and Pournelle's hypothesis and added that the area to the far south of the region was called "Sealand" and was first occupied by a Sealand Dynasty between 1739–1340 BC.

In conclusion, the findings of Hudson et al. (1957), Jassim et al. (1984), Aqrabi (1995; 2001), Hritz and Pournelle (2015), and Al-Dafar (2015) were not enough to understand the Holocene sedimentation of the Gulf in Iraq and more field and laboratory work was needed. Consequently, the relationship between the inhabitants of the Ur region and the Gulf is still unclear, and all the possibilities are open, including the idea that the palaeoshoreline might already be far from the Ur region before the existence of the site of Ur.

The Tigris and Euphrates rivers

As explained below, compared to the Tigris, the Euphrates has less discharge, carries fewer sediments, flows in fewer gradients, has fewer crevasse splays, has less sinuosity, and produces most of its water in Turkey rather than inside Iraq. These differences made the Euphrates more susceptible to environmental changes than the Tigris. Both the Tigris and the Euphrates start in Turkey, where they rise and receive a large water supply from rain and melted ice from the Taurus Mountains. The Euphrates rises out of the mountains of north central Turkey while the Tigris drains the mountains of eastern Turkey, north-west Iran and the north of Iraq. The Tigris and the Euphrates meander through valleys in Turkey, Syria and Iraq until they enter the Mesopotamian floodplain, where they deposit their sediments, through which the floodplain is formed. The Tigris mainly occupies the eastern part of the floodplain, while the Euphrates occupies the western side.

These two rivers' discharge assessments have been accurately recorded since the 1960s. The average over the last 60 years shows that the Tigris has a 40% higher annual discharge than the Euphrates. The average annual discharge of the Tigris basin is about 50 billion cubic metres (bcm), while that of the Euphrates is about 32 bcm (Kibaroglu & Unver 2000). More than 40% of the Tigris' water resources are generated within Turkish territory, while 51% derive from inside Iraq and 9% from the Zagros Mountains in Iran. Regarding the Euphrates, more than 90% of its water is generated in Turkey, and the rest comes from Syrian land. Therefore, the inflow added to the Euphrates in Iraq along the western desert valleys is insignificant (Kibaroglu & Unver 2000).

The discharge fluctuates from year to year, depending on the amount of precipitation and the meltwater. Moreover, the discharge also changes over the same year. The highest discharge of both rivers is during April and May, as it is the peak time for snow to melt in this area (Bozkurt & Sen 2011). However, there has been a general decline in the discharges of the Tigris and the Euphrates during the last few decades due to dam construction, increased water consumption for irrigation, and climate change (Jones et al. 2008). The discharge calculations from 1970 to 2003 according to IMWR (2005) to the river where it enters the floodplain show that the Euphrates annually discharged approximately 19.68 bcm while the Tigris discharged about 45.4 bcm. The Adhaim and Diyala tributaries of the Tigris annually discharge 0.70 bcm and 5.86 bcm.

Regarding the quantity of suspended sediments, the Tigris carries more than 50% more sediment than the Euphrates. The Tigris in Baghdad transports about 30 million tonnes of sediment per year (Abbett & McCarty 1953), while the Euphrates transports nearly 21 million tonnes per year through the Hindiyah area (IMWR 2002). Most of the sand and silt calibres are deposited in the marshland area before the confluence of the two rivers at Qurnah, while only clay passes down to the Shatt-al-Arab (Philip 1968). The Euphrates is essentially empty of the suspended load in the marshland area. In contrast, the Tigris carries a heavy load of suspended material. So the suspended sediment calibre of the Shatt-al-Arab River more closely resembles the sediment of the Tigris than that of the Euphrates (Berry et al. 1970).

As for the gradient of the rivers within the Mesopotamian floodplain, the whole Tigris flows over a higher gradient than the whole Euphrates. The general gradient for the Tigris is about 17.24 cm/km. As regards the Euphrates it is approximately 9.25 cm/km.

In conclusion, as mentioned earlier, generally, the contribution of the Tigris to building the Mesopotamian floodplain and providing the required sediments was more than that of the Euphrates. The Euphrates was running adjacent to the Al-Baten fan, and there was a branch of Tigris reaching the region, too. The ancient gradient allowed both Tigris and Euphrates to get to the Ur region and contribute to building the floodplain there, and to continue running until they reached the Gulf. Consequently, the Ur region was fertile and irrigable and had a sustainable river water supply during the earlier periods of forming the Holocene's floodplain.

The Marshes

Marshes, lakes and seasonal swamps can be formed everywhere in the Mesopotamian floodplain and not only in the southern part (Jotheri et al. 2018). For example, a sustainable marshland was located west of Babylon (Cole & Gasche 1998). Furthermore, several ancient maps from the 19th and early 20th centuries AD (e.g. Selby 1885 and Willcocks 1912) show several marshes distributed through the Mesopotamian floodplain; for example, the Aqarquf marsh to the north of Baghdad. In addition, according to the environmental and lithological interpretation of the boreholes that I have dug across the floodplain, there was an apparent alternation between the river and marsh sediments.

Marsh needs only two conditions to form in an area: water overflow from channel banks and barriers to trap the water in a basin. The wetland area cannot be created unless relatively high topographic features are a barrier to confine the flooded water and prevent it from flowing towards lower land. The wetland area's size and depth depend generally on the amount of the flooded water,

the size of confined basin or lowland area, the elevation of the confining structure, and evaporation rates (Jotheri 2016).

In terms of the barriers there are five types of barriers: palaeochannel levees, contemporary channel levees, alluvial fans, the Arabian Plateau and artificial dykes. Examples of marshes contained by these types of barriers are the Najaf marsh, confined by the Arabian Plateau from the west and the Ciniyah palaeochannels from the east; the Hammar marsh, confined by the Al-Batin fan from the south and the modern Shatt-al-Arab levees from the east; the Chibayish marsh, confined by the modern Euphrates levees from the south and the modern levees of the Tigris from the east; Shuwaicha Lake, confined by the current Tigris levee from the south and the Teab fan; Dalmaj Lake, confined by palaeochannel levees from the east and the west; and a constructed dyke from the south.

Suggestions of past marsh locations should account for the locations, dimensions and types of confining barriers for completeness. This point is relevant to the vast and continuous body of water (Sealand) suggested by (Hritz & Pournelle 2015; Al-Dafar 2015): what type and size of barrier existed to form such a marsh. This “Sealand” could have consisted of several marshes, separated by channel levees, which acted as natural barriers for each marsh.

Again, so far, no comprehensive and detailed study has been carried out to identify the size and locations of the ancient marshes that were active during the periods of occupation of the Ur site. Such a study needs to dig enough boreholes covering the current marshes area until the current Gulf’s shoreline and study lithology, palaeontology and the environments of these boreholes and apply absolute datings such as OSL or radiocarbon. Consequently, the idea that the Ur site was located by a vast and longstanding marsh can not be verified. And similar to the hypothesis of the Gulf’s palaeoshoreline, the marshes of Ur are still open, including the limitation of the marsh’s area. The Ur region might have relied more on a riverine farming environment than a marshy one.

Bibliography

- Abbett, K.T. & McCarty 1953. *Report on the Gharraf Project, Iraq*. Development Board, Baghdad, Iraq.
- Al-Dafar, A. 2015. *Shadow states: the archaeology of power in the marshes of southern Mesopotamia*. Unpublished PhD thesis, Stony Brook University, USA.
- Aqrawi, A.A.M. 1995. "Correction of Holocene sedimentation rates for mechanical compaction: The Tigris Euphrates Delta, Lower Mesopotamia", *Marine and Petroleum* 12/4:409–16.
- 2001. "Stratigraphic signatures of climate change during the Holocene evolution of the Tigris–Euphrates delta, lower Mesopotamia", *Global Planet Change* 28:267–83.
- Berry, R.W., G.P. Brophy & A. Naqash 1970. "Mineralogy of the suspended sediment in the Tigris, Euphrates, and Shatt-al-Arab rivers of Iraq, and the recent history of the Mesopotamian Plain", *Journal of Sedimentary Research* 40:131–9.
- Bozkurt, D. & O.L. Sen 2011. "Precipitation in the Anatolian Peninsula: sensitivity to increased SSTs in the surrounding seas", *Climate dynamics* 36/3–4:711–26.
- Cole, S.W. & H. Gasche 1998. "Second and first millennium BC Rivers in Northern Babylonia", in H. Gasche & M. Tanret (eds.) *Mesopotamian History and Environment. Changing Watercourses in Babylonia. Towards a Reconstruction of the Ancient Environment in Lower Mesopotamia*:1-62. Ghent: University of Ghent.
- Heyvaert, V.M.A. & C. Baeteman 2007. "Holocene sedimentary evolution and palaeocoastlines of the Lower Khuzestan plain (southwest Iran)", *Marine Geology* 242:83–108.
- Hritz, C. & J.R. Pournelle 2015. "Feeding History: Deltaic Resilience, Inherited Practice, and Millennial-scale Sustainability in an Urbanized Landscape", in H. Thomas Foster, D.J. Goldstein & L.M. Paciulli (eds.), *Viewing the Future in the Past: Historical Ecology Applications to Environmental Issues*. Columbia: University of South Carolina Press.
- Hudson, R.G.S., F.E. Eames & G.L. Wilkins 1957. "The fauna of some recent marine deposits near Basrah", *Iraqi Geological Magazine* 94:393–401.
- IMWR 2005. *Annual hydrological measurements of the river in Iraq* (Internal report, the Iraqi Ministry of Water Resources). Baghdad: The Ministerial Library:1–150 (in Arabic).
- Jassim S.Z., S.A. Karim, M.A. Basi, M.A. Al-Mubarak & J. Munir 1984. *Final report of the regional geological survey of Iraq* (Iraqi Geological Survey, internal report no. 1447), stratigraphy section.
- Jones, C., M. Sultan, E. Yan, A. Milewski, M. Hussein, A. Al-Dousari & R. Becker 2008. "Hydrologic impacts of engineering projects on the Tigris–Euphrates system and its marshlands", *Journal of Hydrology* 353/1:59–75.
- Jotheri, J. 2016. *Holocene avulsion history of the Euphrates and Tigris rivers in the Mesopotamian Floodplain*. Unpublished Doctoral dissertation, Durham University.
- Jotheri, J., M. Altaweel, A. Tuji, R. Anma, B. Pennington, S. Rost & C. Watanabe 2018. "Holocene fluvial and anthropogenic processes in the region of Uruk in southern Mesopotamia", *Quaternary International* 483:57–69.
- Kibaroglu, A. & I.O. Unver 2000. "An institutional framework for facilitating cooperation in the Euphrates–Tigris river basin", *International Negotiation* 5/2:311–30.
- Philip, G.A. 1968. "Mineralogy of recent sediments of Tigris and Euphrates rivers and some of the older detrital deposits", *Journal of Sedimentary Research* 38/1:35–44.
- Selby, W.B., L. Collingwood, J.B. Bewsher & F. Jones 1885. *Surveys of Ancient Babylon and the Surrounding Ruins with Part of the Rivers Tigris and Euphrates in 1860 to 1865*: Map. London: W.H. Allen and Co.
- Willcocks, W. 1912. "The Garden of Eden and its restoration", *Geographical Journal* 40/2:129–45.

Woolley's flood mud: a high-resolution proxy for the ecological context of Ur's first inhabitants

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Abstract

This paper reports on a geochemical analysis and geoarchaeological reinterpretation of Sir Leonard Woolley's "Flood Deposit" from the site of Ur in southern Iraq.² Following international headlines that framed the discovery as evidence of a widespread deluge related to Near Eastern flood mythology, the Penn Museum archived a subsample for future study. The depositional event, represented by a sterile cover of mud several meters thick, extended widely across Ur and separated two separate ceramic phases of Sumer's Ubaid period, marking an occupational hiatus. For Woolley, the deposit signaled a catastrophic end to an early town on the Euphrates. However, the source and character of Ur's Flood Deposit remain contested. As part of a broader study into Ur's early landscape, I applied a novel thermal fractionation method, called Ramped Pyrolysis and Oxidation (RPO), to an archived subsample of Woolley's 'flood mud' that is stored at the Penn Museum, where it was archived almost a century ago.³ Such an approach allows one to evaluate variability in the age and sources of organic matter in a bulk sediment sample. Significantly, a high degree of radiocarbon heterogeneity within the Flood Deposit subsample, together with highly depleted $\delta^{13}\text{C}$ signatures across early temperature ranges, are consistent with the relatively rapid remobilization and burial of sediment during a tectonic event. Additional regional evidence further suggests that river base level changes effected by Middle Holocene sea level rise resulted in an especially flood-prone region around Ur in the 5th- and 4th-millennia BC. Ultimately, I contextualize these geochemical results with archaeological and geological data to offer a more nuanced reconstruction of Ur's physical setting at the time the deposit formed.

Introduction

Sir Leonard Woolley first uncovered Ur's infamous "Flood Deposit" during his seventh season of excavations in December of 1928. The site, Tell Muqayyer in southern Iraq, is situated 15 km south-west of the modern Euphrates course near Nasiriyah. While Woolley's work had already made headlines with the discovery of the site's "Royal Cemetery," the announcement of a 3 m

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² I would like to thank Dr. Richard Zettler of the University of Pennsylvania for first suggesting the possibility of such a study. I would also like to express my gratitude to Dr. Marie-Claude Boileau, Director for the Penn Museum's Center for the Analysis of Archaeological Materials (CAAM), and to Dr. Katherine Blanchard, Keeper of the Penn Museum's Near East Collections, who facilitated this study and offered critical background information. Lastly, Dr. Roberta Hansman and Marie Gaylord-Lardie, both of the National Ocean Sciences Accelerator Mass Spectrometry (NOSAMS) in Woods Hole, Massachusetts provided invaluable guidance and laboratory access. Unfortunately, metadata associated with Woolley's legacy sample, such as the part of the site or the depth at which it was recovered, are not available. Nevertheless, given the year it was acquired, as well as the fact that a sediment sample was taken as an object for curation at such as early date, there is little doubt that it came from Pit F, the "Flood Pit," which Woolley opened in 1929. The Penn Museum registered the sample as "sand deposited by the flood over the antediluvian houses of Ur," lending additional support to the conclusion that the sample came from that same pit. Although the pit has naturally infilled since it was originally excavated, the present study also established the depth at which Woolley's Flood Deposit level sits below the still exposed flood pit surface, should targeted investigations be undertaken in the future (see Final Thoughts, below).

³ For instance, the front page of the 16th March 1929 edition of the New York Times ran a column titled "Geologist Confirms Bible Flood Story."

band of water laid silt covering Ur's earliest settlement was quickly sensationalized and widely disseminated.⁴ However, the claim was questioned within Mesopotamian archaeology itself. For example, Watelin (1931:270) challenged Woolley's Biblical claims, suggesting instead that flood layers uncovered farther north at the site of Kish were closer in time to Gilgamesh and Ziusudra, possible Early Dynastic I (c. 2,900–2,500 BC) kings from the ancient cities of Uruk and Shuruppak, and therefore more likely to be the source of subsequent flood mythology (Kramer 1967; Mallowan 1964:75). Nevertheless, Woolley's flood mud remains the most vertically impressive flood layer yet recovered on a site in Mesopotamia.

There remains broad acceptance that Sumer's flood mythology is the earliest attestation for, and therefore the ultimate source of, the Deluge genre which gave rise eventually to the Noachian account in Genesis. Whether or not a single or general cycle of flooding inspired these epics is a separate issue from the realism of the flood archetype given Lower Mesopotamia's natural setting, a low-lying basin subject to repeated inundation, particularly before large-scale damming in the modern era (e.g. Morozova 2005). However, because spring floods transform southern Iraq's inner delta region into an amphibious environment for much of the year, Woolley assumed that only an unusually destructive and spatially extensive flood event could account for its preservation in narrative. Furthermore, the relatively restricted flood strata from sites like Shuruppak and Kish, however stratigraphically more closely related those layers may be to Early Dynastic rulers, pale in comparison to the deposit from Ur, whose extraordinary magnitude suggested, to Woolley at least, that a terrible event took place in Lower Mesopotamia. Not only was its intensity great, resulting in the accumulation of up to 3 m of water-laid sediment at certain locations across Ur, but it was socially transformative—according to Woolley, Ur's flood stratum separated two distinct cultural horizons, his "Ubaid II" and "Ubaid III" ceramic traditions from his "Ubaid I," suggesting a habitational hiatus that offers important clues into the event's date and local impact.

In all of Woolley's Ubaid (c. 6,500–4,000 BC) strata at Ur and nearby sites he found evidence of a marshy local setting full of reed architecture and fish net weights. But he also documented agricultural tools in equal amount, such as flint hoes from Reijibeh X, an Ubaid period settlement close to Ur (UE 4: Pl. 12c). Wright's survey of the Eridu basin suggested that a branch of the Euphrates had already flowed south-east of Ur by the 5th millennium BC (Wright 1981:300), agreeing with Woolley's own conception of the Ur district at that time (UE 4:15). Similarly, Hall (1923:193), basing his opinion on a mix of archaeological, palaeofaunal and geographical considerations, had suggested that Eridu was perhaps close to, but never on, the Holocene shoreline of the Persian Gulf; rather, as he says, it was "situated at the end of a winding backwater of the gulf (very like that which at present time runs up behind Basrah in the direction of Shaiba), into which fell a branch of the Euphrates, or a canal leading from the Euphrates near Ur." Broadly speaking, these scholars imagined a group of town and village sized settlements congregating near the mouth of an estuary.

Woolley also recognized dynamic environmental change at Ur in the Ubaid period, reasoning, based on impressionistic observations made during regional surveys, that freshwater wetlands were replaced by freshly lain alluvium by the beginning of the following Uruk period, c. 4,000 BC (UE4:11, 83). While such a broad yet vivid picture of the physical landscape at the time of Ur's earliest inhabitants was built on admittedly indirect evidence from the site and region, more recent data, together with the reanalysis of Penn's Flood Deposit, offer complementary information that enhance and refine Woolley's original proposal. I therefore revisit Woolley's Flood Mud with the utmost appreciation for his often-rigorous and relatively detailed section drawings and soil descriptions of the many test pits he sank to characterize Ur's early periods.⁵ To make this inquiry more productive

⁴ More recently, Brückner & Engel (2020:146–7, fig. 7.9) have suggested that a sterile deposit recovered from an on-site sediment core at Uruk, a site upstream from Ur, may be related to Ur's flood deposit, since they share similar dimensions and structures, and the layer at Uruk, like Ur's, may be stratigraphically in line with the Ubaid period (c. 6,500–4,000 BC). See "Regional Evidence," below.

⁵ It is true that Woolley's sediment descriptions are often inconsistent (e.g. Raikes 1966:53–4). Nevertheless, his reports provide far more detail than might be expected for the time, and his inclusion of technical reports on various materials, from the Flood Deposit to bitumen, is invaluable.

from a regional perspective, I also make extensive use of Woolley's level readings, based as they often were on a benchmark at Ur Junction, the local railway station, which he recorded at 4.3 m above sea level (UE 4:2). That elevation mark, from which he recorded stratigraphic changes in reference to modern sea level, is in perfect accord with what Google Earth reports for the elevation of the former railway station, while elevation data obtained in fall 2021 by drone-mounted differential GPS also validates the original marker.⁶

The Deposit

During the 1928–29 season at Ur, Woolley sank a series of sondages in the Royal Cemetery to explore strata beneath the site's Early Dynastic graves. He was in search of contexts similar to Tell al-Ubaid, an ancient settlement nearby, where he and H.R. Hall had previously found “primitive hut dwellings erected on a natural ‘island’ of river silt” in an otherwise marshy plain (UE 1:149).⁷ These relatively modest remains were earlier in time than the more monumental architecture of Tell al-Ubaid's temple platform and were clearly associated with a distinct painted pottery tradition to which the site would give its name.

Ultimately, Woolley's research at Tell al-Ubaid provided valuable insights into the cultural ecology of early settlements in the region. Specifically, he discovered that they were typically marsh communities that were located on natural elevations to utilize newly reclaimed agricultural lands as wetlands receded (Lloyd 1960:24; UE 4:7–12). Thus, he sought to find similar contexts at Ur. As noted above, Woolley paid meticulous attention to the stratigraphic position of his levels with respect to the marker at Ur Junction, so he started one of his first trial-pits, Pit B, at the level of the floor of the Royal Cemetery's Great Death-pit, PG/1237, about 8.40 m above sea level, with the goal of getting down to sea level to find agreement with the Ubaid-period elevations they had investigated at Tell al-Ubaid (UE 4:54–5).

For 1.5 m beneath the death pit, the work encountered mixed-use material (including decomposed mudbrick, broken pottery and rubbish) until excavations “quite suddenly” uncovered a layer of “perfectly clean clayey sand (UE 4:2).” After digging for another meter or so (so now 2.5 m below the floor of the great Death Pit), the workers felt they reached virgin soil, stopping some 6.9 m above sea level.⁸ Though Woolley initially shared their conclusion, he checked his levels and realized that the shaft was too shallow for them to have reached undisturbed soil—if this truly was the level of the plain prior to Ur's first inhabitants, it meant that the site was established on a formidable (some 15 to 20 ft high!) eminence in the otherwise paper flat plain (Woolley 1953:53).⁹

Woolley subsequently resumed excavating the sterile layer of mud in Pit B until his team reached a depth of 2.8 m above sea level, when they uncovered mixed refuse including ashes, decomposed mudbrick and painted pottery distinctive of the Ubaid period in Mesopotamia. From 2.8 to 0.8 m above sea level, the test pit revealed more Ubaid cultural debris before the workers finally reached undisturbed soil at 1.55 m above plain level. Overall, 3 m of a sterile, water-laid deposit in Pit B clearly separated two functionally and temporally distinct anthropogenic contexts.

The second pit at the time of the Flood Deposit's discovery, Pit A, was dug some 15 m to the west of Pit B, also in the Royal Cemetery area. The initial test began 6.7 m above sea level. Clean water-laid clay was recorded from 5.8 to 2.2 m above sea level except for a possible temporary surface between 4.9 and 4.7 m, where a storage jar had been placed into a band of “gritty dark

⁶ Various lines of evidence show that Woolley's independent level readings are to be trusted even over his section drawings, some of which could be highly interpretive (Zimmerman 1998:39–42).

⁷ Woolley recorded 14 soundings across the site that could relate to the earliest periods at Ur. The vast majority cluster in the Royal Cemetery area, while two, Pits K and L, were placed in the western corner of the Temenos wall (Lloyd 1960:23). Woolley provided a “comparative section” of all test pits on Plate 83 in UE 4.

⁸ It should be noted that, according to Woolley's composite section of the test pits, this was closer to 5.9 meters above sea level, unless Woolley mixed Pits A and B.

⁹ On the idea that virgin soil sat several meters above modern sea level at Ur, Woolley quipped: “That upset a favourite theory of mine, and I hate having my theories upset except on the very best of evidence, so I told [the workers] to get back and go on digging (Woolley 1953:53).”

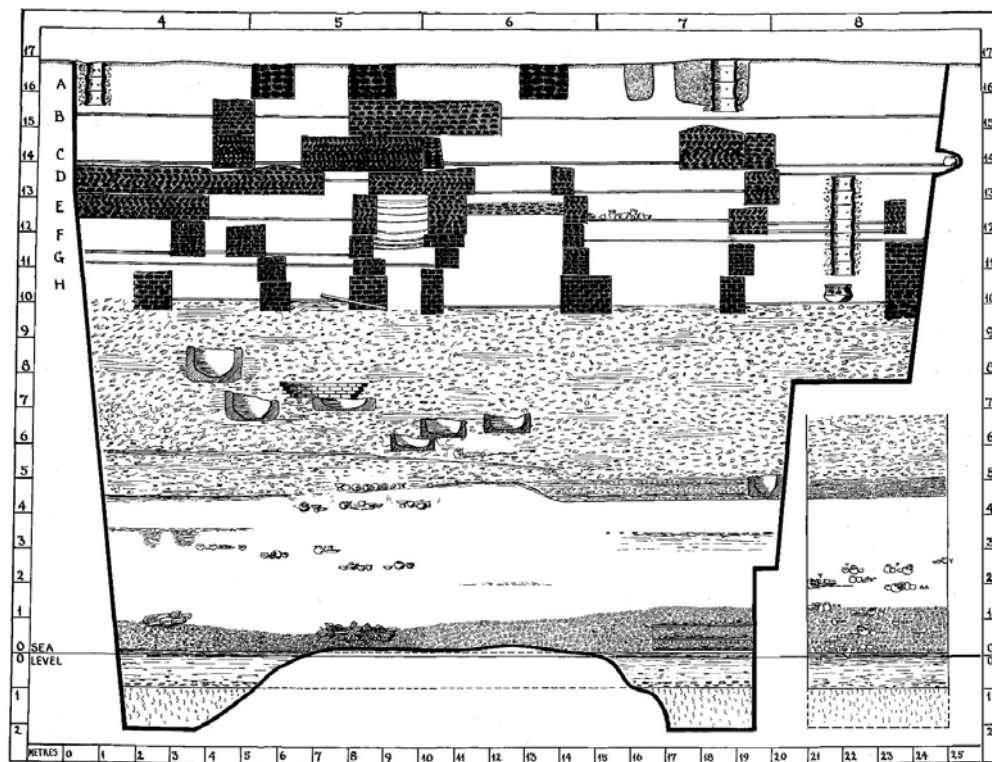


Fig. 1 Woolley's highly interpreted section drawing of Pit F (from UE 4: Pl. 73)

soil (UE 4:54).” Ubaid pottery was recorded from 2.2 to 1.4 m above sea level before the work on Test Pit A was stopped, just 0.15 m below the final level of what had been reached in Test Pit B. Ultimately, test Pits A and B were in close stratigraphical agreement and shared a thick water-laid stratum largely free of cultural debris.

This discovery marked an apocryphal moment in Mesopotamian archaeology. According to Woolley (1953:53), he knew at once that he had discovered the source of Sumer’s flood mythology, but he wanted confirmation from his coworker and spouse, Katherine Woolley. Upon review, she remarked, “quite casually:” “Well, of course, it’s the Flood.” Woolley (UE 4:2) would go on to summarize their striking interpretation of the clean silt layer as follows:

It could only be the result of an inundation, and that on a very great scale; I was convinced that we had found material evidence of the Flood recorded by the Sumerian King-lists and described in the Flood legend; my wife came independently to the same conclusion and the other members of my staff were convinced of its accuracy: it was a startling but a satisfactory conclusion.

To test the reliability of their findings on a broader scale, Woolley decided to follow up the next season (1929–30) in an area roughly 100 m farther west, inside the limits of Ur’s late Temenos precinct, a sacred walled area, by digging Pit F, what came to be known as the “Flood Pit.” First, Woolley wanted to test closer to a previously excavated zone he labeled the “EH” site, which he associated with the center of Ur’s earliest settled area; second, he hoped to avoid the complicated stratigraphy of the Royal Cemetery, including vast rubbish heaps, which had been reworked extensively throughout antiquity; and finally, he wanted an area free from late overburden. The top of Pit F, which dated to the Early Dynastic period (c. 2,900–2,350 BC), was dug from about 16 m above sea level.

Pit F, representing a large rectangular test pit whose dimensions were 25 m by 16 m, was excavated during the eighth season. The ultimate depth reached was 19.3 m from the surface. The

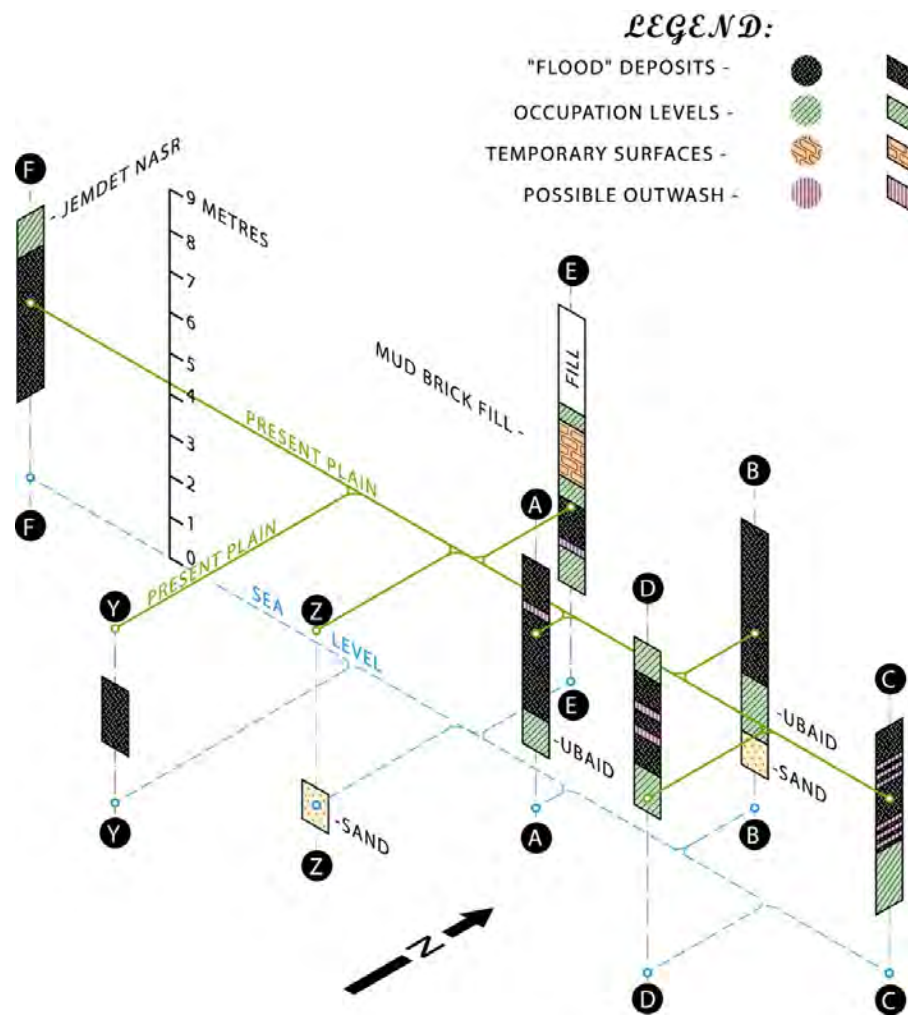


Fig. 2 Isometric section view of select test pits (A, B, C, D, E, F, Y and Z) from Woolley's excavations including correlation of the Flood Deposit between pits. Modified from Raikes (1966:54, fig. 1)

well-known section produced (Fig. 1) is in fact an idealized rendering of the “medial section through the length” of the pit north-west to south-east (Woolley 1930:330).

As work approached the 10 and 9 m levels in Pit F, Jemdet Nasr and Uruk-period cultural material transitioned into Ubaid pottery. The latter increased in proportion and continued until 5.5 m above sea level. Once more, just like in Test pits A and B, Woolley came across a sterile, water-laid deposit, here 3.5 m thick. Beneath it, Ubaid material was again encountered, though the deeper Ubaid horizon was of a very different nature, itself resting on the black organic soil of a relict marsh, full of reed hut architecture just like the early structures he uncovered with Hall at Tell al-Ubaid.

In pits dug to the east and south-east of Pit F, the flood deposit was also recorded (except for Pits Y and Z, where it was absent), though its depth was variable since the test excavations were placed along the periphery of the ancient settlement as it sloped down to an ancient watercourse. Woolley summarized the overall results as follows: in Pit F, the Flood Deposit approached 3.5 m in thickness; in Pit B, 3.7 m; in Pit A, 2.7 m; in Pits W and X, the deposit was disturbed by later digging but nevertheless seemed to have obtained a thickness of 3.5 m, like the findings in Pit F (UE 4:15). Evidence of “damp soil” was found in Pits C, Y and X, which Woolley took as evidence of an ancient watercourse or marsh, and further as evidence of the outer south-eastern limits of the Ubaid period settlement (UE 4:9 and 15). Pits K and L, which were placed directly north-west of the Ur III ziggurat, revealed evidence of the Flood Deposit between ~5.8 and ~3.8 m above modern sea level. Ultimately, the depositional event that Woolley interpreted as a cataclysmic flood was indeed

extensive. In summary, the deposit was found between 7 m above and 2.5 m below current plain level across various test pits at the site (Raikes 1966:53) (Fig. 2).

From the perspective of the test pits, which were sunk south-east of the ziggurat terrace (except for Pits K and L, which were placed within the temple precinct), a riverine flood would have come from the north. According to Woolley, Pits C, Y and Z represent in their lower reaches the outer limits of the Ubaid town at Ur, where a “talus” of built up debris along the eastern slopes of the archaic mound predated, and therefore intercepted, the flood waters, causing them to heap up a relatively thick layer of sediment beneath what would become parts of the Royal Cemetery and Nebuchadnezzar's Temenos Wall (UE 4:15).

Past Interpretation

Previous theories on the origins and impact of Ur's Flood Deposit range widely, from a cosmic impact (Master & Woldai 2007:96) in southern Mesopotamia to ponding water brought on by local tectonic events, such as uplift or subsidence (Raikes 1966). Still other scholars remain open to the idea that changing sea levels directly or indirectly played a part in Ur's flood deposit, including marine-derived sediment deposited by a tidal wave (Evans 2011:17). On the other end of the spectrum, several scholars have questioned if the Flood Deposit was from a flood at all, arguing that it was most likely wind-blown sand, amounting to a large paleo-dune that accumulated over time (Beek 1962:12; S. Lloyd personal communication, reported in Mallowan 1964:75).¹⁰

Two separate microscopic analyses of the Flood Deposit were made close to the time of its discovery. First, V. Malycheff analyzed a sample (either from Pit A and B) in the laboratory of the Physical Geography section of the Sorbonne (Malycheff 1931; UE 4:15). Second, U.U. Thomas of the Petrographical Department of the Geological Survey in London examined samples from Pits F and A (UE 4:165–6). From a depositional perspective, three features stand out in these technical reports: one, the deposit was relatively sterile and well sorted (no macrofauna, faint bedding and lamination), two, the depositional event was sudden (little to no bioturbation, indicating the lack of development of a post-depositional soil surface), and three, the deposit was most likely laid down by a river, presumably the Euphrates, suggesting an historic breaching of its levees.

According to Woolley (UE 4:68), both reports concluded that the water-laid stratum did indeed originate from a freshwater river source.¹¹ To his mind, the “analysis makes it perfectly clear that it is the type of deposit normally left by the Euphrates in flood, collected from the upper reaches of the river; it is fluvial, not marine. The practical absence of stratification shews that it was deposited all at one time and is not the result of repeated minor floodings ... (UE 4:68).”

Woolley had little doubt, however, that Ur's Flood Deposit was palpable evidence of catastrophe in Sumer's low-lying alluvium. He further conjectured that the flood displaced or destroyed a non-Sumerian (rural) population while the elevated (urban) settings, home of the Sumerians, persisted, giving rise to the flood legends of later literature (Woolley 1929:20–1). While his interpretation is

¹⁰ Mallowan (1964:75) rejected an aeolian origin for the Flood Deposit since it was physically distinct from more certain wind-blown contexts he had seen excavated at Ur and Eridu. The technical reports and current study support his conclusion.

¹¹ In fact, the Sorbonne report does record foraminifera, indicative of marine influence, but asserts the organisms leached from much earlier geological rock upstream (Malycheff 1931:271). Further, and despite Woolley's (UE 4:15) claim to the contrary, the London report makes no attempt to determine if the flood was of fresh or saltwater origin, only stating that “certain laminae” in the deposit suggest the “action of gentle currents (Thomas 1955:165).” Mallowan (1964:73–4) noted how Woolley was predisposed to emphasize only those points in the reports that most agreed with his interpretation. Nevertheless, cited analysts seemed inclined overall to the idea of a flood event whose source was the upstream reaches of the Euphrates (Malycheff 1931; Thomas 1955).

clearly problematic, unsupported and long outdated, Woolley's more general premise of a widespread flood continues to find backing (e.g. Brückner & Engel 2020).¹²

Past microscopic analyses, as indicated above, as well as microscopic inspection of the Penn Museum sample, quite clearly suggest a non-marine, fluvial (i.e. river) origin for the Flood Deposit layer. Furthermore, it is highly unusual for there to be a complete absence of macrofauna (such as bivalves and gastropods) in or near a low energy water feature in southern Iraq.¹³ This argues against Raike's interpretation of sediment deposited by standing water, and it also makes a purely marine origin, once more, highly unlikely.¹⁴

Fundamentally, the silt and clay rich Flood Deposit does indeed seem to have been laid down at once by a river in spate, and the most obvious candidate for that river given the location of Ur is the Euphrates. Therefore, at the macro level, the deposit seems to represent an unprecedented breach of the Euphrates between Woolley's Ubaid I and Ubaid II/III sequence. The question then becomes: can a geochemical study of the Penn Museum sample support such a hypothesis and provide further context?

Geochemical Analysis

I examined the thermochemical stability (the temperature ranges at which different molecular bonds from organic carbon breakdown and evolve into gas) and isotopic signatures of Penn's archived Flood Deposit using the Ramped Pyrolysis and Oxidation (RPO) instrument at the National Ocean Sciences Accelerator Mass Spectrometry (NOSAMS) facility in Massachusetts, USA (Fig. 3). Given the novelty of this method in geoarchaeological research, I will briefly describe the principle and workflow of RPO before presenting the results. I will then contextualize these findings within the Flood Deposit's archaeological context by incorporating results from more recent geoarchaeological and geological studies of the Ur region.

In brief, RPO isolates (fractionates) organic carbon (OC) pools of different ages through a ramped heating process before cryogenically freezing and graphitizing them for ^{14}C and $\delta^{13}\text{C}$ isotopic analysis (for a more detailed workflow, see summary in Ghazi 2022). The fractionation process is critical, since a given sediment sample typically contains 'fresh' *in situ* authigenic carbon (produced locally, for instance, by plants and animals) as well as 'aged' allochthonous carbon which has been mixed in through various diagenetic processes. Large river basins like the Tigris and Euphrates are inherently complex in this regard, since the rivers bring down and deposit eroded material from diverse sources. As a result, traditional radiocarbon ages of untreated bulk sediment samples



Fig. 3 Photograph of Penn Object Number 31-17-171
© Penn Museum

¹² Woolley (UE 4:15): "The analysis shews that the flood was, primarily at least, the Euphrates. That river rises in flood annually, but it would of course be idle to maintain that we have here evidence only of its normal inundation; a flood which piled three metres and more of mud over the ruins of the houses in which men had been living was no normal and annual event; in no subsequent stratum do we find evidence of anything like this disaster."

¹³ Fresh and brackish water fauna are abundant in waterways and wetlands in southern Iraq (Plaziat & Younis 2005).

¹⁴ Holocene marine sediments in southern Iraq belong to the Hammar Formation. Its upper units are characterized by thick washes of shell and coquina while its deeper units reflect more diverse species of marine and estuarine fauna, though overall abundance is less at greater depth (Hudson et al. 1957; Macfadyen & Vita-Finzi 1978). Nevertheless, the relatively high enrichment of bromine in the Penn Museum sample has been noted through X-ray fluorescence (XRF) analysis. Bromine is an element associated with marine organic matter, suggesting tidal influence in a component of the Flood Deposit sample and therefore the relative proximity of Ur to the Gulf at this early time, a finding supported by other local studies (e.g. Forti et al. 2022). The XRF study will be published in relation to more recent geoarchaeological research at Ur (see Conclusion, below).

reflect the average isotopic values of all organic matter, generating unreliable signatures including radiocarbon chronologies that are much too old for a sample's stratigraphic position.¹⁵

The heating process produces a "thermogram," which is an illustration of the kinetic properties of a sample's organic constituents. The number and intensity of peaks within a thermogram help to understand the distribution of organic compounds present, while the temperatures at which they register, indicating their relative volatility, help to classify them. Conventionally, the earlier the temperature peak in a thermogram, the younger its age, since older carbon has often been remineralized and deeply integrated into a sample's sedimentary structure. While RPO is increasingly being used across fields, including archaeology (e.g. Barrett et al. 2021; Keaveney et al. 2021), its use in this context is especially appealing since it can help to constrain the source and depositional history of organic matter in Ur's Flood Deposit.

Specifically, the use of RPO on a subsample from the Flood Deposit at Ur was guided by several factors. First, given the lack of contextual data from the sample (beyond what is generally known through Woolley's site reports and popular accounts), geochemical study is perhaps the most promising. Second, the lack of macrofauna, as well as the sample's exposure to light, hinders more traditional isotopic or luminescence methods, at least with respect to chronology. Third, given the ambiguous origin of Ur's Flood Deposit, it was believed that RPO could offer insight into the sources of organic carbon in the sample. And finally, though RPO is destructive, it requires only a couple grams of sediment, resulting in a minimal use of material.

To the point of chronology, since the Flood Deposit does not represent a relict surface, but a mixed sedimentary deposit brought down by river water, the age distribution was of value not from a stratigraphical perspective but rather in terms of sediment sourcing. The general date for the depositional event is clear on account of its archaeological context: Ur's Flood Deposit separated Woolley's "Ubaid II" and "Ubaid III" from his "Ubaid I." While Woolley's original periodization of Ur's Ubaid ceramics is flawed, they have been updated and can therefore be reinterpreted. For instance, Oates (1960:40–1) has argued that Woolley's Ur–Ubaid I is equivalent to a later subphase of the Hajji Muhammad (Ubaid 2) or early Ubaid 3 phase. At the same time, out-of-context pottery from Pits F, K and L indicate that Ur had been inhabited at least from the earliest ceramic phases in Sumer, a period that Oates associated stylistically with Eridu ware (Oates 1960:41). Woolley's Ur–Ubaid III can be associated with Ubaid 4 and 5, covering the Late and Terminal Ubaid periods (Volpi 2022).

As Crawford (2010: 165–6) has pointed out, the distinction of Hajji Muhammad as both a stylistic and chronological marker is flawed since Hajji Muhammad types overlap with Ubaid 1 and Ubaid 3 ceramic horizons throughout Greater Mesopotamia.¹⁶ Therefore, as low-resolution as it is, we can say with confidence that the flood stratum was deposited during a time associated with conventional dates for the Ubaid 2 and 3 periods, c. 5,300 to 4,100 BC, though the pottery just below and above the flood stratum further suggests that a late window, typically associated with Ubaid 3, is perhaps most likely (c. 4,500 to 4,100 BC). Complementary regional evidence agrees with this interpretation (see Regional Evidence, below).

The RPO measurement of the Flood Deposit subsample produced an unexpected thermogram (Fig. 4). Again, the fractionation process expects ¹⁴C ages within a sample to increase sequentially, so that Fraction 1 (F₁) is younger than F₂, F₂ is younger than F₃, and so on. The final fraction collected should be the oldest. High temperature peaks are also most often related to later fractions. In the Flood Deposit sample, F₁ and F₂ break this rule, with F₁ the oldest (radiocarbon dead, in fact) and F₂ the second oldest (c. 35,129 to 31,440 BC). Surprisingly, the youngest fraction measured is F₃ (c. 8,236 to 7,026 BC). F₄ (c. 10,537 to 8,943 BC) and F₅ (11,555 to 10,558 BC) then increase as expected, though the high variability between their ¹⁴C signatures is also unusual (Fig. 5).

¹⁵ For instance, geoarchaeological work at Abu Tbeira, a site just to the east of Ur, had to reject all bulk sediment samples because of contamination from pre-aged carbon (Forti et al. 2022; Milli & Forti 2019).

¹⁶ Crawford (2010:167) further suggests that Hajji Muhammad in fact represents a period that overlaps in time with the end of Ubaid 1 through the beginning of Ubaid 3, and therefore suggests the term Ubaid 2 should be dropped altogether.

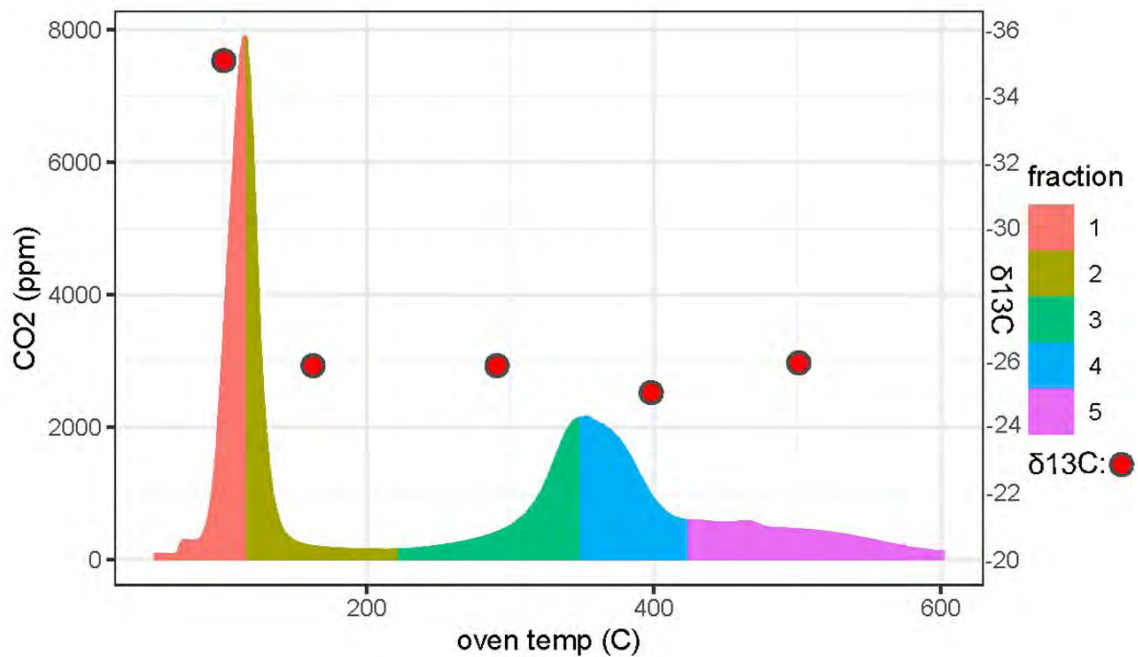


Fig. 4 Thermogram of the Penn Museum subsample. Fractions 1 through 5 are colored according to the temperature intervals (fractions) where separate pools of CO₂ were taken for isotopic study. Stable carbon values are shown in relation to fraction ranges.

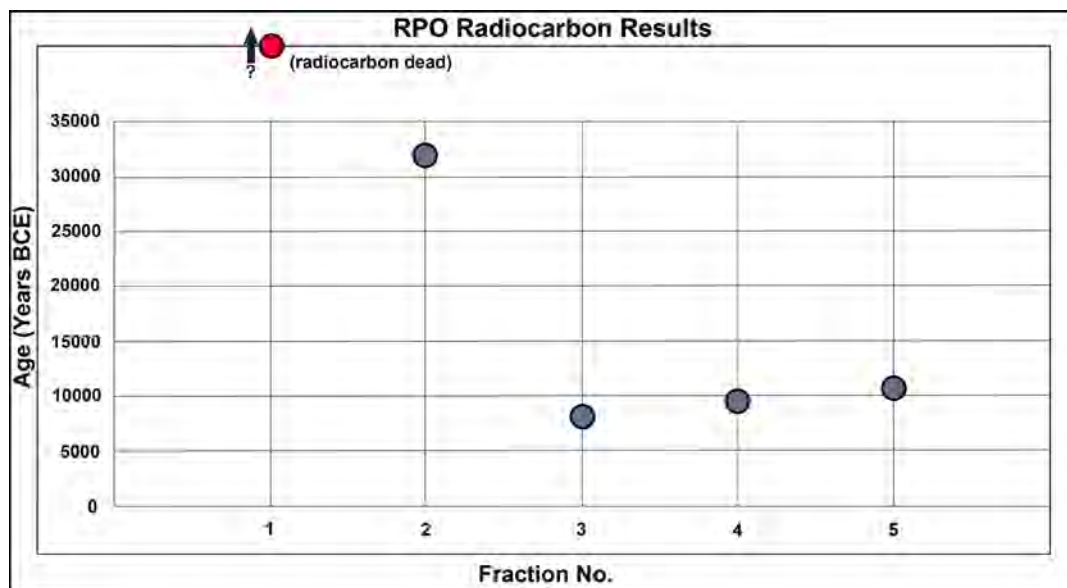


Fig. 5 ¹⁴C Age Plot by Fraction Number for the Flood Deposit Subsample

Before offering an interpretation, it is useful to evaluate the $\delta^{13}\text{C}$ signatures of each fraction, since they reflect in situ carbon productivity prior to deposition and burial and vary based on differing contributions from C₃ and C₄ vegetation (terrestrial and aquatic), which, in turn, help to differentiate between fresh, brackish, estuarine or marine conditions. As you can see in Fig. 4, the $\delta^{13}\text{C}$ value of all fractions is in line with a terrestrial (i.e. non-marine) origin for the Flood Deposit. Notably, however, F₁ is highly reduced relative to other fractions and well outside the natural environmental range for terrestrial vegetation (typically between -30 and -24).

Without further study, the -35 stable carbon value for F₁ along with a radiocarbon dead age and a pyrolysis profile that is highly unstable at such a low temperature interval is most consistent with the presence of hydrocarbons from methanogen sources. Given Ur's early littoral setting

and downstream position, bitumen and kerogen are strong candidates. Bitumen seeps are well documented upstream, especially along the right bank of the Euphrates (UE 4:158–64). The stable carbon values reported here are in line with bitumen signatures from previously tested regional sources (Connan et al. 2005:51, tab. 13). Kerogens, on the other hand, are often sourced on geologic timescales through decomposed organic materials in former wetland environments. They are highly depleted isotopically and release hydrocarbons under low temperatures of less than 300 degrees Celsius (Seeley et al. 2018:186).

The continuation of an older carbon reservoir into F₂ despite $\delta^{13}\text{C}$ enrichment is also unexpected. It seems that the Penn Museum sample contains a great deal of pre-aged carbon from various sources. Subsequent fractions, from F₃ to F₅, represent a $\delta^{13}\text{C}$ range between –26.9 and –25.17, values far more typical of C3 vegetation, such as reeds and rushes, and follow the expected ^{14}C age increase, as mentioned above. While the relatively similar stable carbon measurements in F₃ through F₅ indicate similar source material, the high degree of pre-aged radiocarbon across temperature ranges despite a lack of thermal peak variety suggest preferential degradation of younger (and thus more volatile) carbon. Compared to RPO samples run at other locations at Ur, isotopic signatures from the Flood Deposit are unusually mixed (Goodman & Zimmerman forthcoming).

Other scholars using RPO in coastal shelf settings have noted that periods of relatively high sedimentation, triggered by large-scale geomorphological events, such as tectonism, result in the rapid remobilization and translocation of previously buried sediments that thus contain an increased mix of pre-aged carbon pools (Bao et al. 2018). Such dynamic events produce highly depleted radiocarbon and stable carbon fractions in sediment samples relative to their stratigraphic positions and within the samples themselves. Broadly considered, the Flood Deposit's unique thermochemical and isotopic signatures are consistent with an energetic depositional event, while a lack of relatively young carbon, given the deposit's stratigraphical position between known Ubaidian levels dating to Mesopotamia's Chalcolithic period, implies speedy burial and a subsequent break in the development of organic structures. It is impossible with the current evidence to determine if it this particular event was triggered by, for instance, an earthquake, which Iraq is susceptible to, or a different process that resulted in high sedimentation, such as river base level changes on account of sea level fluctuations. Others have independently proposed that earthquakes and soil liquefaction are the source of Near Eastern flood mythology, given Lower Mesopotamia's structural setting (e.g. Krinitszky 2005). Regional evidence, however, does offer additional insight.

Regional Evidence

In 2001, A. Aqrabi published a synthesis of his dissertation research that characterized several shallow boreholes that had been collected and archived by Geosurv Iraq in the 1970s and 80s. One of the borehole sequences he studied in detail was his “Borehole C” which happened to be placed, by sheer luck, ~6 km north-west of Ur and on a line between Ur and a peripheral site in its district, Rejeibeh X, that Woolley visited during the 1931–32 season. According to Woolley (UE 4:10), Rejeibeh X represented the “occupation of an island site” in a marsh, just like the earliest Ubaid levels at Tell al-Ubaid and Ur, set atop a slightly elevated rise in an otherwise low depression which he took to be a former marsh or channel belt. Woolley felt the site was predominately occupied during his Ubaid I periodization and abandoned thereafter.

Remarkably, Aqrabi dated what he described as a large relict marsh layer comprised of peat-like organic-rich muds in Borehole C to between 4,726 and 3,948 BC (age recalibrated), a range that overlaps well with the commonly accepted chronological boundaries of the Ubaid 2/3 period in Lower Mesopotamia (which is consistent with Woolley's Ubaid I). Aqrabi's radiometric dates derive from a level between –0.20 to –0.50 m below modern sea level, corresponding perfectly to the altitude of the relict marsh surface at Ur, which Woolley recorded at the same elevation in relation to modern sea level. The Ubaidian time frame for the radiocarbon analysis of Aqrabi's marsh confirms Woolley's suspicions of marsh-like conditions in the Ur district at the time Ur was

first settled. Similarly, Woolley (UE 4:9) envisioned Ur's earliest hut community as one "built on the surface of a marsh which had gradually dried." Aqrawi notes in his Borehole C an immediate transition from the dated marsh layer to a large band of silt, at least 2 m thick, followed by supratidal sabkha, consistent with a general trend of increasing aridification near Mesopotamia's western desert margin over the course of the 4th and 3rd millennia BC (Aqrawi 2001:275–6).

Perhaps even more interestingly, Aqrawi (1993:239–40; 2001:277) has suggested that peat-like sediments are preserved in the Lower Mesopotamian environment only under very particular conditions, typically when a marsh environment is rapidly buried through fluvial sedimentation. He characterized the radiocarbon dated deposits in Borehole C as deriving from a marsh that was preserved during a marine regressive phase. However, given the recalibrated radiocarbon evidence from Borehole C, and its agreement with a sea level maximum around 4,500 BC (Goodman 2023; Sanlaville 2003), it is just as likely that the marsh formed during sea level rise, as base level changes decreased river gradients, and that this same process, perhaps in combination with tectonism, resulted in unprecedented flooding when sea level rise then slowed.

At Uruk, Helmut Brückner supposed a similar phenomenon was happening around the same time (Brückner & Engel 2020:147). After reviewing stratigraphic sequences from sediment cores, he noted evidence of a paleo marsh layer in his geoarchaeological sample sites "U1" and "U4" that extended between 0.6 and 1.8 m above modern sea level. While material from the cores was not dated using absolute methods, Brückner did record Late Ubaid pottery within and just above the marsh stratum, which happens to be the earliest dated cultural period recorded at Uruk (Brückner 2003:234–5, fig. 2; Van Ess 2021). As evident in sample site "U4" at Uruk, the marsh layer was relatively short lived and immediately replaced by floodplain, suggesting that a period of "vast and long-lasting alluviation" followed (Brückner 2003:242; 2013:20, fig. 3). Fundamentally, these geoarchaeological results from Uruk, including an undated 3 m flood layer in sample site "U2", are in strong stratigraphical agreement with Aqrawi's Borehole C reconstruction, as well as the general archaeological sequence at Ur itself during and after the Late Ubaid period.

Conclusion

The general stretch of land from Uruk to Ur consists of an archaic sedimentary lobe of the paleo Euphrates, built over millennia of deltaic progradation. Based on the current study, it seems that Ur sat within the Euphrates' delta front during the 5th millennium BC. As the local sea level maximum was reached in the 4th millennium BC, coastal marshes formed, resulting in highly productive ecotones for early communities (Day et al. 2007; Kennett & Kennett 2006). But as the rate of sea level rise slowed, an active phase of deltaic progradation set in, fueled in part by additional upstream inputs from the Tigris at this still early date (Sherratt 2004). Ultimately, these various forces promoted relatively rapid sedimentation during the latter half of the 4th millennium BC around Ur, creating a transitional deltaic zone that was resource-rich but flood prone.¹⁷

In fact, if one scrutinizes Woolley's plans of the EH site at Ur, an imposing "heavy terrace" or "enclosure wall" sat at a similar stratigraphic level to, and just south-west of, a kiln stratum that began just above the Flood Deposit in Pit F (UE 4:82).¹⁸ The periodization of the kiln stratum begins with the Late Ubaid and Early Uruk (Lloyd 1960:27; UE 4:4).¹⁹ Therefore, the large wall, for what purpose we can assume flood defense may have been but one, corresponds to the early circumvallation of the EH site, the "oldest residential quarter" at Ur (1956:80).

While only Woolley's level evidence exists for the use-period of the deepest exposed terrace in EH, test pits farther to the north, K and L, which were placed just north-west of the ziggurat

¹⁷ As Wright (1981:300) indicates, the development of the western levee of the Euphrates along with a sandstone ridge just east of the Eridu basin would have protected Eridu and surrounding sites from devastating floods at this time, making it a particularly choice subregion for settlement, a conclusion supported by his survey data.

¹⁸ See the location of line B–C in the EH site on Pl. 70 and its corresponding cross-section on Pl. 71 in UE 4.

¹⁹ This level is apparently the highest point from which the earliest cemetery at Ur had been dug, consisting of Late Ubaid and Uruk period graves (UE 4:4).

(see UE 4: Pl. I), show the top of the Flood Deposit at the same altitude as Pit F (~4 m above his sea level marker). Therefore, the precinct of the future Ur III ziggurat was at low-lying level similar to Pit F and was therefore also lower than the EH site at the time the flood stratum was deposited. The EH site must then have been a minimum and commanding ~4.5 m above the surrounding marsh (UE 4:2, Pl. 83).²⁰ Such a stark contrast in levels supports Woolley's argument that he only found such substantive evidence of a flood event because he sank Pits F through C along the early site's embankment as it dropped down to a watercourse, providing a slope where the flood sediments could accumulate *en masse* (UE 4:10).²¹

Stratigraphically, the period of Ur's Flood Deposit is represented in Aqrabi's Borehole C by a 2 m layer of clean silt directly atop marsh (Aqrabi 2001:273, fig. 3).²² This was followed by desert *sabkha*. Not only does this indicate a rather extensive marsh region, much like Woolley imagined, but it also indicates that Ur was physically located at an especially vulnerable (though highly productive!) estuarine node where a constellation of forces during dynamic sea level changes in the Middle Holocene would make the site particularly susceptible to upstream river avulsion points. While flood risks may have diminished, the area also dried over time, allowing larger settlements, such as Tell Lahm, situated to the south of Ur, to develop and expand during the early 3rd millennium BC where previously there was only water (Safar 1949).²³

These preliminary RPO results are consistent with both a terrestrial and dynamic origin for Ur's Flood Deposit. They further suggest, in agreement with, and perhaps more forcefully than, Woolley, that the Ur region was a near coastal (or tidal) marsh region in the period before the flood. Aqrabi's reinterpreted Borehole C not only lends additional support to this hypothesis, but it also indicates that the area became much less wetland rich after the flood, as the sea was pushed back and the delta continued to develop. Indeed, the Flood Deposit may represent a moment in time that the Euphrates shifted from the west to the east of Ur, a process that may have encouraged the relative abandonment of the Eridu plain in subsequent periods (Wright 1981).

Further work can certainly be done from a geochemical perspective, including with RPO itself. For instance, with the baseline thermogram at hand, a more targeted fraction collection can be taken, thereby decreasing contamination across subsequent fractions. Ultimately, more samples will need to be measured from the Flood Deposit itself and the local area to strengthen these findings. Geoarchaeological augering undertaken by the author around Ur in spring 2019 is undergoing study and will provide critical comparative material for the recognizably limited dataset of the Penn Museum sample, including elemental characterization through XRF (see also Goodman 2023).

²⁰ Woolley (UE 4:10) claims that not all of Ur's pre-Flood population was wiped out during the deluge and suggests that those who were lucky enough to be high enough on the EH site survived. He further indicates the early and long-lived nature of the EH site when he states that "had we dug our pit [Pit F] some fifty metres away to the south-west [the EH site] we should, I fancy, have found no trace at all of the flood deposit but should have dug through continuous strata of al 'Ubaid culture similar to those found at Warka" (UE 4:10). Of course, we now know that the Ubaid material from Warka is from quite late in that sequence (Van Ess 2021:127). Woolley would have expected to find an occupation equivalent to his Ubaid I.

²¹ Annually deposited muds from flooding would adhere to the trash-strewn slopes of Ur and other early settlements like it in a self-amplifying process, providing future protection through height advantages and therefore promoting the urban model for which Sumer became so well known.

²² While the evidence therefore points to a river- or flood-driven deposition for the silt layer, there is no age control over its interval so that it would be difficult to claim on grain size and elevation alone that it belonged to the same event (or series of events) as the Flood Deposit from Ur.

²³ It is interesting to note that Woolley (UE 4:10, 82) visited a site located 16 km south of Ur and just east of the Eridu plain. The site, according to Woolley, was founded atop a natural island of clean sand during his post-Flood Ubaid period (UE 4:10). As deltaic progradation continued to push the Euphrates delta seawards, it is possible that some communities migrated with the shoreline to continue to exploit its unique ecology (Hritz et al. 2012:39–40). Woolley recorded large chunks of selenite, a form of gypsum, at "damp positions at deep levels" at Ur (UE 4:160). In such forms, this mineral represents relatively rapid evaporation under drying conditions.



Fig. 6 Photograph of Pit F's entrance at 8 m above sea level. The exposed architecture just above the stairwell is part of a stone foundation at the base of Woolley's Level H (UE 4: Pl. 4b).



Fig. 7 "An Ur Painting." Painting made by Joseph Lindon Smith during a visit to Ur in the winter of 1930. Significantly, Pit F's entrance ramp slopes down in the foreground while the ziggurat stands in the background, providing directional control for Woolley's Pit F photograph. From Pl. 1 of "An Ur Painting", *Museum Bulletin* II(6):177 © Penn Museum.



Fig. 8 Matching the perspective of the painting by X (J.L. Smith?), it was possible to correlate the multicolor banding with the top of Woolley's kiln stratum. Moreover, a layer of stone that is clearly visible just above the kiln stratum is in stratigraphic and material agreement with Woolley's Level H, where he excavated stone foundations (as indicated in the photo, some of the stone has eroded down).

Final Thoughts

During a visit to Pit F in fall 2021, recent rain exposed features that made it possible to correlate the partly still exposed north-west section face with Woolley's section (Fig. 1) and field photograph (Fig. 6) (UE 4: Plates 4b and 73). The critical piece of evidence was the caption to Woolley's Plate 4b, which illustrates the access ramp into Pit F at the intersection of the north-west and north-east section faces, a fact confirmed by the broader perspective offered in a painting of Pit F by Joseph Lindon Smith made during a visit to Ur in the winter of 1930 (the points of reference being the ziggurat and access ramp, Fig. 7).²⁴ The caption to Woolley's Plate 4b reads: "Pit F, work at the 8.00m level. The line of stone in the back face is a wall-foundation of a Level H building" Mallowan's (1964:71) illustration of the Pit F sectional drawing also notes that Level H was on stone foundations. Indeed, it seems that that same Level H wall-foundation is still visible, though part of it has collapsed and fallen out of place (Fig. 8). Beneath it and current ground level are about 1 to 1.5 m of Pit F's upper kiln layer represented by multicolored banding (Fig. 8). Woolley dated the latter to the end of the 3rd millennium BC. There is an additional drop of 0.5 to 1 m as you approach the pit's center. Ultimately, using Woolley's level readings from his Pit F section drawing, one can quickly determine that from the current surface, a sediment core or auger would only need to penetrate between 3 and 4 m, depending where in the pit it was placed, to reach the uppermost portion of the Flood Deposit. Therefore, a more controlled collection of material for future analysis is highly feasible.

²⁴ Note the location of the access ramp in relation to the north-west face of Pit F and the ziggurat.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 1 Hall & Woolley 1927

UE 4 Woolley 1955

- Aqrawi, A. 1993. *Recent Sediments of the Tigris–Euphrates Delta: The Southern Marshlands (Ahwar)*. Ph.D Dissertation. London, England: University of London.
- 2001. “Stratigraphic signatures of climatic change during the Holocene evolution of the Tigris–Euphrates delta, Lower Mesopotamia”, *Global and Planetary Change* 28(1):267–83.
- Bao, R., M. Strasser, A. McNichol, N. Haghipour, C. McIntyre, G. Wefer & T. Eglinton 2018. “Tectonically-triggered sediment and carbon export to the Hadal zone, *Nature Communications* 9:1–8.
- Barrett, G., E. Keaveney, A. Lindroos, C. Donnelly, T. Daugbjerg, Å. Ringbom, J. Olsen & P. Reimer 2021. “Ramped pyrooxidation: A new approach for radiocarbon dating of lime mortars”, *Journal of Archaeological Science* 129:1–14.
- Brückner, H. & M. Engel 2020. “Noah’s Flood—Probing an Ancient Narrative Using Geoscience”, in J. Herget & A. Fontana (eds.) *Palaeohydrology. Geography of the Physical Environment*:135–51. Springer, Cham.
- Brückner, H. 2003. “Uruk—A Geographic and Palaeo-Ecologic Perspective on A Famous Ancient City in Mesopotamia”, *Geoöko* XXIV:229–48.
- 2013. “Wasserstraßen im Wüstensand: Uruk aus geoarchäologischer Perspektive”, *Antike Welt* 3:18–24.
- Connan, J., R. Carter, H. Crawford, M. Tobey, A. Charrié-Duhaut, D. Jarvie, P. Albrecht & K. Norman 2005. “A comparative geochemical study of bituminous boat remains from H3, As-Sabiyah (Kuwait), and RJ-2, Ra’s al-Jinz (Oman)”, *Arabian archaeology and epigraphy* 16:21–66.
- Crawford, H. 2010. The Term ‘Hajji Muhammad’: A Reevaluation, in R. Carter & G. Philip (eds.) *Beyond the Ubaid: Transformation and Integration in the Late Prehistoric Societies of the Middle East*: 163–8. Chicago: University of Chicago Press.
- Day, J., J. Gunn, W. Folan, W. Yáñez-Arancibia & B. Horton 2007. “Emergence of Complex Societies After Sea Level Stabilized”, *EOS Transaction, American Geophysical Union* 88(15):169–70.
- Evans, G. 2011. “An historical review of the Quaternary sedimentology of the Gulf (Arabian/Persian Gulf) and its geological impact”, *Int. Assoc. Sedimentol. Spec. Publ.* 43:11–44.
- Forti, L., L. Romano, A. Celant, F. D’Agostino, F. Di Rita, J. Jotheri, D. Magri, I. Mazzini, D. Tentori & S. Milli 2022. “The Paleoenvironment and Depositional Context of the Sumerian Site of Abu Tbeirah (Nasiriyah, Southern Mesopotamia, Iraq)”, *Quaternary Research* 110:165–83.
- Ghazi, L. 2022. “Characterizing organic carbon with ramped pyrolysis oxidation”, *Nat. Rev. Earth Environ.* 3:162.
- Goodman, R. 2023. *Tides of Change: A Geoarchaeological Study of City and State Formation in Lower Mesopotamia*. Ph.D Dissertation. Philadelphia, PA: University of Pennsylvania.
- Goodman, R. & P. Zimmerman forthcoming. “Towards an Absolute Chronology of Pits F and X at Ur, Tell Muqayyer, through the Novel Use of Ramped Pyrolysis and Oxidation (RPO) coupled to Mass Spectrometry”.
- Hall, H. 1923. Ur and Eridu: The British Museum Excavations of 1919”, *The Journal of Egyptian Archaeology* 9(3/4):177–95.
- Hall, H.R. & C.L. Woolley 1927 *Ur Excavations Volume I. Al-‘Ubaid*. Oxford: Published for the Trustees of the Two Museums by the Oxford University Press.
- Hritz, C., J. Pournelle & J. Smith 2012. “Revisiting the Sealands: Report of Preliminary Ground Reconnaissance in the Hammar District, Dhi Qar and Basra Governorates, Iraq”, *Iraq* 74:37–49.
- Hudson, R., F. Eames & G. Wilkins 1957. “The fauna of some recent marine deposits near Basrah, Iraq”, *Geological Magazine* 94(5):393–401.
- Keaveney, E., G. Barrett, K. Allen & P. Reimer 2021. “A new ramped pyrooxidation/combustion facility at 14CHRONO, Belfast: Setup, Description and Initial Results”, *Radiocarbon* 63(4):1273–86.
- Kennett, D. & J. Kennett 2006. “Early state formation in southern Mesopotamia: sea levels, shorelines, and climate change”, *The Journal of Island and Coastal Archaeology* 1:67–99.
- Kramer, S. 1967. “Reflections on the Mesopotamian Flood”, *Expedition* 9(4):12–18.
- Krinitzsky, E.L. 2005. “Earthquakes and soil liquefaction in flood stories of the ancient Near East”, *Engineering Geology* 76:295–311.

- Lloyd, S. 1960. "Ur–Al 'Ubaid, 'Uqair and Eridu: An Interpretation of Some Evidence from the Flood-Pit", *Iraq* 22:23–31.
- Macfadyen, W. & C. Vita-Finzi. 1978. "Mesopotamia: The Tigris–Euphrates delta and its Holocene Hammar fauna", *Geology Magazine* 115:287–300.
- Mallowan, M. 1964. "Noah's Flood Reconsidered", *Iraq* 26:62–82.
- Malycheff, V. 1931. "Analyse des Limons de Kish et d'Ur", *L'Anthropologie* XLI:271–2.
- Master, S. & T. Woldai 2007. "Umm al Binni Structure, Southern Iraq, as a Postulated Late Holocene Meteorite Impact Crater", in P. Bobrowsky & H. Rickman (eds.) *Comet/Asteroid Impacts and Human Society: An Interdisciplinary Approach*:89–103. Berlin / Heidelberg: Springer.
- Milli, S. & L. Forti 2019. "Geology and Palaeoenvironment of Nasiriyah Area/Southern Mesopotamia", in L. Romano & F. D'Agostino (eds.) *Abu Tbeirah Excavations I. Area 1: Last Phase and Building A – Phase 1*:19–38. Rome: Sapienza Università Editrice.
- Morozova, G. 2005. "A review of Holocene avulsions of the Tigris and Euphrates rivers and possible effects on the evolution of civilizations in lower Mesopotamia", *Geoarchaeology* 20(4):401–23.
- Oates, J. 1960. "Ur and Eridu, the prehistory", *Iraq* 22:32–50.
- Plaziat, J. & W. Younis 2005. "The modern environments of Molluscs in southern Mesopotamia, Iraq: A guide to paleogeographical reconstructions of Quaternary fluvial, palustrine and marine deposits", *Carnets de Géologie / Notebooks on Geology* 1:1–18.
- Raikes, R. 1966. "The physical evidence for Noah's Flood", *Iraq* 28:52–63.
- Safar, F. 1949. Soundings at Tell al-Lahm", *Sumer* 5:154–72.
- Sanlaville, P. 2003. "The deltaic complex of the lower Mesopotamian plain and its evolution through millennia", in E. Nicholson & P. Clark (eds.) *The Iraqi Marshlands*:133–50. London: Politico's Publishing.
- Seeley, M., Q. Wang, H. Bacosa, B. Rosenheim & Z. Liu 2018. "Environmental petroleum pollution analysis using ramped pyrolysis–gas chromatography–mass spectrometry", *Organic Geochemistry* 124:180–9.
- Sherratt, A. 2004. *Environmental Change: the evolution of Mesopotamia*. ArchAtlas, Version 4.1, <http://www.archatlas.org/EnvironmentalChange/EnvironmentalChange.php>, Accessed: 03 December 2014.
- Thomas, U.U. 1955. "The Flood Deposit", in L. Woolley, *The early periods. A report of the sites and objects prior in date to the third dynasty of Ur discovered in the course of the excavations* (UE 4): 165–6.
- Van Ess, M. 2021. "Die topographische Entwicklung der Stadt Uruk im 4. und 3. Jt. v. Chr.", in M. Van Ess (ed.) *Uruk—altorientalische Metropole und Kulturzentrum: 8. Internationales Colloquium der Deutschen Orient-Gesellschaft, 25. und 26. April 2013, Berlin*: 123–48. Wiesbaden: Harrassowitz.
- Volpi, L. 2022. "Revisiting the South: a Typochronological Approach to the Analysis of the Ubaid Pottery based on the New Data from Tell Zurghul (Dhi Qar, Iraq)", *Paléorient* 48(1):175–99.
- Watelin, L. 1931. "Essai de Coordination des Períodes Archaïques de la Mesopotamie et de L'Elam", *L'Anthropologie* XLI:265–71.
- Woolley, L. 1929. *Ur of the Chaldees: A Record of Seven Years of Excavation*. London: Ernest Benn Ltd.
- 1930. "Excavations at Ur, 1929–30", *The Antiquaries Journal* 10:315–43.
- 1953. "The Flood", *The South African Archaeological Bulletin* 8(30):52–4.
- 1955. *Ur Excavations Volume IV. The Early Periods*. Philadelphia: Published for the Trustees of the two museums by the aid of a grant from the Johnson Fund of the American Philosophical Society.
- Wright, H. 1981. "The southern margins of Sumer: archaeological survey of the area of Eridu and Ur", in R. McC. Adams (ed.), *Heartland of Cities: Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*:295–338. Chicago and London: University of Chicago Press.
- Zimmerman, P. 1998. *A Critical Reexamination of the Early Dynastic "Royal Tomb" Architecture from Ur*. MA Thesis. Philadelphia, PA: University of Pennsylvania.

The background and status of the ziggurat of Ur

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Fig. 1 Ziggurat of Ur, 1850. Engraved from drawing probably by H.A. Churchill. Loftus 1857: ix, figure facing p. 129.

W.K. Loftus (1857:128), who visited Ur in 1850 (Fig. 1), stated that the structure we now know as the ziggurat or temple-tower was “the only example of a Babylonian temple remaining in good condition, not wholly covered by rubbish”. In the 1850s there were three seasons of excavation including work on the ziggurat by J.G. Taylor (Sollberger 1972; Reade 2002a). H.R. Hall (1930:79), who excavated at the site in 1919, later described how “the ziggurat of Ur stands up on the edge of the desert like an Egyptian pyramid, which superficially it much resembled before the rubbish heaped up round its base had been removed by Mr Woolley, and the great steps on its north-east face had been revealed”. According to Woolley (UE 5:xi), Hall demonstrated “the imperative necessity of excavating the best-preserved example of a Ziggurat in Mesopotamia. It was largely as a consequence of his work that the Joint Expedition was formed” (Fig. 2).

So it was the physical prominence of the ziggurat, rather than any more sophisticated question, that led to the choice of Ur as the site where Woolley excavated during 1922–34 and recorded his many remarkable discoveries. In the event he worked on the ziggurat and its immediate surroundings gradually, through many seasons. He confirmed its identity as the prime visible monument of Sumerian civilisation. It retains this status, which is why a colloquium on Ur seems to demand a

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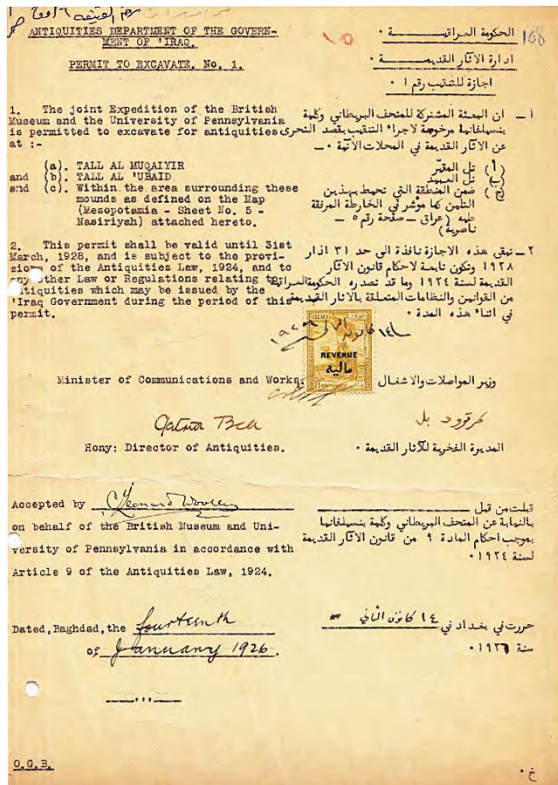


Fig. 2 Ur excavation permit, 14th January 1926, signed by Gertrude Bell and C. L. Woolley. Scan by Lamia Al-Gailani. Iraq State Board of Antiquities and Heritage.

paper concerning the ziggurat. Fortunately, in addition to things that are familiar, there are a few others meriting attention.

In view of all the destruction the ziggurat had experienced in the past, including from Taylor's excavations, there was a proper reluctance in the 1920s to remove any of the brickwork that remained in position. Therefore Woolley examined the exterior of the ziggurat but could not explore its solid interior and its antecedents, notably the virtual certainty that it incorporated or replaced an earlier structure that had fulfilled the same purpose; this was presumably a temple on a high platform. Appropriate buildings surrounding the ziggurat, called by Woolley the "Ziggurat Terrace", did include remains of earlier date. He made his usual fine job of describing and interpreting his observations, both providing preliminary reports and publishing his results in full as funds became available (UE 5). His activities are summarised at the start of the comprehensive *Reallexikon der Assyriologie* entry on Ur (Zettler & Hafford 2015).

The ziggurat was dedicated to Nanna, the Moon God, god of Ur. It was commissioned by Ur-Namma, first king of the Third Dynasty of Ur, towards the end of the third millennium BC,



Fig. 3 Ziggurat of Ur from the east. After Royal Air Force photograph, probably 19th September 1937. UE5, Pl. 41.

and completed by his son Shulgi. It was repaired with alterations several times, most drastically some 1500 years later by Nabonidus of Babylon, a keen devotee of the Moon God. These names are attested by inscribed bricks and cylinders found in position. More information may eventually emerge from methods of subsurface investigation.

Ur-Namma's ziggurat (Fig. 3) was basically a block of fired and unfired brickwork, faced with shallow buttresses; the walls tapered slightly upwards. The main structure comprised at least two platforms or stages, the lower being some 62.5 by 43 m in area at ground-level and 11 m in height, while the upper is some 36 by 26 m in area with a maximum preserved height of 1.4 m (UE 5:98, 111). The sides of the lower platform bulged slightly outwards, and Woolley compared this to the entasis of a Greek column, "intended to give an appearance of greater strength to a containing-wall holding up so massive a structure". It is supposed that there was originally a shrine on top, now missing, where the Moon God in some form was present.

The north-east side of the ziggurat was provided with one large central staircase and two narrower side staircases which gave access to the top of the lower platform. There were many changes in this area over time. The central staircase was presumably used on ceremonial occasions and the others for services. For example, buildings around the base included kitchens, recalling the fine building beside the contemporary ziggurat at Nippur, where meals for the god could have been prepared (McCown & Haines 1967:10). There were vertical channels to carry rain run-off from the platforms or accommodate hoists for unobtrusive supply or disposal of water or other items (UE 5:119).

Woolley thought that the putative shrine on top of the ziggurat stood on an uppermost third platform (as restored in Fig. 4) and accepted in the Reallexikon entry. Heinrich (1982:143, Abb. 226), on the other hand, noted that the area of this third platform would have only measured some 20 by 10 m, leaving space for no more than a small single-room shrine on top. His own restoration instead put a shrine measuring some 20 by 10 m directly on top of the second platform; this is shown in Fig. 5, where I have thickened the lines in order to clarify the shape. Heinrich's restoration resembles more closely traditional Mesopotamian temples on high platforms, from which ziggurats appear to have evolved seamlessly, and is more likely to appeal to specialists in architectural history. He published it, however, in a handsome scholarly volume written in German. Modern reports and websites which feature Ur without examining technical detail tend to reproduce Woolley's version of the Ur-Namma ziggurat: it is known, accessible and effectively self-perpetuating.

Woolley also proposed that in the final form of the ziggurat as restored by Nabonidus in the sixth century there were no less than seven platforms or stages. He reached this figure by measuring the volume of fallen debris at Ur and by postulating a parallel with the seven-staged ziggurat recorded at Babylon (UE 5:136–41, pl. 88). He offered an elaborate reconstruction, including a domed gate-house at the top of the main stairway, but that must be doubtful.

Woolley (UE 5:142–3) studied the colours of the ziggurat complex and discussed their possible significance. He proposed that, at least in the restoration by Nabonidus, there was good evidence for four. The walls of the surrounding temple complex were plastered white. The walls of the lower platform of the ziggurat itself were black, the colour of the bitumen covering the bricks; this is what gave the building its Arabic name of Al-Muqayyar. The contrast of white and black could have been auspicious, as in banded agate "eye-stones". The core mudbricks of the upper platform were reddish (Fig. 6). Because brickwork of this colour rather than the usual brown was exceptional at Ur, he proposed that the external walls had been red too, citing as a parallel the conspicuous red mudbrick of the upper stage of the ziggurat at Kish. Blue glazed bricks found in the debris around the ziggurat at Ur derived from an upper part of the monument as restored by Nabonidus.

The status of the red brickwork is not obvious. On the Kish ziggurat, as emphasised by Nicholas Postgate (pers. comm.), there are lines of white ash between many brick-courses, evidently the remains of incinerated reeds (Moorey 1978:22, citing de Genouillac). It seems to have been heat from the smouldering that turned the brickwork red, not fully firing it but beginning the process. This unusual colour explains the Arabic name of Kish, Uheimir or "little red one". For the same reason the red colour of the spoil heap which derives from Alexander's demolition of the ziggurat at

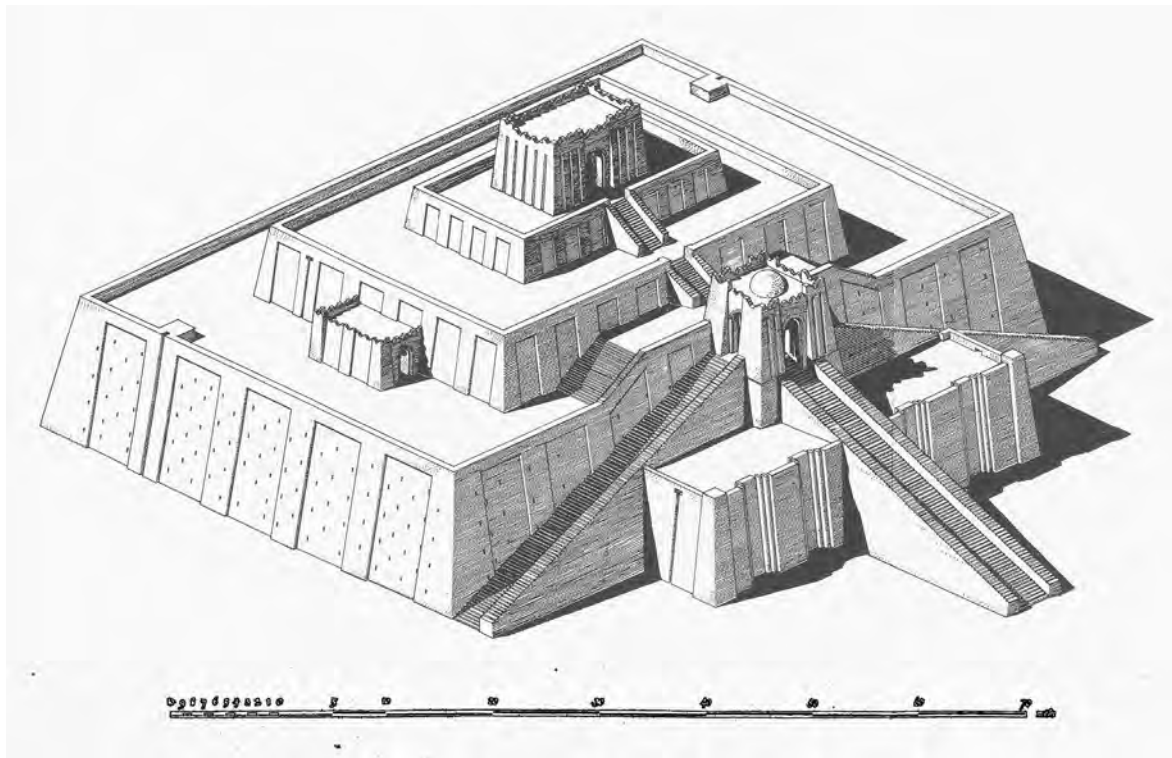


Fig. 4 Woolley's proposed reconstruction of the ziggurat of Ur-Namma. Drawn by M. V. Duffell. UE5, Pl. 86.

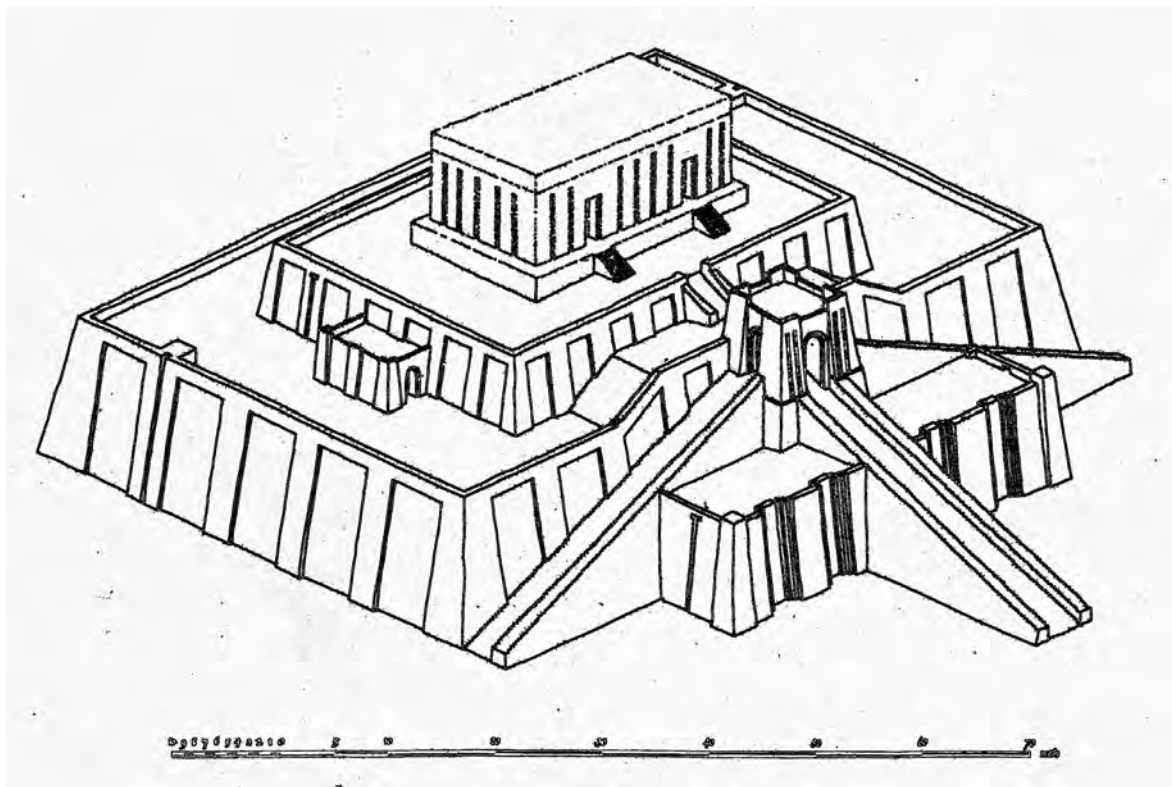


Fig. 5 Heinrich's proposed reconstruction of the ziggurat of Ur-Namma. Redrawn by author after Woolley and Heinrich 1982: Abb. 226.



Fig. 6 Above: detail of north side of upper platform of ziggurat at Ur, with horizontal lines of ash between each course of mudbrick. Photograph by J.N. Postgate, 2016. Below: vertical view showing red colour of upper-stage brickwork. Google Earth, 15th Sept 2021.

Babylon has a similar name, Humeira. Postgate photographed lines of white ash between each course of brickwork on the north face of the upper stage of the ziggurat at Ur and suggested that its red colour was caused in the same way by heat from smouldering reed(mat)s. This raises the question whether the transformations were welcome and/or deliberate, with the mudbricks of ziggurat platforms at Ur, Kish, Babylon and perhaps elsewhere reddened and simultaneously hardened slightly by exposure to heat, as may have been done to some cuneiform tablets (Reade 2017:177). One might compare the uncertainty over the cause of the “vitrified forts” of north-west Europe (e.g. wikipedia).

Woolley, on the other hand, considered the possibility that the red colour of the brickwork at Ur was caused by heat but decided against it (UE 5:130–2). Similarly Gibson (1972:97) rejected the view that the red bricks of the Kish ziggurat had been heated, and concluded that they had been brought from a marshy area nearby (though he does not account for the incinerated reed layers). Woolley also described in detail some other areas of mudbrick in the ziggurat which were not red but were darkened by smoke. He attributed several variations in colour to the different conditions in which the matting, which was laid irregularly between courses, had smouldered. He ascribed the work principally to

Ur-Namma and Nabonidus. His account merits further elucidation and should be assessed alongside the evidence for other ziggurats and mudbrick massifs. These could include both the ziggurat of



Fig. 7 North corner of the ziggurat, before and after restoration. Photographs cropped. Left: UE5, Pl. 42. Right: Kaufingdude 2007. CC BY-SA 3.0.

Borsippa, the top of which was vitrified by extreme heat, and the ziggurat of Aqar Quf, which was apparently not affected by heat despite the presence of layers of reed bundles every few courses. The difference may simply be that the use of wet matting led to spontaneous combustion at Ur and Kish, whereas the matting at Aqar Quf was thoroughly dry, and never combusted.

The dimensions of Ur-Namma's lower platform, some 62.5 by 43 m in area and 11 m in height, perhaps approximated to 120, 80 and 20 cubits. The area of the upper platform, some 36 by 26 m, perhaps approximated to 70 and 50 cubits. Dimensions like these may be compared with the neat geometrical proportions characteristic of elite Mesopotamian architecture in the following centuries, but the relationships are suggestive rather than compelling. There is a question whether more evidence on the exact proportions envisaged by the architect might be extracted by counting the numbers of bricks employed in separate units of the structure. I have tried without success to do this through brisk study of published photographs but a systematic attempt might make progress.

A conspicuous feature of the ziggurat was the extensive use of fired brick. While its core was made of mudbrick, the typical material of Mesopotamian structures, the lower stage was entirely surrounded by a skin 2.5 m wide made of durable fired bricks with bitumen mortar. Within Iraq, while fired bricks are known at sites of earlier periods, Ur-Namma's use of them on such a scale seems to have been a significant innovation. There were also many fired bricks of Nabonidus. Here Walter Andrae, the father of scientific archaeology in Iraq, was able to make a personal contribution to the history of the ziggurat (UE 5:136). He visited the site in 1926 and, citing parallels at Babylon, proposed that some of the Nabonidus fired bricks had been keyed into the unfired brickwork in order to consolidate the structure. Woolley was initially sceptical but had the gift of persistently questioning his own judgment and, as he relates, later accepted Andrae's proposal.

The quality of the fired bricks and the skill of the masons who laid them, coupled with later changes in the course of the river Euphrates that meant there were no permanent human settlements in close vicinity, have been responsible for the survival of the ziggurat in such good condition. That is one reason why its status is sometimes likened to that of the pyramids in Egypt, as a conspicuous structure of comparable age and staying-power. Much of the brickwork was reinforced and covered during modern restoration, beginning in the 1960s, and that is what the visitor now sees. There is no suggestion of the previous black colour (Fig. 7). Conservation was essential to protect the structure, and the result is visually impressive, but it raises questions over authenticity to which there is no easy answer.

The prominence and good condition of the ziggurat of Ur and some Egyptian pyramids have led to the idea that one of these two forms of architecture was inspired by the other. This seemed reasonable in the nineteenth century before it was realised that ziggurats and pyramids had entirely different functions as temples and tombs and might have evolved independently. It is therefore a problematic idea, but Africa and Asia are contiguous land-masses, and cultural links between them are attested from 3000 BC or earlier. Wondering about the current state of the popular debate, I consulted the Wikipedia entry on the ziggurat of Ur on 17 August 2022 and read, if I remember rightly, that its stepped design was definitely based on that of the earlier step pyramid at Saqqara. However, when I returned to check the source of that statement on 19 August, two days later, it had gone. I read instead that the stepped design of the pyramid at Saqqara might have been "borrowed from the Mesopotamian ziggurat concept" (Held & Cummings 2018:63) although Mesopotamia was not the only area to have temples on raised platforms. That reference too later disappeared.

These kinds of speculation are not themselves informative but can usefully broaden horizons. Long-distance links in the mid-third millennium BC are most straightforwardly demonstrated by the range of goods, from areas as far apart as Afghanistan and Egypt, that were excavated in central Syria in the period of the Royal Archives at Ebla (e.g. Matthiae 2021:90). It is likely, given the distribution of merchants, merchandise and military escorts, that many people across western Asia knew of the pyramidal tombs at Saqqara and Giza. These would have stood out, from the time of their construction until medieval vandalism and robbery, as vast geometrical shapes of gleaming white stone. It is easy to discuss the possibility of a relationship between them and the mortuary mound known as the White Monument of Tell Banat North on the middle Euphrates (McClelland & Porter 1999).



Fig. 8 Vessels of lapis lazuli (U 10517 = CBS 17167), obsidian (U 10488 = BM 121690), and green calcite (U 10480 = CBS 17166) from PG 800. Painted by M.L. Baker. After UE 2 II, pls 165, 174.



Fig. 9 Banded Euphrates Ware jar excavated in PG 1054 or 1236 at Ur (BM 1929,1017.699). Courtesy Trustees of the British Museum.

Ur has a place within this kind of discussion because, centuries before Ur-Namma, the Early Dynastic city was also involved in long-distance exchanges. Items from the royal tombs, which slightly precede the final occupation of Early Syrian Ebla, demonstrate a comparable geographical range. Among material of high or low status made for daily, ceremonial or funerary use, there are the imported metals, gold, silver and copper. Stone vessels from PG 800 include both lapis lazuli from Afghanistan and an obsidian bowl (Fig. 8); the latter could have been ground into its Early Dynastic shape from one of the blocks in which obsidian was once distributed from Anatolia. An exceptional type of fine pottery, which presumably contained a desirable liquid like wine or perfume, was “characteristic of royal tombs” at Ur (UE 2:I, 113; Reade 2001:25, fig. 4), Fig. 9; it can be identified as Banded Euphrates Ware, well known at sites along the Middle Euphrates including Tell Banat North (Porter 2016:168).

Additionally, in some Ur tombs, there are distinctive items that illustrate specific historical situations. For instance, many items in PG 789 and 800—gold, silver and stone vessels and copper weapons—bear an incised ownership mark in the shape of a bull’s leg, in profile to the right (Graham 1929:247, Pl. XV; UE 2:I, 304; II, pl. 189); on one silver bowl (BM 121454) from PG 789 the mark, kindly drawn to my attention by Pippa Pearce, is covered by a gold handle (Fig. 10). Thorough study of all available facts about all the items marked in this way at Ur could be informative about the status and authority of the royal household.

A few items from the tombs can even be informative about foreign affairs. One is a fenestrated electrum axe found in PG 755 (Fig. 11). However it reached Ur, the type is Levantine, and axes of this shape were later associated with rulership, eventually passing as diplomatic gifts (Yasur-Landau 2015:146). Another informative item comes from PG 789: it is a large bronze plaque embossed with triumphant lions in a manner which several experts have associated with Egypt (Gilbert 1960; Hansen 1998:67–8), Fig. 12. Exotic items like these supplement a bead inscribed for Mesannepada of Ur that was found at Mari on the lower middle Euphrates (Parrot 1968) and indicate that Ur played a role in relations between the Sumerian world and areas still further west in central Syria or the Levant.

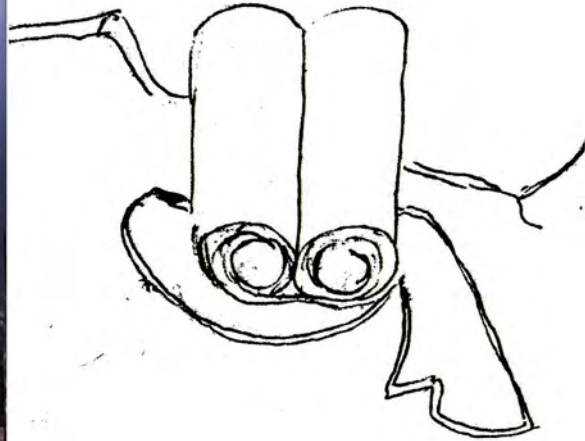


Fig. 10 Silver bowl with bull's leg mark partly covered by gold handle (U 10864 = BM 121454), with sketch. Courtesy Trustees of the British Museum.



Fig. 11 Electrum axe from PG 755 (U 10018 = IM 8284). Painted by M. L. Baker. UE 2 II, Pl. 156.

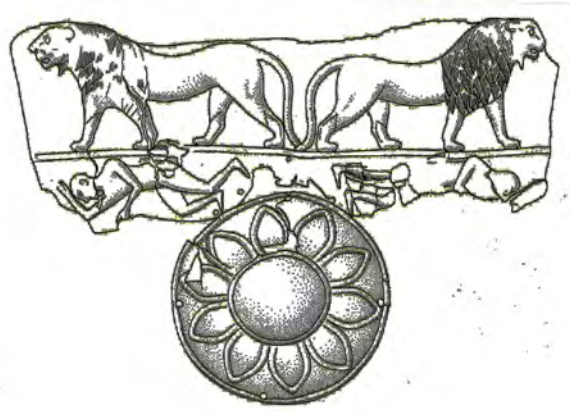


Fig. 12 Copper plaque from PG 789 (U 10475 = CBS 17066). Drawn by V. Socha. Hansen 1998: 67. Courtesy of the Penn Museum.

According to Matthiae (2021:28), “government administrative methods and procedures practised in ... Ebla ... at the time of the Royal Archives, were clearly derived from those invented and experimented on some decades previously in the Kish area.” “Inter-regional wars” are among the processes mentioned by Matthiae as possibly leading to the adoption of such administrative techniques at Ebla. Similarly, “war was endemic in the Ancient Near East even before the foundation of the Akkadian Empire” (Archi 2010:15). The so-called Standard of Ur from PG 779 illustrates soldiers in Sumerian dress who are fighting foreigners (e.g. Ławecka 2017). In any case, Ur did have western interests in the Early Dynastic period, whether they were military, diplomatic or mercantile, and there did exist at that time the structure that preceded the ziggurat of Ur-Namma. An inkling of its magnificence is provided by the mural decoration of the small Early Dynastic high temple excavated at the nearby site of Tell al-Ubaid (UE 1). Knowledge of a more imposing structure at Ur itself will have been widespread and could have influenced architecture elsewhere.

One technical novel feature of the Ur-Namma ziggurat at Ur reflects another set of relationships which are well attested from the Early Dynastic period onwards, those between Ur and the lands alongside the Persian Gulf and beyond, as far as India. One reason for the importance of cities like Ur, Lagash and Susa lay in their geographical position at the head of the Gulf and consequent access to the metal that was most valuable for practical purposes, copper imported from the south-east. This brought Mesopotamians into contact with the Harappan civilisation whose people had their own interests in the



Fig. 13 Bleached carnelian beads from Ur and Kish. Painted by M. L. Baker. UE 2 II, Pl. 133.

Gulf. The relationships, amply illustrated by texts and specific items, have been widely studied (e.g. Ratnagar 1981; Possehl 1996). Distinctive imports found at Ur itself include the bleached carnelian beads from the Royal Graves (Kenoyer 2020), Fig. 13, and stone vessels of several periods (Reade & Searight 2001). Because Ur-Namma's ziggurat made extensive use of fired bricks as a sturdy exterior skin and because fired bricks were already used in great quantities in the principal cities of the Indus valley, as in the great bath at Mohenjo-daro (Fig. 14), it seems not unlikely that the novel idea of using them on such a scale on the ziggurat of Ur was adopted from the Indus. That is a possible external influence on the ziggurat.



Fig. 14 Great bath of Mohenjo-daro. Photograph: Saqib Qayyum. CC BY-SA 3.0.

There are other ramifications in Ur's relationships with the east. For example there is an apparent foundation deposit (shown in Fig. 15, where the items are of various scales), which



Fig. 15 Ur: foundation deposit for Inanna. Left: lapis lazuli panel (BM 122113). Centre: copper nail with inscription of A'aneпада (BM 90951). Right: slate weight (BM 91700). Not to scale. Courtesy Trustees of the British Museum.

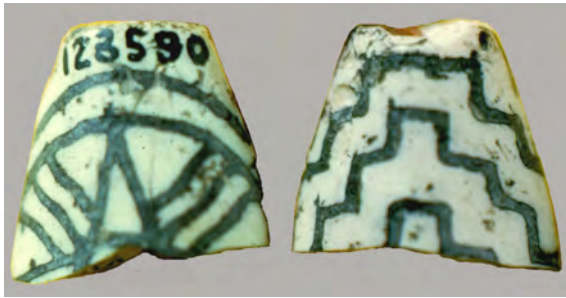


Fig. 16 Bead with alternative Sun God symbols on two sides (U 18862 = BM 123590). Photograph: J.E. Reade. Courtesy Trustees of the British Museum.

text, besides naming A'annipada as king, concerns the goddess Inanna and a shrine whose name, eš-igi-bur, might possibly be an early version of eš-bur, "House of Jars", which was a shrine dedicated to Inanna Nin-kununa and built or restored by the king Ur-nammu". The text was properly rehabilitated by Westenholz (2014:170, No. 217) and it is now P426374 in the CDLI corpus. The deposit incorporated a stone weight of a peculiar shape (see pp. 285-7 with Fig. 12). It is based on models from eastern Iran, and its association with a king and a temple at Ur raises the question of how deep was Ur's involvement in Gulf affairs. There could have been Early Dynastic precedents for the aggressive military involvement of Old Akkadian kings recorded in the same region.

The intimacy of Ur's relationships with the east is summarised in a single flat bead from the site, itself probably Old Akkadian in date, that is symbolically bilingual (UE 4:195, pl. 28), Fig. 16. The bead is white in colour but with black patterns, broken but once obviously symmetrical, on opposite sides. Beads with this colouring are regarded as misfired carnelian by Kenoyer (2020:174-5, fig. 11) but it does also seem possible that the effect was sometimes deliberate, especially in a case like this where the designs are not Harappan. Both sides represented the Sun God. The radiating design on one side showed him in the symbolic language of Akkadian Mesopotamia. The design of concentric crosses on the other side appears in early Iran while the cross as a sun-symbol is well attested in Kassite Mesopotamia (e.g. Calmeyer 1984). Anyone lucky enough to watch dawn in appropriate weather conditions will occasionally see the source of these kinds of symbol in the eastern sky, with bars and lines of light emerging while the solar orb is still below the horizon.



Fig. 17 Ur: flakes from defaced statues. Left: Old Akkadian (BM 114197). Right: possibly Gudea (BM 114198). Courtesy Trustees of the British Museum.

was excavated during Taylor's 1858 season at Ur (Reade 2002a:251-3). It deserves special attention because its existence was persistently ignored and it is absent from the entry for Ur in the Reallexikon. The inscription on its copper nail was first identified by Gadd (1928) as giving the name of the Early Dynastic king A'anepada, but Sollberger (1960:88-9) questioned its date and it was omitted from the relevant volume of the Royal Inscriptions of Mesopotamia series (Frayne 2008). According to I.L. Finkel and P. Steinkeller, at least as quoted by Reade, "the

The accumulated evidence suggests a picture of Ur in the earlier Early Dynastic III period as a great power with far-flung interests and influence to both west and east. The comparison between that and the following two centuries or so is correspondingly drastic (e.g. Charvát 1982; 2010; Molina 2015:358-9). Late in the Early Dynastic period Ur was part of Lugalzagesi's empire. Thereafter it was repeatedly rebelling against foreign rule. Princesses from Agade and Lagash became priestesses of Nanna. Whatever the details of this confused time, there was a long series of humiliations for the elite of Ur, possibly felt by



Fig. 18 Ur: throne from destroyed statue, possibly Gudea. Photo: © Major Manukumar Rai. Gurkha Museum, Winchester.

the entire population. While the destructions of relevant royal statues cannot be securely dated, surviving fragments suggest that at least two, (Fig. 17), were attacked with impressive ferocity (Spycket 1981:147, 192; Reade 2002b:271, 285–6). One flake from a head probably belonged to an Akkadian king, the other perhaps to a Gudea; the two fragments have been described as belonging to a single statue (Hare 2003) but they are made of slightly different stones. Part of a chair (Fig. 18), which could be from the same Gudea, survived slightly better and attests to a casual form of archaeology slightly preceding Woolley, the collection of souvenirs by visiting soldiers (Reade 2002b:286–7).

Paradoxically, the political weakness of Ur in the late Early Dynastic, Akkadian and Post-Akkadian periods provides an excellent incentive for Ur-Namma's construction of a brand new ziggurat, and indeed for the ostentatious magnificence of all his other buildings at Ur and elsewhere. Through these projects he, supported by his son Shulgi, was doing several things. He was offering a triumphant response to those who over the previous two centuries had been involved in humiliating Sumerian Ur. He was presenting Ur as the grandest and most powerful of Mesopotamian and Gulf cities. He was creating an architectural counterpart to his far-reaching administrative reforms. He was establishing himself, through buildings inscribed with endless repetitions of his personal name, as a ruler chosen by god. His ziggurat aspired to recall a glorious past, to celebrate current glory, and to remain relevant for generations to come.

For 1500 years down to the reign of Nabonidus, his aspirations were successful, and they remain so today. Regardless of any possible ancient link between Mesopotamian ziggurats and African pyramids, both groups have acquired comparable positions in modern perceptions of Iraq and Egypt. Even if Sumerian and Coptic are no longer spoken in the street, the monuments are presented as basic components of national heritage. In the days of paper mail, they were commemorated on widely distributed postage stamps, as was the bath at Mohenjo-daro (Fig. 19). All three types of monument remain vulnerable to ideological



Fig. 19 Postage stamps showing ancient monuments: Iraq (1967), Pakistan (1971) and Egypt (1933)

hostility, but barring this they will presumably continue to be publicized, in whatever forms future technology may provide, as timeless achievements.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 1	Hall & Woolley 1927
UE 2	Woolley 1934
UE 4	Woolley 1955
UE 5	Woolley 1939

- Archi, A. 2010. "Men at war in the Ebla period. On the unevenness of the written documentation", in A. Kleinermann & J.M. Sasson (eds.), *Why should someone who knows something conceal it? Cuneiform Studies in Honor of David I. Owen on his 70th Birthday*:15–35. Bethesda: CDL Press.
- Calmeyer, P. 1984. "Das Zeichen der Herrschaft... Ohne Šamaš wird es nicht gegeben". *Archäologische Mitteilungen aus Iran* (NF) 17:135–54.
- Charvát, P. 1982. "Early Ur - war chiefs and kings of Early Dynastic III". *Altorientalische Forschungen* 9:43–59.
- 2010. "The Earliest History of the Kingdom of Kiš", in P. Charvát & P.M. Vlčková (eds.), *Who Was King? Who Was Not King? The Rulers and the Ruled in the Ancient Near East*. Prague: Institute of Archaeology of the Academy of Sciences of the Czech Republic.
- Frayne, D.R. 2008. *Pre-Sargonic Period (2700–2350 BC)* (The Royal Inscriptions of Mesopotamia, Early Periods, 1). Toronto/Buffalo/London: University of Toronto Press.
- Gadd, C.J. 1928. "Another A-anni-padda inscription". *Journal of the Royal Asiatic Society* 1928:626–8.
- Gibson, M. 1972. *The City and Area of Kish*. Miami: Field Research Projects.
- Gilbert, P. 1960. "L'Égypte et la plaque aux deux lions d'Ur: étude de quelques rapports entre l'art sumérien et l'art memphite". *Iraq* 22:96–101.
- Graham, A.K. 1929. "Scientific notes on the finds from Ur". *The Museum Journal* 20:246–57. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.
- Hall, H.R. 1930. *A Season's Work at Ur*. London: Methuen & Co.
- Hall, H.R. & C.L. Woolley 1927 *Ur Excavations Volume I. Al-'Ubaid*. Oxford: Published for the Trustees of the Two Museums by the Oxford University Press.
- Hansen, D. 1998. "Art of the Royal Tombs of Ur: a brief interpretation", in R.L. Zettler & L. Horne (eds.) *Treasures from the Royal Tombs of Ur*:43–72, 177–8. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.
- Hare, M.J. 2003. "Fragments of a head of a ruler (?)", in J. Aruz & R. Wallenfels (eds.) *Art of the First Cities: The Third Millennium from the Mediterranean to the Indus*:213. New York: Metropolitan Museum of Art. New Haven / London: Yale University Press.
- Heinrich, E. 1982. *Die Tempel und Heiligtümer im alten Mesopotamien; Typologie, Morphologie und Geschichte* (Denkmäler Antiker Architektur, 14). 2 vols. Berlin: Walter de Gruyter.
- Held, C.C. & J.T. Cummings 2018. *Middle East Patterns: Places, People, and Politics*. Student Economy Edition. London / New York: Routledge.
- Kenoyer, J.M. 2020. "Bleached carnelian beads of the Indus tradition, 3rd millennium BC: origins and variations", in I.L. Finkel and StJ. Simpson (eds.) *In Context: The Reade Festschrift*:169–82. Oxford: Archaeopress Archaeology.
- Ławecka, D. 2017. "Who were the tribute-bearing people on the "Standard of Ur"?". *Journal of Near Eastern Studies* 76:337–48.
- Loftus, W.K. 1857. *Travels and Researches in Chaldaea and Susiana*. London: James Nisbet & Co.
- McClellan, T.L. & A. Porter 1999. "Survey of excavations at Tell Banat: funerary practices", in G. del Olmo Lete & J.-L. Montero Fenollós (eds.) *Archaeology of the Upper Syrian Euphrates The Tishrin Dam Area*:107–15. Barcelona: Editorial AUSA.
- McCown, D.E. & R. C. Haines 1967. *Nippur I: Temple of Enlil, Scribal Quarter, and Soundings* (OIP 78). Chicago: The University of Chicago Press.
- Matthiae, P. 2021. *Ebla. Archaeology and History*. London / New York: Routledge.
- Molina, M. 2015. "Ur. A. I. Philologisch. Im 3. Jahrtausend". *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 14 (5/6):355–61. Berlin / Boston: De Gruyter.
- Moorey, P.R.S. 1978. *Kish excavations 1923–1933*. Oxford: Clarendon Press.
- Parrot, A. 1968. *Mission Archéologique de Mari, vol. IV: Le "trésor" d'Ur* (Institut français d'archéologie de Beyrouth: Bibliothèque archéologique et historique, 87). Paris: Paul Geuthner.

- Porter, A. 2016. "The materiality of mourning", in C. Felli (ed.) *How to Cope with Death: Mourning and Funerary Practices in the Ancient Near East* (Proceedings of the International Workshop Firenze, 5th–6th December 2013):157–88. Pisa: Edizioni ETS.
- Possehl, G.L. 1996. "Meluhha", in J.E. Reade (ed.) *The Indian Ocean in Antiquity*:133–208. London / New York: Kegan Paul International.
- Ratnagar, S. 1981. *Encounters: The External Trade of the Indus Civilization*. Delhi: Oxford University Press.
- Reade, J.E. 2001. "Assyrian king-lists, the Royal Tombs of Ur, and Indus origins". *Journal of Near Eastern Studies* 60:1–29.
- 2002a. "The early Iranian stone "weights" and an unpublished Sumerian foundation deposit". *Iran* 40:249–55.
- 2002b. "Early monuments in Gulf stone at the British Museum, with observations on some Gudea statues and the location of Agade". *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 92:258–95.
- 2017. "The manufacture, evaluation and conservation of clay tablets inscribed in cuneiform: traditional problems and solutions". *Iraq* 79:163–202.
- Reade, J.E. & A. Searight 2001. "Arabian softstone vessels from Iraq in the British Museum". *Arabian Archaeology and Epigraphy* 12:156–72.
- Sollberger, E. 1960. "Notes on the early inscriptions from Ur and El-'Obed". *Iraq* 22:69–89.
- 1972. "Mr Taylor in Chaldaea". *Anatolian Studies* 22: 129–39.
- Spycket, A. 1981. *La statuaire du Proche-orient ancien*. Leiden / Köln: E.J. Brill.
- Westenholz, A. 2014. *A Third-Millennium Miscellany of Cuneiform Texts* (Cornell University Studies in Assyriology and Sumerology, 26). Bethesda: CDL Press.
- Woolley, C.L. 1934. *Ur Excavations Volume II. The Royal Cemetery*. 2 vols. London / Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- 1939. *Ur Excavations Volume V. The Ziggurat and its Surroundings*. London: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- 1955. *Ur Excavations Volume IV. The Early Periods*. Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Johnson Fund of the American Philosophical Society.
- Yasur-Landau, A. 2015. "From Byblos to Vapheio: fenestrated axes between the Aegean and the Levant". *Bulletin of the American Schools of Oriental Research* 373:139–50.
- Zettler, R.L. & W.R. Hafford 2015. "Ur. B. Archäologisch". *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 14:367–85. Berlin / Boston: De Gruyter.

A gazetteer of Ubaid figurines from Ur

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The finds from Woolley's excavations at Ur are divided between the Iraq Museum, the British Museum and the Museum of the University of Pennsylvania. The site archive is in the British Museum and the Museum of the University of Pennsylvania. Between 1983 and 1986 I catalogued and drew the Ubaid figurines from Ur in these museums, as part of a wider survey of prehistoric Mesopotamian figurines funded by the British School of Archaeology in Iraq and the Gerard Averay Wainwright Trust. The British Institute for the Study of Iraq subsequently funded the preparation of the original pencil drawings for publication. The catalogue format is based on Ucko 1968.

My aim in publishing this material is to place my first-hand observations of the material as far as possible in their original archaeological context and to make them available as a resource for future research. For the sake of completeness, I have included Woolley's catalogue details on figurines that could not be located or were otherwise not available for study (NAS) at the time of my museum visits.

Ubaid period excavations

Woolley excavated 14 pits in search of the early periods, small exposures in the seasons of 1928–29 and the larger Pit F in 1930 (UE 4:2–5 and Pl. 1). Pits A–H and W–Z were in the south-east part of the Temenos enclosure, in the area of the Royal Cemetery, and Pits K and L in the north-west corner, next to the ziggurat. Pits F, G, W and X produced figurines.

The main stratigraphic description of the pits is in Appendix 1, and the Ubaid graves are listed in Appendix 2 (UE 4:54–85, 87–102). There are further details and interpretation of the Ubaid levels in Chapters 1 and 2 (UE 4:3–5, 7–22). There are minor discrepancies between the text description and the drawn record, between the grave catalogue and the plans, and between the catalogue of finds and the records in the three museums. It is a tribute to Woolley's working methods how few these are.

Zettler's (2021) account of the archive provides an insight into how Woolley ran his site. Local workmen excavated under the direction of the head foreman, Hammoudi of Jerablus, assisted by his sons Yahia (who acted as photographer) and Alawi. Woolley made field notes and object records on cards, apparently cut to fit his jacket pocket. The site architects then drew plans and sections as required.

The summary descriptions of the pits in which figurines were found contain catalogue entries and illustrations presented by level from the lowest to the most recent, followed by a short discussion of the Ur assemblage. Where relevant, I have cited comparanda from other sites.

Pit F (UE 4:7–10, 56–69, Pl. 1, 71, 73–5)

Pit F was north-east of the building site EH (UE 4, Pl. 1, 71). Woolley selected this site inside the late Temenos because it was likely to be within the limits of the earliest town, and because the denudation of the original hill had reduced the ground surface to 18 m above sea level. This was about 1 m below the level of the 3rd millennium plano-convex brick floors found on the EH building site to the south-west. Woolley believed that the stratification of the building site had continued

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uniformly over the site of Pit F, leading him to conclude that at least one and possibly two strata of plano-convex brick building once lay over the highest level found in Pit F, which he dated by its pottery to the same period as the Royal Cemetery. He excavated eight building levels, below which was a substantial deposit of kilns and wasters. Below this were deposits dating to the Ubaid. Woolley observes (UE 4:5):

It should be noted that our material illustrates disconnected points or phases in that sequence. Between the graves of al ‘Ubaid II and those of al ‘Ubaid III there is a considerable lapse of time...between the al ‘Ubaid graves and the pre-Flood settlement there was also a lapse which may have been of some length. The actual process of degeneration was probably much more uniform than the sporadic evidence from Ur would suggest.

Woolley does not describe how Pit F was excavated. However, it can be reconstructed from the text description in Appendix 1 (UE 4:56–9) and Plates 73–5. According to Plates 1 and 73, the pit measured roughly 18 x 23 m at the surface. It was approached by a stair at the north end (UE 4, Pl. 4b) and as it became deeper the sides were battered slightly. It was recorded in an alphanumeric grid. From the text description (UE 4:66) of the kiln in squares C–D 6 as 1.3 m in diameter, the scale of the illustrations of Pit F in Pl. 74 and 75 was 1:200, giving a grid of approximately 3 m squares. The references in the text to orientation are not precise, and it is not marked on the plans, but it seems most likely from the descriptions of the buildings in Strata A to H that north/south ran diagonally across the squares from highest to lowest, i.e. from north at F8 to south at C4, as shown on Fig. 1.

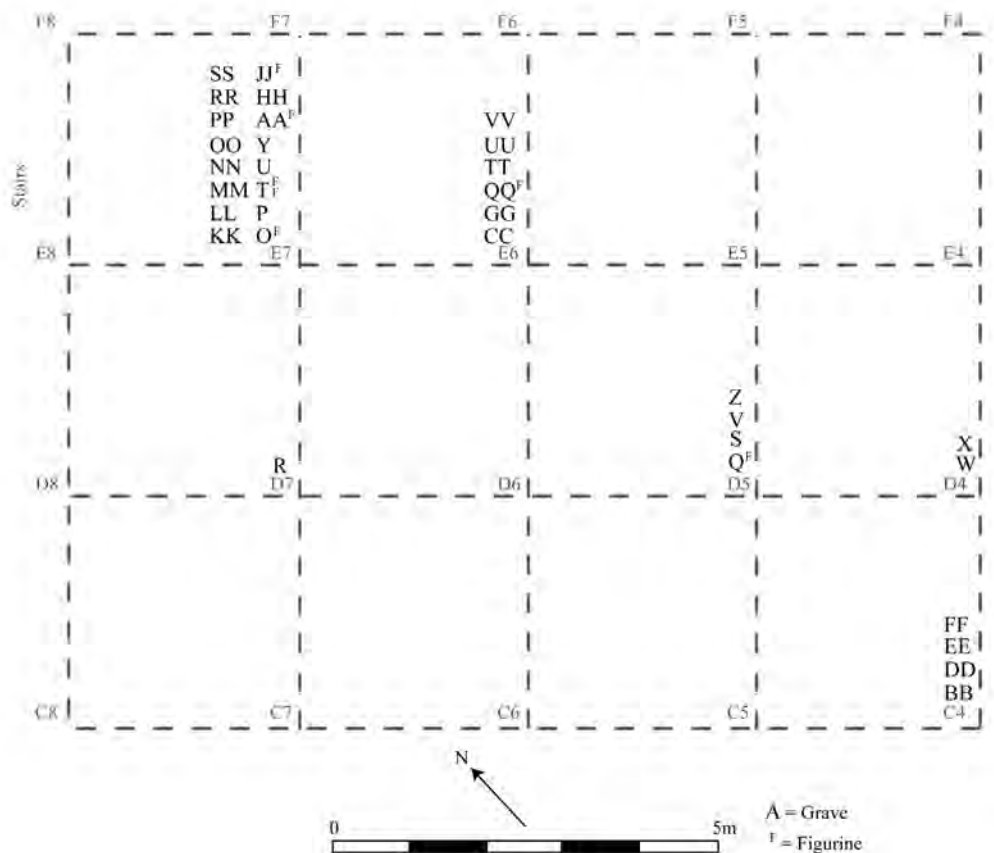


Fig. 1 Ubaid cemetery, Pit F: distribution of graves

Woolley describes the stratigraphic record from the top down. The following description reconstructs the Ubaid sequence from the bottom up, from oldest to most recent, following modern UK archaeological practice.

Level 1 –1 m to 0–1 m above sea level

Woolley excavated to a depth of 1 m below modern sea level, at which point the soil was a heavy green clay pierced by brown stains representing plant roots (UE 4:69 and Pl. 73). There were no sherds or other traces of human occupation. Woolley argued that the clay was natural, the bottom of the marsh that originally covered the land of the river delta: the rise in level was partly due to the silt deposited by the river, partly to the decay of the reeds that grew on the marshes.

The green clay changed to brown at sea level. On the brown surface was a layer about 1 m thick of black, organic mud, containing sherds deposited horizontally and fragments of carbonised wood. The sherds were most frequent at the bottom of the layer, growing rarer towards the top. Woolley interpreted this as a swamp into which refuse had been thrown, the heavier materials sinking towards the bottom and lying flat in the water. At 1 m, above the mud, was a layer of sand and grit, lying in narrow streaks of black and grey and red, containing some pottery, which Woolley interpreted as the dried surface of the former marsh. There were no figurines in Level 1.

Level 2 0–1 m to 1–2 m above sea level

Above this was a layer of mixed rubbish containing occupation debris, identified by Woolley. The top of the layer was irregular, from 2 m to 1 m above sea level. At the north-west end of the excavated area (Squares C7, D7, E7) were three floors of trodden clay, one above the other. In Squares C–D4 and D5 there were two less clear surfaces. In Squares C–D4, at level 1.9 m, a mass of fallen bricks still held together by mortar lay on the surface of the rubbish deposit. The mortar and bricks were burnt, probably by accident. In Square D5 there was a mound of partially burnt clay resulting from the destruction by fire of a reed and daub hut. These were the only structural remains: the rest of the layer consisted of rubbish. All the pottery was Ubaid 2 types. Finds included numerous querns and rubbing-stones, clay disks with two holes, clay sickles, bent nails, spindle whorls, flint hoes, two polished celts, a broken bowl containing obsidian flakes and the base of a finely worked bowl of black and white marble. Lumps of bitumen preserved basket-work impressions.

Figurines

Level 2 produced four human figurine fragments, three females and a head. Location by square was not recorded.

In U15398, the head only survives. The face is rounded and painted red, with incised horizontal slits for eyes and a small mouth. The top of the head is high and decorated with horizontal black bands. U15399 (Fig. 2) is the head, upper body and rounded shoulders and upper arms of a female figurine with elaborate black-painted decoration. There are several unusual features, including the rounded shoulders and curving head shape, capped with black paint. U15603 (Fig. 3) is a headless torso with a painted collar. U15566 (Fig. 4) consists of the torso and upper legs only, with the remains of the hands resting on either side of the body in the region of the waist, above the incised pubic triangle.

Level 2 figurine catalogue

Human figurine U15398. P31.16.736 NAS

UE 4:182, Pl 22

Clay figurine, head of: unusual type with high skull, full face, horizontal slit eyes and small mouth; the face painted bright red with traces of black bands on the high headdress.

Pit F, in a layer of ashes at level c. 2.00 m H 0.04 m

Female figurine U15399. IM 25131 (Fig. 2)

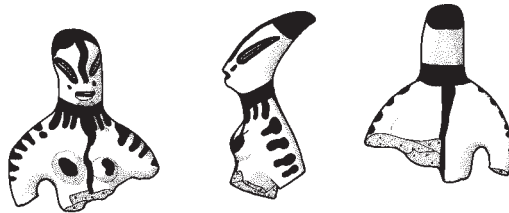


Fig. 2 Female figurine U15399 (1:2)

Head and upper body. Baked clay. Reddish brown, cream slip. Black paint.

H 47 mm W shoulders 38 mm Th upper body 12 mm

Both arms are broken. They were moulded from the same clay as the body and curve downwards from the rounded shoulders. They are decorated with keyhole-shaped blobs of black paint; six survive on the right shoulder and arm, four on the left.

The head is set on a thick, squared-off neck. It has a high, curving crown decorated with a cap of black paint from which a stripe runs down the centre of the forehead and nose. The eyes are applied and painted black: they are set slanting on the head and resemble grains of rice in shape, with a central incised slit. The mouth is incised and outlined in black paint. There is a black spot on each cheek. A collar of black paint runs around the neck, with six pendant attachments. From the collar, a vertical stripe runs down the centre of the back and a wavy line runs between the breasts.

The breasts were separately applied and the nipples are indicated in black paint.

UE 4:182, Pl. 22: Loose in the soil, Pit F, level 2.0 m above sea level.

Female figurine U15603. BM 137551 (Fig. 3)

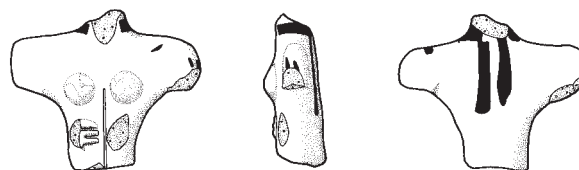


Fig. 3 Female figurine U15603 (1:2)

Headless torso. Baked clay. Pinkish buff fabric with very fine vegetable temper, cream slip. Black paint.

H 40 mm W shoulders 47 mm W waist 16 mm Th upper body 12 mm

The shoulders are broad but not angular and were probably modelled rather than carved. There are faint signs on the left arm that the arms were made separately and attached to the shoulders. Both arms and the left hand are missing: the attachment scar of the latter shows it to have been resting on the body above the waist in the same position as the right hand. The fingers of the right hand are indicated by three deep incisions: the lowest finger is now missing. There are faint traces of black paint on the shoulders.

The head is missing. The neck is oval in cross-section and projects directly upwards. There is a collar of black paint with two ties running down the back.

The breasts were separately applied before the slip and are now chipped. There is an incised line down the centre of the chest.

UE 4:184 and Pl 22: Pit F, level c. 2.00 m.

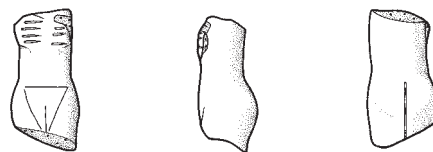
Female figurine U15566. BM 124486 (Fig. 4)

Fig. 4 Female figurine U15666 (1:2)

Torso and upper legs. Baked clay. Pinkish buff, fine vegetable temper: cream slip with fine grit temper.

H 36 mm W waist 14 mm W hips 18 mm Th upper body 10 mm Th lower body 13 mm

The hands were separately applied, resting on either side of the body at or just above the waist. The left is slightly chipped. Fingers are indicated by wedge-shaped impressions made by some sort of vegetable material.

The pubic triangle is indicated by an incised V below a horizontal incised line. A central incision is probably a continuation of the line showing the division between the legs.

The legs are indicated by an incision front and back. The buttocks are slim and rounded.

UE 4:184 and Pl. 22: Pit F, Level 2.00 m, the lowest occupation stratum.

Level 3

Level 3 (UE 4:68–9, Appendix 6d) consisted of a layer of consistent, clean silt (also described as stiff, clayey sand) with an average thickness of 3.5 m, considerably disturbed by the graves dug into or through it. A surface was detected at 4.5 m above sea level.

Woolley dated the graves in Pit F to two different phases. The highest graves of the upper series lay in the pottery stratum above the silt deposit, Level 4. The lower series were dug from levels within the silt of Level 3. The grave cuts were difficult to trace. Woolley cites a total of 49 graves in Pit F, 13 in the upper group and 36 in the lower (UE 4:19): the grave catalogue lists 10 and 33 respectively, some containing multiple burials (UE 4, Appendix 2, 87–102). According to Woolley, all the burials in the lower group were extended, although the plans of graves AA and T (UE 4, Figs 38 and 48) show bodies lying flexed on their left sides. Only one of the upper group was extended, and in every other case in which preservation of the bones was good enough to determine, the body lay on its side, wrapped in matting, with the legs slightly flexed and the hands before the face. None of the upper graves contained a figurine.

Level 3.1 1–2 m to 4.5 m above sea level

Silt layer containing 33 graves dating to Ubaid 4. In square E6 at the north-west end of the excavation there was darker material about 4.5 m above sea level, probably a surface. South corner (C4 and D4): thin horizontal layer of very fine mud and grey sand with a few sherds, from which were dug three pits filled with rubbish and sand.

Figurines from Pit F, Level 3.1

As Fig. 1 shows, the distribution of the 33 graves across the excavated area was not uniform. There was a concentration of graves in Square E7, in the north-west corner, and to a lesser extent in E6. They then tailed out towards the south, as if along a track. The arrangement of the Ubaid cemetery at Ur is thus very different from Eridu, where most of the burials were neatly laid out in boxes of mud brick (Safar, Mustafa & Lloyd 1981:119)

There were eight figurines from Level 3.1, six complete or semi-complete examples from five graves, one fragment from a grave and one bovid fragment (Figs 5–11). All seven human figurines were female. Of the seven figurines from graves, five were found in graves in E7 (O, two in T, AA and JJ), one in E6 (QQ) and one in D5 (Q). Only one, the headless U15376 from Grave O, was painted.

The remaining six were of pellet type, and apart from the possibly early fragment in Grave QQ were more or less complete. All were female.

The preservation of human bone was not good. In some graves there was no trace of a burial. There is little or no evidence of the sex or age of the burials, except to note the presence of infants. Of nine graves where enough bone survived to determine body position, six were extended with their hands over their pelvis and three were flexed on their left sides, with heads to the south-west in seven cases, south-east in one and north-east in one. It is difficult to determine any pattern in the other grave goods. The number of accompanying vessels varied from one to nine. They seem to have consisted of a repertoire of cups, bowls, jars and spouted jars, consistent with domestic use, or possibly the remains of funeral meals.

In three graves, T/U, AA and JJ, figurines were buried in graves that contained more than one body. Of the graves without figurines, there is no definite instance of a grave containing more than one body, although OO, PP, RR and SS in E7 were deeper than other graves and lay close together.

Grave T was a complex burial containing the remains of at least three and possibly five bodies. The main burial lay flexed on its left side facing south-west (UE 4, Fig. 38), with rows of black and white beads on the right wrist, accompanied by figurines U15379 and 15385 (Fig. 7) and three pots. U15379 is a complete female figurine. The photograph on the Penn Museum web site shows wide, angular shoulders with applied pellets and hands resting on the body above the waist: the left wrist appears to have broken. (Note that the photograph of U15379 in UE 4: Pl 20, is wrongly numbered as U15507). The head is elongated and was painted black, with traces of black paint in the excised eyes and of red paint on the cheeks. U15385 also has very wide, angular shoulders with applied pellets and hands resting on the waist. The grave contained the remains of two other bodies. Grave U was close to and above Grave T, and contained the skull of an infant with a bowl, and a little below it were the remains of a fifth body.

The description of Grave AA is slightly unclear. The body lay flexed (UE 4, Fig. 48) on its left side, facing south-west and accompanied by 11 pots at the feet and by the right side, with a second skull and other remains close to the right shoulder. In Figure 48 one of the shallow bowls seems to have been placed over the skull. Grave AA (2) was close to the south end of Grave AA, but according to Woolley "probably not really connected with it" (UE 4:94–5). It consisted of a skull, almost touching some of the pots in Grave AA, with which were a small bowl and figurine. U15506 (Fig. 8) is a female pellet figurine with infant, complete apart from the feet/base, similar in manufacturing technique to those from Graves T, Q and in subject matter to U15376 from Grave O (Fig. 5).

Grave JJ contained two bodies. The first, and better preserved, was fully extended on its back, head south-west, hands over the pelvis, a piece of red haematite by its ear and nine pots over the lower legs and feet. Near the hands was the figurine U15507 (Fig. 9). The second body lay next to the first and the bones were covered with a powdery red pigment, possibly haematite.

Grave O lay under the stair in the north-west corner and could not be properly excavated. Only a few bones were found, and eight pots. It contained U15376, a headless painted figurine of a female nursing an infant (Fig. 5).

Grave Q was paved with sherds, mostly from one large pot. It contained seven complete pots and a single bird bone, but human remains were too badly decayed to be traced. Just off the pavement lay the female pellet figurine U15380 (Fig. 6). This figurine was very carefully modelled, but badly damaged.

Grave QQ was one of the lowest graves excavated. The bones were very badly decayed and accompanied by three pots and the pellet figurine fragment U15516 (Fig. 10). The fragment consists of part of the head and upper body, and it demonstrates a number of unusual features including the curving, wing-like shoulder or arm covered in pellets, the flat, rounded face, the apparently cylindrical shape of the upper head or headdress, and traces of crimson paint in the eyes and between the breasts.

Animal figurine

The only animal figurine found in Level 3.1 was U15612 (Fig. 11), the forelegs and head of a horned animal decorated with black paint. The horns, head shape and hump at the shoulders suggest a bovid.

Level 3.1: figurine catalogue*Grave O E7/8 Level 3.3 m*

Female figurine with infant U15376. BM 122873 (Fig. 5)

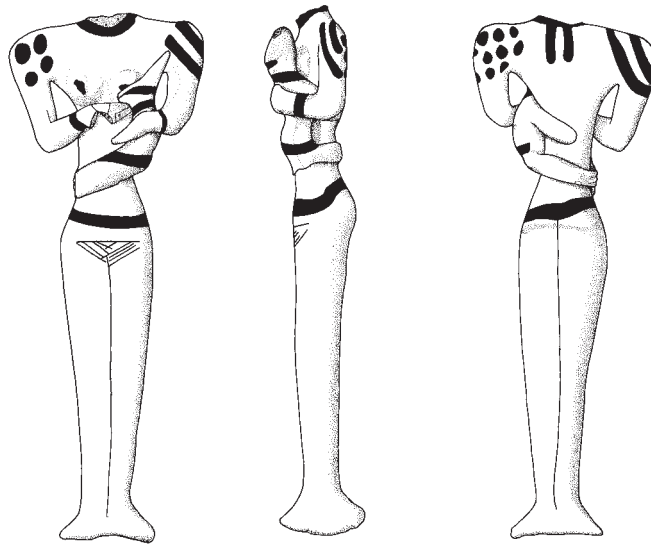


Fig. 5 Female figurine with infant U15376 (1:2)

Headless female with infant. Pinkish buff, no visible temper, pale green slip with fine grit temper, black paint. Carefully modelled.

H 139 mm W shoulders 50 mm W waist 12 mm W hips 22 mm Th upper body 9 mm Th lower body 18 mm

The adult has very wide and angular shoulders. On the front right shoulder are four black dots arranged in a diamond, with two bands running diagonally downwards across the shoulder from left to right on the back. On the front left shoulder two bands run diagonally downwards from left to right, and on the back are eight dots, arranged approximately in a diamond pattern. The arms, which were separately applied, are bent at the elbows: the right arm (hand damaged) supports the left breast for the infant, the left arm holds the infant on the left hip. The fingers are not indicated. Both wrists carry bands of black paint. The infant's right arm is represented by a flap of clay wrapping around the adult's back. The left arm is not shown.

The adult's head is missing. There is a collar of black paint around the neck with two ties down the back. The infant's head has a sharp, snout-like nose, a high, flat crown and two sharply defined, tear-shaped depressions set slanting into the head and picked out in black paint to mark the eyes. These were probably carved. There is a collar of black paint around the infant's neck.

The breasts are conical, applied to the body before the infant and the arms. The right breast is slightly chipped. The nipples are indicated by black paint. The pubic triangle is indicated by four incisions on the right and five on the left, forming a series of Vs below a horizontal incised line. Both figures have girdles of black paint around their waists/hips.

The adult's legs are indicated by incised lines front and back. They taper towards the ankles and then flare into a slightly concave circular base on which the figurine will stand upright. The legs of the infant are separately modelled, flat, and straddle the body of the adult. Toes are indicated by two incisions on the right foot and three on the left.

UE 4:89–9, 182, Pl. 20: PFG/O E7/8 Level 3.30 m.

Grave lay under stairway and could not be properly excavated. Only a few bones found, together with eight clay vessels. Also the body (the head anciently broken off and missing) of a terra-cotta figurine of a nude female.²

Grave Q D5 Level 3.6 m

Female figurine U15380. BM 122872 (Fig. 6)

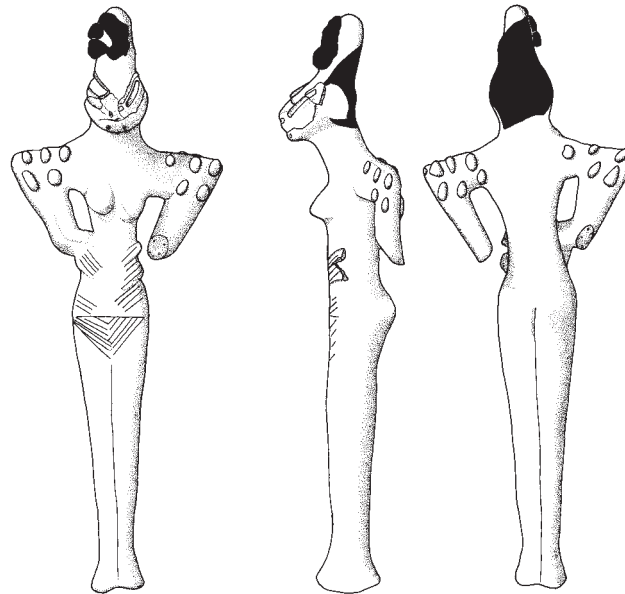


Fig. 6 Female figurine U15380 (1:2)

Complete. Baked clay. Fine buff clay, no trace of temper, white slip with fine grit temper, now worn off in places. Bitumen headdress. Faint traces of black paint. Very carefully modelled.

H 152 mm W shoulders 54 mm W waist 14 mm W hips 20 mm Th upper body 12 mm Th lower body 16 mm.

The shoulders are very wide, smooth and angular, probably shaped by carving. The arms are bent at the elbows, the hands resting on the body around the waist. The right hand is indicated by four incised lines, the left by five. Stray incisions on the body between the hands and pubic triangle may indicate that the hands changed position. On the front of each shoulder are five applied pellets, three in the upper row and two below. On the back right shoulder there are also five pellets, three above and two below, but on the left shoulder there are six pellets in rows of three. The arms and the shoulders appear to have been modelled separately and applied to the body before the pellets were applied.

The head points forwards slightly on a rather thick neck. There are faint traces of black paint on the neck and right arm. It has a high, pointed crown originally covered with bituminous mastic to represent a headdress or hairstyle, but only a few fragments of this now remain. The upper part of the face is damaged. The cheeks are angular and smooth, probably carved with a blade. The chin is rounded, with two circular impressions c. 1.5 mm Diam and several mm deep; a third such hole is to be seen in the remains of the nose, of which little remains except the beginning of the left nostril. The mouth was incised but is badly damaged. The eyes are indicated by sharply defined excised slanting rectangular slits.

The breasts are sharp and conical and were applied separately to the body. The pubic triangle is indicated by V-shaped incisions (seven incisions on the right and six on the left) below a horizontal incised line.

The legs are indicated by an incised line front and back; they taper to a slightly concave base too small for the figurine to stand upright on, although a discoloured area 5–10 mm above the base might indicate the existence of a support. Striations indicate that they were shaped by carving or scraping. The buttocks are small, rounded and individually modelled.

UE 4:90–1, 182, Pl. 20: PFG/Q D5 Level 3.6 m.

² Indented text is taken from Woolley's publications.

Part of the floor of the grave was paved with fragments of pottery, mostly from one big painted pot. Bones decayed and could not be traced. Against edge of pottery mosaic floor single bone of a small bird. On or close to the pavement seven vessels. Just off the pottery pavement lay, broken in two parts, a terra-cotta figurine.

Grave T E7 Level 3 m

Female figurine (1 of 2) U15379. P31.16.734 NAS

Complete female figurine, found in two pieces.

UE 4:182, Pl. 20:

Terra-cotta figurine of a nude female with her hands against her waist. She wears a high coiffure or headdress originally covered with bitumen: traces remain of black paint in the eyes and of red paint on the cheeks. 143 mm x 51 mm. PFG/T Found broken in two pieces, lying by the hands of the body.

Pellets on shoulders.

Grave T

Female figurine (2 of 2) U15385. P31.16.733 (Fig. 7)

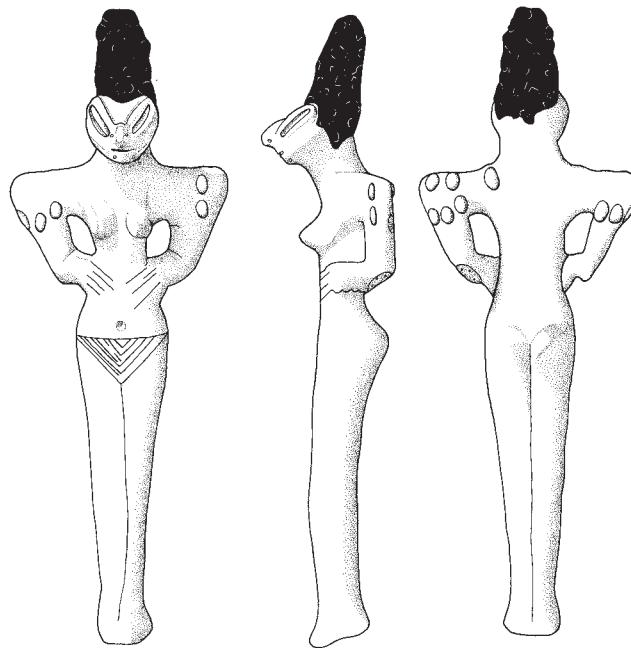


Fig. 7 Female figurine U15385 (1:2)

Complete. Baked clay. Light buff, fine grit, white slip. Hair/headdress bituminous mastic with small brown inclusions.

H 167 mm W shoulders 57 mm W waist 16 mm W hips 23 mm Th upper body 11 mm Th lower body 18 mm The shoulders are very wide, flat and angular. The arms are modelled and bent at the elbows so that the hands rest on the waist. The fingers are indicated by four incisions on each hand. The arms were modelled separately and applied; they are cracked where the wrists join the hands to the body. There are three applied pellets of clay on the right front shoulder and two on the back, two on the left front shoulder and six on the back.

The neck is thick and the head projects slightly forwards. The pointed crown of the head is covered with bituminous mastic with small brown inclusions. The eyes are long, slanting excised slits, deeply cut and sharply defined with heavy rounded ridges above. The cheek line is sharp, running around the face to just below the mouth, which is formed by a single curving incision. The large, curving, blunted beak-like nose has two circular impressions indicating the nostrils. There is another circular impression between the nose and the mouth and two more below the mouth on the chin.

The breasts are small, round and pointed and were separately applied. The pubic triangle consists of a series of Vs below a horizontal incised line; there are eight lines on the right and five on the left. A shallow circular impression indicates the navel.

The figurine stands upright with the feet together. The legs are indicated front and back by a single incised line. A single incised line on the base of the figurine indicates the division of the feet. The figurine will not stand upright. The buttocks are small, rounded and individually modelled.

UE 4:91–2, 182, Fig. 38 and Pl. 20: PFG/T E7 Level 3.0 m.

The grave was a rectangular trench c. 3.00 x 0.60 m, paved for half its length with a rough mosaic of broken pottery. UE 4: Fig 38 shows the body lying on its left side, legs flexed, with the right arm bent at the elbow. Its head was on the pottery floor, turned to the left, SW/NE, facing SW. Most of the trunk and legs lay on bare soil. Bones badly decayed. On the right wrist were beads of shell and black steatite, strung in parallel rows. By the hands, resting on the pelvis, was the female figurine U15379. Close to the knees were three pots and a second female figurine, U15385. A second skull and upper body lay on its left side in front of the first, on a level with its chest, also facing SW and with its right arm bent at the elbow. A third skull lay on its left side by the knees, facing SW. Associated with this skull was a cup.

Grave U (E7, Level 3.2 m) lay close to and above Grave T: of the bones, only parts of an infant skull survived. On either side of the skull was a clay cup. Below it was a bowl, and immediately below this was the cup associated with Grave T, skull 3. A few centimetres below Grave U were fragmentary remains of a fifth body and three pots.

Grave AA (2) E7 Level 2.9 m

Female figurine with infant U15506. IM 8564 (Fig. 8)

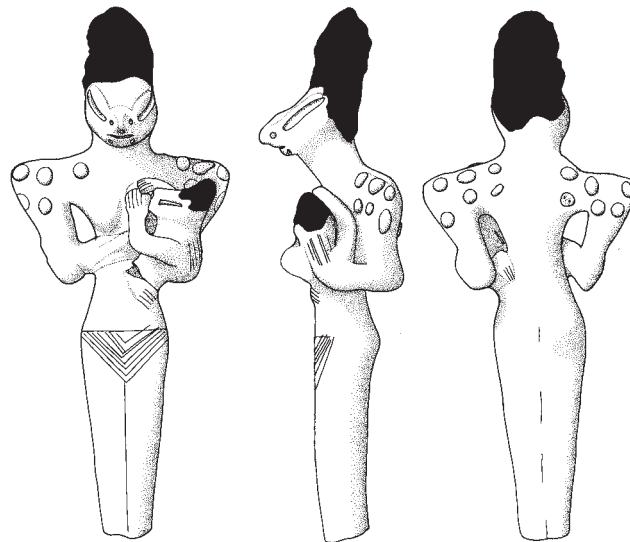


Fig. 8 Female figurine U15506 (1:2)

Complete apart from feet/base. Baked clay. Pinkish buff, cream slip with fine grit temper. Very carefully modelled. Black paint on infant's head, bituminous mastic hair/headdress.

H 140 mm W shoulders 57 mm W waist 18 mm W hips 23 mm Th upper body 15 mm Th lower body 17 mm The arms have broken into many small fragments and are not very well restored. The shoulders are wide and angular, probably carved. On the right front shoulder there are five applied pellets, three above and two below (one an attachment scar), and on the left front six in two rows of three. There are six in two rows of three on both back shoulders: in both cases the position of the innermost pellet of the lower row is indicated by its attachment scar. The arms are flexed at the elbows and the right hand, which is only sketchily modelled, passes under the infant's left arm to support the left breast. The left arm and hand support the baby's back: the fingers are indicated by six incisions.

The baby's arms are also bent at the elbows so that the hands encircle the adult's left breast. Both hands have four incisions to indicate fingers.

The adult's head projects forwards slightly on a thick neck and rises to a high, pointed crown covered with bituminous mastic. The face is oval, with slanted cheekbones. The lines of the nose, eyes, cheekbones and chin are very sharp, as if carved. The chin is rounded, with two circular impressions below the wide incised mouth and a third between the mouth and the nose. The nose is sharp, curving and beak-like and the nostrils are indicated by two more circular impressions. The impressions are 3–5 mm deep. The eyes slant upwards below strongly marked, curving brow ridges and are indicated by long excisions.

The baby also has an elongated head, the crown of which is painted black. The nose is blunt and slightly chipped where it meets the breast, but was originally rounded. Both eyes are indicated by long, slanting incisions, the presence of the left eye confirming that the infant was modelled separately before being placed in positions.

The adult has rounded, prominent breasts, separately applied: the left breast is obscured by the head and hands of the infant. The pubic triangle is indicated by incised Vs below a horizontal incised line.

The division between the adult's legs is indicated by an incised line: on the back, the line seems to have been obscured by the application of the slip. The incised line on the front stops just before the break, suggesting that the figurine was broken off just above the base or feet.

The lower part of the baby's body is broken, but four incisions presumably representing toes indicate that the left leg was bent at the knee. The right leg is curved around the adult's hip and the right foot with three incisions marking the toes appears on the back of the adult.

UE 4:94–5, Fig. 48, 183, Pl. 2: PFG/AA E7 Level 2.9 m.

Fig. 48 shows the body lying NE/SW, on its L side, with the head at the S end, turned to the L, and facing SW. The second skull is close to the R shoulder, and one of the shallow bowls shown in Fig. 49 appears to have been placed over the skull upside down. Bone preservation poor. 11 pots by the feet and against the right side of the body; with them parts of a second skull and a leg bone, and a little way off some human teeth.

PFG/AA (2) Close to south end of PFG/AA but probably not really connected with it was a skull (almost touching some of the clay vessels in that grave) with which lay a small, roughly-made bowl and a terra-cotta figurine of a woman holding an infant.

Grave JJ E7 Level 2.20 m

Female figurine U15507. IM 8574 (Fig. 9)

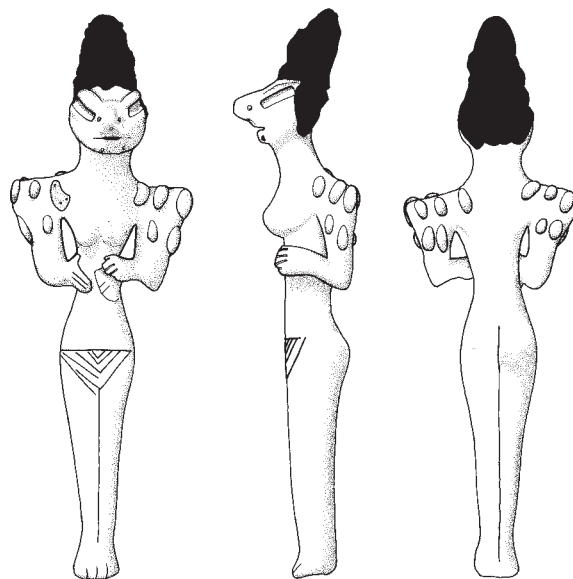


Fig. 9 Female figurine U15507 (1:2)

Complete with damage to arms and body. Baked clay. Light green, cream slip with fine grit temper. Bituminous mastic hair/headress. Very carefully modelled.

H 147 mm W shoulders 47 mm W waist 13 mm W hips 19 mm Th upper body 12 mm Th lower body 16 mm The arms have been broken. The left hand no longer rests on the body in its original position. The shoulders are wide and angular as if carved and carry applied pellets. Right front: two in upper row (position of possible third obscured by area of damage), two in lower row: left front, three in upper row, two in lower row: right back, three in upper row, two in lower row: left back, three in upper row, two in lower row. The arms are bent at the elbows and originally each hand rested on the body around or just above the waist. Both hands are damaged but seem to have been unusually naturalistically modelled, with thumbs. Now three incisions on the right hand remain to indicate the fingers, and four on the left. The attachment scar of the left hand is clearly visible. It is also clear that the arms and shoulders were made separately and attached to the body; traces remain of the clay of the shoulders being smoothed over onto the back.

The head has a high, pointed crown covered with bituminous mastic and projects forwards slightly on a thick neck. The face is rather rounded, with slanting cheekbones. The lines of nose, eyes, cheekbones and chin are very sharp, as if produced by carving. The chin is rounded, with two deep (>5 mm) circular impressions below the thin, incised mouth. There is a third, shallower impression between mouth and nose. The nose is sharp, curving and beak-like with nostrils indicated by a single hole pierced through the nose. The eyes are rectangular excisions, slanting upwards below curved brow ridges.

The breasts are prominent and were separately applied. The pubic triangle is indicated by incised Vs below a horizontal incised line.

The division between the legs is indicated by incised lines front and back. That on the back has been partially obscured by the application of the slip. The base is too small for the figurine to stand upright. The toes are indicated by three incised lines.

UE 4:97–8, Pl. 5e, 183, Pl. 20 and 97: PFG/JJ E7 Level 2.20 m.

Two bodies in grave. First, better preserved, lay fully extended on its back with the hands over the pelvis, the head SW. On the body, just above the hands but perhaps originally grasped by them, terra-cotta figurine of nude female U15507. Close to right ear lump of red haematite. A second body lay side by side with the first, in poor condition. Bones covered with powdery red pigment (haematite?) as if painted (cf. PFG/KK). Nine pots, at least six of which are visible in Pl. 5e over lower legs and feet of first burial.

Grave PFG/QQ E6 Level 1.6 m

Female figurine U15516. IM 25132 (Fig. 10)

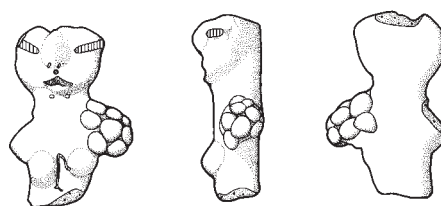


Fig. 10 Female figurine U15516 (1:2)

Part of head and upper body. Baked clay. Pinkish orange fabric, white slip. Traces of crimson paint.

H 47 mm W waist 15 mm Th upper body 12 mm

The right arm is broken. The left arm is complete apart from a very small fragment, probably a single pellet, missing from the tip. The arm is a short, fin-like projection sticking out sideways from the body, roughly triangular in shape and almost entirely covered by 12 roughly circular pellets of clay, 4–7 mm Diam, pressed closely together to produce a honeycomb-like effect.

The neck is a continuation of the body: the flat, rounded face spreads out sideways. It was formed from a separate application of clay. The top of the head is broken off: it apparently returned to a slightly smaller circumference than that of the neck and continued upwards. The incised mouth is wide, with some attempt at indicating the upper and lower lips. There are two deep circular incisions in the chin and one on the upper lip. The nose is large and rounded and the nostrils are indicated by shallow incisions. The excised eyes are shaped

like rice grains and set slanting in the face; they were originally picked out in crimson paint. The white slip is particularly well preserved on the face.

The breasts were probably separately applied. They are sharp and prominent, and there are traces of crimson paint between them.

UE 4:99 and 183, Pl. 22: PFG/QQ E6 Level 1.6 m

The bones were very badly decayed. With them were three pots; with these were fragments of a terra-cotta figurine of a nude female.

Animal figurines

Bovid figurine U15612. BM 122876 (Fig. 11)



Fig. 11 Bovid figurine U15612 (1:2)

Baked clay. Over-fired, with light green surface, dark green core. Black paint. Hand-modelled.

L 36 mm H 39 mm W 20 mm

Hind legs missing. Forelegs rounded, tapering, individually modelled, with flat bases. The snout is small, pointed and pinched-out. The horns are large: the right horn is broken off level with the head, but a sizeable portion remains of the left horn. There is no indication of sex, but the horns and shape of the head indicate a bovid. The rear end of the figurine is missing. There are irregular stripes of black paint of the body, legs and head. The head is in a solid piece with the body: the spine rises sharply towards the head in a way that suggests the characteristic bovid hump.

UE 4:184 and Fig. 23: Pit F, level 3.00 m.

Terra-cotta figurine, fragment of fore part of a buffalo modelled in greenish drab clay with details in black paint; ht. 0.038 m.

Level 3.2 4.5–5.5 m above sea level

The grave catalogue (UE 4: Appendix 2, 87–102) lists 10 graves from 4.6–6.3 m above sea level, dating to the Uruk period.

Figurines

Level 3.2 produced two human figurine fragments, U15356A and B (Figs 12 and 13), both decorated with black paint. U15356A is a headless torso with wide, angular shoulders and the left arm bent at the elbow. U15356B represents the lower body and legs to the knees. It is unusual in the care devoted to modelling the lower part of the body, including the knees and pubic triangle.

Level 3.2: figurine catalogue

Female figurine U15356A. P 31.16.735 (Fig. 12)

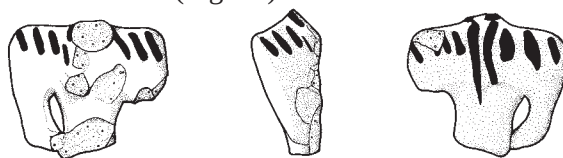


Fig. 12 Female figurine U15356A (1:2)

Torso. Baked clay. Light green/light yellowish buff, fine grit. Black paint.

H 35 mm W shoulders 40 mm W waist 14 mm Th upper body 12 mm

Wide, angular shoulders. Left arm broken off just below shoulder. Right arm separately modelled and applied; bent at elbow to meet body at waist. Traces of black paint round wrist. Four approximately vertical stripes of black paint on right front shoulder, three on back: three on left front shoulder, four on back.

Head missing, but projecting forward. Remains of collar of black paint with two ties down the back.

Left breast missing and right damaged. Small, applied.

UE 4:181, Pl. 20, 22: Pit F E7 level 5.50 m.

[Found near U15356B] clay figurines, fragments of, from similar but not the same figures....

Female figurine U15356B. P31.16.737 (Fig. 13)

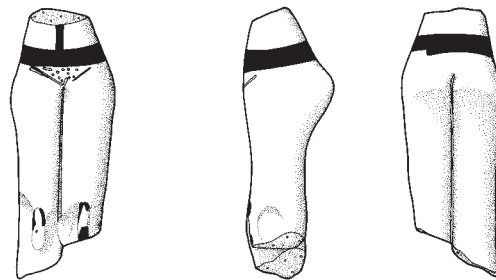


Fig. 13 Female figurine U15356B (1:2)

Lower body and legs to below knees. Light yellowish buff, grit-tempered. Carefully modelled, smooth surface.

H 71 mm W waist 17 mm W hips 25 mm Th lower body 23 mm

Pubic triangle indicated by incised V below horizontal incision enclosing circular impressions.

Legs separately modelled and applied to body. Clay at knees pinched up to form hollows between and outside the knees. Kneecaps marked with black paint. Band of black paint around hips met by vertical stripe running centrally down abdomen.

UE 4:181, Pl. 20, 22 Pit F, E7, level 5.50 m.

[Found near U15356A] clay figurines, fragments of, from similar but not the same figures...

Level 4 5.5–6.5 m to 11–12 m above sea level

This level, which Woolley called “the factory stratum”, consisted of an almost solid mass of sherds mixed with ashes. Many of the pots were wasters. The layer had built up in multiple overlapping patches and Woolley described it in 0.5 m blocks. At various levels kilns were found, surrounded by ash and wasters. The kilns were reused and repaired repeatedly until the rising ground level made it necessary to build a new kiln: at least 14 were discovered with a maximum interval between foundations of 1.9 m and Woolley concluded that the period during which the factory had been active was likely to have been a fairly long one. At the lower end of the level there were fewer sherds in proportion to soil and ashes than in the upper part. At the north-west end of the excavated area there were trodden surfaces and traces of a pool that had dried out, indicating an interval between the silt layer Level 3.1 and 3.2 below and pottery production. There were two burials in the bottom of this level: in Square D5 there was a grave with eight bodies heaped together in a pit 2.0 x 0.6 m, and in E7 ten bodies apparently thrown in together.

Figurines

There were four painted human figurine fragments from Level 4. Two were headless torsos: U15331 (Fig. 14) is very similar to U15356A, and U14423 has wavy lines across the front of the body and diagonal lines across the shoulders on the back. Two represented the lower body and legs, in the case of U15349 to just above the ankles (Fig. 15) and in U14424 to below the knees. Both had girdles

of black paint, and U15349 also had three diagonal stripes on the abdomen. Similar abdominal decoration appears on U1405, from the Great Nannar Court.

There were many animal figurine fragments in Level 4. Ten have been identified as Ubaid, or possibly Ubaid, on the basis of a combination of factors including black paint, greenish fabric, shape, care of modelling and resemblance to other, definitely Ubaid, figurines. This admittedly subjective selection process may have resulted in the inclusion of some figurines that are later, or the omission of genuinely Ubaid examples.

Five fragments represent bovids, or possible bovids, from the shape of the head/horns and the humped shoulders: U15354C (Fig. 18), U15348 (Fig. 21), U14994 (Fig. 23), U14996 (Fig. 24) and U14995. One, U15362 (Fig. 22), is a bird, perhaps a collared dove, which was apparently mounted on a rod. U15324 (Fig. 20) is unidentifiable as to species, but resembles the painted figurine U20061 (Fig. 29) from Pit X in body shape.

Level 4: figurine catalogue

Female figurine U15331. BM 122875 (Fig. 14)



Fig. 14 Female figurine U15331 (1:2)

Torso. Baked clay, slightly over-fired. Light green, slightly lighter slip with fine grit temper, black paint.

H 35 mm W shoulders 39 mm Th upper body 10 mm

The shoulders are very angular, perhaps carved, and there are signs of smoothing where the separately modelled arms are joined on. The right arm is flexed at the elbow and the hand rests flat on the body just above the waist. There is a wristband of black paint and three incisions indicating the fingers. The left arm is broken, but an attachment scar shows where the hand rested opposite the right hand. There are four roughly vertical strokes of black paint on each shoulder and below these indistinct traces of further markings, especially on the right shoulder. There are five roughly vertical strokes on the right back shoulder and four on the left.

The head is missing, but the neck projects forwards. There are the remains of a collar of black paint with two ties running down the back.

The small, pointed, angular breasts were applied to the chest before the slip. There is a band of black paint below them on the front of the body only.

UE 4:181, Pl. 22: Pit F, level 5.70 m.

Female figurine U15349. P31.16.738 (Fig. 15)

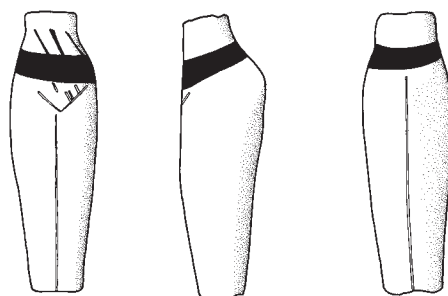


Fig. 15 Female figurine U15349 (1:2)

Lower body and legs to just above ankles. Baked clay. Light pinkish buff, fine grit, cream slip or self-slip.

H 74 mm W waist 15 mm W hips 23 mm Th lower body 22 mm

The pubic triangle is indicated by an incised V enclosing four shorter incised lines.

The legs are indicated by an incision front and back. There is a band of black paint around the hips, met by three narrower stripes of black running from right to left across the abdomen.

UE 4:181, Pl. 22: Pit F, level 6.00 m. [PFT Level -1200].

Female figurine U14424. P31.16.739 NAS

Lower body and legs to below knees.

UE 4:177 and Pl. 22: Pit F, D6, level 10.0 m.

Fragment of a terra-cotta of a nude female in green clay with details in black paint; preserved from below the breasts to the knees. H 44 mm.

Philadelphia catalogue says PG D6 – 800

Girdle of black paint around hips.

Female figurine U14423. BM NAS

Torso. W shoulder (from drawing) 43 mm

Neck collar with two ties down back: two or three wavy horizontal lines across upper front body, nipples picked out in black, two lines diagonally across each shoulder sloping downwards from neck.



Fig. 16 Animal figurine U15354A (1:2)



Fig. 17 Animal figurine U15354B (1:2)



Fig. 18 Bovid figurine U15354C (1:2)

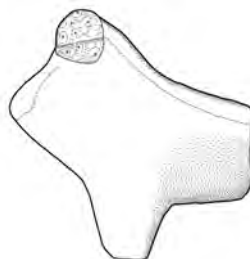


Fig. 19 Animal figurine U15354D (1:2)

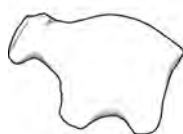


Fig. 20 Animal figurine U15324 (1:2)



Fig. 21 Bovid figurine U15348 (1:2)



Fig. 22 Bird figurine U15362 (1:2)

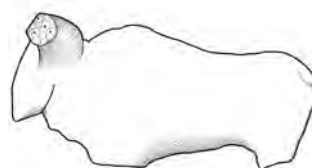


Fig. 23 Bovid figurine U14994 (1:2)



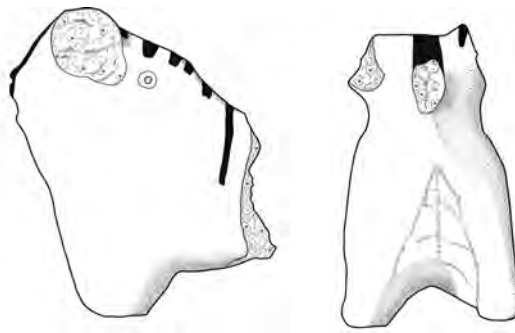


Fig. 24 Animal figurine U14996 (1:2)

UE 4:177, Pl 22

Fragment of a terra-cotta figurine of a nude female, in green clay with detail painted in black. H 33 mm.

Pit F, C6, level 10 m

Animal figurines

Animal figurine U15354A. P31.16.998 (Fig. 16)

Baked clay, carefully hand-modelled. Over-fired, with black core and light greenish-buff surface, possibly slipped. Grit temper. Black paint.

L 64 mm H 35 mm W 25 mm

Head and forelegs missing, hind legs broken but individually modelled. Rounded tail modelled as part of left hind leg and emphasised by black paint. Stripe of black paint down spine and further stripes running down sides at right-angles to this. No indication of sex or species.

UE 4:181: Pit F, level 5.50 m.

Animal figurine U15354B. BM 137548 (Fig. 17)

Baked clay, hand-modelled. Over-fired, slightly cracked. Light green. Black paint.

L 67 mm H 50 mm W 25 mm

Head, shoulders and forelegs missing. Finger-impression and crease in clay on belly appear to be accidental. Hind legs damaged but were separately modelled. Tail indicated by tapering flap of clay pinched out from rump and folded down left leg. Black stripe runs along spine and down tail. Stripe crosses at right-angles over hindquarters. Three rows of irregular black dots along each side. No indication of sex or species.

UE 4:181. Pit F, Level 5.50 m.

Bovid figurine U15354C. P31.16.742 (Fig. 18)

Baked clay, carefully hand-modelled, smooth surface. Light pinkish buff, light yellowish cream surface, fine grit temper. Black paint.

L 56 mm H 53 mm W 34 mm

Head and snout badly damaged. Right horn chipped but was clearly substantial and emphatically modelled. Hump at shoulders. Hind legs and rump missing, forelegs broken, but were individually modelled. Band of black paint across horns. Stripe running down spine with half-circles on both sides, and stripes at right-angles down forelegs. Probable accidental splash on right foreleg. No indication of sex, but horn and hump suggest bovid.

UE 4:181, Pl. 21: Pit F, Level 5.50 m.

Animal figurine U15354D. P31.16.945 (Fig. 19)

Baked clay, hand-modelled. Yellowish buff. Black paint.

L 62 mm H 65 mm W 36 mm

Back badly damaged, but head appears to emerge from body with no neck. Strange, rounded face with bulbous snout, possibly caused by applying ears/horns and upper face as a unit. Ears/horns broken. Hindquarters missing, only left foreleg survives; individually modelled. Stripe of black paint on forehead and along left side. No indication of sex or species.

UE 4:181: Pit F, Level 5.50 m.

Animal figurine U15324. P31.16.973 (Fig. 20)

Baked clay, fairly carefully hand-modelled. Yellowish buff.

L 44 mm H 29 mm W 29 mm

Head carried low, level with back. Ears chipped. Pointed, triangular snout, straight profile. Rounded, almost spherical body. Rounded, stubby tail projects from rump. Legs individually modelled, short, rounded, tapering stubs. Will stand. See Pit X, U20061, IM 20027, Fig. 29

UE 4:181: Pit F, Level 5.8 m.

Bovid figurine U15348. P31.16946 (Fig. 21)

Baked clay, fairly carefully hand-modelled. Pinkish-red core, yellowish-buff surface or slip. Black paint.

L 55 mm H 38 mm W 20 mm

Thin, rounded triangular snout with curving profile. Horns missing but curved forwards. No hump, flat back, long tapering tail curves down over right rump. Stripe of black paint along backbone with dribble down right flank. Legs individually modelled tapering stumps. Will stand. No indication of sex. Horns and head shape suggest bovid.

UE 4:181: Pit F, Level c. 6 m. Figurines of unbaked clay, crudely hand-modelled, of cattle: four in all, av. Ht. 0.04m.

Bird figurine U15362. P31.16.741 (Fig. 22)

Baked clay, hand-modelled, carefully made. Pinkish red interior, greenish buff exterior, probably slip. Fine vegetable temper. Black paint.

L 70 mm H 44 mm W 77 mm Base D 25 mm

Bird figurine with outstretched wings. Beak chipped, eyes formed by oval applied pellets picked out in black paint. Left wing tip chipped, right wing broken off near body. Collar of black paint around neck, stripes on upper surface across wings and tail. Upper surface pierced by a hole 9 mm wide: two smaller holes, one leading to right wing, in the side of this piercing. Figurine rests on a circular base. Collared dove? Possibly intended for mounting on a stick.

UE 4:182, Pl. 21: Pit F, E4, Level 6.00 m.

Bovid figurine U14994. P31.16.749 (Fig. 23)

Baked clay. Carefully hand-modelled. Pinkish-red core yellowish buff exterior, possibly slip.

L 80 mm H 41 mm W 25 mm

The rounded, sub-triangular snout comes to a sharp point and has a curving profile. The right horn is broken off at the head, but enough remains of the left horn to show that is curved forward. There is a hump at the shoulders and a sharp dewlap below the chin. There is a small, flat tail, probably broken, curving to the left over the rump. All four legs are broken but were individually modelled. No indication of sex. Head and body shape indicate bovid. Possibly Ubaid from shape and care of modelling.

UE 4:180 and Pl. 24: Pit F, level 6 m.

Animal figurine U14996. BM 137542 (Fig. 24)

Baked clay, hand-modelled. Light green, slightly over-fired, cracked. Black paint.

L 64 mm H 82 mm W 46 mm

Forepart of figurine. Horns and snout broken. Pierced shoulder hump from which head rises directly. Separately modelled forelegs with flat bases. Stripe of black paint down spine with six stripes across it at right-angles. Remains of stripe on left horn.

UE 4:180: Pit F, Level 6.50 m.

Bovid figurine U14995. IM 30914 NAS

UE 4:180, Pl. 23: Pit F, Level 6.50 m.

H 55 mm. L 94 mm (from drawing).

Clay figurine, crudely hand-modelled, of a humped bull, in green clay with details in black paint.

Pit G (UE 4:69–71, Pl. 1 and 72)

Pit G was on the outskirts of the Royal Cemetery area, to the north-west of Royal Tomb PG/777 (UE 4, Pl. 1). Excavation reached a depth of 6.5 m above sea level, producing sherds of reserved slip ware, three-colour Jamdat Nasr ware, plain red Uruk ware and six Ubaid sherds.

Figurines

Pit G produced U12770 (Fig. 25), a female figurine fragment from above the waist to below the knees, and U12772, a painted animal of unknown species.

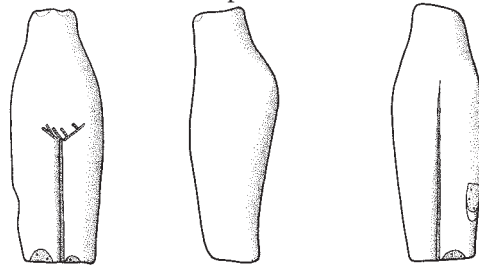


Fig. 25 Female human figurine U12770 (1:2)

Pit G figurine catalogue

Human

Female figurine U12770. BM 124469 (Fig. 25)

Lower body and legs to knees. Baked clay. Pinkish buff with fine grit temper, remains of cream slip, probably also grit-tempered.

H 68 mm W waist 15 mm W hips 24 mm Th lower body 22 mm

The possible remains of the lower edges of the hands are visible on either side of the body.

The pubic triangle is indicated by an incised V with four short slanting incisions within it.

The legs are together. The division between the legs and buttocks is deeply incised front and back, and the legs are shaped, so that they almost appear individually modelled.

UE 4:175, Pl. 22: Pit G, 3.5 m below the plano-convex brick pavement.

Animal

Animal figurine U12772. P31.17.322 NAS

UE 4:175, Pl 23:

Clay figurine of an animal, the hindquarters missing; details painted in black in the al 'Ubaid style. H 0.06 m L 0.08 m. From Pit G at 4.50 m below the plano-convex brick pavement.

Pit W (UE 4:75–7, Pl. 1 and 77)

Pit W was dug from the level of the Royal Cemetery close to the north-east side of the royal tomb PG/1631. Just below sea level was the stiff green clay representing the bottom of the old marsh. Above this was a level of Ubaid occupation, over which was a layer of clean, uniform, water-laid sandy clay. Jamdat Nasr graves were dug into this layer.

Figurines

The headless upper body and arms of a female figurine, U18629 (Fig. 26), came from the Ubaid occupation below the silt layer. The arms were separately modelled and attached to the rounded shoulders, which carry applied pellets. The Jamdat Nasr grave stratum above the silt produced U18527 (Fig. 27), the lower body and legs of a painted figurine with a girdle of black paint, pubic triangle indicated by paint and incisions, and separately modelled legs, and U18528, the worn and elongated head of a figurine.

Pit W: figurine catalogue

Human

Female figurine U18629. IM 16420 (Fig. 26)



Fig. 26 Female human figurine U18629 (1:2)

Headless upper body and arms of female pellet figurine. Baked clay. Light yellowish brown.

H 30 mm W shoulders 39 mm Th upper body 9 mm

The arms are separately modelled and stand out free from the sides. There are five circular applied pellets on the front left shoulder, three down the outside and seven on the back; five on the front right shoulder, four down the outside and six on the back.

The breasts are prominent and cone-shaped.

UE 4:194, Pl. 22 and 77: Pit W, below the silt stratum.

Female figurine U18527. P33.35.20 (Fig. 27)

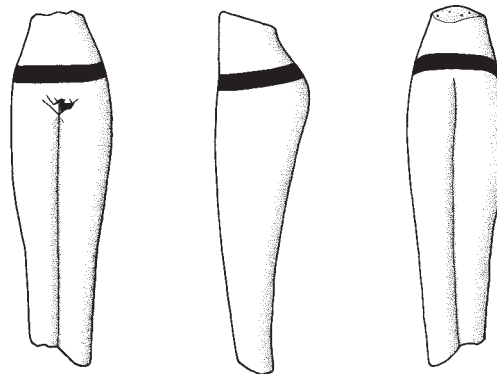


Fig. 27 Female human figurine U18527 (1:2)

Lower body and legs of female painted figurine, broken off above feet/base. Baked clay. Cream slip, fine grit temper. Well made, smooth surface.

H 93 mm W waist 15 mm W hips 25 mm Th lower body 25 mm

The pubic triangle is indicated by a V-shaped incision enclosing four or five slanting incisions and black paint to indicate the pubic hair. There is a girdle of black paint around the hips. The figurine is standing: the legs are separately modelled and demarcated by an incised line. The buttocks are slender, rounded and individually modelled.

UE 4:192, Pl. 22: Pit W, in the bottom of the Jamdat Nasr grave stratum, just above the clean silt.

Human figurine U18528. IM 29743 NAS

Seen in store. Surface smooth, almost water-worn. No trace of bitumen or paint.

UE 4:192 and Pl. 21:

Terra-cotta figurine, head of drab clay; the back of the head elongated, the eyes aslant; ht. 0.026 m.

Pit W, in the Jamdat Nasr grave stratum.

Pit X (UE 4, Pl. 1 and 79–81)

Pit X, dug in 1933–34, was just outside the south-east wall of the Neo-Babylonian Temenos. At 0.70 m above sea level was a layer of clean, stiff clay containing the marks of plant roots. Above this the section shows an Ubaid deposit, and above this a deposit of clean silt. Above this was a rubbish deposit that included Ubaid sherds, particularly in the lower levels. The graves of the later Jamdat Nasr cemetery were dug partly into this deposit and partly into the clean silt. There were two Ubaid graves at the lowest level.

Figurines

U19976 (Fig. 28) represents the head and torso of an unusually large painted female figurine. Of the two animal figurines, U20027 and U19439, U20027 (Fig. 29) resembles U15324 from Pit F (Fig. 20) in body and head shape, but is painted.

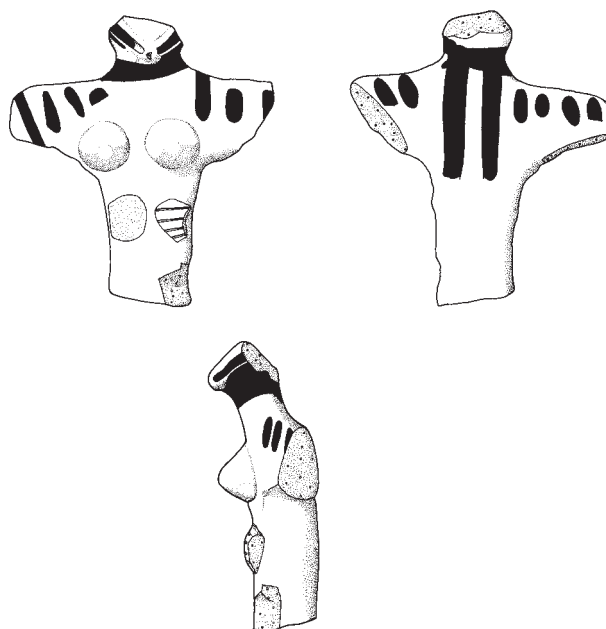
Pit X: figurine catalogue*Female figurine U19976. BM123591 (Fig. 28)*

Fig. 28 Female human figurine U19976 (1:2)

Head and torso of female figurine, arms missing. Baked clay. Pink fabric, fine grit temper, cream slip. Brown-black paint.

H 76 mm W waist 20 mm Th upper body 14 mm

The arms are missing. The left hand and the attachment scar of the right hand show that the hands rested on either side of the body at or just above the waist. The fingers of the left hand are indicated by four incised lines. The shoulders are angular and the left shoulder is broken. Traces under the left arm show that the shoulder and

arm were attached separately to the body. There are four stripes of paint on the right front shoulder, three on the left; four on the back right, two on the left.



Fig. 29 Animal figurine U20061 (1:2)

The head projects slightly forward on the neck, which is oval in cross-section and surrounded by a band of paint with two vertical stripes down the back, probably a collar with ties. The crown of the head is broken and the pointed face is slightly chipped, with no indication of nostrils or mouth. The eyes are sharply defined, excised and rectangular, set slanting in the head and picked out in brown-black paint.

The breasts are large, flat-topped, conical and separately applied.

UE 4:218, Pl. 21: Pit X, in the rubbish stratum below the JNG graves.

Animal figurine U20061. IM 20027 (Fig. 29)

Baked clay, hand-modelled. Light green fabric, cream slip. Black paint.

L 34 mm H 32 mm W 23 mm

Flat snout, blunt and triangular in face view. Long ears/horns. End of snout and left ear/horn chipped. Ears/horns and eyes picked out in black paint. Collar around neck. Legs are individually modelled tapering stumps on which figurine will stand upright. Tail broken. Black stripe down centre of back and forehead. No indication of sex or species. Sheep?

UE 4:220, Pl. 21: Pit X, in the lowest stratum above the Flood deposit. See U15324 P31.16.973 (Fig. 20)

Animal figurine U19439. IM 20026 NAS

UE 4:207, Pl. 21:

Terra-cotta figurine of an animal, hand-modelled in buff clay with details in black paint, hindquarters and forelegs missing. L 0.10 m. Pit X, Level 3.00 m.

Other locations

Small numbers of Ubaid figurines were found in the Royal Cemetery area, the Great Nannar Court/Stone face of the 1st Dynasty ziggurat, and the south-west face of the temenos wall of Nebuchadnezzar. Approximately ten were surface finds or from unknown contexts, and two were from other sites.

U14436 (Fig. 30) from the Royal Cemetery area is a painted human figurine fragment. It may be the top of the left leg from a figurine in which the legs were made separately. U12764 appears to be the lower part of a painted figurine wearing a skirt.

U17894 (Fig. 32), found against the stone face of the 1st Dynasty ziggurat, is also unusual and probably male. It represents the head and upper body of what appears to be a bearded figurine with chequered reddish-brown paint. This is comparable to a figurine in Philadelphia, P.CBS 17199, from an unknown location (UE 4, Pl. 21), which shows a bearded figure resting its cheek on its left hand. It appears from Plate 21 that the decoration on this figurine was more like other painted examples, with a darker paint applied in stripes.

U2818 (Fig. 33) from the north-west side of the ziggurat has a similar reddish-brown checked decoration. It has been suggested that this pattern reflects the Hajji Mohammed style of pottery decoration, and therefore an early date. The figurine depicts an animal, head missing, with a sharp spinal ridge and triangular tail. It may represent a boar or pig, the depiction of the spine suggesting the crest of dark bristles that runs down the back.

Of the finds from the surface or unknown locations, U18085 (Fig. 34) is one of a handful of painted female figurines in which the head and upper body survive together. It is badly weathered, but has characteristically wide, angular shoulders, with traces of black paint and the remains of a

painted collar round the neck. The head projects forwards on a short, curving neck: the top of the head is pointed, but not as elongated as on some examples, and was originally painted black.

The surface find U16111 (Fig. 36) is another indication of the variety of animals depicted in Ubaid figurines. In this case, unusually, the animal is lying down with its legs outstretched. Without the head it is unfortunately impossible to guess what species is depicted, but it may have been a dog, like the Eridu example from a vessel rim (Safar, Mustafa & Lloyd 1981, Fig 116, 11).

Two figurines are listed from other sites in the area, Reijibeh X (Fig. 41) and Sakheireh. Reijibeh X was a low mound c. 12 miles north-west of Ur (UE 4:10, Fig. 1). Surface finds indicated an Ubaid settlement. Although it is not described, Sakheireh was presumably a similar site. U18169 from Reijibeh X is the head and upper body of a female figurine. The shoulders were carved from the same piece of clay as the body. Like U18085 (Fig. 34) the head is not as elongated as on other figurines. There are traces of black paint on the right brow ridge and on the right shoulder.

BM 121002 (Fig. 39), the head only of a painted figurine, has no site number, but may be from Ur. It is an unusual, possibly early, type, similar to U15399 (Fig. 2) from Pit F Level 2.

Other locations: figurine catalogue

Royal Cemetery area

Human figurine U14436. P31.16.999 (Fig. 30)

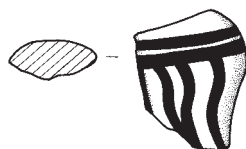


Fig. 30 Human figurine U14436 (1:2)

Fragment, probably top of left leg. Baked clay. Greenish, black paint. Carefully modelled.

H 36 mm W 29 mm Th 16 mm

Fragment, oval in cross section, probably top of left leg from an assembled pair. Two horizontal bands of black paint below waist and vertical wavy lines down leg.

UE 4:177, Pl. 22: Royal Cemetery area [PG], c. 7.00 m below the surface.

Human (possibly male) figurine U12764. P 31.17.323 NAS

UE 4:175, Pl. 23:

Lower body and base(?). Terra-cotta figurine, fragment of; skirt of draped human figure, well-modelled in greenish clay and finely smoothed; probably al 'Ubaid period. H 50 mm. From the rubbish stratum underneath the Royal Cemetery.

Pl. 23 shows a girdle and tie.

Great Nannar Court

Female figurine U1405. BM 117136 (Fig. 31)

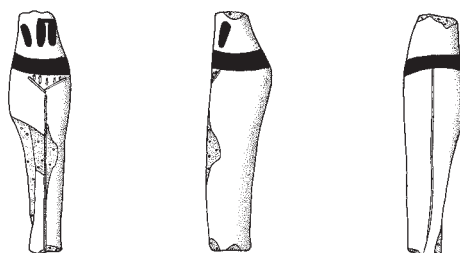


Fig. 31 Female human figurine U1405 (1:2)

Lower body and legs to ankles. Baked clay. Pinkish buff with fine vegetable temper, cream slip. Black paint. H 62 mm W waist 10 mm W hips 15 mm Th lower body 16 mm

The pubic triangle is indicated by two incised lines forming a V and five vertical lines within it. The legs are together and indicated by incisions front and back. There is a band of black paint around the hips and four faint vertical lines on the abdomen.

UE 4:169 and Pl 21:

Found in the filling of the great Nannar court under the Nebuchadnezzar pavement.

Stone face of 1st Dynasty ziggurat

Male figurine U17894. BM 123220 (Fig. 32)

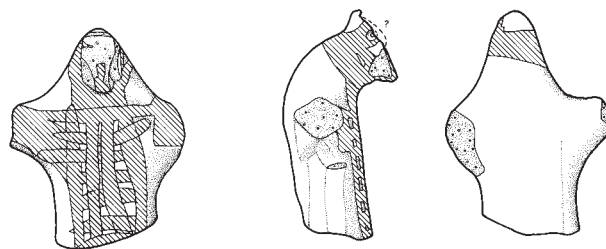


Fig. 32 Male human figurine U17894 (1:2)

Head and upper body, arms missing. Baked clay. Pinkish buff fabric, cream slip. Reddish brown paint.

H 58 mm W waist 26 mm W hips 26 mm Th upper body 19 mm

The arms are missing. Stumps project sideways from the body: the arms may have been separately modelled. There is a stripe of reddish-brown paint on the front of each arm.

The head projects forwards on a short, thick neck with a band of reddish-brown paint around it. The face is damaged: the lower part is very flat, painted, with a sharp angle at the chin: this may represent a beard. There is no indication of a nose or mouth. The back of the head is also sharply pointed, with a finger-nail impression across the upper surface. The damage makes the original shape of the head difficult to reconstruct. A circular impression set in a band of paint indicates the right eye: there are also bands of paint on the cheek. There are faint remains of part of the impression of the left eye. The painted chequer pattern on the chest may indicate the beard: see Philadelphia P.CBS.17199, UE 4 Pl. 21.

UE 4:187: Against the stone face of the 1st Dynasty ziggurat.

South-west face of temenos wall of Nebuchadnezzar

Bull figurine U651. No museum no. NAS

UE 4:168, Pl. 23:

Clay figurine, hand-modelled, of a bull, the horns and all the hinder-part of the body missing; it is of greenish drab clay with marking painted in black, normal al 'Ubaid ware. Total L 0.10 m, H 0.08 m.

Found against the SW face of the Temenos Wall of Nebuchadnezzar

North-west side of ziggurat

?Pig figurine U2818. BM 119150 1927 10.3 145 (Fig. 33)

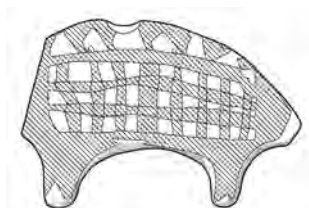


Fig. 33 ?Pig figurine U2818 (1:2)

Baked clay. Carefully hand-modelled, smooth surface. Pinkish-buff. Reddish-brown paint.

L 72 mm H 50 mm W 16 mm

Head broken off at shoulder. Short, rounded, separately modelled legs. The figurine will stand independently. Sharp, pronounced, curving spinal ridge. Tail indicated by triangular extension of body, painted solid reddish-brown: point of tail chipped. Triangles along spinal ridge, checked pattern on body and solid tail and legs in rather wavering and uneven lines of reddish-brown paint. No indication of sex. Woolley identifies it as a pig, probably because of the ridged and decorated spine, which suggests the crest of bristles that runs down the back of wild or early domesticated pigs.

UE 4:170, Pl. 21: Archaic level against north-west side of ziggurat.

Ur surface

Female figurine U18085. P 32.40.21 (Fig. 34)

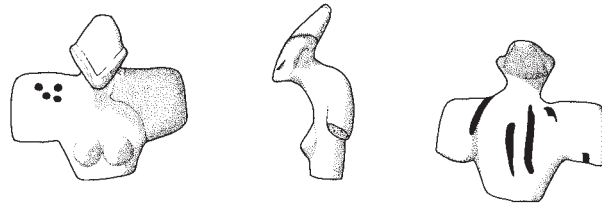


Fig. 34 Female human figurine U18085 (1:2)

Head and upper body of female figurine, arms missing. Baked clay. Light greenish buff, fine grit temper. Black paint. Salt encrustation. Surface weathered. Black paint.

H 43 mm W shoulders 43 mm Th upper body 9 mm

The arms are broken off just below the high, wide angular shoulders: traces on the left shoulder show clearly that the arms were applied separately to the body. There are spots of black paint on the right shoulder, but some of these are obscured by salt encrustation. There is one stripe of black paint on the left back and traces of three just visible below salt encrustation and glue.

The head projects forwards on a short, curving neck. The long, pointed crown was originally painted black. The eyes are slanting carved slits set in long, moulded ridges picked out in black paint, with dots of black paint indicating the pupils. Other facial details may have been lost to surface wear. There are two stripes of black paint down the centre of the back, probably the ties of a collar.

UE 4:188: Ur surface.

Bovid figurine U18097. BM 123242 (Fig. 35)



Fig. 35 Bovid figurine U18097 (1:2)

Baked clay, hand-modelled. Over-fired, black core, light green surface, extensive cracking. Black paint.

L 104 mm H 66 mm W 32 mm

Triangular head with blunt, rounded snout. Horns broken. Right eye and right half of mouth picked out in black paint, left eye weathered. Slight hump at shoulders. Tail formed by long, tapering pinched-out flap folded down right hind leg. Stripe runs down spine from forehead to beginning of tail. Five stripes slope diagonally from the spine towards rear across each side. No indication of sex. Shape of body and head indicate bovid.

UE 4:188: Ur surface.

Animal figurine U16111. BM 124508 1931.10.10.479 (Fig. 36)



Fig. 36 Animal figurine U16111 (1:2)

Baked clay, carefully hand-modelled. Light pinkish buff with greenish hue in places. Fine grit temper. Black paint, unevenly and irregularly applied.

L 53 mm H 15 mm W 16 mm

Animal couchant. Head broken off at shoulders. Flat body with projecting tail now broken. Four separately modelled limbs, bent forwards and flattened on the bottom. Four wavy lines down back, remains of collar round neck, solid paint on legs. Underside flat and featureless apart from one band around right foreleg. No indication of sex. Dog? Lizard?

UE 4:185, Pl. 23: Surface find.

Findspot unknown

Male figurine No Ur no. P CBS 17199 Not drawn

Head and upper body of male figurine. Baked clay. Pinkish red fabric with light greenish buff slip. Black paint. H 51 mm W shoulders 41 mm Th upper body 11 mm

The arms are separately modelled. The right arm is folded on the chest; the end is broken. The left arm is folded upwards with the hand resting on the cheek; the end is splayed, but the fingers are not separately indicated. The arms are decorated with stripes of black paint.

The head is fan-shaped, with a bigger projection at the back than at the front. The sides of the head are painted solid black. There is a long beard running down the chest with a vertical stripe of black paint on either side and 11 horizontal bars of paint running across it. There are no facial features except the curved, beak-like nose.

The back is covered with checked decoration in black paint.

UE 4:12, Pl. 21.

Female figurine U12094. BM 1928.10.10 816 (Fig. 37)

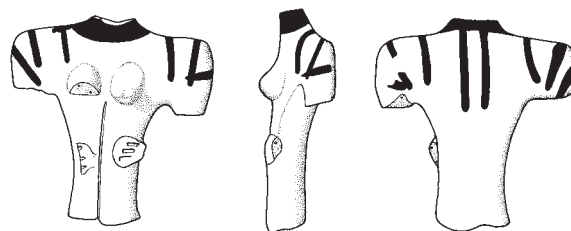


Fig. 37 Female human figurine U12094 (1:2)

Torso. Baked clay. Light green, black paint.

H 55 mm W shoulders 53 mm W waist 18 mm Th upper body 10 mm

The shoulders are wide and angular, possibly carved. The arms are broken off below the shoulders. Each shoulder carries three stripes of paint, front and back. The remains of the hands survive on the front of the body below the breasts, the fingers on each indicated by three incisions.

There is a collar of black paint around the neck with two ties down the back.

The breasts are round, pointed and separately applied. The right is chipped. There is an incision down the centre of the abdomen. The sides of the body are very angular, as if carved, and the body is unusually thin.

Not listed in UE 4.

Female figurine 2493. IM 25136 (Fig. 38)

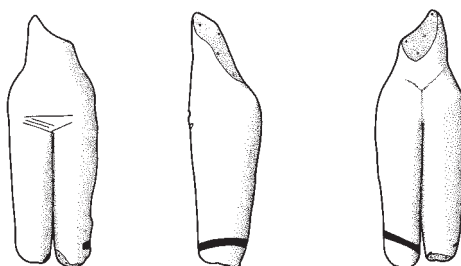


Fig. 38 Female figurine U2493 (1:2)

Lower body and legs as far as knees. Baked clay. Light green, fine vegetable temper, cream slip. Traces of black paint. Heavily weathered.

H 66 mm

The pubic triangle consists of two incised lines parallel to the right-hand side of a shallow V-shaped incision. The legs were separately modelled, including the buttocks, and joined together: the upper body is a separate piece of clay. There are traces of bands of black paint around the knees.

Not listed in UE 4. Surface find?

Female? figurine. No site number. BM 121002 1929.7–15 43 (Fig. 39)



Fig. 39 Female? figurine BM 121002 (1:2)

Head. Baked clay. Light green, black paint.

H 33 mm W head 15 mm Th head 15 mm

Long neck with striped collar in black paint. Long, curving face; nose area damaged. Remains of incision picked out in black paint indicating mouth. Possible trace of impression for left nostril and black paint on right. The eyes are long and applied with a central excised slit, slanting downwards slightly towards the back of the head and painted black. The curve of the upper head continues to a curving, pointed top, painted black, with a horizontal incision across it. A band of black paint runs from the black-painted top of the head between the eyes to the nose area.

Not listed in UE 4.

Bovid figurine U7913. BM 120916 1928.10.9 474 (Fig. 40)



Fig. 40 Bovid figurine U7913 (1:2)

Baked clay, hand-modelled. Light green. Black paint.

L 66 mm H 44 mm W 18 mm

Horns/ears, snout and legs damaged. A black stripe runs downwards from the chin and spreads over the chest. Incised groove across back of the head behind horns/ears: picked out in black paint that continues across each cheek to the snout. Over the top of the head is an applied strip painted black in continuation of the spinal stripe. There is a pronounced hump behind the head. All four legs are damaged, but were apparently formed by two solid tapering blocks with a slight central depression to indicate the individual legs. Black stripes on head and chest, and down spine and tail. A black stripe runs at right angles to the spinal stripe down each of the four legs. Between the fore and hind stripes on each flank are irregular black markings. There are applied strips of clay across the back, on the belly and across the rump, passing over the tail: perhaps, with the groove at the back of the head, these indicate a harness of some kind.

No indication of sex. Head and body shape indicate bovid.

Not listed in UE 4.

Reijibeh X

Female figurine U18169. IM 25134 From Reijibeh X (Fig. 41)

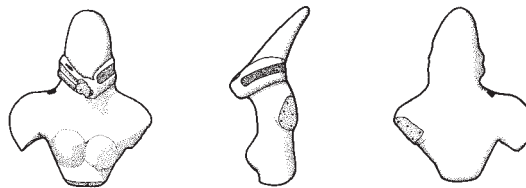


Fig. 41 Female figurine U18169 (1:2)

Head and upper body of female figurine, arms missing. Baked clay. Light green fabric, over-fired to the point of vitrification. Traces of black paint. Surface weathered.

H 45 mm Th upper body 11 mm

The arms are both broken. The sharpness of the outline indicates that the shoulders were carved, when the clay was leather-hard, from the same piece of clay as the body. The remains of the right arm indicate that the upper arm was bent slightly inwards towards the body. There is a trace of black paint on the right shoulder.

The pointed crown is a continuation of the thick, straight neck, over which the eyes were applied to create the face. The end of the nose is chipped. The eyes slant upwards, with slightly curved excised rectangular slits indicating the eyes below curving brow ridges. There is a trace of black paint on the right brow ridge.

The breasts are prominent and were separately applied.

UE 4:10 and 188, Pl. 21.

Reijibeh X, site 12 miles north-west of Ur (UE 4 Fig. 1). 5.2 m high and c. 100 m Diam. Apparently island in natural marsh or river channel, denuded to natural. Material on surface.

Sakheireh

Animal figurine U7686. IM 3558 NAS

Seems to have had horns, so probably sheep/goat rather than dog; pointed snout, individually modelled legs, short tail (possibly broken).

L c. 72 mm (from drawing)

UE 4:174, Pl. 23:

Terra-cotta figurine of a dog (?), in dark greenish clay with details rendered in black paint; al 'Ubaid technique. H 0.045 m.

UE 4, Fig. 1 shows Sakheireh c. 8 miles north-west of Ur

Distribution

Excluding the fragments from Reijibeh X and Sakheireh, around 52 Ubaid figurines have been identified from Ur, 31 human and 21 animal. As noted above, there are minor discrepancies between UE 4 and the records of the receiving museums and the precise total is difficult to establish. The greatest concentration was in the south-east part of the site (UE 4, Pl. 1), where 38 were found.

Table 1 Distribution of figurines by type

Location	Human	Animal	Total
Pit F	17	10	27
Pit G	1	1	2
Pit W	3	0	3
Pit X	1	2	3
Royal Cemetery area	2	1	3
Ziggurat / Nannar court	2	1	3
South-west face of Temenos wall	0	1	1
Surface/unlocated	5	5	10
	31	21	52

Of the human figurines, six complete or semi-complete examples were found in primary contexts in the Pit F Level 3.2 graves O, Q, T, AA and JJ (Fig. 1 and Figs 5–10). Five of these were female figurines with pellets on their shoulders, and one headless female was decorated with black paint. A fragment of a sixth pellet figurine fragment was found in Grave QQ. It was probably redeposited, the result of grave-digging disturbing an earlier burial. Only one other pellet fragment is recorded, the round-shouldered fragment U16420 (Fig. 26) from below the silt stratum in Pit W.

The remainder of the human figurine assemblage was found as fragments in deposits described as fill or rubbish, or as surface finds, and they are therefore from at least secondary contexts, used, discarded and incorporated into building materials, sometimes repeatedly. It is unlikely that either the raw or finished materials were transported large distances horizontally, although there was clearly a considerable degree of vertical movement. Two of the fragments are undecorated, U15566 (Fig. 4) and U12770 (Fig. 25), although it is possible they are from figurines that had decoration on the shoulders. All the remaining fragments carry black, and occasionally red or brown, paint. Painted human figurines thus outnumber those with pellets by 23 to 6.

The animal figurines are also concentrated in the south-east of the site and more or less fragmentary. U15612 (Fig. 11), the forepart of a bovid from Level 3.1 in Pit F, is the only one from an Ubaid context. The remaining 10 animals from Pit F are from the later Level 4, identified primarily on the basis of the characteristic greenish fabric, painted decoration and skill in modelling. Four of them are identified as bovids and one as a bird. U651 from the south-west face of the Temenos wall also represents a bovid. Six of the 17 animal fragments are therefore bovids. The only animal figurine from the north-west of the site, U2818 (Fig. 33), representing a pig or boar, is unusual in

having checked red-painted decoration. U15384 from Pit F (Fig. 20) and U20061 from Pit X (Fig. 29) may represent the same species of round-bodied animal. Like the remainder of the fragments it is unidentifiable.

The fragments from Reijibeh X and Sakheireh (UE 4, Fig. 1) show that figurines were present at smaller sites.

Development

The group of complete or semi-complete figurines from the Ubaid 4 graves in Level 3.1 is probably the best-known assemblage of Ubaid figurines. They have generated an extensive literature in their own right, and very inaccurate replicas can be bought online. Woolley described them as “lizard-like grotesques” (UE 4:13), and they have subsequently been described as “ophidian” (Daems 2010). After prolonged acquaintance even the most grotesque objects can become agreeably familiar. However, the Ur assemblage provides some evidence for the stylistic development of Ubaid figurines from those with recognisably human features to the more extreme types.

Early or possibly early

Two of the four figurine fragments from Level 2 in Pit F have what appear to be early features. This level is dated to Ubaid 2, providing a *terminus ante quem*. U15398 survives as a head only. The photograph on the Penn Museum web site shows it as having a flat, rounded face painted red and a high headdress, oval in cross-section, rising from the top of the head, with traces of black bands. The eyes and mouth appear to be incised. It resembles U15516 (Fig. 10) from Grave QQ, part of the head and upper body of a pellet figurine, with a similarly flat face applied to the central stalk, rounded shoulders, traces of crimson paint in the eyes and between the breasts and the beginnings of an oval headdress. Unlike the complete examples from other graves, the shoulders are rounded rather than wide and angular. Although U15516 was found in a Level 3.1 grave, it is possible that it derives from an earlier grave disturbed by the gravediggers of Grave QQ and redeposited, perhaps deliberately. The pellet figurine U18629 (Fig. 26), from an early context below the silt stratum in Pit W, also has rounded shoulders. A fragment of a similar pellet figurine, IM 54932 (Safar, Mustafa & Lloyd 1981:236 and Fig. 116) was found at Eridu: the eyes and nose were applied to the central stalk, the shoulders are rounded and there are traces of black paint on the headdress and red paint in the eyes and round the neck. It was excavated from a house to the east of the cemetery, and may represent disturbance of the cemetery by builders and redeposition. Red pigment also appears in two of the Pit F graves in the form of haematite, JJ and KK.

The painted head and upper body U15399 (Fig. 2) differs from the majority of painted figurines at Ur in a number of ways. Like U15516, the shoulders are rounded, with black painted decoration, a collar round the neck and a stripe running between the breasts, which are picked out in black paint. The head curves to a point and the black paint suggests a short cap, rather than a high headdress, with a stripe running down the nose. The spots on the cheeks may represent nose studs rather than nostrils. U15399 resembles the head BM 121002 (Fig. 39), which has no site number but may be from Ur. It has a long neck with a striped collar and a long, curving face, damaged in the nose area. As in U15399, the curve of the upper head continues to a curving, pointed top, painted black, with a horizontal incision, and a band of black paint runs from the top of the head between the eyes. The head and upper body of a painted female figurine from Tell al Ubaid is also very similar in shape and decoration to these two figurines, with the same curving, pointed head with a cap of black paint horizontally incised (UE 1:153, 211 and Pl. 48). There are close parallels between these figurines and Samarran figurines from Choga Mami (Oates 1966, Pl. 25–7) and the complete example from a grave at Tell Songor (McAdam 2003, Fig. 22; Fuji 1981) in terms of the curving, pointed shape of the face and head, the presence of a cap or headdress and the treatment of the facial features. The baked clay figurines from Tell es Sawwan are not so recognisably in this tradition (Oates 1966),

unlike the carved stone figurines from the same site. Beauty is culturally defined, and some of the Samarran examples are already highly stylised—perhaps Modigliani rather than Picasso—but the relationship between them and the Ubaid figurines is clear (Moorey 2005:15). It is also worth noting that the depiction of females with a hair arrangement, cap or headdress on top of the head, sometimes very elongated, is of long standing in Mesopotamia and can be seen as early as the proto-Hassuna period, for example at Yarim Tepe (Merpert & Munchaev 1973, Pl. 43), or in the Halaf at Arpachiyah (Mallowan & Cruikshank Rose 1935). In addition to offering a practical means of managing long hair, such an arrangement was presumably considered attractive. Whether this aesthetic preference translated into cranial deformation would repay future research (Lorentz 2010).

The painted fragment U14436 (Fig. 30) from 7 m below the surface in the Royal Cemetery area represents the top of the left leg of a figurine, probably wearing trousers, in which the legs were modelled separately and then joined. Similar but more complete examples were found at Eridu in Level 12 and Temple 16 (Safar, Mustafa & Lloyd 1981, Pl. 116, 7 and 8) and at Tell al Ubaid (TO407: found loose in soil with TO205, UE 1:153, 211 and Pl. 48). No complete example of this type of Ubaid figurine has been found. However, they are readily recognisable from the Samarran examples at Choga Mami (Oates 1966, Pl. 28–30). One fragment now in the Ashmolean Museum is very similar to U14436 (CM14, Ashmolean 1968.1622: Moorey 2005:37).

The male bearded figurine U17894 (Fig. 32) and the ?pig figurine U2818 (Fig. 33) have similar red or reddish-brown checked painted decoration, which from its resemblance to the Hajji Mohammed painted pottery style may be early. Both are from the northern part of the site.

Later figurines

Every Ubaid figurine is hand-made and unique, and the human figurines were carefully modelled by ceramicists who understood their medium. However, the complete or semi-complete pellet figurines from the Pit F graves form a remarkably coherent group, and it is worth describing the manufacturing technique in detail. U15385 (Fig. 7) from Grave T illustrates a number of recurring features. The legs, body and head were formed from a single stalk of finely prepared clay, light buff in colour with a fine grit temper and white slip. Other features were applied to this stalk, or created by modelling, carving, incision and painting. The neck is thick and the head projects slightly forwards. The pointed crown or top of the head is covered by bituminous mastic with small brown organic inclusions. The facial features were formed in a strip of clay wrapped around the central stalk. In this case the join does not show, but in other figurines it is visible. The eyes are long, slanting, excised slits, deeply cut and sharply defined, with heavy, rounded ridges above. The cheek line is sharp, running around the face to just below the mouth, formed by a single curving incision. These features were made by carving when the clay was leather-hard: on some the striations of the blade are visible. The large, curving, blunted nose has two circular impressions indicating the nostrils. There is another circular impression between the nose and mouth and two more below the mouth and chin. These impressions are several mm deep and perhaps held organic insertions.

The shoulders are very wide, flat and angular. There are applied pellets on the front and back of the shoulders. The numbers are asymmetrical and no particular pattern can be discerned. The shoulders and arms were applied to the central stalk and the arms are bent at the elbows so that the hands rest on the waist. The fingers are indicated by incision. The arms are cracked where the wrists join the arms to the body.

The breasts are small, pointed, and separately applied. A shallow impression indicates the navel. The pubic triangle consists of a series of Vs below a horizontal incised line. The body is slim, with individually modelled, rounded buttocks. The legs are extended and indicated front and back by incised lines. The feet are together and the figurine will not stand upright. There is some variation within the model, most obviously in U15506 (Fig. 8), shown suckling an infant. In addition to damage to hands and faces, some have scars where pellets have fallen off. Breasts are usually (but not invariably: see Fig. 28) small but prominent, on slender, youthful bodies.

All the pellet figurines have cracks or breaks in the area of the hands, and in U15380 (Fig. 6) the applied facial strip and bituminous headdress are also broken. The application of the arms/shoulders, breasts and facial strip, followed by further carving and decoration, drying, firing, and finally the application of the cap or headdress of bituminous mastic, would have been a complex operation. The quality of the modelling and manufacturing technique is consistently high. However, the fact that all the pellet figurines have cracks or breaks in the area where the hands join the body, something not seen on painted examples, suggests that they were produced under time pressure. The clay had not dried sufficiently before firing, causing the arms to spring. The remaining two pellet figurines, U15516 from Grave QQ and U18269 from Pit W, differ from this overall model but resemble each other in their rounded shoulders.

The headless female figurine with an infant U15376 (Fig. 5) from Grave O is the only example of a painted figurine to be found in a grave, and one of the best-preserved and most complete female painted Ubaid figurines found. It shares many features with other painted human Ubaid figurine fragments, including the painted collar, shoulder decoration, nipples and girdle. The infant also has a collar and girdle, and the eyes and top of the head are picked out in black paint. Unlike the pellet figurines, this painted example will stand upright on its base. The shoulders are wide and angular, and as in the pellet figurines the arms and shoulders and face were applied around the central core forming the body and legs. Although the right hand has been damaged, there does not seem to have been a problem with attaching the hands to the body.

There is some variability of decoration in painted examples: for example, in U15386B (Fig. 13) there is more attention to the modelling of the pubic area, legs and knees, and the decoration on the shoulders varies from wavy lines to spots or dashes.

Very few painted heads survive. On the surface finds U18085 (Fig. 34) and U18169 (Fig. 41) the head or headdress is not as elongated as on the pellet examples, and on U18085 it was originally painted black.

Although a majority of the painted figurines are demonstrably female, the two bearded figurines U17894 (Fig. 32) and P.CBS.17199 remind us that the assemblage from Ur is only a fraction of what once existed, and not necessarily representative. U12764 may represent a male wearing a skirt, comparable to figurines from Warka (McAdam 2003, Fig. 18).

The pellet figurines mainly have a pinkish or reddish buff fabric, occasionally green, with a white or cream slip. The painted figurines are more frequently made from a light green fabric and slip, sometimes slightly over-fired. All the human figurines are modelled and finished to a high standard. However, the quality of the painted examples is somewhat obscured by the fact that they are fragmentary and often extensively weathered.

Animal figurines

The animal figurines form a less consistent group. Most are fragmentary and were modelled as a single piece. Where they are recognisable, 6 out of 21 are bovids, one is a bird and one is probably a pig or boar. The fabric is usually light green. The quality of the modelling and finish varies from the very carefully made to the considerably less so.

Function

A comprehensive analysis of the function or functions of Ubaid figurines is beyond the scope of an article that focuses on Ur. There are many Ubaid figurines from sites in southern Mesopotamia, including Eridu, Oueili, Tell al Ubaid and the substantial assemblage from Warka (Ziegler 1962; Wrede 2003). However, the evidence from Ur includes some useful indicators.

The stratigraphic sequence at Ur is not continuous, and the areas exposed must constitute a small sample of the original Ubaid settlement. As usual in archaeology, the evidence is subject to the accidents of discovery, recognition and site formation processes. The Ubaid figurines are mainly

from the south-east of the site. In the Pit F Level 3.1 cemetery, the clustering of the graves in the north-west corner suggests a focus of interest just outside the excavated area to the north-west. Given the conservative nature of Ubaid site usage (for example, the temple sequence at Eridu) this may mean that the earlier Level 2 was also adjacent to an area that was of special interest. Apart from this we know very little about the Ubaid settlement.

There is some evidence for stylistic development. At least four forms that predate the “grotesque, lizard-headed” figurines with angular shoulders of the Ubaid 4 graves can be tentatively identified, at Ur and other sites: those with flat, rounded faces and oval-sectioned headdresses, sometimes with red or red and black paint and rounded shoulders: painted females with curving, pointed heads terminating in a black cap; individual painted legs from seated or standing female figurines; and the bearded figure and pig with their checked decoration. The links between early types and Samarran figurines are clear. As far as the elongated head shape is concerned, there are even earlier precedents. Given these links it cannot be argued that Ubaid figurines differ greatly from earlier types (Daems 2010:149).

There is a connection between pellet figurines and mortuary use, not only at Ur but at sites such as Oueili and Eridu (McAdam 2003). Of the six pellet figurines found in the Ur cemetery, five were complete or semi-complete, The sixth is a fragment and may represent redeposition from an earlier grave. Only one fragment of pellet type was found outside the cemetery, in Pit W. Painted figurines outnumber pellet figurines, but U15376 is the only example of a painted figurine from a grave, and the only painted human figurine that is semi-complete.

It seems likely that pellet figurines differed in function from painted examples and were specially made for particular individuals. The pellet examples were finely modelled and well finished by skilled craftspeople who understood ceramics, but all have a problem in the attachment of the hands, and some in the attachment of the face and pellets. In handling them one is aware that they are considerably less robust than painted examples. This may indicate that they were prepared to order and in haste, and that the different pieces of clay did not have sufficient time in which to dry out before firing, causing them to ‘spring’ or become detached. In climates such as southern Mesopotamia, it is usual to complete a burial within a day. It is possible that in the case of U15376 the pellet figurine that was being prepared failed in some way, and a painted one had to be substituted. The removal of the head may have been a deliberate act of disempowerment. The noticeable imbalance between figurine body fragments and figurine heads has been remarked on before (McAdam 2003:170). It is also worth pointing out that pellet figurines were not made to stand upright: they are lying down, perhaps dead. There are many examples of painted figurines that can stand (Fig. 5; see also McAdam 2003: Figs 18–21 from Warka).

Some of the painted decoration represents anatomical features, such as nipples or eyes, or jewellery and clothing, for example collars or girdles. The shoulder decoration has a tendency towards a symmetrical arrangement, in which the front of one shoulder mirrors the back on the opposite side. This is also true of pellets. The relationship between painting and pellets, or the significance of either, is unclear. It has been suggested that they represent forms of body decoration such as tattooing and cicatrisation, but it is difficult to see how either could be proven.

There is no evidence that figurines were used in domestic contexts. Apart from those in graves they derive from secondary contexts. At Eridu the distribution focuses on the temple and cemetery areas, with none from the central housing area, and the fragment described as coming from a house east of the cemetery probably reflects redeposition from a disturbed grave rather than primary use (Safar, Mustafa & Lloyd 1981). The focus around the Anu ziggurat at Uruk also indicates some ritual use, a means of communication between the worshipper and the divine. The concentration in the southern part of Ur probably indicates a similar focus.

There is very little evidence to indicate what marked individuals out as users of figurines in life or death: it may have been their role, or status, or the circumstances of their death, or a combination of these. Accompanying grave-goods seem indistinguishable from those of other graves. Those buried with figurines in the north-west corner of the cemetery at Ur were a minority, but the occupants of

the cemetery as a whole must have been a minority, given the duration and likely population of the settlement. There seems to have been a high incidence of multiple burials surrounding those with figurines at Ur, but without knowing the original extent of the cemetery, it is impossible to know how unusual this practice was. It is clear that despite similarities across the figurine assemblage, practice differed from site to site. The consistency of the iconography suggests that figurines are idealised figures, rather than portraits of those who commissioned them or were buried with them. It also seems likely they were created by specialist craftspeople, as they are both complex and well made. Despite the skill of manufacture, however, pellet figurines were fragile and it is hard to imagine a use during the lifetime of the deceased, as Daems suggests (2010:155). Their period of use would necessarily have been short. The painted human figurines, although also well made, were more robust. The evidence continues to point to pellet figurines being made at short notice for a select group of individuals, although the reason for this selection remains unknown.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 1 Hall & Woolley 1927

UE 4 Woolley 1955

- Daems, A. 2010. "A snake in the grass: reassessing the ever-intriguing ophidian figurines", in R.A. Carter & G. Philip (eds.) *Beyond the Ubaid: transformation and integration in the late prehistoric societies of the Middle East* (SAOC 63):149–61. Chicago: Oriental Institute.
- Fujii, H. 1981. "Preliminary report of excavations at Gubba and Songor", *Al-Rafidain* 2:131–241.
- Hall, H.R. & C.L. Woolley 1927 *Ur Excavations Volume I. Al-'Ubaid*. Oxford: Published for the Trustees of the Two Museums by the Oxford University Press.
- Huot, J.-L. (ed.) 1983. *Larsa (8ème et 9ème campagnes. 1978 et 1981) et 'Oueili (2ème et 3ème campagnes, 1978 et 1981): rapport préliminaire* (Bibliothèque de la Délégation archéologique française en Irak, no. 3). Paris: Editions Recherche sur les Civilisations.
- Lorentz, K.O. 2010. "Ubaid headshaping: negotiations of identity through physical appearance", in R.A. Carter & G. Philip (eds.) *Beyond the Ubaid: transformation and integration in the late prehistoric societies of the Middle East* (SAOC 63):125–48. Chicago: Oriental Institute.
- McAdam, E. 2003. "Things fall apart, the centre cannot hold", in T. Potts, M. Roaf & D. Stein (eds.) *Culture through objects: Ancient Near Eastern Studies in honour of PRS Moorey*:161–87. Oxford: Griffith Institute.
- Mallowan, M.E.L. & J. Cruikshank Rose 1935. "Excavations at Tell Arpachiyah, 1933", *Iraq* 2:1–178.
- Merpert, N. & R. Munchaev 1973. "Early agricultural settlements in the Sinjar plain, Northern Iraq", *Iraq* 35:93–113.
- Moorey, P.R.S. 2005. *Ancient Near Eastern terracottas: with a catalogue of the collection in the Ashmolean Museum, Oxford*. Oxford: Ashmolean Museum.
- Oates, J. 1966. "The baked clay figurines from Tell es-Sawwan", *Iraq* 28:146–53.
- 1969. "Choga Mami 1967–68: a preliminary report", *Iraq* 31:115–52.
- Safar, F., M.A. Mustafa & S. Lloyd 1981. *Eridu*. Baghdad: Ministry of Culture and Information.
- Ucko, P.J. 1968. *Anthropomorphic figurines of predynastic Egypt and neolithic Crete with comparative material from the prehistoric Near East and mainland Greece*. London: A. Szmidla.
- Woolley, C.L. 1955. *Ur Excavations Volume IV. The Early Periods*. Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Johnson Fund of the American Philosophical Society.
- 1982. *Ur 'of the Chaldees': the final account: excavations at Ur*, revised and updated by P.R.S. Moorey. London: Herbert Press.
- Wrede, N. 2003. *Uruk, Terrakotten 1: von der 'Ubaid bis zur altbabylonischen Zeit* (Ausgrabungen in Uruk–Warka, Endberichte 25). Mainz am Rhein: von Zabern.
- Zettler, R.L. 2021. "Woolley's excavations at Ur: new perspectives from artefact inventories, field records, and archival documentation", in G. Frame, J. Jeffers & H. Pittman, *Ur in the Twenty-First Century CE. Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016*:7–34. University Park, PA: Eisenbrauns.
- Ziegler, C. 1962. *Die Terrakotten von Warka* (Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk–Warka 6). Berlin: Gebr. Mann.

Tell al-Ubaid and the Ubaid period at Ur

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Introduction

The Ubaid Period of the 6th to 5th millennia BC involved the earliest known permanent settlement of the southern delta and alluvial plains of South Iraq (southern Mesopotamia). Developments during this period were foundational to Mesopotamian culture. Many aspects of southern Mesopotamian settlement patterns, economic strategies, craft production, and religious spaces were established during the Ubaid Period and persisted, albeit with adaptations and elaborations, into the 1st millennium BC. This paper offers a review of past developments in our knowledge of the Ubaid Period in southern Mesopotamia, including the contributions of Leonard Woolley's excavations at Tell al-Ubaid and Ur, and then suggests some remaining questions for further research.

The Ubaid Period was named after the site of Tell al-Ubaid, approximately 7.5 km west-north-west of Ur and within Ur's hinterland. At both Tell al-Ubaid and Ur, the Ubaid Period levels appear to be the earliest occupation at each site, and they were followed by millennia of later occupation, especially at Ur. This length of occupation testifies to the sites' advantageous locations and available resources.

Excavations at Tell al-Ubaid began in 1919, directed by H.R. Hall on behalf of the British Museum (Hall 1930), and were expanded in 1923–24 by Leonard Woolley as part of the Joint Expedition to Ur by the British Museum and University of Pennsylvania Museum, by agreement with the Iraqi government (UE 1). Hall selected Tell al-Ubaid for excavation in part due to its dense surface scatter of pottery, tools, and flints, many of which matched materials from nearby Eridu/Abu Shahrein, collected by R. Campbell Thompson in 1918. However, Hall's main efforts at Tell al-Ubaid were ultimately not on the Ubaid settlement, but on the 3rd millennium BC temple. Woolley returned to Tell al-Ubaid four years later, mainly to answer further unanswered questions about the 3rd millennium BC temple, and he briefly excavated the Ubaid occupation at that time. Woolley subsequently excavated Ubaid period deposits at Ur during 1929–30, mainly in Pit F near the Royal Cemetery (UE 4). The importance of the Ubaid Period, as established by these initial excavations at Tell al-Ubaid and Ur, was underlined by subsequent excavations during 1946 to 1949 at Eridu, by Fuad Safar, Muhammad Ali Mustafa and Seton Lloyd (Safar et al. 1981). This set of early excavations at Tell al-Ubaid, Ur and Eridu formed the foundation of our understanding of the Ubaid Period and allowed archaeologists to begin to assess the southern plains' first permanent occupation, to define Ubaid style in pottery and other forms of material culture, and to establish a basic Ubaid chronological sequence.

Tell al-Ubaid Excavations

During Hall's work at Tell al-Ubaid in 1919, his primary focus was on excavation of the Early Dynastic (3rd millennium BC) temple, with its mosaic columns, copper lion and bull figures, and 'Imdugud' relief of a lion-headed eagle grasping a pair of stags. He did collect Ubaid ceramics from the site surface, although without excavating contexts of this period. As was typical of the time, he

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mainly collected decorated or painted sherds (UE 1:45). Woolley subsequently excavated a limited area of Ubaid period reed and *pisé* houses at Tell al-Ubaid, to the south-east of the Early Dynastic temple (UE 1:57–8, 149–50). Woolley also collected pottery—both painted and non-painted—albeit in an unscientific manner, again typical of the time. This near-exclusive focus on painted sherds from the start has had a long-term impact on our framing of Ubaid ceramic production and consumption, and a bias towards the painted component of the pottery assemblage persists even in recent research and publications. Both Hall and Woolley described the Ubaid painted ceramics, noting their hardness, green fabric colour, and black painted geometric decoration (Hall 1930:195–8; UE 1:9, 45–8). Both scholars associated the decorative motifs with similar pottery from sites in Elam, such as Susa and Bushire (Hall 1930:234; UE 1:9, 155); at the time, there was very limited Ubaid pottery known from other southern Mesopotamian sites. Hall did not assess the Ubaid pottery assemblage in any detail, but Woolley described variations in the clay fabric, temper, potting technique, and surface treatments, and most importantly he defined some distinct forms (UE 1:157–9), as well as decorative motifs.

However, Hall, and initially Woolley, treated all the Ubaid pottery they recovered as a single ‘prehistoric’ or ‘pre-Sumerian’ category and as a single chronological phase. Given the limited knowledge of the prehistory of Mesopotamia at the time, this is understandable, and more recent research has subdivided the Ubaid Period and its material culture in various ways.

Ubaid Period Excavations at Ur

After his brief excavation of the Ubaid occupation at Tell al-Ubaid, Woolley subsequently tackled the Ubaid Period at Ur, in Pit F near the Royal Cemetery. Given the greater depth and complex stratigraphy of the Ubaid deposits at Ur, he realised there were temporal changes and potential subdivisions in the assemblage of pottery and other material culture. He thus divided the Ubaid material into three phases, I, II, and III, based on stratigraphy, absolute elevations, and changes in the pottery recovered from rubbish layers and burials (UE 4:5). A ‘Flood stratum’ of up to c. 3.5 m depth separates his Ubaid I and II in Pit F (UE 4:15, 68) and was encountered in other deep trenches in this area of the site. Woolley identified the Ubaid I occupation as a small settlement with reed houses similar to what he had excavated at Tell al-Ubaid, while Ubaid II and III were represented by graves. He separated phases II and III from each other by differences in grave good assemblages and by broader changes in ceramics. In general, his Ubaid II pottery had more elaborate decoration, while Ubaid III had simpler decoration. Woolley also distinguished a temporal difference in body position in the burials, extended in Ubaid II and flexed in III, and he suggested that weapons were more frequent in graves in Ubaid III. These latter two aspects appear somewhat anecdotal and are not well supported by more recent analyses.

Woolley’s early attempt at dividing the Ubaid was useful but difficult to replicate. It is particularly challenging to reconstruct his grave assemblages for further analysis and comparison with recently-excavated materials, since Woolley used the same method to illustrate the Ubaid pottery as he had in other publications, using generic ‘standard types’ rather than exact grave contents (compare the illustrations in graves recorded in UE 4: Appendix II, 87–102). Again, this method of illustration was typical of the time but is problematic for closer modern analysis.

Reassessments of Woolley’s Excavations, and Later Excavations of Ubaid Sites

Despite the challenges of working with Woolley’s publications, several scholars have reanalysed the graves from Woolley’s Ubaid II and III phases at Ur, starting with Peter Paul Vertesalji (1984). He reworked the stratigraphy and chronology of the Ur graves, based on detailed examination of the publications, analyses of forms, and especially seriation of decorative motifs. He proposed four phases (1–4, versus Woolley’s I–III), of which phases 2 and 3 had sub-phases a and b (Vertesalji 1984). This valuable, but complicated, work is somewhat hampered in terms of its wider applicability by the limited contexts of the material studied, i.e., graves, which may not be entirely representative

of the contemporary assemblage. Luca Volpi's recent (2022) seriation and division of the Ur Ubaid period ceramics into groups of types with differing degrees of frequency and longevity is a model of what can be done by critical examination of older, detailed, field records, together with comparison to materials in museum collections and from more recent excavations. Volpi's definition of four ceramic groups in particular underlines the complexity of the transition between the Ubaid and Uruk periods, adding solid evidence for the material culture at the end of the Ubaid Period.

Both of these recent reanalyses of the Ur materials were enabled by intervening research at other sites, including the 1940s excavations at Eridu in the Temple Sounding, Hut Sounding, and Cemetery (Safar et al. 1981), a deep sounding below the Limestone Temple in the Eanna complex at Uruk (Hermansen 1990; Sürenhagen 1986), a similar deep sounding at Tell Uqair (Lloyd & Safar 1943), and excavations of single-period sites such as Tell Oueili (var. 'Uwaili, Awayli; Huot 1983; 1987; 1991; 1994; 1996), Hajji Muhammad (Ziegler 1953), and Ras al-Amiya (Stronach 1961). Excavations at these sites had revealed all or parts of a more extended sequence and especially showed that there was earlier settlement in southern Mesopotamia than what Woolley had excavated at Tell al-Ubaid and Ur. Safar, Mustafa and Lloyd (1981:173) actually considered that the earliest materials from Eridu were distinct enough from those that followed that they should be considered pre-Ubaid. They identified an Eridu phase in the lower levels of the Temple Sounding, and an overlapping Hajji Muhammad phase. And it was only Levels XIII and above that they considered to be Ubaid, separating these into Standard and Late Ubaid. Later, other scholars, such as Harriet Crawford (2010), have argued that Hajji Muhammad is more a ceramic style than a defined and useful chronological phase, since its distinctive dense decoration is found in slightly earlier and later contexts and may suggest special use in feasting or ritual events.

In addition to ceramic chronology, the Temple Sounding at Eridu is also our best evidence for the expansion of temple architecture, which is a strong proxy for the growth of religious power, from early Ubaid into the Uruk Period and beyond. The growth of the temple from a tiny single-room shrine to a tripartite structure with exterior niching-and-buttressing can be tracked from Ubaid 1–2 Level XVII to Level XII (with a few gaps due to destruction during large-scale rebuilding), and the tripartite plan then persisted through Ubaid 4 Level VI (Safar et al. 1981:86–114). In addition to their larger size over time, the buildings were increasingly elaborated and disconnected from the public, with access filtered through higher platforms and indirect entrances. These physical developments suggest increased exclusivity of ritual space and the potential for specialised religious professionals; more generally, these developments imply the growth of power inequalities.

After the excavations at Eridu, Tell al-Ubaid, and Ur, an initial phasing system was developed, based mainly on changes in ceramic decorative styles and forms, but also incorporating tools, figurines, and architecture. This 1940s sequence of Eridu, Hajji Mohammed, Standard Ubaid and Late Ubaid was later revised into Ubaid 1 through 4 by Joan Oates (then Lines) for her University of Cambridge PhD (Oates 1953; 1960). Oates argued that persistence in pottery forms, and overlaps in decorative motifs, suggested cultural continuity across all four phases of the Ubaid Period, rather than separation and the arrival of new peoples. The Ubaid 1 to 4 sequence, and our knowledge of the earliest Ubaid Period in particular, was supplemented during the 1980s by the excavations at Tell Oueili by Jean-Louis Huot and his team (Huot 1983; 1987; 1991; 1994; 1996). At Oueili, an even earlier occupation was identified, preceding Ubaid 1, which was labelled Ubaid 0. Further materials from Oueili, plus re-analyses of materials from earlier excavations, including Woolley's Ubaid III at Ur, led others to identify a Terminal Ubaid or Ubaid 5 phase. These Ubaid 0–5 numbers are the labels now used most often for southern Mesopotamian Ubaid materials (see Table 1).

Table 1 Correlation of traditional and current sub-phase labels, Ubaid Period

Approximate dates BC	1940s terms	Current labels
c. 6300 BC	N/A	Ubaid 0
c. 5800 BC	Eridu	Ubaid 1
c. 5500 BC	Hajji Muhammad	Ubaid 2
c. 5300 BC	Standard Ubaid	Ubaid 3 (a and b)
c. 4800 BC	Late Ubaid	Ubaid 4
c. 4500 BC	N/A	Terminal Ubaid (Ubaid 5; LC 1)

The Ubaid 0 settlement at Oueili had substantial tripartite mud-brick buildings with columned halls, very different from the simple mud-brick or clay-daubed reed huts encountered in the earliest contexts at Eridu and Ur. These grand buildings contradict any assumption that the earliest known occupation of the delta plain was simple or only semi-permanent. Communal granaries and other large structures in all levels at Oueili reinforce the complexity of the earliest known settlement. Currently, there are few excavations of Ubaid sites or contexts in South Iraq, but exciting work on the Ubaid 2–4 phases is underway at Tell Zurghul (Nadali & Polcaro 2020; Volpi & Fragnoli 2021). This site was ancient Nigin in the 3rd millennium BC, part of the Lagash city-state, but it was clearly an important site in the Ubaid Period also. The Iraqi–Italian team has identified a possible temple of Ubaid 4 date on Mound B; its niched-and-buttressed façade and a set of painted censers suggest a ritual function. A French team returned to Oueili in 2019 (Vallet et al. 2020), and the new Iraqi–Italian–French project at Eridu includes excavation of Ubaid occupation (D’Agostino et al. 2020); both projects should soon be generating further important results.

I have not included discussion of Ubaid sites in the Gulf (mainly Ubaid 2–3) or in northern Mesopotamia (mainly Ubaid 3–5), as these regional variants are too large a topic to include here, but it should be noted that sites in north Iraq, north-east Syria, and in the Kurdistan region of Iraq form an important counterpoint to southern Ubaid developments, expressing significant heterogeneity in terms of their affinities, economies, and interactions. Several scholars have addressed the differences and similarities between Ubaid period sites and assemblages across south and north Mesopotamia. Abu Jayyab and Gibbon (2022) used Principal Component Analysis and Network Analysis on the presence/absence of pottery forms and decorative patterns, to examine communities of practice across southern and northern Mesopotamia during the Ubaid 3 through Ubaid 5/Late Chalcolithic 1. Their analysis suggests substantial Ubaid 3 stylistic cohesion across this massive region, especially in decoration but also in forms. This connectivity was potentially driven by mobility, migration and adoption or emulation. Ubaid 3 cohesion was followed by gradual stylistic dissolution in Ubaid 4, especially in fewer shared forms, a situation which is then magnified in LC 1. Baldi (2022) has also examined radiocarbon dates and clustered distinctive ceramic types from sites in southern Mesopotamia, north-east Syria, and the Kurdistan region of Iraq to assess chrono-cultural phases and regionalisation from Ubaid (‘Middle Chalcolithic’) through LC 2. These detailed studies of regional cohesion or divergence are particularly relevant for future work on the southern Mesopotamian Ubaid.

Importance of the Ubaid Period within Mesopotamia

Ubaid Period developments had important impacts on the trajectory of many aspects of Mesopotamian culture. Beyond forming the basis for chronology and phasing, as discussed above, Ubaid ceramics offer evidence of craft specialisation. The best Ubaid pottery (especially Ubaid 3–5) is highly and evenly fired, with kiln temperatures estimated as c. 850–950 degrees Centigrade (Oueili; Vallet et al. 2020:22), c. 900–1000 degrees C (northern Ubaid ceramics from Salat Tepe, south-east Turkey; Koizumi et al. 2018) or 1050 to 1150 degrees C (Tite & Maniatis 1975). The forms/types and assemblages are standardised to a significant degree. In further support of specialisation of pottery production, Moore and Wilkinson’s surface surveys of Tell al-Ubaid and Eridu in 1990 identified large areas with dense ash and Ubaid 3–4 pottery wasters at the surface of both sites, suggesting

workshop clustering and production of pottery at a large scale (Moore 2002). The kiln/ash layer at Tell al-Ubaid was particularly large, c. 130 x 175 m; although use of this area for kilns might not have been entirely contemporaneous, this extent suggests large-scale and intensified production that could have generated exports for other settlements in the region. These potential production areas contrast to the smaller scale, but still clustered, groups of kilns excavated at Tell Oueili (Vallet et al. 2020), Tell Abada in the Hamrin (Jasim 1985; 2021), and Hajji Muhammad (Ziegler 1953).

Examination of manufacture traces on many late Ubaid vessels suggests that they were made on a slow wheel, and Nissen has argued that the largely horizontal painted decoration would have been facilitated by use of a wheel or tournette (Nissen 1990; 2001). A broken tournette or potter's wheel was found in Pit F at Ur (UE 4:28), although the date appears to be in the Uruk Period; fragments of several tournettes were recovered from Ubaid levels at Tell Abada (Jasim 2021:48). The use of even a slow wheel meant that vessels could be made more rapidly than entirely by hand and thus may be associated with increased demand for pottery. Baldi (2022) has suggested the possibility of 'serial production', or batch manufacture, for some Ubaid forms, a method which correlates with greater efficiency, although not necessarily greater output. Thus Ubaid ceramic production appears to be specialized to an extent and potentially may have been full-time, in response to larger aggregated populations and their demands. Craft specialisation, from basics such as pottery and textiles through luxuries such as metal objects or cylinder seals, would continue to be one of the main drivers of the Mesopotamian economy for the next several millennia.

The presence of granaries at Oueili in several Ubaid levels, from early through late in the period (Huot 1996:42–4; Vallet et al. 2020), suggests that agricultural surpluses were produced. Like craft specialisation, such agricultural surpluses would be foundational to the Mesopotamian economy through the 1st millennium BC, enabling large numbers of non-food-producing individuals to engage in herding, crafting, administration, ritual, military activities, etc. However, the interplay between irrigation agriculture and exploitation of the resources of marshy areas remains to be examined and integrated into more robust economic models. The excavations at Oueili underlined the importance of pigs in the economy and diet there (Huot 1996: 308), while the discovery of fish bones in Ubaid contexts at Oueili (Huot 1996: 309) and many other Ubaid sites across South Iraq reinforces the importance of marsh, river and canal exploitation for Ubaid Period subsistence. It is clear that a wide ranging and flexible subsistence base, not just traditional irrigation agriculture, was crucial to the success of Ubaid settlements; this flexibility of economy persisted into later millennia as well and may have been responsible for the success of many southern Mesopotamian cities.

The Temple Sounding at Eridu revealed the growth of the temple as a physical space and the increased power of religion in the Ubaid Period. This growth took place in the millennium before the Uruk Period, which is most closely associated with hierarchy and social complexity in Mesopotamia. The interplay between secular and religious power would be an important aspect of Mesopotamia in the following millennia; even as secular kings gained more absolute power, they nevertheless turned to temples and priests for legitimisation, divination, and public ceremonies. Further, the practice of intact burial and the consistent inclusion of pottery, personal ornaments and occasional faunal remains in Ubaid Period graves at Eridu (Safar et al. 1981:121–41) and Ur (UE 4:19–22) may reflect a belief in an afterlife and/or a need for food during the dead's passage from the world of the living to that of the dead. These burial practices and beliefs would also persist through much of Mesopotamian history.

Perhaps the most important aspect of the Ubaid period is the underlying landscape and environmental setting chosen for the earliest Ubaid settlements. Many Ubaid sites, especially those in the delta plains in the immediate region of Ur, Ubaid and Eridu, were located in a landscape of multiple river channels and fluctuating marshes. This marshy landscape was already noted in 1927 by Hall and Woolley in regard to Tell al-Ubaid. They write that the ED temple platform was located on a low natural rise above the plain, and that the Ubaid cemetery and settlement south-south-east of the temple may also have been on "a natural 'island' of river silt rising above what must have been a marshy plain" (UE 1:149). At Ur, Woolley noted that a low mound within a richly resourced

marshy environment was used for the initial Ubaid settlement there. Woolley further noted that two small Ubaid 4 sites near Ur, Reijibeh X 12 miles to the west-north-west and Merejib 10 miles to the south-east, were also on small low mounds approximately 100 m across and 2 m high (UE 4:10–11). He muses that “we can now picture something of what the land was like...marsh dense with reeds and opening out here and there into lagoons or clear channels...along the edges and scattered about over the marshland were higher patches rising clear of the normal level of the waters...island knolls on which men might make their homes” (UE 4:11). Similarly, Safar, Mustafa and Lloyd proposed that the earliest occupation of Eridu was on a low dune that had created an island within a marsh or gulf tidal basin (Safar et al. 1981:43, 44, 47).

The excavators at Tell Oueili have also confirmed that low mounds rising above the Holocene surface were chosen for the earliest Ubaid occupation at Oueili and other sites nearby (Geyer & Sanlaville in Huot 1996:406, Fig. 4). Pournelle expanded on these earlier impressionistic observations and proposed specifically that these low natural mounds were not dunes or matted piles of reeds that earlier scholars, including Woolley, had suggested but “turtle-backs”, or islands/terraces created by the meandering of Pleistocene water channels (Pournelle 2003; 2013). These locations were strategically selected due to their safety and adaptability for successful life in the changeable plains. Thus, Woolley’s initial impressionistic observations about Mesopotamia’s earliest permanent occupation, based on his excavations at Ur and Tell al-Ubaid, have been proven to be true. The selection of island locations and the success of settlements embedded in watery environments had an impact not only on Ubaid settlement patterns but also on the early cities in Mesopotamia. We now know that marshy environments supported the growth of some of the largest Early Dynastic cities in the 3rd millennium BC, such as Lagash and Girsu (Hammer 2022; Hammer et al. 2022; Pournelle 2013).

Future Research Questions

There are a few questions about the Ubaid Period for the future: First, what more can be done with ceramic analysis, beyond chronological phasing and assessment of regional interconnections? The renewed project at Oueili is using petrographic techniques to study pottery fabrics, tempers, and forming techniques (Vallet et al. 2020); these methods should be expanded to future Ubaid excavations across the region to shed light on issues of production scale and intensity. What is the significance of the reduction in decoration frequency and motif complexity over the course of the Ubaid Period? The decreasing investment in decoration has implications for modes of production, attribution of value, and ways of symbolising identity, but these currently are only general speculations. Is it possible to identify functions for specific vessel forms, whether this is for feasting events, daily use, or specific foods or liquids? Hajji Muhammad ware (the highly decorated component of Ubaid 2 pottery) has been suggested as having ceremonial function (Crawford 2010), and its presence at Gulf sites may reflect that it was used in a system of gift exchange. However, the frequency of Hajji Muhammad open carinated bowls at Gulf sites may simply reflect normal foodways, such as communal meals (Smogorzewska 2015). Application of archaeological science methods may identify food/liquid residues or wear traces that can supplement qualified assessment of forms and decoration and together generate better evidence for past vessel use. This question is especially salient for some of the unusual vessels in the Ubaid repertoire, the ‘tortoise’ vessels or other spouted jars. And finally, what do the overall assemblages of ceramics, including ratios of open to closed vessels, and diameters of open vessels, tell us about diet, communal or individual consumption, and past foodways? Volpi has calculated the ratios of open:closed and painted:unpainted Ubaid materials for Tell Zurghul (2022); Smogorzewska has compared percentages of open versus closed vessels and pottery used for eating, storing and drinking at Bahra 1 in Kuwait (2015). And Pollock has addressed these questions for Tell Abada and Tell Madhhur in central Mesopotamia (2010), but more data from sites in a variety of micro-environmental contexts across southern Mesopotamia, with their different resource clusters and subsistence regimes, are needed for robust conclusions.

Second, were the economic bases of Ubaid settlements variable, and can micro-environments be discerned through material culture and more structured and quantified studies of archaeobotanical and archaeozoological remains? Although his evidence was somewhat anecdotal, Hall noted that there were large numbers of flint sickle blades at Tell al-Ubaid (“saw-blades”; 1930:232), and fewer at Eridu. By contrast, he recorded that clay sickles, mullers and net weights were less common at Tell al-Ubaid than at Eridu (Hall 1930:202, 230–1; UE 1:48) although these objects were present in Woolley’s excavations at al-Ubaid. The tool assemblage that Woolley recovered from Ubaid levels at Ur includes grinding stones, clay sickles and mullers, net weights, flint hoes, and obsidian and flint sickle blades (UE 4:8). The inhabitants of Ras al-Amiya relied on irrigation agriculture and cattle herding (Stronach 1961). The evidence from Oueili suggests farming (barley and wheat), date gardening, and herding of cattle and pigs, but also significant exploitation of reeds for construction purposes (Huot 1994; Vallet et al. 2020). The balance of fishing, farming, herding, reed gathering, and hunting at most Ubaid sites in the deltaic and alluvial plains remains to be assessed.

Further to the question of micro-environments and site-to-site variation in economic basis, Woolley mentions that spindle whorls were recovered from Pit F at Ur and Rejibeh X (UE 4:13, 66–8), raising the question of fibre types and the intensity of textile production in the Ubaid period. Textile production was one of Mesopotamia’s major industries in all periods, utilised in internal and external trade and intensively documented in texts, particularly during the Ur III and Old Assyrian periods. Given the organic nature of textiles and the use of the ground loom, which leaves little traces in the archaeological record, spindle whorls are our best proxy for textile production in Mesopotamia. Sudo used spindle whorl dimensions and archaeozoological data to explore the transition from flax to wool in northern Mesopotamia during the later Ubaid period (2010), but early textile production in southern Mesopotamia is an enormously important area that could use more research. The growth of towns during the Ubaid could have created competing demands for food and textiles and affected hinterlands via corresponding shifts in land use. A greater demand for grain can conflict with rights of access to land traditionally used for pasture. Flax production demands land and especially large amounts of water and is generally an inefficient use of restricted space. Ubaid Period settlement growth could have upset the delicate balance of land use among grain, flax, and animal pasturing, with chain effects on land ownership, labour, and inequalities (McCorriston 1997). While the Ubaid Period in the south is mostly too early to have seen a shift from flax to wool (the earliest wool-bearing sheep are only known from the 5th–4th millennia BC), the resolution of this imbalance may have been collaboration in situating linen production between sites and the creation of non-contiguous hinterlands. The shift from flax to wool for the majority of textiles in southern Mesopotamia, as in northern Mesopotamia, then may have commenced during the late Ubaid. But site-to-site comparison of data (spindle whorl frequency and dimensions) would be useful to determine whether this was a region-wide change or varied with subtle differences in site size and nearby landscape opportunities.

Finally, were there differences in settlement patterns between the delta plain and alluvial plain within southern Mesopotamia? Large scale surveys such as those of Adams (1981) grouped sites of the Ubaid 1 through 5 together, while Wright (1981) divided sites into Early and Late Ubaid. But Adams (1981:55, 58), Pournelle (2003) and Hritz et al. (2012:38) have all noted that settlements of the earliest phases of the Ubaid, 0–2, were concentrated in the southern deltaic plains, near Oueili, Ur, Ubaid and Eridu, while the more northern alluvial plains were only apparently occupied in Ubaid 3 to 4. However, all scholars acknowledge that this apparent pattern may be biased due to variable processes of deflation/alluviation, different regional survey methodologies, excavation emphases, and complicated histories of site occupation, rather than reflecting the past settlement landscape. Much more research needs to be done to assess this pattern. And what might precede Ubaid 0? The Ubaid 0 phase at Tell Oueili is the earliest occupation recovered, but not necessarily the earliest absolute occupation, since the water table was reached before virgin soil (Huot 1994:117). This question of pre-Ubaid 0 settlement, and the relationship between Samarran and the earliest Ubaid occupations—already raised by others but not yet answered (Oates 1960; 2010)—also deserves further investigation.

All these questions raise the much larger issue of whether ‘the Ubaid’ is at all cohesive and whether we should be thinking of additional regional subdivisions and further deconstruction (see also Carter and Philip’s introduction to their 2010 edited volume). In conclusion, the Ubaid period in southern Mesopotamia was revolutionary in terms of changes in the nature of labour, new power organisation, and new human-landscape relationships. In this period, the inhabitants of southern Mesopotamia laid the base on which the cities of the Uruk Period and later were built. But we still have much to do, to build out from the work of Woolley and other early excavators, to clarify these developments and to illuminate the diversity of the early inhabitants of south Iraq.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 1	Hall & Woolley 1927
UE 3	Legrain 1936
UE 4	Woolley 1955

- Abu Jayyab, K. & E. Gibbon 2022. "Stability and Change in Potting Communities across Mesopotamia from the Early Ubaid to Late Chalcolithic 1. New Insights from Multivariate Statistics and Social Network Analysis", *Paléorient* 48:9–40.
- Adams, R. McC. 1981 *Heartland of Cities, Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*. Chicago: University of Chicago Press.
- Baldi, J.S. 2022. "Between an End and a New Beginning; Tracking the post-Ubaid Ceramic Transition as an Indicator of Social Change", *Paléorient* 48:41–72.
- Carter, R. & G. Philip (eds.) 2010. *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East* (Studies in Ancient Oriental Civilization 63). Chicago: Oriental Institute.
- Crawford, H. 2010. "The term 'Hajji Muhammad': A Re-evaluation", in Carter R. & G. Philip (eds.) *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East* (Studies in Ancient Oriental Civilization 63):163–8. Chicago: Oriental Institute.
- D'Agostino, F., A.-C. Rendu Loisel & P. Quénet. 2020. "The first campaign at Eridu, April 2019 (Project AMer)", *Rivista degli studi orientali* 93 1/2:65–90.
- Hall, H.R. 1930. *A Season's Work at Ur, al-'Ubaid, Abu Shahrain (Eridu) and Elsewhere*. London: Methuen.
- Hall, H.R. & C.L. Woolley 1927 *Ur Excavations Volume I. Al-'Ubaid*. Oxford: Published for the Trustees of the Two Museums by the Oxford University Press.
- Hammer, E. 2022. "Multi-centric, Marsh-based Urbanism at the Early Mesopotamian City of Lagash (Tell al-Hiba, Iraq)", *Journal of Anthropological Archaeology* 68:101458.
- Hammer, E., E. Stone & A. McMahon. 2022. "The Structure and Hydrology of the Early Dynastic City of Lagash (Tell Al-Hiba) from Satellite and Aerial Images", *Iraq* 84:103–27.
- Hermansen, B.D. 1990. "Ubaid-Pottery from Warka, Eanna XVIII–XVII", *Baghdader Mitteilungen* 21:1–49.
- Hritz, C., J. Pournelle & J. Smith. 2012. "Revisiting the Sealands: Report of Preliminary Ground Reconnaissance in the Hammar District, Dhi Qar and Basra Governorates, Iraq", *Iraq* 74:37–49.
- Huot, J.-L. 1983. *Larsa et 'Oueili: Travaux de 1978–1981*. Paris: Éditions Recherche sur les Civilisations.
- 1987. *Larsa (10e campagne, 1983) et Oueili (4e campagne, 1983). Rapport Préliminaire*. Paris: Éditions Recherche sur les Civilisations.
- 1991. *Oueili, travaux de 1985*. Paris: Éditions Recherche sur les Civilisations.
- 1994. *Les premiers villageois de Mésopotamie*. Paris: Armand Collin.
- 1996. *Oueili, travaux de 1987 et 1989*. Paris: Éditions Recherche sur les Civilisations.
- Jasim S.A. 1985. *The 'Ubaid Period in Iraq: Recent Excavations in the Hamrin region* (British Archaeological Reports, International Series 267). Oxford: Archaeopress.
- 2021. *Tell Abada: An Ubaid Village in Central Mesopotamia* (Oriental Institute Publications 147). Chicago: Oriental Institute.
- Koizumi, T., H. Ojima, H. Yoshida & A. Yoshida. 2018. "A Pyrotechnological Study of Ubaid and Late Chalcolithic Pottery: Estimated Firing Temperatures", in B. Horejs, C. Schwall, V. Müller, M. Luciani, M. Ritter, M. Giudetti, R. Salisbury, F. Höflmayer & T. Bürge (eds.) *Proceedings of the 10th International Congress on the Archaeology of the Ancient Near East*:131–44. Wiesbaden: Harrassowitz.
- Legrain, L. 1936. *Ur Excavations, Vol. III: Archaic Seal Impressions*. London: British Museum and University of Pennsylvania Museum.
- Lloyd, S. & F. Safar. 1943. "Tell Uqair. Excavations by the Iraq Government Directorate General of Antiquities in 1940 and 1941", *Journal of Near Eastern Studies* 2:135–90.
- McCorriston, J. 1997. "The Fiber Revolution: Textile Intensification, Alienation, and Social Stratification in Ancient Mesopotamia", *Current Anthropology* 38:517–49.
- Moore, A.M.T. 2002. "Pottery Kiln Sites at Al 'Ubaid and Eridu", *Iraq* 64:69–77.
- Nadali, D. & A. Porcaro. 2020. *The Italian Archaeological Expedition at Tell Zurghul, Ancient Nigin, Iraq. Final Report of the Seasons 2015–2017*. Rome: University of Rome La Sapienza.
- Nissen, H. 1990. *Grundzüge einer Geschichte der Frühzeit des Vorderen Orients*. Darmstadt: Wissenschaftliche Buchgesellschaft.

- 2001. “Cultural and political networks in the ancient Near East during the fourth and third millennia B.C.”, in M. Rothman (ed.) *Uruk Mesopotamia and its neighbours: Crosscultural interactions in the era of state formation*:149–80. Santa Fe, NM: School of American Research Press.
- Oates, J. [Lines] 1953. *The al-‘Ubaid Period in Mesopotamia and Its Persian Affinities*. PhD dissertation, University of Cambridge, UK.
- Oates, J. 1960. “Ur and Eridu: The Prehistory”, *Iraq* 22:32–50.
- 2010. “More Thoughts on the Ubaid Period”, in R. Carter & G. Philip (eds.) *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East* (Studies in Ancient Oriental Civilization 63):45–50. Chicago: Oriental Institute.
- Pollock, S. 2010. “Practices of Daily Life in Fifth-Millennium B.C. Iran and Mesopotamia”, in R. Carter & G. Philip (eds.) *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East* (Studies in Ancient Oriental Civilization 63):225–44. Chicago: Oriental Institute.
- Pournelle, J. 2003. *Marshland of Cities: Deltaic Landscapes and the Evolution of Early Mesopotamian Civilization*. PhD dissertation, Department of Anthropology, University of California, San Diego.
- 2013. “Physical Geography”, in H. Crawford (ed.) *The Sumerian World*:13–32. London: Routledge.
- Safar, F., M.A. Mustafa & S. Lloyd. 1981. *Eridu*. Baghdad: State Board of Antiquities and Heritage.
- Smogorzewska, A. 2015. “Hajji Muhammad Ware in the Gulf. New Data from the Ubaid-Related Site Bahra 1 (Kuwait)”, *Études et Travaux* 28:141–58.
- Stronach, D. 1961. “Excavations at Ras al-‘Amiya”, *Iraq* 23:95–137.
- Sudo, H. 2010. “The Development of Wool Exploitation in Ubaid-Period Settlements of North Mesopotamia”, in R. Carter & G. Philip (eds.) *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East* (Studies in Ancient Oriental Civilization 63):169–79. Chicago: Oriental Institute.
- Sürenhagen, D. 1986. “Archaische Keramik aus Uruk–Warka. Erster Teil: Die Keramik der Schichten XVI–VI aus den Sondagen “Tiefschnitt” und “Sägegraben” in Eanna”, *Baghdader Mitteilungen* 17: 7–95.
- Tite, M. S. & Y. Maniatis 1975. “Examination of Ancient Pottery Using the Scanning Electron Microscope”, *Nature* 257:122–3.
- Vallet, R., J.S. Baldi, C. Padovani, R. Abd-El-Kadim & C. Douché 2020. “Preliminary Report on the VIIIth and IXth Campaigns at Tell el-‘Uwaili (2019)”, *Sumer* 66:11–40.
- Vertesalji, P.P. 1984. *Babylonien zur Kupfersteinzeit* (Beihefte zum Tübinger Atlas des Vorderen Orients, Geisteswissenschaften 35). Wiesbaden: Ludwig Reichert.
- Volpi, L. 2022. “Revisiting the South: A Typochronological Approach to the Analysis of the Ubaid Pottery based on the New Data from Tell Zurghul (Dhi Qar, Iraq)”, *Paléorient* 48:175–99.
- Volpi, L. & P. Fragnoli. 2021. “Petrography-based discrimination of production areas within southern Mesopotamia: New data on the Ubaid pottery from Tell Zurghul (Dhi Qar, Iraq)”, *Origini* 45:35–62.
- Woolley, C.L. 1955. *Ur Excavations Volume IV. The Early Periods*. Philadelphia: Published for the Trustees of the two museums by the aid of a grant from the Johnson Fund of the American Philosophical Society.
- Wright, H.T. 1981. “Appendix; The Southern Margins of Sumer, Archaeological Survey of the Area of Eridu and Ur”, in R. McC. Adams, *Heartland of Cities, Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*:295–345. Chicago: University of Chicago Press.
- Ziegler, C. 1953. *Die Keramik von der Qal’a des Haggi Mohammed* (Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk–Warka 5). Berlin: Gebr. Mann.

The significance of the ED I–II texts from Ur for the beginning of the Third Millennium BC

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0. Introduction²

The Early Dynastic I–II period (hereafter ED I–II, approximately 2900–2600 B.C.)³ is a long period in Mesopotamian history that witnessed decisive cultural changes, notably the first clear use of the Sumerian language in writing (cf. Burrows in UET 2:22–3; Sallaberger & Schrakamp 2015:56) and a dramatic shift in the political balance.⁴ The dearth of textual information for this period nevertheless precludes a clear historical overview. The main written sources for this period are the “archaic” texts from Ur,⁵ amounting to approximately 410 tablets and fragments, which outnumber the contemporary evidence elsewhere, notably from Uruk or Šuruppak. Thus, the ED I–II texts from Ur are considered the main source for philological studies of the period, although these documents, originating from coherent archives written over a short period, give only a glimpse from a local centre. The present paper aims to compare them with the tablets and inscriptions from other sites in order to scrutinize the extent of standardization of the written traditions during this period and to highlight their specific or local features according to their provenance. It will also tackle chronological issues by classifying the different types of documents according to their features and offer an overview on the evolution of the written traditions at the beginning of the third millennium. This method will show how decisive the ED I–II texts from Ur are for any discussion of this period.

1. The Archaic Texts from Ur and the Textual Evidence from the ED I–II Period

The ED I–II texts from Ur represent the largest archive from that period⁶ and, furthermore, are better defined in relation to their context, since almost half of them stemmed from an archival room (the “Ancient Room”). The rest were uncovered in waste layers within the Seal-Impression Strata, most of them in SIS 4–5 (UET 2:8; cf. Chambon 2003).⁷ In conjunction with calibrated C14 samples, this context allows a chronological reconstruction around 2750–2700 for the great majority of the corpus, which Benati suggests attributing to a late phase of the ED I period, ED

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³ For a general overview, cf. Sallaberger & Schrakamp 2015: 56–61; Benati 2015; Frayne 2009.

⁴ Notably with the rise of the Kišite kingdom and the changes that may be inferred from the ED I–II city seal compared to the Jemdet Nasr period. The historical context has been the matter of much speculation due to the lack of evidence, see Steinkeller 2013, Frayne 2009, cf. also Lecompte 2020b.

⁵ As emphasized by Bartash (2015:121), the term “archaic” is conventional and here used in reference to Burrows and his edition in UET 2.

⁶ Published in UET 2 and Lecompte 2013. See also Lecompte & Benati 2016a. At least two unpublished fragments are known to me, U 12540 (P468274) and U 12902 (P005755), wrongly identified as UET 2, 169b; the excavation number U 12902 A and B exists also for UET 2, 169 and 174), see also UrOnline for photographs.

⁷ See recently the thorough re-evaluation of the archaeological remains by Benati 2014; Benati 2015; Benati & Lecompte 2016b.

Ib and Ic at Ur (Benati & Lecompte 2017:6–7). The archaeological analysis by the same author seems to show that the archaic texts from Ur on the whole were written and discarded over a few decades (ibid.), a reasoning in line with the general agreement that they represent a homogeneous group and derive from a relatively short period of time (Wright 1969:40; Visicato 2000:15–16; Sallaberger & Schrakamp 2015:56). Due to the lack of any date indication and year name, the exact timespan covered by the tablets cannot be established. The three texts uncovered in SIS VIII–VII, being consistent with the bulk of the documentation, are probably not earlier (UET 2:1): compared with the documents from Uruk and Šuruppak ascribed to the beginning of the ED I period (see below), and more generally with those from Uruk contemporary with Ur, the SIS VIII–VII tablets do not display any archaic features.

The documents from Ur probably originated from the Nanna temple, the “Ancient Room” being part of the fragmentary architectural remains uncovered beneath the Royal Cemetery (cf. Benati & Lecompte 2016b:14–19). The texts are for the most part administrative in content, and are plain records showing the temple’s management of resources: agricultural lands, personnel, cereals and diverse objects. They are either small dockets or medium to large tablets, all of them featuring a terse and laconic presentation of economic data as simple lists of goods, field plots, recipients, personal names or administrators. They are thus devoid of complex sentences or even of any concluding lines about the purpose of the expenditures or the deliveries. These tablets are in many instances fragmentary and only a few names or objects are preserved. Only one tablet (UET 2, 127) might be a contract relating to fields, although its exact meaning remains debated.⁸ Besides these administrative records, 25 documents can be identified as school tablets, which proves that education at the onset of the third millennium took place within the temple complex (Benati & Lecompte 2017).

By comparison, the contemporary textual evidence uncovered at other sites is not only meagre but also not as well stratified and defined by the archaeological remains. From Šuruppak and Uruk stem approximately 70 tablets or fragments which can be roughly dated back to the ED I–II period. The archaeological context of the tablets from Šuruppak is either not documented or not very informative: several among them even lack any indication of their find spot, and two tablets might stem from somewhere else altogether.⁹ For those whose find spot is mentioned in the excavation journals there seems to be no clear architectural context,¹⁰ although some were found in the same dump, located in trenches Id and Ie, which according to Martin contained at least 838 Jemdet Nasr (hereafter JN) and ED I–II seal impressions and may be associated with public buildings (Martin 1988:66).¹¹ The ED I–II tablets from Uruk, from scattered locations within the Eanna district, can be better connected to an archaeological context, although a secondary one, something which may also be relevant for a chronological inquiry (Oelsner 2020:571–2).¹² Aside from the clay tablets, a valuable supplementary source of evidence is to be found in a small group of contracts or stone inscriptions labeled “*kudurrus*”, generally devoid of any provenance with the notable exception of the *Figure aux plumes* from Ġirsu. The documentary situation and the discrepancy in the number of tablets found at the different sites explain why the texts from Ur are a benchmark for any discussion of that period, of its cultural features and the chronological distribution of the written artefacts over a span of three hundred years. In order to compare these corpora, the method followed here relies on five criteria:

⁸ See most recently Bartash 2019:40–2 and Benati & Lecompte 2021:71–4 with bibliographical references.

⁹ Texts lacking any “Fundstelle” according to Krebernik et al. 2014: nos 1, 3, 6, 7, 9, 11, 16, 17, 18, 19. The provenance of texts 24–25 seems somewhat dubious since there is no indication regarding their discovery and they lack any Š number; this is, however, neither the opinion of Falkenstein (1936:68) nor of Martin (1988:82).

¹⁰ Among those tablets, nos. 13 and 14 come respectively from the trenches XIXs and XIVt–u, which, according to Martin 1988:102–3, are devoid of architectural context. No. 5 was found near a well (Krebernik et al. 2014:338). No. 4, 20 and 21 on the one hand and no. 10 and 15 on the other come respectively from Id and Ie, which seem to contain graves (Martin 1988:107) and silos (Ie, Martin 1988:111), no. 8 from Ia which likewise features a silo (Martin 1988:110).

¹¹ See the previous footnote for the tablets from Id and Ie. Matthews (1991:2 and 7) suggests a correlation of Id and Ie with an administration of “undefinable nature” and a possible building. Recently, the excavations carried out in Fāra may have reached an architectural unit nearby, see the paper presented by Otto in December 2022 (<https://www.youtube.com/watch?v=EOvkqcI8RQE>). As noted by Martin (1988:66–7) and Krebernik et al. (2014:337, 353), these impressions date back to the JN and ED I–II periods.

¹² See part 3 of the present paper for some implications.

1. Format and layout of the tablets: Burrows observed that “The great majority of the tablets (to abstract from labels and the like) are oblong, with length [i.e., top to bottom of copies] greater than breadth, straight or oblong, slightly rounded sides, and but slightly rounded corners” (UET 2:4). The reverse is generally left without inscription.¹³
2. Ductus and palaeography: it is acknowledged since Burrows that the signs in Ur are still curvilinear, in line with the tradition from the Jemdet Nasr period but with a tendency towards more rectangular shapes, or, as asserted by Burrows, “less archaic” (UET 2:3).
3. Onomasticon (see Fenzel 1967; Krebern timer 2002): the majority of personal names are Sumerian, many of them identical with those attested during the course of the third millennium (cf. UET 2:22–3),¹⁴ although several show an unclear etymology or are remnants from the Late Uruk period.¹⁵ The texts from Ur bear witness to some specific ED I–II names, notably those consisting of the sign strings **igi.bur** and **šeš.ib**.¹⁶
4. Professional terms and vocabulary: aside from a few archaic professional designations, notably occurring in the Lu₂ list, such as **kiĝgal**, those which can be identified show similarities with the common Mesopotamian tradition, some being written in a peculiar way. Despite their lack of complex sentences and their limited vocabulary, the documents from different sites show several differences and similarities. The metrological systems and the numerals in use, particularly for capacity, which is not well understood in Ur, offer another criterion.
5. Pantheon: at Ur there is a certain expected prevalence of Nanna, followed by Inanna; other deities, such as Nisaba, Utu or Anzu and Niraĥ occur also in the documents from other sites (see UET 2:19–21).

2. Two similar ED I–II textual corpora: Ur and Uruk

The more than thirty tablets from Uruk attributed to the ED I–II period have been collected by Oelsner (2020). A new list (Table 1) is offered here which includes further texts to consider.¹⁷ Despite their fragmentary state, these tablets display an identical layout, featuring especially the small pillow-shaped format (W 17887,a) but also the oblong documents (W 5811 or the fragment W 17897,a) usual in Ur. Their reverse is generally left uninscribed, but not always.¹⁸ The columniation seems to show fewer cases of irregular patterns than in archaic Ur,¹⁹ but W 19412,a has the type of empty column, to the right of the first two columns, typical of Ur.

Table 1 Tablets from Uruk dating back to the ED I–II period.²⁰

Text references	Complement to Oelsner 2020:571 3—Main edition—Comparison with Ur
1. Texts from the same time as those from Ur	
W 5441- VAT 15275 P005963	Unpublished Small oblong tablet. Similar onomasticon (Šul / Ama-^dInanna / Mes-ki-nu-zu)

¹³ On this topic, see UET 2:4–5 and Lecompte 2016.

¹⁴ See also, for instance, Sallaberger-Schrakamp 2015:56.

¹⁵ Cf. the use of SU3.SU3.KALAM in ATFU 55.

¹⁶ See the discussion below (§ 2) on both terms.

¹⁷ As shown in Table 1, a few tablets considered ED IIIa by Oelsner and CDLI, are more likely to be ED I–II. Nissen 1986:324, ascribes other texts taken into account here to writing stage III 1. Falkenstein 1936 also considers further tablets as belonging to the Archaische Schicht I. The texts from Uruk are mostly cited here by their excavation number, see the corresponding edition in Table 1.

¹⁸ W 20365, W 20501, W 23949, W 5811 and W 5233,d.

¹⁹ For the columniation in Ur, see Lecompte 2016: 136–7.

²⁰ The tablet W 21906, which is from the Sargonic period (cf. CDLI and Oelsner 2020:576), had been mentioned by Nissen and Waetzoldt, see Waetzoldt 2011:251–2, as possibly from the ED I–II period but this is excluded. Likewise, ATU 1, 617 = VAT 15288, considered as stemming from Schicht I by Falkenstein, is held here to be Uruk III.

Text references	Complement to Oelsner 2020:571 3—Main edition—Comparison with Ur
W 10324 - VAT 15304 P005968	Englund & Nissen 2005: Plate 1 Small oblong format. Archaic features (PA NAM ₂) Contemporary or slightly earlier
W 11167,c - VAT 16789 P001782	Green 1982: no. 3—Englund & Nissen 2005: Plate 13 Green 1982: 164 “Ur archaic or earlier?”—Date not commented in Englund & Nissen 2005: 17 As Uruk III according to CDLI Only the signs IL ₂ (apparently not attested during the Late Uruk period) and maybe NAM are visible. Contemporary or earlier within the ED I period?
W 13922 P005969	Green 1982: no. 1 Rectangular format. ŠE+ŠITA. No personal names identifiable Contemporary or slightly earlier
W15878,n - VAT 16818 P005971	Englund & Nissen 2005: Plate 75 Names not mentioned elsewhere, DU.DU-a, Amar-KEŠ₂ (gīrid’) . Contemporary or slightly earlier
W 16033- VAT 16913 P005972	Englund & Nissen 2005: Plate 85 Rectangular numerals Ama-IGI.BUR
W 16937 P005973	Green 1982:166, no. 13:“Ur Archaic or Fara period” Rectangular numerals
W 17314 - VAT 17341 P000729	Green 1982: no. 4 Names of divinities—no numerals. Contemporary or slightly later?
W 17872,c - IM 46161,2 P005974	Unpublished. Fragmentary. Oblong format. O0104’. Maybe NUNUZ, identical to its shape in Ur.
W 17887,a - VAT 17862 P005975	Green 1982: no. 6 Small pillow-shaped tablet. Onomasticon similar (ASAL_x-ru, ŠEŠ.IB-IGI.BUR-kisal-DU)
W 17887,b - IM 46163 P005976	Unpublished Fragmentary. PA.SI (ensi_x) x
W 17889 P471580	Green 1982: 165, no. 8: “Ur Archaic”. As ED IIIa according to CDLI (and Oelsner 2020: 575) Andersson 2012: 299, ED I–II Tablet straighter than during the Fāra period Anzu written as AN.IM.MI.. Onomasticon and professional names similar to Ur: Amar-lugal (only ED I–II), Ama-e₂-si, En-iri-si - PA GIN ₂ , šita ^d Inanna, ME (išib) ^d Lamma
W17897,a - VAT 17872 P005042 and P235661	Green 1982: no. 7 = Englund & Nissen 2005: Plate 90 Similar layout to Ur. Identical onomasticon (Amar-kisal / Saĝ₅-ku₅ / Amar-^dNirah)
W 17902,e P235663	Green 1982: 165, no. 9: “Ur Archaic”. As ED IIIa according to CDLI (and Oelsner 2020:575) Onomasticon similar to Ur: Aya₂-iri-si, Utu-kur-ra, x-x-gal-si (ama²-du₁₀²-gal-si)
W 17902,g P235664	Green 1982: no. 5. Green 1982:164: “Ur Archaic”. As ED IIIa according to CDLI (and Oelsner 2020:575). Andersson 2012:311, ED IIIa Nanna written as ŠEŠ.NA; šeš₂.ib (ur-Nanna_x-ŠEŠ.IB)
W 19412,1 P005978	Green 1982: no. 11 Columniation similar to Ur. System Š *. Sumerian onomasticon but not identical to Ur
W 20365 P005979	Green 1982: no. 10 Probably oblong tablet. Offerings, only Inanna is preserved. Professions: kiĝgal, šita dingir, GAL SAR, saĝĝa DUB² (O0305’), saĝĝa x
W 20501 - HD W 20501 P005980	Green 1982:166, no. 12: “Ur Archaic?” Similar onomasticon (En-ušumgal* , Ama-din). Professions: pa₄-šeš ME, gal sa[gi]. EN.MU
W 23949 P235667	Cavigneaux 1991 Possible mention of rituals. Name: Amar-^dIB₂
2. Texts older than those from Ur (end of the JN period/beginning of the ED I period)	
W 5233,d - VAT 15241 P005962	ATU 1 no. 609. Nissen 1986:324. Sørenhagen 1999:92 Format oblong. Reverse: inversion of sign orientation. saĝĝa gal nun mentioned in other tablets ZATU 628. Archaic names of professions (NAM₂ KAB)

Text references	Complement to Oelsner 2020:571 3—Main edition—Comparison with Ur
W 5811- VAT 15232 P005964	Falkenstein ATU 1, 613. Sürenhagen 1999:91 Format oblong. Archaic professional names (tiru = GAL TE, GAL GURUŠ). Possible Sumerian name Nita . Sign GAR ₃ with the same use as DU _{8c} gunû
3. Texts of uncertain date	
W2656,a - VAT 15291 (?) P006015	ATU 1, 616. Englund & Nissen 2005:15, 31; Plate 1. (In both Englund & Nissen 2005 and CDLI, the tablet is confused with W 2656,b). Falkenstein 1936:29, Archaische Schicht I, “Nr. 616–617 nähern sich der Fara-Schrift” Archaic sign DU _{8c} gunû. Sign NINDA ₂ ×GU ₄ , if correctly identified, only occurs in this text. O0202. kiĝg[al]* JN?
W 2656,b - VAT 15290(?) P006014	Englund & Nissen 2005:15, 31; Plate 1. (In both ATU 6 and CDLI, the tablet is confused with W 2656,a) JN?
W 5074- VAT 15262 P005961	ED I period? Lexical. Unknown composition
W 5233,a, P000734 W 5233,b, P000735 W 5233, c, P000736 W 5233, e, P000737	Englund 1994:29–30, Plates 1–2 Possible archive from the office of GAL _a SANGA _a NUN _a like in W 5233,d Format of W 5233, a–c archaic. The sign LAGAB _a ×ŠITA _{a1} is used differently than in the Jemdet Nasr texts W 5233, e: ŠITA _{a1} AN ĤI (šita Dingir-du ₁₀ ?) Uruk III?
W 6573,b - VAT 15247 P000784	Englund 1994:31: “possibly postdates the ED I/II period” and Plate 9 Probably Uruk III. Note the rectangular shape of the numerals
W 6786,a+b+c - VAT 15231 - P005965	ATU 1, 611. Format similar to the Late Uruk texts. Signs unidentifiable Late Uruk/JN/ED I periods?
W 14724 - VAT 17682 P002085	Green 1982: no. 2. Englund & Nissen 2005: Plate 48 Green 1982:164 “Ur archaic or earlier”. According to Englund & Nissen 2005:22, “möglicherweise ED I”, as Uruk III according to CDLI Small tablet without columns.. Sign NE identical to its shape in Ur. Identifiable names: saĝĝa DAR NE AMA? - ĜA ₂ nu SAG/KA/LU ₂ Beginning of the ED I period?
W 17872,f - IM 46069 P002830	Unpublished. Only numerals. Maybe Late Uruk/JN
W 17872,i - IM 46161,1 P002831	Unpublished. Only numerals. Maybe Late Uruk/JN
W 17976 - IM 45909 P005977	Unpublished. Photograph illegible. Possibly O0201'. 1N ₁₄ 3N ₁ A ŠUL?
W 20236,1 P003480	Englund & Nissen 2001:21: “Uruk III oder Ur-archaisch (Frühdynastisch I)” and Pl.38. Sign GA _a +ZATU753. Maybe JN
W 21842 - HD W 21842 P004466	Englund & Nissen 2001:27: “Uruk III oder frühdynastisch I?” and Plate 80 Cone with signs
4. Unpublished texts devoid of documentation	
W 17872,b - P002827	
W 17872,d - P002829	

As regards the textual data, it is possible to differentiate two chronological groups: one, the majority, being more or less contemporary with the texts from Ur; the second, earlier and consisting of only two tablets, W 5233,d and W 5811, perhaps from the beginning of the ED I period or the end of the

JN period. An earlier date for both tablets has been proposed by Nissen²¹ and is suggested here on the basis of their philological content. The archaeological context only offers indirect evidence of their date: whereas the aforementioned authors suggest levels II and I6 as a *terminus ante quem* (*t.a.q.*) for W 5233,d and W 5811, the *t.a.q.* of W 5441, here considered similar to the tablets from Ur, is the more recent level I5.²²

The dates of several texts which contain archaic features cannot be clearly established (Table 1, 3–4). The most interesting among them, W 5074 and W 6786,a+, might be attributed to the JN period or a transitional time, Nissen carefully suggesting as *t.a.q.* level I.²³ Of these, W 5074 looks like a fragment of a lexical composition (Oelsner 2020:572) elsewhere unknown, to the best of my knowledge; its content is unclear and has sign strings similar to the archaic texts.²⁴ W 6786,a–c, an administrative tablet, raises some difficulties: the join with fragment d, which contains signs better drawn and probably from the JN period, seems problematic; the other signs, often broken, are not clearly identifiable and present some shapes reminiscent of the Uruk IV style, such as a sign which can be interpreted as SILA_{4b} or GA₂×NI, but is rather obscure here. They may be from the same time as W 5233,d and W 5811, also showing analogies with the archaic tradition (Falkenstein 1936:72–3 and Plate 63).²⁵ Similar uncertainties are raised by W 2656,a and b.

The first group in Table 1, maybe contemporary with the texts from Ur or slightly earlier, offers the closest affinities with them and, as said above, shares a similar layout and format. However, in some respects certain tablets show divergent features, which highlight possible, though limited, local specificities. Overall, the palaeography is similar, including the use of both curvilinear and rectangular numerals.²⁶ Some specific features, partly more archaizing, are:

- in W 13922, the sign to be interpreted as **sila**₃ in **še sila**₃, an expression also occurring in Ur,²⁷ has the same shape as ŠITA, which might be a mistake or a local variant
- the sign MUŠ, read **Nirah**, is somewhat more archaizing in W 17897,a than in Ur²⁸
- the sign UKKIN possibly in **kiġgal** (W 20365. O0104') seems also to be closer in shape to the way it was drawn during the Jemdet Nasr period
- the numerals of the ŠE Š* system, occurring in W 19412,1, have only two horizontal strokes, as during the JN period; in Ur they generally have several strokes, although some have only two strokes.²⁹

²¹ Nissen (1986:324) actually includes both tablets in his discussion of the writing level defined as IIIa by Falkenstein and III 1 by himself. The group mentioned by Nissen nevertheless includes JN documents (for instance W 6066,a and b = ATU 1, 599–600, which, according to their layout, are most probably from that period) as well as ED I–II documents and does not strictly define a chronological level. Sürenhagen 1999:91–2.

²² For the context of W 5233,d, Pd XVI,4 “im Schutt des Raumes 91, etwas unter Niveau der Abflußrinne” see Sürenhagen 1999:92, the *t.a.q.* I6 suggested by him corresponds (in the analysis by Eichmann 2007: Beilage 11, Plan 25) to UA (Untersuchungsareal) 1, BS 7. For W 5811, found in Pd XVI 3 (?), in “Raum 90 in Fußbodenhöhe der Schicht II// II”, see Sürenhagen 1999: 91; the *t.a.q.* suggested by Sürenhagen is (according to Eichmann 2007:77–8 and Beilage 11, Plan 25) the same as before. For W 5441, which is more similar to Ur, see Sürenhagen 1999: 93; the *t.a.q.* suggested by Sürenhagen is (according to Eichmann 2007: Beilage 56 Plan 73) UA 4, BS 8.

²³ Nissen in Green & Nissen 1987:32. W 5074, was found in Pc XVI, 3 “neben der Abflußrinne der Schicht I”, which, according to the stratigraphical studies by Eichmann, corresponds to UA 1 BS 11: 15 (Eichmann 2007 Beilage 7, Plan 21). For W 6786,a+, found in Pd XVI, 3 “an der aus zwei Schichten bestehenden Riemchenmauer der Schicht II unter dem Ur III-Ziegel”, the *t.a.q.* might be the same as for W 5441 (contemporary to archaic Ur), I5, UA 4: BS 8.

²⁴ If correctly identified, O0205–206 consist of the association of AB₂ with, respectively, 3N₅₇ and 4N₅₇, which are reminiscent of archaic documents, namely the lexical list Archaic Vessels and Garments 115–16 and MSVO 1, 20. R0101 for the former and MSVO 4, 21. R0302 for the latter.

²⁵ CDLI, followed by Oelsner 2020:572, also suggests the ED I–II period.

²⁶ W 13922, W 17902,g, W 16937, W 16033, W 23949, but the drawing by Cavigneaux (1991) is not fully correct, looking more like a vertical wedge from later periods.

²⁷ For instance in UET 2, 58 and ATFU 50.

²⁸ The scribes from Ur draw its end part in a more simple way, cf. Lecompte 2015:154.

²⁹ The numerals transliterated for the archaic texts as N4 and N19 (cf. Englund 1998:118), occur in UET 2 as sign P in Plate 36.

The onomasticon also presents striking affinities: although the tablets from Uruk are scanty and fragmentary, they have 18 personal names in common with Ur, as shown by Table 2, which also includes the name Nita, occurring in the earlier tablet W 5811.

Table 2 Personal names occurring in ED I–II Ur and Uruk

Names	Ur	Uruk
Ama-^{an}Anzu_x	PN 88 and 115	ZA 72. Text 8. O0305'
Ama-e₂-si	PN 98	ZA 72. Text 8. O0205
Ama-IGI-BUR	PN 114	ATU 5, W 16033. O0102
Ama-^(d)Inanna	PN 131	W 5441. O0102'
Amar-kisal	PN 177	ZA 72. Text 7. O0202
Amar-lugal	PN 81	ZA 72. Text 8. O0204
Amar-^dNirah	PN 158	ZA 72. Text 7. O0301
Amar-^dIB₂	PN 154	BagM 22. W23949. O0103
Asal_x-RU	PN 781	ZA 72. Text 6. O0102
Aya₂-iri-si	PN 42	ZA 72. Text 8. O0302'. A[ya ₂ ']-iri-si ZA 72. Text 9. O0303'
Lugal-AK	PN 459	W 5441. O0104'
Mes-ki-nu-zu	PN 526	W 5441. O0102' (?)
Nam₂	ATFU 60. O0304	ZA 72. Text 8. O0404. 'Nam ₂ ' ^{??1}
Nita	PN 579	W 5811. O0105'
Saĝ-ku₅	ATFU 33. O0303'	ZA 72. Text 7. O0101'. S[aĝ']-tar
Šubur	PN 676	ATU 7, W 19412, 1. O0103'
Šul	PN 679	W 5441. O0101. [x] Šul
Ušumgal	PN 759	ZA 72, 8. O0203'. 'Ušumgal' 'nimgir' ²¹
Other similar names	PN 106: Ama-ĝeštin PN 106: UET 2, 5. R0102. Amar-^dEzinu₃ ³⁰ PN 84 Ama-para₁₀-si/ PN 461 Lugal-para₁₀-si.	ZA 72, 12. O0303'. 4N ₁ Ama-din ZA 72. Text 8. O0201'. [...] -para₁₀-si ZA 72. Text 11. O0202. Amar-^dEzinu₃

Such similarities are of course far from surprising, since these personal names belong to the Sumerian tradition, which in many instances lingers through the whole third millennium in Mesopotamia, more particularly during the Fāra period. Some names, however, seem to be more specific to an ED I–II tradition, such as **Ama-^{an}Anzu_x** (Krebernik 2002:20), **Amar-lugal** (see Andersson 2012:84 and 299) **Asal_x-ru**, **Amar-^dIB₂**, and the sign string **igi.bur** in **Ama-IGI.BUR**. The names common to Ur and Uruk share a similar template, consisting mostly of: the element **amar**, “calf”, followed by a divine name; of such terms as **lugal**, **kisal** (Krebernik 2002:11); of the verb **-si** in the structure x-y-si, for instance **Aya₂-iri-si**, which is common in the Sumerian onomasticon (Krebernik 2002:23–32); or the term **ama**. **Ušumgal**, which is reminiscent of Archaic Lu₂ 99 but is a personal name,³⁰ occurs in one tablet from Uruk,³¹ although the relevant line is fragmentary.³² Other names, which do not occur in Ur, consist of the typical ED I–II components **šeš.ib** and **igi.bur**, namely **Ur*-Nanna_x-ŠEŠ.IB** (W 17902,g. O0202') and **ŠEŠ.IB-IGI.BUR-kisal-DU** (W 17887,a. O0103—cf. Visicato & Westenholz 2005:65 fn. 22). Both sign sets, though occurring sporadically in

³⁰ Burrows (UET 2:38) had already remarked that it co-occurs with the term **simug**.

³¹ It might be a shortened form for **Ama-ušumgal** or **Aya₂-ušumgal** (PN 44 and 144 in UET 2), see Krebernik 2003:153–6 on these personal names.

³² Since there is no available photograph of W 17889, the line O0203' could not be collated but the interpretation of the sign following the name as **nimgir** relies on the copy by Green.

later witnesses,³³ are mostly attested during the ED I–II period (cf. Krebernik 2002:4 fn. 9, see also 14 fn. 41 for **šeš.ib**).

The professional terms are also consistent with Ur, albeit with some archaic uses and slight differences. For instance, W 17889. O0103 and W 17902.g. O0101. both mention a **šita-gal**, a possible designation of a priest which occurs in the lexical list Archaic Lu₂ no. 14 but does not seem to be found in the extant evidence from Ur. Similarly, **šita diġir** occurs in W 20365. O0203', but apparently not in Ur. The other designations occur both in Uruk and Ur, and belong to the general Sumerian lexicon of officials:

- **abgal**: Uruk: W 19412, 1. O0203'; Ur: Occupation 41 and PN 584 in UET 2. This profession is also commonly mentioned in the ED IIIa texts (Pomponio 1987:290–1; Visicato 1997:109).
- **kiġgal**: in Uruk, probably in W 20365. O0104; in Ur Occupation 74 and PN 705.³⁴
- **PA.DU** occurs in W 23949. R0104, from Uruk, maybe for **maškim**.³⁵ Ur: Occupation 58.
- **PA.GIN₂**. Uruk: W 17889. O0403'. Ur: Occupation 18. It could also be compared with **GAL PA.DUN₃** in ED Lu₂.A 116, **PA.DUN₃** being read **hursag**.³⁶
- In W 20501. O0402' there occurs a possible **pa₄-šeš**;³⁷ see Occupation 57 in UET 2.
- W 20501. [] **gal** SILA₃.ŠU refers in all likelihood to a **gal sagi**, occurring also in the Fāra documents (Visicato 1997:115); compare with **sagi** in Ur, Occupation 18 in UET 2.
- **šita dInanna**: Uruk: W 17889. O0103, UET 2: Occupation 17b.

The vocabulary used in ED I–II Uruk, though scarce, is also shared with Ur. Here, two terms suffice to illustrate this ill-known terminology: **še sila₃** refers to a capacity unit (see above); the terminology related to sheep and goats is also similar, see for instance W 17887.a. O0101. 2N₁ **aš₂-gar₃ ud₅**.

The divine names in Uruk, occurring almost exclusively in personal names,³⁸ are generally identical with those from Ur: Anzu, IB₂, Inanna, Nanna, Niraġ and Utu; note that Ezinu occurs rarely in the extant texts from Ur.³⁹ The orthography of Anzu, found in **Ama^{-an}Anzux šagan_x** (LAK175) **kalam**, is identical with Ur, being written AN IM.MI, and is therefore distinct from the Fāra period, when the signs NI₂ and MUŠEN are in use (cf. Zand 2010:433). As shown elsewhere, the sign MUŠ also has the value niraġ in the tablets of both sites (Lecompte 2015:150–4). The divinity AN TUM, here read ^dIB₂ (Table 3), is mentioned in ED I–II personal names,⁴⁰ as well as in a seal impression from Ur.⁴¹ It may or not be a phonetic writing of IB, occurring both in Ur and in ED IIIa Fāra. Subsequently, the same name was preserved in a god list from Abū Šalābīġ as ^dIB₂ (Mander 1986:25, no. 50 and 45; Alberti 1986:8), which is distinguished from AN MA TUM, held to be *Il-mātim* by Krebernik.⁴² In the *Cultic Personnel Lists*, it occurs as **išib-d^dIB₂**, somewhat doubtfully in Fāra, and with the sign LAK496 in Abū Šalābīġ (Mander 1986:45), a local variant for TUM, as proven by its

³³ **Šeš.ib** occurs during the Fāra period in lexical lists, notably the *List of Geographical Names*, the god lists, and in a type of list of personal names and professions, SF 28–9, see notably Krebernik 2002:4 fn. 9 and Lecompte 2013:63–4 for references; see also YBC 2124 ii. 13 and NBC 11202 ii. 13 published in Cohen 1993:80. **Igi.bur** likewise still occurs in the Fāra list of personal and professional names SF 28–9, but also in the ED incantations, and a type of container in the vocabulary list EDVPA (Civil 2008:30), in the elusive expression AN.UNUG.IGI.BUR.ME+MU in the ED IIIb tablets from Ur, and in an inscription of A-ane-pada, see Krebernik 2002:4 fn. 9, Visicato & Westenholz 2005:64 and Lecompte 2013:79 for references; see also the ED *Word List Z*, no. 85 in Kraus 2021:150. The lexical occurrences may be a relict from the ED I–II period and can even be considered evidence for the early date of such lists.

³⁴ Add for Uruk the earlier text W 2056,a (=b on CDLI), see Table 1; for Ur, ATFU 64.

³⁵ Read as **Amar-d^dIB₂ lu, En-gi PA DU**.

³⁶ However, the second sign is apparently never written as GIN₂, which does not support a similar reading for the ED I–II professional designation.

³⁷ The name of this priest might merely be ME, unless it is the divinity.

³⁸ An exception is W 20365, recording personnel or offerings for Inanna and probably other deities.

³⁹ See UET 2, 5. R0102. **Amar-d^dEzinu₃*** instead of Nisaba; UET 2, 162. O0309. **Ama-NAĠA!**/Ezinu₃-si but NAĠA for Ereš₂ is more likely. See W 19412, 1. O0202. **Amar-d^dEzinu₃**.

⁴⁰ **Amar-d^dIB₂** and **Saġ-d^dIB₂**, see Table 3.

⁴¹ UE 3 no. 85 (U 18394), not interpreted by Legrain; Charvát 2010:59 and 2017:45, interprets the sign set as AN LAL₂ ALAM, but this is less likely than a suggested reading: PA₄*-d^dIB₂.

⁴² It occurs in another god list from Fāra, SF 1, see Krebernik 1986:194.

use in other lists (Krebernik & Lisman 2020:100; see also Keetman 2022:28).⁴³ AN.TUM occurs also in a manuscript from Abū Ṣalābīḥ of the City List, although it is probably an interpretation given by the scribes to the archaic name, which is simply TUM.

Table 3 Occurrences of AN IB₂, AN MA TUM and related names during the ED IIIa period

Period / Type of texts	Occurrences of ^d IB ₂ and AN MA TUM
ED I–II	
Ur—Administrative texts	UET 2, PN 154: Amar - ^d IB ₂ - PN 608: Saġ - ^d IB ₂
Uruk—Administrative texts	BagM 22. W23949. O0103. Amar - ^d IB ₂
Ur—Sealing	UE 3. 85. ^r PA ₄ ^{??} - ^d IB ₂
Khafajah— <i>kudurru</i>	OIP 104. obv. iii. 8. GIŠ.GI - ^d IB ₂
ED IIIa	
God list—Fāra.	SF 1. obv. viii. 1. AN-TUM-MA (<i>Il₃-ma-tum</i> ?) ⁴⁴
God list—Abu Ṣalābīḥ	IAS 82. obv. iii. 6. ^d IB ₂ ¹
Cultic Personnel List—Fāra—Abū Ṣalābīḥ	SF 57 rs. v. 7. išib - ^d LAK496!(TUM ?) ⁴⁵ rs. v. 20. išib -MA-TUM IAS 46 x. 3'-4'-5'. išib ^d LAK496(TUM×PAP)
ED Word List—Z	IAS 46 obv. ix.6'. A-nun - ^d IB ₂ (?) ⁴⁶
Occurrences of TUM in the City List	
City List—no. 20	
Late Uruk/Jemdet Nasr manuscripts	Cities 20. TUM _a
ED IIIa—Fāra	SF 23 obv. ii. 2. [AN [?] TU]M
ED IIIa—Abū Ṣalābīḥ	IAS 21 obv. ii. 3. AN LAK496

The tablets from the second group in Table 1 show features which are obviously more archaic than the first group, but do not seem to be contemporary with those from the JN period:

- W 5233,d: on its reverse, some lines are oriented in the opposite direction to the others, a feature reminiscent of the Late Uruk texts; the professional names are consistent with Archaic Lu₂,⁴⁷ the oblong format is closer to archaic Ur, and the sign IR₃ is identical with the shape in UET 2, S. 51 but differs from its archaic forerunners (ZATU 228 and 604).
- W 5811 likewise shows archaic features, such as the sign TAR_a (O0207), which is different from the “classical” shape in UET 2 (S. 117), the archaic professions GAL_a TE and GAL_a GURUŠ_a, and the use of ŠITAgunû_b, but the layout, the sign sets ŠA₃ NUMUN and ŠITAgunû_b HAL, all unknown from the JN texts, suggest that this tablet is later.

Both tablets were ascribed by Falkenstein to level II and by Nissen to level III 1, which he described as a stage of “transformation which in fact may have taken only rather short time” and even elicited

⁴³ Two other lists reinforce their idea: in the *List of Geographical Names*, the entry 84 is written LAK496^{ki} in IAS 94 obv. iv. 7 but TUM^{ki} in TM 75.G.2231 obv. iv. 15 from Ebla. Likewise, in ED Word List F (see the edition by Civil 2010:229–45), entry 67 is written in IAS 39+405 obv. iv. 11 as [LAK4]96 but as TUM in MS 4592 obv. iv.10 and as LU₂ IGI in the Old Babylonian manuscripts, N 5174 obv. iv.4' and MS 4155 iv.11.

⁴⁴ According to the drawing by Krebernik in CDLI, probably LAK496 for TUM.

⁴⁵ A. Deimel (SF 57:56) had read AN TUM A, Mander 1986:45 as ME ^dEGIR, but, according to the photograph, the sign may be LAK496.

⁴⁶ Compare with Kraus 2021:152, **egir-an-a-nun**.

⁴⁷ **nam₂-KAB** and **saġġa gal**, Lu₂ 2 and 47; note also the archaic writing of KAB.

an ED I date (Nissen 1986:326).⁴⁸ They might therefore belong to a transition time. W 5233,d raises the question of the date of W 5233,a–c and e (Table 1 group 3):⁴⁹ although Falkenstein and Englund ascribed them to the JN period (ATU 1 605–8 (W 5233, a–c and e); Englund 1994:29–30), they might be related with a later transition time, in line with Nissen’s level III 1 (Nissen 1986:324). At first glance, they seem to belong to the Uruk III stage due to their archaic features, notably the layout; the mention of AN MUŠ_{3a} SIG, in W 5233,b (cf. Szarzynska 1993:16–21); their recording of the distribution of containers of products to various individuals, common in the Eanna archive; and the archaic metrological system.⁵⁰ On the other hand, the main administrator in W 5233,a, GAL_a SANGA_a NUN_a has the same role in W 5233,d (ED I–II). W 5233,e displays unusual sign sets and the use of LAGAB_a×ŠITA_{a1}, occurring alone in W 5233,a–b, also differs slightly from the JN texts.⁵¹ The occurrence of the same official may point to a single archive for all the tablets labelled as W 5233, which might therefore have featured two styles, maybe succeeding each other over a short time, the archaic tradition being replaced by a “new” trend anticipating ED I–II practices.

3. The ED I–II evidence in Ur and Šuruppak

The tablets uncovered in Fāra but predating the ED IIIa period have recently been studied by Krebernik, Steible and Yıldız (here referred to according to their number in the publication), who stressed that they were partly similar to those from Ur. As shown in Table 4, there are numerous onomastic concordances between the corpora, which is to be expected since the ED I–II names match a typical Sumerian pattern that was also in use during subsequent periods. A closer look at these texts from Fāra supports the distinction of four different chronological groups.

A first group consists of two tablets, only nos. 24–5, which are consistent with the texts from Uruk ascribed to the end of the JN or the beginning of the ED I period.⁵² Note that no. 24 has a format reminiscent of Ur and yet displays some signs which are not archaic, notably AZU, but that other features are obviously older, notably the shape of AMA and the occurrence of 3N₅₇+PIRIG_{b1}; the sign EN looks like an imitation of an archaic style and has neither the JN nor the ED I–II shape.⁵³ The document deals with **bar gada**, which seems not to be found during the JN period. Fragment no. 25 likewise displays the archaic combination 3N₅₇+PIRIG_{b1} and RAD_a. Neither tablets’ origin, although accepted by scholars, seems certain as both lack an excavation number or any other form of evidence.⁵⁴

⁴⁸ He also asserts: “I would not exclude at all, that III 1 may actually be dated already to the Early Dynastic I period”. The same author also writes in the following paragraph that there is a lack of consistency between III 2/1 and Archaic Ur and that a “stage of transformation between III 1 and Archaic Ur is missing”. This means that W 5233,d, W 5811 and maybe others, notably W 6786,a and 5074 are from the very beginning of the ED I period. However, a missing stage is not necessarily to be supposed since the tablets from Uruk similar to archaic Ur are probably slightly earlier and may represent the stage subsequent to Nissen’s writing phase III 1.

⁴⁹ W 5233,f and g are not discussed here as they are small fragments; the former showing a typical JN format with subcases.

⁵⁰ The numerals N₂₄ and N₂₆ occurring in W 5233,a–c are unknown in archaic Ur.

⁵¹ In the Late Uruk tradition, the same sign is often associated with LAGAB_a×ŠA, see the list *Archaic Grain* 33–4, and its consistent use in other texts such as CUSAS 1, 137.

⁵² On the text no. 24 = VAT 9091, cf. Falkenstein 1936:28: “Zwischen Ĝemdet Našr und Fara steht auch der noch vereinzelt Text VAT 9091”.

⁵³ It looks almost like an Uruk IV forerunner to EN, Falkenstein 1936:68, describes it as “singulär”.

⁵⁴ See above for references to Falkenstein 1936 and Martin 1988. H. Naccaro, who is collecting the archaeological evidence from the Jemdet Našr period, pointed out this uncertainty to me (p.c.).

Table 4 Personal names occurring in ED I–II Ur and Šuruppak (bold: texts contemporary with Ur, underlined and italic: older, normal font: more recent).

Names	Ur	Fara
A-ama-si	PN 91	Fs. Krecher. Texts 1 , 2 , 3 and 18
A-ġeštin	PN 12	Fs Krecher. Text 1
Amar-^dPA	PN 157	Fs Krecher. Text 2 (?)
Amar-Nanna_x	PN 185	Fs. Krecher. Text <u>24 (?)</u>
Amar-u₄-sakar	PN 198	Fs. Krecher. Text 23
Ba-zi	PN 207	Fs. Krecher. Text 13
Diġir-AK	PN 226	Fs. Krecher. Text 1
DU₃-zi-um	PN 715	Fs. Krecher. Text 18
E₂-si	PN 274	Ks. Krecher. Text 13
En-aya₂-da	PN 10	Fs. Krecher. Text 2
Ĥu-^{bu7}bu	PN 347	Fs. Krecher. Texts 17 and 18
IGI+BUR-saġar-ra	UET 2, 118. ATFU 50	Fs. Krecher. Texts 16 and 18
Ku-li	PN 406	Fs Krecher. Text 2
Lu-lu	PN 423	Fs. Krecher. Texts 1, 2 and 15
Lugal-bara₂-si	PN 461	Fs. Krecher. Text 2
Lugal-nam-tar-PA.SU₁₃.SIKIL	PN 482	Fs. Krecher. Text 16
LUM-ma	PN 493	Fs. Krecher. Texts 1 , 2 and 15
Mes-ki-nu-zu	PN 526	Fs. Krecher. Text 13
Mes-lu₂-nu-ĥuġ	PN 443	Fs. Krecher. Text 6 .
Munus-da-nu-kuš₂	PN 628	Fs. Krecher. Texts 2 , 3 , 14 , 15 and 16
NI.NI	PN 563	Fs. Krecher. Text 1
PA₄-ad₂-gal	ATFU 61	Fs. Krecher. Text 20
Saġ-ku₅	ATFU 33	Fs. Krecher. Texts 2 and 10
Si-du₃	PN 255	Fs. Krecher. Texts 6 and 21
ŠEŠ+IB-du₁₀ *	ATFU 23	Fs. Krecher. Text 3
Šubur	PN 676	Fs. Krecher. Text 18
Šul	PN 679	Fs. Krecher. Text 2.
Šul-la	ATFU 1	Fs. Krecher. Text 2.
Šul-šul	PN 260	Fs. Krecher. Text 14
Ur-^dInanna	PN 727	Fs. Krecher. Text 2
Ur-^(d)Nisaba	PN 722	Fs. Krecher. Texts 3 and 21 (?).
Ur-saġ *	PN 738	Fs. Krecher. Text 16
Zi-zi-ga *	PN 767	Fs. Krecher. Text 18 .
Zu₂-la₂-lum (?)	PN 383	Fs. Krecher. Text 21

A second group, consisting of 13 texts, with some uncertain cases,⁵⁵ can be held to be more or less contemporary with those from Ur and the first group of documents from Uruk. They show the following features:

1. The same oblong format as Ur (Fig. 3) is a distinctive criterion, but the Fāra tablets seem more often to have their reverse inscribed;⁵⁶ the reverse, when photographs are available, seems to be convex (see Table 5, Text no. 16), as in Ur, even for texts whose date is uncertain (cf. Table 5, Text no. 1).

⁵⁵ Nos 1 (?), 3, 6, 10 (?), 14, 15 (?), 16, 17, 18, 19, 20 (?), 23. See Lecompte 2020a:432 fn. 54 with a slightly different list.

⁵⁶ Text no. 16 has only three lines on the right, similarly to some of the Ur documents (UET 2, 62).

2. Their palaeographical features are similar, for instance the shape of AMA, with its two horizontal strokes slightly inclined (see Text no. 23 O0202).
3. The onomasticon (Table 4), which shows strong affinities with Ur but also of course with the ED IIIa period, is in some instances closer to the former: **Amar-u₄-sakar**,⁵⁷ for instance, apparently only occurs in an ED IIIa school text, namely a list of professional and personal names, SF 28,⁵⁸ which probably retained some references from the previous period. Another example is **Munus-da-nu-kuš₂**, differing from the Fāra period when it is written **Munus-a₂-nu-kuš₂**.⁵⁹ The following names are also specific to that period: **Lugal-nam-tar-PA.SU₁₃.SIKIL**,⁶⁰ **DU₃-zi-um** and **Zi-zi-ga**. Typical of the ED I–II onomasticon, **šeš.ib** and **igi.bur** are also found in two common names at Ur, **ŠEŠ+IB*-du₁₀** and **IGI.BUR-saḫar-ra**.⁶¹
- 4-5. As will be shown below, these texts and those which are slightly later also share common names of divinities and professional designations.



Fig. 1 The bil_x logogram in Ur (ATFU 23. O0302')



Fig. 2 The bil_x logogram in Ur Fāra (Krebernik, Steible & Yıldız 2014: Text no. 6 O0103)

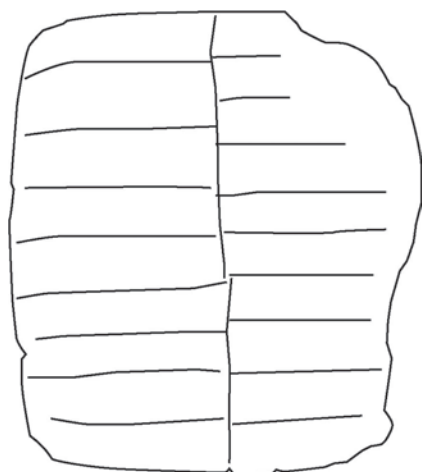


Fig. 3 Format of an ED I tablet from Fāra (Krebernik, Steible & Yıldız 2014: Text 18)

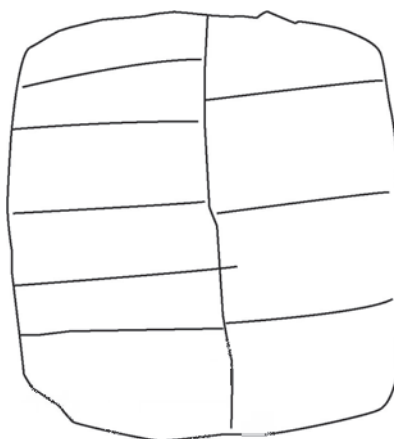


Fig. 4 Format of an ED II tablet from Fāra (Krebernik, Steible & Yıldız 2014: Text 7)

These texts also contain some specific features which might be attributed to regional differences:

- some names are closer to the ED IIIa period, notably **E₂-kur-diri** and **ḪAR-tu**⁶²
- the sign **bil_x**, written S.377.NE.PA₄ in Ur, is already to be found as GIŠ.NE.PA₄ in Fāra (**bil₃** according to Krebernik, Steible and Yıldız), thus identical with the ED IIIa tradition
- the numerals are generally more frequently rectangular than those from Ur

⁵⁷ It occurs in Text no. 23 and in Ur (PN 198). See also ATFU 23, **Amar-<u₄>-sakar**.

⁵⁸ Cf. Krebernik 1998:339 with bibliography.

⁵⁹ Cf. Pomponio 1987:179–80 and Visicato 1997:67.

⁶⁰ Andersson 2012:383–4; Lecompte 2013:98–9.

⁶¹ In Ur, the name was not identified by Burrows in his index although it occurs in UET 2, 118. In ATFU 50, I was hesitant in its transliteration which can now, thanks to the parallel from Fāra, be corrected securely.

⁶² For the former, see Pomponio 1987:81 and Visicato 1997:31; for the latter, cf. Pomponio 1987:116 and Visicato 1997:44–6 (**ḪAR-tu-dSud₃**).

A third group, though very close to the former and still sharing similarities with Ur,⁶³ is differentiated through some features which may point to a slightly later date, maybe the ED II period:⁶⁴

- their format is rounder, being closer to the ED IIIa tablets, more squat (Fig. 4), and with length and width similar (see text no. 12)
- signs are in some instances more rectangular than in Ur, see for instance RU in text no. 7
- some signs are related to the ED IIIa tradition, notably LAK20, a designation for buck, in no. 7
- likewise, the term **dam-gar**₃ in text no. 12 and the use of the **lid**₂-**ga** measure in text no. 5 probably point to a later date if not to a regional difference.

Text no. 2 in the same publication is also puzzling: it has an unusual round shape, concludes with the expression **nu**, which can be compared with other clauses in Fāra, and has signs partly more archaic. According to the editors, it presents several parallels with no. 1, but some of these remain open to question (see Table 5). It might shortly precede the ED IIIa Fāra texts. Similarly, some uncertainties remain as to the date of texts nos 8 and 22, the latter identified as a fragment of a literary work.

Table 5 List of suggested readings of the ED I–II Fāra texts and comparison with Ur

Text 1	rs. iv. 4. UR ₂ ×UD seems uncertain; maybe Munus-da-nu-<kuš₂> rs. iv. 5. MI A ŠE ₃ also seems doubtful, the parallel with text no. 2 is uncertain
Text 2	vs. iii. 5. Ur-Nanše without determinative rs. i. vii Maš-z[u] , ZU partly visible on the photo but not on the copy
Text 3	obv. ii. 4. ŠEŠ+IB'-du ₁₀ = ATFU 23 obv. ii. 5'. Ur-Nisaba without determinative (PN 722 in UET 2 with determinative) obv. ii. 6'. TUR instead of NE? obv. iv. 3'. Probably to be read as ensi_x (PA.SI)- ĜAR / NIĜ₂.PA.SI
Text 10	obv. i. 1. 'aya₂'-ul₄'-gal 'x'
Text 11	obv. 2. A-(aya²?) - mud-nun (compare with PN 8 in UET 2, A-mud-c ₂ -nun) 4. Maybe 'NUN x'
Text 13	obv.i. 2. ensi_x - ĜAR / NIĜ₂.PA.SI obv. ii. 1. Following Deimel (WF 146) to be read as Ur-saĝ = PN 738 in Ur
Text 15	obv. i. 4. Lu-'A' ²¹ ii. 5. SI NIĜ ₂ [PA] (ensi_x - ĜAR / NIĜ₂.PA.SI) ii. 6. After Munus-da-nu-kuš₂ , maybe PA 'SI' ²¹
Text 16	obv. ii. 4. Ur-saĝ kindagal , cf. SF 53, kindagal = Occupation 76 and PN 753 in UET 2
Texts 17	obv. ii. 1'. Maybe read the name as Pa-bil_x-ga-ul₄-<gal>
Text 18	obv. ii. 3. gal-u[l₄] ii. 4. sud₃ not very visible (cf. WF 110) ii. 6. Maybe Amar-ezinu₃ (cf. in Uruk ZA 72 no. 11. O0202') or Amar-<u₄>-sakar ii. 8. Zi-zi-g[a] = PN 767 UET 2, see collation by Marzahn, in Pomponio 1987:279 ii. 10. E₂-kur-d[iri']
Text 19	obv. 7. Read by Deimel (WF 111) U ₄ [] and Pomponio 1987:38 Amar-U₄-maĝ . Maybe Amar-d¹u₄
Text 22	obv. 2. Probably, as suggested on CDLI (P480580), DA instead of ŠU

The tablets contemporary with or later than those from Ur present affinities with them. These include, more specifically, the onomasticon, the divine names and the vocabulary. The personal names common to Fāra and Ur are often also in use during the subsequent periods, **A-ĝeštīn**, **Ba-zi**, **Ku-li**, **Lu-lu**, **Mes-lu₂-nu-ĥuĝ**, **NI.NI**, **Saĝ-ku₅**, **Šul-la**, **Zu₂-la-lum_x**, and prove that the Sumerian onomasticon was well established as early as the 28th century. The names of divinities show some

⁶³ See below the commentaries on the personal, professional and divine names. It is also worth mentioning that the sign MES in the name **Mes-ki-nu-zu** in Text no. 13. O0301, seems to be written UM, the lack of distinction between those values being a common feature in the texts from Ur (cf. Benati & Lecompte 2017:16).

⁶⁴ Texts nos 4 (?), 5(?), 7, 9, 11 (?), 12, 13, 21 (?). See Lecompte 2020:432 fn. 54 with a slightly different list.

slight differences: while Nanna is not mentioned in the extant texts from Fāra, Nanše and the orthography *Aš-tar₂* are specific features of this corpus.⁶⁵ The other divinities mentioned therein are common to Ur: Anzu, also written AN.IM.MI, Inanna, Nisaba and Utu. Among the professional designations, the transliteration of some of them being uncertain,⁶⁶ **dam-gar₃**, **ašgab** and **šita alan** (cf. Krebernik, Steible & Yıldız 2014:359 and 361 for references) are not mentioned in archaic Ur; conversely, the type of priest **abgal**, **kindagal**, **naġar**,⁶⁷ and the herder **munsub_x** (PA.USAN)⁶⁸ occur in both cities.⁶⁹ The mention of NIĠ₂ SI PA⁷⁰ might not be a personal name, **NiĠ₂-si**, along with his profession of **ugula**, but rather a reference to a governor, ĠAR PA.SI (**ensi_x**), which can be compared both with Ur, referring merely to the **ensi_x** (cf. Burrows UET 2:16; Bauer 1987:5), and with the later ED IIIa texts, which witness the use of the title NIĠ₂.PA.TE.SI / **ensi₂-ĠAR-(gal)**.⁷¹ This meaning fits very well in Text no. 3, in which this official occurs at the end of the last column of the obverse, in a separated type of clause.

4. Tablets from other sites or without provenance

Only a few tablets have been uncovered at other sites, notably, according to CDLI, seven from Nippur which are fragmentary or damaged. This situation notwithstanding, scholars have roughly distinguished between ED I and ED II phases.⁷² Only a few personal names can be read,⁷³ and several professional designations occur in AS 17, 2 and 4, such as **naġar**, **nu-kiri₆**, **IB**, **sa₁₂-du₅**, or maybe **gu-sur-nun** in the latter text which might be later. In Kiš, the ED I–II texts cannot easily be identified, and are to some extent not distinguishable either from the JN or from the ED III periods. At least three fragments are ascribed by Westenholz to the ED I–II period,⁷⁴ to which can be added MSVO 1, 241 (see Westenholz CUSAS 26; Westenholz apud Zaina 2020:154).⁷⁵ Several fragmentary tablets found, according to Zaina, in an ED I or II context, YW sounding—phase 4, are ascribed by Westenholz on the basis of palaeography (Zaina 2020:154–63)⁷⁶ to the ED IIIa period, although a

⁶⁵ See also the uncertain reading of no. 18. O0206, Amar-ʿTIR⁷¹ (Ezinu₃).

⁶⁶ In Text no. 15, this is the case of **baġar₂** (which would in any event be expected to be **baġar₄**, BAġAR₂.BAR) and **naġar**.

⁶⁷ For **abgal** in Ur, see above; in Fāra, Krebernik Steible & Yıldız 2014:359. **kindagal**, Occupation 76 and PN 753 in Ur, occurs in ED I–II Fāra, Text 16 obv. ii. 4 (see collation, the sign being read ME₃ in Krebernik, Steible & Yıldız 2014). The carpenter **naġar** is registered as Profession 33 in UET 2, see Krebernik, Steible & Yıldız 2014:360.

⁶⁸ In Ur, it seems to occur only as **munsub_x** **anše**, cf. ATFU 52. R0101, p. 111 for commentary. In Fāra, see text no. 15. O0109, MUNSUB ʿPAʿ⁷¹ [].

⁶⁹ There are some uncertainties as to the occurrence of the land-recorder **sa₁₂-du₅**. In Ur, it does not seem to have been identified by Burrows, and may be found in UET 2, 168 R0201 (cf. Benati & Lecompte 2021:75 and 89). For Fāra, see below for a different reading by Deimel which establishes that it is not mentioned in Text no. 13.

⁷⁰ Text nos 3, 13 and 15, PA being reconstructed in the latter, see Table 4.

⁷¹ In the Fāra documents, cf. Pomponio 1987:109 and Visicato 1997:114; see EDATŠ p. 9. On the title and reading of NIĠ₂.PA.TE.SI, cf. Jacobsen 1991:119–20, Marchesi & Marchetti 2011:109 fn. 128, though the hypothetical reading niġsiʿ(/y) ak does not seem to have been broadly accepted by other scholars. It is common in Adab (RIME E1.1.3.2001, E1.1.7.2, E1.8.1.2, CUSAS 35, 2. Rs. Iv. 8) but occurs elsewhere, RIME E1.14.15.4 from Uruk. In line with the aforementioned hypothesis of Marchesi and Marchetti, the ED I–II title may be read as NIĠ₂.PA.SI or ^{niġ2}niġsiʿak.

⁷² AS 17, 1–3 earlier (ED I, group 1); OSP 1, 123 and AS 17, 4 may be younger (ED II, group 2,) see Buccellati & Biggs 1969:5 and Westenholz 1975:3. CTMMA 1, 2 and 5 (see Biggs 1988:3 and 5), might be from the Fāra period. N0064, unpublished, looks contemporary with Ur. The signs are damaged or hard to identify. A provisional transliteration reads as follows: O0101. [] ʿx¹. / O0102. [] ʿx x ama¹ a² x. / O0103. [] mes / O0104. [] ʿlam²¹l-ma. The sign AMA is similar to its shape in Ur.

⁷³ NE.ʿGIŠ⁷¹.IM.LAK390.MUŠEN, with a specific orthography for Anzu (Lecompte 2015:148), and **Nar-ĠAR** (?) in AS 17, 1, maybe **Mes-lul** in OSP 1, 123.

⁷⁴ Two of them are republished as CUSAS 26, 11–12—the former’s origin being to some degree uncertain. The third one, rather illegible and unpublished, Ashm 1930.389c+, may be from another period, see Westenholz 2017.

⁷⁵ On the date of MSVO 1, 241, see Englund & Grégoire 1991:29 (“probably not of the Uruk III period”) contra Westenholz apud Zaina: *ibid.* Another tablet of uncertain date is MSVO 1, 205, as asserted by Englund and Grégoire.

⁷⁶ See the signs UR (cf. Ashm 1930-409d) or LUGAL (cf. Ashm 1930-409h+y), which are more recent than in Ur.

few of them might be earlier.⁷⁷ Only the name Da-dar offers a concordance with Ur (CUSAS 26, 12 in Kiš, PN 217 in Ur).

Five tablets of unknown provenance (CUSAS 23, 144; CUSAS 35, 471, 472 and 473)⁷⁸ present a few similarities—for instance the names **Ur-lugal** and **Amar-abzu**, which are nevertheless common in the subsequent periods (both occur in CUSAS 35, 472. See also CUSAS 23, 171, O0202)⁷⁹—but also several differences, notably the use of ŠEŠ.KI against ŠEŠ.NA in Ur, or the personal names **Diġir-nu-me**, **Ku-li-li** and **E₂-su₃-aġ₂**, showing a regional or chronological closeness to the ED I–II tablets from Fāra.⁸⁰



Fig. 5 Example of unknown signs. ELTS 9. O0203.



Fig. 6 Example of unknown signs. CUSAS 17, 104. O0203.

5. The archaic *kudurrus*

Lack of space necessitates only cursory treatment here of the archaic *kudurrus*, which have provoked some discussion as to their date. They may be subdivided into two chronological groups (see also Falkenstein 1936:66–8):

1. *kudurrus* predating archaic Ur. A first subgroup (1.a), including stone tablets and the “Blau Monuments”, may point to a transitional time.⁸¹ As demonstrated by Krebernik, they use some Sumerian terms or features distinct from the Late Uruk period, for instance the component S.377.NE.PAP, read **bil_x**,⁸² notably in **Bil_x-alan zadim IB**,⁸³ or the sign LAK131, different from its archaic forerunner.⁸⁴ On the other hand, several terms do still elude our understanding and may be consistent with the archaic tradition, the transparent skirt of the priest, noted by Boese, being an iconographic feature from the Jemdet Nasr period (Boese 2010:223; Amiet 1980:77). A second subgroup (1.b) comprises at least four *kudurrus* which seem to contain several Sumerian terms, but also signs which are probably only found in those texts and are neither archaic nor ED in date (Figs 5–6).⁸⁵ CUSAS 17, 104 and the *Khafajah Bird* refer notably to several Sumerian divinities, more specifically IB₂ in GIŠ.GI-^dIB₂.⁸⁶ They may be slightly later than the former group but still earlier than Ur. ELTS 13, allegedly from Fāra, seems slightly later than these because of the mention of Adab, SU.KUR.RU, UM.ME(emedā)-^dEzinu₃ and the cloth ^{ug}2niġ₂-lam₂, but is maybe earlier than Ur, as none of the possible personal names are understandable and some cases are subdivided, which is a relic from the Jemdet Nasr period.

⁷⁷ For instance, Ashm 1930-409q, a manuscript of the Lu₂ list. Westenholz 2014 26 p. 21 and apud Zaina 2020:159 ascribes it to the ED IIIa period. Wagensohn 2015 is more cautious, “probably ED IIIa”. Such features as the lack of numerals and the drawing on the reverse can also be found in Ur (cf. respectively UET 2, 14, another manuscript of Lu₂ and 299). Another example is Ashm 1930-409j+s, a small administrative fragment featuring the signs SIKIL and NAM similar to the Ur script. Westenholz 2014:38 and apud Zaina 2020:157 dates it back to the ED IIIa period. The small tablet Ashm 1930-339c, which is puzzling, is likewise of uncertain date.

⁷⁸ See also the unpublished artefact MS 4930 (P253960) which consists of two different fragments artificially joined and includes fake signs.

⁷⁹ **Amar-alim²-ma²** which might be identical with PN 150 in Ur, though the same case is transliterated as **Amar-peš₂** by Bartash and might even be **Amar-S.161(+ERIN₂²)-si²**.

⁸⁰ **Ama-Nanna** in CUSAS 35, 473, PN 185 in UET 2. The other names occur in CUSAS 35, 471 and 472, compare with Krebernik, Steible & Yıldız 2014:359-61.

⁸¹ ELTS 1-7 (stone tablets), 8, 10-11 (Blau Monuments); CUSAS 17, 103; FMB 27 (see Balke 2018, CDLI P427655).

⁸² Or less likely **Pa₄-bil₄**, cf. Rubio 2012:12, who stresses that “PAP cannot be interpreted as a phonophoric PA4”.

⁸³ Krebernik 2019:50 translates it as **Pabil-alan**, “the stone-cutter of the IB temple”.

⁸⁴ The archaic sign corresponding to it is ZATU 418. Krebernik 2019:52; Krebernik & Lisman 2020:156-61.

⁸⁵ CUSAS 17, 104, maybe 105; ELTS 9 (*Khafajah Bird*). ELTS 13, maybe later.

⁸⁶ O0308, see ELTS 9, p. 39 for its interpretation as a “canebrake of AN TUM”. In the *Khafajah Bird*, note also the “classical” shape of DU₈.

2. *kudurrus* later than archaic Ur, which might date back to the ED II period (ELTS 12 (*Ušumgal Stele*), 13 (*Figure aux plumes*); Steinkeller 2013). The earliest in this group is the *Figure aux Plumes*.⁸⁷ The *Ušumgal Stele*, republished by Wilcke, who ascribed it to the ED IIIa period (Wilcke 2020:719),⁸⁸ seems nevertheless earlier, as already asserted by Börker-Klahn.⁸⁹ The inscription matches some features in Ur, notably four personal names, **AK** (PN 63 in UET 2), **Aya₂-ad₂-gal** (PN 14), **Amar-šuba₄** (PN 188), **Me-e₂-nun-si** (PN 505) (the latter apparently unattested in Fāra, although it can be compared with **Me-nun-si**—Pomponio 1987:170); the professional names **kiĝgal**, **pa₄-šeš**, **saĝĝa** and **šidim** are found both in archaic Ur and in administrative ED IIIa documents. Other features fit with a date later than archaic Ur, although not contradicting the idea of considering it an ED II inscription: some names show affinities with the ED IIIa texts: **E₂-mud**, **Šeš-kur**, written **Šeš-kur-ra** in Fāra; the god Nanna is written ŠEŠ.KI (and not NA); the profession **nimgir-si** is unknown in the ED I–II texts. The *Prisoner Plaque* which, according to Steinkeller, originates from Kiš, could be slightly later than the former two monuments, maybe from the very end of the ED II period or the very beginning of the Fāra period: the archaic writing may be due to the origin of the object and to an endeavor to anchor it in older traditions; as observed elsewhere, the use of determinatives, the strong parallels with the geographical list from Abū Šalābīḥ and Ebla as well as the peculiar numerical system—a possible expression of a Kišite tradition—support such a date (Steinkeller 2013:132–4; Lecompte 2020:440–3).

6. Conclusions: towards a chronological and cultural definition of the ED I–II textual evidence

The observations addressed here enable us to distinguish at least three phases within the ED I–II period, which are defined through the benchmark of the archaic texts from Ur (Table 6):⁹⁰

1. The texts predating those from Ur are from a transitional time between the JN and the ED I periods or from the very beginning of the latter. Notably, they feature the use of archaic signs, although in several instances in a manner different from the JN period, but also Sumerian personal or divine names as well as signs close to Ur.
2. The texts more or less contemporary with Ur mainly stem from Uruk and Fāra, perhaps also from Nippur. Those from Uruk may be slightly earlier and have a more local archaic style.
3. The texts from the ED II period, whose existence has been contested both for the Diyala and Ur (respectively Evans 2007, and Benati, in Benati & Lecompte 2017:5–8), are mainly represented by Fāra, with a rounder format, maybe Nippur, and by a few *kudurrus*; the textual evidence is consistent with Ur, with some slight changes anticipating the ED IIIa tradition.

Another task of this paper was to roughly sketch some of the distinctive marks from that time and to look for possible regional differences. As already stated, different criteria distinguish the beginning of the ED tradition, such as the format of the tablets or the paleography; the onomasticon, though close to the subsequent periods, shows some specific patterns (**igi.bur**, **šeš.ib**, **bil_x**) or names (for instance **Amar-lugal**, **Lugal-nam-tar-PA.SU₁₃.SIKIL**);⁹¹ the occurrence of divine names contrasts with the

⁸⁷ It contains more grammatical features and uses a different numerical system than the archaic texts from Ur, see notably Wilcke 1995:670 and Lecompte 2020:428–32 for a chronological interpretation.

⁸⁸ Compare however with Wilcke 2007:63 suggesting an ED I date.

⁸⁹ Börker-Klahn 1982:117–18, suggests, notably on grounds of an iconographic analysis, a date close to the time of Mesilim, i.e. ED II period. See also Gelb et al. 1991:43 for a similar opinion.

⁹⁰ Compare with the liminal observations by Falkenstein 1936:26–8 and his chronological classification, pp. 66–8. See also Krebernik 2019: fig. 4.1. The tablets from Uruk W 5233,d and 5811 (with maybe W 5074 and 6786,a) are considered by Falkenstein to be earlier than Text no. 24 in Krebernik, Steible & Yıldız 2014 (= VAT 9091). Although I had followed his opinions at first, the Fāra tablet, as demonstrated here, shares transitional features with those from Uruk. On the other hand, Falkenstein represents the traditional view that the *kudurrus* such as the Blau Monuments are contemporary with Jemdet Nasr.

⁹¹ In order to pinpoint the specific ED I–II names, they should be systematically compared with those from the subsequent periods, a method which has only partly been applied here.

Jemdet Nasr period, while some names of gods or their orthography are diagnostic for the ED I–II period (IB₂, writing of Anzu); the professional designations mix archaic names from the lexical lists, less in use later, with previously unknown Sumerian terms. Within this tradition, some local variations have also been highlighted: the texts from Uruk contemporary with Ur seem closer to Jemdet Nasr usages, perhaps indicative of an earlier date. The texts from Ur may reflect a local administration influenced by the practices of Uruk, such as shown by the importance of Inanna in its pantheon, which probably reveals the paramount role of the latter city (cf. Benati & Lecompte 2016b:24; Lecompte 2020b). The documentation from Fāra shows some “modern” practices, such as the sign bil_x consisting of GIŠ, a widespread use of rectangular numerals, and features foreshadowing those from the subsequent period, notably the important role of Sud₃ and some personal names. Unless more texts are uncovered, Ur must remain the central point of any discussion for the ED I–II period, and it is to the credit of L. Woolley to have dug from the earth the most important piece of evidence for a still ill-known time.

Table 6 Approximate chronological distribution of the ED I–II documentation

Periods	Date	Textual evidence	Language
Jemdet Nasr	3300	Texts from Uruk, Jemdet Nasr, Uqair, Ur	Unclear language—traces of Sumerian
Jemdet Nasr / ED I	2900	Texts from Uruk (Groups 2 and partly 3)—Texts from Fāra (Group 1)—Archaic <i>kudurrus</i> (1.a)	Partly identifiable as Sumerian
ED I	2750-2700	Archaic <i>kudurrus</i> (1.b) Texts from Uruk (Group 1) Archaic texts from Ur —Texts from Fāra (Group 2)—Texts from Nippur (1?), Kiš and without provenance	Sumerian
ED II		Texts from Fāra (Group 3)—Texts from Nippur (2?)—archaic <i>kudurrus</i> (<i>Ušumgal Stele—Figure aux Plumes</i>) <i>Prisoner Plaque</i> —Text from Fāra (Group 4)	
Fāra (EDIIa)	2600	Texts from Fāra Texts from Abū Šalābīḥ	

Bibliography

Editors' note: in the interests of brevity, recognized abbreviations have often been used here for frequently cited text editions. UET 2:27 refers to a page, UET 2, 169 to a text, and similarly for other publications.

Bibliographical Abbreviations

ATFU: Lecompte 2013

ATU : *Archaische Texte aus Uruk*

ATU 1: Falkenstein 1936

ATU 2: Green & Nissen 1987

ATU 5: Englund 1994

ATU 6: Englund & Nissen 2005

AS 17: Buccellati & Biggs 1969

AUWE: Ausgrabungen in Uruk-Warka. End-berichte

BagM: *Baghdader Mitteilungen*

CDLI: Cuneiform Digital Library Initiative

CTMMA 1: Biggs 1988

CUSAS *Cornell University Studies in Assyriology and Sumerology*

CUSAS 1: Monaco 2007

CUSAS 17: George 2011

CUSAS 23: Bartash 2013

CUSAS 26: Westenholz 2014

CUSAS 35: Bartash 2017

EDATŠ: Pomponio & Visicato 1994

ELTS: Gelb et al. 1991

HSS: Harvard Semitic Series

IAS: Biggs 1974

IUO: Istituto Universitario di Napoli

LAK: Deimel 1922.

MSVO: *Materialien zu den frühen Schriftzeugnissen des Vorderen Orients*

MSVO 1: Englund & Grégoire 1991

MSVO 4: Englund 1996

OIP: Oriental Institute Publication(s), Chicago.

OSP 1: Westenholz 1975

SF: Deimel 1923

Ur Excavations Texts

UET 2: Burrows 1935

UET 2, S. = Sign number in the sign list in UET 2

UVB: Vorläufiger Bericht über die von der Notgemeinschaft der Deutschen Wissenschaft [usw.] in Uruk-Warka unternommenen Ausgrabungen

ZA: *Zeitschrift für Assyriologie*

ZATU: Green & Nissen 1987 (=ATU 2)

Other abbreviations

EDWL: *Early Dynastic Word List* (see Civil 2010)

FMB: Fondation Martin Bodmer

SIS: Seal Impression Strata

MS: Martin Schøyen

JN: Jemdet Nasr

PN: Personal names (as listed by Burrows in UET 2:27–39)

Alberti, A. 1986. “A Reconstruction of the Abū Ṣalābīkh God-List”, *Studi epigrafici e linguistici sul Vicino Oriente antico* 2:3–24.

Amiet, P. 1980. *La glyptique mésopotamienne archaïque*. Paris: CNRS.

Andersson J. 2012. *Kingship in the Early Mesopotamian Onomasticon 2800-2200 BCE*. (Studia Semitica Upsaliensia 28). Uppsala: Uppsala Universitet.

Balke, T. 2018. “Einige Überlegungen zum Frühdynastischen “Kudurru” FMB 27: Versuch Einer Paläografischen Annäherung und Bestimmung” in K. Kaniuth, D. Lau & D. Wicke (eds.) *Übergangszeiten:*

- altorientalische Studien für Reinhard Dittmann anlässlich seines 65. Geburtstags* (marru 1):119–30. Münster: Zaphon.
- Bartash, V. 2013. *Miscellaneous Early Dynastic and Sargonic Texts in the Cornell University Collections* (CUSAS 23). Bethesda: CDL Press.
- 2015. “New Texts from the Early Dynastic I–II Period” (Review of Lecompte 2013), *Rivista degli studi orientali* 88:119–27.
- 2017. *Sumerian Administrative and Legal Documents ca. 2900–2200 BC in the Schøyen Collection* (CUSAS 35). Bethesda: CDL Press.
- 2019. *Establishing Value. Weight Measures in Early Mesopotamia* (Studies in Ancient Near Eastern Records 23). Berlin / Boston: de Gruyter.
- Bauer, J. 1987. “Ortsnamen in den frühen Texten aus Ur”, *Welt des Orients* 18:5–6.
- Benati, G. 2014. *The Early Dynastic Period at Ur Stratigraphy, Contexts and Materials from the Trial Pits, the Seal-Impression Strata and the Ziqqurat Terrace*. Unpublished PhD, Torino.
- 2015. “Re-Modeling Political Economy in Early 3rd Millennium BC Mesopotamia: Patterns of Socio-Economic Organization in Archaic Ur (Tell al-Muqayyar, Iraq)”, *Cuneiform Digital Library Journal* 2015 (2).
- Benati, G. & C. Lecompte 2016a. “From Field Cards to Cuneiform Archives: Two Inscribed Artefacts from Archaic Ur and Their Archaeological Context”, *Zeitschrift für Assyriologie* 106:1–15.
- 2016b. “New Light on the Early Archives from Ur: The “Ancient Room” Tablet Hoard”, in R.A. Stucky, O. Kaelin & H.-P. Mathys (eds.) *Proceedings of the 9th International Congress on the Archaeology of the Ancient Near East: June 9–13, 2014, University of Basel*. Vol. 3: Reports:13–30, Wiesbaden: Harrassowitz.
- 2017. “Nonadministrative Documents from Archaic Ur and from Early Dynastic I–II Mesopotamia: A New Textual and Archaeological Analysis”, *Journal of Cuneiform Studies* 69:2–31.
- 2021. “The Scale and Extent of Political Institutions in Early Dynastic Mesopotamia: The Case of Archaic Ur”, in A. Bramanti, N.L. Kraus & P. Notizia (eds.) *Current Research in Early Mesopotamian Studies. Workshop Organized at the 65th Rencontre Assyriologique Internationale, Paris 2019* (dubsar 21):61–98. Münster: Zaphon.
- Biggs, R.D. 1974. *Inscriptions from Tell Abū Šalābīkh* (OIP 99). Chicago: The Oriental Institute of the University of Chicago.
- 1988. “Early Dynastic Texts (Nos. 1–5)”, in I Spar (ed.) *Cones and Bricks of the Third and Second Millennia B.C.* (Cuneiform Texts in the Metropolitan Museum of Art 1):3–5. New York: The Metropolitan Museum of Art.
- Boese, J. 2010. “Die Blau’schen Steine und der „Priesterfürst“ im Netzrock“, *Altorientalische Forschungen* 37:208–29.
- Börker-Klahn, J. 1982. *Alt Vorderasiatische Bildstelen und vergleichbare Felsreliefs*. Mainz: Philip von Zabern.
- Buccellati, G. & R.D. Biggs 1969. *Cuneiform Texts from Nippur. The Eighth and Ninth Seasons* (AS 17). Chicago: The University of Chicago Press.
- Burrows, E. 1935. *Ur Excavations Texts II. Archaic Texts*. London: Printed by order of the Trustees of the Two Museums.
- Cavigneaux, A. 1991. “Die Texte der 33. Kampagne”, *Baghdader Mitteilungen* 22:33–123.
- Chambon, G. 2003. “Archaic Metrological Systems from Ur”, *Cuneiform Digital Library Journal* 3.
- Charvát, P. 2010. “Inscriptions on Sealings from Archaic Ur”, in K. Šaškova, L. Plecha & P. Charvát (eds.) *Shepherds of the Black-Headed People: The Royal Office vis-à-vis Godhead in Ancient Mesopotamia*:39–74. Plzeň: Západočeská Universita.
- 2017. *Signs from Silence: Ur of the First Sumerians*. Prag: Karolinum Press.
- Civil, M. 2008. *The Early Dynastic Practical Vocabulary A (Archaic HAR-ra A)* (Archivi Reali di Ebla. Studi 4). Rome: Università degli Studi di Roma “La Sapienza”.
- 2010. *The lexical texts in the Schøyen Collection* (CUSAS 12). Bethesda: CDL Press.
- Cohen, M. 1993. “Two Versions of a Fara-Period Name-List”, in M.E. Cohen, D.C. Snell & D.B. Weisberg (eds.) *The Tablet and the Scroll. Near Eastern Studies in Honor of W.W. Hallo*:79–86. Bethesda: CDL Press.
- Deimel, A. 1922. *Liste der archaischen Keilschriftzeichen von Fara* (WVDOG 40). Leipzig: J.C. Hinrichs’sche Buchhandlung.
- 1923. *Schultexte aus Fara* (WVDOG 43). Leipzig: J.C. Hinrichs’sche Buchhandlung.
- Eichmann, R. 2007. *Uruk. Architektur I. Von den Anfängen bis zur frühdynastischen Zeit* (AUWE 14). Rahden Westf.: Verlag Marie Leidorf GMBH.
- Englund, R.K. 1994. *Archaic Administrative Documents from Uruk: The Early Campaigns* (ATU 5). Berlin: Gebr. Mann Verlag.

- 1996. *Proto-Cuneiform Texts from Diverse Collections* (MSVO 4). Berlin: Gebr. Mann Verlag.
- 1998. “Texts from the Late Uruk Period”, in J. Bauer, R.K. Englund & M. Krebernik (eds.) *Mesopotamien. Späturuk-Zeit und Frühdynastische-Zeit* (OBO 160/1):13–233. Fribourg: Academic Press / Göttingen: Vandenhoeck & Ruprecht.
- Englund, R.K. & J.-P. Grégoire 1991. *The Proto-Cuneiform Texts from Jemdet Nasr, I: Copies, Transliterations and Sign Glossary* (MSVO 1). Berlin: Gebr. Mann Verlag.
- Englund, R.K. & H.J. Nissen 2001. *Archaische Verwaltungstexte aus Uruk: Die Heidelberger Sammlung* (ATU 7). Berlin: Gebr. Mann Verlag.
- 2005. *Archaische Verwaltungstexte aus Uruk: Vorderasiatisches Museum II* (ATU 6). Berlin: Gebr. Mann Verlag.
- Evans, J.M. 2007. “The Square Temple at Tell Asmar and the Construction of Early Dynastic Mesopotamia, ca. 2959-2350”, *American Journal of Archaeology* 111:599–632.
- Falkenstein, A. 1936. *Archaische Texte aus Uruk*. Leipzig: Harrassowitz.
- Fenzel, K. 1967. *Präsargonische Personennamen aus Ur* (UET II). Innsbruck: Unpublished dissertation.
- Frayne, D. 2009. “The Struggle for Hegemony in “Early Dynastic II” Sumer”, *The Canadian Society for Mesopotamian Studies* 4:37–75.
- Gelb, I.J., P. Steinkeller & R.M. Whiting 1991. *Earliest Land Tenure Systems in the Near East: Ancient Kudurrus* (OIP 104). Chicago: The Oriental Institute of the University of Chicago.
- George, A.R. (ed.) 2011. *Cuneiform Royal Inscriptions and Related Texts in the Schøyen Collection* (CUSAS 17). Bethesda: CDL Press.
- Green, M.W. 1982. “Miscellaneous Early Texts from Uruk”, *Zeitschrift für Assyriologie* 72:163–77.
- Green, M.W. & H.J. Nissen 1987. *Zeichenliste der archaischen Texte aus Uruk* (ATU 2). Berlin: Gebr. Mann.
- Jacobsen, T. 1991. “The Term Ensí”, *Aula Orientalis* 9:113–21.
- Keetman, J. 2022. “Beobachtungen zum Aufbau der Zame Hymne”, *NABU* 2022/13:26–9.
- Kraus, N.L. 2020. *Scribal Education in the Sargonic Period* (HSS 67), Leiden/Boston: Brill.
- Krebernik, M. 1986. “Die Götterlisten aus Fāra”, *Zeitschrift für Assyriologie* 76:161–204.
- 1998. “Die Texte aus Fāra und Abū Šalābīḥ”, in J. Bauer, R.K. Englund & M. Krebernik (eds.) *Mesopotamien. Späturuk-Zeit und Frühdynastische-Zeit* (OBO 160/1):237–429. Fribourg: Academic Press / Göttingen: Vandenhoeck & Ruprecht.
- 2002. “Zur Struktur und Geschichte des älteren sumerischen Onomastikons”, in M.P. Streck & S. Weninger (eds.) *Altorientalische und semitische Onomastik*, AOAT 296:1–74. Münster: Ugarit Verlag.
- 2003. “Drachennutter und Himmelsrebe? Zur Frühgeschichte Dumuzi-Ama’ušumgal”, in W. Sallaberger, K. Volk & A. Zgoll (eds.) *Literatur, Politik und Recht in Mesopotamien. Festschrift für Claus Wilcke*, (Orientalia Biblica et Christiana 14):151–80. Wiesbaden: Harrassowitz.
- 2019. “Towards the Deciphering of the “Blau Monuments”: Some New Readings and Perspectives”, in J. Renn & K. Schemmel (eds.) *Culture and Cognition: Essays in Honor of Peter Damerow*:35–55. Berlin: Max-Planck-Gesellschaft zur Förderung der Wissenschaften.
- Krebernik, M. & J.J.W. Lisman 2020. *The Sumerian Zame Hymns from Tell Abū Šalābīḥ. With an Appendix on the Early Dynastic Colophons* (dubsar 12). Münster: Zaphon.
- Krebernik, M., H. Steible & F. Yıldız 2014. “Prä-Fāra-zeitliche Texte aus Fāra”, in N. Koslova, E. Vizirova & G. Zólyomi (eds.) *Studies in Sumerian Language and Literature: Festschrift für Joachim Krecher* (Babel und Bibel 8):327–82. Winona Lake, IN: Eisenbrauns.
- Lecompte, C. 2013. *Archaic Texts and Fragments from Ur. From L. Woolley’s Excavations at the Royal Cemetery* (Nisaba 25). Messina: DiCAM.
- 2015. “Remarques sur les textes archaïques d’Ur”, *Akkadica* 136:141–56.
- 2016. “Observations on Diplomatics, Tablet Layout and Cultural Evolution of the Early Third Millennium: The Archaic Texts from Ur”, in T.E. Balke & C. Tsouparopoulou (eds.) *Materiality of Writing in Early Mesopotamia* (Materiale Textkulturen 13):133–64. Berlin: de Gruyter.
- 2020a. “A propos de deux monuments figurés du début du 3e millénaire: observations sur la Figure aux Plumes et la Prisoner Plaque”, in I. Arkhipov, L. Kogan & N. Koslova (eds.) *The Third Millennium: studies in early Mesopotamia and Syria in honor of Walter Sommerfeld and Manfred Krebernik* (Cuneiform Monographs 50):417–46. Leiden: Brill.
- 2020b. “L’époque dite du Dynastique Archaïque I–II”, in M. Sauvage (ed.) *Atlas historique du Proche-Orient ancien*:64–5. Paris: Les Belles Lettres.
- Mander, P. 1986. *Il Pantheon di Abū-Šalābīḥ. Contributo allo studio del pantheon sumerico arcaico* (IUO Series Minor 26). Naples: Istituto Universitario Orientale di Napoli.

- Marchesi, G. & N. Marchetti 2011. *Royal Statuary of Early Dynastic Mesopotamia* (Mesopotamian Civilizations 14). Winona Lake, IN: Eisenbrauns.
- Martin, H. 1988. *Fara: A Reconstruction of the Ancient Mesopotamian City of Shuruppak*. Birmingham: Chris Martin & Associates.
- Matthews, R. 1991. “Fragments of Officialdom from Fara”, *Iraq* 53:1-15.
- Monaco, S. 2007. *The Cornell University Archaic Tablets* (CUSAS 1). Bethesda: CDL Press.
- Nissen, H.J. 1986. “The Development of Writing and Glyptic Art”, in U. Finkbeiner & W. Röllig (eds.) *Ĝamdat Našr: Period or Regional Style* (Beihefte zum TAVO Reihe B Nr. 62):316–31. Wiesbaden: Dr. Ludwig Reichert Verlag.
- Oelsner, J. 2020. “Bemerkungen zu den in Uruk gefundenen archivalischen Texten des 3. Jahrtausends v. Chr.”, in I. Arkhipov, L. Kogan & N. Koslova (eds.) *The Third Millennium: studies in early Mesopotamia and Syria in honor of Walter Sommerfeld and Manfred Krebernik* (Cuneiform Monographs 50):569–84. Leiden: Brill.
- Pomponio, F. 1987. *La prosopografia dei testi presargonici di Fara* (Studi Semitici, NS 3). Rome: Università degli Studi “La Sapienza”.
- Pomponio, F. & G. Visicato 1994. *Early Dynastic administrative tablets of Šuruppak*. Napoli: Istituto Universitario Orientale de Napoli.
- Rubio, G. 2012. “Reading Sumerian Names, II: Gilgamesh”, *Journal of Cuneiform Studies* 64:3–16.
- Sallaberger, W. & I. Schrakamp 2015. “Part I: Philological Data for a Historical Chronology of Mesopotamia in the 3rd Millennium”, in W. Sallaberger & I. Schrakamp (eds.) *Arcane III. History & Philology*:1–136. Turnhout: Brepols.
- Steinkeller, P. 2013. “An Archaic “Prisoner Plaque” from Kiš”, *Revue d’assyriologie* 107:131–57.
- Sürenhagen, D. 1999. *Untersuchungen zur relativen Chronologie Babylonien und angrenzender Gebiete von der ausgehenden Ubaidzeit bis zum Beginn der Frühdynastisch-II-Zeit I. Studien zur Chronostratigraphie der südbabylonischen Stadtruinen von Uruk und Ur* (Heidelberger Studien zum Alten Orient 8). Heidelberg: Heidelberger Orientverlag.
- Szaryńska, K. 1993. “Offerings for the Goddess Inana in Archaic Uruk”, *Revue d’assyriologie* 87:7–28.
- Visicato, G. 1997. *Indices of Early Dynastic Administrative Tablets from Šuruppak*, IUO VI/A. Naples: Istituto Universitario orientale di Napoli.
- Visicato, G. 2000. *The Power and the Writing: The Early Scribes of Mesopotamia*. Bethesda: CDL Press.
- Visicato, G. & A. Westenholz 2005. “An Early Dynastic Archive from Ur involving the lugal”, *Kaskal* 2:64–5.
- Waetzoldt, H. 2011. “Schreiber. A. Im 3. Jahrtausend”, in M. Streck (ed.) *Reallexikon der Assyriologie und vorderasiatischen Archäologie* 12:250–66.
- Wagensonner, K. 2015. “A Note on a New Manuscript of ED Lu₂ A and Its Colophon”, *Cuneiform Digital Library Notes* 2015/13.
- Westenholz, A. 1975. *Old Sumerian and Old Akkadian Texts in Philadelphia Chiefly from Nippur: Part One: Literary and Lexical Texts and Earliest Administrative Documents from Nippur* (Biblioteca Mesopotamica 1). Malibu: Undena Publications.
- 2014. *A Third-Millennium Miscellany of Cuneiform Texts* (CUSAS 26). Bethesda: CDL Press.
- 2017. “Correction (2) to CUSAS 26”, *NABU* 2017/89:160–2.
- Wilcke, C. 1995. “Die Inschrift der „Figure aux plumes” – ein frühes Werk sumerischer Dichtkunst“, in U. Finkbeiner, R. Dittmann & H. Hauptmann (eds.) *Beiträge zur Kulturgeschichte Vorderasiens. Festschrift für Rainer Michael Boehmer*:669–74. Mainz: Verlag Philipp von Zabern.
- 2007. *Early Ancient Near Eastern Law. A History of Its Beginnings: the Early Dynastic and Sargonic Periods*. Winona Lake, Indiana: Eisenbrauns.
- 2020. “Zur UŠUMGAL-Stele: ELTS 12”, in I. Arkhipov, L. Kogan and N. Koslova (eds.) *The Third Millennium: studies in early Mesopotamia and Syria in honor of Walter Sommerfeld and Manfred Krebernik* (Cuneiform Monographs 50):716–29. Leiden: Brill.
- Wright, H.T. 1969. *The Administration of Rural Production in Ancient Mesopotamia* (Anthropological Papers - University of Michigan, Museum of Anthropology 38). Ann Arbor: The University of Michigan.
- Zaina, F. 2020. *The Urban Archaeology of Early Kish. 3rd Millennium BCE Levels at Tell Ingharra* (OrientLab 5). Bologna: Dipartimento di storia culture civiltà.
- Zand, K.V. 2010. “Zu den Schreibungen des Anzud-Vogels in der Fāra-Zeit”, in D. Shehata, F. Weiershäuser & K.V. Zand (eds.), *Von Göttern und Menschen. Beiträge zu Literatur und Geschichte des Alten Orients. Festschrift für Brigitte Groneberg* (Cuneiform Monographs 41):415–42. Leiden: Brill.

Ur and the cities of the ‘city seal’ evidence

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Abstract

Occurring at the dawn of Mesopotamian urban civilization, the body of evidence relating to collaborative activity by groups of cities is most notably represented by the so-called City Seals, attested by seal impressions on clay tablets and sealings from a small number of sites dating to the late fourth and early third millennia BC, the Uruk III and Early Dynastic I periods. Of these sites, Ur is the most significant in terms both of the evidence it yielded during Woolley’s famous excavations there and of the key importance of Ur as the most frequently attested city featuring in that evidence. In this article, we explore the nature of the city seal material and Ur’s role within it, while considering the participation of other cities arguably attested in this challenging body of evidence.

Ur and the Mesopotamian city seal evidence, 3100–2750 BC

In marking the centenary of the start of Leonard Woolley’s famous excavations at Ur in south Iraq, it is fitting to illustrate and emphasise the exceptional prominence of the city of Ur in the special body of evidence that takes the well-known form of the so-called ‘city seals’. In all cases, we are concerned exclusively with seal impressions on tablets and clay sealings—as yet no examples of actual city seals have been found. Recovered evidence for the use of seals bearing names of Mesopotamian cities occurs in two major pulses of activity within the period 3100–2750 BC (Matthews 1993; Matthews & Richardson 2019; 2020). The first pulse occurs directly coincident with the collapse of the Uruk regional network at about 3100 BC and comprises bureaucratic evidence from the sites of Jemdet Nasr, Uruk and, probably, Tell ‘Uqair, all dated to the Jemdet Nasr period (= Uruk III writing phase). The second pulse takes place during the Early Dynastic I period, c. 2900–2750 BC (see Wencel 2017 for revised dating of Early Dynastic Mesopotamian sites), and consists of clay artefacts from Ur, Fara and a few other sites, including a possible outlier in south-eastern Iran.

The Uruk III and Early Dynastic I city seal evidence is summarised in Table 1 and Fig. 1, while Table 2 lists the cities arguably attested on the 23 best preserved of the Ur Early Dynastic I clay sealings (from Matthews 1993). Taken together these two tables vividly demonstrate the prominence of Ur both as a source of material evidence relating to the city seals and as a city featuring most commonly in the Early Dynastic I evidence itself. New identifications of the name of Ur in clay sealings from Uruk (Fig. 2) (Matthews & Richardson 2020) and, less definitively, from Konar Sandal South in south-eastern Iran (Fig. 3) (Madjidzadeh & Pittman 2008; Matthews & Richardson 2019) reinforce this picture of Ur’s centrality to the city seal evidence and, by extension, to its role within the inter-city activities betokened by that evidence. Of particular note is the considerable variation in the precise manner in which the toponym for Ur is portrayed in the Uruk III–Early Dynastic I citations (Fig. 4). The earlier forms, of Uruk III date, maintain the URI₃ and AB signs as distinct entities, while the Early Dynastic I forms, with the possible exception of the Fara example, merge the two signs into a single ligature. Variability in sign orientation, as with the URI₃, may be partly

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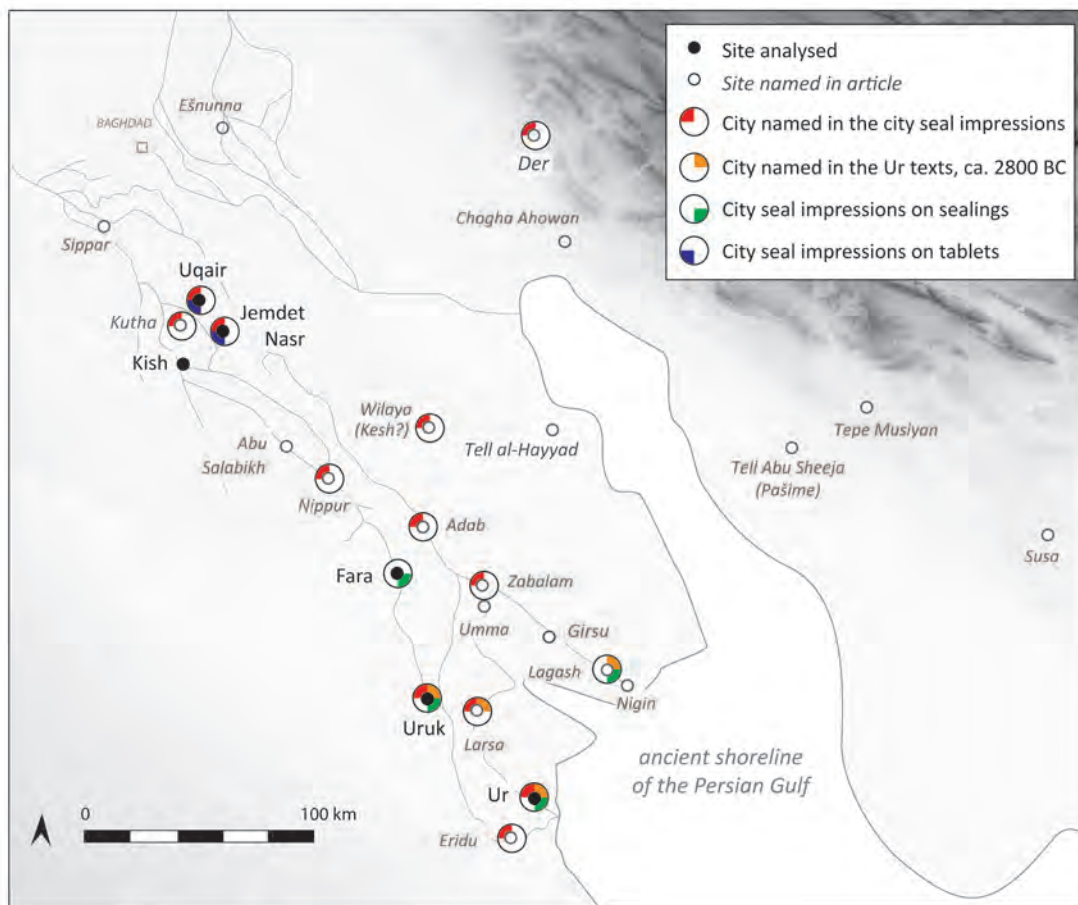


Fig. 1 Map of Lower Mesopotamia with ancient river courses, showing cities featured in the city seal evidence (after Benati 2015: Fig. 6, with authors' additions)



Fig. 2 Uruk clay sealing with city seal impression, W 11456/VA10803

due to the mirroring of signs on impressions made by rolling seals, although the Ur examples show no fixed practice here too.

Uruk III inter-city interaction, c. 3100 BC

In addition to the Uruk III city seal evidence in the form of impressions on tablets and sealings mentioned above, an important document for understanding this material is the so-called archaic city list (Green 1977; Englund & Nissen 1993). The archaic city list in its Uruk III form is known only from Uruk, where some 16 tablet fragments have been found (Englund & Nissen 1993:12, 34–5; Englund 1998:91–4). At least 88 cities, or regions of cities, feature in this poorly understood and incomplete document, which is likely to have had mythological and cultic significance (Englund & Nissen 1993:35; Englund 1998:92).

Table 1 Summary of Uruk III and Early Dynastic I city seal evidence.

Ancient site name	Modern site name	Attested in Uruk IV texts	Attested in Uruk III texts	Attested in Jemdet Nasr city seal	Attested in Uruk-Warka city seal	Attested in Archaic City List	Attested in Ur ED1 sealings	City seal impressions on tablets at site	City seal impressions on sealing at site
Ur	Muqayyar	x	x	x	x	x	x		x
Nippur	Niffar		x	x	x	x	x		
Larsa	Senkereh	x	x	x	x	x	x		
Uruk	Warka	x	x	x	x	x	x		x
Keš	Wilayah?			x	x	?	x		
Zabala	Ibzaikh		x	x		?			
Ereš	Abu Salabikh?			?		?			
UR ₂ KU ₆ RAD	Uqair?		x	x		x	?	x	
BU BU NA ₂	?		x	x		x			
Kutha	Ibrahim			?					
UB	Jemdet Nasr?						x	x	
Šuruppak	Fara		x						x
Eridu	Abu Shahrain						x		
Adab	Bismaya	x	x				x		
‘Edinnu’	?				x		x		
Kiš	Ingharra		x						
Der	‘Aqar						x		

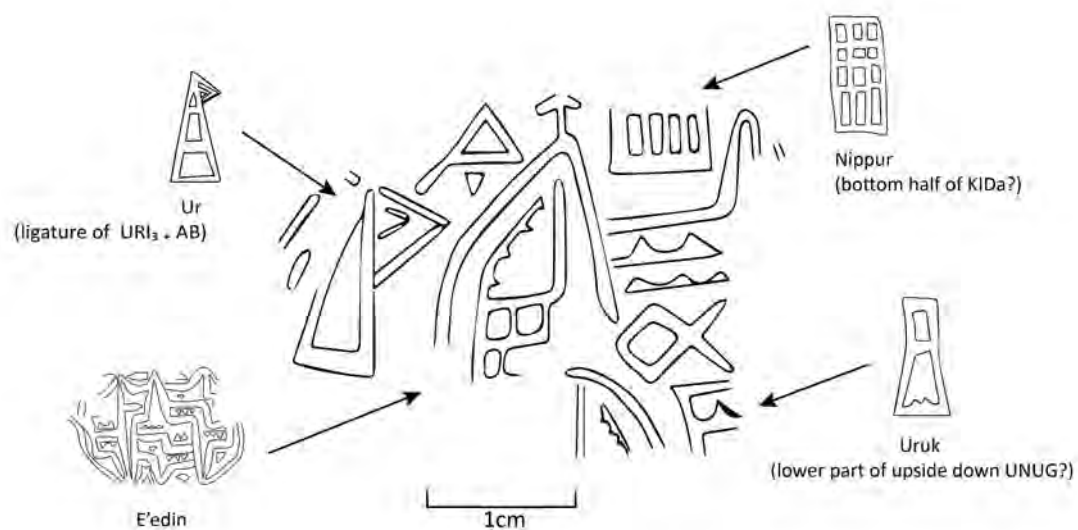


Fig. 3 Konar Sandal South city seal impression, KSS2008XJV002, with tentative city name readings (after Madjidzadeh & Pittman 2008: Fig. 32e, with authors' additions)

Table 2 City identifications in the Ur city seal impressions (Matthews [1993, no. U1-23]).

										
No.	Ur	Nippur	Larsa	Uruk	Kesh	Adab	Eridu	UB	UR ₂ /Dēr	‘Edinnu’
1										?
2		?			?					
3		?				?				
4				?						
5										?
6										
7										
8										
9						?				
10										
11										
12										
13										
14	?								?	
15										
16										
17	?									?
18				?	?					
19				?						
20										
21	?			?						
22				?						
23		?								

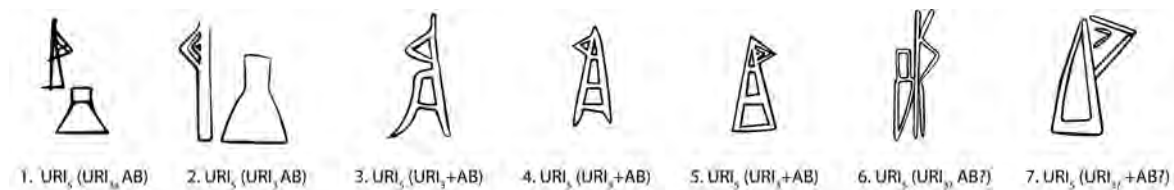


Fig. 4 Renderings of the name of Ur in a range of Uruk III and Early Dynastic I sources.

1. Uruk-Warka, City List Entry 1, Uruk III, (after Englund & Nissen 1993: Abb 16).
2. Jemdet Nasr, City Seal, Uruk III (after Matthews 1993:37)
3. Uruk-Warka, clay sealing, Uruk III (after Matthews and Richardson 2019: Fig. 7).
4. Ur, clay sealing, SIS4, EDI (after Matthews 1993:U6).
5. Ur, clay sealing, probably SIS4, EDI (after Matthews 1993:U8).
6. Fara, clay sealing, EDI (after Matthews and Richardson 2019: Fig. 11).
7. Konar Sandal South, ?EDI (after Matthews and Richardson 2019: Fig. 14).

Our focus here is on the first few entries, which read Ur (UR₁_{3a} AB), Nippur (EN_a KID_a), Larsa (U₄ AB_a) and Uruk (UNUG_a). Following a three-line gap the list recommences with Gaburra, UR₂ RAD_a KU_{6a} followed by other mainly unknown city names, including in entry 14 the city BU_a+BU_a+NA_{2a} which also features in the top register of the Jemdet Nasr city seal, adjacent to the probable ancient name of Tell ‘Uqair (Fig. 5), as discussed below. Evidence from Early Dynastic III

copies of this list, known from the Sumerian cities of Abu Salabikh (= Ereš?; Biggs 1974, no. 21–2) and Fara-Šuruppak (Deimel 1923, no. 23), provide the names of Keš (ŠU₂ AN HI/DUG₃+?), Zabalam (MUŠ₃ UNUG) and Ereš (NAGA_a+?) for the missing entries five–seven in the Uruk III list. This sequence is also supported by an Old Babylonian copy from Ur (Gurney 1974, no. 80). With some confidence, we can therefore reconstruct the first entries of the archaic city list as:

Ur, Nippur, Larsa, Uruk, Keš, Zabalam, Ereš, Gaburra, UR₂ RAD_a KU_{6a} ., ., ., ., BU_a+BU_a+NA_{2a}.

The addition of Ur to the Uruk sealing emphasises the conformity in the Uruk III sequences of archaic city names, which come in three forms: seal impressions on 13 Uruk III-style tablets (from Jemdet Nasr and Tell 'Uqair), seal impressions on a clay sealing (from Uruk), and inscribed city list tablets (from Uruk). Across these three sources, found at the northern and southern limits of Lower Mesopotamia, the three city sequences are almost identical for the first five–six entries, the only exception being the alternating of Nippur and Larsa in the Jemdet Nasr seal impression. In this regard, it is remarkable that these two cities are the only ones included in the same linear box on the Uruk sealing (Fig. 2), arguably suggesting a degree of inter-changeability between them or between their patron deities and/or shrines.

In addition to the Uruk III city list, administrative texts from Uruk make frequent mention of city names (Nissen 1985). As Potts (1997:29–30) summarises, the cities named in the Uruk IV texts include Uruk itself (x 10), Adab (x 8), Ur (x 3), Larsa (x 1) and Umma (x 1), overall a small group of major cities located exclusively in Lower Mesopotamia. In the Uruk III texts from Uruk the geographical horizons are expanded to north and south, with references now to Uruk (x 57), Fara-Šuruppak (x 31), Zabalam (x 31), Ur (x 14), Dilmun (x 11), Adab (x 8), Keš (x 7), Umma (x 7),

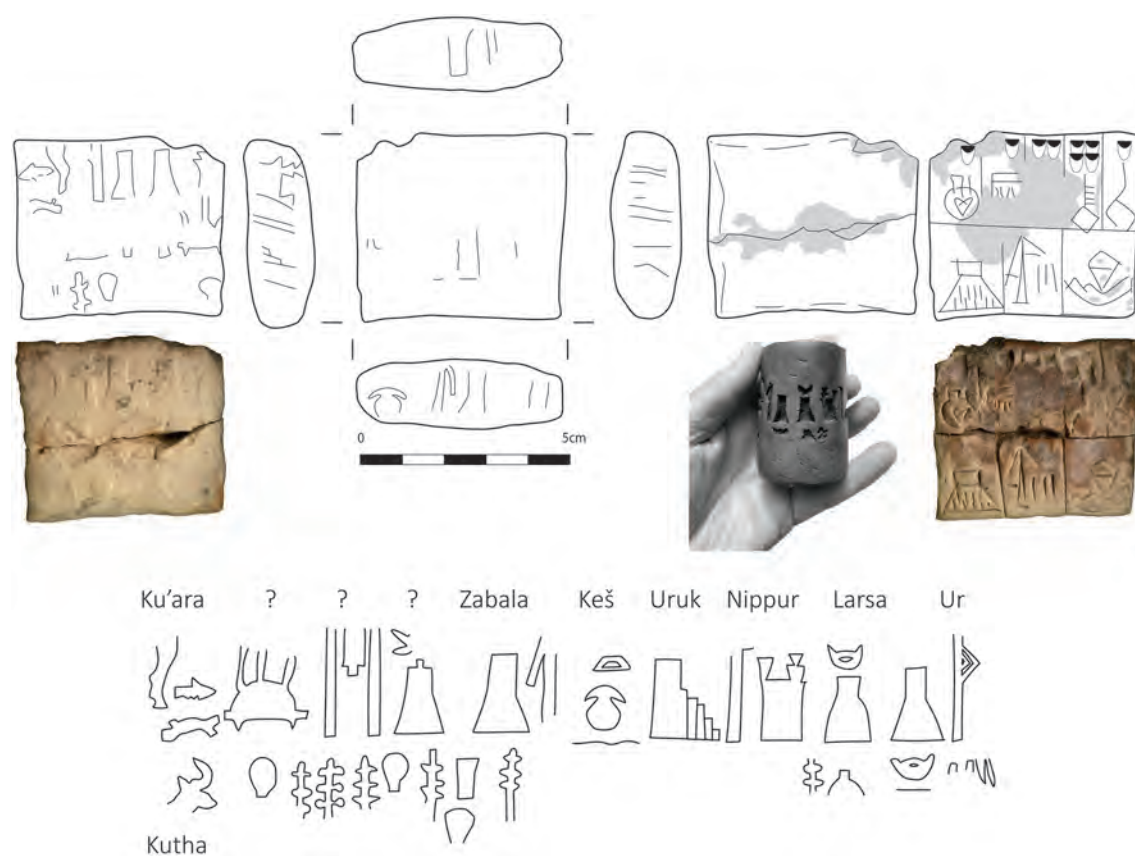


Fig. 5 Jemdet Nasr city-sealed tablet (after Englund & Grégoire 1991, no. 163, Ashm. 1925.608 © Ashmolean Museum, University of Oxford) and city seal impression (after Matthews 1993:37) plus modern replica of the city seal

Larsa (x 2) and Ešnunna (x 1). These citations underpin a significant intensification of inter-city interaction between Uruk, Ur and other major cities, including several attested in the Uruk III city seal evidence.

Early Dynastic I city seal evidence from Ur, c. 2900–2750 BC

Benati's exhaustive study of Ur in the early third millennium BC confirms a dating of c. 2900–2750 BC for the SIS 8–4, from which the city sealings come (Benati 2015, Table 1; Wencel 2017). An outstanding feature of the Ur SIS city sealings is that across 172 Ur sealings with possible city names there are no fewer than 125 different seal impressions: only 13 seals are attested on more than one piece of clay. This attribute suggests the activities of multiple individuals or offices in securing and sealing commodities and store-room doors at Ur.

The city of Ur dominates the Early Dynastic I city seal evidence, both as a provenance for the only substantial assemblage of city seal material, and as a city attested most widely, including possibly in the new evidence from Konar Sandal South in south-eastern Iran. The Early Dynastic I city seal evidence takes the form exclusively of door and container sealings with cylinder and stamp seal impressions, with no evidence for city seal impressions on inscribed tablets of this date, which admittedly are rare outside Ur. Indeed, aside from Ur, the Early Dynastic I city seal evidence from Uruk, Fara and perhaps elsewhere, is extremely fragmentary and hard to interpret. Only at Ur do we have adequate well-contextualised evidence with which to hazard interpretation of the material's significance in the Early Dynastic I period.

Interpreting early Mesopotamian city seals

We begin by considering the spatial distribution of key rivers, sites and cities. Fig. 1 summarises our current understanding of the location of the major courses of the Euphrates, Tigris and Diyala rivers at c. 3200–2500 BC, with key cities located, where known (based on Adams 1981; Heimpel 1990; Steinkeller 2001; Morozova 2005; Hritz 2010; Pournelle 2013; Benati 2015; Sallaberger & Schrakamp 2015; Jotheri et al. 2016). In sum, we see the cities of this time aligned along the major courses of the Euphrates and Tigris, with a notable sequence of cities situated well to the north of the ancient Tigris (Hritz 2010). This northern alignment is important because it opens the possibility for a city such as Dēr (= Tell 'Aqar near Badra) to be connected by a major waterway with cities such as Keš (= Wilayah?) and on to the deltaic marshlands, the head of the Persian Gulf, and through those waters with cities such as Pašime (= Tell Abu Sheeja: Hussein et al. 2010), the Deh Luran plain, Susiana and all regions to the east (Steinkeller 1982; Carter & Stolper 1984).

The location of the head of the Persian Gulf is also significant in this context (Pournelle 2013:20–1, fig. 1.4). When the Early Dynastic III ruler Urukagina of Lagaš boasted of digging a canal for Nanše whose “far end reaches the sea” (Cooper 1986:70), this was a relatively modest achievement as the sea was at most a few kilometres distant at that time. Moreover, Pournelle's (2013:28) work on reconstructing the wetlands environment of Lower Mesopotamia throughout the Holocene has articulated a vision of Sumerian cities as “islands embedded in a marshy plain, situated on the borders and in the heart of vast deltaic marshlands. Their waterways served less as irrigation canals than as transport routes”. Thus, during the periods when the city seal evidence flourished, c. 3000–2750 BC, we can envisage much of south Iraq as wetlands with islands of settlement connected by navigable waterways. To what extent this wetland environment was impacted by an episode of abrupt climate change involving aridification at c. 3200 BC, including reduction in Tigris–Euphrates streamflow (Cullen & deMenocal 2000), remains to be established. Staubwasser & Weiss (2006:379) make a case for the collapse of Uruk's “ideological and politico-economic frame, the temple” and a rise to political dominance of the palace at precisely this time, stimulated by collapse of the state's agro-production capabilities.

What of the sequence of city names attested in the Uruk III seal impressions and city list evidence? The seal impressions from Jemdet Nasr, possibly Tell 'Uqair and Uruk can of course be 'read' from any starting point, as they represent a sequence incised on a seal's cylindrical surface. But the archaic city list has a clear starting point and that is with the city of Ur, which is where we therefore choose to start the reading of the seal impressions as well. As has been pointed out (Green 1977:294; Matthews 1993; Englund 2011), there is no clear geographic logic, no simple itinerary, which underpins the sequence of city names, nor can the sequence be matched with political evidence for city hierarchies from later times, such as the Sumerian King List. Nor do the patron deities of the city seal cities agree in sequence or hierarchy with god-lists from Early Dynastic III and later times. As Englund (2011) comments, "the classical Sumerian pantheon as it emerged in the ED IIIa god lists is nowhere to be found in proto-cuneiform texts, so that discussions of archaic cults remain highly speculative, but should also not leave the ground of the textual evidence". This is a striking aspect of the city seal evidence which supports the idea of a major shift in cultic power from Uruk IV/III to Early Dynastic III, taking place through the Early Dynastic I (–II) period, and doubtless shaped by political developments of that period, including the rise to regional ascendancy of Kiš. Arguably part of this cultic shift, according to a theory of Steinkeller (1999; see also Steinkeller 2021), was a "growing masculinization" of Mesopotamian city deities through the course of the third millennium BC, with a decline in the power of goddesses as Akkadian male deities increasingly came to the fore in Sumer. Another aspect of this cultic shift is the practice of iconographically distinguishing deities from humans by the device of adding pairs of horns to some depictions of deities from c. 2800 BC (Asher-Greve 2013:163; Braun-Holzinger 2013:42).

In sum, we can assume that the Uruk III city seal sequence, starting with Nanna/Ur but focused strongly on Inana/Uruk, materialises an ancient hierarchy of gods, shrines and settlements, and of associated heavenly bodies such as the moon (Nanna/Ur), earth (Enlil/Nippur), sun (Utu/Larsa) and Venus (Inana/Uruk), which held regional significance across the span of the Lower Mesopotamian plains, prior to and during the foundation of some of the world's first cities, arguably dating back into the Early Uruk or even Ubaid periods, about which we currently know extremely little.

The Jemdet Nasr city sealed tablets list items such as dried fruits, which we interpret as offerings to a visiting deity, plausibly on the occasion of water-borne grand tours by cult statues as depicted on contemporary seals and seal impressions (as fully discussed in Matthews & Richardson 2019). What can we deduce of the offerings themselves, and their potential significance within the city seal remit? Hašhur in these texts appears to refer to apples (Postgate 1987) rather than apricots (Gelb 1982). The apples were dried and strung, exactly as found in the high-status Early Dynastic III tomb of Pu-abī in the Royal Cemetery at Ur (Ellison et al. 1978). In fact, as Postgate (1987:125) points out, most references to fruit in third millennium BC Mesopotamian texts relate to deliveries to temples or offerings for special festivals, emphasising the importance of fruit offerings in cultic activity. Szarzyńska's (1993) pioneering interpretations of the Uruk texts relating to offerings to Inana/MUŠ₃, demonstrated the supremacy of Inana as a recipient of offerings at Uruk. Offerings made to the three forms of Inana, as attested in the Uruk IV–III texts, include grain, different types of bread, beer, dairy products and, rarely, animals. The different Inana versions receive differing sets of offerings, doubtless according to the seasonal availability of foodstuffs at the time of the relevant festivals.

The cities of the city seal evidence

What of the featured cities themselves (Fig. 1) and their possible significance within the city seal evidence? Let us treat them broadly in the sequence as attested on the Uruk III city list discussed above, starting of course with the city of Ur. We should emphasise that many of the cities named in the city seal evidence from Jemdet Nasr, Uruk and, especially, Ur remain unidentified, which makes our task of apprehending the full meaning of this extraordinary body of evidence all the harder.

Ur

The fact that much of the city seal evidence comes from Ur itself, in the form of multiple clay sealings from the Seal Impression Strata, taken alongside the fact that the name of Ur heads the list of city names in the Uruk III evidence, strongly underlines the importance of Ur and the deity Nanna in the city seal evidence. The new identifications of Ur in both the Uruk III door sealing with city seal impression from Uruk and in the Early Dynastic I door sealing from Konar Sandal South in south-eastern Iran, further stress the trans-regional significance of the city of Ur in the centuries from c. 3100 BC (Benati 2015; Charvát 2015; 2017).

Looking at the Ur SIS evidence, Steinkeller (2002a:257) suggested that in the Early Dynastic period the focus of inter-city cultic cooperation shifted from Uruk to Nippur, concomitant with the rise of Nippur’s deity Enlil at the expense of Enki (Eridu) and Inana (Uruk, Zabalam), which can be associated with the rise to political power of Kiš and a northwards shift in the balance of power from the region of Uruk and Eridu to Nippur and Kiš. Whether Nippur and the cult of Enlil were the focus of the Ur SIS city seal impressions remains to be established, as there is no supporting evidence from Nippur itself despite long-term, large-scale excavations at that site. Furthermore, according to Steinkeller’s argument regarding Uruk and the Jemdet Nasr city seal, the city of Nippur should not be attested at all on the Ur SIS sealings, as the beneficiary of the system, and yet it appears to be attested at least five times at Ur.

In a short addendum, however, Steinkeller (2002b) revised his views in the light of the multiple rosette stamp seals attested on the Ur SIS city sealings, which he sees as indicating the pre-eminence of Inana and Uruk in these documents, as in the Uruk III evidence from Jemdet Nasr, rather than of Enlil and Nippur. The stamp seal impressions are a special feature of the Ur SIS sealings, occurring on approximately one-quarter of the city sealed pieces (Matthews 1993:43). Almost all the stamp seals depict rosettes, with varying numbers of points, but three of them depict the ‘edinnu’ or ‘fertile plain’ symbol also attested on about ten of the Ur city seal cylinder impressions. As originally recognised by Burrows (1930:343) and later confirmed (Matthews 1993:43), the stamp impressions are clearly made by the butt end of the cylinders rolled across the same sealings. This practice may suggest an increasing hierarchy of administration in the context of city seal use at Ur (Charvát 2015).

NIBRU/Nippur

Steinkeller (2002a:254; 2010) doubts our readings (Matthews 1993) of the names of Nippur, Uruk and Kutha on the Jemdet Nasr city seal impressions. But support for the readings of Nippur and Uruk has come in Wang’s (2011:44–7, 93 fn 264, 218–26) detailed treatment of archaic writings of NIBRU/Nippur and other city names, as also discussed by Englund (2011). Wang modifies our EN.NUN reading on the Jemdet Nasr city seal to EN_x+KID_x²¹.NUN_x¹ (where EN_x+KID_x²¹ features as a combined “graphic depiction” or ligature), which Wang (2011:45–6) identifies as “the earliest known writing for the city name of NIBRU”. Turning to our claim for NIBRU on the Uruk III sealing from Uruk, Wang proposes that here EN_a.KID, now two separate signs therefore probably slightly later in date than the Jemdet Nasr city seal instance, can reasonably also be read as NIBRU. The placing of city names in linear boxes agrees with this slightly later dating of the Uruk city sealing.

Furthermore, in establishing a reading of EN_a.KID_a as representing NIBRU/Nippur (and possibly also representing the deity ENLIL: see also Englund 2011), Wang pursues afresh the issue of NIBRU’s significance in the Uruk III administrative texts, especially at Jemdet Nasr. He points out that all the texts which feature EN_a.KID_a relate to “the highest level of accounting involving several years of time and large amounts of goods” (Wang 2011:51), an observation reinforced by Monaco’s (2004) comment that one of these texts (Englund & Grégoire 1991, no. 94) covers a period of no fewer than eight years (see also Englund 1988:157–8). On the Early Dynastic I Ur sealings, moreover, Wang (2011:52–6) interprets both the sign combinations of UD.EN.KID (Matthews 1993, U001) and AN_x².KID (Matthews 1993, U002, U016) as signifying the name of NIBRU. In all, Wang’s observations

underline the significance of Nippur and the cult of Enlil in the Uruk III and Early Dynastic I city seal milieu.

Larsa

The appearance of the city of Larsa in all the Uruk III forms of city seal evidence, in close association with the city of Nippur, is something of a mystery in view of the dearth of archaeological evidence for occupation of Uruk III/Jemdet Nasr date at Larsa (Margueron 1997), although it is likely that structures of this date underlie later period occupation. But the occurrence of the name of Larsa in both Uruk IV and III texts from Uruk confirms its significance during these periods. Larsa is also richly attested in the Ur city seal evidence. Most significantly, there are indications that an otherwise unprovenanced group of 27 Uruk III-style tablets (Englund 1996:14–19; 1998:29–30) may have been illicitly excavated at Tell es-Senkereh, ancient Larsa, as claimed by a Baghdad dealer in 1933.

Uruk

Steinkeller (2002a:255–6) is doubtful concerning our identification of Uruk on the Jemdet Nasr city seal, partly on the grounds that as Uruk is seen by him as being “the focus and beneficiary of the system”, it makes more sense for Uruk not to be listed in the city seal impression. Our identification of the sign UNUG on the Jemdet Nasr city seal impressions rests on the assumption that the sign here portrays a temple platform, even the Anu Ziggurat (Englund 2011), with stepped access or niched facade seen side-on rather than front-on, a reading and interpretation supported by Wang (2011:44 fn 139, 221) in his study of Enlil in early Mesopotamia.

Clearly the location of Uruk was critical, situated at the culmination of the Tigris–Euphrates system and thus able to draw on information and commodities from all upstream points at lower cost than its competitors. These economic and administrative aspects have been stressed (Pournelle & Algaze 2014:9) but what has not been considered is the rich potential this water-communication system allowed for cultic control and dissemination of power, including by water-borne tours by deities such as Inana, as we propose as a key component of the Uruk III city seal engagement (Matthews & Richardson 2019).

Keš

On the basis of historical and archaeological evidence, Postgate (1976) proposed that the site of Tell al-Wilayah could reasonably be equated with the ancient city of Keš, prominently attested in the city seal evidence from both Uruk III and Early Dynastic I phases. One ground for this identification is that the deity Ašgi, patron god of Keš, was consort of the patron deity of Adab (another city attested on the Ur city impressions), Nintu/Ninmah/Ninhursag (tellingly also known as ‘she of Keš’; Black & Green 1992:140), which supports a localisation of Keš close to Adab, as Wilayah is. Further, the city of Keš was subject to frequent raids by Elamite armies, according to Early Dynastic III texts from Telloh/Girsu (Selz 2014), supporting a localisation of the city to the east or north-east of Lower Mesopotamia. On the Stele of the Vultures, Ninhursag at Keš features alongside Enki at Eridu, Nanna at Ur, and Utu at Larsa as one of the principal deities to whom a dove is sent, strong evidence for the regional significance of Keš at that time.

An alternative location for Keš at the site of Tulul al-Baqarat, some 10 km to the east has recently been suggested in the light of Italian–Iraqi excavations there (e.g. Viano 2019). However, the arguments presented for this identification would apply equally well to Tell al-Wilayah itself, and on balance it seems more probable that Iri-sagrig should be sought at Tulul al-Baqarat which was certainly an active Ur III city.

The location of Keš, in either case, at the north-east fringes of Lower Mesopotamia is highly significant. Keš was located on an important waterway, known as the Keš-river, which facilitated

communication between Sumer to the south and Dēr and Akšak to the north, thereby accessing the main trans-Tigridian corridor (Renette 2013) running north-west to south-east along the westernmost foothills of the Zagros and connecting the Lower Diyala region to the marshes and plains of Susa, Elam and the entire Iranian plateau to the east. Fittingly, analysis of the third millennium BC glyptic from Wilayah shows strong connections to the Diyala region to the north-west and Susa to the south-east rather than to the Sumerian heartland (Rashid 1963; Boehmer 1965).

Dēr and points to the east

The city of Dēr is arguably attested on the Ur SIS sealings by an early version of the BAD₃ sign (Postgate 1992: fig. 2.8). Texts from the site of Tell 'Aqar, near Badra, reveal this site to be ancient Dēr (Brinkman 1968:205; Frayne 1997:95). Legrain (UE 3:38) initially interpreted the AB + snake combination, attested on several of the Ur SIS sealings and possibly on the Fara city seal, as representing Dēr but this has not found acceptance. At Dēr the snake represents Nirah, minister of the deity Ištaran, patron god of Dēr (Black & Green 1992:111). If AB + snake does not = Dēr, then which city might it represent? It could be any of the several cities with strong snake associations (Wiggermann 1997), even including Susa (Inšušinak) or Ešnunna (Ninazu/Tišpak).

To what extent the Ur SIS sign for Dēr is interchangeable with the UR₂/leg cross sign is not clear. By the Early Dynastic III period, the name of Dēr was written as BAD₃.AN^(ki), as at Girsu, where the BAD₃ sign represents a city wall. The depiction of this wall as circular or oval fits remarkably well with the prevalence of oval and circular walled structures in the broad trans-Tigridian region in which Dēr is situated (Renette 2009; Heil 2011). The placing of BAD₃ as the last known entry, no. 88, of the Uruk III city list from Uruk (Englund & Nissen 1993:150) indicates both the importance of Dēr in Uruk III times but perhaps also its location at the outer fringes of the Sumerian core zone, "a liminal place, physically, politically, and doubtless ideologically, lying on the frontier between Mesopotamia and the mountains" in Porter's evocative phrases (2009:206). The meaning of Dēr as 'encampment' agrees with its location on likely pastoral transhumance routes for flocks of goat and sheep in seasonal movements to and from the Sumerian heartland. At least four major settlements called Dēr are known from ancient Mesopotamia (Charpin 2003).

The trans-Tigridian Dēr's significance to the world of early Mesopotamia lies in its location, at a major crossroads of routes running north-south from and to Lower Mesopotamia and also east-west at the fringe of the westernmost Zagros foothills. Dēr was ideally situated for a role in long-distance interactions between Lower Mesopotamia, the Diyala region to the north, and beyond, and Susa, Elam and highland Iran to the east (nicely illustrated in a Mari letter which relates how Elamite messengers from Susa travelled to Babylon via Dēr: Heimpel 2003:327). Early Dynastic III texts from Girsu list the import of equids, resin and slaves into Lower Mesopotamia from Dēr (Selz 2014: table 2), commodities which would have reached Dēr from the highland zones to which it had ready access. Dēr's far-flung connections are further illustrated through the Ur III ruler Šulgi who, in his year 11 (re-)installed the deity Ištaran at Dēr, while in Šulgi's year 18 his daughter became queen of Marhaši, probably the Halil Rud region of south-east Iran (Potts 2004; Steinkeller 2006). These events provide a convincing link-up between the cities and regions of Ur (Lower Mesopotamia), Dēr (trans-Tigris corridor) and Konar Sandal South (Halil Rud).

Excavations at archaeological sites along the modern Iraq-Iran border fill in some of the toponym gaps in this stretch of the trans-Tigridian corridor. Thus, excavations at Tell Abu Sheeja have established its identity as ancient Pašime (Hussein et al. 2010), with a temple to the god Šuda, previously believed to be located significantly further to the east. Also important in this chain of communication is the Deh Luran plain. Here, the site of Tepe Musiyan was at its largest, 14 ha, in the early third millennium BC, and has been proposed by Steinkeller (1982) as ancient Urua/Arawa, an Elamite city known from Early Dynastic and later sources (Carter & Stolper 1984: 212 fn 275). On the Mehran plain in Ilam, the large site of Chogha Ahowan is also a major settlement in the late



Fig. 6 Tell 'Uqair (?) city-sealed tablet VAT 5296. © Staatliche Museen zu Berlin – Vorderasiatisches Museum, Foto: Olaf M. Teßner 3/2019 VAT 5296

fourth and early third millennia BC (Nokandeh 2010) and must surely feature in early Mesopotamian texts.

Ereš

The city of Ereš (NISABA^{ki}) may be attested on the Jemdet Nasr city seal evidence (Matthews 1993:37), but appears to be absent from the Ur SIS sealings. A strong candidate for Ereš is Abu Salabikh, where one Early Dynastic III text mentions a “king” and “Ereš”, referring to allocation of fields at Ereš (Postgate pers comm; Biggs 1974:24; Postgate & Moorey 1976:161; Krebernik & Postgate 2009:7; Wang 2011:64). The city is mentioned several times in Old Akkadian texts from nearby Nippur (Westenholz 1975:112).

UR₂ RAD_a KU_{6a} = Tell 'Uqair?

In addition to the 13 Jemdet Nasr tablets with the city seal impression, a single tablet with unverified archaeological provenance is of great importance in developing our understanding of the city seal evidence. The tablet in question (Fig. 6) (VAT 5296) is one of a group of 38 proto-cuneiform tablets purchased in 1903 by the Berlin Pergamon Museum, originally published by Falkenstein (1936, no. 621–56) and fully treated by Englund (1996: 9–14; 2006). Partly based on their stylistic similarity to the tablets excavated at Jemdet Nasr in 1926–28, the Berlin tablets were regarded by Falkenstein (1936:4) as likely coming from illicit excavations at Jemdet Nasr prior to 1903. A convincing argument for their origin at Jemdet Nasr seemed to be the fact that one of the Berlin tablets (Falkenstein 1936, no. 656; Englund 1996, no. 15) bears impressions of the same city seal which, by the time Falkenstein was working on the Berlin tablets, had already been noticed on the recently excavated tablets from Langdon's work at Jemdet Nasr, even if it had not by then been identified as containing Mesopotamian city names, prior to Maurice Lambert's breakthrough in recognising the seal impression as a city list (Lambert 1970).

While the Berlin city sealed tablet lists small quantities of sexagesimally counted commodities, these are slightly different from those listed on the excavated Jemdet Nasr tablets, and they include dried fruits, fish, and probably vegetables, as well as unknown items measured in 'jars' (DUG). As Steinkeller (2002a:253 fn 17) points out, this difference supports the argument that the Berlin tablet originates from a source other than Jemdet Nasr. It is also notable that the Berlin city seal tablet text ends with a significant variation from the Jemdet Nasr examples. In place of the sequence NI_a+RU ; $3N_{57}$ $MU\check{S}_{3a}$; $UNUG_a$ on the Jemdet Nasr tablets, on the Berlin tablet the text ends with KU_{6a} RAD_a UR_2 ; MAH_a+NA_2 ; AN $3N_{57}$; PAP_a ; $UNUG_a$. Most significant here is the occurrence of the sign group KU_{6a} RAD_a UR_2 in precisely the location in the text where NI_a+RU occurs on the Jemdet Nasr city sealed tablets. If NI_a+RU equals the ancient name of Jemdet Nasr (see below) then might KU_{6a} RAD_a UR_2 represent the name of another Mesopotamian city, and if so which city?

Following this line of argument, Green (1986) noted the occurrence of the sign group KU_{6a} RAD_a UR_2 on the four proto-cuneiform Uruk III-style tablets legally excavated at Tell 'Uqair in 1940–41 (Lloyd & Safar 1943:155; Englund 1998:27–9), a sign combination which probably represents Urum, as established by McEwan (1981) and proposed by Steinkeller (1980:25) as a town of northern Babylonia. Green suggested therefore that KU_{6a} RAD_a UR_2 = Urum = Tell 'Uqair, and that the Berlin city seal tablet was probably illicitly excavated at Tell 'Uqair, only 15 km north-west of Jemdet Nasr, at some time prior to 1903. More than this, Green (1986:79) suggested that, as more than half the 38 Berlin tablets purchased in 1903 also have the sign combination KU_{6a} RAD_a UR_2 , the entire collection was likelier to have originated from Tell 'Uqair than from Jemdet Nasr, an interpretation supported in Steinkeller's (2002a:252–4) discussion of this tablet.

Green's suggestion of a Tell 'Uqair origin for the Berlin tablets is highly significant, as it is extremely rare in ancient Mesopotamia for impressions of the same seal to be found at more than one city or location. Englund (1996:9 fn 15) cites the case of an impression of an Early Dynastic III seal of Ur-Emuš found at both Girsu and Kiš, and Steinkeller (2002a:252 fn 14) lists one Mitanni and three Ur III examples of the same seal impression found in two different cities, but there are no previously identified Uruk IV–III examples. As Englund (1996:9–10) argued, however, it may be

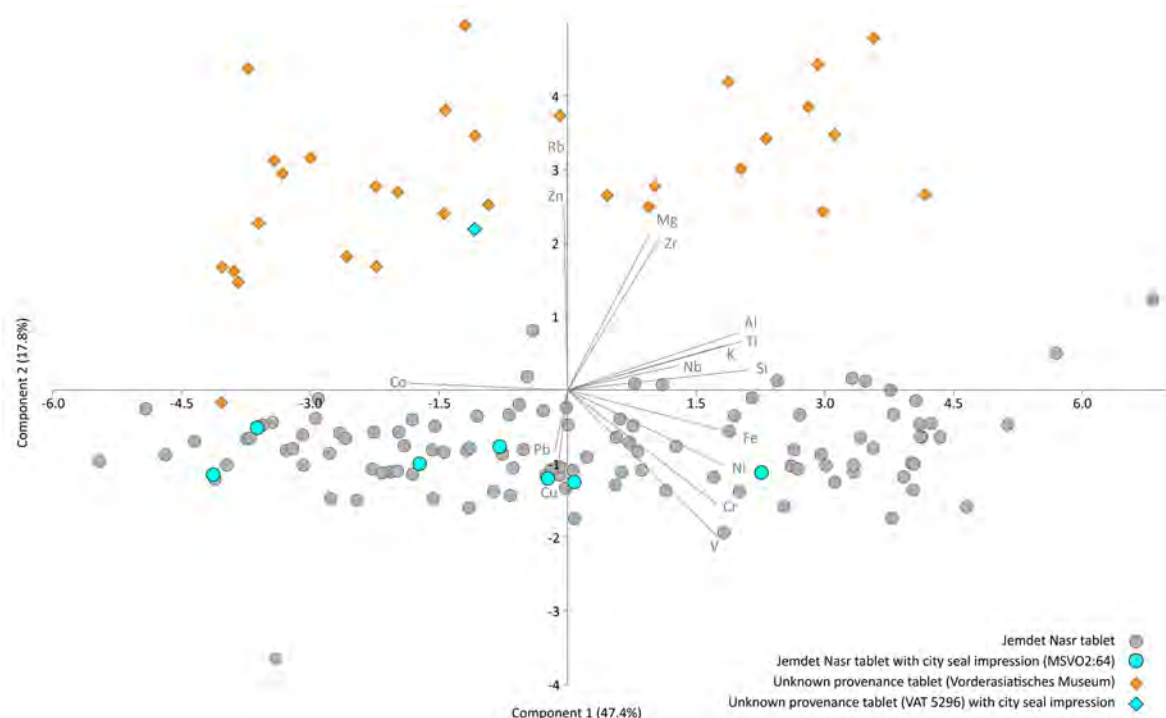


Fig. 7 Principal component analysis comparing calibrated pXRF data for Jemdet Nasr and tablets in the Vorderasiatisches Museum probably from Tell 'Uqair

that the Berlin city sealed tablet does originate from Jemdet Nasr, but from a separate branch of the administration dealing specially with engagement with Tell 'Uqair.

As fully discussed in Matthews & Richardson (2019), analysis of the compositional data generated through portable x-ray fluorescence (pXRF) analysis reveals that the Berlin city sealed tablet shares a broadly common geochemistry with the 37 other tablets purchased by the Berlin Pergamon Museum in 1903 (Fig. 7). This discrete group is distinguishably different from the clays of the tablets excavated at Jemdet Nasr, which supports Green's (1986) argument for a separate source, although Tell 'Uqair cannot be definitively confirmed, subject to pXRF analysis of the tablets legally excavated at Tell 'Uqair and now in the collections of the Iraq Museum, Baghdad. Our analysis of the Berlin tablets appears to establish the movement of the seal (as opposed to the tablet), for use in at least two cities, one of which is Jemdet Nasr and the other is almost certain to have been Tell 'Uqair.

UB or NI+RU = Jemdet Nasr?

The five-pointed star (occasionally also with six or more points), or UB sign, is closely associated with the city seal evidence, directly or otherwise. Firstly, UB occurs in the Uruk III city list tablet as entry 21, immediately preceding a combination of signs [x] RU as entry 22. If, for argument's sake, we introduce a NI before the RU in entry 22, we have the NI+RU combination so richly attested in the colophons of the city sealed tablets from Jemdet Nasr. Secondly, in addition to its presence on the Jemdet Nasr city sealed tablets, the occurrence of UB on many of the Jemdet Nasr Uruk III-style texts indicates a key high-status role for UB within the administration of Jemdet Nasr. UB is especially common in the colophons of Jemdet Nasr texts, often with other high-status signs, such as UB AB, 'sanctuary/shrine/household of UB'. Thirdly, the UB sign is widely attested in non-textual material culture from Jemdet Nasr, including spindle whorls, painted and incised ceramics, and a baked clay cylinder seal fragment (Matthews 1989: figs. 3.21–5, 5.1).

The major candidate for the ancient name of Jemdet Nasr is the NI+RU combination (Englund 2001; Selz 2014: 264), which features in both the Uruk III city list text (probably) and the colophons of the Jemdet Nasr city sealed texts, other than the single text arguably from Tell 'Uqair, discussed above. Neither UB nor NI+RU occur on the Jemdet Nasr city seal itself, as far as we can tell, but UB does occur on at least five of the Early Dynastic I sealings from Ur. In any case, the adjacent placing of UB and [x] RU on the Uruk III city list and their frequent occurrence on the Jemdet Nasr texts, strongly suggests that these two places were closely connected and almost certainly physically proximate to each other.

One interpretation is that both UB and NI+RU represent not individual cities but rather names of specific shrines or institutions (an argument one might make for the entire Uruk III city list?), both of which may have been located at the site of Jemdet Nasr. In this regard, it is notable that the Jemdet Nasr texts feature three major administrative bodies qualified by association with an AB sign: AB APIN; AB NI+RU; AB UB, where AB can be understood to signify 'temple household' or 'shrine administration' (for text details see Matthews 1993:29–30). In this light, we can interpret the large building at Jemdet Nasr, in the rooms of which the Uruk III tablets were found, as serving as a central control or clearing house for the activities of at least these three administrative units, which must have been based at or near Jemdet Nasr itself.

AB APIN occurs on nine Jemdet Nasr texts, which deal with field survey, seeding grain, labour gangs and mixed summary accounts. Only one of the texts bears a seal impression, and that text also bears the AB UB combination. AB NI+RU occurs on 18 tablets, concerning field survey, grain rations, labour gangs, and mixed non-summary and summary accounts. None of the 18 AB NI+RU texts has a seal impression, despite this body being clearly involved in a wide range of administrative activity. One explanation for the lack of seal impressions is that AB NI+RU was an internal facing institution which did not need to justify or authenticate its activities to an external level of power.

The combination NI+RU, without a qualifying AB, occurs on 40 of the Jemdet Nasr texts, of which 50% are sealed. Eleven of the 20 sealed tablets bear the city seal impression, and deal with

commodities distribution, as discussed above. All of the NI+RU (without AB) tablets deal with the accounting of non-grain transactions, which is striking in view of the predominance of grain transactions in the Jemdet Nasr corpus (for the role of grain in structuring early state development see Scott 2017). Clearly the NI+RU institution or authority had a major role to play in the distribution of a wide range of non-grain goods, including within cultic contexts according to our interpretation of the city seal and its use.

In sharp contrast to the AB NI+RU texts, AB UB features on 12 tablets, dealing with grain seeding, grain rations, animals and labour gangs, and six of the tablets have seal impressions. Unlike AB APIN and AB NI+RU, the AB UB authority is never attested on summary account texts, only in primary administrative transactions which would be more likely to require authentication by impression of a seal.

Whether NI+RU or UB represents the ancient name of Jemdet Nasr remains undecided. Englund (1998:197) favours NI+RU, while Monaco (2004:3) suggests that NI+RU refers to an administrative formula used at Jemdet Nasr rather than the city’s name. In his discussion of the sign UB, Bartash (2015:3) agrees that UB is also a strong candidate for Jemdet Nasr’s name. The existence of levels of Early Dynastic I date at Jemdet Nasr (Matthews 1997) fits chronologically with the occurrence of UB on the Ur SIS sealings.

BU.BU.NA₂

This mysterious group of signs is hard to interpret. Steinkeller (2002a:254 fn 26) suggests a reading as arinax. The same toponym occurs on the Uruk III city list, entry 14, and in an Uruk III economic text from Uruk, redeposited in debris in the Early Dynastic III Stampflehmgebäude, which lists female slaves perhaps donated to Inana’s temple at Uruk by a group of cities, three of which—Ur, Larsa and BU.BU.NA₂—are also named on the Jemdet Nasr city seal and in the Uruk III city list (Cavigneaux 1991:78; Steinkeller 2002a:256). This text sheds significant additional light on the range of cultic activities associated with Inana, collaboratively undertaken by cohorts of cities in Uruk III times, augmenting the evidence from the Warka Vase as articulated in Hockmann’s (2008) innovative discussion of this unique object.

‘edinnu’

A distinctive but poorly understood sign appears on many of the Ur SIS sealings, the so-called ‘edinnu’. This sign was interpreted by Legrain (UE 3:39) as depicting a connected system of waterways flowing across the Lower Mesopotamian plain. The sign is certainly not to be equated with the city name E’edin (pace Frayne 2008: 45; see also Sallaberger & Schrakamp 2015:59 fn 65). The meaning of the sign remains obscure.

Kiš and Kutha

The city of Kiš appears not to feature in the city seal evidence, nor in the Uruk IV–III texts from Uruk (Steinkeller 2013:146), perhaps fittingly given that the rise to political dominance of Kiš is a key feature of the post-city seal Mesopotamian world after the Early Dynastic I period. The only possible candidate for the name of Kiš in the city seal evidence is the animal head motif in the lower register of the Jemdet Nasr city seal impression (Steinkeller 2002a:254–5; 2004:184). This sign, KIŠ/ALIM, which is related to the Uruk III sign ZATU-219, represents the head of an aurochs, and is not to be confused with the GIR₃/ANŠE sign, representing the head of a donkey or equid (Steinkeller 2004:180, fig. 1).

The combination ALIM.UNU stands for the god Nergal and/or Nergal’s city, Kutha, which is almost certainly the modern site of Tell Ibrahim, only 20 km north-west of Jemdet Nasr and 10 km south-west of Tell ‘Uqair (Gibson 1972:127, 196). It is likely therefore that the city name attested by

an ALIM sign in the Jemdet Nasr city seal impression is Kutha, with an UNU sign missing beneath the ALIM.

Susa

There is no convincing city seal evidence from Susa itself. There have been suggestions, however, that the city of Susa might be represented in the Ur city seal evidence in the form of an IŠ sign (Charvát 2012:84), attested in seal impressions Matthews 1993, no. U23 and U69. Beal (1992:38–9) earlier suggested that this sign, usually read KUŠ₇ = ŠUŠ₃, could be read as SUS/A/x = SUSU. Overall, the evidence for Susa’s participation in the world of the city seals is slight.

Conclusion

Through this article we have underlined the immense significance of the city of Ur through the obscure centuries at the transition of the fourth–third millennia BC and beyond. That significance lies in Ur’s situation as a unique provenance of critically important evidence (the SIS clay sealings and associated Early Dynastic I tablets), as well as in Ur’s status at the head of the city list sequences and its predominance in all forms of evidence relating to the city seals. We hope that further advances in our understanding of Ur’s role in the socio-political context of early urban interactions within and beyond Lower Mesopotamia may one day be significantly enhanced through excavations of contexts at Ur likely to yield new evidence of relevance to this highly distinctive episode of cultural development in the Mesopotamian past.

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Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 3 Legrain 1936

- Adams, R.M.C. 1981. *Heartland of Cities. Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*. Chicago: University of Chicago.
- Asher-Greve, J.M. 2013. "Images", in J.M. Asher-Greve & J.G. Westenholz *Goddesses in Context. On Divine Powers, Roles, Relationships and Gender in Mesopotamian Textual and Visual Sources* (Orbis Biblicus et Orientalis 259):149–286. Fribourg/Göttingen: Academic Press.
- Bartash, V. 2015. "On the Sumerian city UB-meki, the alleged "Umma"", *Cuneiform Digital Library Bulletin* 2015/2:1–7.
- Beal, R.H. 1992. "Is KUŠ7 the reading of IŠ = kizû?", *NABU* 6:38–9.
- Benati, G. 2015. "Re-modeling political economy in early 3rd millennium BC Mesopotamia: patterns of socio-economic organization in Archaic Ur (Tell al-Muqayyar, Iraq)", *Cuneiform Digital Library Journal* 2015/2:1–37.
- Biggs, R.D. 1974. *Inscriptions from Tell Abū Šalābīkh* (Oriental Institute Publications 99). Chicago: Oriental Institute.
- Black, J. & A. Green 1992. *Gods, Demons and Symbols of Ancient Mesopotamia: An Illustrated Dictionary*. London: British Museum Press.
- Boehmer, R.M. 1965. *Die Entwicklung der Glyptik während der Akkad-Zeit*. Berlin: De Gruyter.
- Braun-Holzinger, E.A. 2013. *Frühe Götterdarstellungen in Mesopotamien*. (Orbis Biblicus et Orientalis 261). Fribourg and Göttingen: Academic Press.
- Brinkman, J.A. 1968. *A Political History of Post-Kassite Babylonia 1158–722 B.C.* Rome: Pontificium Institutum Biblicum.
- Burrows, E. 1930. "Tablets and seal impressions. Appendix to Woolley, C.L. Excavations at Ur, 1929–30", *The Antiquaries Journal* 10:341–3.
- Carter, E. & M.W. Stolper 1984. *Elam: Surveys of Political History and Archaeology*. Berkeley: University of California.
- Cavigneaux, A. 1991. "Die Texte der 33. Kampagne", *Baghdader Mitteilungen* 22:33–123.
- Charpin, D. 2003. "La 'toponymie en miroir' dans le Proche-Orient amorrite", *Revue d'assyriologie et d'archéologie orientale* 97:3–34.
- Charvát, P. 2012. "Seals from near and far. Notes on the geographical horizons of sealings of archaic Ur", *Revue d'assyriologie et d'archéologie orientale* 107:83–7.
- 2015. "O tempora, o mores? The Sumerian city of Ur before, and after, 3000 BC", in R. Dittmann & G.J. Selz (eds.) *It's a Long Way to a Historiography of the Early Dynastic Period(s)*: 51–70. Münster: Ugarit Verlag.
- 2017. *Signs from Silence: Ur of the First Sumerians*. Prague: Karolinum Press.
- Cooper, J.S. 1986. *Sumerian and Akkadian Royal Inscriptions*. New Haven: American Oriental Society.
- Cullen, H.M. & P.B. deMenocal 2000. "North Atlantic influence on Tigris–Euphrates streamflow", *International Journal of Climatology* 20/8:853–63.
- Deimel, A. 1923. *Die Inschriften von Fara II. Schultexte aus Fara*. Leipzig: J.C. Hinrichs.
- Ellison, R., J. Renfrew, D. Brothwell & N. Seeley 1978. "Some food offerings from Ur, excavated by Sir Leonard Woolley, and previously unpublished", *Journal of Archaeological Science* 5:167–77.
- Englund, R.K. 1996. *Proto-Cuneiform Texts from Diverse Collections* (Materialien zu den frühen Schriftzeugnissen des vorderen Orients 4). Berlin: Gebr. Mann.
- 1998. "Texts from the Late Uruk period", in J. Bauer, R.K. Englund & M. Krebernik (eds.), *Mesopotamien: Späturuk-Zeit und Frühdynastische Zeit*:15–233. Fribourg: Academic Press,
- 2001. "Grain accounting practices in archaic Mesopotamia", in J. Høyrup & P. Damerow (eds.) *Changing Views on Ancient Near Eastern Mathematics*:1–35. Berlin: Dietrich Reimer,
- 2006. "Three texts from Uqair", *Cuneiform Digital Library Notes* 2006/2.
- 2011. "Notes on KIDa", *Cuneiform Digital Library Notes* 2011/6.
- Englund, R.K. & J.-P. Grégoire 1991. *The Proto-Cuneiform Texts from Jemdet Nasr* (Materialien zu den frühen Schriftzeugnissen des vorderen Orients 1). Berlin: Gebr. Mann.
- Englund, R.K. & H.J. Nissen 1993. *Die lexikalischen Listen der archaischen Texte aus Uruk* (Archaische Texte aus Uruk 3). Berlin: Gebr. Mann.

- Falkenstein, A. 1936. *Archaische Texte aus Uruk. Bearbeitet und herausgegeben von A. Falkenstein.* (Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka 2). Berlin: Deutsche Forschungsgemeinschaft.
- Frayne, D.R. 1997. *The Royal Inscriptions of Mesopotamia. Early Periods 3.2. Ur III Period (2112–2004 BC).* Toronto: University of Toronto.
- 2008. *The Royal Inscriptions of Mesopotamia. Pre-Sargonic Period: Early Periods, Volume 1 (2700–2350 BC).* Toronto: University of Toronto.
- Gelb, I.J. 1982. “Sumerian and Akkadian words for ‘string of fruit’”, in G. van Driel, Th.J.H. Krispijn, M. Stol & K.R. Veenhof (eds.) *Zikir šumim: Assyriological Studies Presented to F.R. Kraus on the Occasion of his Seventieth Birthday*:67–82. Leiden: E.J. Brill.
- Gibson, McG. 1972. *The City and Area of Kish.* Miami: Field Research Projects.
- Green, M.W. 1977. “A note on an archaic period geographical list from Warka”, *Journal of Near Eastern Studies* 36/4:293–4.
- 1986. “Urum and Uqair”, *Acta Sumerologica* 8:77–83.
- Gurney, O.R. 1974. *Middle Babylonian Legal Documents and Other Texts.* (UE 7). London: British Museum.
- Heil, M. 2011. “Early Dynastic round buildings”, in P.A. Miglus & S. Mühl (eds.), *Between the Cultures, the Central Tigris Region from the 3rd to the 1st Millennium BC*:37–45. Heidelberg: Heidelberger Orientverlag.
- Heimpel, W. 1990. “Ein zweiter Schritt zur Rehabilitierung der Rolle des Tigris in Sumer”, *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 80:204–13.
- 2003. *Letters to the King of Mari.* Winona Lake: Eisenbrauns.
- Hockmann, D. 2008. “Die Warka-Vase – eine neue Interpretation”, *Altorientalische Forschungen* 35/2:326–36.
- Hritz, C. 2010. “Tracing settlement patterns and channel systems in southern Mesopotamia using remote sensing”, *Journal of Field Archaeology* 35/2:184–203.
- Hussein, A.M., H.A. Hamza, A.K. Thaher, S.J.Kahdum, M. Hashem, H.M. Taha, M.R. Altaweel & B. Studevent-Hickman 2010. “Tell Abu Sheeja/ancient Pašim: report of the first season of excavations, 2007”, *Akkadica* 131:47–103.
- Jotheri, J., M.B. Allen & T.J. Wilkinson 2016. “Holocene avulsions of the Euphrates River in the Najaf Area of western Mesopotamia: impacts on human settlement patterns”, *Geoarchaeology* 31/3:175–93.
- Krebernik, M. & J.N. Postgate 2009. “The tablets from Abu Salabikh and their provenance”, *Iraq* 71:1–32.
- Lambert, M. 1970. “Notes brèves”, *Revue d’assyriologie et d’archéologie orientale* 64:189.
- Legrain, L. 1936. *Ur Excavations Volume III. Archaic Seal Impressions.* London: British Museum and University of Pennsylvania Museum.
- Lloyd, S. & F. Safar 1943. “Tell Uqair. Excavations by the Iraq Government Directorate of Antiquities in 1940 and 1941”, *Journal of Near Eastern Studies* 2:131–58.
- Madjidzadeh, Y. & H. Pittman 2008. “Excavations at Konar Sandal in the region of Jiroft in the Halil Basin: first preliminary report (2002–2008)”, *Iran* 46/1:69–103.
- Margueron, J.-C. 1997. “Larsa”, in E.M. Meyers (ed.) *The Oxford Encyclopedia of Archaeology in the Near East*:331–3. Oxford: Oxford University Press.
- Matthews, R. 1989. “Excavations at Jemdet Nasr, 1988”, *Iraq* 51:225–48.
- 1993. *Cities, Seals and Writing: Archaic Seal Impressions from Jemdet-Nasr and Ur* (Materialien zu den frühen Schriftzeugnissen des vorderen Orients 2). Berlin: Gebr. Mann.
- 1997. “After the archive: Early Dynastic I occupation at Jemdet Nasr, Iraq”, *Al-Rāfidān* 18:109–17.
- Matthews, R. & A. Richardson 2019 “Cultic resilience and inter-city engagement at the dawn of urban history: protohistoric Mesopotamia and the ‘city seals’, 3200–2750 BC”, *World Archaeology* 50/5:723–47.
- 2020. “Uruk and Ur in the city seal impressions, 3100–2750 BC: new evidence, new approaches”, in W. Sommerfeld (ed.), *Dealing with Antiquity: Past, Present & Future*: 285–93. Münster: Ugarit.
- McEwan, G.J.P. 1981. “The writing of Urum in pre-Ur III sources”, *Journal of Cuneiform Studies* 33:56.
- Monaco, S.F. 2004. “Revisiting Jemdet Nasr Texts: IM 55580+”, *Cuneiform Digital Library Bulletin* 2004/3:1–5.
- Morozova, G.S. 2005. “A review of Holocene avulsions of the Tigris and Euphrates rivers and possible effects on the evolution of civilizations in lower Mesopotamia”, *Geoarchaeology* 20/4:401–23.
- Nissen, H.J. 1985. “Ortsnamen in den archaischen Texten aus Uruk”, *Orientalia* 54:226–33.
- Nokandeh, J. 2010. “Archaeological survey in the Mehran plain, south western Iran”, in P. Matthiae, F. Pinnock, L. Nigro & N. Marchetti (eds.) *Proceedings of the 6th International Congress of the Archaeology of the Ancient Near East.* Volume 2: 483–509. Wiesbaden: Harrassowitz.

- Porter, A. 2009. "Beyond dimorphism: ideologies and materialities of kinship as time-space distancing", in J. Szuchman (ed.) *Nomads, Tribes, and the State in the Ancient Near East. Cross-Disciplinary Perspectives* (Oriental Institute Seminars 5):201–25. Chicago: Oriental Institute.
- Postgate, J.N. 1976. "Inscriptions from Tell al-Wilayah", *Sumer* 32:77–100.
- 1987. "Notes on fruit in the cuneiform sources", *Bulletin on Sumerian Agriculture* 3:115–44.
- 1992. *Early Mesopotamia: Society and Economy at the Dawn of History*. London: Routledge.
- Postgate, J.N. & P.R.S. Moorey 1976. "Excavations at Abu Salabikh, 1975", *Iraq* 38:133–69.
- Potts, D.T. 1997. *Mesopotamian Civilization: The Material Foundations*. Ithaca: Cornell University.
- 2004. "Exit Aratta: Southeastern Iran and the land of Marhashi", *Nāme-ye Irān-e Bāstān* 4/1:1–11.
- Pournelle, J.R. 2013. "Physical geography", in H. Crawford (ed.) *The Sumerian World*:13–32. London: Routledge.
- Pournelle, J.R. & G. Algaze 2014. "Travels in Edin: deltaic resilience and early urbanism in Greater Mesopotamia", in A. McMahon & H. Crawford (eds.) *Preludes to Urbanism: The Late Chalcolithic of Mesopotamia*:7–34. Cambridge: McDonald Institute.
- Rashid, S.A. 1963. "Die Ausgrabung von Tell al-Wilayah und die Bedeutung ihrer Rollsiegel", *Sumer* 19:82–106.
- Renette, S. 2009. "A reassessment of the round buildings in the Hamrin valley (central Iraq) during the early 3rd millennium BC", *Paléorient* 35/2:79–98.
- 2013. "The trans-Tigridian corridor in the early third millennium BC", in K. De Graef & J. Tavernier (eds.) *Susa and Elam. Archaeological, Philological, Historical and Geographical Perspectives*:43–50. Leiden: E.J. Brill.
- Sallaberger, W. & I. Schrakamp 2015. "Part 1: philological data for a historical chronology of Mesopotamia in the 3rd millennium", in W. Sallaberger & I. Schrakamp (eds.), *ARCANE III. History & Philology*:1–136. Turnhout: Brepols.
- Scott, J.C. 2017. *Against the Grain. A Deep History of the Earliest States*. New Haven: Yale University Press.
- Selz, G.J. 2014. "Feeding the travellers. On Early Dynastic travel, travel networks, and travel provisions in the frame of third millennium Mesopotamia", in L. Milano (ed.), *Paleonutrition and Food Practices in the Ancient Near East: Towards a Multidisciplinary Approach*:261–79. Padova: Sargon.
- Staubwasser, M. & H. Weiss 2006. "Holocene climate and cultural evolution in late prehistoric-early historic West Asia", *Quaternary Research* 66/3:372–87.
- Steinkeller, P. 1980. "On the reading and location of the toponyms ÚR_xÚ.KI and A.HA.KI", *Journal of Cuneiform Studies* 32:23–33.
- 1982. "The question of Marhashi: a contribution to the historical geography of Iran in the third millennium B.C.", *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 72:237–65.
- 1999. "On rulers, priests and sacred marriage: tracing the evolution of Sumerian kingship", in K. Watanabe (ed.) *Priests and Officials in the Ancient Near East*:103–37. Heidelberg: Universitätsverlag C. Winter.
- 2001. "New light on the hydrology and topography of southern Babylonia in the third millennium", *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 91:22–84.
- 2002a. "Archaic city seals and the question of Babylonian unity", in T. Abusch (ed.), *Riches in Hidden Places: Ancient Near Eastern Studies in Memory of Thorkild Jacobsen*:249–57. Winona Lake: Eisenbrauns.
- 2002b. "More on the archaic city seals", *NABU* 2002:30.
- 2004. "Studies in third millennium paleography, 4: sign KIŠ", *Zeitschrift für Assyriologie und vorderasiatische Archäologie* 94:175–85.
- 2006. "New light on Marhashi and its contacts with Makkan and Babylonia", *Journal of Magan Studies* 1:1–17.
- 2010. "More on the archaic writing of the name Enlil/Nippur", in A. Kleinerman & J. Sasson (eds.) *Why Should Someone Who Knows Something Conceal It? Cuneiform Studies in Honor of David I. Owen on His 70th Birthday*:239–43. Bethesda: CDL Press.
- 2013. "An archaic 'prisoner plaque' from Kiš", *Revue d'assyriologie et d'archéologie orientale* 107:131–57.
- 2021. "Early Mesopotamian divine system: some fundamental concerns", *Archiv für Orientforschung* 54/1:255–66.
- Szarzyńska, K. 1993. "Offerings for the goddess Inanna in archaic Uruk", *Revue d'assyriologie et d'archéologie orientale* 82:7–28.
- Viano, M. 2019. "On the location of Irisagrig once again", *Journal of Cuneiform Studies* 71:35–52.
- Wang, X. 2011. *The Metamorphosis of Enlil in Early Mesopotamia*. Münster: Ugarit Verlag.
- Wencel, M.M. 2017. "Radiocarbon dating of Early Dynastic Mesopotamia: results, limitations, and prospects", *Radiocarbon* 59/2:635–45.

- Westenholz, A. 1975. *Old Sumerian and Old Akkadian Texts in Philadelphia Chiefly from Nippur. Vol. 1. Literary and Lexical Texts and the Earliest Administrative Documents from Nippur*. Malibu: Undena Press.
- Wiggermann, F.A.M. 1997. "Trans-Tigridian snake gods", in I.L. Finkel & M.J. Geller (eds.) *Sumerian Gods and their Representations*:33–55. Groningen: STYX.

Brought in: Woolley's collections from sites in Ur's hinterlands

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I expected that the paper I gave at the 62nd Rencontre Assyriologique Internationale (Ur in the 21st Century) held in Philadelphia in 2016 would be the last I had to say about Woolley's excavations at Tell al-Muqayyar, ancient Ur (Biblical Ur of the Chaldees). However, the 100th anniversary of the beginning of Woolley's epic excavations in early November 1922 is too momentous an occasion to let pass by in silence. Rather than observe the occasion by focusing on Woolley's work at Ur, I think it is an opportune occasion to take note of the large number of finds from archaeological sites in the immediate vicinity of Tell al-Muqayyar that Woolley amassed over the course of the twelve years he worked at the site.

Woolley used 20,094 field registration numbers—one-to-five-digit numbers with a “U.” prefix—to catalog the objects he uncovered in his excavations (Zettler 2021:13–17). Though Woolley commonly skipped catalog numbers between field seasons, many, if not most, of these field registration numbers included multiple objects. For example, Woolley catalogued the objects found with each of the attendants in PG 1237 under a single field registration number. In the case of Body 61, U.12380 included nineteen different objects. The *Ur Online* database has separate entries for multiple objects accessioned under a single U-number, and a quick search revealed 32,754 individual objects in Woolley's catalog of finds. If we add to that total the large number of objects to which Woolley never assigned field numbers, we can probably double the number of objects that came from his field work. Woolley exported so many small finds from Iraq that the British Museum gave many of them away to institutions around the world that merely expressed an interest in acquiring objects from Ur (Zettler 2021:15, n. 4). The Nicholson Collection (formerly the Nicholson Museum), now housed in the Chau Chak Wing Museum at the University of Sydney in Australia, for example, acquired a small collection—fifty (50) or so objects—from Ur that the British Museum provided in 1926. Penn Museum deaccessioned more than 300 objects from its share of the finds from Woolley's excavations, primarily given to other museums and donors.

Most of the objects Woolley assigned U-numbers were from his excavations on Tell al-Muqayyar proper, but just over 2000 were from nearby archaeological sites (see <http://www.ur-online.org/location/1803/>), three-quarters of them from Diqdiqqeh, low mounds to the north and north-east of Ur's fortified core. Workmen or their children collected the majority of the objects from these sites and gave them to Woolley in exchange for token compensation (or *bakshish*) (Figs 1a–b). Woolley invariably accessioned them with the findspot “Brought in” from such and such a site.

Fig. 2 is Woolley's sketch map of the district of Ur (UE 4:1, Figure 1) showing the location of some of the sites in the vicinity of Ur from which he collected objects. Table 1 is an alphabetical list of those sites, with site catalog numbers from Henry Wright's Eridu–Ur survey, where known (Wright 1981:295–345).

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Fig. 1 Woolley paying bakshish for surface finds brought in from sites around Ur:
(a, left) BM Ur Glass Plate Negative 1588; (b, right) BM Ur Glass Plate Negative 1589.

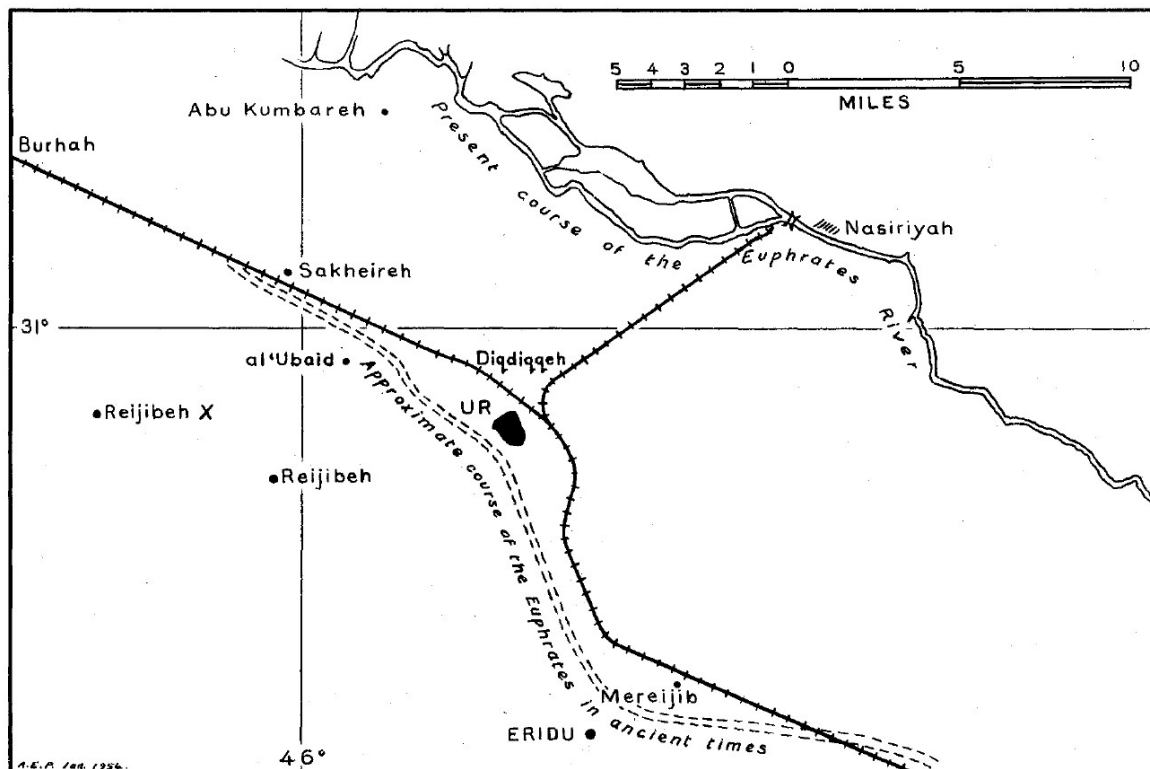


Fig. 2 Sketch map showing the location of some of the sites in the vicinity of Ur from which Woolley collected objects
(UE 4:1, Figure 1)

Diqqiqqeh (Wright's Survey Nos. 11–12)

As noted, the largest number of objects “brought in” came from Diqqiqqeh (Wright's Survey Site Nos. 11–12), a chain of low mounds, occasionally cultivated, c. 2 km north-east of the ziggurat between the main railway line and the branch line to Nasiriyah, as then laid out (Woolley 1925:18; UE 7:81–7 and Pl. 115). The name Diqqiqqeh is apparently a term used for stone ballast or gravel in a stony country.

In Woolley's first season (1922–23) workers coming from villages in the cultivated plain east of Ur or from camps on the modern canal bank walked across this area, picking up surface finds, commonly baked clay figurines and plaques, and bringing them to Woolley. At that time the location did not have a fixed name and first season's catalog cards frequently read ‘near the railway’ or ‘near Munshid's water engine’.

Table 1 Sites in the Vicinity of Ur from which Woolley Collected Objects

Site Name	Eridu-Ur Survey
Abu Drehem	
Abu Kumbareh (Abu Kimba, Abu Kimban)	
Abu Shahrein, Eridu	Site No. 3
Aseilah	
Birket	
Bussokheir	
Dakheilah	Site No. 148
Diqdiqqeh	Site Nos. 11-12
Isafha	
Ihsan al-Hamra	
Khlar	
Mereihib	Site No. 29
Nasariyah	
Rajibah, Radhiba, Radhiba II	Site Nos. 4, 5 and 93
Rajibah X	Site No. 98
Sakheirah	Site No. 30?
Senkerek	
Suq es-Shuk	
Telleil	
al-Ubaid	Site No. 8
Umm Chatif	
Umm Faisit	
Uruk	

In the second season Woolley decided to investigate Diqdiqqeh more systematically, deploying a hundred workmen on the site (UE 7:82). After a few days of excavations, however, he decided the architectural remains were insufficient to reward further work. Instead, he let workers pick up objects over the next ten seasons, and most later catalog cards state "Brought in: Diqdiqqeh" or just "Diqdiqqeh".

In the 5th field season (1926–27) a workman Woolley had dismissed, who was trying to earn money by independent digging, reported that he had come on a baked brick building in the flat ground but close to the north-west mound. Woolley put M.E.L. (Max) Mallowan on the site and he cleared the north-western end of the so-called Treasury of Sin-iddinam (UE 7:84 and 87–95).

Woolley provided a detailed description of Diqdiqqeh and an extensive review of the chronology of occupation at the site (UE 7:81–7). He indicated that occupation at Diqdiqqeh had begun in the time of Ur-Namma, founder of the Third Dynasty of Ur and continued through the Neo-Babylonian and Achaemenid Persian periods.

I cannot really add much to Woolley's review of the chronology of Diqdiqqeh's occupation, but I would make a number of observations about finds from the site.

Royal Inscriptions

Clay cones and bricks found at Diqdiqqeh include royal inscriptions of the kings of the Third Dynasty of Ur and the Dynasty of Larsa. These include numerous clay cones (Frayne 1997:39–41, E3/2.1.1.17)

referring to the return of Magan ships to ki-SAR-a, perhaps to be translated wharf (Heimpel 1987:32, n. 35) and recording Ur-Namma's digging of the Iturungal canal (Frayne 1997:62–3, E3/2.1.2.26), the Ur canal (Frayne 1997:76–7, E3/2.1.1.39) and the I-nun canal (Frayne 1997:77–8, E3/2.1.1.40). Stamped bricks recording Shulgi's construction of the e2-hur-sag palace were found loose on Diqdiqqeh (Frayne 1997:113, E3/2.1.2.3) and a fragmentary brick stamp from the site has Shulgi's standard inscription (Frayne 1997:146–7, E3/3.1.2.39). A single stamped brick documents Amar-Suen's construction of the "watch tower of Ur" (Frayne 1997:257–8, E3/2.1.3.12), while an inscribed clay cone records Ibbi-Sin's construction of a great wall for Ur (Frayne 1997:368–9, E3/2.1.5.1).

Of the kings of Larsa, inscriptions of Sin-iddinam and Warad-Sin were found on Diqdiqqeh. Two bricks with Sin-iddinam's inscription recording his construction of Ga2-nun-mah were apparently found in the so-called "Treasury of Sin-iddinam", leading to the misidentification of that building (UE 7:3, n. 10). Frayne lists only one of the two bricks (Frayne 1990:170–1, E4.2.9.10). A stamped brick recording Sin-iddinam's construction of the wall of Ur was also found on Diqdiqqeh, near the railway (Frayne 1990:174–5, E4.2.9.13).

Woolley accessioned a couple of stamped bricks from Diddiqqeh, recording Warad-Sin's digging and restoration of a canal called Nanna-hul2 or Nanna rejoices (Frayne 1990:249, E4.2.13.25).

Economic Records

In addition to royal inscriptions, a couple of dozen Ur III economic texts were found on the surface of Diqdiqqeh. A small private "archive" of a certain Lumma includes thirteen texts, dating from Amar-Suen 6 to Ibbi-Sin 5, recording Lumma's interest-bearing loans of as much as one mana of silver to various borrowers. Magnus Widell (2008:207–23) published the loans, but noted that the tablets had been found "in the cemetery of the city", reflecting Woolley's initial identification of Diqdiqqeh as Ur's cemetery (UE 7:84). Inasmuch as these texts document seemingly private economic activities, the Lumma dossier like so many of the Ur III texts from Nippur stand out from the bulk of the Ur III administrative-economic records that derive from institutional contexts.

U.2733 (UET 3:36) is another seemingly private economic record from Diqdiqqeh. It is an abraded tablet recording the sale of date palms in the orchard (plantation) of Ur-dingir-ra, son of Du4-ga-zi-<da>, to Ur-Lama for 4 shekels of silver. The sale is dated Ibbi-Sin 6.

An Old Babylonian contract dating to Bur-Sin year 3 (U.1307) was apparently found on Diqdiqqeh, as was a Neo-Babylonian stone tablet, U.2501 with eight lines of text on one side and the other side completely defaced.

A stone tablet (U.2501), dated to the Neo-Babylonian period, with eight lines of inscription and rulings on one side and the other side largely defaced.

Cylinder Seals

In his review of the chronology of Diqdiqqeh's occupation (UE 7:81–7), Woolley noted that the evidence of the cylinder seals from Diqdiqqeh "accords perfectly" with the conclusions he reached largely on the basis of inscribed finds and pottery. In 2006 Justin Bracken, a Penn senior majoring in Anthropology, created an Excel spreadsheet of all of the finds from Diqdiqqeh that Woolley had catalogued as part of a Senior Honor's Thesis on the site. Bracken's spreadsheet included 213 cylinder seals and 11 stamp seals. Roughly half of the cylinder seals date to the time of the Third Dynasty of Ur. Twenty-six pre-date the Ur III period, with 5 late Uruk or Jemdet Nasr, 7 Early Dynastic, 14 Akkadian and 9 Post-Agade or early Ur III in date. Several Ur III seals were recut in the following Old Babylonian period and 13 were carved in that time period.

Though the bulk of the seals are Ur III in date, a dozen or so cylinder seals from Diqdiqqeh date to the end of the 2nd or early 1st millennia BC, while U.18284 is a typical Neo-Babylonian or Achaemenid Persian chalcedony stamp seal with worshippers (drill holes and graving) on each side of several "standards."

Amulets

The evidence for dating the large number of frit or glazed frit amulets from Diqdiqqeh—Pazuzu heads, frogs, squatting monkeys, tortoises, etc.—was, as Woolley noted (UE 7:183), “disappointingly scanty,” but it seems likely that most date to the late occupation of the site.

Rejibah (Wright’s Eridu–Ur Survey Site Nos. 4–5 and 93)

Woolley accessioned finds “brought in from Rejiba” under 81 U-numbers, though several of those numbers included multiple objects. For example, U.18447 included 23 objects found in a clay coffin. He accessioned a dozen or so finds from the 2nd season of excavations (1923–24) under Tell al-Ubaid (TO) numbers. Rejibah (variants Radhiba, Radhiba I and Radhiba II) is located 9–10 km south-south-west of Ur, and is a complex of three distinct mounds that Wright listed in his Catalog of Sites as 4 (Rejibah Jinub) and 5 (Rejibah Shamal), perhaps accounting for Woolley’s designations Radhiba I and Radhiba II, and an unnamed 93.

Wright estimated that Rejibah Jinub was 8.2 ha in the Jemdet Nasr–Early Dynastic periods and 3 ha in the Late Larsa era. He described Rejibah Shamal as possibly having Late Ubaid and Uruk occupations and being 12.5 ha in the Jemdet Nasr period, with a trace of later occupation dating to the Late Larsa period. Wright estimated Site 93 as being 2.5 ha in the Jemdet Nasr–Early Dynastic periods and the same size in the Post-Kassite era.

Woolley described Rejibah as “predominantly at least of the date of the 3rd Dynasty of Ur”. Though Woolley was not explicit about his criteria for the date, he recorded a pivot stone (U.6336) with an inscription commemorating Ur-Namma’s construction of a temple for the goddess Ninsun (Frayne 1997:28–9, E3/2.1.1.6) from the site. Steinkeller (1995) used the pivot stone as his primary source for identifying Rejibah as Kuwara.

Several pottery vessels with TO field registration numbers were noted as being found with or close by Amar-Suen bricks, presumably meaning bricks with Amar-Suen’s nine-line standard inscription (Frayne 1997:245–7, E3/2.1.3.1), though none of the bricks apparently made it into Woolley’s pottery catalog. At least one of the pottery jars (TO.448; Fig. 3)—a carinated jar with ridged shoulder—can be dated to the late 3rd millennium BC (McMahon 2014).

At least one group of inscribed stone weights found together (Fig. 4) apparently date to the late 3rd or early 2nd millennia BC (Hafford 2012:22).

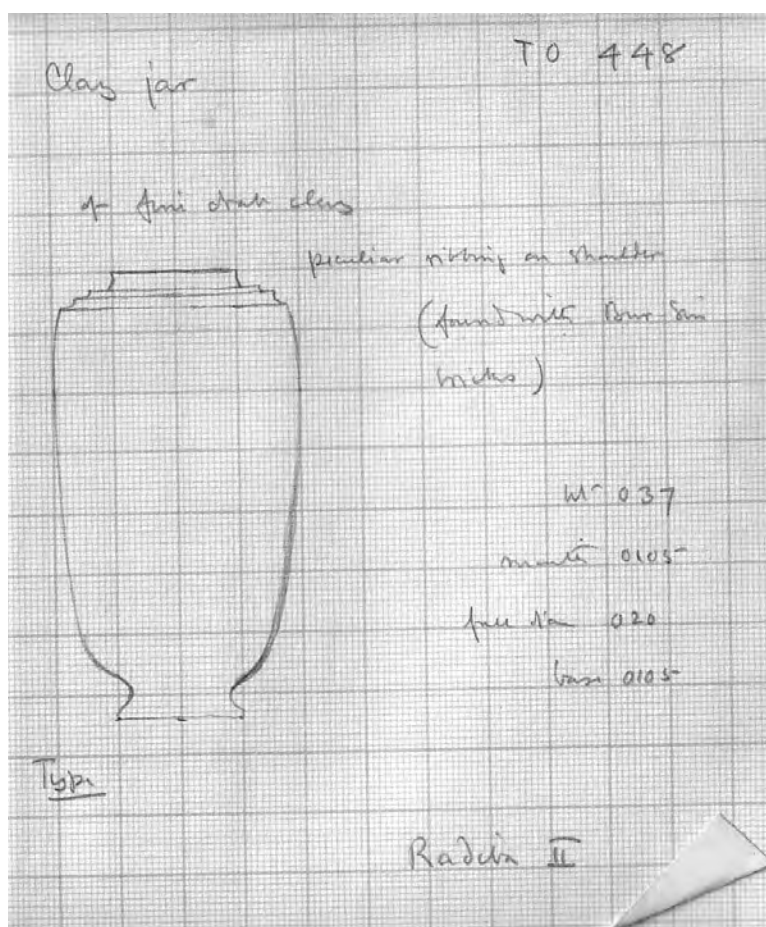


Fig. 3 TO 448 field catalog card with drawing of a jar with ridged shoulder from Rejibah © Trustees of the British Museum



Fig. 4 U.18778a-f. Six inscribed weights found together on Rejibah. The weights date to the late 3rd or early 2nd millennium BC. BM Ur Glass Plate Negative 2273.

Earlier and Later Finds

Though Wright noted early occupations at Rejibah, Woolley accessioned only three “early” objects from the site: two zoomorphic pendants or amulets (U.18497–8; Fig. 5), dating to the Jemdet Nasr or Early Dynastic I periods and a stone stamp seal (TO.442), pyramidal in shape, engraved with the face of a bearded human-headed bull, probably Early Dynastic III in date.

Except for the pivot stone with Ur-Namma’s inscription, all the remaining finds from the Rejibah mounds date to the late 2nd or early 1st millennia BC and, presumably, were from the surface of Wright’s Site 93, with its Post-Kassite remains. These finds include the following.

1. Four Neo-Babylonian tablets (U.17629A–D), one complete and three fragmentary. The complete tablet (52-30-17) is a Neo-Babylonian legal text recording a loan (Figulla UET 4, 86).

2. Ten cylinder seals (U.1659, TO.443, U.17695 and U.17695A, U.17721, U.18179–81, U.18363, U.18551, U.18780) including two (U.17695 and U.17895A) (Fig. 6). in the Third Kassite style, usually dated to the 12th century BC (Beran 1957–8:274–8



Fig. 5 U.18497-8. Jemdet Nasr/Early Dynastic I amulets from Rejibah. BM Ur Glass Plate Negative 2224.

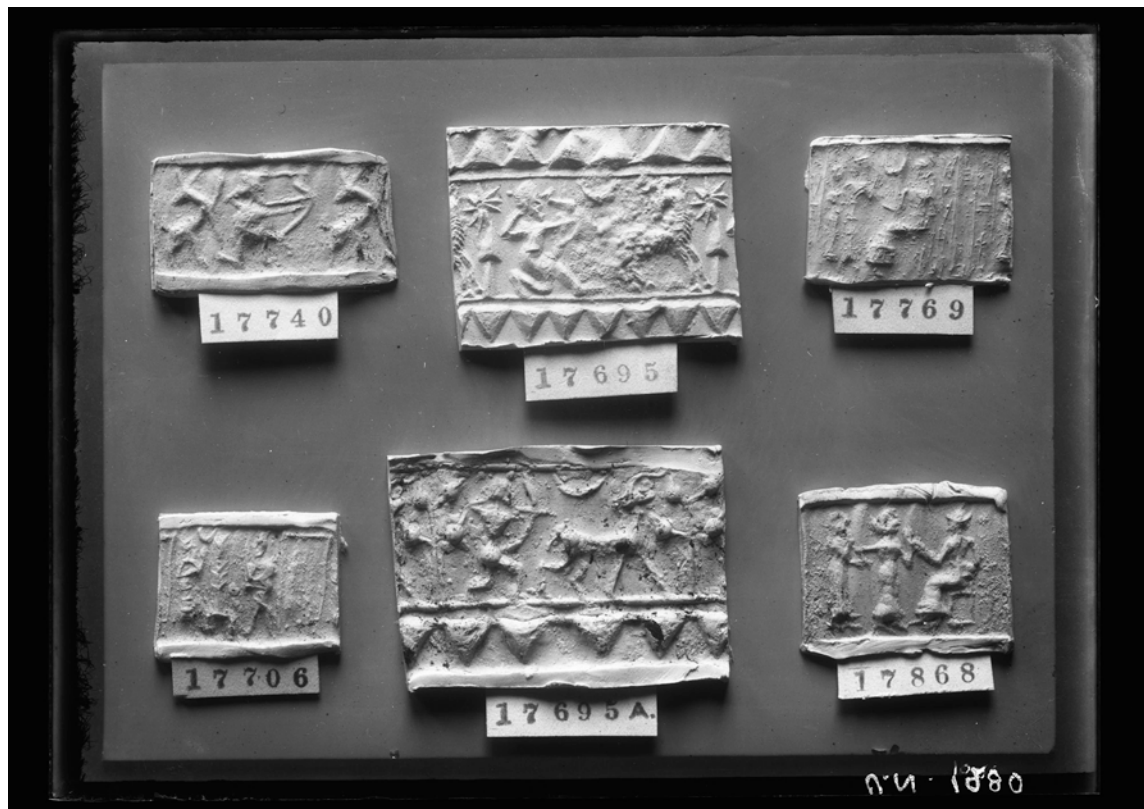


Fig. 6 U.17695 and U.17595A with impressions of Third Kassite style cylinder seals from Rejibah (UE 10:615-6). BM Ur Glass Plate Negative 1980.

and Matthews 2008:64–6), and one (TO.443) that Collon published as Late Babylonian, dating to the 8–7th centuries BC (Collon 2001:157, no. 295).

3. Two copper-alloy figurines of a seated dog (U.18316, found with U.18315–22 and U.18360). Such figurines are generally dated to the Kassite or Post-Kassite eras.

4. A copper-alloy bowl (U.18364) (Fig. 7; UE 9:104 and Pl. 24) with pouring spout and handle grip in the form of a lion's head. The lion's head gripping the bowl's rim calls to mind the so-called lion bowls found in north Syria and at Hasanlu in north-western Iran (van Loon 1962; Muscarella 1972). Woolley noted that nothing similar was found at Ur and suggested a date in the Achaemenid Persian period, though the lion head seems more likely to be Neo-Assyrian, probably dating to the 8th or 7th centuries (John E. Curtis, personal communication; p. 266 below).



Fig. 7 U.18364. Copper alloy bowl with pouring spout and lion-headed handle. BM Ur Glass Plate Negative 2240 (see Ur Online for multiple views in color – <http://www.ur-online.org/subject/19750/>).

5. Undecorated copper-alloy situla or beaker (U.18447B), found in a clay coffin with an iron dagger hilt, iron bangles, copper-alloy and iron bracelets, copper and iron rings, copper and iron arrowheads and stone and paste beads.

6. Undecorated copper-alloy situla or beaker with nipple base (U.18731) found with or brought in with an iron sword blade and copper-alloy arrowheads. Muscarella (1988:378–9) has dated comparable undecorated beakers to sometime between the 9th and 7–6th centuries BC.

* * * *

Diqqiqqeh and Rejibah yielded the bulk of objects from sites in the vicinity of Ur that Woolley accessioned during his excavations. I will review the inventories of finds from a few additional sites roughly in chronological order.

Rejibah X and Merejib

Two relatively small sites—Rejibah X and Merejib—provided predominantly early finds. Woolley located Rejibah X, initially confused with Rejibah, c. 19 km north-west of Ur. Wright identified his Survey Site No. 98 as likely Woolley’s Rejibah X. He described the site as having a Terminal Ubaid occupation covering c. 1 ha, with a looted tomb dating to the Ur III–Early Larsa period. The site yielded a copper pin, a fragmentary clay figurine (UE 4:188 and Pl. 21) of a nude female with an elongated head and coffee bean eyes, stone celts and hoes, steatite palettes (UE 4:188 and Pl. 15), a jasper ear stud and a decorated steatite spindle whorl (UE 4:13 and 188; Pl. 16), all presumably dating to the Ubaid period.

Merejib lay c. 16 km south of Ur west of the railway line. Woolley described it as “a small mound composed of very hard material resembling decomposed gypsum which is overlaid and the pockets in it filled by drift sand. It now rises to a height of about 2.00 m above the modern plain level and was once higher.” He dated Merejib’s occupation to the Ubaid, Uruk and Jemdet Nasr periods (UE 4:82–5).

Woolley’s Merejib is Wright’s Survey Site No. 29. Wright described it as having an Ubaid occupation, Uruk and Jemdet Nasr–Early Dynastic I occupations covering 1.6 ha and 1 ha respectively. He also noted that Merejib continued to be occupied in Kassite and Post-Kassite periods, perhaps covering 0.2 ha.

Since Woolley was involved at the time in excavating the earlier phases of Ur’s occupation, he asked for a permit to excavate and worked briefly at the site in his 8th field season (1929–30).

Woolley accessioned a ground stone celt from the site, six diorite bowls and goblets, a sherd of an alabaster vessel with two-lines of an archaic dedicatory inscription, an Old Babylonian terracotta plaque (U.15750) with a pair of females in high relief and a frit Pazuzu head (U.15800) that the British Museum’s collections database dates to 15–12th centuries BC. In addition, Woolley noted the presence on the site of a few loose bricks with Amar-Suen’s standard nine-line inscription (Frayne 1997:245–7, E3/2.1.3.1) and double jar burials dating to Wright’s Kassite or, more likely Post-Kassite occupation (UE 4:85).

Bussokheir

Bussokheir was located near a Tell Halawiyeh on the east bank of the Euphrates in the vicinity of Nasiriyah. It was apparently a looted Jemdet Nasr–Early Dynastic cemetery. Bussokheir yielded two groups of beads (U.654 and U.827), shell rings (U.826A–M), a number of stone bowls (U.810–25 and U.977), a stone mortar and pestle (U.824–5), and five plano-convex stone roundels that Woolley suggested might have served as lids and several pottery vessels (UE 4:168–9).

Abu Kumbareh (Abu Kimba or Abu Kimban)

Abu Kumbareh is located c. 16 km north-west of Ur (UE 4:1, Fig. 1), and apparently outside the boundaries of Henry Wright’s Eridu–Ur survey. Woolley added seventeen objects from Abu Kumbareh

to his field registrar. Of these, a black steatite stamp seal, featuring a scorpion, may date to the Ubaid era. The seal is rectangular and has a cylindrical handle. A stone bowl (U.15803) and a socketed copper alloy “harpoon” (UE 4:159 and Pl. 30) are probably Jemdet Nasr/Early Dynastic in date. Of three cylinder seals, one is probably Akkadian (U.12058) and two (U.1187 and U.6859) are Ur III. The remainder of the finds from Abu Kumbareh are Old Babylonian. These include a fragmentary cuneiform text, apparently the beginning of a letter (U.1520), and a number of figurines and plaques, including a pottery sherd (U.1563) with an applied nude female, as well as stamped and incised decoration. Woolley included this sherd in his report on the Kassite period (UE 8: Pl. 30:11), but it is more likely Old Babylonian than later 2nd or early 1st millennium BC.

Sakheira(h)

Sakheira (Wright’s Eridu–Ur Survey Site No. 30?) was located c. 8 km north-west of Ur. Woolley (UE 7:174) dated the site to the time of the Third Dynasty of Ur and the era of Larsa kings. The objects brought in from the site include a steatite brocade-style cylinder seal (U.18452; UE 10:82), Early Dynastic I in date, and a steatite bowl. Two Old Babylonian clay plaques depicting nude females with hands clasped below the breasts included one with multiple identical heads affixed to the background, one above the female’s head and one on each side of it (UE 7:74 and Pl. 68:44). Woolley noted “There seems to be no satisfactory explanation of this multiplication of heads”. Sakheira was also occupied in later periods as attested by a Kassite (Middle Babylonian) tablet (U.7703) and two Neo-Babylonian baked clay incense burners (U.18515–16), as well as a chalcedony conical stamp seal with a worshipper before two standards. (U.18354; UE 10:656).

Birket

Woolley recorded only one object (U.6052) from Birket, near Kidr, between Samawah and Nasiriyah and some distance from Ur, a white limestone plaque, apparently in the Iraq Museum, with a weathered inscription on one side. The inscription is an exemplar of Frayne 1990:474 (E4.4.6.4), recording Anam’s construction of the wall of Uruk, but one Frayne did not include in his compendium.

Tell al-Dakheileh

Tell al-Dakheileh is located c. 25 km west-north-west of Ur. Dakheileh is Henry Wright’s Tell al-Dahaila (Survey Site No. 148). Wright noted a concentration of ceramic slag on the western extremity of the site, possible Ubaid and Late Larsa occupations, but he dated the main occupation to the Neo-Babylonian and later eras, when it covered 15 ha.

Woolley’s workers brought in two cylinder seals: U.19483, a white limestone seal depicting two winged demons before a palm, and U.20047, an amethyst quartz seal with a kneeling man grasping a gazelle. In addition, Woolley accessioned two terracotta Pazuzu masks (U.19210 and U.2004), a Pazuzu head in frit and one in lapis paste, perhaps meaning “lapis-like glass,” with a larger collection of beads; a broken copper-alloy fibula; an iron dagger and two swords; and, a large collection of copper alloy and iron arrowheads. Woolley described the copper alloy arrowhead as being the three flanged type, in other words, trilobate arrowheads, that did



Fig. 8 U.20046. Neo-Babylonian clay figurine from Tall al-Dahaila. BM Ur Glass Plate Negative 2286.

not appear before the early 7th century BC (Muscarella 1988:107–8). A terracotta figurine and a green glazed pottery bowl rounded out the finds from Dahaila. The figurine (U.20046) depicts a bearded male facing forward, wearing a long garment with a broad belt, and holding a flask at his chest (Fig. 8). It dates to the Neo-Babylonian period (Klengel-Brandt & Cholidis 2006:116–30). The bowl (U.20054) has a beveled club rim, a type that is common in the Post-Kassite and early Neo-Babylonian era.

Conclusions

The objects that Woolley accessioned from sites in Ur's hinterland over the course of his twelve years of work at Ur represent an admittedly random collection of artifacts, but nevertheless document many of the sites that were contemporary with the various periods of Ur's occupation. Of these sites, Rejibah, with its long sequence of occupation, stands out as a potentially important site for future excavations, with Tell al-Dahaila perhaps also of more than passing interest. Though archaeologists have conducted excavations at a number of sites near Ur, e.g., Tell Khaiber, Wright's Survey Site Nos. 60–1 (Campbell et al. 2017), the objects that Woolley's workers brought in for bakshish nevertheless represent critical data bearing on the record of occupation in the region.

On the occasion of the 100th anniversary of the start of excavations at Ur it is appropriate to honor the memory of Sir Leonard Woolley. When Sir Frederick Kenyon and George Byron Gordon, the Directors of the British Museum and the University of Pennsylvania Museum, respectively, chose Woolley to direct the excavations at Ur, he was not unknown to them, but hardly a “sure bet” as field director. However, the energy, dedication and growth that Woolley showed over the twelve years he worked at the site promptly made him a legend in the field of archaeology, earning him a knighthood, announced in the Birthday Honours List of 1935. Penn Museum could not confer royal honors, but it did award him the Lucy Drexel Wharton gold medal, established in the late 19th century, to honor exceptional achievement in excavation or the publication of archaeological work (Fig. 9). Sir Leonard very richly deserved the medal on both counts.

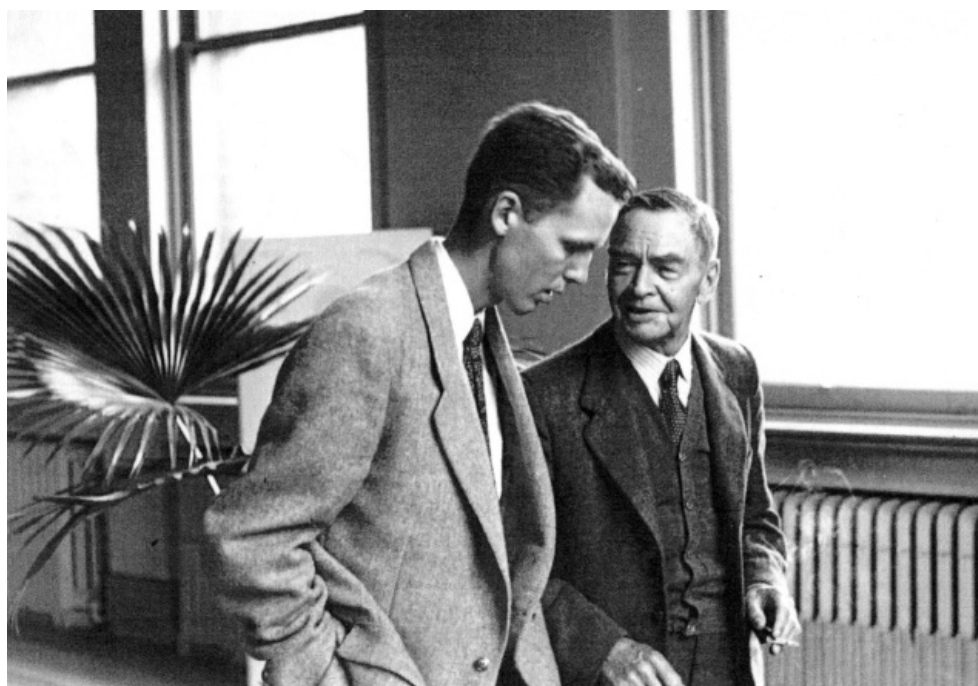


Fig. 9 Sir Leonard Woolley with Robert H. Dyson, Jr. on Woolley's last visit to Philadelphia in 1955 to receive the Lucy Drexel Wharton gold medal for exceptional achievement in excavation or the publication of archaeological work. Courtesy of the Penn Museum.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 4	Woolley 1955
UE 5	Woolley 1939
UE 7	Woolley & Mallowan 1976
UE 9	Woolley & Mallowan 1962
UE 10	Legrain 1951

Ur Excavations: Texts

UET 3	Legrain 1937

- Beran, T. 1957–8. “Die babylonische Glyptik der Kassitenzeit”, *Archiv für Orientforschung* 18:255–78.
- Campbell, S., J. Moon, R. Killick, E. Robson, E. Calderbank, M. Shepperson & F. Slater 2017. “An Administrative Centre of the Sealand Period,” *Iraq* 79:21–46.
- Collon, D. 2001. *Catalogue of Western Asiatic Seals in the British Museum, Cylinder Seals V: Neo-Assyrian and Neo-Babylonian Period*. London: British Museum Press.
- Frayne, D. 1990. *Old Babylonian Period* (RIME 4). Toronto: University of Toronto Press.
- 1997. *Ur III Period* (RIME 3/2). Toronto: University of Toronto Press.
- Hafford, W. 2012. “Weighing in Mesopotamia: The Balance Pan Weights from Ur”, *Akkadica* 133:1–65.
- Heimpel, W. 1987. “Das Unterer Meer”, *Zeitschrift für Assyriologie* 77:22–91.
- Klengel-Brandt, E. & N. Cholidis 2006. *Die Terrakotten von Babylon im Vorderasiatischen Museum in Berlin*. Saarwelligen: Saarländische Druckerei.
- Legrain, L. 1937, 1947. *Ur Excavations Texts III. Business Documents of the Third Dynasty of Ur*. 2 Vols. London: Printed by order of the Trustees of the Two Museums.
- Legrain, L. 1951. *Ur Excavations Volume X. Seal Cylinders*. London: Published for the Trustees of the Two Museums.
- McMahon, A. 2014. “Carinated, Ridge Shoulder “Akkadian” Jars”, in Marc Lebeau (ed.), *Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean* Interregional 1:245–52. Turnhout: Brepols.
- Matthews, D. 1990. *Principles of Composition in Near Eastern Glyptic of the Later Second Millennium B.C.* (Orbis Biblicus et Orientalis, Series Archaeologica 8). Freiburg, Schweiz: Universitätsverlag.
- Muscarella, O.W. 1974. “The Third Lion Bowl from Hasanlu”, *Expedition* 16:25–9.
- 1988. Bronze and Iron. New York: Metropolitan Museum of Art.
- Steinkeller, P. 1995. “The Location of Kuwara”, *NABU* 91:82–3.
- Van Loon, M. 1962. “A Lion Bowl from Hasanlu”, *Expedition* 4:14–19.
- Widell, M. 2008. “The Ur III Metal Loans from Ur”, in S.J. Garfinkle & J.C. Johnson (eds.), *The Growth of an Early State in Mesopotamia. Studies in Ur III Administration* (Proceedings of the First and Second Ur III Workshops at the 49th and 51st Rencontre Assyriologique Internationale, London July 10 2003 and Chicago July 19, 2005):207–23. Madrid: Consejo Superior de Investigaciones Científicas.
- Woolley, C.L. 1925. “The Excavations at Ur, 1923–1924”, *The Antiquaries Journal* 5:1–20.
- 1939. *Ur Excavations Volume V. The Ziggurat and its Surroundings*. London: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- 1955. *Ur Excavations Volume IV. The Early Periods*. Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Johnson Fund of the American Philosophical Society.
- Woolley, L. & M.E.L. Mallowan 1962. *Ur Excavations Volume IX. The Neo-Babylonian and Persian Periods*. London: Published for the Trustees of the Two Museums.
- 1976. *Ur Excavations Volume VII. The Old Babylonian Period*. London: Published for the Trustees of the two Museums by British Museum Publications Limited.
- Wright, H. 1981. “The Southern Margins of Sumer: Archaeological Survey of the Area of Eridu and Ur”, in R. McC. Adams, *Heartland of Cities*:295–345. Chicago: University of Chicago Press.
- Zettler, R. 2021. “Woolley’s Excavations at Ur: New Perspectives from Artifacts Inventories, Field Records and Archival Documentation”, in G. Frame, J. Jeffers & H. Pittman, *Ur in the Twenty-First Century CE. Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016*:7–34. University Park, PA: Eisenbrauns.

The coronation of the Ur III King Ibbi-Suen: from Sumer's main shrines to Innana-Ninkununa's garden at Ur

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Ritual texts are a rare text type in the earlier periods of cuneiform writing, and this holds especially true for the time of the Third Dynasty of Ur (2110–2003 BC), historically outstanding as a century of peace in the region of Sumer and Akkade, and featuring an unparalleled wealth of textual documentation. One single fragment of a royal ritual text has been discovered, at Ur (UET 3, 57), which attracted early scholarly attention but has until now withstood a proper contextualisation. This contribution demonstrates that the text describes ritual actions that have been known for a long time from administrative documents as related to the coronation of the last king of Ur, Ibbi-Suen (2026–2003 BC). The combined textual data allows for reconstructing the coronation ceremonies in remarkable detail. The cultic journey started in Nippur and ended at Ur in the garden of Innana-Ninkununa and at the “Dais of An”. The find-spots of various inscriptions are essential to locate the garden to the south-east of the Nanna temenos.²

1. The ritual tablet UET 3, 57 + 9, 1170

The starting point for this contribution is the only text with a prescription for a royal ritual from the Ur III period, UET 3, 57+.³ The text type of prescriptions by itself is not completely unknown from that time, and besides some medical and magical prescriptions,⁴ the closest parallel is the list of regulations for the overseer of the Innana Temple at Nippur, explicating his duties during Innana's annual festival (6 NT 254).⁵ Both there and in the ritual tablet from Ur, the texts provide only a rough outline of the procedure by pointing to the central action of a day. Both texts are organized in a daily sequence, offering one phrase for each day. Two actions for one day are linked by the particle **u₃** “and” (6 NT 254:3'. 8'. 11' and UET 3, 57+:9'). The prescriptive character of the texts is generated by the usage of imperfective verbal forms, often infinite imperfective forms with the copula **-am**; examples are from the Nippur text **e₂ lu_h-dam** “the temple is to be cleaned”/“to clean the temple” (6 NT 254:5'), and from the Ur text **e₂ DN-ka ku₄-ku₄-dam** “to enter the temple of DN” (UET 3, 57+:3'. 8').

The main tablet fragment of the ritual was found in the fourth season (1925/26) of Woolley's Ur excavations in the Giparu complex on a floor level of Amar-Suena (U 6707) and published a decade later by Léon Legrain (1937) in his monumental edition of Ur III texts, UET 3, as no. 57. Legrain noted the character of the text already on the file card: “Ritual of the king for the 3/4/5th

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² Abbreviations of Ur III sources follow BDTNS (<http://bdtns.filol.csic.es/>). Dates of tablets are given in the form ŠS.09.10.01 “year Šu-Suen 9, month 10, day 1”.

³ This fact was acknowledged in scholarship, for example by Sjöberg (1960:85): “Der Ritualtext UET III 57 – übrigens das älteste bekannte Ritual – erwähnt das Baden des Königs im Garten der Göttin Ninkununna.” Hallo & Levine (1967:17) called it the “oldest prescriptive ritual now known.” Both statements are now outdated since the discovery of the Ebla royal rituals.

⁴ See especially the texts from Nippur published by van Dijk & Geller (2003).

⁵ 6NT254, edited first by Civil (1980) as “daily chores”, and re-edited and contextualized by Zettler & Sallaberger (2011:26–8).

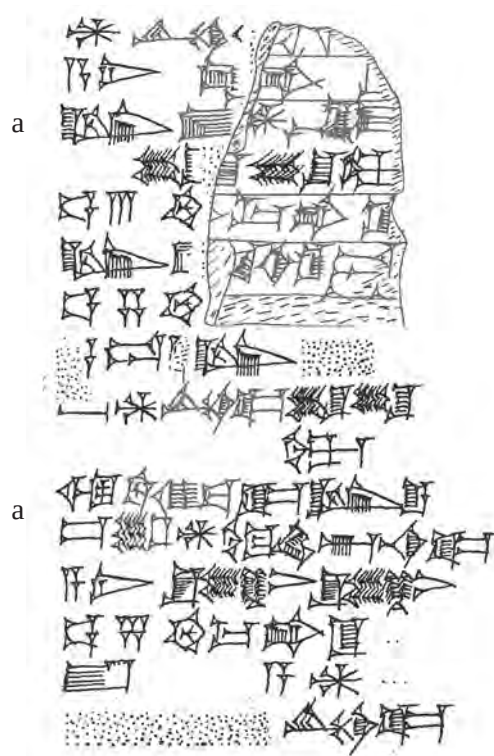


Fig. 1 UET 3, 57 + 9, 1177

the third season at Ur, its find spot is unknown; Darlene Loding (1976) published it as UET 9, 1177. As could have been expected, the join did not support van Dijk's reconstructions.

Transliteration and translation of UET 3, 57 + UET 9, 1177

(...)	(...)
1' ^d nanna 'x x' [xx]	Nanna (...)
2' u ₄ ¹ ("A") zal-la-be ₂ -š[e ₃]	Until the passing of this day,
3' lugal e ₂ ^d en-lil ₂ -[ka] / ku ₄ -ku ₄ -dam	the king will enter the temple of Enlil.
4' u ₄ 3-kam-ma-be ₂ -še ₃	Until the 3rd day,
5' lugal 'unu ¹ ki-še ₃ du	the king will go to Uruk.
6' u ₄ 4-kam-[ma-be ₂ -še ₃]	Until the 4th day,
7' 'a ¹ -ra ₂ '2 ¹ lugal-[kam]	it is the second trip of the king,
8' e ₂ ^d nanna-ka ku ₄ -ku ₄ -dam	he will enter the temple of Nanna.
9' u ₃ ša ₃ ḡe ₆ -ba-ka lugal-e	Furthermore, before dawn the king
10' ḡe ₆ š ₆ kiri ₆ ^d nin-ku ₃ -nun-na-ka	will bathe in the garden of Ninkununa.
11' a i ₃ -tu ₅ -tu ₅	
12' u ₄ 5-kam-ma-be ₂ -še ₃ [lugal]	Until the 5th day, [the king]
13' luḥ-am ₃	is purified.
14' [e ₂ ^d]nanna-ka [...]	In [the temple] of Nanna
	[...]

⁶ http://www.ur-online.org/media_item/243495/. The identification of the handwriting as that of Legrain, I owe to Dominique Charpin (the Ur Online collection labels it as "Woolley's catalog cards").

⁷ See below fn. 38.

day (etc) of the month of [...] in the temple of Nannar, the garden of Ninazag-nun-na [i.e., Ninkununa, W.S.], the [].⁶ In the catalogue, Legrain (1947:195) offered translation and gave precious information regarding the goddess Ninkununa, namely that Ur-Namma had built a shrine for Innana Nin(ku)nuna, and he referred to her name in two archival documents.

Jan van Dijk (1967:235–7) included the fragment in his seminal article on Sumerian ritual texts in the Falkenstein Gedenkschrift, and he proposed various restorations based on his understanding of the text. He concluded that the text deals with a cultic celebration as known from the hymnic literature, including the bath of the king and the participation of priestess. In the same spirit, also Sjöberg (1960:85) and Römer (1987:163–4) suggested that the bathing belonged to a "hieros gamos" in which the king participated annually at the New Year festival—an interpretation stemming from a period when scholars had hypothesised the existence of a Sacred Marriage rite at an overall New Year festival in Sumer.⁷ Römer (1987) repeated van Dijk's edition, although Krecher (1979:431) had ingeniously seen that a second fragment from Ur can be joined: U 4976 stems from

Philological commentary:

It remains unknown how much is missing at the beginning of the text.

- 2'. Van Dijk (1967:235) thought of “flowing” (**zal**) water, but ***a zal-la** does not exist elsewhere. The term **NI.LI**, which is actually found in the references given by van Dijk, especially Gudea Cylinder B.xiv.25, can not be read “***a zal-le**”, but is **a i₃-li** (Cavigneaux 2022a:45–6 with further literature); for **zal** “to disappear, fuse, melt” see Cavigneaux 2022b. I assume that the sign copied as A is not completely preserved on its left side (collations of Ur tablets have shown that Legrain’s copies often render signs or lines more complete than they can ever have been on the tablets themselves; see here the right end of **kam** in line 4’ represented by Legrain although it is preserved on the other fragment copied by Loding). The term **u₄ zal-la-be₂-še₃** “until this day has elapsed” is attested in Ur III documents; the passing of the day is expressed in the perfective, as especially made clear by the dating formula **u₄ n ba-zal** “the *n*th day elapses” = “on the *n*th day”. Although collation may provide still another reading this would not affect the general reconstruction of the ritual sequence.
- 4'. The **-be₂** may refer to the month; “its (i.e. the month’s) third day”.
- 5'. What looks like the beginning of **e₂** in Legrain’s copy must in fact be the beginning of the **UNUG** sign; Legrain had evidently expected an **e₂** here. The missing **-d-am** proves the reading **du** (of the **DU** sign), imperfective of **ĝen** “to go” (note the parallel in 6 NT 254:3’).

2. The royal ritual according to UET 3, 57 +

The first complete phrase already comes as a surprise: after the mention of Nanna, the king should enter the temple of Enlil—and since there was no temple of Enlil in Ur, this must have referred to Enlil’s temple in Nippur. Therefore, perhaps it is not necessary to restore “day 2” in the preceding line, and the name of *Nanna* may not refer to his temple in Ur, but give an indication of the time comparable to expressions such as **‘nanna-ra igi du₆-a**, “after he had seen Nanna”, indicating the sighting of the moon on the evening sky that marks the beginning of a month (Sallaberger 1993:54–5). In our ritual, the New Moon festival of the second day would accordingly have been celebrated at Nippur.

Although the wording of the ritual text is very simple, the facts continue to be exciting: The next day already the king should go to Uruk. Was that possible? The distance from Nippur to Uruk is ca. 100 km as the crow flies, and a trip on the Euphrates is not much longer. Although the stream velocity of the Euphrates seems much too low to do this in a day,⁸ workers managed to transport goods by boat from sites in the environment of Nippur, Tummal and Esaĝdana/Puzriš-Dagān, to Uruk within only two days.⁹ Therefore, a royal boat with a motivated punting team should have done it in a single day.¹⁰

The prescriptions continue to be demanding for the king and they require another well-trained team of punters: already on the next day, he should enter the temple of Nanna at Ur, not less than 60 km away from Uruk. Everybody will see the king’s bath in the garden of Ninkununa in a different light after the strain from the preceding rides. Purity and the god Nanna on the next day may well go together in a ritual, but I am not aware of data for a plausible restoration of the last line(s).

The ritual described in the fragment from Ur thus forces the king to show up in the main sanctuaries in the empire’s three capitals: first in the temple of the divine king Enlil in Nippur, then in the second capital Uruk, a city of central importance in royal ideology as the home of the primaeval king Gilgameš, seen as a brother of king Šulgi; therefore, the mother Ninsumun, originally from

⁸ Blaschke 2018:35: a maximum of c. 3 to 4 km/hour for the Tigris in the alluvial plain.

⁹ Steinkeller 2001:82–3 refers to Istanbul 1911 o.3, SAT 3, 2223 o.3–5.

¹⁰ Otherwise the king could have used a chariot with onager–donkey hybrids, the best and enduring runners of the Early Bronze Age. The success of such hybridisations is described by Saint Hilaire (1861:63); I am very grateful to Emmanuelle Vila who sent me this precious reference (2nd Nov. 2022).

Uruk, was venerated in the royal palace at Ur.¹¹ Furthermore, the queen was closely related to Innana, Uruk's goddess of love and war.¹² And the tour ended at Ur, the city mentioned as the king's seat in his royal titulary.

3. The administrative evidence

The philological edition of the fragmentary tablet from Ur has led to a rudimentary reconstruction of a royal ritual, but substantial parts of this ritual have been known since seventy years thanks to administrative documents assembled by Sollberger (1953) that list the animals sacrificed at royal offerings at exactly the same locations and in the same sequence. The tablets stem from ancient Puzriš-Dagān, modern Drehem, where scribes kept track of the royal stock of animals, especially of animals for slaughter. They noted carefully each single animal expended for the royal kitchen or as gifts to guests, and, of course, for royal sacrifices in the Ur III kingdom. A series of four documents lists exactly the same series of sanctuaries as the ritual text, and the sequence of sites within a single tablet leaves no doubt that the same cultic event is referred to both in the prescriptive text from Ur and in the occasions for sacrifices listed in the expenditure document. The administrative texts deal exclusively with fattened oxen, and in total 37 of these animals were slaughtered (13+7+16+1) in the course of the royal ceremonies. The four documents—and only these four—note one and the same occasion for the sumptuous rites, it is: “when Ibī-Suen received the crown”.¹³ The monthly summary of expenditures of animals AnOr 7, 108 (ŠS.09.10.01–30) lists the standard deliveries provided by Urkununa, and they are only partly parallel to the special donations provided for the coronation (for Nippur and Ur).

Table 1 The sequence of the coronation ritual according to the ritual text and administrative documents¹⁴

Ritual text UET 3, 57+	Administrative documents from Puzriš-Dagān with the subscript “when Ibī-Suen received the crown”		
	Sacrifice of fattened oxen (expended by Puzur-Enlil):	Date	Reference
entering temple of Enlil	Enlil, Ninlil, “entry of the king”, (before dawn), in Nippur	ŠS.09.10.01	JCS 7:48 (MAH 19352)
3rd day: going to Uruk	Innana et al., “entry of the king”, in the evening, “when the king goes from Nippur to Uruk”		
	Innana, “entry of the king”, before dawn, in Uruk	ŠS.09.10.02	Nisaba 33, 38
4th day: second trip, entering temple of Nanna	Nanna et al. in the evening, “when the king goes from Uruk to Ur”		
bathing in Nin-kununa's garden before dawn	Ninkununa et al., “entry of the king”, before dawn	ŠS.09.10.03	UDT 100
5th day: purification; Nanna [...]	Nanna, in the evening (king not present), in Ur		
[...]	...		
	Ninḫursaĝ of Nutur, before dawn (king not present), in Ur	ŠS.09.10.06	JCS 10:28 no.4

¹¹ The royal family of Ur had strong ideological ties to Uruk, but no family relationship to that city can be substantiated; see the summary by Sallaberger 2015.

¹² Sallaberger 2021a discusses that Innana and related goddesses (Nanaya, Gansura) were promoted under the Ur III dynasty to the disadvantage of other deities.

¹³ Sollberger (1953) listed MAH 19352 (published there; cited here as “JCS 7:48”), UDT 100 and AnOr 7, 107; JCS 10:48 no. 4 was published 3 years later, and Nisaba 33, 38 in 2020 by Sigrist and Ozaki. Sollberger l.c. also referred to CST, 453 (not related to the coronation) and AnOr 7, 108 (expenditures for the complete month) and collected further evidence that Ibī-Suen started his rule late in the year Šu-Suen 9.

¹⁴ Note: The dark lines separate days as indicated in the texts.

The day of the month is earlier in the documents than the one in the ritual text, but this agrees well with the observation made for lunar festivals (of New Moon, Quarter or Full Moon) that expenditure documents were regularly dated one or two days before the particular event (Sallaberger 1993:55).

According to the documents, the king was supposed to arrive at his destinations, at Uruk and at Ur, in the “evening” (**a₂-u₄-te-na**), when the deities there received an offering. This corresponds to the wording of the ritual text: “until the (end of) nth day (the king should enter the temple of DN).” The main sacrifice at a shrine was performed early in the morning, “before dawn” (**a₂-ĝe₆-ba-a**),¹⁵ when the king left. Royal presence at a sacrifice is marked by the phrase **lugal ku₄-ra**, literally “the king having entered”, and exactly the same verb **ku₄** “to enter” (a shrine) is used in the ritual text. And finally, the appearance of the rarely mentioned goddess Ninkununa both in the ritual text and in the administrative documents and in both sequences two days after the king’s presence before Enlil, proves beyond any doubt that the two sets of textual data relate to the same event.¹⁶ Therefore, the ritual text found on the Ur III floor of the Gipar at Ur, was composed to set the scene for the coronation of Ibbi-Suen after the death of his predecessor.¹⁷

4. Ibbi-Suen’s coronation: timing and meaning

King Ibbi-Suen of Ur was crowned in the first days of the tenth month of the ninth and last year named after his predecessor Šu-Suen; following the Middle Chronology this corresponds to a day in or around January 2026 BC. Šu-Suen had died during the ninth month of the same year, and he was buried in the third royal mausoleum at Ur, the northern mausoleum.¹⁸ Šu-Suen must have died shortly after day 4 of this month when he is documented the last time acting in a ritual at Nippur.¹⁹ The preparation of his grave pit started on day 15, the funeral took place on the 17th, and a wailing period of nine days lasted until the 25th day.²⁰ Only another five to seven days later, on the first days of the tenth month, the new king was ready for the coronation.

As the ritual text and the documents attest, Ibbi-Suen appeared for his coronation at the three main sanctuaries Nippur, Uruk, and Ur within the shortest time possible; he was thus seen almost simultaneously as the new king by the highest dignitaries in these centres. The special occasion and the absolutely exceptional rapid sequence of rituals must be seen together: Ibbi-Suen emerged “everywhere” in his kingdom “at the same time” as the one in front of the gods. At Ibbi-Suen’s coronation, the “miracle” of the royal presence at three distant sanctuaries within three days was made possible thanks to the perfect organisation of royal transport and of the procurement of sacrifices.²¹ The seemingly contemporaneous coronation ritual at different places can be understood as another

¹⁵ This term is discussed by Sallaberger 2021b:4 n. 5 (with previous literature).

¹⁶ Ninkununa is attested only 26 times in over 16,000 documents from Puzriš-Dagān, and never again with two fattened oxen as here (1 ox in SET 116 r.11–13; BDTNS, search of Nov 1, 2022).

¹⁷ One might suspect that the ritual text was composed for Šu-Suen’s coronation (the find spot on the Amar-Suena floor excludes an earlier date) and performed exactly in the same way for Ibbi-Suen’s. However, first, the cultic calendar displays so many subtle innovations in that time (especially around Šu-Suen year 3) that such a strict repetition would seem anachronistic. Secondly, the Ur III kingship faced a time of crisis exactly around Šu-Suen’s accession, and thus a repetition seems even less likely.

¹⁸ The evidence for Šu-Suen’s burial stems from the monthly summary of expenditures for the ninth month of Šu-Suen’s ninth year, YBC 4190 published by Sigrist 1999. A detailed study of the burial by the present writer has been promised since almost twenty years but unfortunately he has failed to fulfil this promise properly. For some general information see Sallaberger 2012.

¹⁹ YBC 4190.ii.9: [**lugal**] **ku₄-ra**, “entry of the king”.

²⁰ It might be seen as a coincidence that exactly Šu-Suen’s burial and Ibbi-Suen’s coronation are attested in such detail, but probably this results not only from the developments of royal representation but more from changes of the administration under Šu-Suen.

²¹ Jacobsen (1953:42 with n. 2) already observed “that the king was crowned successively in Nippur, Uruk and Ur” and guesses: “Should this interpretation prove true, we may see in the successive coronations survivals from the time when Uruk and Ur were independent monarchies.” Jacobsen had thought of ceremonies as formed by long traditions, whereas it has become clear in the meantime to what extent the Ur III kings have developed their new forms of royal representation including their presence in the three capitals.

element to underline the transcendent nature of the divine king, an outsider and “stranger” in the human world of his subordinates.²²

How the act of ritual installation of a new king was called in everyday Sumerian is conveyed by the subscripts of the administrative documents. According to them, the sacrifices took place “when Ibbi-Suen had received the crown” (**u₄ i-bi₂-^dZUEN aga₃ šu ba-an-ti-a**).²³ Thus (as in English and other languages) the ceremony was named after the crown, the insigne relating to the divine bestowal of the royal office, and neither the throne of the forefathers nor the sceptre guiding the people denominated this procedure. As for the ancients, also for modern observers, the crown has become the typical feature to recognize a king of the Ur III dynasty in the imagery.²⁴ Seals, the Ur-Namma stela or some reliefs and statues at least in the tradition of the Ur III dynasty (Anubanini; head from Susa Sb 95) show the format of this most important royal insigne which was introduced in this form by Ur-Namma, the founder of the dynasty, as an unadorned hemispherical headgear with a broad brim, characterized by its absolutely plain surface (Gudea who had introduced the prototype of this headgear of a sovereign, had a crown covered by rows of knobs). The plain surface indicates that the Ur III crown was definitely not made of cloth or leather. The Ur III document BIN 3, 344 informs about the material characteristics of a crown (**aga₃**), albeit that of an *en* priestess and not the king; it apparently was adorned with an agate eye on the forehead (see the edition in Appendix 2). The crown was a kind of light helmet made of wood and completely plated by first-quality gold. That guaranteed a brilliant shining appearance of the crown on the head of the Ur III king.

Precisely this image is generated by the final lines of an Old Babylonian incantation on the crown which was described as fashioned by the gods (see the edition in Appendix 3). When in the morning the king appears with his crown on, the rising sun would shine on it and produce an effect of flashes throwing lightning! This was the more spectacular as larger shining surfaces were extremely rare in the material world of Sumer, and mostly confined to metal vessels of copper, bronze, silver, and gold. The large hemispherical crown with its completely plain shining golden surface thus offered the most stunning effect—and any decoration on it would only have reduced its radiance. The picture painted by the incantation suffices to explain convincingly the specific shape of the Ur III crown.

5. The sacrifices: Nippur and Uruk

A central religious component of the coronation ceremony is the presence of the king in front of the main deities of Sumer, he “entered” (**ku₄**) their temples, as both the ritual text and the administrative documents call it (see Tables 1 and 2, Appendix 1). The latter enumerate the sacrifices of fattened oxen and of sheep, but of course, the presentation of meat must be understood as one element in an elaborate ceremony in the presence of an audience and accompanied by music. The subsequent discussion intends to follow the course of the ceremonies and shortly elucidate their relevance for the king at the coronation.

The first sacrifices were presented at Nippur to Enlil and Ninlil, the divine ruling couple and with their special relevance for kingship obviously the first station of the newly installed “king of Sumer and Akkade”. The first preserved administrative text (JCS 7:48) starts with the sacrifice

²² The concept of the “stranger” king by Graeber & Sahlins (2017) allows a structural understanding of many aspects of Ur III kingship. In this understanding, a king (as an entity setting the societal rules) is seen as being placed outside of the society of his subjects (which allows his influence on the people and their acceptance). The Ur III king did not play the role of an ethnic foreigner (as the ‘Amorite’ or ‘Kassite’ kings did), but as a divine king, he was a super-hero for his people.

²³ The phrase is not only attested in the four documents of Table 2 and Appendix 1: AAICAB 1/4, Bod. S 365 (AS.01.00.00; Umma), a *mašdarea*—delivery for Amar-Suena, “when the king had received the crown”, **lugal-e aga₃ šu ti-a**; ZA 95: 175 r.ii.22, exactly the same phrase for Ibbi-Suen. The latter act is referred to in the expenditure for a “gift to PN the royal messenger when he brought the good news that Ibbi-Suen had assumed kingship”, **niĝ₂-ba PN lu₂ kiĝ₂-gi₄-a lugal a₂-aĝ₂-ĝa₂ saga₁₀ i-bi₂-^dZUEN-e nam-lugal šu ti-a de₆-a** (ZA 95 175 r.iii.7).

²⁴ On the crown see especially Suter 2010:343. Suter (2015:513–17) also discussed the differences between the earlier “brimmed cap” of Gudea and that of the Ur III kings. The form of the crown has to be added to the long list of important and lasting innovations introduced by Ur-Namma (Sallaberger 2015).

early in the morning, before dawn, before the king departed for Uruk, prescribed by the ritual text UET 3, 57+ for the third day of the month. The main sacrifice to Enlil and Ninlil, therefore, must have taken place on the day before, and in fact the main state-sponsored New Moon festivities at Nippur date to the second day.²⁵

Linked to the New Moon festivities was the bathing ceremony of the healing goddess Nintinuga carried out by a cupbearer in the commission of the king (who, therefore, did not participate personally). The Ur III king often invoked the divine healer,²⁶ and at the coronation ceremonies, she received offerings in all three sanctuaries, at Nippur as Nintinuga, in Uruk and Ur as Gula. This special reverence indicates the high value attributed to the king's personal health for performing his office.²⁷

At Uruk, the king approached not only the city-god Innana both in the evening²⁸ and before dawn, but upon arrival also other deities: Šulgi, thus a statue of the new king's venerated great-grandfather; Innana and An in the temple of Innana; the divine healer Gula; the gate of the high priestess's Ĝepar residence; Nanaya, companion of Innana and like her especially venerated by the queen;²⁹ and Ninsumun, royal mother of Gilgameš and the ruling king.

The Ur III scribes were experts in listing items in meaningful sequences. With deities at sacrifices, three partly overlapping principles are employed, namely hierarchy, location and temporal progression. Thus, a sacrifice to Šulgi listed before the one to Innana can only indicate temporal (and local) priority, pointing to a shrine perhaps in the palace or at the entrance of the Eanna complex, whereas An was in Innana's temple and thus listed after her.

Table 2 The key elements of the documents in translation (see Appendix 1)

Number of oxen, deity	Cultic act, participant	Time and place	Reference
Day 2:			
(Enlil and Ninlil)		(in Nippur)	
Day 3:			
1 Enlil 1 Ninlil	large ritual, entry of the king		JCS 7:48 o. 1–4
1 bathing of Nintinuga •	executed by the cup-bearer Atu	in Nippur	o. 5–7
1 Šulgi ♣ 4 Innana * 1 An, in the temple of Innana 1 Gula • 1 gate of the Ĝepar-building 1 Nanaya * 1 Ninsumun ♦	entry of the king	in the evening; when the king went from Nippur to Uruk	o.8–r.6

²⁵ The monthly summary of standard animal expenditures AnOr 7, 108 obv.i.1–7 lists 17+20 sheep for the “large ritual”, at “entry of the king” (see on these offerings Sallaberger 1993, vol.2, Tab. 33), thus in fact the same occasion. See Sallaberger (1993:55) on the sequence of an eve ceremony (“Vorabendfeier”) when the new crescent was observed and marking the first day of the month (which started after nightfall in the evening) and the main ešeš-celebration on the second day.

²⁶ This is proven by the travels of Gula/Nintinuga to the royal palace; see for a discussion and the references known at the time Sallaberger 1993:87 and vol. 2: Table 50.

²⁷ The Ur III kings' high esteem for the healing goddess surely helped the Isin kings to promote their city-goddess Ninisina / Gula.

²⁸ The “large ritual” (siškur₂ gu-la) received also a ‘standard’ expenditure of 10 sheep for the “various statues” (alan dili-dili) in the temple of Innana, from Urkununa: AnOr 7, 108 o. i 18–25.

²⁹ On the royal wives Abi-simfi and Kubātum and their cultic roles see below fn. 37.

Number of oxen, deity	Cultic act, participant	Time and place	Reference
Day 4:			
1 Innana *	for the large ritual		Nisaba 33 38 o.1–5
1 Innana *	entry of the king	before dawn, in Uruk	
2 Nanna 1 Ninsumun ♦ 1 Šu-Suen-loved-by-Nanna ♣ [1] Gula •		in the evening; when the king went from Uruk to Ur	o.6–r.1
Day 5:			
2 Ninkununa * 2 Nanna-murinaba'a 1 Ulmašītum * 1 Anunītum * 1 Allatum 1 Meslamtaea 1 Dais of An	entry of the king	before dawn	UDT 100 o.1–10
1 Nanna 6 Nanna	large ritual executed by the cup-bearer Sîn-abūšu	in the evening; in Ur	o.11–r.6
Day 7 or 8:			
1 Ninḫursaġa of Nutur	executed by the cup-bearer Sîn-abūšu	before dawn, in Ur	JCS 10 28 no. 4

Legend: Days of the month are counted according to the modern definition of a day. Key terms appearing also in the ritual text UET 3, 57+ (see above) are underlined. **Main deities** of a city are in **bold** type.

Types of deities: * = Innana figures; • = healing goddess; ♦ = royal mother Ninsumun; ♣ = statues of kings

6. Ur: Nanna, and deities in the royal palace Eḫursaġ

Upon his arrival at Ur the king first entered the temenos of the city-god Nanna, as shown by the ritual text and confirmed by the administrative list of sacrifices (Tables 1 and 2, Appendix 1). After Nanna, ten deities from Ur follow, who do not belong to the circle around Nanna with his wife Ningal (venerated in the Ġepar residence of Nanna's high priestess), the entrance to the temenos called Dublamah, the shrine Du'ur (perhaps the ziggurrat) or Nanna's vizier Alamuš and his wife Ninurima. In order to understand the coronation ceremonies, crucial evidence has been assembled in the following pages to localise the other minor shrines (see the map below, Fig. 2).

The group of deities venerated after the arrival at Ur resembles the deities the king met the day before at Uruk: there is again mother Ninsumun; another royal statue, here of the new king's father, Šu-Suen-kiaġ-Nanna "Šu-Suen, beloved of Nanna"; and again the healing goddess, Gula. Both Gula and Ninsumun had a sanctuary in Ur where also their divine spouses and son (Damu and Gunura, and Lugalbanda, respectively) were venerated. Whereas no building inscription is known for Gula, the shrine of Ninsumun at Ur may be localized thanks to the find of a limestone foundation tablet of Ur-Namma, "king of Sumer and Akkade", who built the temple Emaḫ to Ninsumun, "his goddess" (**diġir-ra-ne₂**), an epithet evoking a more intimate relation than the standard "his lady" (**nin-a-ne₂**; RIME 3/2.1.1.23). Hall had found the object east of the excavated parts of the Eḫursaġ in walls of mud bricks. These must have belonged to the royal palace as well (Hall 1930:162–3; see Frayne 1997:58), since the baked-brick walls of the Eḫursaġ stood on foundations of mud-brick, and the eastern extension of the Eḫursaġ was never exactly determined. Although Ninsumun and

especially Gula are often enumerated close to Ninkununa in lists of sacrifices regarding Ur, they are not only separated from her in our ritual, but the two are also conspicuously absent from the long list of deities in Ur, venerated during the funeral for Šu-Suen when the palace had remained closed.³⁰ All these indications seen together suggest that it was the palace Eħursaĝ where Ibbi-Suen presented a welcome offering.

The procession of the new king on the fourth day thus may have looked like this: arrival from Uruk at the West Harbour, entering the monumental centre near the temple of the gatekeeper Nimintaba,³¹ turning north to Nanna for the evening sacrifice, and then back south to the royal palace Eħursaĝ, venerating the divine mother Ninsumun, the father Šu-Suen, and the healing goddess Gula.

7. Ninkununa's Garden, An's Dais, Innana figures, and other deities

According to the ritual text, the king bathed in the garden of Ninkununa “before dawn” (UET 3, 57:9'–11'). The administrative tablet (UDT 100) agrees with this time of the day, does not mention the bathing, but lists Ninkununa first and thus as the most prominent deity before another six deities (Table 2 and Appendix 1). These gods include neither Nanna and his circle nor Ningal and therefore these rites were neither performed in the Nanna temenos nor in Ningal's chapel in the Ĝepar residence. This is the most peculiar rite of the whole coronation ritual since the ritual text explicitly mentions the king's “bathing” in the “garden” of the goddess, and in the list of sacrifices, the otherwise less prominent goddess Ninkununa is listed first and with two oxen.

Ninkununa, the name meaning “Lady Silver of the Prince”, is a by-name of Innana, and the founder of the dynasty, Ur-Namma dedicated a shrine to “Inanna, Ninkununa, his lady” (^dinnana | ^dnin-ku₃-nun-na | nin-a-ne₂) at Ur (RIME 3/2.1.1.15 and 16).³² Door-sockets of the shrines of Ninkununa stem from the late Giparu, and thus her sanctuary must be sought for in this region. At the coronation ceremony, two further Innana/Ištar figures were venerated together with her, Anunītum and Ulmašītum, referring to Ištar of Akkade with her by-name Anunītum and her temple E'ulmaš. A door socket from a shrine dedicated by Šu-Suen “to his wife” (**dam-a-ne₂-er**) Anunītum was found in the southern part of the Ĝepar building, thus pointing to a site not too distant from Innana-Ninkununa's.³³ In lists of sacrifices commissioned at Ur by the royal lady Šulgi-simti, Anunītum and Ulmašītum feature prominently with the netherworld deity Allatum (as in the coronation ritual) and often other goddesses like Išhara or Bēlat-Nagar.³⁴ When the localisation, the references to Innana, the epithets and the veneration by royal wives are taken together, the appearance of the Innana deities during the coronation ceremonies can be read as a clear reference to the king's bond to his lady. The presence of the queen and the image of the royal couple was a crucial and central constellation in the leadership of the kingdom³⁵—and in fact an important aspect to appreciate the king's association with the goddess Innana. When the new king bathed in the garden of Innana this can most plausibly be seen as preparation for a meeting with his wife Geme-Enlila

³⁰ YBC 4190.ix.18–xi.2.

³¹ The location of Nimintaba's temple south of the Ĝepar residence, on a terrace south-east of the southern corner of the Ur III temenos, is based on the find of a Šulgi inscription in situ (RIME 3/2.1.2.4); for the building see UE 6:40–1 (“The Dim-tab-ba temple of Dungi”). Nimintaba or Ninmintaba (in god list TCL 15, 10:310) was a wife of the divine doorkeeper Kalkal, and one of the four deities “at service” (**diĝir gub-ba**) of Nanna in the god-list An-Anum III 45 (Cavigneaux & Krebernik 1998:319–20; Charpin 1986:144–7); her function at the entrance entailed purification (see Charpin l.c. 146–7 for seal UET 1, 62; U. 7765). In the Ur III period, she is only attested in AnOr, 7 73:9: ^dnimin-dab₆-ba, listed among other deities of Ur (reference hitherto not identified, to the best of my knowledge).

³² Revealing of the character of Innana-Ninkununa as beloved mistress of the king is the fact that Ur-Bau of Lagaš had built a shrine for ^dinnana nin-ku₃-nun-na(-ra) in Urub, the cult-centre of that region's Dumuzi-figure Lugal-Urub (statue of Ur-Bau RIME 3/1.1.6.5 iv 8–10).

³³ Anunītum: RIME 3/2.1.4.20 (U 3059), door socket, from “SFS doorway to room 7”.

³⁴ Sharlach (2017) adduced evidence that Šulgi-simti, a wife of Šulgi, was not considered the reigning “queen” (**nin**).

³⁵ The prominence of queens as exemplary women and the public representation of the king as loving partner together with his queen are central features of the Ur III rulership. Here is not the place to discuss the image of the queen as an indispensable element in the study of the Ur III society.

who would have become queen then.³⁶ The significance of this ritual element becomes more evident when considering the historical situation: the two most prominent ladies at court who had previously performed rituals, Kubātum and Abī-simtī, the wife and the queen-mother of Šu-Suen, disappeared soon after the coronation of Ibī-Suen.³⁷ The garden ceremony by its reverence of Innana celebrates the new queen, and it may thus be viewed as both a kind of marriage and an elevation of Geme-Enlila to the status of a queen.³⁸

The second god named after Ninkununa, but like her considered with two oxen instead of one as the other deities, is god Nanna from a place called (**e**₂) **mu-ri-(a)-na-ba-a**₅, meaning perhaps “in his distant years it was made”.³⁹ A door socket of this sanctuary of Nanna was discovered in the Ġanunmaḥ, the main storehouse for the temple and the palace, and there in the central room south of the main courtyard.⁴⁰ Nothing speaks against a sanctuary for Nanna murianaba’a in the Ġanunmaḥ building, in my view.⁴¹

The netherworld deity Meslamtaea appears often side by side with Allatum also in other lists concerning offerings at Ur, but no building inscriptions are known that refer to a sanctuary of them. Therefore, it is impossible to reflect on their role beyond pure speculation.

The sacrifices at the coronation end with the “Dais of An” (**para**₁₀ **an-na**), a cult place known well from several lists for offerings where it precedes the city-god Nanna and his sacred places, the Du’ur, perhaps the ziggurat of Ur, and the Dublamaḥ at the south-eastern entrance to Nanna’s temenos.⁴²

³⁶ Geme-Enlila’s first appearance by name is some 18 days later in sacrifices at Uruk and the royal palace there for deities of the Innana circle (PDT 1, 563; ŠS.09.10.21; Weiershäuser 2008:164); see Sallaberger (1993:214–16) for the festival in Uruk in the tenth month.

³⁷ Kubātum is known until the second month of Šu-Suen 8 (Weiershäuser 2008:160 and 163). Abī-simtī’s last mention dates to ŠS.09.10.29 (thus at the end of the month of the coronation), directing 5 sheep to Innana (AnOr 7, 108 r.ii.23–5); offerings for the memory of the dead queen are attested at the end of the same year (**ki-a-naḡ**, ŠS.09.12.17; ASJ 3:92 no. 3; Weiershäuser 2008:107).

³⁸ The role of the queen as representative of Innana entailed the concept that the role of her beloved spouse Dumuzi is taken over by the king (if the constellation is situated in a royal setting). This constellation has been appropriately described by Jacobsen (1987:87) regarding the Dumuzi-Innana songs; regarding the reflex of these relations in rituals and festivals, see Sallaberger 1993:210 n. 990 and 291 n. 1358; for a summary regarding the Ur III period Sallaberger 1999:155–6. Surely, van Dijk and others had in mind the relation of king and queen-as-Innana when using the label “sacred marriage” rite for the ritual text UET 3, 57, but this term has become too vague and too much laden with wrong assumptions (as, for example, that of a national “New Year” in the Ur III kingdom, or the presence of a priestess) so that it should better be avoided and replaced by more precise descriptions. For a recent collection of secondary literature see Attinger 2022.

³⁹ This interpretation is inspired by the line from the time-honoured formula **mu ri-a mu sud-ra₂ ri-a** “in those years, in those distant years”. Of course, other interpretations are possible as well although I am not aware of more convincing proposals (cf. Hall 1985:351). Reading and interpretation are also based on the variant **-mu-ri-na-ba** (for **-mu-ri-a-na-ba-a₅**) StOr 9–1, 27 o.11.

⁴⁰ RIME 3/2.1.4.21 (U 838); Frayne (1997:331) notes: “Found in situ in the brick door box against NW jamb of the door of the NE wall of room 22 of the E-nun-maḥ = TTB 31”; i.e., a small room situated near the centre of the south-east side of the courtyard.

⁴¹ Hall (1985:351–2) observed the fitting correlation of Nanna-murianaba’a with “deities who personify produce of the land”, with Alamuš caring for “honey” (**lal₃**, because this sign was used to write Alamuš as well), Nisaba for barley, and Nin-e₂-i₃-gara₂ for dairy products. Three texts with this list forming a coherent series are UET 3, 161 (IS.06.10.00), SAT 3, 2015 (IS.06.11.00), UET 3, 164 (IS.06.12.00). Many misreadings of SAT 3, 2015 have to be corrected in the edition (reported to BDTNS).

⁴² Three door sockets with an inscription that Amar-Suena built the Dublamaḥ for Nanna (RIME 3/2.1.3.9) are reported; of these, U 1165 was “reused” close to the S corner of Ziqqurraṭ; U 3224 (two exemplars) stems from “Room 30 of Edublalmaḥ” (after Frayne 1997:253). The identification of the Dublamaḥ with the entrance to the Nanna temenos is confirmed by the find spot, the presence of door sockets as appropriate for a building with doors, the dedication to court cases that were often held in gates, and the usual presence of the Dublamaḥ as first offering place in sequences leading to Nanna (see above on the sequence of such lists: this indicates a local/temporal precedence before the main deity, thus the sacrifice at the entrance, as for Kalkal or the gate of Enlil at Nippur). A clear reference to the Dublamaḥ as gate is UCP 9–2–2, 37, a sacrifice at the Dublamaḥ **nin-ḡu₁₀ E₃-da-ne₂** “when my lady was about to go out”. This cumulative evidence, as I see it, hinders me from adopting the proposal of Nicholas Postgate (this volume) that the Dublamaḥ was an open-air podium (a literal translation of the Sumerian term “**dub-la₂**” remains indeed an unsolved problem, as Postgate reminds us). The podium of Ur-Namma near the southern main gate to the Nanna temenos is instead identified as the “Dais of An” built by Ur-Namma in this study (see presently and n. 48); it is sometimes named together with the Dublamaḥ in offering lists.

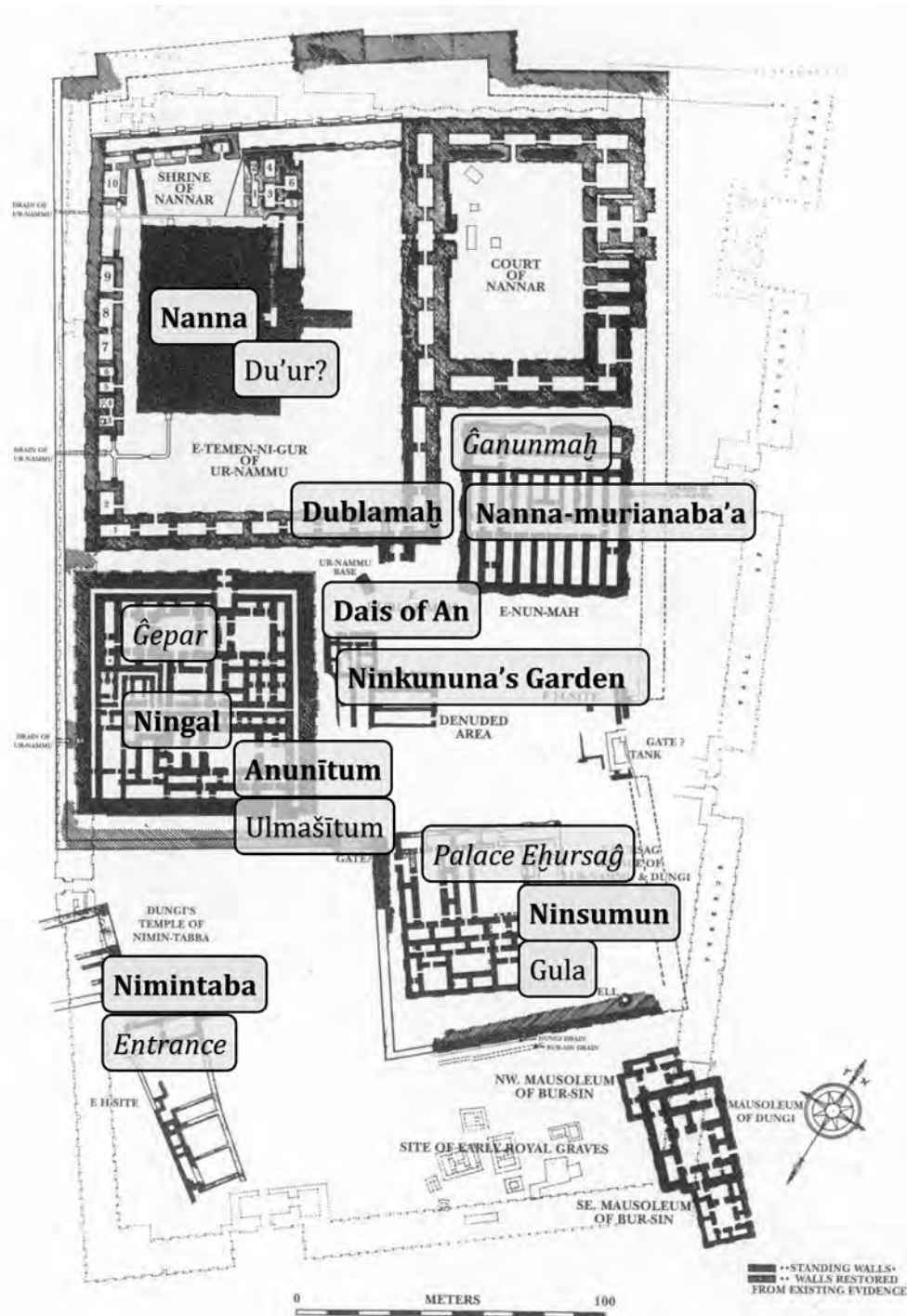


Fig. 2 Monumental Centre of Ur (after UE 6: Pl. 53) with proposed localisations for shrines (divine names in bold are based on find-spots of building inscriptions)

Localisation of the “Dais of An” in the area between Ĝepar (with Ninkununa and Anunitum close by) and the eastern corner of the Nanna complex (its main entrance) is suggested by the find spot of six inscribed bricks in the northernmost room 3 of the Giparu of Nabonidus (Frayne 1997: 27). The brick inscription stems from Ur-Namma in his early years (with the title “king of Ur”); for the god An “he set out a sublime garden and he built him a dais on a pure place” (**geskiri₆ mah mu-na-gub, para₁₀ ki sikil-la mu-na-du₃**; RIME 3/2.1.1.5). This dais is without any doubt the “Dais of An” (**para₁₀ an-na**) known from the lists of offerings, and one may assume that the garden planted by Ur-

Namma for An is the same as the “garden of Ninkununa”, where Ibbi-Suen bathed for his coronation ceremonies.⁴³ Most of the minor deities of Ur that appear in UDT 100 (Table 2 and Appendix 1) in the context of the coronation, are known as recipients of sacrifices at secondary festivals during the main festival months (VII and X) at Ur;⁴⁴ there, however, precisely Ninkununa and the Dais of An are missing—a further proof that they belonged together. Ninkununa was a by-name of Innana at Ur, and not only were An and Innana venerated together both in Uruk and Nippur, but also their building inscriptions were found in adjacent rooms in the northernmost corner of the late Giparu. Moreover, this localisation agrees with the topography of this day’s coronation ritual in the region between Ġepar, eastern temenos corner and Ġanunmaḥ, outside of the Nanna complex and of the palace. One may thus ask whether the area termed “denuded” by Woolley for the Ur III period, was in fact a garden⁴⁵ between the ziggurat of Nanna and the royal palace, surrounded by the sanctuaries for the gods of our list (see the map). The “Dais of An” is surely a first-class candidate to name Woolley’s “Ur-namma base” near the entrance to the sanctuary, the Dublamaḥ.⁴⁶

8. The end of the coronation ceremonies

The end of the ceremonies for Ibbi-Suen’s coronation can not fully be reconstructed. According to the ritual text, the king would have venerated Nanna again. The last administrative text dates to the 6th day, which points to a sacrifice on the 7th or 8th for the mother-goddess Ninḥursaġa in her sanctuary Nutur, modern Tell el-Obed. A comparable series of sacrifices suggests that in between Enki of nearby Eridu would have been included.⁴⁷ With the end of the coronation ceremonies on the 7th day, their duration corresponded exactly to the phase of the waxing new moon until it reached the first quarter, doubtless a welcome sign for the start of a new king’s reign.

To sum up: During the coronation, the king had been present at the capitals and major shrines of Sumer, Nippur, Uruk, and Ur, almost at the same time, where he entered the temple of the main gods Enlil and Ninlil, Innana, and Nanna; also the healing goddess, named Nintinuga or Gula, received a special tribute, certainly to ensure the king’s health. In the palaces of Uruk and Ur, he venerated most prominently the divine mother of the king, Ninsun, and statues of the royal predecessors. The ceremonies then opened a new perspective with the bathing in Innana’s garden in Ur, which indicates a focus on the new queen and her change of status. The coronation festivities of Ibbi-Suen were concluded in Ur and its environment.

After the coronation in the sanctuaries, the new king met representatives of the land. Already on the first day in Nippur, 1 cow and 55 caprines were put on boats “as selection for the kitchen” (**šū-gid₂ e₂-muḥaldim**) “when the king was going to Ur” (**lugal urim₅^{ki}-še₃ du-ne₂**), thus leaving out his stop at Uruk before (AnOr 7, 108 obv.i.8–15). And after the ceremonies, on day 11, the same amount of 1 cow and 55 caprines were provided for a banquet in Ur “for the overseers and captains of the assembly at service” (**mu ugula nu-banda₃ pu-ḥu-ru-um-ma gub-ba-še₃**; *ibid.* obv.ii.8–14). After the coronation, one of the largest festivals of the kingdom, the “Sublime Festival” (**izim-maḥ**)

⁴³ Legrain (1947:195 and no. 57) has by his references already made the connection between Ninkununa’s garden in the ritual and An’s garden in the building inscription.

⁴⁴ Some references: AAICAB 1/4, Bod. S 311 (ŠS.07.10.08); CST, 453 (ŠS.09.10.09); StOr 9–1, 27 (pl. 9) (IS.02.07.02–08); see also AUCT 2, 97 (date not preserved).

⁴⁵ In this context it should be noted that there was a garden of Innana also in Uruk where Šulgi-simti stopped during the festival of the “Boat of Heaven/An” (Sallaberger 1993:218). I owe Dominique Charpin a unique reference to a garden in the religious centre of Ur: Oaths were sworn “in the gardens opposite the (temple of Nanna) Ekišnuḡal” (*ina kirātim meḥret Ekišnuḡal*) according to an Old Babylonian literary text (UET 6, 402:16–17 and 30–1; see Charpin 1986:326–7).

⁴⁶ UE 6:75 and 107 n. 105 on this structure (which Woolley would like to connect with the Ur-Namma stela). The rarity of the Sumerian term **para₁₀** “dais” in lists related to deities in Ur and the exceptional feature of a free-standing podium can be seen as a confirmation for this identification. The remarkable dedication to An, the god of the sky, may also depend on the presence of the sky directly above the podium.

⁴⁷ StOr 9–1, 27 (IS.02.07.08), an expenditure of grain-fed oxen: Day 2 for the deities in the palace (Šu-Suen-kiaġ-Nanna, Ninsun, Gula); Day 3 “large rite” for Nanna and then Anunītum, Ulmašītum, Allatum, Meslamtaea ḥa-zi, Nanna-murinaba (**“nanna-mu-ri-na-ba = “nanna-mu-ri-a-na-ba-a₅”**)—as during the coronation, but without Ninkununa and the Dais of An; Day 4: Enki in Eridu; Day 5: Ninḥursaġ of Nutur; Day 7 follows the **NE.NE-ġar** of Anunītum.

around Full Moon was celebrated in and around Ur, and there one could expect large delegations from all over the kingdom and from abroad, and the new king could then introduce himself to his subjects and the foreign emissaries.⁴⁸

* * *

Appendix 1: Transliteration of lists of sacrifices pertaining to Ibbi-Suen's coronation

Four administrative documents from Puzriš-Dagān (dated ŠS.09.10.01, 02, 03, and 06) list the expenditure of fattened oxen, all summarized “when Ibbi-Suen has received the crown” (see above with Tables 1 and 2). The four expenditures were made by Puzur-Enlil, and were executed by the controller Nūr-Suen and the scribe Ḫaliya. These two persons were active until ŠS.09.12.24 (BCT 1, 111), and the latest text is sealed with the seal of Ḫaliya, son of Addaya, still dedicated to Šu-Suen; it seems the same seal is rolled on these four tablets as well.

The transliteration is offered in a format similar to the translation in Table 2, but line numbers are added to allow easy citation.

Note the following abbreviations:

1 g = 1 gud niga; 1 g^{4/3} = 1 gud niga 4/3-kam us₂
o.=obverse; r.=reverse; le.e. = left edge

JCS 7:48 (ŠS.09.10.01), sealed (see above)

Number of oxen, deity	Cultic act, participant	Time and place
o.1 1 g ⁴ d ^{en} -lil ₂ o.2 1 g ⁴ d ⁿⁱⁿ -lil ₂	o.3 siškur ₂ gu-la o.4 lugal ku ₄ -ra	
o.5 1 g a-tu ₅ -a d ⁿⁱⁿ -tin-ug ₅ -ga	o.6 a-tu sagi maškim	o.7 ša ₃ nibru ^{ki}
o.8 1 g d ^{sul} -ge o.9 1 g ⁴ + o.10 3g o.11 d ^{innana} o.12 1 g ⁴ an o.13 ša ₃ e ₂ d ^{innana} o.14 1 g d ^{gu} -la r.1 1 g kan ₄ ḡe ⁶ ḡepar r.2 1 g d ^{na} -na-a r.3 1 g d ⁿⁱⁿ -sumun ₂	r.5 lugal ku ₄ -ra	r.4 a ₂ -u ₄ -te-na r.6 lugal nibru ^{ki} -ta unu ^{ki} -še ₃ du-ni

r.7 u₄ dⁱ-bi₂-d^{ZUEN} aga₃ šu ba-an-ti-a | r.8 u₄ l-kam

r.9 ki puzur₄-d^{en}-lil₂-ta ba-zi | r.10 ḡiri₃ nu-ur₂-d^{ZUEN} ša₃-tam | r.11 u₃ ḡal-li₂-a dub-sar

r.12 iti izim-maḡ | r.13 mu d^{šu}-d^{ZUEN} | r.14 lugal urim₅-ma-ke₄ | r.15 e₂ d^{šara}₂ umma^{ki}-ka mu-du₃

le.e. [13 gud]

Nisaba 33, 38 (ŠS.09.10.02), sealed (see above)

Number of oxen, deity	Cultic act, participant	Time and place
o.1 1 g ⁴ d ^{innana}	o.2 siškur ₂ gu-la-še ₃	
o.3 1 g d ^{innana}	o.4~ lugal ku ₄ -ra	o.4ctd a ₂ -ḡe ⁶ -ba-a o.5 ša ₃ unu ^{ki} -ga

⁴⁸ Sallaberger 1993:191–4 on the festival and pp. 175–9 on the participants at the main festivals at Ur.

Number of oxen, deity	Cultic act, participant	Time and place
^{o.6} 2 g ⁴ d ⁿ nanna ^{o.7} 1 g d ⁿ nin-sumun ₂ ^{o.8} 1 g d ^š u-d ^z UEN-ki-aĝ ₂ -d ⁿ nanna ^{o.9} [1] g d ^g u-la		^{o.10} [a ₂]-[u ₄]-te-na ^{o.11} [lugal] unu ^{ki} -ta urim ^{ki} ₅ -š ^e ₃ du-ni

r.1–10 = JCS 7:48 r.7–15, but r.3 u₄ 2-kam; le.e. 7 gud

UDT 100 (ŠS.09.10.03), sealed (see above)

Transliteration based on a new photo kindly provided by Klaus Wagensohnner (10/2022);
collations marked by *

Number of oxen, deity	Cultic act, participant	Time and place
^{o.1} 1 g ⁴ + ^{o.2} 1 g d ⁿ nin-ku ₃ -nun-na ^{o.3} 2 g ⁴ d ⁿ nanna*-mu-ri-na-ba-a ₅ * ^{o.4} 1 g d ^u l-ma-ši-tum ^{o.5} 1 g an-nu-ni-tum ^{o.6} 1 g d ^a l-la-tum ^{o.7} 1 g d ^m es-lam-ta-e ₃ -a ^{o.8} 1 g ³ para ₁₀ * an-na	^{o.10} lugal ku ₄ -ra	^{o.9} a ₂ -ĝe ₆ -ba-a
^{o.11~} 1 g ^{r.1} 2 g ⁴ + ^{r.2} 4 g ^{r.3} d ⁿ nanna	^{o.11} ctd ^d siškur ₂ gu-la ^{r.4d} ZUEN-a-bu-šu sagi maškim	^{r.5} a ₂ -u ₄ -te-na ^{r.6} ša ₃ urim ^{ki} ₅ -ma

r.7–14 = JCS 7:48 r.7–15, but r.8 u₄* 3-kam, r.11 u₃ ħal*-li₂-a dub-sar; le.e. 16 gud

JCS 10:28 no. 4 (ŠS.09.10.06), sealed (see above)

Number of oxen, deity	Cultic act, participant	Time and place
^{o.1} 1 g ^{o.2} d ⁿ nin-ĥur-saĝ nu-tur	^{o.3d} ZUEN-a-bu-šu sagi maškim	^{o.4} a ₂ -ĝe ₆ -ba-a (...) ^{r.2} ša ₃ urim ^{ki} ₅ -ma

o.5 = JCS 7:48 r.7; o.6 u₄ 6-kam; o.7–r.1 = JCS 7:48 r.9; r.3–7 = JCS 7:48 r.10–15; le.e. 1 gud

Appendix 2: The manufacture of a crown (BIN 3, 344 obv.1–7)

This administrative document from the “Treasure archive” of Puzriš-Dagān describes the materials used for a crown (**aga**₃), albeit that of an *en* priestess and not of the king; it apparently was adorned with an agate eye on the forehead. The text dates shortly after the coronation of Ibši-Suen, and it may possibly list the insignia for the inauguration of the high-priestess of Enki in the coming month (ŠS.09.12.20–26; see AUCT 3, 489; Huber-Vulliet 2014).

BIN 3, 344 (ŠS.09.11.18) obv.1–7

See Paoletti 2012:392–3; this edition is based on a photo by Klaus Wagensohnner (October 2022); after line obv.8 follows the description of a MUŠ₂-keše₂ “diadem”

1	1 ^{ḡes} saḡšu [*] ʾnam ¹ -en ¹ tuku aga ₃ / ar-ma-num ₂ kab ku ₃ -si ₂₂ šub-ba	1 wooden helmet/head-gear, taken for the office of the <i>en</i> -priestess, a crown, of <i>armanum-kab</i> wood, plating (in damascene technique) in gold,
2	ku ₃ -si ₂₂ huš-a-be ₂ ½ ma-na 6 giḡ ₄ ⅔ (=KWU 161) 18 še	the red gold (used) for it (weighs) 36 shekels and 138 grains (306 g),
3	1 gu ₂ bar ku ₃ -si ₂₂ huš-a-be ₂	and its 1 outer frame of red gold
4	ki-la ₂ -be ₂ 2 giḡ ₄ ⅔ (=KWU 161) 17 še	its weight is 2 shekels and 137 grains (25 g),
5	1 niḡ ₂ -su ₃ -a saḡ-ki ḡar ^{na} nir ₇ igi / tuku ku ₃ -si ₂₂ huš-a-be ₂	and its 1 mounting at the forehead for an agate eye (made) of red gold,
6	ki-la ₂ -be ₂ 5 ½ giḡ ₄ la ₂ 7 še	its weight is 5 shekels and 83 grains (46 g),
7	1 ^{na} nir ₇ igi dur ₂ ki-ta-be ₂ ib ₂ -ta-kur ₂ -be ₂	its 1 agate eye from the lower bottom was exchanged for it

A new photo (kindly provided by Klaus Wagensohnner via Eckart Frahm) has solved the puzzle of the base material (obv. 1): it is made of wood, on which the gold was applied. The handcopy BIN 3, 344 shows LAGAB; Paoletti l.c. assumed **tu**₉^{1?} “cloth”; the sign **ḡes** is absolutely clear, however. The verb **šub** “damascene” describes the usual technique to attach the gold to softer materials; see Paoletti 2013. The *armānum*-tree is a hapax in Ur III (AHw. translates “apricot”, but on what basis?); **kab** is defined as a willow, perhaps *Salix alba*. Paoletti l.c. points out that the base material should be wood because of the use of the verb **šub** “to damascene” (“tauschieren”). The term **nam-en** indicates that this is a crown for an *en* priestess; see also: (an instrument of copper) **niḡ₂ nam-en en Eridu^{ki}-kam** “an object of the office of the en of the high priestess of Eridu” UET 3, 296 (Šu.27.11d.00). A crown of wood with gold covering seems to be mentioned also in UET 3, 1498 obv.iii.4: 1 ^{ḡes}**nam-en-na** ku₃-[si₂₂].

Appendix 3: Incantation to the crown (YOS 11, 54)

This Old Babylonian tablet of which the upper third, perhaps its half is preserved, conveys an incantation to the royal crown. The reading of the decisive sign in obv. 1 and 2 as **aga** instead of “**bara₂/para₁₀**” was based on a collation of the original in 2003, and is fully confirmed by a brilliant photo kindly provided by Klaus Wagensonner (10/2022). Ambos 2013:224 offered another edition of the text.

o. 1	aga* ḥuš aga* me-lim ₄ -ma	Red-golden crown, crown of splendor,
2	aga* ^d en-ki-ke ₄ (saĝ) i ₃ -rig ₇	crown, Enki made it a gift,
3	[ag]a* an lugal-e mim ba-ab-du ₇	[crown], king An fostered it,
4	[aga ^d en-lil ₂ (-e)(?)] nam gal ba-an-tar	[crown, Enlil(?)] determined it a great destiny,
5	[aga ^d innana-ke ₄ (?)] gu ₂ -da ba-an-la ₂	[crown, Innana(?)] embraced it,
6	[...] ^r saĝ ¹ ku ₃ -ga-ta	[...] from the (king's) shining head
	[...] ^r in ¹ -du ₁₁	[...] he ...ed it.
	<i>rest of obverse not preserved</i>	
	<i>beginning of reverse not preserved</i>	
r. 1'	[...] ^r x x ¹	
2'	[...] ^r BI* ¹ -gen ₇ ḥe ₂ -em-sikil	like [...] it may be cleared,
3'	[...] ^r gen ₇ * ¹ mu-bu-ra ḥe ₂ -em-dadag ¹ (UD)	like [...] the dirt may be cleaned!
4'	[^d ut]u agrun(^r E ₂ * ¹ .NUN)-ta e ₃ -a-ne ₂	May Utu when he comes out from (his) bedroom,
5'	igi sa ₆ -ga-ne ₂ -še ₃ ḥe ₂ -em-ši-bar-re	gaze upon it favourably!
6'	lugal-ĝu ₁₀ saĝ an-še ₃ mi-ni-in-il ₂	When my king has raised his head to heaven,
7'	igi il ₂ -la-ne ₂ nim-gen ₇ nim ĝir ₂ -ĝir ₂ me-teš ₂	and when he (i.e. Utu) glances at it and it flashes
	ḥe ₂ -i-i	like lightning, may it be praised!

obv. 1: Note that the adjective **ḥuš** is also used to classify the highest quality of gold.

obv. 4–5: The restorations are based on context only.

rev. 1': The restoration [...] **ḥe₂-em-ku₃** by Ambos is not supported by the remaining traces.

Bibliography

Bibliographical Abbreviations

Abbreviations of Ur III sources follow The Database of Neo-Sumerian Texts (BDTNS <http://bdtms.filol.csic.es/>)

RIME 3/1 Edzard 1997

RIME 3/2 Frayne 1997

Ur Excavations

UE 6 Woolley 1974

Ur Excavations Texts

UET 3 Legrain 1937, 1947

UET 9 Loding 1976

- Ambos, C. 2013. *Der König im Gefängnis und das Neujahrsfest im Herbst: Mechanismen der Legitimation des babylonischen Herrschers im 1. Jahrtausend v. Chr. und ihre Geschichte*. Dresden: ISLET.
- Attinger, P. 2022. “Šulgi X”, *Altorientalische Forschungen* 49:197–237.
- Baker, H.D., E. Robson & G. Zólyomi (eds.) 2010. *Your Praise is Sweet. A memorial volume for Jeremy Black from students, colleagues and friends*. London: British Institute for the Study of Iraq.
- Blaschke, T. 2018. *Euphrat und Tigris im Alten Orient* (Leipziger Altorientalistische Studien 6). Wiesbaden: Harrassowitz.
- Cavigneaux, A. 2022a. “Deux études lexicographiques”, *Revue d’assyriologie et d’archéologie orientale* 116:43–56.
- 2022b. “Vocabula sumerica 2. ZAL et le temps qui fond”, *NABU* 2022/6.
- Cavigneaux, A. & M. Krebernik 1998. “Nimintaba”, *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 9:319–20.
- Charpin, D. 1986. *Le clergé d’Ur au siècle d’Hammurabi (XIXe–XVIIIe siècles av. J.–C.)*. Genève: Droz.
- Civil, M. 1980. “Daily Chores in Nippur”, *Journal of Cuneiform Studies* 32:230–2.
- van Dijk, J.J.A. 1967. “VAT 8382: Ein zweisprachiges Königsritual”, in D.O. Edzard (ed.) *Heidelberger Studien zum Alten Orient. Adam Falkenstein zum 17. September 1966*:233–68. Wiesbaden: Harrassowitz.
- van Dijk, J.J.A. & M. Geller 2003. *Ur III Incantations from the Frau Professor Hilprecht-Collection, Jena* (Texte und Materialien der Hilprecht-Collection 6). Wiesbaden: Harrassowitz.
- Edzard, D.O. 1997. *Gudea and His Dynasty* (Royal Inscriptions of Mesopotamia. Early Periods 3/1). Toronto: University of Toronto Press.
- Edzard, D.O. (ed.) 1967. *Heidelberger Studien zum Alten Orient. Adam Falkenstein zum 17. September 1966*. Wiesbaden: Harrassowitz.
- Frayne, D.R. 1997. *Ur III Period (2112–2004 BC)* (Royal Inscriptions of Mesopotamia. Early Periods 3/2). Toronto: University of Toronto Press.
- Graeber, D. & M. Sahlin 2017. *On Kings*. Chicago, IL: HAU Books.
- Hall, H.R. 1930. *A season’s work at Ur; al-’Ubaid, Abu Shahrain (Eridu), and elsewhere*. London: Methuen & Co.
- Hall, M.G. 1985. *A study of the Sumerian moon-god, Nanna/Suen*. PhD Diss. University of Pennsylvania: Philadelphia.
- Hallo, W.W. & B.A. Levine 1967. “Offerings to the temple gates at Ur”, *Hebrew Union College Annual* 38:17–58.
- Huber-Vulliet, F. 2014. “De la ville au temple. L’intrônisation du haut-clergé babylonien à la fin du troisième millénaire av. J.-C.”, in A. Mouton & J. Patrier (eds.) *Life, Death, and Coming of Age in Antiquity: Individual Rites of Passage in the Ancient Near East and Adjacent Region* (PIHANS 124):25–46. Leiden: NINO.
- Jacobsen, T. 1953. “The reign of Ibbi-Suen”, *Journal of Cuneiform Studies* 7:36–47.
- 1987. *The harps that once... Sumerian poetry in translation*. New Haven/London: Yale University Press.
- Krecher, J. 1979. Review of Loding 1976, *Orientalia* NS 48:430–3.
- Legrain, L. 1937, 1947. *Ur Excavations Texts III. Business Documents of the Third Dynasty of Ur*. 2 Vols. London: Printed by order of the Trustees of the Two Museums.
- Loding, D. 1976. *Ur Excavations Texts IX. Economic Texts from the Third Dynasty*. London / Philadelphia: Published for the Trustees of the Two Museums by the Babylonian Fund.
- Paoletti, P. 2013. “The manufacture of a statue of Nanaja. Mesopotamian jewellery-making techniques at the end of the third millennium B.C.”, in S. Garfinkle & M. Molina (eds.) *From the 21st Century BC to the*

- 21st Century AD (Proceedings of the International Conference on Neo-Sumerian Studies Held in Madrid, July 22–24, 2010):333–45. Winona Lake, IN: Eisenbrauns.
- 2012. *Der König und sein Kreis. Das staatliche Schatzarchiv der III. Dynastie von Ur.* (BPOA 10). Madrid: Consejo Superior de Investigaciones Científicas.
 - Römer, W.H.Ph. 1987. “Rituale und Beschwörungen in sumerischer Sprache“, in *Texte aus der Umwelt des Alten Testaments* II/2:163–211.
 - Saint-Hilaire, H.G. 1861. *Acclimatation et domestication des animaux utiles* (Librairie Agricole de la Maison Rustique). Paris.
 - Sallaberger, W. 1993. *Der kultische Kalender der Ur III-Zeit.* (UAVA 7). Berlin/New York: de Gruyter.
 - 1999. “Ur III-Zeit“, in *Mesopotamien. Akkade-Zeit und Ur III-Zeit. Annäherungen* 3 (OBO 160/3):121–390. Freiburg, Schweiz: Universitätsverlag; Göttingen: Vandenhoeck & Rupprecht.
 - 2012. “Šu-Suen von Ur“, *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 13:362–5.
 - 2015. “Ur-Namma“, *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 14:422–31.
 - 2021a. “Uruk in der Frühen Bronzezeit: zu dessen Königen und Göttern und zur Lage von Kulaba“, in M. van Ess (ed.) *Uruk – Altorientalische Metropole und Kulturzentrum* (Colloquien der Deutschen Orient-Gesellschaft 8):343–72. Wiesbaden: Harrassowitz.
 - 2021b. “The emergence of calendars in the third millennium BCE. Deities, festivals, seasons, and the cultural construction of time“, in D. Shibata & Sh. Yamada (eds.) *Calendars and Festivals in Mesopotamia in the Third and Second Millennia BC* (Studia Chaburensia 9):1–34. Wiesbaden: Harrassowitz.
 - Sharlach, T.M. 2017. *An ox of one’s own. Royal wives and religion at the court of the third dynasty of Ur.* Berlin/Boston: de Gruyter.
 - Sigrist, M. 1999. “Livraisons et dépenses royales durant la Troisième d’Ur“, in R. Chazan, W.W. Hallo & L.H. Schiffman (eds.) *Ki Baruch Hu. Ancient Near Eastern, Biblical, and Judaic studies in honor of Baruch A. Levine*:111–49. Winona Lake: Eisenbrauns.
 - Sjöberg, A.W. 1960. *Der Mondgott Nanna-Suen.* Stockholm: Almqvist & Wiksell.
 - Sollberger, E. 1953. “Remarks on Ibbi-Sîn’s reign“, *Journal of Cuneiform Studies* 7:48–50.
 - Steinkeller, P. 2001. “New light on the hydrology and topography of southern Babylonia in the third millennium“, *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 91:22–84.
 - Suter, C. 2010. “Ur III kings in images: a reappraisal“, in Baker et al. (eds.) 2010:319–49.
 - 2015. “Gudea’s kingship and divinity“, in S. Yona, E.L. Greenstein, M.I. Gruber, P. Machinist & S.M. Paul (eds.) *Marbeh Hokma. Essays in Loving Memory of Victor Avigdor Hurowitz*:499–523. Winona Lake, IN: Eisenbrauns.
 - Waetzoldt, H. 2005. “Tempelterrassen und Ziqqurate nach der sumerischen Überlieferung“, in Y. Sefati, A. Pinhas, C. Cohen, B.L. Eichler & V. Hurowitz (eds.) *An experienced scribe who neglects nothing. Ancient Near Eastern studies in honor of Jacob Klein*:322–42. Bethesda, MD: CDL Press.
 - Weiershäuser, F. 2008. *Die königlichen Frauen der III. Dynastie von Ur* (Göttinger Beiträge zum Alten Orient 1). Göttingen: Universitätsverlag.
 - Woolley, L. 1974. *Ur Excavations Volume VI. The Buildings of the Third Dynasty.* London: Published by the Trustees of the two Museums.
 - Zettler, R.D. & W. Sallaberger 2011. “Inana’s Festival at Nippur under the Third Dynasty of Ur“. *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 101:1–71.

Samsu-iluna and the end of the occupation of Ur in the Old Babylonian period

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As is well known, Ur after the fall of the Third Dynasty fell first to the kings of Isin, then to the kings of Larsa. In 1763, when Hammu-rabi defeated the king of Larsa Rim-Sin, the city was integrated into the kingdom of Babylon and continued to belong to it under his son Samsu-iluna. Ur was destroyed and abandoned during the reign of the latter, but the circumstances of this event remain poorly known. After presenting the historiography of the question, which, following Woolley, attributes the destruction of Ur to Samsu-iluna himself, we shall study the set of texts dating from the last five months of year 10 and the whole of Samsu-iluna's year 11, after the end of Rim-Sin II's revolt. Finally, a new hypothesis will be presented on the circumstances in which the city was sacked and then abandoned in the course of the following year.²

1. A historiographical paradox

There is a historiographical paradox: following Woolley, everyone has been convinced that Samsu-iluna was responsible for the destruction of Ur. Yet several recent data indicate the value Ur had in the eyes of Hammu-rabi's son.

1.1 *Samsu-iluna held responsible for the destruction of Ur:*

1.1.1 *Woolley's error*

Woolley was struck by the evidence of the violent destruction of the Old Babylonian city and looked for someone to blame: he believed he had found him in Samsu-iluna. His most detailed description is contained in his final report on the Old Babylonian period (UE 7:13):

Neither in the houses nor in the temple was a single tablet found of later date than Samsu-iluna's eleventh year. Now the eleventh year of Samsu-iluna is that which was marked by the revolt

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² I was indeed fortunate to be chosen as epigraphist by Elizabeth Stone when she took over the excavation of Ur in 2015 at the invitation of the regretted Abdul-Amir al-Hamdani. I am indebted to the renewed trust of Brad Hafford, as well as Adelheid Otto, that I have been able to continue this year's deciphering and exploitation of the epigraphic finds of the fourth season (autumn 2022). To all of them goes my gratitude: as will be seen, the present study has greatly benefited from recent findings in the field. It has also benefited from the work undertaken under my direction as part of the ANR-funded "EcritUr" project (2018–21) during which this paper was developed: I wish to thank the ANR for its support and the members of my team for their enthusiasm (see Charpin et al. 2020).

This contribution has already been announced under different titles:

– "Le pillage d'Ur et la protection du temple de Ningal en l'an 12 de Samsu-iluna", to be published in ARCHIBAB 4 (in Charpin 2019a:23 n. 15 as well as Charpin 2019b:109); in the end, this contribution was not added to the eight chapters forming my contribution to ARCHIBAB 4;

– "La fin d'une ville : Ur sous Samsu-iluna", in D. Charpin & A. Jacquet (eds.), *Recherches récentes sur la ville d'Ur. Actes du colloque du Collège de France du 3–4 décembre 2020* (in Charpin 2020c:190 n. 17 and 202 n. 101); due to the pandemic, this conference could not take place.

of the Sumerian cities of the south against the suzerainty of Babylon; it is called ‘the year in which the King destroyed the walls of Ur’. The temple of Ningal had been destroyed by fire – its inner chambers and the sanctuary were filled with wood ash, and the masses of broken stone vessels from the treasury lying in the ash layer proved that the building had been looted as well as burnt. Most of the houses also bore marks of fire, the mud-brick of the upper part of their walls being burnt to a deep red and their pavements covered with charred wood. It is impossible not to connect the archaeological and the literary evidence, and we are forced to the conclusion that the phrase ‘destroyed the walls of Ur’ is an understatement of the truth and that Samsu-iluna punished the rebellion by the complete destruction of the city. The houses then were violently overthrown at one and the same time, in 1738 B.C.

In writing this, Woolley had simply forgotten the fact that a year name commemorates an event that took place in the previous year, according to a principle discovered by Thureau-Dangin as early as 1914 (Thureau-Dangin 1914, then 1918).³ The destruction of the wall of Ur, celebrated in the name of year 11, thus took place in the 10th year of Samsu-iluna. The fact that the buildings contain texts dated to the 11th year of Samsu-iluna is proof that, despite the destruction of the city wall in the 10th year, life was resumed thereafter. It should also be noted that further down (UE 7:112), Woolley refers to “the destruction of the city in Samsu-iluna’s twelfth year”, without realising the contradiction with what he wrote above.

Another argument must be added: the name of the year 11 speaks of the destruction of the wall, not of the destruction of the city. There are certainly cases where the destruction of the walls is synonymous with the destruction of the city. This is apparently the case for Mari: the name of the year 35 of Hammu-rabi mentions only the destruction of the wall, whereas it is known that the city had been destroyed. But Hammu-rabi’s attitude towards Larsa was different: he had dismantled the wall, but not the city (Charpin 2004:323). This is clearly what Samsu-iluna did in Ur in the year 10, when he took back the city after the secession of Rim-Sin II.

1.1.2 Woolley followed by everyone

Woolley’s authority is such that since then it has been repeated that it was Samsu-iluna who destroyed Ur.⁴ Limiting ourselves to recent works, we note Tim Clayden’s agreement with Woolley’s conclusion (Clayden 1996:118):

His suggestion that the destruction had been the responsibility of Samsu-iluna, who destroyed the city wall after crushing a general revolt in the south (Ungnad 1938:183, No. 156), appears acceptable.

Harriet Crawford (2015:113) wrote in a more affirmative way:

... there is no doubt about the destruction the city suffered after an ill-advised rebellion against Hammurabi’s son Samsu-iluna, who destroyed the city walls and most of the major monuments, setting fire to the residential areas. He also apparently laid waste to the surrounding countryside, breaching the canals and destroying the agricultural base, thereby making living conditions almost impossible in the ruined city.

³ There are exceptions, but in this case we are dealing with a year that changes its name along the way, due to a significant event that has occurred since the beginning of the year: however, the name of year 11 of Samsu-iluna is attested from the end of the first month (UET 5, 485, dated 29/i/Si 11; note that in YOS 12, 333, dated 1/i/Si 11, the scribe did not yet know the name of the new year and wrote the *ús-sa* formula of the previous year, Samsu-iluna 10).

⁴ Surprisingly, Gadd does not say a word about the subject in his contribution to the *Cambridge Ancient History* (Gadd 1973:220–2). I do not dispute his presentation (in Gadd 1929:189–90); he attributed the destruction of the walls of Ur to Samsu-iluna’s desire to deprive the king of the Sealand Ilumma-ili of a place to hide. But currently, the oldest mention of Ili-ma-ilu is after the year 29 of Samsu-iluna and comes from Nippur (Boivin 2018:241–4).

Igor Diakonoff was even more radical than Woolley, attributing real massacres to the soldiers of Samsu-iluna. According to him, the fifty children's graves in House Number 7 Quiet Street correspond to the pupils of Ku-Ningal's family who were killed by the Babylonian army.⁵ However, if these were traces of the destruction of Ur by Samsu-iluna's soldiers, the corpses should not have been buried before the house was burned.⁶ The explanation of these numerous burials of children is not easy, but the idea of a massacre by Babylonian soldiers is not likely.⁷

Even a very good expert on the Old Babylonian period like Marten Stol (2016:574) wrote: "It is possible that the Gipar in Ur was destroyed by Samsu-iluna together with the rest of the city in his Year 11". However, the Gipar is still attested in the year 12, as we shall see... (§3.2).

In 2019, Piotr Michalowski, generally more critical, repeated the usual line attributing the destruction of No. 7 Quiet Street to the armies of Samsu-iluna:⁸

The Ur building [i.e. no 7 Quiet Street] was *undoubtedly* destroyed at the end of Rim-Sin insurgency when Samsu-iluna's armies took over the city and inflicted their vengeance (...).

And the most recent summary of the history of Ur in the Old Babylonian period, by Katrien De Graef (2021:57), takes up the traditional consensus.

If we attempt a balance, we can say that the name of Samsu-iluna's year 11, commemorating the destruction of the walls of Ur and Uruk, refers to an event that took place in year 10. As far as Ur is concerned, it is obviously the end of the revolt of the inhabitants of the city who had rallied to Rim-Sin II, who was considered by Samsu-iluna to be a usurper: Ur was punished by the destruction of its wall, *but by no means of its houses*.

1.2. The importance of Ur to Samsu-iluna

Woolley's conclusion, universally accepted as we have just seen, also clashes with a recent observation: it is now clear how important the city of Ur seems to have been for Samsu-iluna. This is shown by the offering of a throne to the god Nanna, the patron deity of Ur, which the Babylonian king commemorated in the name of his fifth year. To this must be added the testimony of a hymn.

⁵ Diakonoff 1988:197a (*italics* are mine): "Charpin does not pay attention to the so-called "Children's Corner" — a part of the same house where nearly 50 children's burials have been found, mostly in the form of two pottery basins or pans covering each other; they all belong to the same stratum — approximately contemporary with the latest floor level — and all of them are of more or less the same size. In Woolley's expedition it was usual to throw out the bones; no anthropometric measurements were made; but judging from the photograph UE VII 27 b, 29 a and from the standard size of OB bricks visible on the photograph, it seems that the average diameter of the burials was ca. 70 cm. I have made an experiment and found out that a living 11-year old child of 135 cm height could place itself, in a contracted position, into a 70x70 cm cardboard box. I suggest that we have before us *the burials of schoolchildren massacred by the soldiers of Samsuiluna*. It is difficult to imagine that Kug-⁴Ningal could have 40 to 50 grandsons of approximately the same age, and all of them having died more or less simultaneously."

⁶ See the example of Sippar-Yahrurum where Iraqi excavators found the skeleton of a man in the ruins of a building where archives of several hundred tablets from the time of Ammi-šaduqa were discovered: Fadhil & al-Samarrae 2005:170 and 174; on these archives, see the information given by Fadhil 2014:45-6 "Erste Gruppe".

⁷ The expression "Children's corner" was obviously given on the site and appears in a single card in the catalog (UE 7:232 U.8809), but not in Woolley's text. Description of Room 5 is as follows: "In front of the altar there was an astonishing number of children's graves, 32 in all, see Pl. 29a; most of them consisted of a simple bowl with a second bowl as cover, two were pot burials and two were of the hutch type with the opening closed by a square pottery 'door' secured with string, see Pl. 97b; with them was a clay pot, Type IL/911a. For the most part they lay immediately below the paving-bricks, but some were flush with the pavement's surface and a few protruded above it and probably belonged to the later phase of the building; few had any objects with the bones" (UE 7:111). We can see to what extent the excavation lacked stratigraphic finesse: drawing conclusions of a historical order is, to say the least, risky.

⁸ Michalowski 2019:687 (*italics* are mine). It is true that in house no. 7 Quiet Street no dated text is later than the year 2 of Samsu-iluna: but on this account, nothing proves that the house was still inhabited in the time of Rim-Sin II... We must therefore think on the scale of the entire city.

1.2.1. A visit of Samsu-iluna to Ur

In 2015, Elizabeth Stone and Paul Zimansky began excavating a large Old Babylonian house north-west of the AH Quarter (“Area 3”). In 2017, they discovered the records of a Babylonian general named Abisum, who was evidently installed by Hammu-rabi to control the city: this is the first time there is such evidence of the Babylonian army’s occupation of the city.

Two of the tablets in the Abisum archives record an expenditure of fish for the “king’s meal”⁹ at the beginning of year 5 of Samsu-iluna’s reign. This shows that the Babylonian ruler had then come as far as Ur, a fact hitherto ignored.¹⁰ The purpose of his journey was clearly to offer a throne to the moon-god Nanna/Sin in person. This gift was deemed important enough by the king to be commemorated in the formula that gave its name to the year 5:¹¹ “Year when Samsu-iluna, the king, had a throne made as an offering to Nanna, his personal deity, and when he installed it in the Ekišnugal, his pure temple”. This Ekišnugal is the temple of Ur, not its namesake in Babylon.¹² One might also be tempted to interpret this formula critically: *Caesar pontem fecit*. When Samsu-iluna writes: “I installed in”, one could understand it as “I gave the order to install in”. This would be a mistake in this case: the king of Babylon obviously came in person to offer the throne dedicated to the principal god of Ur. This has been ignored until now, and this important element of the history of Samsu-iluna’s reign is revealed to us by modest accounting documents...

1.2.2. An echo in literary texts?

Such a visit clearly shows the importance Samsu-iluna attached to the ancient southern metropolis. A long-known text could be placed in this chronological context. It is a hymn addressed to King Samsu-iluna, with the formula: “O Samsu-iluna, my king!”.¹³ I had proposed that this hymn, in which the god Enki and deities of his entourage occupy a very important place, was composed on the occasion of a visit of the king of Babylon to the sanctuary of Eridu, dedicated to Enki (Charpin 1986:278–9). This visit may well have taken place early in Samsu-iluna 5, during Samsu-iluna’s stay in Ur. Babylon’s annexation of southern Mesopotamia did not prevent its kings from showing respect for this region, ancient Sumer, which they knew to be the cradle of their civilisation.

Another literary text must be mentioned here. This is the prayer for Samsu-iluna classified by the ETCSL as “Samsu-iluna G”.¹⁴ Here is the translation of the passage:¹⁵

He greeted Enki, Asalam and the son of Eridu, the great gods, while sitting majestically on the golden throne of kingship with head high in heroic strength in its midst} {(an Akkadian gloss has:) on your golden throne of kingship, whose head is raised high in the strength of

⁹ Hundreds of texts of “king’s meal” (*naptan šarrim*) were found in the palace of Mari and relate to its two last sovereigns, Yasmah-Addu and especially Zimri-Lim. These are essentially accounts for cereals intended for making breads, cakes, etc.; however, there are two counts of fish (ARM 21, 89 and 90).

¹⁰ See already Charpin 2017:1070–3.

¹¹ See Horsnell (1999:183–4), who transliterates: **mu sa-am-su-i-lu-na lugal-e ^{gk}gu-za nisag-gá ^dnanna dingir sag-du-ga-ni-ra mu-un-na-an-dím-ma (ù) é-kiš-nu-gál-(la) sikil-la-ka-na mi-ni-in-ri-a**, with the translation: “The year: Samsuiluna, the king, made a throne as an offering for Nanna, the god who begat him, (and) set it up in his pure temple Ekishnugal”. The translation of **dingir sag-du-ga-ni-ra** is literally “god of his head”, hence “personal divinity”; for this concept, see Charpin 1990.

¹² It is known from the name of Hammu-rabi’s year 3 that a temple dedicated to the god Nanna, also called Ekišnugal, existed in Babylon (Horsnell 1990:107): until now, it was not clear whether Samsu-iluna’s offering concerned the Ekišnugal of Ur. This was assumed by Marc van de Mieroop (van de Mieroop 1992: 67). But Andrew George in his book *House Most High*, written at the same time, opted for an offering in the Babylonian Ekišnugal (George 1993:114); Seth Richardson has recently followed him (Richardson 2018:167 n. 138; despite his assertion, the year 5 name of Samsu-iluna does not mention Nanna of Babylon).

¹³ TCL 16, 43, republished (with a new copy) in Durand 1976/77.

¹⁴ The website of the British Museum gives the date of acquisition of the tablet: 1902 (https://www.britishmuseum.org/collection/object/W_1902-0414-37).

¹⁵ Reference and transliteration are to be found in the ETCSL: <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.2.8.3.7&display=Crit&charenc=gcirc>. *Italics* are mine.

your heroism, may you sit majestically, *Samsu-iluna, double king*},¹⁶ *the king of Ur and king of Larsa*, the king of Sumer and Akkad.

Since this is not a royal inscription, Samsu-iluna's double title in this text has so far escaped the attention of historians: it is remarkable to see here the Babylonian king adorned with the double title of "king of Ur and king of Larsa", as Gungunum or Abi-sare were long before him. This shows the important place that Ur held in the eyes of Samsu-iluna and those of the scholars around him.

2. Samsu-iluna texts from years 10 and 11

Is it conceivable, then, that Samsu-iluna destroyed Ur? It is known that the city joined Rim-Sin II when he led a southern revolt against Babylon: the records bear witness to this, since no dated texts from Samsu-iluna for year 9 and the first seven months of year 10 were found at Ur. During this period, the texts were dated with a year-name of Rim-Sin II from the 10th of month iii to the 13th of month xii, so during more than ten months. Many authors have believed that Samsu-iluna, disillusioned, sought revenge on the people of Ur by destroying their city. But a precise chronology tells us otherwise. Rim-Sin II was defeated by Samsu-iluna; the use of Samsu-iluna's year names during the last months of year 10 and all of year 11 shows that the authority of the Babylonian king was again recognized.

2.1. Review of the texts

Marc van de Mieroop was only partly a victim of Woolley's claim that Samsu-iluna was responsible for the destruction of Ur. He wrote in his 1992 book (van de Mieroop 1992:69 (*italics are mine*)):

In Ur Samsuiluna year names only reappeared in the eighth month of that year [Si 10] and the city seems to have been recaptured with great force because Samsuiluna named his eleventh year after the destruction of the walls of Ur and Uruk, and the archaeological information indicates *a general destruction of the city in the years 1740* [n. 146: UE 8:1¹⁷]. Despite this, some resettlement must have taken place as there are three documents from Ur dated in Samsuiluna's eleventh year and one in his twelfth. What happened to Ur after the reconquest? As written documentation disappears we have to look to archaeology for information.

There are in fact more than four texts after the destruction of the city wall, which took place in the course of year 10. UET 5 gave no less than 5 texts dated between 15/viii/Si 10 and 30/xii/Si 11, to which must be added 6 texts published in YOS 12; and since 2017, four texts from the Abisum archives have been added (10/x/Si 10 to [...]/ii/Si 11).¹⁸ This is far from a "minimum activity".¹⁹ A table of these texts is published as Appendix 1 to this contribution. In total, we have fourteen texts for the seventeen months from month viii of year 10 to month xii of year 11 of Samsu-iluna, i.e. an

¹⁶ Curiously, the passage was not included in CAD Š/3: 53b-54a "*šinnû* num.; two each, in a two-to-one ratio".

¹⁷ Note 146 refers to what Woolley wrote in the introduction to the Kassite volume, where he placed the destruction of Ur by Samsu-iluna in the year 12: "(...) in the twelfth year of his son and successor, Samsu-iluna, the Sumerian spirit seems to have revived for the last time; at any rate the south rose in revolt against their Babylonian overlord, and in the struggle Ur evidently played a leading part, for when Samsu-iluna crushed the rebellion, as he did within twelve months, the year was known not as that in which the south country was conquered but as that in which the king destroyed the walls of Ur. The boast did less than justice to the facts. Not only were the great walls of defence dismantled so that not one brick was left upon another, but the whole city was given over to fire and destruction; of its public monuments not one was left, and even the houses of the private citizens were involved in the common overthrow." (UE 8:1).

¹⁸ These texts will soon be published; I quote them here under their inventory numbers.

¹⁹ In the words of M. van de Mieroop: "In his 10th year Samsuiluna recaptured U[r] with great force and, although scribes acknowledged his rule until his 12th year, subsequent activity was minimal. Samsu-iluna withdrew from southern Babylonia around that time, leaving a political vacuum" (van de Mieroop 2014–16:363b).

average of ten texts per year, considerably more than in the years before the revolt of Rim-Sin II, when there were less than six texts per year.²⁰

Samsu-iluna year 11 is attested in Ur from the beginning of month i to the end of month xii, and the seven preserved texts show nothing unusual.²¹ Everything seems to function normally: there is no break with the previous years, and in several cases the family archives that go back to Rim-Sin I continue without interruption. This is particularly true of the Ili-ippalsam archives discovered at No. 1 Store Street (AH) (Charpin 2020b) or those of Sin-išmeni, discovered during old irregular excavations (Charpin 1986:162–76).²² Prosopography shows that many of the people attested in the documents dated to the years 10 and 11 of Samsu-iluna were already known earlier. Table 1 provides some examples, without seeking to be exhaustive.

Table 1 Attestations in earlier texts

Name	Reference	Previous attestations
Urdu gudu₄.abzu	UET 5 243: 4 (15/viii/Si 10)	UET 5 95: 20 (Ha 33)
Ili-ippalsam	UET 5 202 (10/x/Si 10)	UET 5 324: 5 (30/xi/Rim-Sin II -) UET 5 302: 3 (1/xii/Rim-Sin II -) UET 5 214 (20/viii/Rim-Sin II a)
Ibbi-Lisi	YOS 12 329: 20 (30/xii/Si 10)	BIN 2 73: 14 (30/xii/Rim-Sin II a)
Sin-magir gudu₄.dub.lá.mah	UET 5 868: 21 (3/viii/Si 12)	BIN 2 75: 34 (30/iii/Si 7)
Namti gudu₄.^dnin.gal	UET 5 868: 18 (3/viii/Si 12)	YOS 12 297: 19 (16/iv/Si 8)

2.2. The meaning of the name of the year 12

What does the name of the year 12 say? It mentions a revolt, so an event that took place in year 11:²³

The year in which King Samsu-iluna, against whom all the enemy countries had rebelled, defeated the army of Sumer and Akkad thanks to the superb strength that Marduk gave him.

It should be noted that there is no specific mention here of a revolt of Ur, let alone a destruction of the city. And it should be remembered that Samsu-iluna's year 11 is attested in the Ur documentation until the last day, the 30th day of month xii. It is therefore not possible for Samsu-iluna to have destroyed Ur in his eleventh year. The question of who was responsible for the destruction of Ur, revealed by the excavations in an unmistakable way, is therefore still open.

3. A new proposal: a city abandoned by its inhabitants

It seems to me that a new solution can be proposed based on the observations made in 2017 in the house of the Babylonian general Abisum.

²⁰ There are a total of 60 texts dated to Samsu-iluna (17 in UET 5, 16 in Ormsby 1972, and 26 from irregular excavations). If we stick to the texts prior to Rim-Sin II, we have 46 texts over 8 years, so an average of 5.75 texts per year. See the catalogue in Charpin 2020a:79–83, where the unpublished texts of Abisum's archive are not quoted.

²¹ Except perhaps the text UET 5, 268 which speaks about the corvée of masons in Kar-Šamaš. B. Fiette was able to establish that this toponym is to be situated between Larsa and Ur (Fiette 2017). This text could show that it was necessary to do reconstructions after the troubles of the previous year; see Charpin 2020b:96–8 and 100.

²² The only observable break is in the archive of the steward Ana-pani-ilim, which includes 21 tablets dated from Samsu-iluna 6 to Rim-Sin II, but nothing later (Charpin 1986:122–9).

²³ **mu sa-am-su-i-lu-na lugal.e kur gú.si.a an.ga.àm mu.un.da.bal.eš.àm usu mah ^damar.utu.ke₄ mu.un.na.an.sum.ma.ta ugnim ki.en.gi ki.uri ^gtukul.ta bí.in.sig.ga**; see Horsnell 1999:197.

3.1. Looting of houses

The remains of the Abisum archive (just over forty tablets and fragments) were found around and inside the burial vault. The tablets were not deliberately placed in the vault, but fell into it when the vault was violated during the sacking of the house. The case of two other houses where archives were found by Woolley in tombs must be interpreted in the same way (Charpin 2020b). It is therefore clear that looting immediately followed the abandonment of the houses by their inhabitants, who left their archives there, at least in part. The houses were looted just after the flight of their inhabitants, thus after the end of the year 11 of the Babylonian king Samsu-iluna. It should be remembered that no text from the southern Babylonian kingdom is dated to Samsu-iluna's year 12.²⁴

3.2. Protection of the *Giparku*

There is, however, one exception: a UET 5 tablet from Samsu-iluna year 12, which is from month viii.²⁵ Thanks to Ur-online, we know that the tablet in question was found in the *Giparku*,²⁶ a building that served both as a residence for the entum-priestess of the god Nanna and as a temple for his wife, the goddess Ningal. This tablet establishes that three men were responsible for the duties of sweeper and doorkeeper of the Ningal temple in relation to the palace for a period of six months, from month viii of Samsu-iluna 12 (date of the text) to the first month of the following year. What is very interesting is that the commitment is made to the palace, that is to say to the Babylonian authority.²⁷

However, it is necessary to take into account the nature of the prebends which are the subject of this text: they are the offices of sweepers and of doorkeepers. Until now, the prebends of doorkeepers have probably not been understood in their reality: the individuals holding this office had to prevent

²⁴ The latest dates are:

- in Girsu (= Tello), 10/xii/Samsu-iluna 10: TCL 1, 129 (grazing contract);
- in Bad-tibira (= Tell al-Madīna), 1/iv/Samsu-iluna 11: Jean 1923, 184;
- in Larsa (= Sinkara), -/vi/Samsu-iluna 11: Arnaud 1976:75 no. 171 (archives of Šamaš-liwuir, lawsuit). An even more recent text, from the clandestine excavations at Larsa, [x]+3/viii/Samsu-iluna 11: TCL 11, 220. Add for Larsa the evidence of the king list YOS 1, 32, which attributes 12 years to Samsu-iluna and surely comes from Larsa or its surroundings (cf. Wagensonner 2022: 227 and 231);
- in Kutalla (= Tell Sifr), 10/xi/Samsu-iluna 11: TS 84 (Charpin 1980:195)

²⁵ The discovery in Ur of a tablet dated to the year 12 of Samsu-iluna did not fail to cause problems. In fact, some authors have simply forgotten about it, such as Leemans in his review of UET 5: “As in the case of Larsa and Kutalla, likewise no documents from Ur have been published, dated after the 11th year of Samsuiluna (last texts of Larsa: TCL XI. 220, of Kutalla: Tell Sifr 84, of Ur: UET 5:485)” (Leemans 1955:115b). For his part, Gasche had noted that “Le seul texte daté de Si 12 semble avoir été trouvé à Ur, mais sa provenance exacte n’est pas connue” (Gasche 1989:134). Cf. also Gasche 1989:131 n. 364: “Les documents les plus récents remontent à une période qui se situe entre la fin de l’an 10 et le début de l’an 11 de Samsu-iluna. Il existe un seul texte daté de la douzième[sic] année (FIGULLA, 1953, 868), mais sa provenance exacte n’est pas connue, cf. L. WOOLLEY & M. MALLOWAN (1976, 223, sub U.6393)”.

²⁶ H. Gasche was the victim of an error by Figulla on this point; in Charpin 1986:209 and n. 2, I have noted after Figulla the reference as U.6393. M. van de Mieroop subsequently corrected Figulla's error: “The tablet itself has the excavation number U6398 written on it, and it must be the single ‘business document dated to the First Dynasty of Babylon’ found in Room C.23 of the *giparku* noted by Woolley (UE 7 58)” (van de Mieroop 1989:250 ad P. 209 n. 2; unfortunately, he did not give the IM number of the tablet). The catalogue card is now available on-line (http://www.ur-online.org/media_item/243195/): “Clay tablet U.6398. Receipt. Dated year KUR GÚ.SI.A [written in cuneiform]. Samsu-iluna year 12. HC. KP. H3.”

²⁷ To this document must be added two tablets which have lost their inventory number but which must have the same provenance: UET 5, 870 and its near-duplicate 871 (see Charpin 1986:264-5; www.archibab.fr/T12932 and www.archibab.fr/T12933). In these two texts, we see an indeterminate amount of work being distributed over three decades in the first five or six months of the year among five individuals. Now one of them, Namti, is known as the prebendary (**gudu**) of Ningal in YOS 12, 297:19 (Samsu-iluna 8). So there is a strong likelihood that here too the responsibility of the prebendaries for Samsu-iluna year 12 is spread over time, as in UET 5, 868. I had thought that these three texts were written because of calendar problems (because of the leap months), but my first explanation was better: “Cette réorganisation a été rendue nécessaire par un contexte politique très troublé: ‘usurpation’ de Rim-Sin II, reprise de la ville par Samsuiluna dans la seconde moitié de sa dixième année de règne” (Charpin 1986:210). But we can—and should—go further.

possible thieves from entering the temple—or at least from leaving it.²⁸ This text thus shows how the guard of the temple of the goddess Ningal was reorganised in month viii of Samsu-iluna year 12 for the next six months. This was obviously to prevent looters from lurking about and taking the treasures still in the sanctuary And the text records a commitment made by the three officials to Samsu-iluna: this confirms that the threat to be fought did not come from the soldiers of Samsu-iluna.

3.3. The looting of the Giparku

In the end, what was intended to be avoided happened: the Giparku was looted and destroyed. The many traces of destruction found during the excavation and attributed by Woolley to Samsu-iluna were in fact due to looting – and particularly in the area of the tombs: this is where the looters hoped to find the most valuable offerings.²⁹

Marc van de Mieroop proposed another analysis. After taking into account the text UET 5, 868, he stated (van de Mieroop 2011:334 (*italics are mine*)):

Samsu-iluna's administration showed thus concern for the Giparu and its cult, two years after the reconquest of Ur, and it seems unlikely that the building had been burned down before his 12th year. (... The Babylonian troops) were then not responsible for the sack of the building. That could have happened during the subsequent rebellion against Samsu-iluna, *or more likely its suppression*, reported in that king's 14th year name 'Samsu-iluna, the king by [h]is great power slaughtered the rebellious enemy kings who had caused Akkad to revolt with their own weapons', even if Ur is not mentioned as a participant. The severity of the destruction as noticed in the archaeological record may signal the frustration this king felt after dealing with repeated revolts in his southern territories.

We see that this new scenario still attributes the destruction of Ur to Samsu-iluna, but postpones it to year 13, the event being commemorated in the name of year 14. The problem is that the wording of the year names must be taken seriously: "Akkad" cannot refer to the region of Ur.³⁰ Such an interpretation seems to me to be excluded. It would also not help to understand why, with the exception of UET 5, 868, there are no texts in Ur after the end of Samsu-iluna year 11.

4. Conclusion

The parallel with Uruk seems to me very instructive. At Uruk, once the usurper Rim-Anum was defeated by Samsu-iluna, there was no reoccupation under the Babylonian rule. The most recent tablets date from the rebel king Rim-Anum; there is no tablet dated by Samsu-iluna year 10 or 11. The traces of fire in the palace of Sin-kašid are attributable to the Babylonian army (cf. Charpin 2021); and we know that the inhabitants of Uruk went into exile in North Babylonia, in the region of Pi-kasi and Kiš.

The situation in Ur was quite different. The city had joined the rebellion of Rim-Sin II, which had started in Larsa. Ur was recaptured by Samsu-iluna before month viii of year 10 and its wall destroyed; year 11 seems to have been normal, Babylonian rule having been restored. A new revolt against Samsu-iluna seems to have broken out at the beginning of year 12. Among the inhabitants of Ur who rallied to the Babylonians, some chose the path of exile, abandoning their homes. But others, probably fewer in number, decided to resist the rebels: we still see some of them guarding the temple of Ningal in month viii of Samsu-iluna 12. Despite their efforts, the city was then completely

²⁸ For a text showing the involvement of doorkeepers in the theft of gold and silver from a temple in Nippur, see the letter of Samsu-iluna AbB 11, 161.

²⁹ For the plundering of the tombs of the entums of Gipar-ku, compare the riches of the tomb of the entum of Nanna at Karzida in the time of Ur III (Sallaberger 1995).

³⁰ See the full name of year 11; see my comment in Charpin 2004:341 n. 1781.

looted and destroyed. Who were these looters?³¹ One can recall what happened in Larsa after the capture of the city in 1763: while Hammu-rabi and his allied armies were still present, a troop of about fifty Suteans based at Udannum approached the city to plunder it.³² Now this city is located in the Sealand.³³ Although there is no precise evidence for Ur under Samsu-iluna, one can think of an attack of the same kind.³⁴

One may find the choice of topic for my paper not very appropriate in a conference intended to celebrate the centenary of Woolley's excavations of Ur. But commemoration can perfectly well be accompanied by critical distance. Woolley did a sufficiently remarkable job for us not to retain all the conclusions of his work today. And it is in good part thanks to the data that he himself discovered that we can today give a different interpretation of the end of Ur at the time of Samsu-iluna: it exempts the king of Babylon from the responsibility of the destructions noted by Woolley.

³¹ This question had not been addressed during the colloquium: the following lines constitute a new hypothesis.

³² See ARM 27, 161:33, 37 (*ú-da-nim^k*).

³³ M. Birot (Birot 1993:272 n. m) had made a connection between the name of « Udânum » and that of EZENxSIG₇ = Kissik, without knowing yet the study devoted to this city by P.-A. Beaulieu (1992). The reference to this ARM text was missed by O. Boivin (2018:62).

³⁴ We now know what happened in the following years: the rise of a new dynasty, that of the 'Sealand'. However, the texts dated by kings of this dynasty do not begin until after the year 29 of Samsu-iluna in Nippur and none has been found so far in Ur (cf. Boivin 2018; for the texts discovered in Tell Khaiber, see E. Robson in Campbell et al. 2017:28–33). It can be assumed that the withdrawal of the Babylonians in Samsu-iluna year 12 caused changes in the regional political game that led a few years later to the proclamation of Ili-ma-ilu as king.

Appendix 1: Texts from after destruction of city-wall

Date	Reference	Commentary
15/viii/Si 10	UET 5 243	Rental of a house belonging to Iddin-Ningal by the <i>gudapsûm</i> Urdu (= Urdubšenna) (www.archibab.fr/T23845)
10/x/Si 10	UET 5 202	Rental of a house belonging to Ili-ippalsam (www.archibab.fr/T13033)
10/x/Si 10	Ur 2017-2687	Lease by General Abisum and Colonel Ahuwaqar of a field belonging to Nur-Ištar
10+/x/Si 10	Ur 2017-3141	Loan of 1 shekel of silver by Abisum and Ahu-waqar to Sin-iqulam S. Šumma-ili
19/x/Si 10	Ur 2017-3227	By order of the king, assignment to the swamp district of two individuals, subordinate to Colonel Ea-muballiṭ under Iddin-Sin ([...], whose replacements are [...]-mušallim and Uri-lišer, subordinate to Colonel Gimil-ili under General Abisum .
11/xii/Si 10(?) ³⁶	YOS 12 354	Hiring by Ba'amu of the journey of a divine symbol from the hands of Sin-išmeni , with half-fruit sharing of the grain and of all that will be produced (Charpin 1986:167; www.archibab.fr/T5307)
30/xii/Si 10	YOS 12 329	Account for the rent of a prebend paid by Sin-išmeni to Inbi-ilišu son of Bitum-rabi. Inbi-ilišu seals a receipt for 3 silver shekels paid by Sin-išmeni (Charpin 1986:166; www.archibab.fr/T5304)
1/i/Si 11	UET 5 485	Distribution of grain to 10 men, including a weaver and a brewer (www.archibab.fr/T12551)
1/i/Si 11	YOS 12 333	Hiring by Sin-imnanni and Uri-lišer of Adad-tayyar from Muhadditum (www.archibab.fr/T24616)
[...]/ii/Si 11	Ur 2017-3146	Purchase of a slave by [Abisum (?)] to E-[...]
10/ii/Si 11(?)	YOS 12 543	Lease of a 10-acre field belonging to Ištar-Illum by Ilšu-ibbišu, Bal'a and Ištar-Illum, to cultivate sesame in association (<i>ana tappûtim</i>) (www.archibab.fr/T22373)
19/iv/Si 11	UET 5 268	Responsibility for a laborer's chore in Karra-Utu (Kar-Šamaš) (https://www.archibab.fr/T6275)
10/vi/Si 11	YOS 12 349	Date account (www.archibab.fr/T6343)
30/xii/Si 11	YOS 12 356	Repayment to the sons of Šilli-Adad and sharing between Ba'amu, Sinni, Sin-išmeni and Lipit-Eštar of the fruits of the journey of a divine symbol (Charpin 1986:168–9; www.archibab.fr/T5308)
3/viii/Si 12	UET 5 868	Rotation of prebendaries in the temple of Ningal (Charpin 1986:209; https://www.archibab.fr/T6299)

³⁶ Note that the scribe has left the list of witnesses blank. The date is a problem: (12) **iti še.kin.ku₅ u₄ 11.kam** (13) **mu sa-am-su-i-lu-na** (14) **luga₂.e** (T.15) **ús.sa ug<nim> a-da-ma-ra-aš** (16) **ù ia-mu-ut-ba-l[um]**. It is 11/xii/Samsu-iluna 10 rather than 11/xii/Si 11 (the latter date is used in YOS 12, p. 14). In the archives of the same Sin-išmeni, YOS 12, 356 is normally dated to 30/xii/Samsu-iluna 11. For the variant *a-da-ma-ra-aš*, see UET 5, 202:19.

Bibliography

Abbreviations

ARM	Archives Royales de Mari
BIN	Babylonian Inscriptions in the Collection of James B. Nies
CAD	The Assyrian Dictionary of the Oriental Institute of the University of Chicago
ETCSL	Electronic Text Corpus of Sumerian Literature
RIA	Reallexikon der Assyriologie und verwandte Gebiete
TCL	Textes Cunéiformes du Louvre
Ur Excavations	
UE 7	Woolley & Mallowan 1976
UE 8	Woolley 1965
Ur Excavations Texts	
UET 5	Figulla & Martin 1953
YOS	Yale Oriental Series - Babylonian Texts

- Arnaud, D. 1976. "Larsa. Catalogue des textes et objets inscrits trouvés au cours de la sixième campagne", *Syria* 53:47–81.
- Beaulieu, P.-A. 1993. "Kissik, Dūru and Udannu", *Orientalia* 61:400–24.
- Biro, M. 1993. *Correspondance des gouverneurs de Qatunân* (ARM 27). Paris: ERC.
- Boivin, O. 2018. *The First Dynasty of the Sealand in Mesopotamia* (SANER 20). Boston/Berlin: de Gruyter.
- Campbell, S. et al. 2017. "Tell Khaiber: An Administrative Centre of the Sealand Period", *Iraq* 79:21–46.
- Chambon, G., Guichard M. & Langlois A.-I. (eds.) 2019. *De l'argile au numérique. Mélanges assyriologiques en l'honneur de Dominique Charpin* (PIPOAC 3). Louvain/Paris/Bristol: Peeters.
- Charpin, D. 1980. *Archives familiales et propriété privée en Babylonie ancienne: étude des documents de "Tell Sifr"* (HEO 12). Genève-Paris: Droz.
- 1986. *Le clergé d'Ur au siècle d'Hammurabi* (HEO 22). Genève-Paris: Droz.
- 1990. "Les divinités familiales des Babyloniens d'après les légendes de leurs sceaux-cylindres", in Tunca 1990:59–78.
- 2004. "Histoire politique du Proche-Orient amorrite (2002-1595)", in Charpin, Edzard & Stol 2004:25–480.
- 2017. "Nouvelles découvertes épigraphiques à Ur (2015 et 2017)", *Comptes rendus de l'Académie des Inscriptions et Belles-Lettres* 161/2:1063–81.
- 2019a. "Priests of Ur in the Old Babylonian Period: a Reappraisal in Light of the 2017 Discoveries at Ur/Tell Muqayyar", *Journal of Ancient Near Eastern Religions* 19:18–34.
- 2019b. "Quelques aspects méconnus du statut et du rôle des quartiers-bâbūm dans les villes paléo-babyloniennes", in Valentini and Guarducci 2019:100–12.
- 2020a. "Les archives d'Apil-Ašnan et de ses voisins sous Samsu-iluna et Rim-Sin II", in D. Charpin et al. 2020:61–84.
- 2020b. "Les tablettes retrouvées dans des caveaux funéraires d'époque paléo-babylonienne à Ur", in D. Charpin et al. 2020:87–118.
- 2020c. "Enanedu et les prêtresses-enum du dieu Nanna à Ur à l'époque paléo-babylonienne", in D. Charpin et al. 2020:187–210.
- 2021. "Uruk à l'époque paléo-babylonienne", in van Ess (ed.) 2021:79–104.
- Charpin, D., D.O. Edzard & M. Stol 2004. *Mesopotamien. Die altbabylonische Zeit 4* (Orbis Biblicus et Orientalis 160/4). Fribourg/Göttingen: Academic Press/Vandenhoeck & Ruprecht.
- Charpin, D. et al. 2020. ARCHIBAB4. *Nouvelles recherches sur les archives d'Ur d'époque paléo-babylonienne* (Mémoires de NABU 22). Paris: SEPOA. <https://sepoa.fr/produit/2020-memoires-de-nabu-22-pdf/>.
- Clayden, T. 1996. "Kurigalzu I and the Restoration of Babylonia", *Iraq* 58:109–21.
- Crawford, H. 2015. *Ur. The City of the Moon God*. London/New York: Bloomsbury.
- De Graef, K. 2019. "Bad Moon Rising: The Changing Fortunes of Early Second-Millennium BCE Ur", in Frame, Jeffers & Pittman 2019:49–87.
- Diakonoff, I.M. 1988. Review of Charpin 1986, *Archiv für Orientforschung* 35:191–7.
- Durand, J.-M. 1976/77. "Sumérien", *Annuaire de l'École pratique des hautes études*, IVe Section:155–76 http://www.persee.fr/doc/ephe_0000-0001_1976_num_1_1_6241.
- Ess, M. van (ed.) 2021. *Uruk. Altorientalische Metropole und Kulturzentrum, 8. Internationales Colloquium der Deutschen Orient-Gesellschaft 25.-26. April 2013, Berlin (CDOG 8)*. Wiesbaden: Harrassowitz.

- Fadhil, A.A. 2014. "Die neuen spätaltbabylonischen Briefe des 'königlichen Barbiers' aus Sippar", *Revue d'assyriologie et d'archéologie orientale* 108:45–60.
- Fadhil, A.A. & al-Samarraee, Z.R.A. 2005. "Ausgrabungen in Sippar (Tell Abu Habbah) - Vorbericht über die Grabungsergebnisse der 24. Kampagne 2002", *Baghdader Mitteilungen* 36:157–226.
- Fiette, B. "Note sur les toponymes du Sud mésopotamien, 3: Kar-Šamaš", *NABU* 2017 no. 70.
- Figulla, H.H. & W.J. Martin 1953. *Ur Excavations Texts V. Letters and documents of the Old Babylonian Period*. London: Printed by order of the Trustees of the Two Museums.
- Fink, S. & R. Rollinger (eds.) 2018 *Conceptualizing Past, Present and Future. Proceedings of the Ninth Symposium of the Melammu Project Held in Helsinki / Tartu May 18–24, 2015* (Melammu Symposia 9). Münster: Ugarit Verlag.
- Frame G., J. Jeffers & H. Pittman (eds.) 2019. *Ur in the Twenty-First Century CE, 62nd Rencontre Assyriologique Internationale, University of Pennsylvania, July 11–15 2016* (Rencontre Assyriologique Internationale Proceedings 9). University Park: Eisenbrauns.
- Gadd, C.J. 1929. *History and monuments of Ur*. London: Chatto & Windus.
- 1973. "Hammurabi and the End of his Dynasty", in *Cambridge Ancient History* (Third edition) 2/1:176–227. Cambridge: Cambridge University Press.
- Gasche, H. 1989. *La Babylonie au 17^e siècle avant notre ère: approche archéologique, problèmes et perspectives* (Mesopotamian History and Environment Memoirs 1). Ghent: Rijksuniversiteit Ghent.
- George, A. 1993. *House Most High. The Temples of Ancient Mesopotamia* (MC 5). Winona Lake: Eisenbrauns.
- Horsnell, M.J.A. 1999. *The Year Names of the First Dynasty of Babylon. Volume 2. The Year-Names reconstructed and Critically Annotated in Light of their Exemplars*. Hamilton: McMaster University Press.
- Jean, C.-F. 1923. *Šumer et Akkad*. Paris: P. Geuthner.
- Leemans, W.F. 1955. "The Old Babylonian Business Documents from Ur", *Bibliotheca Orientalis* 12:112–22.
- Michalowski, P. 2019. "Memories of Rim-Sin II", in Chambon, Guichard & Langlois 2019:669–92.
- Ormsby, D. 1972. "An Old Babylonian Business Archive of Historical Interest", *Journal of Cuneiform Studies* 24:89–99.
- Radner, K., N. Moeller & D.T. Potts (eds.) 2022. *From the End of the Third Millennium BC to the Fall of Babylon* (Oxford History of the Ancient Near East 2). New York: Oxford University Press.
- Richardson, S. 2018. "Sumer and Stereotype: Re-forging a 'Sumerian' kingship in the Late Old Babylonian Period", in Fink & Rollinger 2018:145–86.
- Sallaberger, W. 1995. "Eine reiche Bestattung im neusumerischen Ur", *Journal of Cuneiform Studies* 47:15–21.
- Stol, M. 1986. *Letters from collections in Philadelphia, Chicago and Berkeley* (Altbabylonische Briefe 11). Leiden: E.J. Brill.
- Stol, M. 2016. *Women in the Ancient Near East*. Berlin/New York: de Gruyter.
- Thureau-Dangin, Fr. 1914. "Notes assyriologiques XXIV. Une inscription datée du règne de Narâm-Sin", *Revue d'assyriologie et d'archéologie orientale* 11/2:88–91.
- 1918. "La chronologie de la dynastie de Larsa", *Revue d'assyriologie et d'archéologie orientale* 15:1–57.
- Tunca, Ö. 1990. *De la Babylonie à la Syrie, en passant par Mari. Mélanges offerts à Monsieur J.-R. Kupper à l'occasion de son 70^e anniversaire*. Liège: Université de Liège.
- Valentini, S. & G. Guarducci (eds.) 2019. *Between Syria and the Highlands. Studies in Honor of Giorgio Buccellati & Marilyn Kelly-Buccellati* (SANEM 3). Rome: CAMNES.
- van de Mieroop, M. 1989. Review of Charpin 1986, *Journal of Cuneiform Studies* 41:237–52.
- 1992. *Society and Enterprise in Old Babylonian Ur* (BBVO 12). Berlin: Dietrich Reimer.
- 2011. "Hammurabi's self-presentation", *Orientalia* 80:305–38.
- 2014–16. "Ur. A. II. Philologisch. Im frühen 2. Jahrtausend", in *RIA* 14: 361–4. Berlin/New York: de Gruyter.
- Wagensonner, K. 2022. "The Middle East after the Fall of Ur: Isin and Larsa", in Radner, Moeller & Potts 2022:190–309.
- Woolley, L. 1965. *Ur Excavations Volume VIII. The Kassite Period and the Period of the Assyrian Kings*. London: Published for the Trustees of the Two Museums.
- Woolley, L. & M.E.L. Mallowan 1976. *Ur Excavations Volume VII. The Old Babylonian Period*. London: Published for the Trustees of the two Museums by British Museum Publications Limited.

Were there Royal herds?

The animals from the Early Dynastic Royal Cemetery of Ur

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Abstract

Mesopotamia, during the third millennium BC, was the location of mature city-states governed by dynastic rulers. Analysis of cuneiform texts suggests that Mesopotamian city-state societies were agrarian based with powerful institutions at the core of their economic structure. Sumerian society was inherently hierarchical and nowhere is this more evident than in the Royal Cemetery of Ur during the Early Dynastic Period (2900–2350 BC). With status comes the privilege of access to the highest quality of animals—for both consumption and display in both life and death. Separate access and management of high value animals was thought to be an indicator of status and was mentioned as such in cuneiform texts that describe ‘Royal herds’ belonging to the elite buried at the Cemetery. This paper examines both the range of animals found within the Royal tombs and the non-Royal Private Graves, and the idea of a Royal herd of cattle specifically managed for the elite to access both in life and in death.

Introduction

Ancient Mesopotamia provides the earliest texts in the world. They are rich in the description of Sumer in the third millennium BC. It is a time associated with dynastic struggles and increased political centralisation (Adams 1965; 1974; 1981). While cuneiform texts document the movement of animals and people across the region (Postgate & Powell 1984; 1985; 1987; Englund 1995), their focus is on the needs of institutions and the elites. In order to approach the issue whether animal consumptions and management were organised and segregated by and for elites, data from the Early Dynastic Royal Cemetery of Ur are subjected to zooarchaeological and isotopic analyses from both Royal and private (non-Royal) burial contexts at Early Dynastic Ur (2900–2350 BC). Assumptions prevail that the Royal population at Ur would eat better than the lower stratum of society and that the Royal animals were managed separately as a ‘Royal herd’. A reanalysis of the animals from the Early Dynastic Royal Cemetery is the opportune approach to test prevailing assumptions regarding access to high value status animals and to determine if indeed the animals buried within Private Graves (Royal and non-Royal) were managed differently, subsequently deposited as grave goods, and reflective of status of the dead.

Initial questions and investigations

According to Pollock (2007), differences among the burials can be attributed to distinctions among different households, regardless of temple or palace institutional ties (Pollock 2007). The tombs then do not necessarily represent competition between temple and palace but rather intra-elite competition within society itself. To more fully understand these early cities and their economic organisation, it is necessary to investigate their systems of animal management. Urban economies all have similar economically-related activities (production, distribution, consumption and disposal) which can, through zooarchaeological analyses, inform on the larger economic systems of animal

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management, husbandry strategies and mobility, and social differentiation (Becker 1998; Smith 2004; Smith & Schreiber 2005; Manning & Morris 2007; Reitz & Wing 2008; Albarella & Trentacoste 2011; Rainville 2012; Greenfield & Wicke 2013).

Animals in the Royal Cemetery

With Pollock's theory in mind, did the Royal households have access to a different group of animals, to eat and for their burials, that stood out from the other elite populations? Were animals from elite graves valued and well fed, as their context might suggest, or were they selected at random from available herds that might have been raised under less optimal conditions? In order to answer these questions, the re-investigation of both Royal and non-Royal animal remains from the Royal Cemetery burials affords a unique opportunity to address this issue.

The animal data from the graves in the Royal Cemetery at Ur deliver information on political economy, status, and consumption preferences, animal husbandry practices. Differential access to food resources is often considered a function of status in early city-states. It is commonly assumed that individuals with elite status would have access to better quality meat than others within a community (Reitz 1987; Wattenmaker 1987a, b; Zeder 1991; Wattenmaker 1994, 1998; Grant 2002; Lapham 2004; deFrance 2009; Curet & Pestle 2010; Greenfield 2014; 2015). Consequently, the faunal material from Royal and non-Royal graves is expected to be different. Comparison of different archaeological deposits can be used to investigate status, diet and the political economy associated with food management and ritual behaviour (Greenfield 2014; 2015).

How did these animals die?

Questions have long existed concerning the cause of death of the cattle specifically for the Royal burials. Suggestions range from a blunt (or sharp) force to the head, or the possibility that the cattle (like the attendants) had been given a liquid substance (possibly arsenic or poison) to either quickly or slowly die (Baadsgaard et al. 2011). Another suggestion was that the bovines (domestic cattle), once positioned had their throats cut (see footnote 6). Scientific studies up to this point have not yet found conclusive evidence for any of the posed theories. It is interesting to note that while Woolley (the excavator) proposed that the attendants in the royal graves had their throats cut, he did not posit how the animals died (UE 2).

Were there Royal herds?

Additionally, questions have been raised as to the role (in life and death) of the cattle found in the Royal tomb. Scholars who studied the texts suggested that the domestic cattle in the Royal graves were occasionally used as burial gifts were slaughtered as sacrificial animals by the deceased king “for the banquet” (in the netherworld).² In other—literary—contexts, cattle were interpreted as draught animals. After examination of the osteological remains of the cattle, no evidence of traction or cut marks to prove or disprove these theories has been found. Perhaps the cattle were simply used for conspicuous consumption during the burial ceremony, or their presence is a more ritual significance (for use in the afterlife)? Suggestions have also been made that these animals were reared differently from birth and fattened with a special diet of barley and only perfect specimens were chosen for sacrifice. If this was the case, it is possible to determine if there was in fact a special Royal herd that was managed differently, or that only Royalty had access to high value animals.

² See (Lau & Gamerschlag 2015: 27.38 The Death of Ur-Namma (ETCSL 2.4.1.1), lines 81–2. (=Flückiger-Hawker 1999: 116 and 172).

Royal vs. Non-Royal graves

Grave determinations (Royal or private/non-Royal) were based on Woolley's 1934 publication of the graves and his own designations (UE 2).³ It is important to note Woolley personally chose select animal osteological elements from select graves to ship back to the UK from both the Royal and Private Graves, and these are not necessarily fully representative of the species and elements from the original grave deposits. This assemblage, which is now housed in the Natural History and British Museums in London (UK), is a small fraction (>10%) of the total animal remains from within the Royal Cemetery burials. While the assemblage is biased, and not necessarily wholly representative of consumption/ritual patterns of disposal, it still provides useful insights into species diversity, status, and animal management, primarily during the ED III.

The zooarchaeological data

The faunal assemblages from Woolley's excavations come from both Royal and Private non-Royal graves in the Royal Cemetery, plus additional non-cemetery contexts.⁴ The domestic cattle and most of the comparative material from Ur came to the British Museum (BM) in 1919 and 1927–30. The animal bone assemblage from the Royal graves consists of four domestic female cow heads and associated skeletal elements, while that from the private/non-elite graves and other contexts comprises a wider range of species and elements. The collection was subsequently divided between the British Museum including PG800 (Pu'abi's Grave) and PG789 (The King's Grave), and the Natural History Museum–London (NHM) which housed a collection of species from non-Royal graves and other contexts.

Methods

Identification

Faunal remains for all contexts were studied and identified to species or genus level, skeletal element, sex, age, pathologies, cultural modifications and taphonomic indicators. Cattle molar teeth were subsequently selected for further scientific analyses.

Quantification

The available zooarchaeological remains from the British Museum, and Natural History Museum that date to the Early Dynastic period total 76 specimens out of a total of 212 (N)ISP (Number of identified specimens). The Early Dynastic specimens (N=59) include species from the Royal Graves, and Private Graves (PG). Other deposits such as footpaths, floors, disturbed contexts and uncertain chronological features were not included in this analysis. Identification to species was possible due to the good condition of the remains from the Private Graves. In contrast the cattle from the Royal tombs were in relatively poor condition especially the cranial elements, excluding the teeth which were intact and suitable for ageing and isotopic studies.

³ Note on the terminology: the use of the terms Royal and non-Royal as opposed to elite versus non-elite is a conscious choice since some of the Private Graves could potentially be elite based on their other grave goods aside from animal remains. This distinction then allows for the acknowledgment that there is a sliding scale and relative designation to the term elite that might cause some confusion or blurring of the lines when discussing issues of status.

⁴ While the two zooarchaeological collections at the British Museum and Natural History Museum in London are the largest of what Woolley chose to bring back from the Royal Cemetery, there exist some botanical and human remains found recently in Bristol, UK that are now housed at the BM. These faunal collections make up a large percentage of the animal remains from the Royal Graves—Woolley's reports suggest there were other small deposits of animal bones in the tombs some of which were not shipped back to the UK (see UE 2:409-10 for a list of species and elements included).

Taphonomy

The specimens from the Natural History Museum were in good condition with a very light weathering pattern. This good preservation allowed for the easy identification of marks on the bones such as polish and butchering activity, as well as other indicators of health such as pathologies or ancient breaks. In contrast, the remains of the cattle from the BM were in relatively poor condition, especially the cranium and mandible for specimens from Grave 789. The teeth, however, were in good condition and unbroken, hence suitable for ageing and isotopic sampling.

The Royal Graves (BM collection)

Remains of the four female cattle held in the BM collection were fully identified for information related to age, health, sex, butchering marks and pathologies. Available elements included the cranium, mandible and maxilla, teeth and various elements from the appendicular skeleton. The animals were all killed and sacrificed during the prime of life (three years old) and presumably chosen as high status (conspicuous consumption) grave goods. Samples BM 1–4 all came from graves designated as Royal by Woolley.

PG789 (The King's Grave)

Animals located in the outer chamber of this tomb complex included six cattle, harnessed to two carts. Two cattle from this grave were available for identification, analysis and isotopic sampling. Each specimen was still covered in the original paraffin wax bandages Woolley used to stabilize the specimens for export to the UK.

Specimen #BM1

Specimen One (1935.1.16,16) was originally identified as an equid. Due to its condition, Paraffin was applied to stabilise the bones (Fig. 1). Only the cranium (skull) survived and was exported, along with a copper collar still attached to the specimen, as was a silver nose ring. Similar to the cattle from PG800, the skull was presumably exported because it was attached to this valuable object. While this specimen was very fragmented and was poorly preserved, it was still possible to age this animal to c.3 years old, similar to the cattle in PG800.



Fig. 1 Specimen BM1 (1935.01.16,16) from PG789 "The Kings Grave" (Greenfield 2014)



Fig. 2 Specimen BM2 (1935.01.16,17) from PG789 "The Kings Grave" (Greenfield 2014)

Specimen #BM2

The second bovine individual from this grave was the most intact of the three sampled, with the whole skull and both sides of the mandible present (Fig. 2). Similar to the other specimens, the age

of this animal was approximately three years old, and there was no evidence of pathologies or cause of death.

PG800 (Queen Pu'abi)

The outer section of this tomb complex included humans (presumably as sacrifices), a large wooden chest and a sledge to which two cattle were harnessed. Woolley originally published these animals as equids (UE 2:74, 78); however, some decades later he confirmed they were in fact domestic cattle.⁵ While Woolley did not report the presence of various other animal offerings (including sheep/goat), several hundred fragments were found within this tomb placed in an ancient strainer and are presumed to be remnants of these sacrifices for the deceased in the afterlife” (Ellison et al. 1978:174, 176). Most of these remains do not appear to have been collected and exported.

Specimen #BM3

One bovine specimen from this grave was identified, analysed and sampled for isotopic studies (BM3). This animal, one of the two cattle attached to the sledge, still had an embossed copper collar attached to its body when exported (Fig. 3). Skeletal remains of this animal include the cranium, right, and left mandible and a metacarpus (lower front limb bone) which is fused with the collar; it is assumed that Woolley’s desire to bring the collar to the UK, and the difficulty of separating it from the bones without destruction, is mainly responsible for the bones’ import. Zooarchaeological analysis was completed while the specimen was mounted to a wooden board, since this specimen is often on display. Despite the fragmentary nature and access restrictions, it was possible to determine the age of the animal as c. 3 years (young adult). There was no visible evidence for pathologies, butchering marks or signs of how the animal died.⁶

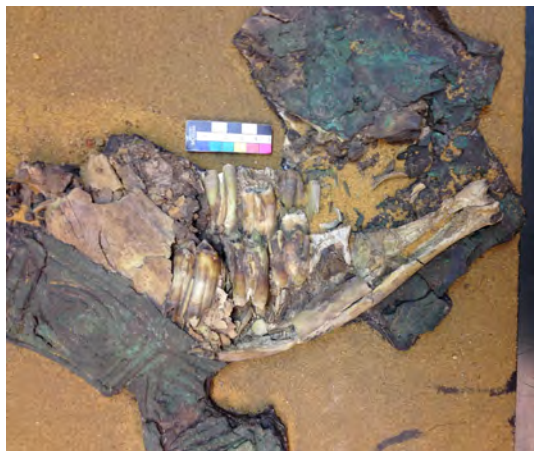


Fig. 3 Bovine specimen BM3 (1928.10.10,164) PG800 Queen Pu'abi's Grave with collar/harness still attached to mandible (Greenfield 2014)



Fig. 4 Zooarchaeological specimens from the private non-royal graves at Ur currently curated at the Natural History Museum, London (Greenfield)

The Non-Elite Graves (NHM collection)

Analysis of the NHM faunal collection supplied information on animals from non-Royal graves and also from non-burial contexts (Fig. 4). The NISP of animal specimens present (N=76) are those from only previously designated as Private Graves from the Pre/Early Dynastic Period.⁷ The diversity,

⁵ See Dyson 1960, among others.

⁶ Zettler had suggested to the author to look for evidence of cut marks on the bovid vertebrae that might suggest their throats were cut as part of a sacrificial way of killing the animals.

⁷ The majority of the private non-Royal graves are from the Pre/Early Dynastic, Period (A & B) according to Woolley's designations (UE 2 Appendix A).

while low, is expected for hand-collected faunal assemblages from Southern Iraq: dominated by sheep and goats, with cattle and pigs following, and a small percentage of wild animals, mainly fish (Table 1; Fig. 5). Hunted deer, (e.g. *Dama dama mesopotamica* gazelles (*Gazella gazella*), and the South Asian import (water buffalo—*Bubalus bubalis*) are missing from these particular graves; however, these species might have been only rarely consumed as in the case for water buffalo, or not representative of grave goods during this period in the cemetery, or reserved for only Royal graves. Due to Woolley's export strategy, the faunal assemblage is not necessarily representative of all species chosen for grave goods. This issue of export strategy at the time of excavation affects any assessment of species diversity among the graves and its apparent variation. Contexts of burials is also varied amongst these deposits.

Table 1 Relative percentage frequencies of taxa diversity of all ED III non-Royal Private Graves (N=76)

Taxa	Sum of NISP	NISP %
<i>Bos taurus</i> —cattle	13	17.11%
<i>Capra hircus</i> —goat	22	28.95%
<i>Carcharhinus leucas</i> —bull shark	3	3.95%
<i>Gazella gazella</i> —gazelle	19	3.95%
<i>Ovis/Capra</i> —sheep/goat	11	25.00%
<i>Ovis aries</i> —sheep	3	14.47%
<i>Sus scrofa dom.</i> —dom. pig	5	6.58%
Total	76	100.00%

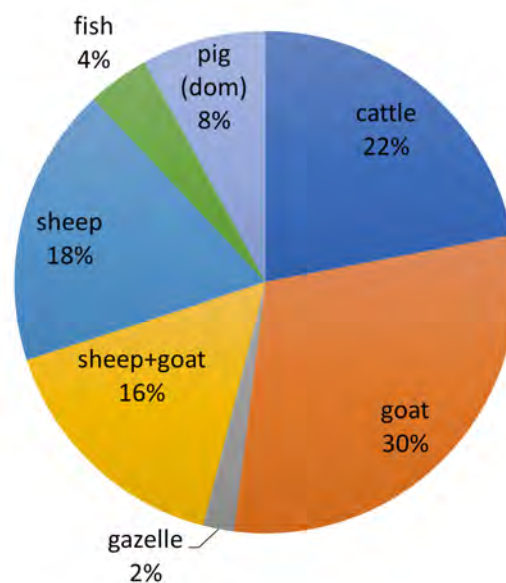


Fig. 5 Relative percentage frequencies of taxa within of all ED III non-royal Private Graves (N=76)

PG6: this grave is assigned to the Predynastic cemetery in general and did not have any grave goods other than the animal bones, the coffin was constructed out of wickerwork or reeds (UE 2 Appendix A:412).

PG15 NHM3:⁸ this grave is located on the foundation path near the Royal tombs. It is on the lower end (however, not the poorest) of the wealth spectrum for Private Graves based on the coffin (larnex), grave goods and zooarchaeological specimens.

⁸ Specimens used for isotopic analyses have the designation of NHM after their grave number since not all of the non-Royal graves had acceptable teeth specimens for further scientific analyses.

PG15/M38: this deposit (burial) is also listed as the Foundation Path; however, it is kept separate here from PG15 since it is not clear if the deposit is the same or different grave.

PG144 NHM4: this burial is not Royal, as it only has a simple trench burial and came from the earliest levels of the cemetery according to Woolley (UE 2 Appendix A:416).

PG188: this grave was a trench burial, with a simple interment of the body usually wrapped in matting (UE 2 Appendix A:420).

PG (above1054) NHM1: This specimen is derived from a separate deposit directly above the Royal grave of 1054.

Species diversity

There is considerable diversity in the species between the non-elite graves and other contexts of the ED III Period. Data from seven Private Graves are provided to illustrate species diversity (Table 2; Fig. 6). It is clear from a comparison of the species frequency between the different graves that there are significant differences between them. Some contain *Bos taurus* (cattle), *Sus* (pig), and *Carcharhinus* (Bull Shark), while others contain sheep (*Ovis*) and goat (*Capra*). The investigation of these issues allows for a further understanding of how animals were exploited, ritually used, and representative of one's status in life and death.

Table 2 Percentage frequencies of taxa represented within selected non-Royal Private Graves at Ur ((N)ISP= 59)⁹

Taxa	PG (above 1054)		PG144		PG15/ M38		PG6		PG188		PG15		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<i>Bos taurus</i>	2	6	3	43	6	100	0	0	0	0	2	40	13	22
<i>Capra hircus</i>	14	45	0	0	0	0	5	56	1	100	0	0	20	34
<i>Ovis/Capra</i>	6	19	2	29	0	0	4	44	0	0	1	20	13	22
<i>Ovis aries</i>	9	29	0	0	0	0	0	0	0	0	0	0	9	15
<i>Carcharhinus leucas</i>	0	0	1	14	0	0	0	0	0	0	1	20	2	3
<i>Sus scrofa dom.</i>	0	0	1	14	0	0	0	0	0	0	1	20	2	3
Total	31	100	7	100	6	100	9	100	1	100	5	100	59	100

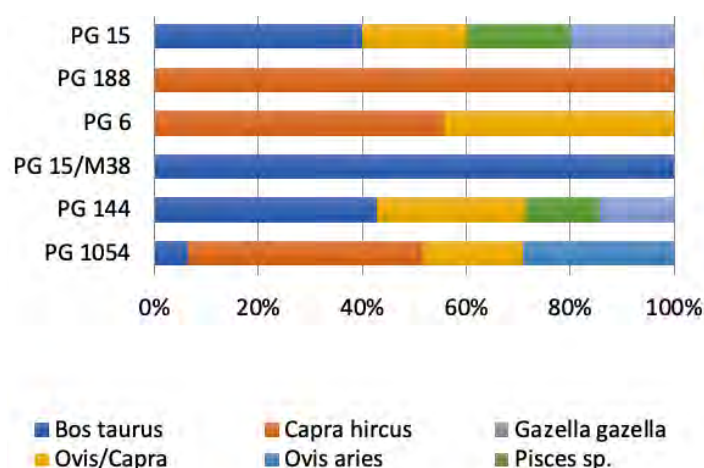


Fig. 6 Percentage frequencies of taxa represented within selected non-royal Private Graves at Ur ((N)ISP= 59)

⁹ The table represents the minimal diversity of species exploited; however it is potentially limited due to the possibility that there may have been other animals Woolley simply did not export or record.

Status and identity: The Private Graves

The high status of the cattle from the Royal tombs cannot be disputed since we know not only were they sacrificed during the prime of their life, but were also used for display in an excellent example of conspicuous consumption. While entire cattle skeletons were not exported by Woolley unfortunately, we know the entire animal was sacrificed. However, the animal grave goods deposited in the non-Royal graves are more difficult to analyse given the selectivity of what was exported. Publications based on Woolley's notes describe the animal remains from some of these Private Graves. This information while sometimes sparse, provides potential insights into these animals, and the percentage of skeletal remains present, that ultimately informs on these grave goods and the status of the buried individual.

Differential access to food resources is often considered a function of status in Mesopotamian early and mature city-states. It is commonly assumed that individuals with elite status would have access to better quality meat than others of lower-status within a community (deFrance 2009; Redding 2010; Greenfield & Matney 2021). There is some pattern of elite and non-elite species representation. While the majority of the specimens are standard utilitarian species generally consumed by the population at Ur, there is the need to mention the presence of bull shark (*Carcharhinus leucas*) (see Table 2; Fig. 6). The significant frequency of shark in PG15 and to a lesser extent PG144, is worthy of the designation of an elite or exotic grave good. There is a suspicious lack of fish remains in both the Royal and private non-elite graves when we have evidence of fish sacrifices at other ED temples (i.e. Girsu) (Cros 1910; Rey 2021). Ur is near the marshes and the Persian Gulf, and one would expect a much higher percentage of fish in the diet. Perhaps the presence of these data in only one grave is indicative of trade with individuals coming up the Gulf from southern or eastern neighbours. If this is indeed the case, it is suggestive of differential access to resources—perhaps based on the status or position of the buried individuals. It appears however, that based on the species diversity and body portion of the Private Graves there is evidence of status differentiation with the disproportionate access (i.e. exotic species, whole cattle specimens, high status cuts of meat) to some food resources.

Body portion diversity

Body portion representation also primarily reflects the pieces Woolley found interesting for export or even perhaps as those elements that were well-preserved or associated with important objects. However, crania/skulls (or parts of these) were present in all the graves examined which suggests patterns beyond Woolley's biased export practice (Fig. 7). It is unlikely that an animal skull on its own would have been considered an appropriate grave gift in the third millennium BC, but rather representative of the entire body that Woolley did not chose to export. Therefore, where the skull

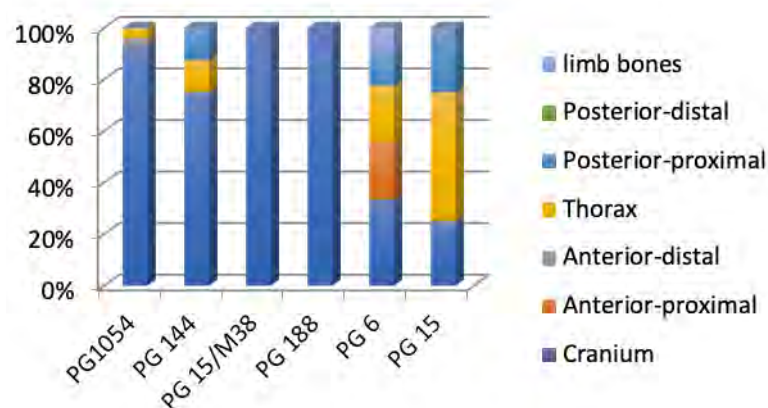


Fig. 7 Percentage frequencies of body element/portions represented according to selected Private Graves at Ur

was present, we tentatively assume that the whole animal had been originally present. Additionally, to support this theory of whole animal representation, Figure 7 illustrates the different body portions identified from each of the Private Graves. While there is some variety between the graves a sizable portion of the remains includes other body portions such as the thorax (vertebrae and ribs), distal ends, and the upper portions of both the front and back limbs (anterior–proximal and posterior–proximal respectively) both of which are considered to be the high-status body portions of an animal (Greenfield 2014, 2015; Greenfield & Rosenzweig 2016).

Are there Royal cattle? Herd management strategies

Stable isotope analyses are a valuable method in determining life histories of animals and help to further understand animal management strategies. In a pilot project on mobility and the cattle from the Cemetery at Ur, well preserved bovine teeth were selected for analysis of their enamel for oxygen, carbon analyses (see Greenfield et al. 2022).¹⁰ Specimens chosen included molars from the cattle at the BM and the NHM for a total of eight specimens. Carbon $\delta^{13}\text{C}$ was tested to determine plant diet, and oxygen $\delta^{18}\text{O}$ for assessing watering strategies for the cattle. Results from this suite of techniques informed on grazing environments, migratory/herding behaviours, and general animal management strategies (Hoppe 2004; Zazzo et al. 2010; Balasse et al. 2012; Frémondeau et al. 2012).

Samples included teeth from the Royal graves three from PG789 ‘King’s Grave’, and one from PG800 ‘Pu’abi’s Grave’. Samples of four cattle from non-Royal burial contexts were also tested from 4 different non-Royal graves, including one each from Above PG1054 (NHM1), unknown PG(NHM2), PG15 (NHM3), and PG144 (NHM4) (Table 3; Fig. 8).

Table 3 Summary of *Bos taurus* teeth selected for sequential enamel $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ analysis
BM=British Museum, NHM=Natural History Museum, London UK¹¹

Sample Code	Curating Institute	Museum Specimen Identifier	Archaeological Context	Tooth
UR-BM-1	BM	1935.1.16,17 ‘Tooth 6’	PG 789 ‘King’s Grave’	M3
UR-BM-2	BM	1935.1.16,17 ‘Tooth 8’	PG 789 ‘King’s Grave’	M3
UR-BM-3	BM	1928.10.10, 164	PG 800 Pu’abi’s Grave	M2
UR-HR-1	NHM	-	Burnt Layer above PG1054	M1/M2
UR-HR-2	NHM	-	Unknown PG	M3
UR-HR-7	NHM	-	PG15	M3
UR-HR-8	NHM	-	PG15	M2

$\delta^{18}\text{O}$ (Oxygen) Results

The data presented from the oxygen enamel suggest all of the animals regardless of their designation drank from variable surface water sources (flooded field, canals, rivers) while none of the individuals drank from ground sources (e.g. wells). It appears that there are clusters around two different water sources—one that is highly enriched (highly evaporative) such as basins, flooded fields, small tertiary canals and ones that are less enriched (less evaporation) like rivers or large primary canals (Fig. 9). Individuals from BM3—PG800 and NHM PGs 1,7,8 all drank from the highly enriched sources

¹⁰ *Unknown NHM2*: this specimen is from a non-Royal private grave. It is part of an articulated body portion (only the maxilla and mandible) and not part of a full skeleton deposited as a grave offering. It was only used for isotopic sampling since there was excellent preservation of the teeth but little information on burial context, only that it was from the Early Dynastic period.

¹¹ It is suspected that ‘Tooth 6’ actually is part of the 1935.0116.16 specimen because of the position it was found lying on top of the bandages of 1935.0116.17 and the difference in wear/root development of this tooth in comparison to the other M3s.



Fig. 8 Pre and post drilling of cattle teeth samples from the royal and non-royal private graves for isotopic analyses (photo: H. Reade © Mobile Economies Project).

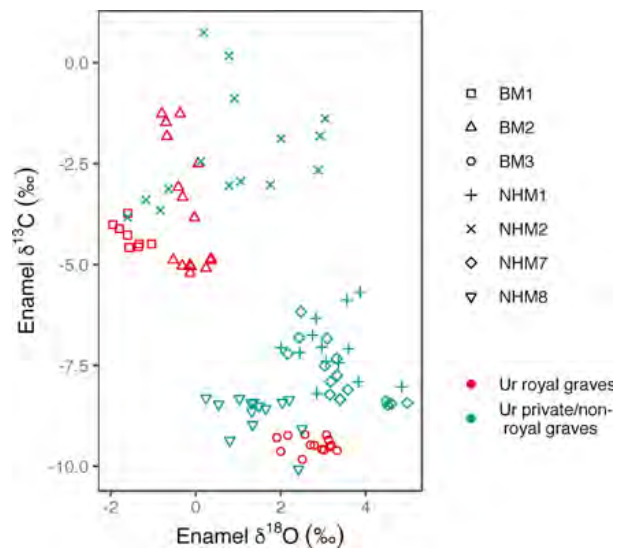


Fig. 9 Scatter plot analysis of cattle enamel samples from royal and non-royal individuals. Image: T. O'Connell reprinted from Greenfield et al. 2022.

while the individuals from BM1 and 2—PG789, and NHM2 all drank from the same less enriched sources (Greenfield et al. 2022).

$\delta^{13}\text{C}$ (Carbon) Results

Carbon enamel results suggest a varied feeding strategy for both the Royal and non-Royal individuals (Fig. 9): BM1 and 2—PG789, and NHM2 presented a C_4 -dominated diet (grasses, weeds), while BM3 presented with a dominant C_3 diet (cereals). Conversely, NHM1, 7, 8 revealed a combination of C_3 & C_3 – C_4 diets (with a C_3 dominants) (Greenfield et al. 2022).

Based on the results from the $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ it is evident there are at least two separate herd management strategies for all the cattle samples found with the graves regardless of the status of the individual buried. These patterns suggest that there are varied management strategies for the cattle and they are eating and drinking in different locations. This suggests there is not one monolithic management strategy for all of the bovines, and it further suggests that there is not a separate and distinct management strategy for the Royal herd and one for the private-non-Royal graves.

Observations and Discussion

Social hierarchies and inequalities

The zooarchaeological evidence indicates the cattle were of relatively young age and good condition of each of the specimens in PG789 and PG800. This information suggests these were valuable and conspicuous gifts in the prime of their lives, not older-aged animals nearing the end of their use-lives worn out by traction, and heavy labour. While these animals served as high value for performative rituals to reify the high status of the dead individual, they were not apparently raised separately from other animals.

Resource access: distribution and consumption

Species diversity and body portion of animals within the Private Graves reflects a more nuanced pattern of status differentiation. While the species are the standard fare in the region the differentiation

lies within the disproportionate access to some food resources for some individuals prior to and after death.

For example, the presence of shark, from one private grave, could potentially reflect high status, however, the vast majority of the non-Royal grave material was comprised of the more basic utilitarian species reserved for general every-day consumption. Original ideas of conspicuous consumption of elites (even in death) does not appear to be represented in the animals left for sacrifice or in the Private Graves. While evidence proves the bovines in the Royal tomb chambers was part of the larger ceremonial ritual for the death of kings and queens, this feast was for the eyes and not for consumption in the traditional sense of the word.

Animal management

One key finding is that there was overlap in diet and management strategies used for the Royal grave animals and for other animals at Ur. There was not a single 'Royal herd' management strategy evident. The multiple strategies in both the watering and (especially) the range of feeding signatures indicated a diverse range of herd management. Bovines from both types of graves have overlapping life histories in their water and food consumption patterns. While it is not possible to determine if all of the graves were deposited at the exact same time since they all date to within the Early Dynastic Period, the majority do belong in the ED III phase. As such, the bulk of the data suggest a variety of different management regimes. If we build on these data, to include the species diversity and body portion information clear patterns emerge that might reflect the owners' differential access to types of land, water, animals and their respective skeletal portions. Access to resources appears to play a role in choosing what animals should be placed in the graves for both the Royal and non-Royal individuals.

Whether by trade, animal mobility, changes in the local environment, land use strategies, there are diverse data patterns for both isotopic and zooarchaeological analyses of the animals from the Early Dynastic Cemetery at Ur. Standard textual narratives of elite versus non-elite or Royal versus non-Royal animal distribution and consumption practices, and associated ritual behaviour have been tested and appear to diverge from our long-standing ideas of 'Royal herds' for the king and queens of Early Dynastic Ur.

Status, diet, and wealth display each play a role in the performative actions of both the Royal and non-Royal citizens of Ur, and perhaps the desire to have the best possible animals as grave goods is a standardized behaviour regardless of one's own standing in the community. The access to resources and the scale of this display appears to be what sets each individual apart from its neighbours. Observations based on these data adds to our understanding of ritual behaviour, social complexity, status and diet and herd management to provide us with a much more nuanced understanding of third millennium society at Ur.

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Thanks, and acknowledgements first go to Sir Leonard Woolley who in his eternal wisdom and foresight thought to take care and prepare some animal specimens from the graves in the Royal Cemetery; I am forever grateful that they have been preserved so that I and future scholars can study these remains from a magnificent place. Special thanks go to Prof. Nicholas Postgate for allowing a last-minute entry into the Ur Conference to present new data on some very old bones. Thanks also go to Dr Haskell Greenfield for photographing the Ur assemblage at the NHM, and editorial comments on the paper; Dr Alexandra Fletcher for the initial collaboration at the British Museum; Dr Hazel Reade for conducting the first phase (oxygen, carbon) of stable isotope analyses and Dr Tamsin O'Connell for the final interpretations on these data. Dr John Curtis, formerly of the British Museum, for facilitating access to the Ur materials, Dr Richard Sabin (Principal Curator, Mammals) at the Natural History Museum for access to the specimens, Dr Birger Helgestad and Dr Brad Hafford of the Ur Digitization project for access to the UR database and field notes of Woolley. Thanks also go to Dr Caroline Cartwright and the scientific committee at the British Museum for granting permission to sample the cattle specimens and also to Dr Richard Zettler who requested this initial research project. This research was funded

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Bibliography

Bibliographical Abbreviations

ETCSL Electronic Text Corpus of Sumerian Literature

Ur Excavations

UE 2 Woolley 1934

- Adams, R.M. 1965. *Land behind Baghdad: A History of Settlement on the Diyala Plains*. Chicago, IL: The University of Chicago Press.
- 1974. “Historic patterns of Mesopotamian irrigation agriculture”, in T.E. Downing & M. Gibson (eds.) *Irrigation's Impact on Society*:1–6. Tucson, AZ: University of Arizona Press.
- 1981. *Heartland of Cities: Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*. Chicago / London: University of Chicago Press.
- Albarella, U. & A. Trentacoste (eds) 2011. *Ethnozooarchaeology: The Present and Past of Human–Animal Relationships*. Oxford: Oxbow.
- Baadsgaard, A., J. Monge, S. Cox & R.L. Zettler 2011. “Human sacrifice and intentional corpse preservation in the Royal Cemetery of Ur”. *Antiquity* 85(327):27–42.
- Balasse, M., G. Obein, J. Ughetto-Monfrin & I. Mainland 2012. “Investigating seasonality and season of birth in past herds: a reference set of sheep enamel stable oxygen isotope ratios”. *Archaeometry* 54(2):349–68.
- Becker, C. 1998. “Can animal bones reflect household activities? A case study from a prehistoric site in Greece”, in L. Bartosiewicz. (ed.) *Man and the Animal World: Studies in Archaeozoology, Archaeology, Anthropology and Palaeolinguistics in Memoriam Sándor Bökönyi*:79–86. Budapest: Archaeolingua Alapítvány.
- Cros, G. 1910. *Nouvelles fouilles de Tello*. Paris: Leroux.
- Curet, L.A. & W.J. Pestle 2010. “Identifying high-status foods in the archeological record”. *Journal of Anthropological Archaeology* 29(4): 413–31.
- deFrance, S.D. 2009. “Zooarchaeology in complex societies: political economy, status, and ideology”. *Journal of Archaeological Research* 17:105–68.
- Dyson, R.H. 1960. “A Note on Queen Shub-Ad's “Onagers””. *Iraq* 22:102–4.
- Ellison, R., J. Renfrew, D. Brothwell and N. Seeley 1978. “Some food offerings from Ur, excavated by Sir Leonard Woolley, and previously unpublished”. *Journal of Archaeological Science* 5(2):167–77.
- Englund, R.K. 1995. “Late Uruk Period cattle and dairy products: evidence from Proto-Cuneiform sources”. *Bulletin on Sumerian Agriculture* 8:33–48.
- Flückiger-Hawker, E. 1999. *Urnamma of Ur in Sumerian Literary Tradition*. Fribourg: University Press / Göttingen: Vandenhoeck Ruprecht.
- Frémondeau, D., T. Cucchi, F. Casabianca, J. Ughetto-Monfrin, M.-P. Horard-Herbin & M. Balasse 2012. “Seasonality of birth and diet of pigs from stable isotope analyses of tooth enamel ($\delta^{18}\text{O}$, $\delta^{13}\text{C}$): a modern reference data set from Corsica, France”. *Journal of Archaeological Science* 39(7):2023–35.
- Grant, A. 2002. “Food, status and social hierarchy”, in P. Miracle & N. Milner (eds) *Consuming Passions and Patterns of Consumption*:17–23. Cambridge: McDonald Institute Monographs.
- Greenfield, T. 2014. *Feeding Empires: The Political Economy of a Neo-Assyrian Provincial Capital Through the Analysis of Zooarchaeological Remains*. Unpublished Ph.D. thesis, University of Cambridge.
- Greenfield, T. & M. Rosenzweig 2016. “Assyrian Provincial Life: A Comparison of Botanical and Faunal Remains from Tušhan (Ziyaret Tepe), Southeastern Turkey”, in R.A. Stucky, O. Kaelin & H.-P. Mathys (eds) *Proceedings of the 9th International Congress on the Archaeology of the Ancient Near East* Vol.2:305–21. Wiesbaden: Harrassowitz Verlag.
- Greenfield, T.L. 2015. “The palace versus the home: social status and zooarchaeology at Tušhan (Ziyaret Tepe), a Neo-Assyrian administrative provincial capital in southeastern Turkey”. *Journal of Eastern Mediterranean Archaeology and Heritage Studies* 3(1):1–26.
- Greenfield, T.L. & T. C. Matney 2021. “Stews, Ewes, and Social Cues: Commoner Diets at Neo-Assyrian Tušhan”, in L. Recht & C. Tsouparopoulou (eds) *Fierce Lions and Fat Tailed Sheep: Animal Encounters in the Ancient Near East*. Cambridge: McDonald Institute Monographs.
- Greenfield, T.L., A.M. McMahon, T.C. O'Connell, H. Reade, C. Holmden, A. Fletcher, R.L. Zettler & C. Petrie 2022. “Were there Royal herds? Understanding herd management and mobility using isotopic characterizations of cattle tooth enamel from Early Dynastic Ur”. *PloS One* 17(6):e0265170. <https://doi.org/10.1371/journal.pone.0265170>

- Greenfield, T.L. & D. Wicke 2013. "The 'Bronze Palace' at Ziyaret Tepe: preliminary remarks on the architecture and faunal analysis", in D. Kertai & P.A. Miglus (eds) *New Research on Late Assyrian Palaces* (Heidelberger Studien zum Alten Orient 15):63–124. Heidelberg: Heidelberger Orientverlag.
- Hoppe, K.A. 2004. "Late Pleistocene mammoth herd structure, migration patterns, and Clovis hunting strategies inferred from isotopic analyses of multiple death assemblages". *Paleobiology* 30:129–45.
- Lapham, H.A. 2004. "Zooarchaeological evidence for changing socioeconomic status within early historic Native American communities in Mid-Atlantic North America" in S. Jones O'Day, W. van Neer & A. Ervynck (eds.) *Behaviour Behind Bones: The Zooarchaeology of Ritual, Status and Identity* (Proceedings of the 9th ICAZ Conference, Durham):293–303. Oxford: Oxbow Books.
- Lau, D. & A. Gamerschlag 2015. "Das Recht der Tiere, wahrgenommen zu werden. Das Potential der Human-Animal Studies in der Westasiatischen Altertumskunde". *Forum Kritische Archäologie* 4:21–41.
- Manning, J.G. & I. Morris 2007. *The Ancient Economy: Evidence and Models*. Stanford, CA: Stanford University Press.
- Pollock, S. 2007. "The Royal Cemetery of Ur: Ritual, Tradition, and the Creation of Subjects" in H. Marlies & M. Feldman (eds) *Representations of Political Power: Case Histories from Times of Change and Dissolving Order in the Ancient Near East*:89–111. Winona Lake, IN: Eisenbrauns.
- Postgate, J.N. & M.A. Powell (eds) 1984. *Bulletin on Sumerian Agriculture* 1.
- 1985. *Bulletin on Sumerian Agriculture* 2.
- 1987. *Bulletin on Sumerian Agriculture* 3.
- Rainville, L. 2012. "Household matters: techniques for understanding Assyrian houses" in B. Parker & C.P. Foster (eds) *Household Archaeology in the Near East and Beyond*:139–64. Winona Lake, IN: Eisenbrauns.
- Redding, R.W. 2010. "Status and diet at the Workers' Town, Giza, Egypt" in D. Campana, A.M. Choyke, P.J. Crabtree, S.D. deFrance & J. Lev-Tov (eds) *Anthropological Approaches to Zooarchaeology. Complexity, Colonialism, and Animal Transformations*:65–75. Oxford: Oxbow Books.
- Reitz, E.J. 1987. "Vertebrate fauna and socioeconomic status", in S.M. Spencer-Wood (ed.) *Consumer Choice in Historical Archaeology*:101–17. New York, NY: Plenum Press.
- Reitz, E.J. & E.S. Wing 2008. *Zooarchaeology* (Second Edition). Cambridge: Cambridge University Press.
- Rey, S. 2021. "Divine Cults in the Sacred Precinct of Girsu". *Near Eastern Archaeology* 84(2):130–9.
- Smith, M. & K. Schreiber 2005. "New World States and Empires: Economic and Social Organization". *Journal of Archaeological Research* 13(3):189–229.
- Smith, M.E. 2004. "The archaeology of ancient state economies". *Annual Review of Anthropology* 33:73–102.
- Wattenmaker, P. 1987a. "The organization of production and consumption in a complex society: a study of a village site in southeast Turkey". *MASCA Journal* 4:191–203.
- 1987b. "Town and village economies in an early state society", *Paléorient* 13(2):113–22.
- 1994. "Political fluctuations and local exchange systems in the ancient Near East: evidence from the Early Bronze Age settlements at Kurban Höyük" in G. Stein & M. Rothman (eds) *Chiefdoms and Early States in the Near East: The Organizational Dynamics of Complexity*:193–208. Madison, Wisconsin: Prehistory Press.
- 1998. *Household and State in Upper Mesopotamia: Specialized Economy and the Social Uses of Goods in an Early Complex Society*. Washington, DC: Smithsonian Press.
- Woolley, C.L. 1934. *Ur Excavations Volume II. The Royal Cemetery*. 2 vols. London / Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- Zazzo, A., M. Balasse, B.H. Passey, A.P. Moloney, F.J. Monahan & O. Schmidt 2010. "The isotope record of short- and long-term dietary changes in sheep teeth enamel: implications for quantitative reconstruction of paleodiets". *Geochimica et Cosmochimica Acta* 74:3571–86.
- Zeder, M.A. 1991. *Feeding cities: specialized animal economy in the Ancient Near East*. Washington DC: Smithsonian Institution Press.

Woolley and site formation at Ur: old notes and new excavations

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It is now 100 years since Leonard Woolley began excavations at Ur. He was jointly sponsored by the Penn Museum and the British Museum, and after many decades excavation is again under way. After SUNY Stony Brook excavations in 2015, 2017 and 2019, partially assisted by Penn, the Penn Museum received the permit to excavate. The international pandemic stopped work until 2022, putting the first fully Penn season almost exactly 100 years after Woolley's first season.

Woolley left London on 26th September 1922. The new Penn expedition left Philadelphia on 27th September 2022. Woolley sailed on the SS Rheinfels with architect F.G. Newton and epigrapher Sidney Smith; then was joined at Port Said by his foreman, Hamoudi, and his cook Haj Wahid on 8th October. They had both worked with him at Carchemish and Hamoudi at least would continue for all twelve seasons at Ur. They arrived at Basra on 23rd October, but the Rheinfels only discharged passengers and would not unload its cargo until more than a week later. Thus, Woolley was without his large luggage cases including the bedding for his team, and in his report to the museums on 2nd November he says rather laconically, "considerable discomfort has been caused."²

The 2022 Penn team flew from Newark and were joined in Istanbul by Adelheid Otto and her team from Ludwig Maximilian University. Most had worked with us before on the excavation seasons under the SUNY Stony Brook permit held by Elizabeth Stone. We arrived in Basra on 29th September. Of course, travel is much easier today and we encountered very little of the discomfort that Woolley reported. So, there are some similarities in arrangements for two seasons a century apart, but there are also many differences. There are also differences in the way we approach the archaeology and in our understanding of the city so long after Woolley's seminal work. His twelve years in the field have informed Mesopotamian archaeology as a whole, and the new Penn seasons hope to do him justice in the attempt to understand Ur's many ancient secrets.³

In this paper I will compare some of what was found in the three SUNY seasons with what Woolley found in his twelve; I will then add information from the first Penn season that has just been completed. My goal will be to look at the growth of the city through time.

One of my first aims in 2015 with the SUNY team was to reexamine some of Woolley's excavation and confirm the extent of his recording. I had long worked with his notes and publications, digitizing his reports, field cards, and catalogues for Ur-Online.⁴ I wanted not only to check his accuracy, but also the way the buildings he had revealed had altered in the intervening years.

We began with two trenches (Squares 1 and 2) in Woolley's Area AH, re-investigating houses he had already revealed (Fig. 1). Mudbrick that had once sat atop baked brick walls across the area had almost completely melted away, but a great deal of baked brick was used at Ur in the Old Babylonian period, and it was to be seen in many places peering up above the decades of soil wash. More than a

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² This report is in the Penn Museum archives Ur Box 1, File 2 and on Ur-Online: http://www.ur-online.org/media_item/204456/

³ I would like to thank Elizabeth Stone and Paul Zimansky for inviting me to work with them during the State University of New York (SUNY) seasons at Ur, and thank everyone who helped make the 2022 season a success. The Iraqi State Board for Antiquities and Heritage personnel were particularly important, as were Adelheid Otto and Berthold Einwag of the Ludwig Maximilians Universität (LMU), Munich.

⁴ <http://www.ur-online.org>

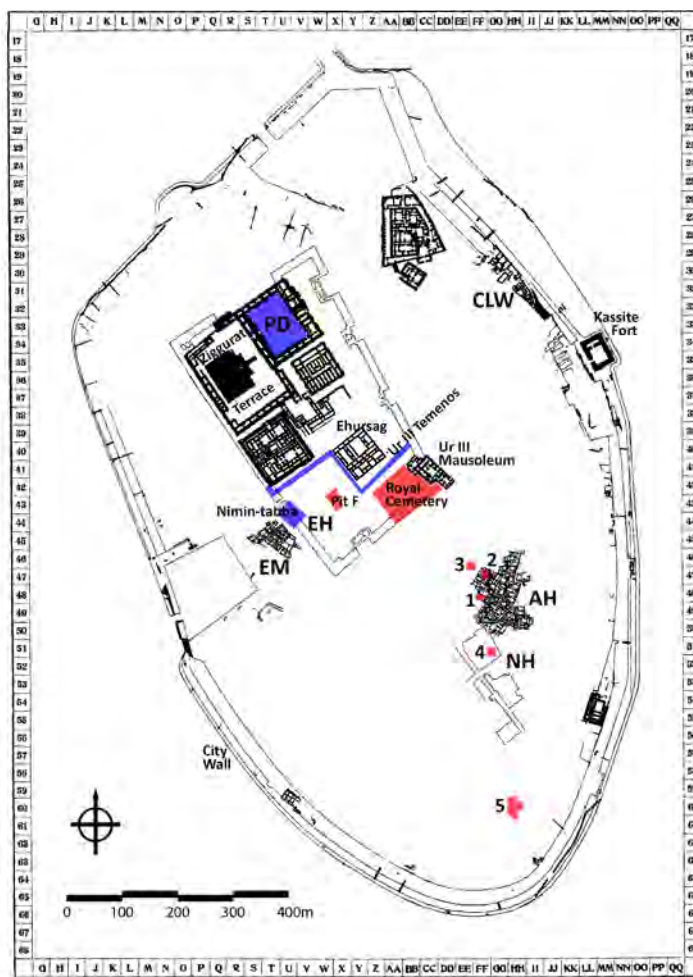


Fig. 1 Plan map of Ur (UE 7: Pl. 116) annotated with areas mentioned in the text. Numbered red squares were excavated under the SUNY permit.

meter of soil had washed back into the buildings he had uncovered.

SUNY Square 1 was placed to reveal part of what Woolley called No. 1 Baker's Square. It cleared four rooms of the building, and after removing the soil wash, we found the floors where Woolley had stopped. His notes and publications were accurately reflected in what we saw.⁵ The published baked brick course count was exact for all rooms, and even his somewhat more vague note card mentions of unpublished broken graves proved accurate.

Architecturally, Woolley recorded individual houses well, but he almost never mentioned what was found on house floors, not even the exact findspots of tablets (Zettler 2020:19–20; van de Mierop 1992:121). He dug much bigger and faster than is acceptable in modern archaeology, and this meant sacrifices in specific details, particularly on artifacts that would be gathered by the workers and labeled mostly by larger area rather than smaller room units. One thing large and deep exposures can do that small trenches struggle with,

however, is provide information on the bigger picture of site development through time.

Woolley was keenly interested in all periods of occupation at Ur and understanding the growth of the city through time. He was always conscious of the fact that he worked for museums, however, and that museums wanted spectacular artifacts. In a report to the directors at the beginning of 1926, he attempted to justify his position, saying "...the deeper levels are not likely to produce much in the way of museum objects, but a thorough investigation of the prehistoric strata would be of the greatest scientific value."⁶

The deep levels did, indeed, provide a wealth of data. If he had not dug these deep pits, some reaching nearly 20 meters below surface, we would have no indication of the foundation of the site in the Ubaid period. Particularly in Pit F, Woolley found evidence that Ur had begun as a small 'turtle-back' mound rising slightly above a marsh (UE 4:56). Below three meters of silt from the 'flood layer' he found evidence of early housing surrounded by black, organic soil presumed to result from decayed marsh plants. In a report to the museum directors, he stated:

⁵ The SUNY excavations were particularly interested in finding potential Ur III house remains beneath the Old Babylonian. Woolley had seen mudbrick walls beneath most houses in AH and assumed them to be Ur III. The SUNY excavations did reach these walls but could not confirm their date. They are likely Ur III, but could be early Isin (Stone & Zimansky 2016; Hafford 2017).

⁶ Report for December, 1925, Penn Museum archives Ur Box 1, File 8 and on Ur-Online: http://www.ur-online.org/media_item/193948/

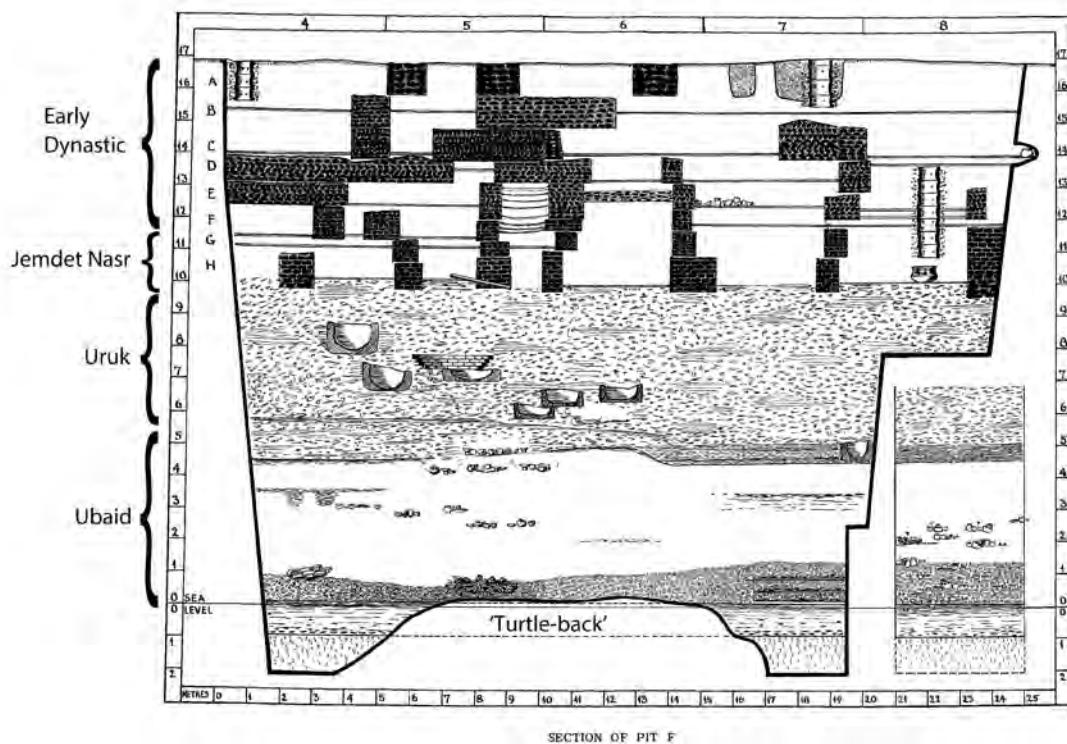


Fig. 2 Woolley's section drawing of Pit F (UE 4: Pl. 73) annotated to indicate periods in depth. The earliest marsh island 'turtle-back' is shown; other turtle-backs likely also existed, perhaps growing together to become the single mound we know today.

The stratification made it fairly certain that the terraced mound had originally been an island rising from the marsh or river: a cutting driven down to 2.50 m. below the modern plain level ...shewed the tilted strata levelling out and alternating with water-laid mud in which the pottery fragments all lay horizontally: this must give us the limits of the original island.⁷

He did not find the same housing evidence in deep trial pits beneath the Royal Cemetery farther south and east; thus, he believed he had uncovered the edge of the original marsh island or 'turtle-back' in Pit F (Fig. 2). The highest portion of the later mound (Area EH) was rather naturally seated over the earliest portion of the city, and this portion was located not beneath the ziggurat, but south-west of it.⁸ If we imagine the late Ubaid mound, then, we might propose a narrow strip extending from near the current ziggurat southward to just beyond Pit F, the current high area seen in the digital elevation model (Fig. 3). There might conceivably be a second Ubaid turtle-back underlying the southern high points of the current mound, including Area AH, but no trenches here have reached deeply enough to find out.

It seems likely there was a temple of sorts serving at least the Late Ubaid settlement, and that it was near the northern edge of our proposed site extent for that time.⁹ This area would remain sacred throughout the history of the site, eventually becoming the location of the ziggurat terrace.¹⁰ Woolley dug two deep pits on the north side of the ziggurat terrace (published as Pits K and L) and found Ubaid pottery as well as many scattered decorative clay cones somewhat similar to those in the stone

⁷ Field report to museums, 31st January 1929, Penn Museum Archives Box 2, File 4 and on Ur-Online: http://www.ur-online.org/media_item/193951/ (a similar statement can be found in UE 4:56).

⁸ UE 4:10 "... in time their site must have attained a considerable elevation. That it did so is shewn by the very high level at which the foundations of the plano-convex brick buildings occur on the site EH and by the height of the al 'Ubaid rubbish-mounds."

⁹ And this would follow the pattern for protoliterate period Mesopotamian settlements noted by Stone (2012:159) of sacred area in the north-west and residential area in the south-east.

¹⁰ As is seen for many Mesopotamian temples, most notably the Temple Oval at Khafajah (Delougaz 1940).

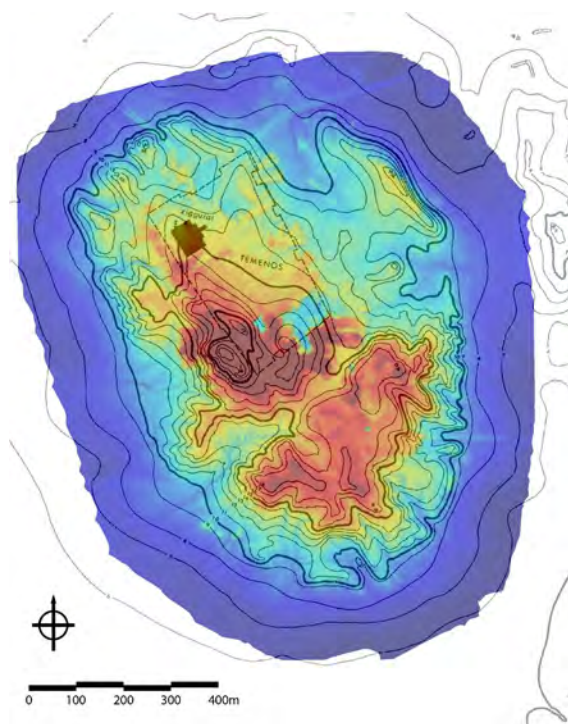


Fig. 3 Digital Elevation Model created by Paul Zimmerman in the 2022 season, overlain with Woolley's contour map (UE 6: Pl. 60). The highest areas (dark red), are likely the core in the Ubaid. Note that some of the high points on the modern DEM are due to Woolley's back-dirt.

all, Woolley reported eight levels of architecture at the top of Pit F, most of which he dated to the Early Dynastic period. This was also the period of dumping into the area to the south-east that became the Royal Cemetery, resulting in the Seal Impression Strata (Fig. 4; UE 2:14; Benati 2015:4). Woolley stated:

...the strata making up the dump in which the graves [of the Royal Cemetery] occur are violently tilted, shewing that the rubbish was thrown down from a height now represented by the "Pre-historic terraces" NW of the cemetery which were identified in the season 1925–26.¹⁴

Most Early Dynastic cities were enclosed within a city wall, but there is no evidence of one for the period at Ur. Nevertheless, it does appear that the areas at the edge of the settlement in any particular time were substantially lower in elevation than the more densely populated core and that these external areas were used for manufacturing and/or rubbish dumping. In fact, any city wall at the time may have been primarily a retaining wall supporting the higher area of dense habitation. So, by identifying drops in elevation like this, and/or large working or rubbish areas of different periods, we might be able to show something of the punctuated growth of the city.

After a long period of increasingly dense habitation, the areas at the edge would fill in with rubbish and soil wash to a height that the people could pack it all down and build atop it, resulting in

cone building at Uruk (UE 4:12).¹¹ The cones in particular are highly suggestive that at least by the Uruk period there was a major public building in the area. It is likely that there is an ED foundation to the ziggurat terrace and perhaps the ziggurat itself covers the remains of a temple or ziggurat of that period.¹²

The site would have grown out as well as up. Upward growth was relatively continuous, resulting from house repairs and rebuildings. Outward growth may have been more punctuated, with periods of expansion occurring only when necessitated. In the middle or late Ubaid period, for example, a major flooding event, possibly two,¹³ covered the original turtle-back with silt. But the silt layers were not nearly as deep beneath the Royal Cemetery some 50 meters to the east. Into the deep silts of Pit F were cut many Ubaid period burials, while the deep pits in the cemetery revealed Late Uruk/Jemdet Nasr to ED I burials.

Atop the silts in Pit F there arose an Uruk period pottery working area. This area was in use for a long time, resulting in some four meters of deposit including kilns, ceramic wasters, and a potter's wheel. In the highest portion of the deposit, the painted pottery of the Jemdet Nasr period began and architecture was also found. In

¹¹ There were a great many of these cones. The Penn Museum's share included about 7,000 of them.

¹² There is certainly an Early Dynastic phase of building on the ziggurat terrace, though this is ED III. See Benati 2013 on the 'Archaic I' phase.

¹³ There is a break in the deep silt layer that might indicate a period of drying before a second flooding (UE 4:68).

¹⁴ Field report to museums, 31st January 1929, Penn Museum Archives Box 2, File 4 and on Ur-Online: http://www.ur-online.org/media_item/193951/

For a brief period at least, probably late ED I or early ED IIIA, habitation did extend here, which Benati sees as "... a major landscaping episode consisting of the expansion of the built-up area of the town through the construction of new house lots in an open area seemingly located at the brink of the settlement" (Benati 2015:3). The building episode was short-lived, however, followed by more dumping and burials. But the city had also been expanding to the south. The area from Woolley's AH and west is quite high in elevation, which implies a long period of occupation. Furthermore, SUNY excavations deep in Square 3 revealed ED potsherds. No later than the Early Dynastic, part of the southern portion of the current mound was occupied, and there may have been a canal running between the two areas, north and south.¹⁸

By the ED III, the sacred zone had been clearly established in the area where the ziggurat would be constructed. Woolley believed there were earlier versions of the ziggurat, now encased within the version we see today, and he states that "scanty remains of First Dynasty buildings underlie the Gig-par-ku ... and houses of the prehistoric town, with something in the nature of an enclosing wall, are found immediately to the south-west of the cemetery limits." The city was certainly expanding. Whether or not it reached the limits of the known Ur III wall we cannot yet say.

Akkadian burials are found in the Royal Cemetery and Old Akkadian tablets were found in SUNY Square 1 beneath Woolley's AH Niche Lane (Stone & Zimansky 2016:255). So the Akkadian city stretched well to the south, though we have not identified a major drop in elevation for this period. There are also Ur III burials in the Royal Cemetery, and of course the Mausoleum built with bricks of Kings Shulgi and Amar-Suen sits at the eastern edge of this burial ground. We also have indications of the Ur III city wall much farther out.¹⁹ By this period, Ur must have extended to its limits as seen today on satellite.

Nevertheless, within the city there are severe drops in Ur III ground levels. Woolley noted a difference of around seven meters from the floor of Shulgi's Nimin-tabba temple south-west of the Ur III temenos to the floor of the Shulgi/Amar-Suen Mausoleum about 150 meters to the east (UE 2:12). The extent of the temenos wall in this period is unclear, but Woolley traced parts of it jutting out to support and include the Ehursag at a much higher level on the northern edge of the Royal Cemetery.

Differences in elevation are hard to track in Woolley's work since his plans are necessarily two-dimensional and rarely include elevation markers. Most attempts at modeling the ancient city miss these differences and, for example, place the great courtyard (Woolley's Area PD) east of the ziggurat at the same height as the base of the ziggurat. In actuality, the great courtyard sat substantially lower. The ziggurat sat atop its own terrace, called the *é-temen-ni-gùr*, or 'platform clad in terror' (Zettler & Hafford 2015:370). This platform was likely formed in the Early Dynastic to raise the sacred temple above the rest of the city. The great court was built in the Ur III period, partly as an entryway to the terrace, and Woolley states that the courtyard floor was 1.7 meters lower than the level of the terrace itself (UE 5:74).²⁰

The area to the south-west of the temenos, built up from the very earliest periods, continued to grow upwards and had begun to challenge the height of the ziggurat terrace.²¹ This may have been one of the reasons for creating the Ur III ziggurat, to ensure the temple of Nanna remained elevated over the entire city. The fact that the Ur III mausoleum is also low in elevation shows

¹⁸ A narrow area of silt runs approximately east-west separating the northern two-thirds of the current mound from the southern one-third. It serves as natural drainage but may follow the line of an ancient canal. Woolley typically did not put the canal on his maps, but Stone (2012:171) sees it as a relatively standard pattern in Mesopotamian cities.

¹⁹ Woolley (UE 6:62) could only identify the base of the city wall, a revetment that sloped, along the north-east side of the city at least, down some eight meters forming the bank of an ancient canal. The top of the revetment, on which the wall would have stood, then stretches back some 25 meters into the city. Inscribed bricks of Ur-Namma indicate there was a city wall, but we have no idea exactly how wide or tall.

²⁰ But, Woolley's temenos plan for the Kassite period (UE 8: Pl. 47) shows a difference of 5 meters between the courtyard and the ziggurat terrace. A measurement taken in 2022 on the soil overlying the courtyard returned 6.3 m asl (above sea level), while averages for the base of the ziggurat are 9.3 m.

²¹ In fact, by the Ur III period the Giparu had attained the level of the ziggurat terrace and the Nimin-tabba temple to the south of it sat nearly 4 meters above the terrace (UE 2: Pl. 1).

that this area remained a relatively peripheral one, i.e., not densely inhabited, and its floor elevation is not much different from the Ur III levels measured in SUNY Square 4 and LMU Square 5.

Area AH to the south of the mausoleum was probably densely inhabited in the Ur III. Woolley believed that the mudbrick walls he often saw beneath the baked brick Isin-Larsa / Old Babylonian house walls in this area dated to the Ur III. He often saw these walls as he dug down to recover graves associated with the later houses, but he did not clear them to floor levels or explore more closely. It seemed obvious—they sat beneath Isin-Larsa, so they must be Ur III. Although they might date in this period, SUNY excavations could not directly confirm it. The mudbrick walls typically did not extend far beneath the baked brick, and floor levels associated with them were almost completely destroyed by later graves and building work. Some Ur III artifacts were found, but these were typically in fill, and in Square 4, mud walls (*tauf*) found beneath a Larsa / Old Babylonian baked brick structure were found to date to the early Isin rather than to the Ur III.²²

Continuing beneath the level of the mudbrick in SUNY Square 1 in Area AH did not reveal Ur III material. In Square 2, it revealed Old Akkadian tablets. Badly damaged stubs of Ur III walls were eventually found in Square 4, well beneath the Isin *tauf* walls. The bricks appear similar to those of the walls in AH, and if both are Ur III then there is a difference in elevation of around four meters in the period over a horizontal distance of only around 30 meters.²³ The Ur III building in Square 5 another 200 meters away sits at almost the same level as that in Square 4 showing that the level of the Ur III outskirts remained relatively the same beyond the high points beneath area AH.

Ur was destroyed at the end of the Ur III period, but it was reoccupied relatively quickly.²⁴ The Isin-Larsa / Old Babylonian period that followed saw the densest population in Ur's history. Houses were even built directly over the Ur III mausoleum. This had been low ground and so the house levels here are also rather low. Areas EM and AH are warrens of houses served by narrow, winding

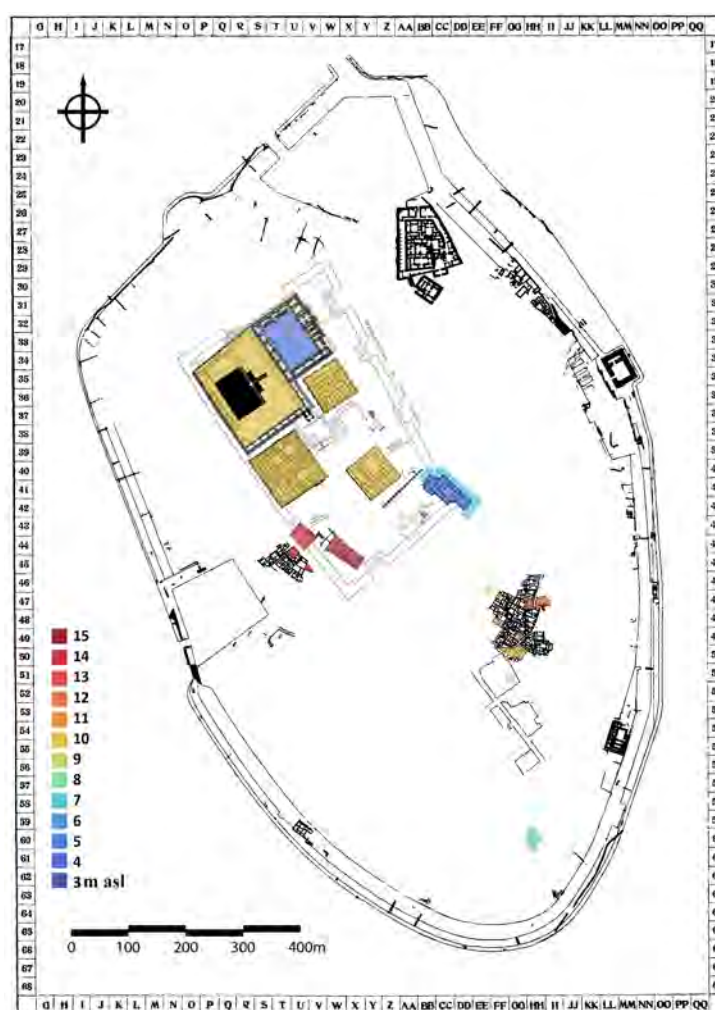


Fig. 6 Measured elevation shifts for the Old Babylonian city, averaged to height above modern mean sea level. We find average height in the temenos zone with high housing to the south, low housing to the east, falling away to a possible canal, then rising again to high housing at AH and falling off to the south from there.

²² In 2019 a few tablets of Išme-Dagan and a cylinder seal of Iddin-Dagan were found beneath the *tauf* walls.

²³ Floor level on the badly damaged Ur III wall found in Square 4 in 2022 measures 5.5 m asl, while floor level of the mudbrick below No. 1 Baker's Square (revealed in SUNY Square 1) sits around 9.8 m asl. Note that Woolley's Above Sea Level measures are about 5 meters higher than modern ones due to the way in which sea level is calculated.

²⁴ The destruction, however, remained in the collective conscious for decades or even centuries and the city was still slow to recover from the damage. See Otto, this volume.

alleyways on high ground (Fig. 6). In fact, we find drop-offs in elevation for the Old Babylonian period in quite a few places, especially south of area AH. Floor levels in AH sit between 10.5 and 12.2 m asl, with those in EM as high as 13.5 m. But those in Square 4 are between 9.0 and 9.4 m, and those in Square 5 around 6.9 m asl.²⁵

The city was filling in, and may have been less terraced in appearance, undulating over a much larger area out to what had been the city wall. But did a city wall still exist? Woolley felt that it had largely disappeared at this point to be replaced by the backs of houses, but he notes textual indications of possible city wall repairs: “Gungunum claims to have restored the great city gate and Libit-Ishtar ‘renewed the place of Ur’, by which phrase he probably intends the wall of the city; Warad-Sin undertook a fresh reconstruction, apparently in the tenth year of his reign” (UE 6:61, citing texts in UET 1, nos. 265, 295, and 252). Whatever the case, while the population was increasing, the kings of Isin, Larsa, and Babylon had to work hard to repair the damage after the Ur III destruction.

It could be suggested that in this period of dense population the city may have grown too big for its walls, if it had them, and that this was the time when small suburbs began to arise. Artifactual evidence shows Diqdiqqeh founded at least by the Ur III, but it is more than a kilometer away and may have been formed as a kind of *karum* and manufacturing center.²⁶ The small suburb mounds nearer the site may have formed later. Current excavation on one of these mounds has so far revealed Old Babylonian at the earliest; however, excavation has only just begun and it is clear that there is more cultural material beneath. We are also finding that the buildings are not those of poorer people hoping to feed off the wealthy and crowded city. The structures are as well-built as those inside the city wall and contain similar artifacts, including tablets and luxuries. And despite the impression of a densely packed city given by Areas EM and AH, the area in the south of the city in the Old Babylonian period does not appear to have been over-crowded. Excavation in Square 4 revealed two very large Old Babylonian rubbish pits immediately south of Area AH and magnetometry indicates many relatively open spaces across the southern mound. Furthermore, the physical size of and space between Old Babylonian houses found in Square 5 confirm that there was much more room to build here than nearer the center of the city (Fig. 7).

Around 1849 BC, Sin-iddinam became king and claims to have built great walls to protect Ur’s citizens and expand the area for them to safely inhabit, or as he put it, sleep soundly.²⁷ The newly secured space in the south of the city may account for large houses being built in the southern portion of the mound around this time. It does not explain, however, why people would be living immediately outside the city. If people were afraid to build in the southern portion because there was no city wall, then why ever build on the unprotected suburb mounds? Perhaps Sin-iddinam only encouraged people to build in and around the city, assisting with great works in general.

Around 1740 BC Ur was once again under attack, this time by the forces of Samsu-iluna. How complete the destruction was is not truly known, but there is some evidence of burning within the

²⁵ In the 2022 season, with the help of Berthold Einwag, I measured as many secure OB floor levels across the site as I could. Area EM is particularly high, around 13.5 m asl, situated as it is over the oldest part of the city. AH is also a relatively high node running between 10.5 and 12.1 m asl. Floor level of the house of Abisum (SUNY Square 3 north of AH and near the edge of the possible canal through the city) is around 8.6 m asl. Woolley also showed an approximate two meter difference in floor levels across AH, with lower elevations in the south. He does not give an absolute scale, however (UE 7: Pl 125).

²⁶ Woolley (UE 7:12) called it a ‘working-class suburb,’ but he never completely defined its extent, saying only that it lay north-east of the city around where the railroad tracks split from the main Baghdad–Basra line to go to Nasiriyeh (UE 7:81). But there is a series of low mounds stretching from where the railroad formerly ran all the way to within 200 m of Ur itself. Did all of these mounds constitute Diqdiqqeh or only the most distant?

²⁷ MS5000 (Volk 2011:73). After speaking of building great walls and paying the workers, Sin-iddinam in Volk’s translation says “Die Bürger der Stadt Ur ließ ich friedvolle Siedlungen bewohnen. Die ganze Bevölkerung habe ich ruhig schlafen lassen.” The exact timing of this event is not clear. Sin-iddinam became king in 1849, but he may have repaired the walls a few years earlier, during the reign of Nur-Adad when he was crown prince. See Otto this volume.

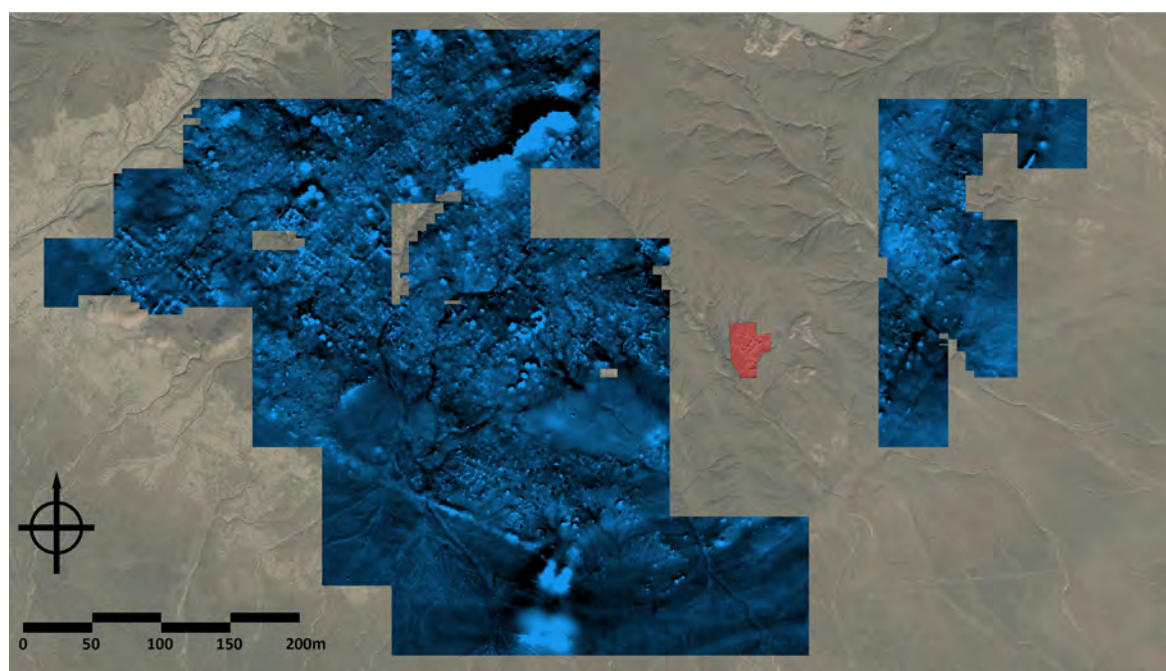


Fig. 7 Magnetometry results from the survey of the southern portion of the mound conducted by Jorg Fassbinder in 2017 and 2019. There are many walls beneath the surface, but also many areas of apparent open space. The red area is Square 5, excavated from 2017 to 2022.

houses of Area AH, and late Old Babylonian to early Kassite material is generally not found at Ur.²⁸ Woolley believed that the city did not lie long without inhabitants, using as his evidence the fact that Kassite houses often sat directly atop the walls of the Old Babylonian (UE 8:1–2, 77–8). But, they typically sit atop the baked brick, and as much as two meters of wall height in the domestic structures was often made of baked brick in the Old Babylonian period at Ur. The houses may have sat open for hundreds of years with their mudbrick tops eroding away, but some of the baked brick would remain visible above the washed-in soil as is the case now, 100 years after Woolley exposed many houses.

There probably were people at Ur after Samsu-iluna's 11th regnal year, but in severely reduced numbers. It was not heavily repopulated until around the time of Kurigalzu, some 300 years later. We do not have much evidence of the extent of the Kassite city, although there was a good deal of public architecture rebuilding in the period. Woolley believed that there was no city wall at this time, but that the backs of houses at the edge of the city formed a protective line (UE 7:4).²⁹ His evidence came primarily from the house remains in Area CLW along the north-east edge of the city. These buildings were in bad condition, though, and the exact date was not clear. Late buildings at Ur, the Kassite and Neo-Babylonian/Persian, are typically very heavily eroded but we do find them, or at least their foundations, even on the low mound outside the city.

The Neo-Babylonians expanded the temenos and repaired the ziggurrat. They built houses on new and larger plans with straight, broad streets (UE 9:43–4). The city changed, but still there were people living both inside the city proper and immediately outside it. Large Neo-Babylonian structures have been found on the low east mound, up to 25 meters in length (Fig. 8). The mudbrick of their foundations can be seen in drone photos, but magnetometry does not show them since their signature is not much different from the surrounding soil. The 2022 excavation season has further shown that these long mudbrick alignments have eroded so much that only one to two brick courses remain, with no floor levels still existing.

²⁸ Woolley (UE 7:13) believed the Samsu-iluna destruction was severe: "...we are forced to the conclusion that the phrase "destroyed the walls of Ur" is an understatement of the truth and that Samsu-iluna punished the rebellion by the complete destruction of the city." Burning is evident in some houses, such as that in SUNY Square 3, but it may not have been as widespread as Woolley indicates. (For the date and author of the destruction see now Charpin, this volume).

²⁹ And yet he also identified the 'Kassite Fort' as a protective structure at a salient in the eastern city wall (UE 8:73).

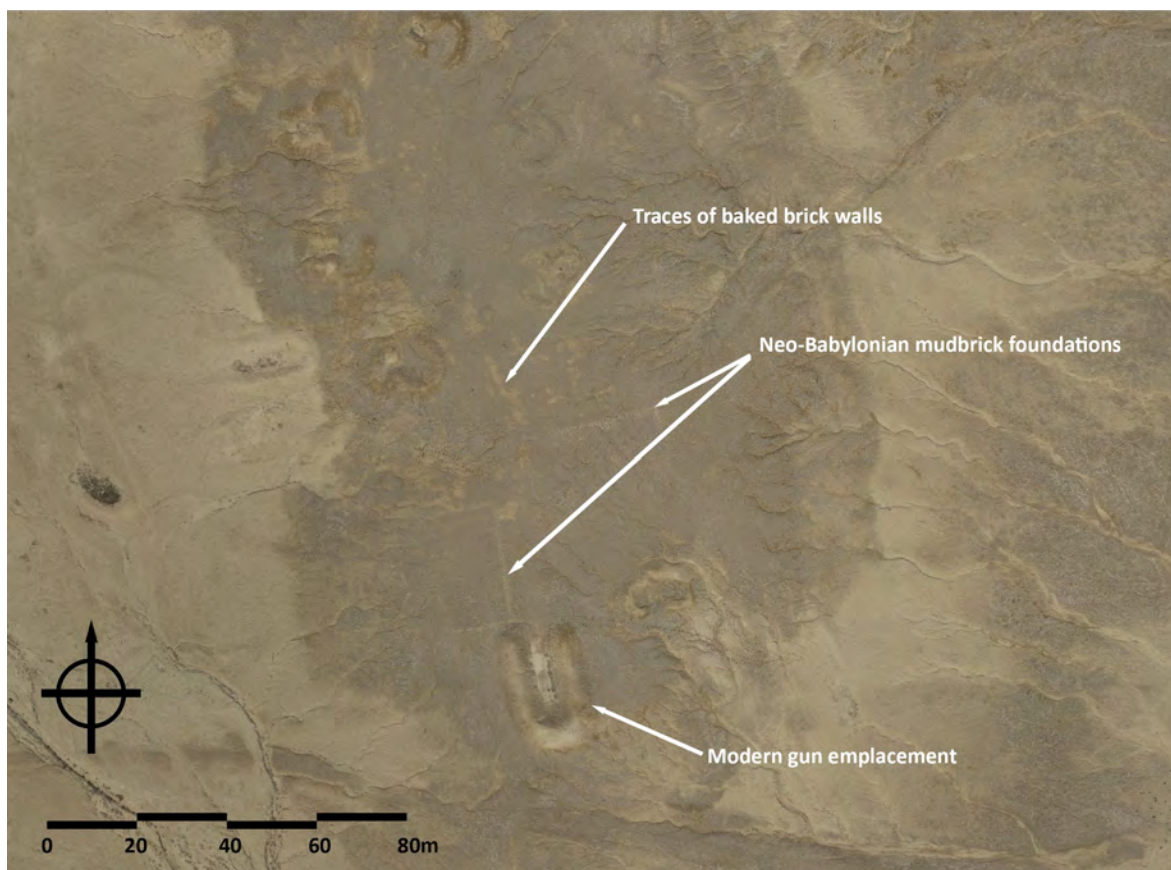


Fig. 8 Drone photo of the east mound showing modern anti-aircraft gun emplacements (U-shaped berms) and long lines of Neo-Babylonian mudbrick foundations (light lines), as well as traces of baked brick walls that are Kassite or Old Babylonian.

We have only just begun digging on the low mound about 200 meters east of the Ur III city wall, but we hope eventually to find out when this mound was founded. Emily Hammer conducted survey of the area in 2019 and found sherds of most periods, including the Ubaid (Hammer 2019; Hammer & Di Michele 2023). She suggests that perhaps both the low east mound and the high main mound developed at the same time. Perhaps there were south and north mounds that grew rapidly and became enclosed as one by the Ur III period, while the east mound did not grow as quickly and remained peripheral. Further excavation is needed to answer the question.

For now, we can only say that the east mound did not form due to overcrowding and was not inhabited by poor people drawn to the wonders of the great city. Instead, they appear to be craftspeople probably working with the city. The artifacts Woolley recovered from Diqdiqqeh show that it likely had an industrial and commercial purpose (UE 7:81–7). Perhaps the string of mounds extending to the north-east were all dedicated to such tasks, with the smoke and noise of manufacturing being intentionally located away from the city proper. This closest mound does not show evidence of heavy industry, like firing bricks or smelting metal, but it does show more refined elements, like small stone tools, drill parts, and small detritus possibly from the final process of making beads, tools, and other small items. Perhaps the heaviest work was being conducted at the farthest extent of the Diqdiqqeh string of mounds, while finer work was being done closer to the city.

Woolley showed us great things and we learned much from him. He also left many questions that we can investigate with modern techniques as we enter the next century of excavation after him.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 2	Woolley 1934
UE 4	Woolley 1955
UE 5	Woolley 1939
UE 6	Woolley 1974
UE 7	Woolley & Mallowan 1976
UE 8	Woolley 1965
UE 9	Woolley & Mallowan 1962

Ur Excavations Texts

UET 1	Gadd & Legrain 1928

- Benati, G. 2013. "The "Archaic I" Phase of the Ziqqurat Terrace at Ur: A Contextual Re-assessment", *Mesopotamia* 48:197–220.
- 2015. "Re-modeling Political Economy in Early 3rd Millennium BC Mesopotamia: Patterns of Socio-Economic Organization in Archaic Ur", *Cuneiform Digital Library Journal* 2015: 2.
- Delougaz, P. 1940. *The Temple Oval at Khafajah* (OIP 53). Chicago: University of Chicago Press.
- Gadd, C.J. & L. Legrain 1928. *Ur Excavations Texts I. Royal Inscriptions*. 2 Vols. London: Printed by order of the Trustees of the Two Museums.
- Hafford, W.B. 2017. "City of the Moon: New Excavations at Ur", *Expedition* 59:10–19.
- Hammer, E. 2019. "The City and Landscape of Ur: An Aerial, Satellite, and Ground Reassessment", *Iraq* 81:173–206.
- Hammer, E. & A. Di Michele 2023. "The Suburbs of the Early Mesopotamian City of Ur (Tell al-Muqayyar, Iraq)", *American Journal of Archaeology* 127:449–79.
- Stone, E.C. 2012. "The Organisation of a Sumerian Town: the Physical Remains of Ancient Social Systems", in H. Crawford (ed.) *The Sumerian World*: 156–78. London: Routledge.
- Stone, E.C. & P. Zimansky 2016. "Archaeology returns to Ur: A New Dialog with Old Houses", *Near Eastern Archaeology* 79:246–59.
- Stone, E.C., A. Otto, D. Charpin, B. Einwag & P. Zimansky 2021. "Two Great Households of Old Babylonian Ur", *Near Eastern Archaeology* 84:182–91.
- van de Mieroop, M. 1992. *Society and Enterprise in Old Babylonian Ur*. Berlin: Dietrich Reimer Verlag.
- Volk, K. 2011. "Ein neue Inschrift des Königs Sin-iddinam von Larsa", in A.R. George (ed.) *Cuneiform Royal Inscriptions and Related Texts in the Schøyen Collection* (CUSAS 17):59–88. Bethesda MD.
- Woolley, C.L. 1934. *Ur Excavations Volume II. The Royal Cemetery*. 2 vols. London / Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- 1939. *Ur Excavations Volume V. The Ziggurat and its Surroundings*. London: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- 1955. *Ur Excavations Volume IV. The Early Periods*. Philadelphia: Published for the Trustees of the Two Museums by the aid of a grant from the Johnson Fund of the American Philosophical Society.
- 1965. *Ur Excavations Volume VIII. The Kassite Period and the Period of the Assyrian Kings*. London: Published for the Trustees of the Two Museums.
- 1974. *Ur Excavations Volume VI. The Buildings of the Third Dynasty*. London: Published by the Trustees of the two Museums.
- Woolley, C.L. & M.E.L. Mallowan 1962. *Ur Excavations Volume IX. The Neo-Babylonian and Persian Periods*. London: Published for the Trustees of the Two Museums.
- 1976. *Ur Excavations Volume VII. The Old Babylonian Period*. London: Published for the Trustees of the two Museums by British Museum Publications Limited.
- Zettler, R.L. 2020. "Woolley's Excavations at Ur: New Perspectives from Artifact Inventories, Field Records, and Archival Documentation", in G. Frame, J. Jeffers & H. Pittman (eds.) *Ur in the Twenty-First Century CE: Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016*:7–34.
- Zettler, R.L. & W.B. Hafford 2015. "Ur B, Archäologisch." *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 14/5–6:367–85.

Context matters.
**Reflections on the added value of new excavations for the
knowledge of early Old Babylonian Ur, 100 years
after Woolley**

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We dedicate this article to the memory of his excellency Dr Abdulamir al-Hamdani, who was the soul and driving force behind the new Ur project 2015–22. He is sorely missed.

Abstract

Recent excavations in Area 5 on the South Mound of Ur led to the completed excavation of a single house from the early Old Babylonian period, which provides detailed insights into daily life of the inhabitants through the combined analysis of archaeological, textual, scientific and IT methods

Introduction

This Ur centenary colloquium must be started with the statement that Sir Leonard Woolley was a genius. Whoever has been working about Ur or at the site Ur since then, has been standing on the shoulders of this giant. One of his greatest merits is that he showed deep interest in a subject that does not look too rewarding at first glance: the domestic quarters of Ur, which promised neither golden or other eye-catching finds—unlike the ‘Royal Cemetery’—but everyday remains and dwellings from sheer mud. The Isin-Larsa and Old Babylonian house quarters which he excavated on a large scale in areas AH and EM have been the model of densely built living areas within a Mesopotamian city until recently. It was the first large-scale attempt to systematically investigate residential areas after Robert Koldewey's fundamental urban research in Babylon, which, however, mainly covered the city of the first millennium. Woolley and his team prepared the ground for the research of everyday life in the Old Babylonian period based on material remains.

Why then should there be renewed excavations at Ur a hundred years later?

The answers are manifold. First of all, the methods have changed. Remote sensing, geophysical prospection, and advanced scientific examinations of fauna, flora and human remains were neither desirable nor possible in those days.

Additionally, the questions have changed and consequently the process of digging. Fine-grained, detailed and slow excavations replace today the large-scale, swift archaeological fieldwork with hundreds of workmen of the last century. The result is a deeper understanding of context, the whereabouts, when and why of the material remains. By analyzing the archaeological remains in their find places, it is possible to reconstruct the diet and the health status of the inhabitants, and

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their activities, as well as the social composition and the diachronic development of households and neighbourhoods.

The great and largely unique contribution of the Old Babylonian houses in Ur is that, in addition to the archaeological relics that allow us to infer the people and their activities, even the people themselves are tangible, whose skeletal remains can be found in the graves beneath the houses. And as if that were not enough, the text finds of this extraordinarily literate society, which can be encountered in almost every house, allow us to get so close to the individual people that often even their names, professions and family relationships are known, with letters allowing insights into even the most intimate interpersonal relationships.

And last, but not least: many questions have remained open at Ur despite the 12 years of excavations 1922–34. For example, while the North Mound with the official quarters was intensely investigated, much less effort had been spent on the South Mound. Although Woolley excavated sixty-eight Old Babylonian houses, there is still little reliable information about who was living and working in the city center and who at the periphery, if there existed social or economic differences between the inhabitants of EM, AH and elsewhere, or about how healthy the inhabitants of specific houses were. It is even not clear whether the social and personal status or the state of health of the family members was mirrored by the size and furnishings of the respective house. This and many other issues that have come into focus in recent decades as interest in household archaeology has intensified and become easier to answer thanks to improved methods, make it desirable to address some unanswered questions.

Concerning the analysis of the houses, Woolley himself deeply regretted that the information from the tablets found in the houses could not be linked to the findings in the houses in the desired way. He apologized (UE 7:xviii) that he could not adequately fulfil the promise he had made in 1931 with the words

“...we seem to have material enough to identify the owners of most of the houses of the Larsa period and to learn something at least of their activities. These documents, not always of any great interest in themselves, gain immensely in value from their association with individual houses and should furnish a remarkably detailed account of this quarter of the city of Ur” (UE 7:372).

Similarly, one might ask why it is necessary to excavate more artefacts in Old Babylonian houses of Ur when at the same time the museums of Baghdad, London and Philadelphia already house so many finds from the previous excavations. However, even in this Centennial Colloquium, the lecture by Prof. Laith Hussein and that by Prof. Richard Zettler have shown that the context of many Ur artefacts is still poorly known, even that of terracotta figurines, which have received much more attention over the years than ceramics, for example. We will give an example of this below under §1.

We are therefore deeply grateful that, thanks to the initiative of Dr Abdulmir al-Hamdani, who passed away much too early, we were able to excavate a single Old Babylonian house in detail and in its entirety during three short campaigns.³ In the following, three examples will show new insights

³ Our sincere thanks go to Prof. Elizabeth Stone, who had invited us to participate in her new Ur project in 2017 and 2019, and made this great opportunity possible. Our thanks are due to Dr. Brad Hafford who invited us to participate in October–November 2022 in the new Ur project run by the Penn Museum. Furthermore we thank the Iraqi State Board of Antiquities and Heritage, its general director Prof. Laith Hussein, the antiquities director at Nasiriyah Ali Qadm, the SBAH representatives from Nasiriyah, the workmen, all the team members, and the Gerda Henkel Stiftung for funding. Co-Director of the LMU Munich team was Berthold Einwag, other members in 2017, 2019 and 2022 were, in alphabetical order: Pierre Borsdorf, Jasmin Braun, Denis Busch, Cyrill Dankwardt, Albert Dietz, Johannes Einwag, Jörg Faßbinder, Andrea Göhring, Martin Gruber, Johannes Hechtel, Michael Herles, Kai Kaniuth, Moritz Kellerer, Manfred Lerchl, Anne Löhnert, Sandra Ostner, Mandana Parsi, Elisa Roßberger, Walther Sallaberger, Marion Scheiblecker and Laurin Stöckert. We thank also Dominique Charpin (Paris), Melina Seabrook (Harvard) and Marco Wolf for excellent cooperation. Last, but not least, we thank the organizers of the centennial colloquium and the editors of this volume for their initiative and patience.



Fig. 1 Area 5 on the South Mound of Ur, view from south (drone photo: B. Einwag)

into urban life at Ur in the 19th century BC, which complement the results of the excavations a hundred years ago.

The new results were achieved through the detailed excavation of a single house in Area 5 (Fig. 1). Area 5 is situated at the southernmost part of the south mound close to the city wall—an area which had never before been investigated archaeologically. Our main research questions concerned the nature, use and function of Old Babylonian buildings in this area. In addition, our aim was to excavate and publish for the first time an Ur III period residential building in Ur, because so far only public buildings of this period are known from the capital of the Ur III empire (UE 6). We hoped that Ur III period buildings were relatively close to the surface in an area where erosion had largely removed the 1st millennium layers. Both aims were achieved at the end of the 2022 season, after three seasons of research.

The location of Area 5 about 70 m from the city wall and 250 m from the AH house quarter promised new insights into the inhabitants on the edge of the main mound in the early 2nd millennium. The area lies several meters lower than AH and EM, with Old Babylonian houses immediately below the surface and hardly disturbed in later times, apart from graves mainly of the first millennium.

The excavation of this house started in spring 2017 and continued in February–April 2019.⁴ Because we had not reached the lowest floor in all rooms during the two short campaigns, we were delighted to have the opportunity to excavate the first phase of the house in all rooms in 2022. Indeed, the first phase of the house is the one best attested by finds, and the owner, personally known from cuneiform texts and seal impressions, gave the house its nickname “Sîn-nādā’s House”. Sîn-nādā was the principal of the Ningal temple—so he certainly belonged to the elite of Ur—and lived in the house together with his wife Nuṭṭuṭum.

The house turned out to be an absolute stroke of luck: it was hardly built over or disturbed by later layers, still contained a sufficient number of remains of the original inventory, and additionally written documents, so that the dating is reasonably certain and the inhabitants of the house can

⁴ Preliminary reports in Stone et al. 2021, Otto 2022, Otto 2023.



Fig. 2 Area 5, state of excavations November 2022 (photo: B. Einwag)

In the last campaign, which ended just two weeks before the centennial conference, we were even able to excavate parts of the neighbour's house, which adjoined the large open outdoor area, a courtyard or garden, on the other side (Fig. 2). Thus the dimensions and number of rooms of Sîn-nāda's house are clear: it measures about 236 m² and has 16 rooms and an open courtyard. It was accessible from the main road to the west via the room in the north-west corner of the house, through a carefully locked door, as evidenced by an exceptionally large pivot stone (a baked brick) in entrance room 14b. However, it is now also indisputable that the house did not border directly on a neighbouring house in the direction of the south, but that there was an open area of at least 14 by 10 m here, which was accessible from Room 5. This open area may have been a kind of garden or multifunctionally used courtyard. The large north-eastern quarter at Larsa also shows spacious villas separated from each other by dozens of meters, and the excavators suggest that these large open spaces around the houses could have been gardens (Calvet 2003:183–4, 201, Fig. 4). Before we address the three issues, a brief outline of the history of the house should be given.

be reconstructed along with their tasks.

Work began in 2017 by scraping the outer walls and by excavating a few rooms. In 2019, the entire structure, dimensions and floor plan of the house could be recorded, albeit partially only in the two uppermost phases of occupation. Clearly, this was a standard Old Babylonian courtyard house, but extraordinary large and very regularly built—quite different from what had been known from most houses in AH. This can now be interpreted to imply that spacious plots for building were available here near the edge of the south mound, and that the area was not built on again until the middle of the 19th century. Until then it had obviously lain deserted and had at most been used as a burial ground after falling victim to the devastating destruction at the end of the Ur III period around 2000 BC.⁵

⁵ For a detailed argumentation as to why the residential areas of Ur did not extend into the southern part of the South Mound until the middle of the 19th century, see Otto 2023.

Brief history of “Sîn-nādā’s House”

Three main use phases of the building can be identified, which fortunately can be historically assessed through written finds—cuneiform tablets and seal impressions—and at the same time contain many details about the inhabitants. The house was built around 1860 BC and used for about 25 years (Phase 1 = c. 1860–1835 BC). It then apparently changed hands and was remodelled, which also meant that all floors were raised 20–80 cm (Phase 2 = late 19th/early 18th century). Finally, it was rebuilt once more (Phase 3 = first half of 18th century) until the temporary abandonment of the city of Ur at the time of king Samsu-iluna.

The first inhabitants of the house that we know by name were Sîn-nādā and his wife Nuṭṭuṭtum. Sîn-nādā is entitled the priest (**šab**ra) of the Ningal temple and a servant of Larsa king Sîn-erībam on his first seal with which he sealed some letters that he sent to his wife Nuṭṭuṭtum while he was absent from home. The seal impressions even allow to follow the carrier of Sîn-nādā, since a few years later he was the principal (**ugula.é**) of the Ningal temple. But this is the last sign of life of our couple. When king Šilli-Adad of Larsa was eliminated by Warad-Sîn in 1835 after only 9 months of reign, the glory days of this elite family came to an abrupt end, perhaps because they were too closely attached to the former regime.

The letters sent from Sîn-nādā to his wife Nuṭṭuṭtum, further economic documents and sealed labels provide detailed insights into the couple's activities. Most of the inscribed objects were found discarded in a rubbish heap in Room 5, where they had obviously been dropped when the house was abandoned, but scattered textual evidence was found in nearly every room. The reading of the cuneiform texts and seal inscriptions of 2017, 2019 and 2022 is due to Dominique Charpin, Walther Sallaberger completed the team in 2019. From the letters of Sîn-nādā to Nuṭṭuṭtum we learn that the Lord of the house was often abroad and that the mistress of the house managed the household during his absence. Several sealed labels and tablet labels provide an excellent insight into the activities of Nuṭṭuṭtum, who, like her husband, was economically active. From the labels we learn that she received large amounts of wet draff from another woman named Eburitum, who—following Sallaberger’s interpretation—possibly was active in brewing. This is very concrete evidence of two women who were economically active and were furthermore literate.

Probably Nuṭṭuṭtum was actively involved in the fattening of sheep and was also providing the Ningal temple with goods. In our reconstruction (Fig. 10) we illustrate our hypothesis that some sheep were kept for fattening (perhaps for the last days before slaughter?) in the large yard or garden, since similar ones are rarely attested in the crowded quarters of AH and EM.

This couple had their extraordinarily spacious house built here near the outskirts of the city, where apparently no buildings had stood since the city-wide destruction at the end of the Ur III period. Recently, a clay barrel from the art market (Volk 2011) revealed that a new building area had been designated under Sîn-iddinam after the city wall of Ur had finally been restored (Otto 2023). However, this new development, which suddenly multiplied the potential building areas for houses in Ur, probably dates not to the years when Sîn-iddinam was king of Larsa (1849–1843 BC), but to the reign of his father Nûr-Adad (1865–1850 BC), when Sîn-iddinam in his function as crown prince was already in charge of Ur (Charpin 2004:101–8). In fact, on the last day of excavations in the 2022 campaign, several small clay tablets were found on the lowest floor of Room 11, which are related in content and all date to Nûr-Adad's regency (oral information from D. Charpin). They are the earliest dated documents from Sîn-nādā's house. These accounts were obviously no longer needed a few years later and, because they are small, solid tablets and make good filling material, were used to raise the floor by 5 cm, for which purpose they were simply covered with clay. This floor was in turn covered with reed mats (see below §2 and Fig. 7).

Obviously, not only Sîn-nādā and Nuṭṭuṭtum, but also many other members of the wealthier social groups of Ur seem to have seized the opportunity for less crowded living in spacious villas—at any rate, the magnetometer prospection by Jörg Faßbinder and Marion Scheiblecker shows other large houses in the immediate vicinity of Sîn-nādā's house (Scheiblecker & Faßbinder 2022:372,

Fig. 6). They are larger than the average of the contemporaneous houses in EM and AH, where the continuously settled Old Town had its center since the 3rd millennium.⁶

However, the couple had to leave their house after only about 25 years, quite probably in 1835 BC, when the ancient regime at Larsa and Ur was overthrown, king Šilli-Adad removed and king Warad-Sîn installed on the throne in Larsa (Charpin 2004:107, 116–18). It seems that they had to leave so suddenly that many objects were left behind, even intact terracotta figurines, utensils and tools, jewellery, weight stones, as well as written documents, letters and school tablets.⁷

If our reconstruction is correct, the Phase 1 house was abandoned in 1835 BC. In the following years, some walls collapsed until the house was inhabited again, presumably by new owners whose names we do not know. The house was restored, some changes were made to doors and installations, and all floors were raised about 20–80 cm, on average about half a meter.

Unfortunately, we could not reach the lowest floor of all rooms in the 2019 season, and this was one of the main goals of the 2022 campaign. This goal was achieved, so that now also the house in the first phase under the first inhabitants Sîn-nādā and Nuṭṭuṭum is completely excavated and all rooms documented until the earliest level. Both this house and its Larsa-period neighbour, which lay to the south of the open courtyard, were built directly on top of the levelled walls of an amazing Ur III building—but that is another story.

New answers based on Sîn-nādā's house

As spatially manageable as the excavation area of this one house is, not to say infinitesimally small in relation to Woolley's earth movements, many questions of the AH and EM house quarters can be answered by it. We will not go into the fundamental question of the health and nutrition of the inhabitants, even though the anthropological, zoological and botanical findings provide many new insights. Only this much: The anthropological analyses by Andrea Göhring (LMU Munich) revealed an overall quite healthy population with only few diseases and few (morphological) symptoms of nutritional deficiency. Individuals could reach a relatively high age without osteological signs of hard labor. The high life expectancy and low disease rate was also due to the excellent hygiene, which was supported, for example, by the paved bathroom with a drainage shaft over 8 m deep in Room 18 in the north-east part of the house. The diet also seems to have been quite balanced and included a considerable amount of fish in addition to sheep, goat, pork and beef.⁸ Shortly before the Phase 1 house was abandoned, fish had been barbecued in the courtyard (1), the remains of which lay on the beaten clay floor next to the grill.

In the following, we would like to present new insights into the following three questions: Contextualization of objects, relevance of decayed reed artefacts, and challenge and potential of three-dimensional reconstruction.

§1. The context of terracotta plaques

Moulded terracotta plaques, together with cylinder seals, are the most important source for understanding better the fears, pleas for protection, beliefs and rituals but also the commonplace amusement of ordinary people. P.R.S. Moorey wrote already in 1975:

...it has to be admitted that the beliefs and customs of the majority of men and women in the great Babylonian cities eludes us... If we are to seek a crossing in this barrier ever more meticulous attention will have to be paid to the exact circumstances in which these plaques are found, to their association one with another and to the range of motifs used at specific places (Moorey 1975:98).

⁶ About the shape, size and number of rooms of the houses excavated by Woolley, see Miglus 1999.

⁷ For an analysis of the new balance weights from Ur see Hafford, Einwag & Otto 2023.

⁸ The analysis of the animal bones by Kathy Twiss and Melina Seabrook is underway. For a brief preliminary report see Seabrook & Twiss 2018.

Although it seems to have been clear for a long time that most terracotta reliefs were found in residential areas of southern Mesopotamia, there are still regrettably few precisely known places of their discovery within houses (Opificius 1961:3–24; Barrelet 1968). Asher-Greve and Westenholz (2013:238–9) concluded from the fact that terracotta plaques were often found thrown away in rubbish fills: “Rather than being images of worship or ex-voto objects (generally inscribed), they were used in magic rites or rituals presumably performed in the domestic sphere and neighborhood shrines”. To them, the primary function of terracotta reliefs was “prevention and warding off adverse elements, including diseases” (Asher-Greve & Westenholz 2013:241). However, this does not explain why many plaques were equipped on the back with small devices so that they could stand upright.

Thousands of terracotta figurines and plaques have been reported from the Ur excavations.⁹ Unfortunately, most of them are said to come from Diqdiqqah, the large area about 1500 m north-east of the main mound, which “yielded several times as many terracottas as the whole of the rest of Ur produced in the course of twelve years’ work”, from which the excavators concluded that workshops for the production of terracottas and other artefacts were located there (UE 7:85–6). In contrast, relatively few plaques are known to have been found in specific buildings at Ur itself, and only a dozen have been reportedly found in specific houses.¹⁰ Consequently, their function and purpose are still a matter of debate, and even the precise dating of many is questionable.

Also at most other sites where Old Babylonian terracotta plaques have been found, their location is hardly ever known in such detail that the ancient use of the images and thus their significance for the people of that time could be deduced. Therefore, the more than 20 plaque fragments from the area inside and outside of Sîn-nādā's house are of great value, since they come from secure contexts.

The 2017–19 excavations in Ur brought to light, among other figurines, three fragments of terracotta plaques which are model-identical to plaques previously found “in Ur”, but in fact all of them were brought to the excavators from Diqdiqqah (Fig. 3d–e, f–g).¹¹ The clay plaques, which were equipped on the back with small devices for making the image stand upright, depict a seated goddess *en face*, dressed in a long, flounced garment, a three-row necklace and a huge, prominently projecting horned crown surmounted by a crescent moon and flanked by four star-like discs. Next to the shoulders of the goddess, two waterfowl, probably geese, are depicted. On either side of the throne are standing two small anthropomorphic beings, most likely identified as standard-bearing *lahmu*. The goddess depicted is very probably the supreme goddess of Ur, Ningal.¹²

We will not discuss here the plaque fragment of the lower body found in Area 4 in the AH housing district in 2019 (it will be published by E. Stone as part of her excavation in the near future); but the two other pieces which were found inside the house of Sîn-nādā and on the courtyard or garden south of it are marked as white dots in Fig. 2.

Plaque 0353 (Fig. 3a–b) was found in Main Room 6 near the floor of Phase 1 (season 2017). The last use of the floor can be dated to 1835 BC, which provides a precious *terminus ad quem* or *ante quem* for the figurines. The fragment shows the upper part of the 4.5 cm wide figurine which is broken below the breast. Since nearly all the plaques found in Area 5 (for the exception see below and Fig. 4) were found broken, its fragmentary state is not surprising. However, the fracture and parts of the back were smeared with bitumen (Fig. 3b). For lack of a better explanation, we claim that the

⁹ L. Legrain, whose volume on all terracotta figurines and plaques from Ur was unfortunately not published, gave the total number of terracottas as over 2,600, UE 7:171–83, Pl. 66–91; see also the Ur-online and BM-online databases.

¹⁰ About 60 out of 240 Old Babylonian terracotta plaques, published in UE 7, are said to have been found in Ur. The location in or outside a specific house or chapel is indicated for 12 of them, from which only two can be attributed to a specific room in a house: UE 7, no. 76 (Pl. 72) is from No. 15 Church Lane, Room 6, and UE 7, no. 182 (Pl. 84) is from No. 8–10 Paternoster Row, Room 2.

¹¹ All from Diqdiqqah: UE 7, Pl. 79, 135: U.1014; BM 117121; BM 119162; the published lists and online databases hold more examples of this type, now stored in the British Museum (BM 1927.0005.27) Penn Museum, and Iraq Museum (U. 18036.); L. Hussain in his centennial lecture showed two especially good examples from the Iraq Museum in his presentation.

¹² Not only the crescent moon, but many other features such as the geese and the abundance of other types of a similarly depicted enthroned goddess make this identification most probable for artefacts found at Ur, see the discussion in Otto & Chambon 2023:45–57. For this goddess see also Battini 2006.



Fig. 3a–b Plaque 0353 from Room 6, obverse and reverse (photos: P. Zimansky)



Fig. 3c Plaque 4212 from the garden (photo: P. Zimansky)



Fig. 3d–e Model-identical plaque from Diqdiqqah, BM119162, obverse and side-view (<https://www.britishmuseum.org/collection/image/1612980562>, <https://www.britishmuseum.org/collection/image/1612980564>, © Trustees of the British Museum)



Fig. 3f–g Model-identical plaque from Diqdiqqah, BM 117121, obverse and reverse (<https://www.britishmuseum.org/collection/image/1612978659>, <https://www.britishmuseum.org/collection/image/1612978660>; © Trustees of the British Museum)



Fig. 4a–b Plaque 2291 from Room 13 (photos: P. Zimansky)

figurine continued to be used and was glued to an object that has now vanished, perhaps of organic material. As the piece was found together with some pottery near the front of the room, where a small niche had been cut into the wall, one might consider whether the figurine was placed here in a repaired state, perhaps attached to a wooden stand.

Plaque 4212, a fragment of the lower body (Fig. 3c), was found discarded outside the house in the open courtyard (season 2019). As the pieces were found in different years and then delivered to the Iraq Museum, it is impossible to determine whether both were parts of the same plaque. Only a few pieces from Diqdiqqah were found complete. While most figurines were used, broken and discarded in domestic contexts as part of special rituals, this fragment from Main Room 6 obviously continued to be used at a meaningful place in the house. Interestingly, the fragmentary lower part of a seated male god in a flounced garment was also found near the floor of Room 6.¹³

Whether it is significant that the owner of the house was principal of the Ningal temple, and therefore had a special relationship with Ningal, is possible, but cannot be proven. In any case, the evidence for the use of this terracotta in the house provides detailed new evidence for domestic use.

In Phase 1 alone more than 10 broken plaques were lying around in this house, where they had probably been used in domestic rituals, before they had been discarded. Indeed, the number of broken female figurines was particularly high in the open yard or garden south of the house.

However, one complete terracotta plaque was kept in the house. The rectangular plaque (2291) depicts the bearded king in his royal cap with upturned brim, enthroned on a padded stool and holding a beaker in his left hand (Fig. 4a–b). Comparable terracotta plaques are rare, and this is the only example from Ur so far, but roughly comparable ones are reported from Larsa, Sippar or Tell Ibrahim, and Uhaimir/Kiš, none of them with precise find spot (Opificius 1961, nos. 369, 370; Barrelet 1968, nos. 568, 569, 637). The most interesting issue about this terracotta, however, is again its context: it was located in the north-western corner of the house in the relatively large Room 13, which can be interpreted as a particularly elaborate kitchen on the basis of two domed ovens and three drainage shafts (see Fig. 2). Where the staircase to the upper floor led up diagonally across the corner of Room 13, a small niche-like area was created in which many unusual objects had been kept: two bull's horns, two bowls, a letter from Šin-nādā to his wife in which he told her not to worry about him but that he was fine, the bitumened small basket (Fig. 6), and this one image of the king. Based

¹³ We owe the information about comparable pieces from Ur to Elisa Roßberger, who is preparing the publication of all terracottas from Area 5. See e.g. Ur_BM_1931.1010.414 or https://www.britishmuseum.org/collection/object/W_1928-1010-403.

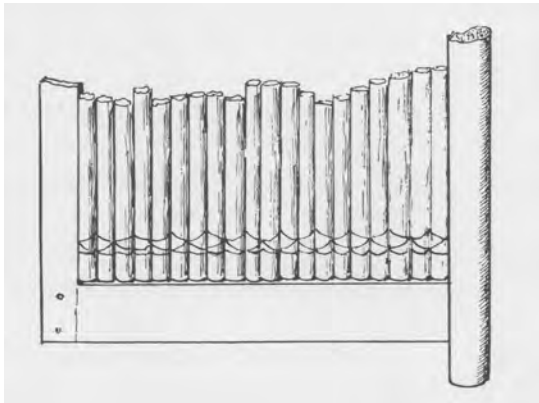


Fig. 5 Reed door from the Nin-šubur Chapel (UE 7:143, Fig. 39)



Fig. 6 Small basket on the floor of Room 13 (photo: A. Otto)

on the letter and the context of the large kitchen, we assume that it was Nuṭṭuṭtum who had placed some objects here, in this kind of alcove, that were of special importance to her.

§2. Artefacts made from reed

The importance of reed and cane in the relatively wood-poor southern Mesopotamia was notoriously enormous and reflected abundantly in textual evidence (Sallaberger 1989; Streck 2009–12): Houses, boats, mats, baskets, furniture, the stylus for cuneiform writing and countless other objects of daily life were made of this material. Unfortunately, they are much less attested in archaeological evidence, because organic material is usually not preserved in these zones. Woolley reports numerous objects made of reed, without illustrating a single one (see the index in UE 7:259). The only exception is the sketch of a door leaf which was made of reeds tied together and integrated in a wooden frame; it closed the entrance to Nin-šubur Chapel (Fig. 5), see below 3.¹⁴ The reason for their rare archaeological attestation is evident: they are clearly visible at the very moment of excavation and stand out as whitish or blackish discolorations, but cannot be preserved. It is very time-consuming and needs painstaking work (best by blowing only) to carefully excavate reed impressions—only for having it recorded in a photo.

Four examples from the new excavations will be discussed here:

1. The floor of Main Room 6 was completely covered with reeds. However, due to the fact that they were not woven mats, but reed stalks laid side by side, one must assume that this was only the underlay for the actual floor covering, because reeds and reed leaves can easily inflict injuries. This would indicate woven mats, woven or felted textiles, kilims or animal skins¹⁵ as floor coverings, as a substitute for seating furniture. In the reconstruction (Fig. 9) we have shown the covering as a woven mat, although we rather assume a more comfortable covering in the main room which certainly served for reception and residency.
2. A small basket woven from rushes (*Juncus*), rather than extremely fine reed (*Phragmites*) (Fig. 6) lay in the above-mentioned niche in Room 13, near the terracotta plaque of the king. It had a flat, square base (6–6.5 cm by 6.5 cm) and was then woven further upwards to form a small basket 6.5 cm high. The paper-thin substance had been preserved over the millennia due to the fact that the basket was coated with bitumen.

¹⁴ E. Stone and P. Zimansky found remains of a similar door made of reed in their AH excavation area (pers. comm.).

¹⁵ Sheep and deer skins, which covered the floor and / or the mud benches along the sides of main rooms, were identified by small ankle bones in the Late Bronze Age houses of Tall Bazi (Otto 2006:147).



Fig. 7a–b Woven reed mat covering the second floor of Room 11, Phase 1 (photos: A. Otto)

3. When the floor in Room 11 of *Sîn-nādā*'s house was raised a few centimeters in the course of its approximately 25-year existence (presumably because the first clay floor of Phase 1 was too worn), remains that were considered worthless were left behind and covered with a layer of mud about 5–10 cm thick. Among other things, a group of several small clay tablets from the reign of *Nûr-Adad* of Larsa were found in this clay packing. They were obviously no longer needed as economic documents (Otto 2023:11–12). A beautifully woven reed mat, even showing the selvedge, was laid over this mud floor which covered the tablets (Fig. 7a–b).
4. A child's burial in a reed basket was excavated in the 2022 season. Since it was found in the open area near the neighbouring house, outside of the house in consideration, it is not illustrated here. So far, no comparable basket burial seems to have been reported from Ur, but it is possible that a completely decayed basket would not have been noticed.

Many more insights into the activities of the inhabitants are revealed by the material remains. They will be presented in the final publication, which is currently in preparation. Toys such as baby rattles and knuckle bones speak for children in the house, a game board was used to enjoy leisure. Several low-quality cylinder seals were also left in the house when it was abandoned. Why the original seals are of much lower quality than those found impressed on labels, dockets, clay tablets, door and container closures is a phenomenon that still needs explanation.

Twelve small weight stones of haematite and goethite attest to financial transactions of the inhabitants in phases 1 and 2 of the house (Hafford, Einwag & Otto 2023:184–91). This number also gives a new picture of the frequency of weight stones in domestic contexts. Even though Woolley reported more than 400 weights from Ur, only 33 were assigned to the largest housing quarter in AH, most of which came from graves (Hafford, Einwag & Otto 2023:196–7). As a result, there had been hardly any information on the frequency of weight stones in domestic contexts from Ur so far.

§3. Three-dimensional reconstruction of the House of *Sîn-nādā* and *Nuṭṭuptum*

A 3D reconstruction of a building not only makes the excavated relics more vivid and comprehensible, but the availability of light and air or questions about accessibility and a second storey need to be carefully considered, which in turn leads to a deeper understanding of the excavated remains. Together with the Virtual Reality Branch of the Leibnitz Computing Centre of the Bavarian Academy Munich, we started the project of a 3D reconstruction of the house. All the details of the reconstruction were discussed in frequent meetings, and both sides—archaeologists and IT experts specialized in 3D modelling and reconstruction—benefited from the perspective of the others.

Simple modelling of the ground plan is quite easy (Fig. 8). Also the building technique is clearly visible and can be illustrated with ease: mud brick walls were laid on baked brick footings,



Fig. 8 3D model of the groundplan (Center of virtual reality and visualization, LRZ Munich)



Fig. 9 Interior view of Room 6 (B. Einwag and Center of virtual reality and visualization, LRZ Munich)

which, however, vary greatly in height (Fig. 9). Thus, the outer walls were built with up to 20 courses of baked bricks, whereas inner walls sometimes had only 4 courses of baked bricks. The size of the rectangular bricks was also always more or less the same (usually about 28–30 by 18–20 by 8–9 cm). But as we moved to the modelling of the interior and the details, more questions arose and led to more or less hypothetical answers.

In several rooms we found remains of reed mats, and in these cases, we were able to design the floor. But how high were the rooms? What did the doors and windows look like? We tried to stay as close as possible to the results of our excavations. We combined this with the findings of Woolley and other researchers. We accepted Woolley's idea that the doors were capped with arches, because he had

found a fallen arch (UE 7:28), but did not follow in every detail his reconstruction of the ideal typical house No. 3 Gay Street in Area EM (UE 7: Pl. 22). The doors were reconstructed according to the remains of a door made from reed-work which Woolley had found in the Nin-šubur Chapel (UE 7:143, Fig. 39), see Fig. 9.

The question of the second storey is more delicate. L. Woolley was convinced that most houses were two-storied (UE 7:26), while E. Stone (1981:30) and others were more in favour of single-storied houses—a question that has not been solved yet.¹⁶ However, several arguments in *Sîn-nādā's* house speak in favour of two stories. A solid staircase, built from baked brick in the lower courses, is situated in the south-west corner of the house, accessible from the central court. Above Room 13,

¹⁶ For this discussion see Battini-Villard 1999:371–84, Miglus 1999:75.



Fig. 10 3D reconstruction of Sîn-nādā's house, view from south (B. Einwag and Center of virtual reality and visualization, LRZ Munich)

the kitchen, the wooden staircase must have led around the corner to reach the roof or the rooms of the second storey approximately above Room 12, from where every room of the upper storey can be easily accessed.

But the sheer need for sleeping space also calls for a second storey. For even though the house is very spacious at over 230 m², there is not a single room that would have enough space without fixed installations or mobile inventory that at least two adult people could sleep. Exceptions are the courtyard and Room 6, but both can be excluded. The courtyard would not have been a good sleeping place in the rainy season, and the main room very likely served representative purposes, which are poorly compatible with a sleeping room for several people, not to mention babies or children.

Therefore, in this 3D study, we assume a row of rooms above all but Room 6 (Fig. 10). First, its southern wall is the only one that was built carelessly; additionally, the floor in the southern quarter of the room was paved with baked terracotta slabs, which in turn were covered with bitumen. This unusual device must be explained in such a way that the southern quarter of the room received a waterproof floor, which confirms Woolley's assumption that above the main room (he calls it the "domestic chapel") there was no second storey, but only a terrace that allowed partial light and air into the basement (UE 7:29–30). Therefore, we reconstruct the area above the main room as a roof terrace.

In the design of the interiors, we followed the artefacts and architectural features. Apart from door sockets from baked brick, no evidence of the doors has remained. The material remains give a hint for a possible use of most rooms, including areas of cooking, handling water, storage rooms, reception areas, a pantry, and others. Room 4 must have been related to school education in some way. Since along its walls numerous school texts lay scattered on the floor, we assume shelves along the walls on which the lenticular and rectangular school tablets lay or stood lined up.

A first suggestion of how the house might have looked like from outside is depicted in Fig. 10. In the garden, some native plants—tamarisk and date palm—have been reconstructed, even if there is no archaeological evidence for it, just our experience during excavation that every single shade tree is invaluable. A second argument is the text quoted above, which mentions a tomb in the garden of a house belonging to the chief lamentation singer of Lagaš in the Ur III period (Molina 2019:694–5).

The two sheep, which admittedly seem rather naive, were added on the basis of the texts found in Room 5. In this room, which had a door to the garden, there were dozens of sealed labels and tablet labels proving the delivery of draff—frequently used for the fattening of sheep—to Nuttuptum. We



Fig. 11 Experiencing Sîn-nādā's house 3D in the CAVE (photo: B. Einwag)

know most of the neighbouring houses from the geophysical prospection, while only the neighbouring house to the south could be partially excavated. However, the magnetometer prospection shows that the house lay not isolated, but bordering a wide street in the west, beyond which there were similar houses. Many more houses are visible to the north and east, many of them separated by alleys and far less cramped than in Area AH.

This is just a quick summary of the current status of our 3D modelling project of the house of Sîn-nādā and his wife Nuṭṭuṭum. More information, pictures and a camera tour are visible on our project homepage.¹⁷ Further applications are in preparation, such as for head-mounted displays. The 3D-model is in preparation to be presented in the brand-new CAVE in LED technology at Garching near Munich (CAVE Audio Visual Environment)¹⁸ (Fig. 11).

To sum up, even a small-scale, but careful excavation, documentation and reconstruction of a single house with modern methods can add substantial value for better understanding the details of daily life in the extensive urban quarters of early Old Babylonian Ur, a hundred years after Woolley's groundbreaking excavations and building on his fundamental insights.

¹⁷ <https://www.vorderas-archaeologie.uni-muenchen.de/forschung/ur-3D/index.html>

¹⁸ <https://www.lrz.de/presse/ereignisse/2023-10-26-V2c-CAVEneu/>

Bibliography

Bibliographical Abbreviations

BAH	Bibliothèque Archéologique et Historique
BAR	British Archaeological Reports
CUSAS	Cornell University studies in Assyriology and Sumerology
GMS	Grazer Morgenländische Studien
MAAO	Münchener Abhandlungen zum Alten Orient
OBO	Orbis Biblicus et Orientalis
PIPOAC	Publications de l'Institut du Proche-Orient ancien du Collège de France
UAVA	Untersuchungen zur Assyriologie und Vorderasiatischen Archäologie
Ur Excavations	
UE 6	Woolley 1974
UE 7	Woolley & Mallowan 1976

- Asher-Greve, J.M. & J.G. Westenholz 2013. *Goddesses in Context: On Divine Powers, Roles, Relationships and Gender in Mesopotamian Textual and Visual Sources* (OBO 259). Fribourg / Göttingen: Vandenhoeck & Ruprecht.
- Barrelet, M.T. 1968. *Figurines et reliefs en terre cuite de la Mésopotamie antique I* (BAH 85). Paris: Geuthner.
- Battini, L. 2006. “La déesse aux oies: une représentation de la fertilité?”, *Revue d'Assyriologie* 100:57–70.
- Battini-Villard, L. 1999. *L'espace domestique en Mésopotamie de la IIIe dynastie d'Ur à l'époque paléobabylonienne* (BAR Int. Ser. 767). Oxford: British Archaeological Reports.
- Calvet, Y. 2003. “Bâtiments paléobabyloniens à Larsa”, in J.-L. Huot (ed.) *Larsa. Travaux de 1987 et 1989* (BAH 165): 143–298. Beyrouth: Institut Français du Proche-Orient.
- Chambon, G. & A. Otto (eds.) 2023. *Weights and Measures as a Window on Ancient Near Eastern Societies* (MAAO 9). Gladbeck: PeWe Verlag.
- Charpin, D. 2004. “Histoire politique du Proche-Orient amorrite (2002–1595)”, in D. Charpin, D.O. Edzard & M. Stol, *Mesopotamien: Die altbabylonische Zeit* (OBO 160/4):25–480. Fribourg/Göttingen: Academic Press / Vandenhoeck & Ruprecht.
- Hafford, W.B., B. Einwag & A. Otto 2023. “Balance weights from the recent excavations at Ur, 2015–19”, in Chambon & Otto 2023:171–203.
- Miglus, P.A. 1999. *Städtische Wohnarchitektur in Babylonien und Assyrien* (Baghdader Forschungen 22). Mainz am Rhein: Zabern.
- Molina, M. 2019. “Sumerian Juridical Procedures against Tomb Robbers”, in G. Chambon, M. Guichard, A.-I. Langlois, T. Römer & N. Ziegler (eds.) *De l'argile au numérique: Mélanges assyriologiques en l'honneur de Dominique Charpin* (PIPOAC 3):693–712. Leuven: Peeters.
- Moorey, P.R.S. 1975. “The Terracotta Plaques from Kish and Hursagkalama, c. 1850 to 1650 B.C.”, *Iraq* 37: 79–99.
- 2003. *Idols of the People: Miniature Images of Clay in the Ancient Near East* (The Schweich Lectures on Biblical Archaeology). Oxford: Oxford University Press.
- Opificius, R. 1961. *Das altbabylonische Terrakottareliefe* (UAVA 2). Berlin: de Gruyter.
- Otto, A. 2006. *Alltag und Gesellschaft zur Spätbronzezeit: Eine Fallstudie aus Tall Bazi (Syrien)* (Subartu 19). Turnhout: Brepols.
- 2022. “Excavations at Ur (2017 and 2019)”, in Otto & Kaniuth 2022:351–7.
- 2023. “A New Archaeological Response to an Old Question: When and how did Ur recover in the Old Babylonian Period?” in N. Marchetti, M. Campeggi, F. Cavaliere, C. D'Orazio, G. Giacosa, & E. Mariani (eds.) *Proceedings of the 12th International Congress on the Archaeology of the Ancient Near East*:5–18. Wiesbaden: Harrassowitz.
- Otto, A. & G. Chambon 2023. “Why do “duck-weights” have the form of a water-bird? Goose-weights and their relation to the goddesses Nanše and Ningal”, in Chambon & Otto 2023:41–60.
- Otto, A. & K. Kaniuth (eds.) 2022. *50 Jahre Vorderasiatische Archäologie in München* (MAAO 7:366–75. Gladbeck: PeWe Verlag
- Roßberger, E. 2017. “Re-Contextualizing Clay Figurines, Models, and Plaques from Iscali”, *Ash-Sharq* 1:177–86.
- Sallaberger, W. 1989. “Zum Schilfrohr als Rohstoff in Babylonien“, in H.D. Galter & B. Scholz (eds.) *Der orientalische Mensch und seine Beziehungen zur Umwelt* (GMS 2):311–30. Graz: Unipress Graz.

- Scheiblecker, M. & J. Faßbinder 2022. “Between Desert and Flood: Archaeological Prospection in the Near East”, in Otto & Kaniuth 2022:366–75.
- Seabrook, M. & Twiss, K.C. 2018. “Faunal Remains at Ur”, in A. Otto, K. Kaniuth & M. Herles (eds.), *Proceedings of the 11th International Congress on the Archaeology of the Ancient Near East*, Vol. 2:385–94. Wiesbaden: Harrassowitz.
- Stone, E. 1981. “Texts, architecture, and ethnographic analogy: patterns of residence in Old Babylonian Nippur”, *Iraq* 43:19–33.
- Stone, E., A. Otto, D. Charpin, B. Einwag & P. Zimansky 2021. “Two Great Households of Old Babylonian Ur”, *Near Eastern Archaeology* 84.3:182–6.
- Streck, M.P. 2009–12. “Schilf”, *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 12:182–9.
- Volk, K. 2011. “Eine neue Inschrift des Königs Sîn-iddinam von Larsa”, in A.R. George (ed.), *Cuneiform Royal Inscriptions and Related Texts in the Schøyen Collection* (CUSAS 17):287–310. Bethesda: CDL Press.
- Woolley, C.L. 1931. “Excavations at Ur, 1930–1”, *The Antiquaries Journal* 11/iv:343–81.
- 1974. *Ur Excavations Volume VI. The Buildings of the Third Dynasty*. London: Published by the Trustees of the Two Museums.
- Woolley, C.L. & M.E.L. Mallowan 1976. *Ur Excavations Volume VII. The Old Babylonian Period*. London: Published for the Trustees of the Two Museums by British Museum Publications Limited.
- Zettler, R.L. & W.B. Hafford 2014–16. “Ur. B. Archäologisch”, *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 14:367–85.

The Ur III to Early Old Babylonian Transition in Ur's Area AH

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There is not much dispute that southern Mesopotamia saw a major political transition at the end of the third millennium BC. Soon after the centralized and bureaucratic empire controlled by the kings of the Third Dynasty of Ur gave way to shifting hegemonies of city-states under dynasties of Isin and Larsa, the authors of the *Lamentation over the Destruction of Sumer and Ur* mourned that “Ur, like a city raked by a hoe, is to be counted as a ruin-mound” and “in Ur people were smashed as if they were clay pots.” Poetry and political elites aside, there are certainly some puzzling disjunctures in the archaeology of Ur itself. In the third millennium, almost all of the known structures are public buildings and no Ur III private houses have been excavated. In the early second millennium private houses abound.³ The cuneiform tablets of the third millennium are largely administrative texts, whereas private documents, including letters, appear in large numbers in the Isin-Larsa and Old Babylonian periods.

On the other hand, there are some grounds for suspecting that these changes at the apex did not penetrate very deeply into the lower levels of society. Material culture, as represented by such mundane items as pottery, figurines, and minor arts, show a great deal of continuity between the two periods. Could it be that some of the perceived difference are the result of accidents of preservation and archaeological practice? From 2015 to 2019 we conducted excavations at Ur in order to study how the material conditions under which the majority of the urban population lived actually changed between these two periods.⁴ In this communication we will focus on what we learned about the transition itself, which we must own was disappointingly little.

We were specifically interested in private houses at Ur, and Woolley provided a benchmark for the end of the transition in his extensive excavations of the residential area AH. Woolley implied that Ur III levels lay immediately below the Isin/Larsa houses here, but stopped digging before he reached them:

... for our purpose, it was necessary to get as wide a purview as possible, and therefore the importance of the Larsa strata having been proved, our course was to extend the area under excavations rather than to probe deeper... In every case, work was stopped ... when we had reached the lowest floor level down to which the ground-plan of the building was essentially the same as it had been at the highest floor-level, or when we had reached a point at which Larsa remains-i.e. tablets and dateable pottery types-began to be replaced by those of the Third Dynasty. (UE 7:14).

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³ Stone (2002:80) suggested that “the differences in the textual records of Ur III and Isin-Larsa/Old Babylonian times may be more the result of differential erosion of the archaeological sites in which they were preserved than of real differences in society.” To a certain extent, we decided to excavate in and around AH to test this idea.

⁴ Brief reports on these seasons may be found in Stone & Zimansky 2016, Stone et al. 2021a, and Stone et al. 2021b.

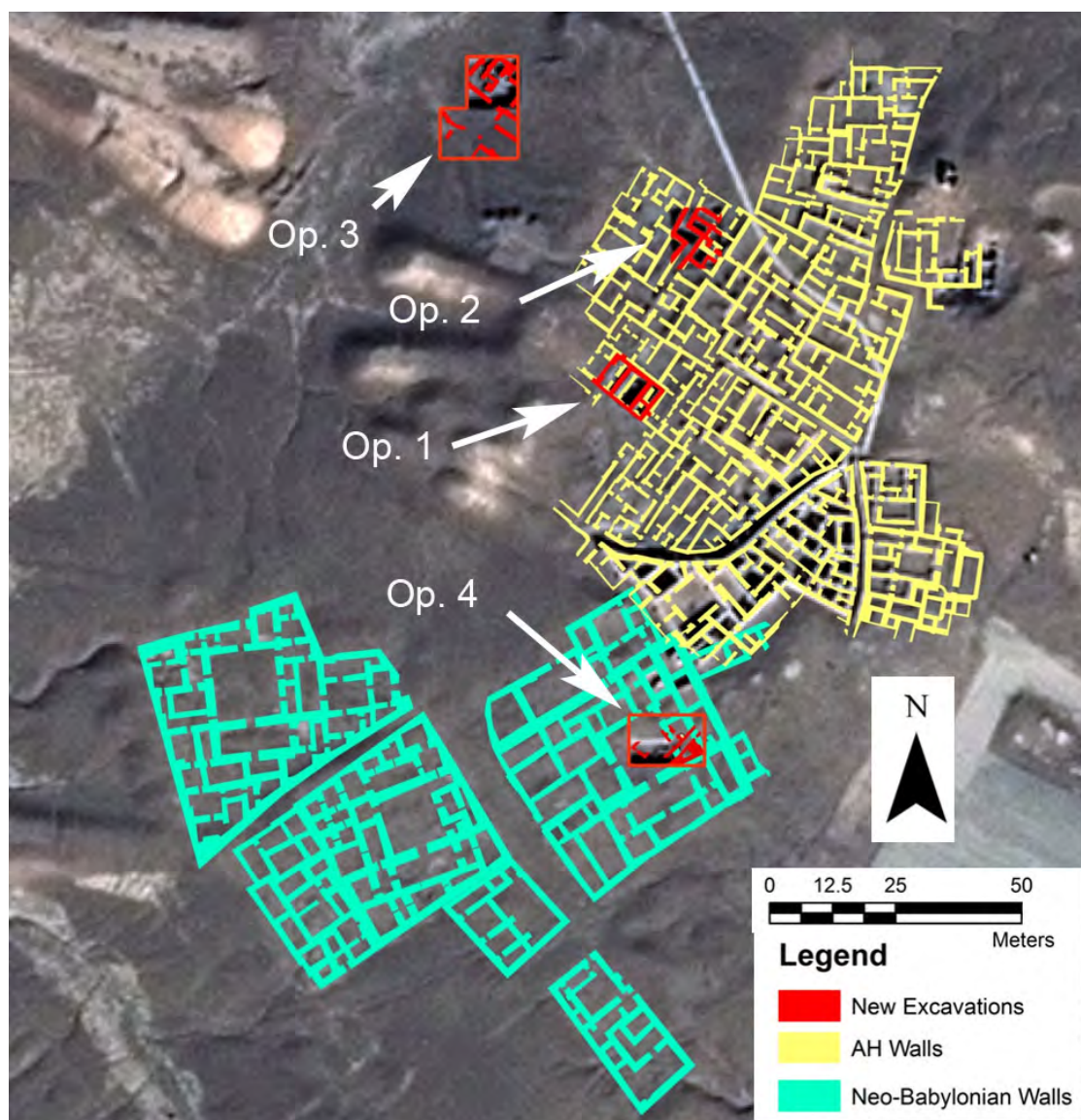


Fig. 1 Location of newly opened excavation areas superimposed on plan of Woolley's map of area AH

Initially, and in retrospect somewhat naively, we assumed that the most efficient way to approach the problem was to dig deeper in and around AH, going from the known to the unknown in secure stratigraphic control. We selected two areas where Woolley had already dug and what remained on the surface after nine decades appeared to offer immediate access to levels below. It soon became apparent that there was a large amount of well-preserved Isin-Larsa architecture in these locations, and we were not going to be able to open large horizontal exposures in earlier levels, so we opened two new operations immediately outside of AH, one to the north-east and one to the south (Fig. 1). We must confess that it proved beyond our capacities to uncover the neighborhood of private houses that we were looking for. But let us review what we can say about the results of our efforts. To give the narrative any coherence, we have to approach the transition phase from the top down, i.e. in reverse chronological order.

Our trenches in 1 Baker's Square and Niche Lane, which we called Operations 1 and 2 respectively, showed us that Woolley left a lot of Isin/Larsa material in the ground. For example, in Room 6 of No. 1 Baker's Square (Fig. 2) he apparently dug all the way to the pavement, but does not mention removing part of it. Near where he stopped we found a tablet dating to Rim-Sin 24 and a copper ring, neither of which were probably in any kind of use context. When we removed the rest of the paving, we discovered that the baked bricks of the walls rested on somewhat thicker mud brick walls.



Fig. 2 1 Baker's Square Room 6, cleared to where first floor was encountered. Note that Woolley's plan does not indicate any pavement at all.



Fig. 3 Burial below brick paving of Room 6, with mud brick walls slightly offset from baked brick wall above



Fig. 4 Partial baked brick paving of 1 Baker's Square Room 7 and burials below Woolley's excavations



Fig. 5 Burials and tag with feminine name from burial jar in Room 7

Since it would hardly make sense to put stronger materials over weaker ones, they must have been following the plans of earlier buildings.⁵ Within the room we found a badly disturbed cyst burial with poor preservation and no grave goods other than pottery (Fig. 3). This is no doubt the grave of one of the Isin-Larsa inhabitants of the house.

The situation in Room 7, next door, was similar. Woolley apparently dug to the base of the baked brick wall, below which was a pavement that had been partially robbed out. Numerous jar and bowl

⁵ UE 7:13–14 posits that another wall baked of bricks would lie below such mud brick courses, but we did not encounter any in our excavations.



Fig. 6 Room 5 of 1 Baker's Square at end of excavations, with upper part of tomb removed. Baked brick walls are on top of offset mud brick at left.



Fig. 7 Tablet dated to Shulgi 43 from Room 5

tablet bearing what we assume is the name of their mother (Fig. 5).

In the large Room 5, Woolley's plan shows a full pavement and the outline of a vaulted tomb beneath it. We did not find any of the pavement, which we assume that he had removed, and here too, Woolley did not map the underlying mud brick walls. Initially, we hoped the tomb, which was architecturally intact, might contain its original inventory. In this we were disappointed. The robbers had come in from the front of the tomb, not the roof, and Woolley himself must have peered in and recognized the futility of digging further here. In any case, in dismantling the tomb we learned a good deal about what went into its construction, and how thoroughly it disrupted the earlier remains in the area. Its outer sides were covered by a thick layer of bitumen and a reed matting stretched between its sides and the mud brick wall foundations (Fig. 6). In the debris of the construction behind the tomb, there were third millennium artifacts, including a copper chisel and an account for gold dated to Shulgi 43 (Fig. 7). This tablet, incidentally, was baked as were most of the other Ur III tablets found in our excavations, but the Isin-Larsa Old Babylonian tablets almost never were. In some of the debris that was placed in front of the tomb we found a dozen inscribed Amar-Sin bricks. These are clear evidence that the Old Babylonian builders were helping themselves to the remnants of Ur III construction materials.

Room 4 appeared to give us our best shot at uncovering the transition from Ur III in this area, but this too was something of a disappointment. Much of the south-west end of the room was taken up by a drain, which was dug down from the Isin-Larsa floor. The middle of the room was disturbed by a larnax burial richly furnished with carnelian beads and a fine stone bowl of the type associated with Oman, but this of course is irrelevant to our quest. When we reached the levels with the Ur III pottery in the north-western end of the room, we were no longer in a good architectural context, and there was no clear demarcation from the levels above. The animal bones show a mixed husbandry with sheep/goat, cattle and pig throughout. Sheep may have been a little more abundant in the Ur III

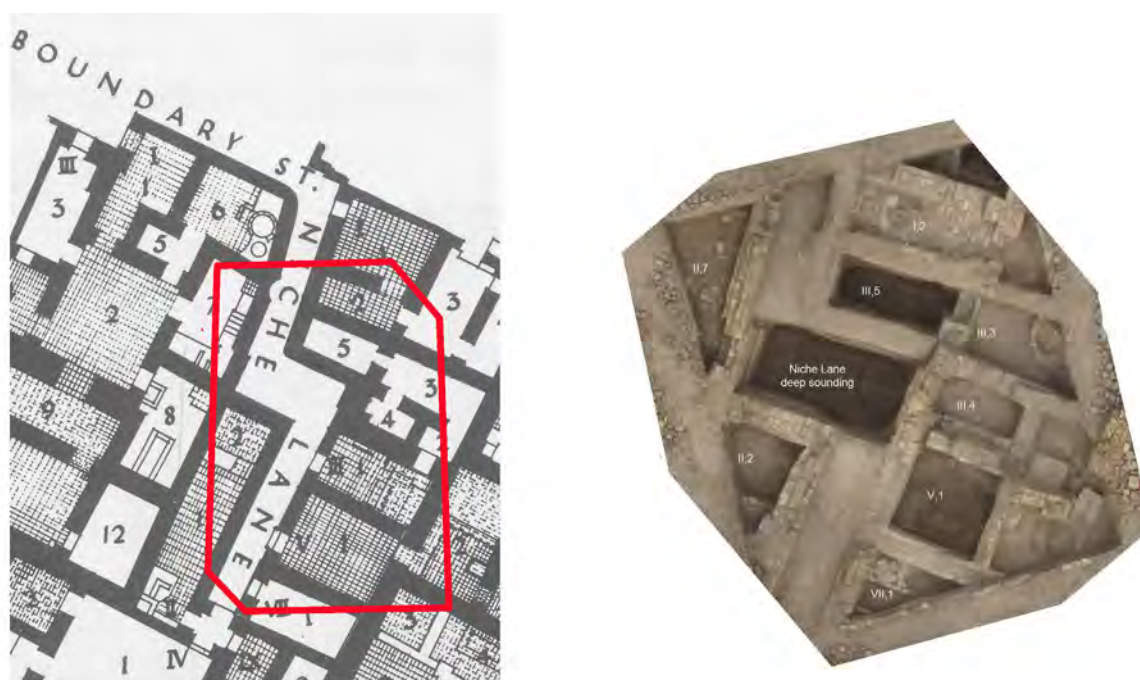


Fig. 8 Composite boom photos of excavations in Area 2, centered on Niche Lane

deposits, but the volume of material is insufficient to verify this. The plant remains change from almost exclusively barley in Ur III to a much broader range of plant remains in the Old Babylonian, but once again, this is based on little material and from a somewhat uncertain context.

In Operation 2 we faced similar problems in reaching Ur III levels. What appeared to be an area where the earlier remains had eroded away was anything but, and a good deal of our time went into re-digging wind-blown deposits in areas that Woolley had already uncovered (Fig. 8). Where we were able to go deeper, we were impressed by the complexity of the rebuildings and the complex stratigraphy of the Isin-Larsa remains. Local populations had continually rearranged their living quarters. In tight spaces, we went as deep as we dared. In Woolley's room II/2, for example, we must have come very close to Ur III levels, and indeed among the objects found near the bottom of our trench was another receipt for gold, dated to Amar-Sin 8.

Our deepest probe was made in Niche Lane itself, and here we clearly did get into, and indeed through the Ur III period (Fig. 9). There was not much to it and no disruption level was visible in the baulks, though a small paved area was cut by the top of a drain. About a meter below the level of the pavement we found a small Old Akkadian administrative archive of eighteen tablets and fragments (summarized in Charpin 2018:106–8). These were economic texts, including accounts of fish and cattle, some listing items with values in silver. One account gave amounts of wool, oil, grain and clothing; another recorded areas of fields. Given the small area, there is no architectural context, but these tablets significantly increase what we know about the Akkadian presence at Ur beyond the Royal Cemetery.

In short, what our soundings within AH showed us was that Woolley did not dig the earlier Isin-Larsa levels. We found quite a bit of interesting material from them which we cannot cover here, but merely note that there were burials under the floors of every room we dug—it seems likely that Woolley, who stopped at the room pavements, was unaware of their existence. We did not find any significant Ur III architectural remains let alone any houses of that period, nor did we find any destruction levels. It was clear from quite early in the field season that we were not going to be able to open large areas dating to the period we were looking for, so we moved to soundings near but outside AH.

Operation 4 began as a ten by ten meter square located in an area where Woolley had excavated and cleared Neo-Babylonian houses, only traces of which remained (Fig. 10). The idea was to get a



Fig. 9 Excavating deep sounding in Niche Lane



Fig. 10 Operation 4 near end of 2019 field season, facing south-east

good stratigraphic sequence here from the first to the third millennium. We felt that we were on the verge of reaching Ur III levels when the 2019 season came to a close. What surprised and impressed us was how deep we had to dig. There was quite a bit of soil beneath the Neo-Babylonian surface in which we found no architecture at all, but only occasional horse and rider figurines and pits dating to the Kassite period. Beneath this, however, was domestic architecture dating to the early second millennium, interspersed with burials. There were enough tablets to show that we were in the very earliest part of the Isin hegemony when we reached our lowest level, more than five meters below the Neo-Babylonian surface we started from. There were also a few Ur III tablets and fragments out of context, one dating to the reign of Amar-Sin. Perhaps our most important finding here was that these structures were built on ground that was much lower in terms of absolute elevation than the lowest Isin/Larsa walls in nearby AH. In short, when the early second millennium people built their houses, AH was already a hill rising a few meters above the contemporary level of Operation 4.



Fig. 11 Drone view of Operation 3

Operation 3 was the most interesting of our excavations. The surface there was reddened with burned clay and ash, and the walls of one of the more substantial houses of this period excavated anywhere at Ur appeared a few centimeters below the modern surface (Fig. 11). Ultimately, we found some of these walls were preserved to a height of two meters. The area was used as a cemetery in later periods, and as we cleared the fill we encountered a bewildering variety of late graves ranging from brick tombs, bathtub and keyhole coffins, simple inhumations, as well as the odd Kassite pit.

In the northern part of the trench the Old Babylonian house was more or less intact, with several of its rooms still fully paved (Fig. 12). The bricks of some of the walls had been robbed out, but the edges of the pavement beside them made it clear where they had been. The house was built around a central courtyard, surrounded by one or more rows of rooms (Fig. 13). It appears to have been abandoned at the end of the Old Babylonian period, and not many objects were left in situ. An indicator that it stood empty for some time is seen in the survival of the bottom few centimeters of a reed door, standing ajar in one of the doorways. Uniquely for houses excavated at Ur, there were two staircases leading to a roof or upper storey, one of which was so well preserved that we used it regularly to get in and out the trench. However, the architecture in the northern part of this excavation was so substantial that it impeded access to lower levels. We were neither allowed nor inclined to dismantle the building to dig deeper.

When we opened an adjoining trench to the south, things changed rather dramatically. Large parts of the paved area were broken up, presumably by later looters who were interested in the burials beneath. They created something of a stratigraphic nightmare, but at least some of the Isin/Larsa and Old Babylonian burials were untouched. Many were not, and in places the pavement disappeared



Fig. 12 House of Abisum at end of 2017 season

altogether. We made some of our most interesting finds here including a red slipped pot, presumably from Bahrein or elsewhere in the Gulf, and an Indus Valley weight. The people buried here clearly had long-range connections. (Stone et al. 2021a:187–8)

The primary feature in this area, partially covered by the brick paving associated with the OB house, was a vaulted tomb of the same type as the one we saw in Operation 1, albeit considerably

smaller. Its entrance was sealed, but it had been entered by robbers from the top. We found a few of bones inside it, but no precious objects—at least none of value to the looters. There were, however a few OB tablets. While there has been some speculation about why anyone would put a tablet in a tomb, in this case we know exactly where they came from. The looters had covered the opening with pithos sherd when they left, and there were many more tablets of the same archive on top of it and

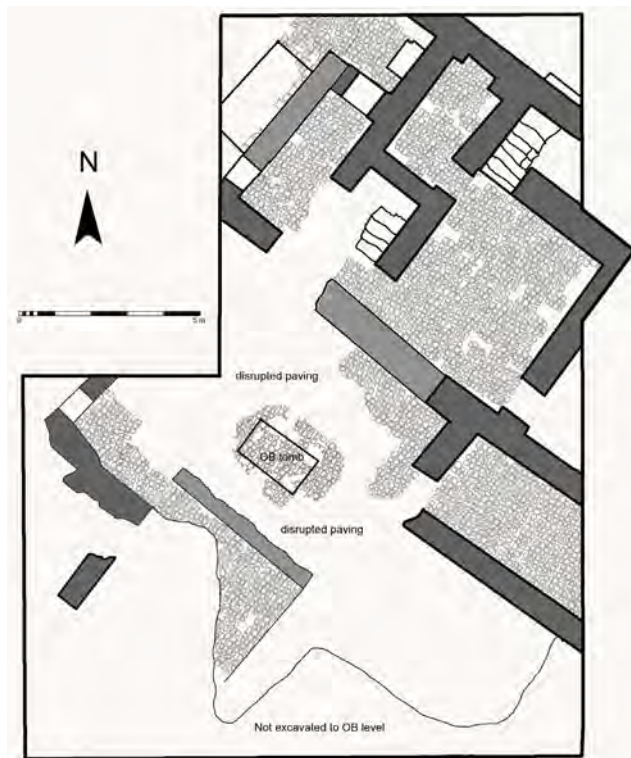


Fig. 13 Plan of Abisum house. Bricks in paving are schematic, not measured individually.

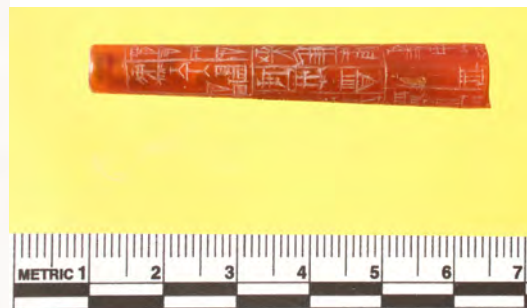


Fig. 14 Carnelian pendant with inscription of Shulgi



Fig. 15 Vessels inset in walls below OB paving in Abisum house

in the soil around. In short, the looters had dug through materials above the pavement that contained the archive, bringing some tablets in with them (Stone et al. 2021a, 199–89).

This archive presumably belonged to the final owner of the house, a very influential general named Abisum, who was active right up to the time that Samsuiluna lost control of Ur. They give us a nice terminal date for the occupation of the house with its extensive paved courtyards.

The disturbance of the soil allowed us finally to open up a larger area and see what came before Abisum's house. We had intriguing clues from the disturbed soil that there was important Ur III material in this area. In an uncertain context in the sub pavement debris, the most beautiful of our inscriptions were found, a broken carnelian pendant bearing a text of Shulgi (Fig. 14).

We most certainly did not find anything resembling an Ur III house under the OB pavement. Instead we found large storage vessels, set into mud-brick walls (Fig. 15). One of these was of particular interest, not just for its nearly spherical shape and red-slipped finish, but also because it bore a row scratch marks that appear to be tallies (Fig. 16). We really have no idea what is going on here, but these vessels are clearly complete and not very portable. The architecture with which they are associated is anything but clear.

Perhaps the most interesting light we were able to shed on the Ur III period in this area came from a unique tablet find. Immediately below the Old Babylonian pavement and on top of a scrap of mud brick wall that probably dates to the end of the third millennium, we found a



Fig. 16 Vessel with tallies from Ur III context



Fig. 17 Tablet and bitumen container



Fig. 18 Deep sounding in Operation 3, below OB and Ur III levels

cake of bitumen that had been formed in either a slightly conical vessel or in a basket. On top of this was a perfectly preserved, baked tablet (Fig. 17). Dominique Charpin informs us that this is a very unusual document of the Ur III period, a contractual exchange of quite large parcels of land between two private individuals. (Charpin, forthcoming). It is dated to the catastrophic reign of Ibbi-Sin and it is hard to see how much legal force it would have had after his empire collapsed. Nevertheless, someone went to a lot of trouble to preserve this tablet, deliberately burying it in a protective container.

We removed the vaulted tomb and dug approximately one meter below it, finding remarkably little—certainly nothing that bears on the issue of the transition that we were looking for. We found no tablets or anything that we could confidently say was Ur III or Akkadian. The fragments of mud brick walls did not resolve themselves into any coherent plans. We did find a few large vessel fragments, which do not appear to be containers for graves. What appeared at the outset to be a large storage jar with ribbed sides was only half there, its bottom broken off so it could not have held grain or liquids. In any case it was empty when we found it, and basically without context (Fig. 18). We found one wall with plano-convex bricks and are confident that we were in the Early Dynastic when our last season came to an end in April, 2019.

So in the end we do have much in the way of positive evidence for the transition between the Ur III and Isin/Larsa periods in the AH area. Our search for Ur III houses was impeded initially by the extent and richness of the Isin/Larsa and Old Babylonian remains left behind by Woolley. Our efforts, however, were not unrewarding. When he departed Ur in 1934, Woolley felt that further digging would probably only produce redundant

information. That was not our impression as we went below the floors where he stopped. Indeed, the discovery that almost every room had burials below its floor is significant. The housing of AH covered a larger area than was previously expected, and much would be learned by expanded excavations, as the house of Abisum shows.

Most of our findings on the Ur III/Isin-Larsa transition, however, are essentially negative. There certainly was no destruction level that we could associate with it and no sharp breaks in the conventions of material culture. We turned up a few Ur III tablets in every area in which we worked, but no archives. One cannot escape the feeling that our project may have been a fool's errand to begin with. If we have learned anything in the modest areas in which we went below the Isin-Larsa levels, it is that there is no comparable residential housing to be found there in the Ur III period. AH is clearly not the place to look for this. We watched with envy as Adelheid Otto and the Munich

team found very accessible Ur III materials immediately below the Isin/Larsa house they excavated on the south mound, but we have recently been informed that these were apparently something other than a private residence. If there are no houses in AH and the one we thought we had on the south mound isn't one either, where were the private residences? Perhaps there were very few of them. In publishing our bitumen embedded tablet, Dominique Charpin noted the surprising dearth of private Ur III documents from Ur, in comparison to Nippur, for example. It has been suggested that the Ur III kings spent little of their time in Ur, and maybe not very many other people did either, apart, presumably, from those associated with the grand institutions. In any case, we personally have given up the hunt, and look forward hearing of the discoveries of younger archaeologists, who will undoubtedly find marvelous things as they continue the work began at Ur a century ago.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 7 Woolley & Mallowan 1976

Charpin, D. 2018. “Nouvelles découvertes épigraphiques à Ur (2015 et 2017)”. *Comptes-rendues des séances de l’Académie des inscriptions et belles-lettres*:1067–68.

– forthcoming. “L’habitat à Ur, capitale de la III^e dynastie. Le témoignage d’un document de 2021 av. J.-C. découvert en février 2019.” *Compte Rendu de la Rencontre Assyriologique Internationale 65, Paris, 2020*. Louvain: Peeters.

Stone, E. 2002. “The Ur III–Old Babylonian Transition: An Archaeological Perspective”, *Iraq* 64:79–84.

Stone, E. & P. Zimansky 2016. “Archaeology Returns to Ur. A New Dialog with Old Houses”, *Near Eastern Archaeology* 79/4:246–59.

Stone, E., A. Otto, D. Charpin, B. Einwag & P. Zimansky 2021a. “Two Great Households of Old Babylonian Ur”, *Near Eastern Archaeology* 84/3:182–91.

Stone, E., P. Zimansky, K. Twiss, M. Charles & M. Seabrook 2021b. “New Excavations at Ur”, in Frame, G., J. Jeffers & H. Pittman (eds.) *Ur in the Twenty-First Century CE: Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016*:475–84. Penn State Press.

Woolley, L. & M.E.L. Mallowan 1976. *Ur Excavations Volume VII. The Old Babylonian Period*. London: Published for the Trustees of the Two Museums by British Museum Publications Limited.

What and where was the *dub-la₂ mah*?

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Royal and local exercise of justice

It is a well known fact that Mesopotamian rulers from the earliest historical times recognized their god-given duty to deliver justice, as well as prosperity, to their subjects, and prided themselves on so doing. So Urukagina tells us, in Jerrold Cooper's translation, that he "solemnly promised Ningirsu that he would never subjugate the waif and the widow to the powerful", and half a millennium later Hammurabi echoes this sentiment almost exactly.² However, we learn little from the texts about how this responsibility was carried out in practice over the centuries. The involvement of rulers is only sparsely attested in the documentation. For obvious reasons the ultimate authority of the ruler was usually delegated to his subordinates, or referred to local institutions, which no doubt had a long tradition of delivering justice to their neighbourhoods. The classic example of this, edited by Jacobsen, was the case of complicity in a murder at Nippur referred initially to the king in Isin, but then referred back by him to the local assembly at Nippur (Jacobsen 1970).

In Ur III texts we find ensis or occasionally a priest (*sanga*) delivering judgements, but the court records (Gerichtsurkunden) known in large numbers from the Ur III Dynasty show that in many cases the presiding officials were drawn from society at large (without any mention of the ensi, or the king). Falkenstein lists for example a scribe, a sea-faring merchant, an aide (*sukkal*), a captain (*nu-banda*), a soldier (*aga-us₂*), a treasurer (GA₂-*dub-ba*) and an extispicer (*maš-šu-GID₂.GID₂*). Judges did not always act alone but often as members of a consortium, and these are predominantly secular positions, not temple staff (Falkenstein 1956:21–3, 33).

Cases could be referred to the local assemblies both in town and in the countryside. In Old Babylonian times they are sometimes mentioned as "the sons of" a town or village. Even villages had assemblies, and at Dilbat in the reign of Hammurapi's successor Samsu-iluna a legal case is referred to "the sons of the *bābtum* of Dilbat" (Walther 1917:64; cf. CAD P: 487). The word *bābtum* refers to a subdivision of a city, which we would call a "ward" or "neighbourhood".

Location

Though we may be told who was in charge of the court cases, we are not often told **where** they delivered their judgements. After the judges reached their decision, we frequently read that they sent the participants in the case to a temple to take an oath. This presumably means that the proceedings were initially not in a temple, or at least not in the presence of the divine statue or symbol.

On the other hand, in a few instances we are told that the oaths were to be taken at a **dubla** (always written *dub-la₂*), sometimes qualified as a "high *dubla*" (*dub-la₂ mah*, hereafter "Dublamah"). Two examples of this are known: once at Ur in the reign of Ibbi-Sin the witnesses and the court marshal (*maškim*) took their oath "at the Dublamah", and in the reign of Nur-Adad a dispute over the unpaid purchase price of a field came before the king, who "gave" the witnesses "over to the Dublamah to take an oath", and two of them are stated to have "taken the oath inside the

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² For a survey of (later) royal activity in the judicial sphere cf. Yang 1991.

Dublamah” (Falkenstein 1956: no. 114.iii.12–14; Charpin 1980:43–4 TS 1.i.20–1). This must have been a common practice in Ur III times, because 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 place of judgement, justice was not administered” (Michalowski 1989:65 ll. 438–9). This was at Ur, but other cities also had a “high **dubla**”: one Ur III tablet from Adab records the issue of one fattened sheep to a Dublamah (Langdon 1922:192 no. 4 rev. 6). Another tablet from Drehem mentions a “libation: **dub-la₂ mah** of Nanna” (though possibly this also took place at Ur).³

The word **dubla**

To begin with we need to examine this curious word **dubla**. In one late bilingual text the word **dub-la₂** has the Akkadian equivalent *tu-up-lu*.⁴ Here it is clearly an architectural feature, and is translated by CAD as ‘foundation platform’. Otherwise it is only attested in lexical texts. The most helpful entry is the Akkadian synonym list *An Tablet IX* (ll. 44–6), where the words *du-ub-lu*, *ni-ir-mu* and *du-ru-uš-šu* are given in sequence as equivalents of *iš-du* “foundation” (CAD I:236a). Another list (*Izi*) equates *tu-up-lu* with **mah** meaning “high”, which is perhaps an imperfect recollection of (**dub-la₂**) **mah**.⁵ The earliest mention of a **dubla** known to me is the entry in a bilingual (Sumerian-Akkadian) lexical list from Ebla: **dub-la₂** / *dur-zu-um*; here the Semitic equivalent has been plausibly interpreted by Lambert as representing “a variant of the later Akkadian *duruššu* “foundation” (which is listed alongside our word in *An IX*, cited above—Pettinato 1982:324 no. 1162). It is probable that *d/tub/plu(m)* was a Semitic, if not necessarily Akkadian, word, borrowed into Sumerian. This is because the /a/ ending is characteristic of pre-Ur III loans into Sumerian (as with **ma-da** = *mātum*), and because if a Sumerian word ending /a/ were given Akkadian case endings it would yield a contracted vowel.⁶

As for its meaning, Lambert once suggested that “dubla must surely be the stone block in which the door-pole turned at its base”, but earlier in the same article he wrote that “all the evidence favours ‘foundation platform’”, and this must be preferable (Lambert 1985:194, and 193). One does not take oaths on a pivot stone buried underground. Hence in what follows I will make the assumption that **dub-la₂** means a podium or platform, or one could even say, given its judicial nature, a “tribune”. We therefore need to examine the architectural evidence, insofar as it exists, to see how this all fits into the administration of justice at Ur (and indeed elsewhere).

Location from the texts

It is not always clear if a **dub-la₂ mah** was inside a temple precinct or at a separate location. Some **dub-la₂** were certainly associated with a temple: this is certain from Gudea’s Cylinder A which tells us he incorporated a **dub-la₂** (without **mah**) into the Eninnu, his new Ningirsu temple. He compares it to a wild bull and it was provided with **lahama** figures, the long-haired gate guardians seen on seals. As Lambert has shown, these figures (usually associated with doorways or gates) are also mentioned standing at or by a **dub-la₂ gal** in the Ekur, Enlil’s temple at Nippur, in the *Curse of Akkade* (ll. 131–3), and the same text refers to a **dub-la₂** at Akkade itself (ll. 228–30—Lambert 1985:194–6). While in each case the **dub-la₂** must therefore have had a doorway flanked by **lahama** figures, in iconography they hold their symbols each side of the doorway, and as pointed out by Heimpel (1998:132) the figures would not themselves have served structurally as the door-posts.

³ **kaš-de₂-a dub-la₂ mah** ⁴nanna (de Genouillac 1911: no. 11.r.2).

⁴ CAD D:168a: **dub.lá.bi** // *tu-uB-lu-šu*.

⁵ The entry in *Izi* reads **mah** = *tu-up-lu* (Civil 1971:208, 256).

⁶ As to the final /a/ in the Sumerian, in 1959 CAD D:168 observed “the absence of length in the final vowel, which militates against the usual assumption that *dublu* (*tublu*) represents a loan from Sum. *dub.lá*”. The occurrence of **d** in our transcription of the Sumerian corresponding to the Akkadian *t* is similarly found with Sumerian **dub** and Akkadian *tuppu(m)* “tablet” and the difference is immaterial, being the consequence of our modern transcription habits. There seems no way of deciding between /b/ or /p/ before the /l/.

In administrative documents and royal inscriptions the Dublamah is best attested at Ur: two door sockets with inscriptions of Šu-ilišu, the second king of the dynasty of Isin which ruled the south after the fall of the Ur III Dynasty, indicate that access to the Dublamah was controlled by a door or doors (Frayne 1990:16).⁷ The sockets must have underpinned the doorposts of the Dublamah, which he calls “his place of judgement” (**dub-la₂ mah ki di-kud-a-ni**). Before him, Amar-Suen also left us inscribed door sockets.⁸ They record his restoration of the Dublamah from its dilapidated state. He describes it as “the house ‘look-out point of the land’, his place of judgement” (**dub-la₂ mah e₂ u₆-di kalam-ma ki di-ku₅-da-ni**), and rather more ominously as “his net from which no enemies of Amar-suena escape” (Frayne 1997:253–4, ll. 19–25).⁹ Although this text uses the word “house” (**e₂**) to refer to the Dublamah, it is important to note that originally, unlike temples and parts of temples or other buildings, the term **dub-la₂ mah** never has “house” prefixed to it. It is only under the Kassite dynasty that **dub-la₂ mah** has **e₂** inserted in front of it: before then **e₂** does not form part of the Dublamah’s name, neither in royal inscriptions nor in judicial texts.¹⁰ So it was probably not a normal building.

Evidence from Woolley’s excavations: the gate-house (Figs 1–2)

The Amar-Suen and Šu-ilišu door sockets make it certain that there was a structure called the **dub-la₂ mah** somewhere in the vicinity of the south-east corner of the temenos enclosure (Ekišnugal, the temple of Nanna). Here a Kassite building was excavated by Woolley and identified on the basis of some brick inscriptions of Kurigalzu as the E-dublamah. Below the Kassite building there was an Isin-Larsa predecessor built along the same lines, and there was also some scanty evidence for an Ur III version (UE 8:9). Woolley notes that the “back wall of the shrine is of the Isin age”, but that this was not present in the Ur III plan, and therefore that “it becomes certain that the E-dub-lal-mah was in the time of Amar-Suen the main entrance of the ziggurat enclosure” (UE 8:10).¹¹

However, this needs correcting: it is certain that the building began life as a gate-house, but it was not then the Dublamah. As Lambert has pointed out, Woolley’s assumption that the Dublamah and the gateway are one and the same cannot be right. It is true that some Kurigalzu bricks do record his work on the **É dub-la₂ mah** “the old house which had long since been abandoned” (UET 1: xvii.158: Pl. xxxviii, p. 48), but they were found by the “S.W. door of the E-dub-lal-makh” (by which Woolley meant the gate-house). However, other Kassite bricks found further to the east, in the area described by Woolley as “Great gate of the E-dub-lal-makh” (UET 1:xvii.159) mention restoration work on the “old Great Gate” (**KA₂.GAL mah libir.ra**) “which had been abandoned”

⁷ Šu-ilišu explicitly mentions the door he installed, whose posts must have turned in the sockets.

⁸ The building activity of Amar-Suen is known only from three door sockets. One and perhaps two were found in Room 30 of the Kassite building (UE 8:11, Pl. 48), and the third in the Neo-Babylonian level, all of them therefore out of their original context, so they cannot safely be taken as indicating the location of the Ur III structure.

⁹ The phrase **u₆-di kalam-ma** is sometimes translated “wonder of the land”, but the verb **u₆ ...e₂/di** means “to look”, and I suspect this means more prosaically “the Dublamah, the look out–point of the Land”, referring to those on the platform (whether divine or human) surveying the outside world. It is unfortunate that the precise meaning of some lines in Amar-Suen’s inscriptions remains obscure, because they would have given us valuable detail. At least we can say that his **dubla** had some wooden superstructure, Sumerian **giš šu.kar₂**, a term equated lexically with Akk. *unūtu* “equipment” (l. 35).

¹⁰ So also in the Personal Name of an Ur III judge **ur-dub-la₂-mah di-ku₅**: UET 3, 345.iv.8–9. An Umma text from the reign of Šu-Sin records workers stationed at an irrigation construction named after the **dub-la₂** of Utu (**kab₂-ku₅ dub-la₂ utu** Fish 1932: Pl. XXXI no. 617). An adoption text from the time of Samsu-iluna includes among its witnesses a Sin-magir **gudu₄ dub-la₂-mah** (no É) “Priest of the Dublamah” (Charpin 1986:162–3), who also has this profession inscribed on his seal.

¹¹ There is admittedly a difficulty here. Woolley describes the Ur III building as having no wall blocking the presumed entrance at the north end of the structure, but his plans of the Kassite incarnation of the gate-house show an emphatic wall at this point (Fig. 2). It is always dangerous to seek to “correct” an excavator’s report, based as it is on personal observation of the features concerned, and it is not credible that the Kassite period structure had no transverse wall as planned, but without the specific reasoning which led Woolley to attribute a lower wall to the Isin-Larsa period one might wonder if it was not somewhat later.

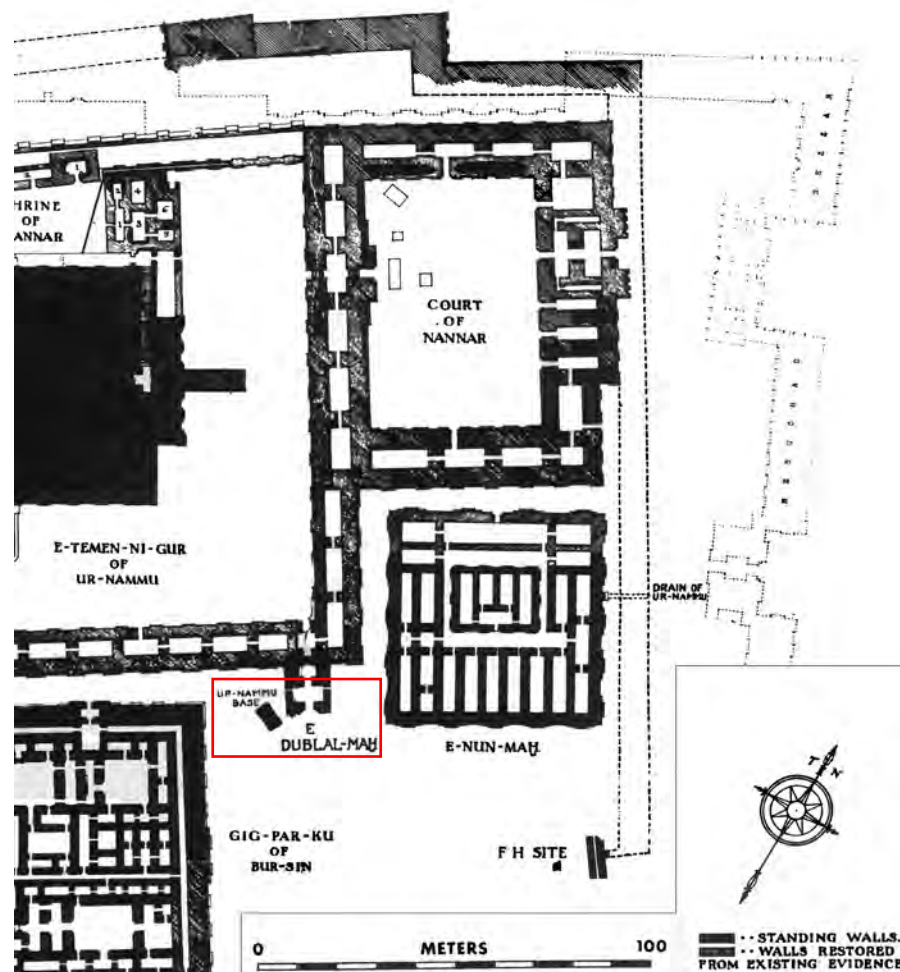


Fig. 1 South-east corner of the Ur III temenos (excerpt from UE 6: Pl. 53)

(UET 1: Pl. xxxviii, p. 49). These confirm Woolley's conclusion that the building was "the main entrance of the ziggurat enclosure", but they make no mention of the (É) **dub-la₂ mah**.

We have to conclude that in Kassite times the building referred to by Woolley as the "E-dub-lal-makh" was in fact still the gate-house, and quite distinct from the real **dub-la₂ mah** to its south-west. So the earlier versions of the Gate-house were not the Dublamah and there is no reason to think the Dublamah was ever a gateway.

Evidence from Woolley's excavations: the platform(s)

When describing the "central space" in the Kassite period (i.e. the open paved area south of the temenos wall), Woolley describes "a structure of another sort. Here, against the decorated *kisû* wall, we found a mass of brick rubble packing which appears to be the core of an altar or platform, approached on the NE by a ramp or flight of steps" (UE 8:14). In approximately the same place, but earlier, "Close to the south corner of the shrine" [the gate-house] "there was a large rectangular base or altar built of baked bricks set in bitumen, the work of Ur-Nammu". This is also mentioned in UE 6:75 "in the Dublal-mah courtyard, under the south corner of the (late) podium, there was a large brick base of Ur-Nammu, which so far as shape and size go would have served admirably as a base for a stela".

I cannot find the precise dimensions of this Ur-Nammu base, or of the presumably Kassite "altar or platform" with its ramp or steps. To judge from the published plans, the Ur-Nammu platform may have been roughly 6 x 4 m (measured from UE 6: Pl. 53), but there are no published details

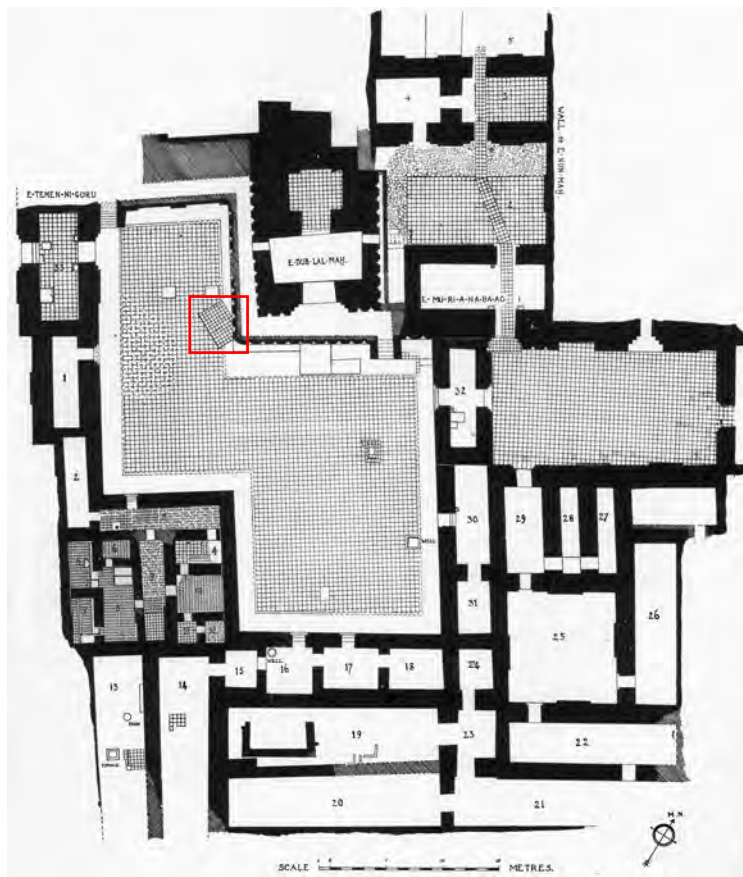


Fig. 2 South-east corner of the Kassite temenos (excerpt from UE 8: Pl. 48); note the red rectangle indicates the proposed location of the **dub-la₂**, contra to the labelling on Woolley's plan

of the precise location or dimensions of the Kassite “platform”.¹² The feature shown on the Kassite plan (Fig. 2) seems to be the same as the Ur III base and doesn't show the ramp or flight of steps mentioned by Woolley.¹³ The texts make it certain that a **dub-la₂** was itself neither a temple nor a gate. Oaths were usually referred to a temple, and we occasionally hear that justice was meted out by a gate,¹⁴ but for the most part judicial proceedings are associated with the Dublamah. Here at Ur, it is clear that the Dublamah, though close to a temple gateway was outside the temple temenos, in a secular space.¹⁵

Other evidence for the location and nature of a **dub-la₂**

In most occurrences of the **dub-la₂** itself, it is followed by **mah** “high” suggesting that it was raised above the level of the courtyard, and there is some more evidence in the texts to support this idea. This is mainly thanks to the name **Šu-galam**. At Nippur Išme-Dagan of Isin refers to a “gate in front of Šu-galam, the place for deciding fates as a look out ...”,¹⁶ and already on four occasions in Cylinder A Gudea mentions Šu-galam as one component of his new Ningirsu Temple complex. Here it is called in Edzard's translation “the awesome place, the place of passing judgement, the place

¹² “ca. 5.00 x 3.00 m” (Canby 2001:2).

¹³ The diagonally oriented rectangle shown in UE 8: Pl. 48 would seem to be the Ur III “large brick base” mentioned in UE 6:11, and not a Kassite feature, since its position agrees with the “Ur-Nammu base” marked on the plan UE 6: Pl. 63. This is explained by: “The orientation of the base was quite different to that of any of the Third Dynasty buildings nearby In the Kassite period it was flush with and incorporated in the brick pavement of the court and was partly hidden by the podium of the shrine” (UE 6:107, fn 105). See also the Ur III layout as shown in Canby 2001: Pl. 5.

¹⁴ Falkenstein 1956.I: 66⁶ citing STVC 86, and a lawsuit which came before the assembly (*puhrum*) when oaths were taken at the “Gate of the Orchard of the Hill of the Heroes” at Nippur (Kraus 1951:159–60).

¹⁵ It will be obvious that I do not share Walther Sallaberger's scepticism (this volume) about this conclusion.

¹⁶ **ka₂ igi šu-galam ki nam-tar-re-[dam] u₆-di-de ma-ra-an[-** (Frayne 1990:46 no. 15:14'–16').

where Ningirsu surveys the lands” (**šu-galam ki huš ki di-kud-de₃ ki nin-gir₂-su-ke₄ kur-kur-ra igi mi-ni gal₂-la** Cyl. A.viii.6). So just as the Šu-galam at Nippur was a “place for deciding fates” and “looking out”, so at Girsu, it was a place “for passing judgement” and “surveying the lands”. Although the significance of the initial ŠU is unclear, the Sumerian word **galam** is familiar. In an architectural context the word is best known in the name of the Enlil ziqqurrat at Nippur, Hur-sag-galam-ma (Waetzoldt 2005:331; Steinkeller 2007:227–30; Heimpel 1996). With Steinkeller (2007:228), I entirely agree that “the best explanation” (of this name) “was provided by Jacobsen, who described Hursag-galama as the stairway leading to Ekur’s upper temple”. This is fully in agreement with its meaning “ladder”, with the wood determinative and equated with *simmiltu* (Akkadian for “stair”), in the lexical tradition (CAD S:273).¹⁷ At Girsu **šu-galam** was a place from which Ningirsu (and so also perhaps his human subjects) surveyed the land, and this is surely echoed in the inscriptions of Amar-Suen when he described his Dublamah as “the house, look-out point of the land, his place of judgement” (**dub-la₂ mah e₂ u₆-di kalam-ma ki di-ku₅-da-ni**). In the same way, in Sumerian the ziqqurrats are called **u₆-nir** “very high outlook”.

To sum up, the **šu-galam** and **dub-la₂ mah** are both described as a “place of passing judgement”, and both were elevated structures, so it seems possible, perhaps even probable, that **šu-galam** is either a name, or a technical designation, of a **dubla** platform, not a separate installation.

To conclude



Fig. 3 Detail from Stele of Ur-Nammu (see UE 6: Pl. 43), courtesy of the Penn Museum (image 141417)

A **dub-la₂(mah)** was an elevated platform used for judicial procedures sometimes also including the taking of oaths. It was not a gateway (or a door socket), although it might be close to a temple gateway (both at Ur and at Nippur), nor did its designation originally include the word **e₂** “house”. In some cases access to it was clearly controlled by doors. There is some textual evidence suggesting that it was “high” and hence no doubt incorporated a staircase or other means of ascent (like the Kassite period ramp reported by Woolley). Hence I suggest that it was a raised tribunal where justice was meted out in public, close to the temple gateway, but outside the temple premises.

If the platform or platforms shown on

¹⁷ Heimpel 1996 takes the Šu-galam as a gate. I cannot find any clear proof that it was in fact a gate or gateway, either at Nippur or at Girsu. Moreover it is unlikely that judicial cases were tried **in**, as opposed to in the vicinity of, a gate or gateway.

Woolley's plans just south-west of the enclosure wall of the gate-house represent the Dublamah, it was not originally very large, and no signs of door emplacements, a ramp or steps are recorded for the Ur III feature, while the Kassite ramp does not show on any plan. Describing the Ur III platform Woolley wrote that "it would have served admirably as a base for a stela". He had in mind the great Ur-Nammu stele, the fragments of which were found scattered around widely in this area (Fig. 3). By analogy with the Stele of Hammurapi, the god here, whether it is Utu/Šamaš or Nanna/Suen, is entrusting to him the measuring rod and rope, the symbols of legal administration. The familiar phrase in English "justice must not only be done, but must be seen to be done" springs to mind. I was surprised to find that it was first formulated in 1923 by Lord Hewart almost exactly 100 years ago, as Woolley was taking to the field at Ur. But the principle, that to ensure social acceptance justice should be carried out in full view of the people (and of course, of the sun, Utu, the god of justice), must be much older.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 6 Woolley 1974

UE 8 Woolley 1965

Ur Excavations: Texts

UET 1 Gadd & Legrain 1928

UET 3 Legrain 1937, 1947

CAD: *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*.

Canby, J.V. 2001. *The “Ur-Nammu” Stela* (University Museum Monograph 110). Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.

Charpin, D. 1980. *Archives familiales et propriété privé en Babylonie ancienne: Etude des documents de ‘Tell Sifr’*. Geneva: Librairie Droz.

– 1986. *Le clergé d’Ur au siècle d’Hammurabi (XIXe–XVIIIe siècles av. J.-C.)*. Geneva: Librairie Droz.

Civil, M. 1971. *Izi = išātu, Ká-gal = abullu and Níg-ga = makkūru* (Materials for the Sumerian Lexicon XIII). Rome: Pontificium Institutum Biblicum.

de Genouillac, H. 1911. *La Trouvaille de Dréhem*. Paris: Geuthner.

Falkenstein, A. 1956. *Die neusumerischen Gerichtsurkunden*, I–II. Munich: Bayerische Akademie der Wissenschaften.

Fish, T. 1932. *Catalogue of Sumerian tablets in the John Rylands Library*. Manchester: Manchester University Press.

Gadd, C.J. & L. Legrain 1928. *Ur Excavations Texts I. Royal Inscriptions*. 2 Vols. London: Printed by order of the Trustees of the Two Museums.

Heimpel, W. 1996. “The gates of the Eninnu”, *Journal of Cuneiform Studies* 48: 17–29.

– 1998. “Anthropomorphic and Bovine Lahmus”, in M. Dietrich & O. Loretz (eds.) *Dubsar anta-men. Festschrift für Willem H.Ph. Römer* (AOAT 253):129–56.

Jacobsen, Th. 1970. “An ancient Mesopotamian trial for homicide”, in W.L. Moran (ed.) *Toward the image of Tammuz and other essays on Mesopotamian history and culture*:193–214. Cambridge, Mass.: Harvard University Press.

Kraus, F.R. 1951. “Nippur und Isin nach altbabylonischen Rechtsurkunden”, *Journal of Cuneiform Studies* 3: i–228.

Lambert, W.G. 1985. “The pair Laḫmu – Laḫamu in cosmology”, *Orientalia* NS 54:189–202.

Langdon, S. 1922. “Ten tablets from the archives of Adab”, *Revue d’Assyriologie* 19:187–94.

Legrain, L. 1937, 1947. *Ur Excavations Texts III. Business Documents of the Third Dynasty of Ur*. 2 Vols. London: Printed by order of the Trustees of the Two Museums.

Michalowski, P. 1989. *The Lamentation over the destruction of Sumer and Ur*. Winona Lake: Eisenbrauns.

Pettinato, G. 1982. *Testi lessicali bilingui della Biblioteca L. 2769* (Materiali Epigrafici di Ebla 4). Naples: Istituto Universitario Orientale di Napoli.

Steinkeller, P. 2007. “On sand dunes, mountain ranges, and mountain peaks”, in M.T. Roth, W. Farber, M.W. Stolper & P. von Bechtolsheim (eds) *Studies presented to Robert D. Biggs, June 4, 2004* (Assyriological Studies 27):219–32. Chicago: Oriental Institute.

Waetzoldt, H. 2005. “Tempelterrassen und Ziqqurate nach der sumerischen Überlieferung”, in Y. Sefati et al. (eds.) *An experienced scribe who neglects nothing. Ancient Near Eastern studies in honor of Jacob Klein*:322–42. Bethesda: CDL Press.

Walther, A. 1917. *Das altbabylonische Gerichtswesen* (Leipziger Semitistische Studien VI/4–6). Leipzig: Hinrichs.

Woolley, L. 1965. *Ur Excavations Volume VIII. The Kassite Period and the Period of the Assyrian Kings*. London: Published for the Trustees of the Two Museums.

– 1974. *Ur Excavations Volume VI. The Buildings of the Third Dynasty*. London: Published by the Trustees of the two Museums.

Yang, Zh. 1991. “King of justice”, *Aula Orientalis* 9:243–9.

Ur in the First Millennium BC

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“... it was the last flicker before the light went out forever, but it burnt brightly for a short while and at the time it must have seemed as if the ancient city had been born anew.”

Woolley (UE 9:1), writing of Ur in the Neo-Babylonian and Persian periods

Abstract

This contribution presents a synthesis of Ur’s history and archaeology in the first millennium BC. The 8th/7th centuries BC witnessed a resurgence of Ur for the first time since the late 11th century BC; this is reflected in the traces of housing that have been attributed to this period. Beginning in the early 7th century BC the city’s monumental fabric, notably the great temple of the moon god Nanna/Sin, was renovated first by the Assyrian governor Sin-balāssu-iqbi and then by kings Nebuchadnezzar II, Nabonidus, and Cyrus II, according to the inscriptions commemorating their building operations. Tablets from contemporary archives document the activities of some of the city’s inhabitants between 693 BC and 317 BC, indicating that Ur remained inhabited into the early Hellenistic period. Recent survey work has led to a revised estimate for the extent of Ur’s first millennium BC occupation which more than doubles the city’s area.

1. Archaeology and Urban Topography

1.1. Excavation and Survey

Prior to the major excavations conducted by C.L. Woolley between 1922 and 1934, Ur had been intermittently investigated by, among others, J.E. Taylor, R.C. Thompson, and H.R. Hall.² Woolley’s excavations of the first millennium BC levels are mainly described in UE 9, covering the Neo-Babylonian and Persian periods, while UE 8 includes some brief remarks concerning the Neo-Assyrian period work on the religious precinct.³ It should be noted that the first millennium remains were often poorly preserved on account of their proximity to the site’s surface, and this hinders investigation of Ur’s layout in the later periods. The renewal of archaeological work at Ur in 2015 by a team led by Elizabeth Stone has shed further light on the city in the late period, albeit primarily through the program of survey led by Emily Hammer (Hammer 2019; Hammer & Di Michele 2023); the recent excavations have focused on the Old Babylonian remains (Stone & Zimansky 2016; Stone et al. 2021).

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² Zettler and Hafford 2015 provide a useful, up-to-date account of the excavations; see pp. 368–70 for the history of exploration at Ur.

³ See Curtis, this volume, for further discussion of Ur during the Neo-Assyrian period. As Woolley explains in UE 9:1, certain other first millennium features are discussed in previous volumes: Nebuchadnezzar’s city wall in UE 6, his reconstruction of the Nannar Court in UE 5, and Nabonidus’ rebuilding of the ziggurat, also in UE 5.

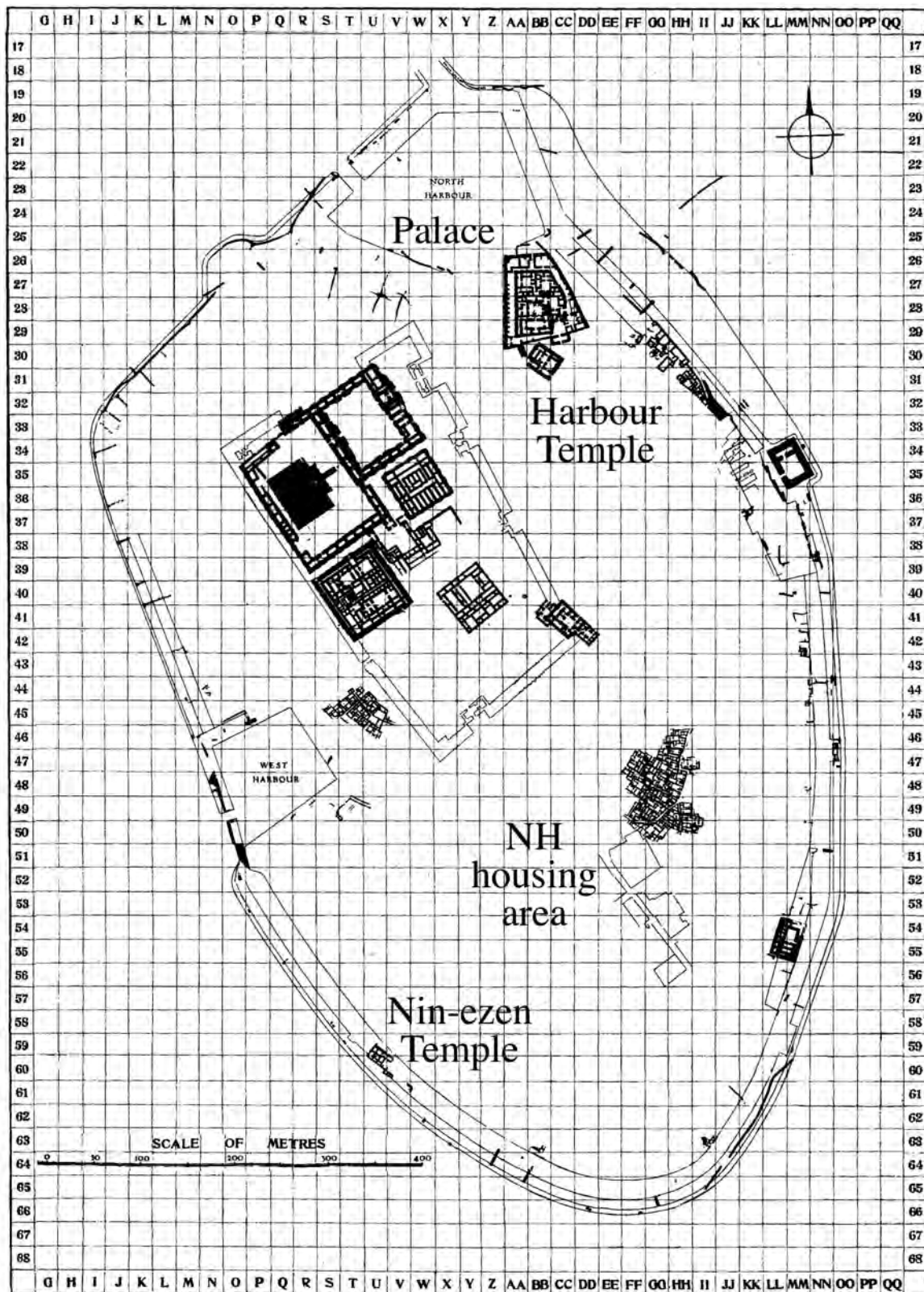


Fig. 1 Plan of Ur (after UE7: Pl. 116 "Ur in the Larsa Period"). For the temple precinct in the first millennium BC, see Fig. 2.

1.2. The Settlement Mound and the City's Margins (Fig. 1)

The first millennium BC occupation of the main mound at Ur was contained within the c. 50 ha area enclosed by the city wall that was originally laid down in the Ur III period in the form of a

retaining wall. The Neo-Babylonian settlement on the mound has been characterized as low density and estimated to occupy c. 40 ha (Wright 1981:338; Hammer & Di Michele 2023:459–60). Traces of a mudbrick revetment wall, dated by the excavator to the Neo-Babylonian period, were detected at various locations around the edge of the mound, on top of the remains of the earlier city wall (UE 6:61–74 and plan Pl. 61). These traces were generally insubstantial, measuring at most 4.4 m in width; given their discontinuous nature, it is not even certain whether all of the excavated stretches were contemporary. These wall remains were in some places disturbed by ovens or kilns attributed to the Persian period, indicating that the wall(s) had fallen into disuse by that time. The treatment of Ur's city wall in the first millennium likely reflects the changing imperial context: Neo-Babylonian rulers were concerned primarily with defending the northern borders of the land, hence they focused on the walls of the northern Babylonian cities, while in the Achaemenid period the city walls (apart from those of the capital, Babylon) were left to decay since Babylonia was now part of a much larger empire (Baker 2023:182–3).

Contemporary written sources attest to four—perhaps five—city gate names at Ur: the Exalted Gate, King's(?) Gate, Lugalirra Gate, Nippur-Facing Gate, and Sunrise Gate.⁴ These gate names occur mostly in the names of city districts,⁵ rather than as direct references to the gates themselves. The gates remain unexcavated, although the approximate locations of some of them can be determined. The Nippur-Facing gate must surely be located on the north-west side of the city, facing Nippur (which had a corresponding Ur-Facing Gate),⁶ while the Sunrise Gate is clearly to be placed on the east side. The likely location of a gate on the south side of the mound can be extrapolated from the course of a street located in excavation and visible in satellite imagery (see below); its name remains unknown.

Areas of settlement beyond the walled mound were already identified by the early excavators; these are of considerable interest since “suburbs” have rarely been studied in a Mesopotamian context. Recent investigation of Ur's suburbs using field survey and remote sensing has more than doubled the estimated extent of Neo-Babylonian occupation at Ur, from c. 40 ha to c. 98 ha (Hammer & Di Michele 2023:460). The diagnostic ceramics recovered through surface collection do not always allow a distinction to be made between the Neo-Babylonian, Achaemenid, and Seleucid eras, but they suggest an occupation from the 7th to the 3rd century BC, with a peak in the Achaemenid period (Hammer & Di Michele 2023:466). The outer areas where first millennium BC ceramics were identified revealed particularly dense concentrations around the mound's western perimeter, as well as further to the north-west and north-east (Diqdiqqah), and on the east mound (Hammer & Di Michele 2023:470, Fig. 10a).

1.3. Watercourses and Harbours

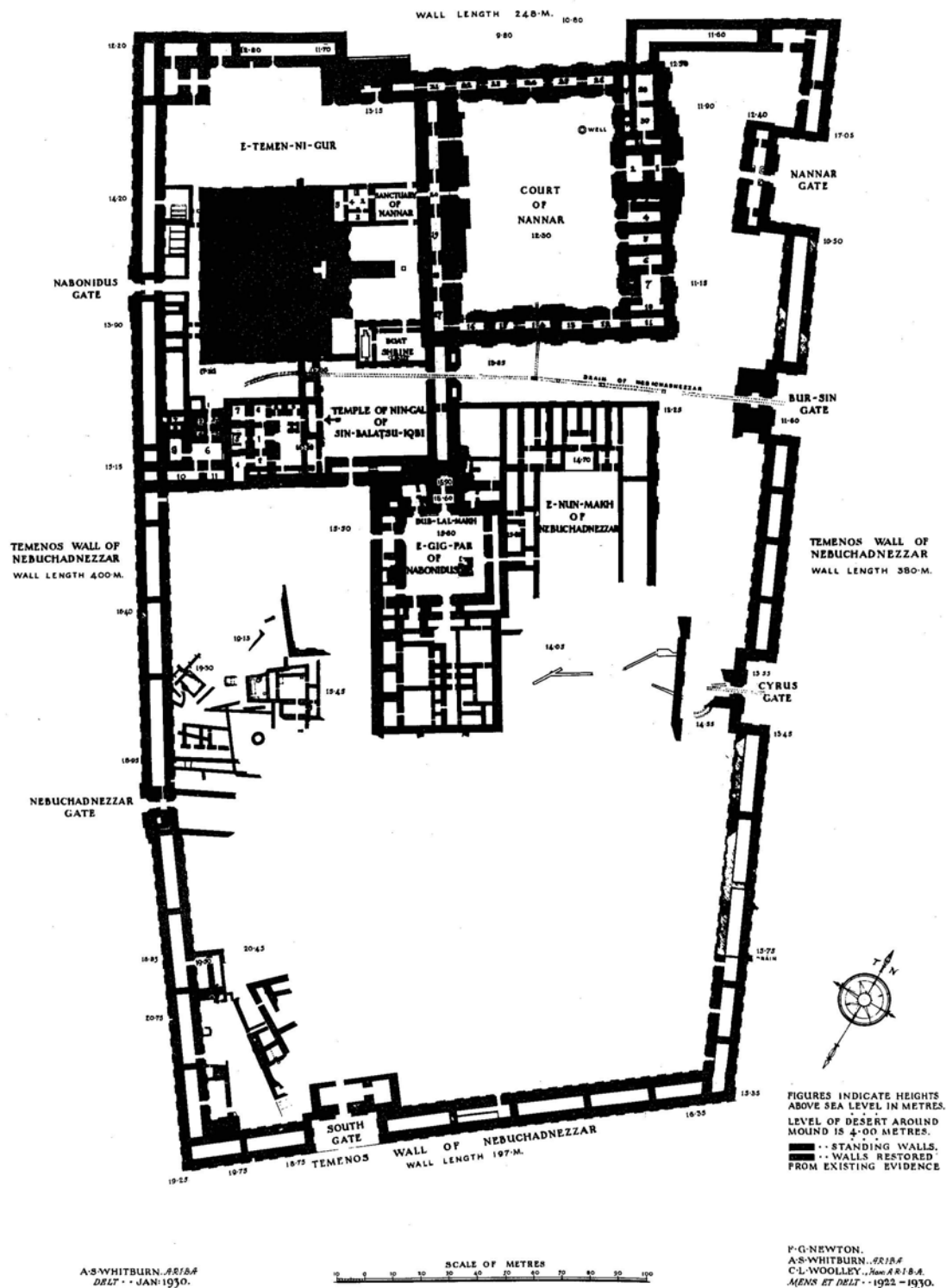
In ancient times the city of Ur lay “along and between former branches of the Euphrates”, traces of which can be detected in aerial and satellite imagery (Hammer & Di Michele 2023:455 with Fig. 2). Two intramural harbours interrupted the line of the city wall: one at the north end of the mound, and the other on the west side (Hammer & Di Michele 2023:457, Fig. 3a). On the north-eastern side of the mound a canal flowed around the city's edge; this is said to have silted up by the Achaemenid period, based on the discovery of two burials dug into the depression left by the canal (UE 9:2). A depression running across the centre of the mound just to the south-east of the temenos likely represents an intramural north-east–south-west canal which may be identified as the Ihilitumma Canal mentioned in Neo-Babylonian and Achaemenid documents.⁷

⁴ To be discussed in detail in a forthcoming publication by the author. Note that several of the gate names listed by Figulla (UET 4:59) are erroneous, having been misread.

⁵ Five of the six attested city districts are called after these gates; the sixth district is called after the Ihilitumma Canal (see below).

⁶ As indicated on the Kassite city map of Nippur; see Oelsner & Stein 2011.

⁷ E.g. UET 4, 7:1,3,7,9 (576/575 BC) and UET 4, 52:3 (480 BC).



1.4.1.1. Sîn-balāssu-iqbi, governor of Ur (c. 658–652 BC)

The fifteen texts of Sîn-balāssu-iqbi concerning his works in the religious precinct comprise eleven brick inscriptions, two cones, a disk, and a door socket; most of his texts were written in Sumerian rather than Akkadian.⁸ Major features mentioned in these inscriptions include the ziggurat terrace Etemennigurru,⁹ the ziggurat itself, Elugalgalgasisa,¹⁰ and the Giparu for the goddess Ningal, including her divine residence, Enun.¹¹ A further nine inscriptions concern works on a variety of stations and abodes dedicated to mainly minor deities.¹² Finally, the text on a disk records the (re)building of the well Puḫilitumma for Ningal, “to ensure the good health of Assurbanipal”.¹³ For the sake of completeness it is worth noting a text bearing the copy (broken) of a baked brick inscription of Amar-Suen, said to have been found while Sîn-balāssu-iqbi was looking for the ground plan of the Sîn temple, Ekišnugal.¹⁴

1.4.1.2. Nebuchadnezzar II (604–562 BC)

The inscriptions of Nebuchadnezzar from Ur are limited to brick inscriptions that concern the rebuilding of the Sîn temple Ekišnugal.¹⁵ Since these texts do not reference specific structures, they do not reflect the range of works attributed to Nebuchadnezzar.

1.4.1.3. Nabonidus (555–539 BC)

The inscriptions of Nabonidus excavated at (or attributed to) Ur include six cylinder inscriptions, one inscribed door socket, and three brick inscriptions, according to the most recent treatment of these texts by Weiershäuser and Novotny.¹⁶ Three of these texts commemorate Nabonidus’ work on the ziggurat, Elugalgalgasisa, while a further text is too broken to determine its contents but was found in association with the ziggurat.¹⁷ Nabonidus also carried out work on the Egipar, in connection with his installation of his daughter En-nigaldi-Nanna as *ēntu*-priestess; the Egipar is described as (a house) for the *ēntu*-priestess in two inscriptions,¹⁸ while in a third inscription Nabonidus states that he built anew the house of the newly-installed *ēntu*-priestess En-nigaldi-Nannar “near the boundary of Egipar”.¹⁹ A single brick inscription records that Nabonidus built Enunmaḥ, “the *ḫilṣu*-building (that is) inside Ekišnugal,” for the goddess Ningal.²⁰

1.4.1.4. Cyrus II (539–530 BC)

Several bricks bearing an inscription of Cyrus were discovered in the recess of a gate (dubbed the “Cyrus Gate”), where they formed what the excavator called a “hinge-box” built against the gate’s south-eastern jamb (Schaudig 2001:549).²¹ The inscription is generic in that it does not reference the building work itself.

⁸ The inscriptions of Sîn-balāssu-iqbi are cited below according to the published editions in RIMB 2. Digital editions of the texts are available at <http://oracc.org/ribo/babylon6/corpus/>, where they are listed as Ashurbanipal texts nos. 2001–2016.

⁹ RIMB 2 B.6.32.2001 (door socket) and 2002 (cone).

¹⁰ RIMB 2 B.6.32.2003–2004 (bricks).

¹¹ RIMB 2 B.6.32.2014 (cone).

¹² RIMB 2 B.6.32.2005–2013 (bricks).

¹³ RIMB 2 B.6.32.2015 (disk).

¹⁴ RIMB 2 B.6.32.2016 (the nature of the inscribed object is unclear).

¹⁵ The relevant RINBE volume is forthcoming; in the meantime, the texts can be consulted online at <http://oracc.org/ribo/babylon7/corpus/>, where they are listed as Nebuchadnezzar II B10 and B10 var.

¹⁶ Cylinders: RINBE 2 Nabonidus nos. 27, 32, 33, 34, 35, 41; door socket: RINBE 2 Nabonidus no. 36; brick inscriptions: RINBE 2 Nabonidus nos. 37, 38, 39 (each with multiple exemplars). Digital editions are available at <http://oracc.org/ribo/babylon7/corpus/>.

¹⁷ RINBE 2 Nabonidus nos. 32 and 33 (cylinders), and 38 (brick inscription, 23 exemplars). No. 35 was associated with the remains of the ziggurat but the text is very fragmentary.

¹⁸ RINBE 2 Nabonidus nos. 36 (door socket) and 39 (brick inscription). Note that the door socket was not found near the Egipar but rather in the Nabonidus Gate on the east side of the temenos.

¹⁹ RINBE 2 Nabonidus no. 34.ii.6–7.

²⁰ RINBE 2 Nabonidus no. 37 (21 exemplars).

²¹ Digital edition: <http://oracc.org/ribo/Q006654>. On the findspot see UE 9:7.

1.4.2. Work on the Religious Precinct

Although the Assyrian governor Sîn-balāssu-iqbi had carried out some renovations, especially on the ziggurat and its terrace, the major works are attributed to Nebuchadnezzar II and Nabonidus, with some further renovations dated to the Persian period.

1.4.2.1. The Enclosure Wall

The temple and ziggurat of the moon god Sîn were situated at the north-west end of a large, rectangular enclosure (the “temenos”) oriented towards the north-west. Nebuchadnezzar completely rebuilt and enlarged this enclosure wall with a casemate construction of mudbrick (UE 9 Pl. 60; Zettler & Hafford 2015:370). It was equipped with six gates: in clockwise direction, three on the west (the “Nannar Gate,” “Bur-Sin Gate,” and “Cyrus Gate”), one on the south (“South Gate”), and two on the east side (“Nebuchadnezzar Gate” and “Nabonidus Gate”).

1.4.2.1. The Ziggurat and its Terrace

In the north-western corner of the temenos lay a large courtyard that formed a raised terrace (Etemennigurru) on which the ziggurat (Elugalgalgasisa) was built. To the north-east lay the great “Court of Nannar”, and to the south-east of the ziggurat lay a building complex that included the Ningal temple (see below).²² Sîn-balāssu-iqbi carried out repairs to both the terrace and the ziggurat, while Nabonidus carried out more extensive works on top of the remains of the first stage, as built originally by Ur-Namma (UE 5:59–73; Zettler & Hafford 2015:372).

1.4.2.2. Edublamaḥ and the Ningal Temple, Egipar

To the south-east of the ziggurat was the complex comprising Edublamaḥ and the Egipar (UE 9:4–22 with Pl. 65; Zettler & Hafford 2015:374). Edublamaḥ was renovated by Sîn-balāssu-iqbi and then also by Nebuchadnezzar II and Nabonidus, while the Egipar, which served as the Ningal temple, was rebuilt by Sîn-balāssu-iqbi and by Nabonidus, who also built the residence of the *ēntu*-priestesses alongside it. Some work is said to have been carried out in the Persian period, and Woolley understood the absence of intrusive Persian burials as an indicator that the complex remained in use at that time (UE 9:19).

1.4.2.3. Enunmaḥ

Adjacent to the Egipar on its north side lay the Enunmaḥ (UE 9:23–33; Zettler & Hafford 2015:370, 372–3). This was the earlier Ganunmaḥ, extensively remodelled by Nebuchadnezzar II, who changed its use from a storehouse to a temple.

1.5. The Palace (Fig. 3)

To the north-east of the north harbour at Ur the excavators discovered a palace, which they assumed to have been the residence of Nabonidus’ daughter; they therefore dubbed it the “Palace of Bel-shalṭi-Nannar,” reflecting the reading of the name En-nigaldi-Nanna that was current at the time (UE 9:41–3 with plan Pl. 70). However, this identification of the building has long been discarded on account of the inscriptions of Nabonidus that place the residence of En-nigaldi-Nanna next to the Egipar (Weadock 1975:113–14). It is more likely that the palace served as a residence for the governor of Ur; if this is correct, then it is the only Neo-Babylonian governor’s palace excavated to date, and indeed the only excavated palace apart from the three palaces at Babylon (Miglus 2004:254–5; Jursa 2004). The palace consisted of an inner core with rooms arranged around four internal courtyards, with one large courtyard suite at the south end and three adjacent smaller courtyard suites to its north and north-east. The large suite contained the largest roofed room in the building, situated to the south of the courtyard and accessed via a centrally placed doorway, with a configuration similar to that of the throneroom suite of the South Palace at Babylon. This inner core

²² See UE 5 Pl. 75 for a plan of the ziggurat terrace in the Neo-Babylonian period.

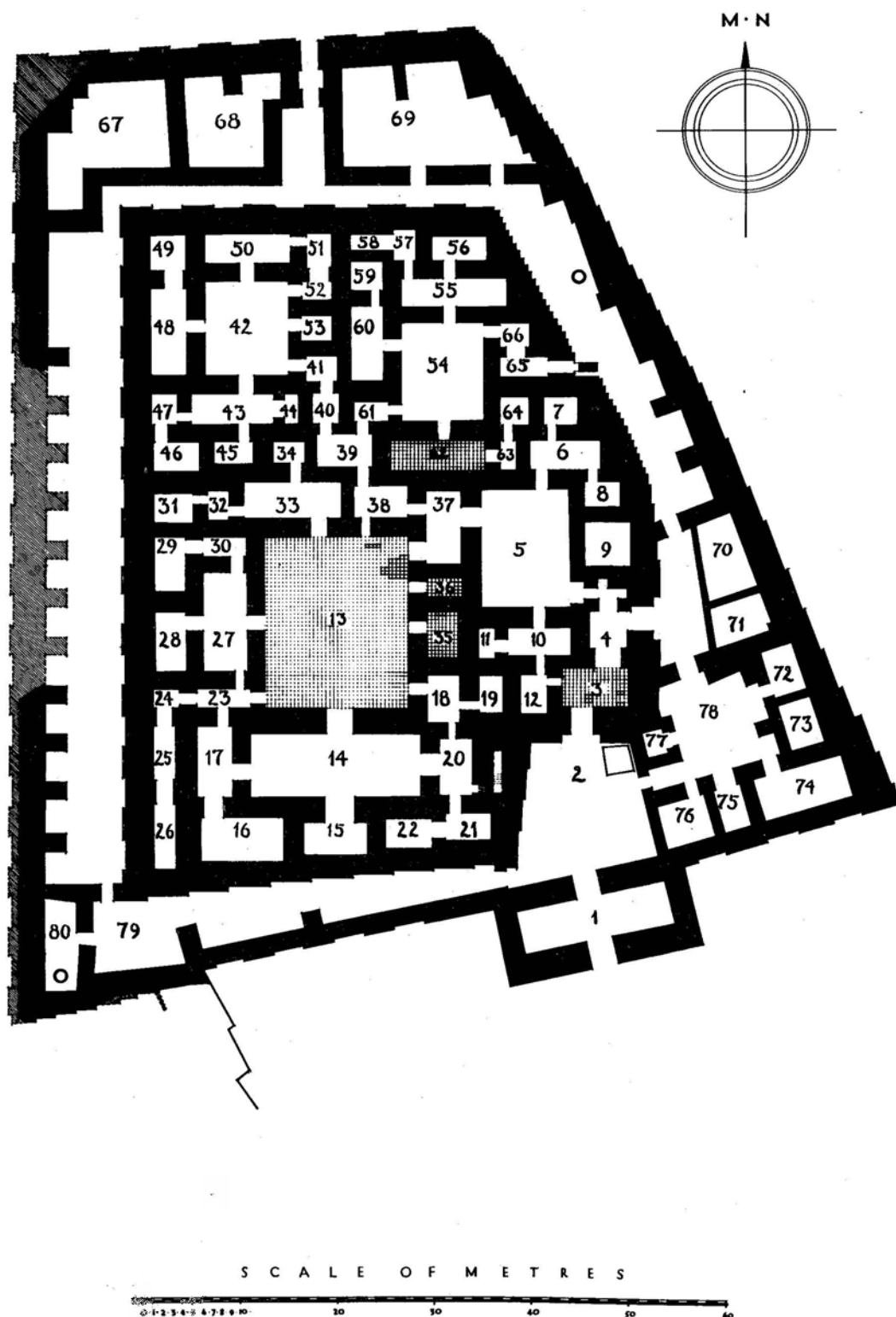


Fig. 3 Plan of the palace at Ur (UE 9: Pl. 70)

of courtyard suites was completely encircled by an internal corridor that was in turn enclosed by the outer wall of the structure, with widening to accommodate some rooms on the outer side of the corridor at the north end of the building and at its south-eastern corner. There were two entrances from the exterior: one on the north side, the other on the south-east. The inner core was accessed via two entrances located in the vicinity of the palace's south-eastern gate. The palace occupied an area

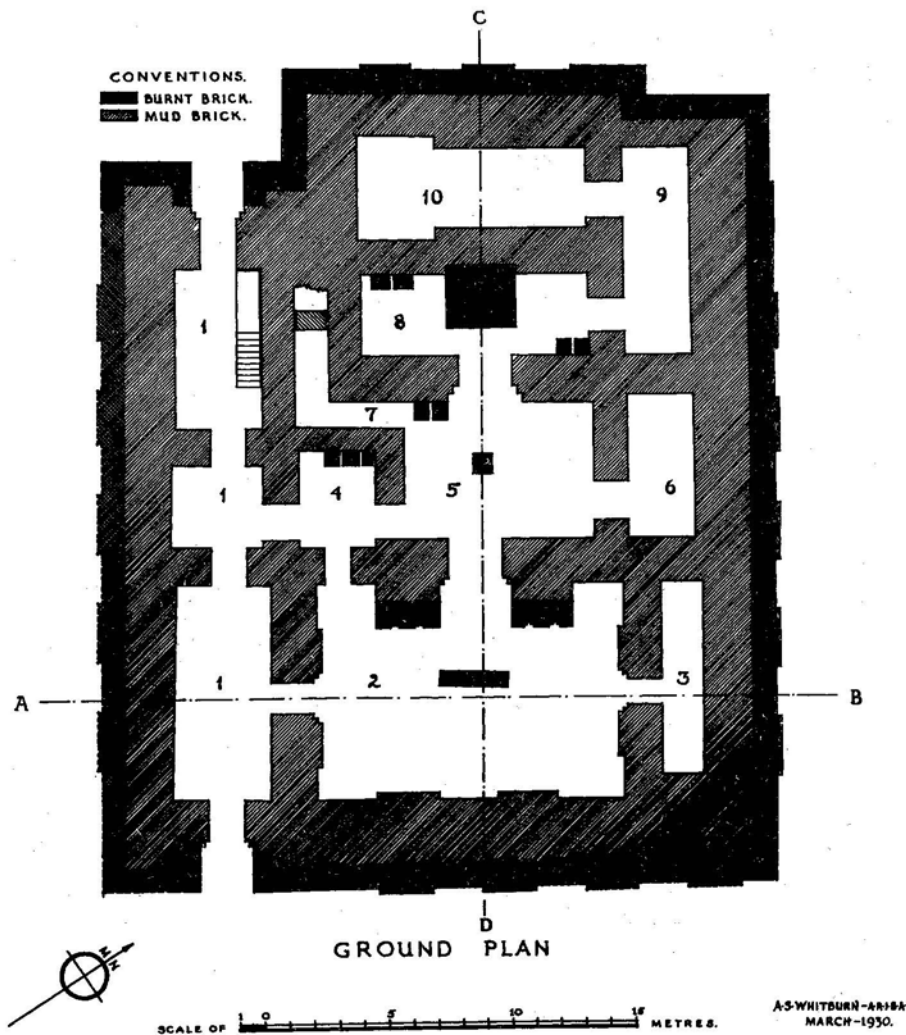


Fig. 4 Plan of the Harbour Temple (UE 9: Pl. 69)

of approximately 5,743 m² (Baker 2014:19), and as the excavators noted, elements of its plan are comparable not only to the South Palace at Babylon but also to the domestic houses excavated in the Merkes quarter.

1.6. The Harbour Temple (Fig. 4)

The Harbour Temple (UE 9:35–40 with Pls. 13, 14, and 69), whose ancient name remains unknown, was situated “on the eastern bank of the harbour basin at the north end of the city, adjoining on the south the palace of Bel-shaltī-Nannar” (UE 9:35). Within the building the excavators found inscribed bricks of Nebuchadnezzar II and Nabonidus, raising the possibility that its construction was owed to the former, and its renovation to the latter; however, since the bricks of Nebuchadnezzar may have been reused from elsewhere, Woolley preferred to attribute the temple’s original construction to Nabonidus (UE 9:39). He interpreted the entire extant building as the temple’s substructure, with deep foundation walls mirroring the plan of the building that would have surmounted them.

1.7. The Nin-ezen Temple (Fig. 5)

A small, simple rectangular temple of conventional Neo-Babylonian plan was uncovered on top of the city wall on the south-west side of the city (UE 9:34–5 and Pl. 68). This temple partly overlay the remains of an earlier temple dedicated to the goddess Nin-ezen, so the excavator assumed that it was also dedicated to that goddess and was intended as a replacement for its predecessor. Though the courtyard contained baked bricks of Nebuchadnezzar II, Woolley suggested that the sanctuary area may reflect an original construction by Sîn-balāssu-iqbi, based on the presence of differently-sized bricks.

1.8. Housing and Streets (Fig. 6)

Residential housing was excavated primarily in the NH sounding; this was a relatively high area located in the central part of the site, to the south-east of the religious precinct and not far to the south-west of the AH site. Here the ground plans of several houses (Houses 1–7) were revealed (UE 9:43–8 with Pls. 15 and 71). Woolley considered this housing area to represent a newly planned district likely laid down during the time of Nebuchadnezzar II; it continued in use—subject to minor

modification—through the Achaemenid period and into the Hellenistic era. The remains of the house walls were poorly preserved, to the extent that doorways could not always be located, making the internal circulation patterns difficult to discern in places, although the houses appear to conform to the typical Neo-Babylonian central courtyard layout.²³ House 1, with its rooms arranged around three internal courtyards, is among the largest of the excavated Neo-Babylonian houses, occupying an entire residential block of roughly 1,500 m². In contrast to their Old Babylonian forerunners at Ur, the Neo-Babylonian houses were built entirely of mudbrick, with baked brick reserved for fixtures and fittings. The houses were located on both sides of a major north-west–south-east street, crossed by a smaller south-west–north-east street. The major street can be traced beyond the published sounding; in fact, the excavators mapped its continuation some way to the south-east (UE 7: Pl. 116), together with the outlines of buildings (presumably houses) not described in UE 9. The line of this street can be projected along the course of a wadi which runs as far as the city wall, establishing a likely location for one of the city gates (see above), although we do not know its name.²⁴

Poorly preserved housing remains in other parts of the site, identified by Woolley as belonging to the Kassite period, have recently been re-dated in the 8th/7th centuries BC (Clayden 2014). These include the YC and XNCF sites to the north-west of the religious precinct, and the KPS area within the temenos. This evidence from the KPS area suggests that the temple precinct at Ur may have accommodated priestly families, just like Eanna at Uruk and Esagila/Etemenanki at Babylon at a slightly later date (Baker 2023:177–8).

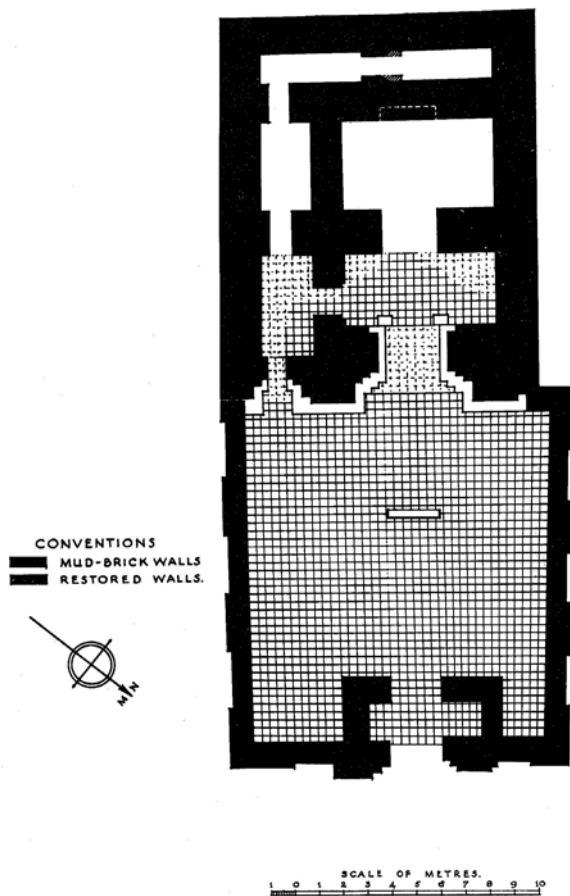


Fig. 5 Plan of the Nin-ezen Temple (UE 9: Pl. 68)

²³ See Baker 2015 on the Neo-Babylonian house plan and its interpretation in light of textual evidence.

²⁴ See Hammer 2019: Fig. 11, also showing traces of sub-surface architecture on the same alignment as the excavated Neo-Babylonian houses.

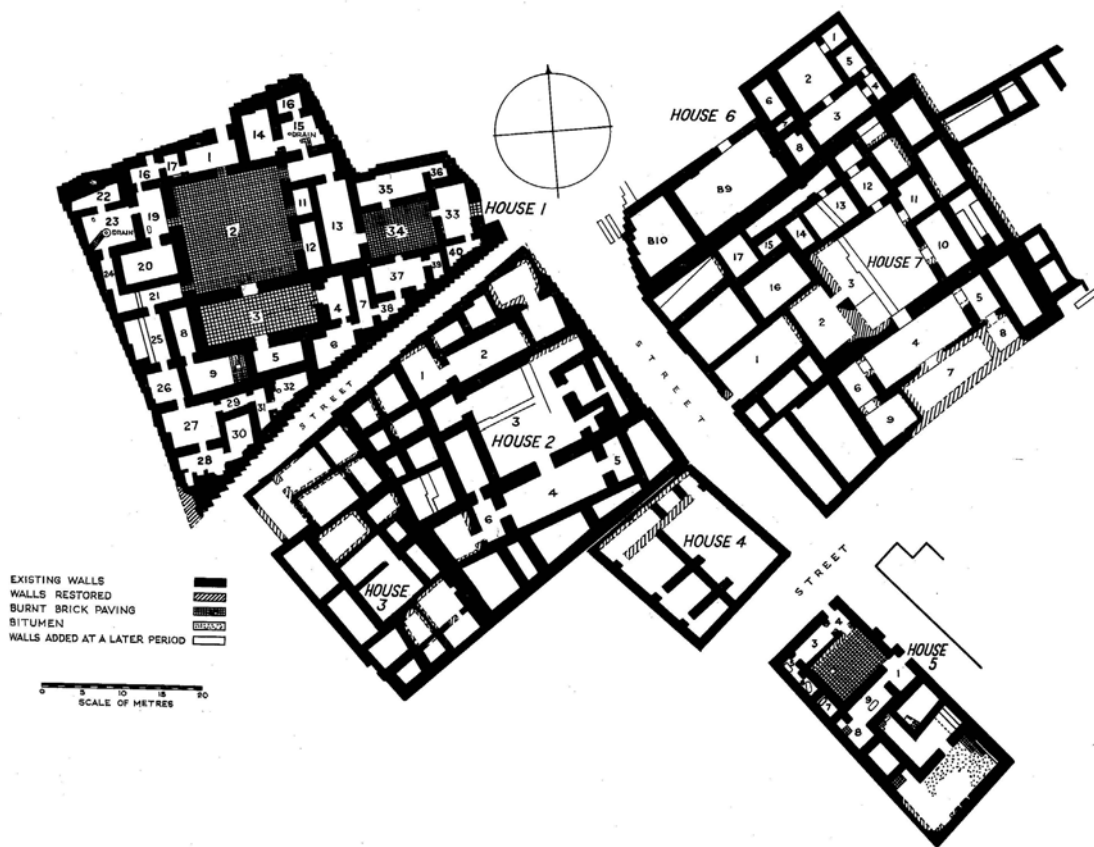


Fig. 6 Plan of the NH housing area (UE 9: Pl. 71)

2. History of Ur in the First Millennium BC

The period between c. 1,000 BC and the late 8th century BC is one of relative obscurity, with a dearth of documentation concerning Ur; it was at this time that southern Babylonia witnessed an influx of Arameans and Chaldeans.²⁵ Towards the end of his reign, in 729 BC, the Assyrian king Tiglath-pileser III took the throne of Babylon. For roughly a century thereafter Babylonia remained under Assyrian rule, although it struggled intermittently with Assyria, especially under the instigation of the rebellious Marduk-apla-iddina II (biblical Merodach-Baladan), culminating in Sennacherib's destruction of Babylon in 689 BC. From around that time until 648 BC, Ur was led by a succession of four Assyrian-appointed governors from a single family: Ningal-iddin and his three sons, Sîn-balāssu-iqbi, Sîn-šarru-ušur, and Sîn-tabni-ušur.

Ningal-iddin is attested from the beginning of the reign of Esarhaddon (680–669 BC) on, and may have been appointed already during the reign of Sennacherib (704–681 BC).²⁶ While he was governor of Ur, the Sealand governor Nabû-zēr-kitti-līšir surrounded Ur with his army in 680 BC, only to flee to Elam when Esarhaddon sent forces to relieve Ur.²⁷ A couple of documents from Ur are, unusually, dated in the 8th and 12th years of Ningal-iddin's term as governor.²⁸

Ningal-iddin was succeeded by his son Sîn-balāssu-iqbi. He was perhaps appointed already during the reign of Esarhaddon, but certainly by 658 BC when he was named as being present at

²⁵ See Brinkman 2015:366 on the "obscure interlude" following the Isin II dynasty.

²⁶ PNA 2/II:961 s.v. Nikkal-iddin.

²⁷ RINAP 4 Esarhaddon 002.ii.40–57 (<http://oracc.org/rinap/Q003230/>); the Babylonian chronicle ABC 1.iii.39–42 places this episode in Esarhaddon's first year.

²⁸ UET 4, 27:17 and UET 4, 90, i.e. 2 respectively.

a gift of property recorded in a contract dated in the 10th year of Šamaš-šum-ukīn.²⁹ Unusually, Sîn-balāssu-iqbi commemorated his building activities in the religious precinct at Ur with inscriptions written in his own name, rather than that of the Assyrian king.³⁰ There are some noteworthy features of these twelve short texts: all but two were written in Sumerian rather than Akkadian; Sîn-balāssu-iqbi calls himself ‘viceroy’ (*šakkanakku*) of Ur rather than ‘governor’ (*šaknu*),³¹ and when he mentions the Assyrian king it is Ashurbanipal rather than his brother, the Babylonian ruler Šamaš-šum-ukīn.

The circumstances under which Sîn-balāssu-iqbi left office and was replaced by his brother Sîn-šarru-ušur remain unclear, but this probably happened not long before the outbreak of the Babylonian revolt in 652 BC (Frame 1992:126, 278). Sîn-šarru-ušur appears not to have held the office of governor for long, perhaps on account of his questionable loyalty;³² during his tenure, he donated land to the goddesses Ištar and Nanaya of Uruk for the well-being of Šamaš-šum-ukīn.³³ Curiously, he features once as the eponym dating a tablet from Ma'allanate, a site probably located in the upper Balikh valley in northern Syria.³⁴ Sîn-šarru-ušur's eponymy has been placed in c. 652 BC, given his short term of office in Ur, although his role as eponym is enigmatic since he does not feature in the manuscripts of the Eponym List which cover this period.³⁵

Sîn-šarru-ušur was succeeded by his brother, Sîn-tabni-ušur,³⁶ who was appointed some time early in the Babylonian revolt led by Šamaš-šum-ukīn in 652–648 BC, following attempts by Ashurbanipal's diviners to ascertain his loyalty through oracular queries.³⁷ During the revolt, Ur and its satellites remained loyal to Assyria, but on that account they were subject to hostile actions from anti-Assyrian factions, such as the Puqudu and the Sealanders who attempted to cut off their supplies (Frame 1992:162–7). Out of desperation, some of Ur's dependants—Kullab, Eridu, and the Gurasimmu—defected, but Ur held out and was eventually relieved, probably in 650 BC or shortly after.

The political history of Ur between the end of the Babylonian revolt in 648 BC and the reign of Nebuchadnezzar II is poorly known, thanks to the dearth of official inscriptions and other historical sources (Brinkman 2015:366). This gap includes the later reign of Ashurbanipal, and the reign of Kandalanu in Babylonia, who both likely died in 631 BC (following Fuchs 2014). However, the tablets from the archive of Sîn-uballiṭ (see below), which are dated between 624 and 616 BC, belong to the time of Nabopolassar's struggle for Babylonia's independence from Assyria after he had taken the throne of Babylon in 626 BC. They indicate that Sîn-uballiṭ took up temporary residence in Babylon, after which he returned to Ur with his tablets; according to Beaulieu, the texts indicate that “Sîn-uballiṭ and his associates were involved in the levying and provisioning of troops” (Beaulieu 2021a:158). He suggests that either Sîn-uballiṭ and his associates had fled to Babylon as refugees (assuming Ur had fallen into Assyrian hands), or they moved to Babylon to participate in the resistance. By the early 620s BC Nabopolassar had consolidated his control over Babylonia and had driven out the Assyrians; he was, of course, instrumental in their downfall a few years later.

²⁹ PNA 3/I:1129–30 s.v. Sîn-balāssu-iqbi 3. On the dating see BM 113927, 32 (= Tarasewicz 2018:112–17, no. 2, dated 18-VIII-10 Ššu); he was also present in the following year when UET 4, 32 (7-IV-11 Ššu) was drawn up.

³⁰ RIMB 2:230–47, nos. B.6.32.2001–2016; the RINAP 5 editions of these texts can be found online at <http://oracc.org/rinap/rinap5/corpus/>, nos. Ashurbanipal 2003–2014.

³¹ He also calls himself “viceroy of Ur (and) Eridu” (RIMB 2 B.6.32.2004), and “viceroy of Ur, Eridu, and the Gurasimmu (tribe)” (RIMB 2 B.6.32.2015).

³² PNA 3/I:1145–6 s.v. Sîn-šarru-ušur 9.

³³ RIMB 2: 258–9, no. B.6.33.2001 (<http://oracc.org/ribo/Q006317/>).

³⁴ ACP 32, dated ¹⁶GU₄ UD 6-kam *lim-mu* ¹³⁰MAN-PAP ša ¹⁶šá-kin ^{uru}ú-ri (“Ayyāru, day 6, eponymy of Sîn-šarru-ušur who is governor of Ur”).

³⁵ PNA 3/I:1145–6 s.v. Sîn-šarru-ušur 9. The eponym of the year 652 BC was Ṭāb-šār-Sîn, governor of Rašappa; see Millard 1994:53, 124.

³⁶ According to Frame's account of this episode, Sîn-šarru-ušur remained alive and was actively slandering his brother and successor; see Frame 1992:166 with n. 165.

³⁷ PNA 3/I:1148–50 s.v. Sîn-tabni-ušur 2. A *terminus ante quem* for his appointment is the text BM 113929, dated 23-III-650 BC, in which he features as governor of Ur; see Frame 1992:163. For the oracle queries mentioning him, see SAA 4, 300:5 and SAA 4, 301 r. 8.

Under Nabopolassar's son and successor Nebuchadnezzar II, Ur may have belonged to the Sealand province under the authority of its governor (*šakin māt tâmti*—Jursa 2010:91–8; Da Riva 2013:199; Beaulieu 2021a:160). At least, in the royal inscriptions of Nebuchadnezzar, Ur is mentioned together with Uruk, Larsa, Eridu, Kullab, Nemed-Laguda, and Ugar-Sîn as comprising “the entire land of the Lower Sea” in lists of cities that supplied corvée labour for the renovation of Etemenanki, the ziggurat of Babylon, and Eurmeiminanki, the ziggurat of Borsippa (Da Riva 2008 nos. C41 (Etemenanki) and C041 (Eurmeiminanki)).³⁸ At this time the temple at Ur was under the authority of a *šangû* (Brinkman 2015:265, citing a text dated 588 BC in which the *šangû* of Ur appears together with the *qîpu* of the Sealand and the governor of Uruk),³⁹ that is, an administrator-priest who typically headed the smaller Neo-Babylonian temple institutions (Jursa 2005:50).⁴⁰

Nabonidus, the last Neo-Babylonian ruler, installed his daughter as *ēntu*-priestess in 554 BC and called her by a new name, En-nigaldi-Nanna (her birth name is unknown—Beaulieu 2021a:161–4). In doing so, he revived an ancient office which had by that time fallen out of use.⁴¹ According to the cylinder inscription recording this installation, Nabonidus also rebuilt the Egipar, refurbished Ekišnugal, renewed and increased the endowment of offerings for the god Sîn and his spouse Ningal, and granted the temple personnel of Ur freedom from corvée labour and service obligations.⁴²

Following the conquest of Babylonia by Cyrus II in 539 BC, life continued without significant change or disruption, at least for a time (Jursa 2007). The inscribed brick of Cyrus mentioned above is among the very last exemplars of traditional Babylonian royal inscriptions;⁴³ from his time on we depend largely on the archival texts for reconstructing Ur's history, although the Babylonian version of the Bisitun inscription of Darius I claims that the Babylonian rebel Arahû, who called himself Nebuchadnezzar (IV), began his revolt in Ur (Brinkman 2015:367).

Ur has produced an unusually high number of tablets dated in the later Achaemenid period, offering the possibility of tracing continuity and change from the Assyrian through to the early Hellenistic era (Beaulieu 2021a:164). In fact, a single archive—that of the Gallābu family—spans much of this period, documenting the activities of eight generations of the family from the reign of Nebuchadnezzar to the early Hellenistic era (Popova 2021:371). It is worth noting in this respect that the archival material from Ur (see below) does not belong to the “end of archives” horizon that was identified by Waerzeggers as reflecting the widespread deposition of many—though not all—Neo-Babylonian/early Achaemenid archives in the second year of Xerxes' reign (484 BC), following his suppression of the Babylonian revolts that broke out in that year (Waerzeggers 2003/2004). Two of the private archives from Ur contain tablets dated both before and after 484 BC: those of the Sîn-ili and the Gallābu families (Waerzeggers 2003/2004:157). This implies that the priestly families who owned these archives retained their positions after 484 BC, in contrast to their northern Babylonian colleagues who disappeared from the scene at that time, presumably as a result of reprisals against them. According to Beaulieu, the Babylonian priesthood that survived became more inward-looking and focused more narrowly on their personal relationship with the gods, a development that is reflected in Ur's changing onomasticon (Beaulieu 2021b).

The reason for Ur's final abandonment remains uncertain, as Brinkman noted, though the changing hydrological situation likely played a role (Brinkman 2015:367). The latest dated tablet (see below) indicates that the city was settled down to at least the late 4th century BC, and the ceramic evidence from the Ur survey appears to confirm that the city was not occupied for very much longer than that (Hammer & Di Michele 2023:466, noting the sporadic occurrence of later (Parthian and Sasanian) ceramics).

³⁸ For digital editions see <http://oracc.org/ribo/babylon7/corpus/>, Nebuchadnezzar II 027.ii.45–9 and Nebuchadnezzar II C041.ii.13'–15' respectively.

³⁹ Beaulieu (2021a:158) points out that no governor of Ur (whether *šaknu* or *šākin tēmi*) is documented after the rise of the Neo-Babylonian dynasty; the *šangû* likely held authority over the city as well as the temple.

⁴⁰ The larger temple institutions were headed by a *šatammu*, sometimes translated “bishop”.

⁴¹ On the history of the office of *ēntu*-priestess at Ur see Brinkman 2015:365–7; Beaulieu 2021a:161–2.

⁴² YOS 1 no. 45, now edited as RINBE 2 Nabonidus 34. Digital edition: <http://oracc.org/ribo/Q005431/>.

⁴³ For the few Babylonian inscriptions of Cyrus see Schaudig 2001:548–56; digital editions: <http://oracc.org/ribo/babylon8/>.

3. Cuneiform Texts from Ur

Datable tablets from first millennium BC Ur span the period from 693 BC (UET 4, 204) down to 317 BC (UET 4, 43). The tablets consist primarily of archival documents, with a smaller number of library/school texts.⁴⁴ The archival texts fall into two main groups: those recovered during the excavations made by Hall in 1919, and those that were excavated by Woolley between 1922 and 1934.⁴⁵ The former group are housed in the British Museum, where they form the “Hall Collection,” while the latter were divided between the Iraq Museum, Baghdad, the British Museum, London, and the University of Pennsylvania Museum, Philadelphia. The tablets from Woolley’s excavations were published by H.H. Figulla in 1949 in volume 4 of the series *Ur Excavation Texts*; the volume included copies of 208 tablets from Woolley’s excavations, representing a total of 211 tablets (including three duplicates). Among these tablets four main groups were distinguished by means of their excavation numbers, corresponding (more or less) to four discrete archives from housing excavated in the NH site:

- U 17238, 0–61 — *Sîn-uballiṭ* family (documents)
- U 17239, 1–10 — *Sîn-uballiṭ* family (letters)
- U 17243, 1–51 — *Gallābu* family
- U 20089, 1–15 — *Sîn-ili* family

Several studies have addressed the division of the Ur tablets into archives and libraries, with description of their contents. Olof Pedersén dealt only with those groups excavated by Woolley that have a known findspot; these amount to one temple archive (Ur 2), three archives from private houses (Ur 3–4, 5), and one library from a private house or school (Ur 6) (Pedersén 1998:201–4). Michael Jursa, by contrast, distinguished seven tablet groups based on the contents of the tablets as well as the findspot, where known (Jursa 2005:133–7); two of his groups lack any findspot. He describes five archives from Woolley’s excavations (7.12.1.1–7.12.1.5) and two from Hall’s work (7.12.2.1–7.12.2.2). Recently, Radosław Tarasewicz edited 65 Neo-Babylonian tablets and fragments from the Hall Collection of the British Museum, and his detailed study has added significant new information to Jursa’s preliminary observations (Tarasewicz 2018). Tarasewicz divided the Hall texts into five groups: an Early Archive (comprising the 3 tablets in Jursa’s 7.12.2.1 group); the Imbiya Archive, now numbering 27 tablets (Jursa’s group 7.12.2.2); records of an institutional background, numbering 14; documents without connection to any archive, numbering 2, and 19 poorly preserved records. Olga Popova completed a doctoral thesis on the *Gallābu* archive, which spans a remarkable eight generations of the *Gallābu* (“Barber”) family, and has published a study of the family’s real estate (Popova 2018; 2021), while Paul-Alain Beaulieu has recently studied the *Sîn-uballiṭ* archive in the context of the formation of the Neo-Babylonian empire (see above; Beaulieu 2021b).⁴⁶

The various tablet groups are summarised in Table 1, where I follow Beaulieu’s example in listing the private archives in chronological order of deposition, based on the latest dated text per group (cf. Beaulieu 2021b:164). I include here the excavated library mentioned by Pedersén in his study.

⁴⁴ The literary and school texts are outside the scope of this paper, with its focus on Ur’s history. For brief remarks see Brinkman 2015:365.

⁴⁵ It should be noted that there are some discrepancies concerning numbering and recorded findspots, and some of the tablets mentioned in the excavation report could not be identified and/or located.

⁴⁶ The same author is preparing a full study of the archive.

Table 1 First Millennium Archives and Other Tablet Groups

Archive	References	Findspot & Exc. Nos.	No. of Tablets	Date Range	Contents
Private Archives					
Damqiya	Jursa 2005:133 (7.12.1.1)	unknown	3	(gov. Ningal-iddina, c. 680 BC)	property documents
Early Archive	Jursa 2005:137 (7.12.2.1); Tarasewicz 2018:56–7	unknown	3	Ššu 10 to Asb 19–20 (c. 658–648 BC)	title deeds (property, prebend, slave)
Sîn-uballiṭ family	Pedersén 1998: 203–4 (Ur 3); Jursa 2005:135–6 (7.12.1.5); Beaulieu 2021a: 153–9	House 7, Room 15 (U17238, 0–61 & U17239, 1–10)	72	Npl 2–9 (624–616 BC)	business documents & letters; debts owed by Sîn-uballiṭ
Imbiya	Jursa 2005:137 (7.12.2.2); Tarasewicz 2018: 58–83	unknown	27	Nbn 12 to Dar I 35 (or Xer 2) (c. 514–498 [or 484] BC)	legal and admin. documents
Sîn-ili family	Pedersén 1998: 204 (Ur 5); Jursa 2005:135 (7.12.1.4)	next to House 5 U 20089,1–15 (but see Jursa 2005)	15	Dar I 5 to Xer 4 (517–482 BC)	legal documents, e.g. re date orchards
Nidinti-Ea	Jursa 2005:134–5 (7.12.1.3)	unknown	12	403–380 BC ⁴⁸	business archive (no property documents)
Gallābu (“Barber”) family	Pedersén 1998: 204 (Ur 4); Jursa 2005:133–4 (7.12.1.2)	House 6, Room 8 U 17243,1–51	51 (Popova:45)	Nbk II 29 to Phil III 7 (576–317 BC)	property & business documents; land, temple prebends
Temple Archive					
Sîn Temple archive	Pedersén 1998: 201 (Ur 2)	North-west of ziggurat, near temenos wall	uncertain (tablets not identified in publ.)	(Achaemenid)	remnants of administrative archive
Library/School					
Library in private house or school	Pedersén 1998: 204 (Ur 6)	House 1, Room 23 ⁴⁹	uncertain (tablets not identified in publ.)	uncertain	
Other					
“Records of Institutional Background”	Tarasewicz 2018: 83–4	unknown	14		
No archival connection	Tarasewicz 2018: 84–5	unknown	2		
Poorly preserved	Tarasewicz 2018: 85–7	unknown	19		

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⁴⁷ Popova (2018:106–7) argues that the Nidinti-Ea archive dates from the reign of Artaxerxes II, not Artaxerxes I; Beaulieu (2021:164) follows her in this.

⁴⁸ Pedersén (1998:204) states that the tablets were found in room 22 of House 1; however, it is clear from Woolley’s description that they were excavated by the south wall of room 23, although Woolley considered them to have originally come from room 22.

4. Concluding Remarks

When he noted several decades ago that Ur was significantly smaller in the Neo-Babylonian and Persian periods compared with the Kassite and post-Kassite era, Brinkman proposed that this shrinkage “suggests that the monumental Ur of Neo-Babylonian times was to some extent an artificial creation supported by royal money” (Brinkman 1969:347, n. 2). The recent finding that Ur’s first millennium BC occupation included substantial suburbs and was twice as extensive as previously thought does not necessarily invalidate this argument, since the city’s role as cult centre was a central feature of Babylonian urbanism (Baker 2023), and it was one that depended heavily on royal sponsorship. Nevertheless, Ur was among the smaller of the Neo-Babylonian cities, and it has been characterized as “a purely regional center” at this time (Beaulieu 2021a:153). Even nearby Eridu was now a “satellite” of Uruk, with its great Eanna temple, underlining the relative insignificance of Ur’s temple establishment within the regional hierarchy (Jursa 2010:109–10).⁴⁹ Nevertheless, as one of the most intensively explored and studied Babylonian cities of the first millennium BC, Ur remains of enduring interest to historians and to posterity.

⁴⁹ Contact between Ur and Uruk appears to have been only sporadic: Jursa 2010:95–8.

Bibliography

Bibliographical Abbreviations

ABC	Grayson 1975 (Assyrian and Babylonian Chronicles)
ACP	Homès-Fredericq & Garelli 2018 (Archives d'un Centre Provincial)
AOAT	Alter Orient und Altes Testament
GMTR	Guides to the Mesopotamian Textual Record
OIS	Oriental Institute Seminar
PIHANS	Publications de l'Institut historique-archéologique néerlandais de Stamboul
PNA 2/II	Baker (ed.) 2001 (Prosopography of the Neo-Assyrian Empire)
PNA 3/I	Baker (ed.) 2002
RIBo	Radner et al. 2015– (Royal Inscriptions of Babylonia online)
RIMB 2	Frame 1995 (Royal Inscriptions of Mesopotamia, Babylonian Periods)
RINBE 2	Weiershäuser & Novotny 2020 (Royal Inscriptions of the Neo-Babylonian Empire)
SAA 4	Starr 1990 (State Archives of Assyria)
SAAS	State Archives of Assyria Studies
TCS	Texts from Cuneiform Sources
Ur Excavations	
UE 5	Woolley 1939
UE 6	Woolley 1974
UE 7	Woolley & Mallowan 1976
UE 8	Woolley 1965
UE 9	Woolley & Mallowan 1962
Ur Excavations Texts	
UET 4	Figulla 1949
YOS 1	Clay 1915 (Yale Oriental Series)

- Adams, R.McC. 1981. *Heartland of Cities. Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*. Chicago: University of Chicago Press.
- Baker, H.D. (ed.) 2001. *The Prosopography of the Neo-Assyrian Empire, 2/II: L–N*. Helsinki: Neo-Assyrian Text Corpus Project.
- (ed.) 2002. *The Prosopography of the Neo-Assyrian Empire, 3/I: P–Ş*. Helsinki: Neo-Assyrian Text Corpus Project.
- 2014. “House Size and Household Structure: Quantitative Data in the Study of Babylonian Urban Living Conditions,” in Baker & Jursa (eds.) 2014:7–23.
- 2015. “Family Structure, Household Cycle, and the Social Use of Domestic Space in Urban Babylonia,” in Müller (ed.) 2015: 371–407.
- 2023. “The Later Phases of Southern Mesopotamian Urbanism: Babylonia in the Second and First Millennia BC,” *Journal of Archaeological Research* 31:147–207.
- Baker, H.D. & M. Jursa, (eds.) 2014. *Documentary Sources in Ancient Near Eastern and Greco–Roman Economic History: Methodology and Practice*. Oxford and Philadelphia: Oxbow.
- Beaulieu, P.-A. 2021a. “The City of Ur and the Neo-Babylonian Empire,” in Frame, Jeffers & Pittman (eds.) 2021:153–70.
- 2021b. “Remarks on Theophoric Names in the Late Babylonian Archives from Ur,” in Gabbay & Gordin (eds.) 2021:163–78.
- Brinkman, J.A. 1965. “Ur: 721–605 B.C.,” *Orientalia* NS 34:241–58.
- 1969. “Ur: The Kassite Period and the Period of the Assyrian Kings,” *Orientalia* NS 38:310–48.
- 2015. “Ur. A. III. Philologisch. Mitte 2.–1. Jahrtausend,” *Reallexikon der Assyriologie* 15(5–6):364–7.
- Clay, A.T. 1915. *Miscellaneous Inscriptions in the Yale Babylonian Collection (YOS 1)*. New Haven: Yale University Press.
- Clayden, T. 2014. “Kassite Housing at Ur: the Dates of the EM, YC, XNCF, AH and KPS Houses,” *Iraq* 76:19–64.
- Crawford, H. (ed.) 2007. *Regime Change in the Ancient Near East and Egypt. From Sargon of Agade to Saddam Hussein*. London: The British Academy.
- Da Riva, R. 2013. “Nebuchadnezzar II’s Prism (Eş 7834): A New Edition,” *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 103:196–229.

- Figulla, H.H. 1949. *UET 4: Business Documents of the New-Babylonian Period*. London: British Museum and the University of Pennsylvania Museum.
- Frame, G. 1992. *Babylonia 689–627 B.C.* (PIHANS LXIX). Leiden: Nederlands Instituut voor het Nabije Oosten.
- 1995. *Rulers of Babylonia from the Second Dynasty of Isin to the End of the Assyrian Domination (1157–612 BC)* (RIMB 2). Toronto: University of Toronto Press.
- Frame, G., J. Jeffers & H. Pittman (eds.) 2021. *Ur in the Twenty-First Century CE: Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016*. University Park, PA: Eisenbrauns.
- Fuchs, A. 2014. “Die unglaubliche Geburt des neubabylonischen Reiches oder: Die Vernichtung einer Weltmacht durch den Sohn eines Niemand,” in Krebernik & Neumann (eds.) 2014:25–71.
- Gabbay, U. & S. Gordin 2021. *Individuals and Institutions in the Ancient Near East. A Tribute to Ran Zadok* (SANER 27). Boston / Berlin: De Gruyter.
- Grayson, A.K. 1975. *Assyrian and Babylonian Chronicles* (TCS 5). Locust Valley, NY / Glückstadt, Germany: J. J. Augustin.
- Hammer, E. 2019. “The City and Landscape of Ur: An Aerial, Satellite, and Ground Reassessment,” *Iraq* 81:173–206.
- Hammer, E. & A. Di Michele 2023. “The Suburbs of the Early Mesopotamian City of Ur (Tell al-Muqayyar, Iraq),” *American Journal of Archaeology* 127:449–79.
- Homès-Fredericq, D. & P. Garelli 2018. *Ma'allanate: Archives d'un centre provincial de l'empire assyrien* (Akkadica Supplementum 13). Brussels: Akkadica.
- Jursa, M. 2004. “Palast. A.IVb. Neubabylonisch,” *Reallexikon der Assyriologie* 10:209–12.
- 2005. *Neo-Babylonian Legal and Administrative Documents. Typology, Contents and Archives* (GMTR 1). Münster: Ugarit-Verlag.
- 2007. “The Transition of Babylonia from the Neo-Babylonian Empire to Achaemenid Rule,” in Crawford (ed.) 2007:73–94.
- Jursa, M., with J. Hackl, B. Janković, K. Kleber, E.E. Payne, C. Waerzeggers & M. Weszeli 2010. *Aspects of the Economic History of Babylonia in the First Millennium BC. Economic Geography, Economic Mentalities, Agriculture, the Use of Money and the Problem of Economic Growth* (AOAT 377). Münster: Ugarit-Verlag.
- Krebernik, M. & H. Neumann (eds.) 2014. *Babylonien und seine Nachbarn in neu- und spätbabylonischer Zeit. Wissenschaftliches Kolloquium aus Anlass des 75. Geburtstags von Joachim Oelsner. Jena, 2. und 3. März 2007* (AOAT 369). Münster: Ugarit-Verlag.
- Miglus, P.A. 2004. “Palast. B. Archäologisch,” *Reallexikon der Assyriologie* 10:233–73.
- Millard, A. 1994. *The Eponyms of the Assyrian Empire 910–612 BC* (SAAS 2). Helsinki: Neo-Assyrian Text Corpus Project.
- Müller, M. (ed.) 2015. *Household Studies in Complex Societies. (Micro)Archaeological and Textual Approaches* (OIS 10). Chicago: The Oriental Institute of the University of Chicago.
- Oelsner, J. & P. Stein 2011. “Der Stadtplan von Nippur (HS 197),” *Archiv für Orientforschung* 52:104–16.
- Pedersén, O. 1998. *Archives and Libraries in the Ancient Near East 1500–300 BC*. Bethesda, MD: CDL Press.
- Popova, O. 2018. “*Etude d'une famille de notables de la ville d'Ur du VIe au IVe siècle av. J.-C.: La famille des Gallābu*.” PhD thesis, Université de Paris 1: Panthéon-Sorbonne.
- 2021. “The Status of Real Estate in Neo-Babylonian Ur: The Case of the Gallābu Family,” in Frame, Jeffers & Pittman (eds.) 2021:371–8.
- Radner, K. et al. 2015–. *Royal Inscriptions of Babylonia online* (RIBo) (<http://oracc.org/ribo/>) Ludwig-Maximilians-Universität München, Historisches Seminar (LMU Munich, History Department) – Alexander von Humboldt Chair for Ancient History of the Near and Middle East.
- Schaudig, H. 2001. *Die Inschriften Nabonids von Babylon und Kyros' des Grossen samt den in ihrem Umfeld entstandenen Tendenzschriften. Textausgabe und Grammatik* (AOAT 256). Münster: Ugarit-Verlag.
- Starr, I. 1990. *Queries to the Sungod: Divination and Politics in Sargonid Assyria* (SAA 4). Helsinki: Helsinki University Press.
- Stone, E.C. & P. Zimansky 2016. “Archaeology Returns to Ur. A New Dialogue with Old Houses,” *Near Eastern Archaeology* 79(4):246–59.
- Stone, E., A. Otto, D. Charpin, B. Einwag & P. Zimansky 2021. “Two Great Households of Old Babylonian Ur,” *Near Eastern Archaeology* 84(3):182–91.
- Tarasewicz, R. 2018. *The Neo-Babylonian Records from Ur from the Hall Collection of the British Museum* (dubsar 7). Münster: Zaphon.

- Waerzeggers, C. 2003/2004. "The Babylonian Revolts against Xerxes and the 'End of Archives'," *Archiv für Orientforschung* 50:150–73.
- Waddock, P.N. 1975. "The Giparu at Ur", *Iraq* 37:101–28.
- Weiershäuser, F. & J. Novotny 2020. *The Royal Inscriptions of Amēl-Marduk (561–560 BC), Neriglissar (559–556 BC), and Nabonidus (555–539 BC), Kings of Babylon* (RINBE 2). University Park, PA: Eisenbrauns.
- Woolley, L. 1939. *Ur Excavations Volume V. The Ziggurat and its Surroundings*. London: Published for the Trustees of the Two Museums by the aid of a grant from the Carnegie Corporation of New York.
- 1965. *Ur Excavations Volume VIII. The Kassite Period and the Period of the Assyrian Kings*. London: Published for the Trustees of the Two Museums.
- 1974. *Ur Excavations Volume VI. The Buildings of the Third Dynasty*. London: Published by the Trustees of the Two Museums.
- Woolley, L. & M.E.L. Mallowan 1962. *Ur Excavations Volume IX. The Neo-Babylonian and Persian Periods*. London: Published for the Trustees of the Two Museums.
- Woolley, L. & M.E.L. Mallowan 1976. *Ur Excavations Volume VII. The Old Babylonian Period*. London: Published for the Trustees of the Two Museums by British Museum Publications Limited.
- Wright, H.T. 1981. "Appendix. The Southern Margins of Sumer. Archaeological Survey of the Area of Eridu and Ur," in Adams 1981:295–345.
- Zettler, R.L. & W.B. Hafford 2015. "Ur. B. Archäologisch," *Reallexikon der Assyriologie* 14:367–85.

Traces of the Late Assyrian period at Ur

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Abstract

This paper looks at Ur, focusing on archaeological evidence, during the period of Assyrian dominance particularly in the 7th century BC when Ur was controlled by a series of Assyrian governors. In the Ur publications the material for this period is divided between UE 8 (*Kassite Period and Period of the Assyrian kings*) and UE 9 (*Neo-Babylonian and Persian Periods*). We examine in detail material from the *giparu* and the Enunmah temple and attempt to identify objects that are distinctively Assyrian or might have circulated in the Assyrian empire at that time. Lastly, we consider whether the material culture of Ur can be described as Assyrian during this period.

1. Introduction

One doesn't immediately associate Assyria with the city of Ur and certainly the stone reliefs and colossal gateway figures, familiar from Assyrian sites such as Nimrud and Nineveh, are not present at Ur in southern Iraq where stone is not readily available. However, as I will attempt to show, there is certainly evidence in the archaeological record of Assyrian presence and influence at Ur in the 1st millennium BC.

The history of Ur in the later periods is far from straightforward, and can be mainly reconstructed from the evidence of inscribed bricks and tablets.² There was extensive building work at Ur in the reign of the Kassite king Kurigalzu I in the 14th century BC, and more limited work by Marduk-nadin-ahhe and Adad-apla-iddina of the 2nd Dynasty of Isin in the 11th century BC. Following several centuries which are sparsely documented, the period between 747 BC and 689 BC witnessed intense local rivalry with Assyria. After the defeat of the Chaldeans and the destruction of Babylon in 689 BC, Ur became what Brinkman describes as "a pro-Assyrian bastion in the midst of Chaldaean and Aramaean-dominated territory" (Brinkman 2015:366). In the 7th century BC, Ur was controlled by a series of Assyrian governors. The first was Ningal-iddin, who was succeeded in turn by three of his sons: Sin-balassu-iqbi, who was the most energetic builder since Kurigalzu I; Sin-šarra-ušur; and Sin-tabni-ušur until at least 648 BC. The main building work of Sin-balassu-iqbi seems to have been in the Temple of Ningal and the *giparu*. In the post-Assyrian era, Nebuchadnezzar and Nabonidus were enthusiastic builders in the Neo-Babylonian period, which ended in 539 BC with the conquest of Cyrus the Great. There are dated tablets from the Achaemenid period, and occupation continued into early Hellenistic times, but Ur was by now a dying city, and with Alexander's foundation of Spasinou Charax at the head of the Persian Gulf it no longer had any strategic or economic importance. This is a broad historical outline, but often it is difficult to match buildings and small finds with particular periods. This is because the upper levels of the site are very disturbed and the stratigraphy is often complicated. This is particularly true of the Late Assyrian period, and I will suggest here that the finds of that period, that are divided between UE 8 (*Kassite Period and Period of the Assyrian kings*) and UE 9 (*Neo-Babylonian and Persian Periods*), are sometimes incorrectly attributed.

This paper does not aspire to be a review of all Assyrian or Assyrianising material in the archaeological record at Ur. My primary purpose is to look at objects recovered by Woolley from two locations, the sites of the *giparu* and the Enunmah temple, and consider whether they derive

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² For a brief survey of the epigraphic evidence from the 1st millennium BC, see Heather Baker in this volume.

from Assyrian occupation at Ur. There is undoubtedly much more Assyrian material. Although the study of pottery from Ur is particularly problematic, as the published drawings are schematic and based on a typological study, Tim Clayden has suggested that on the basis of the pottery, houses in areas XNCF, AH, YC and KPS should be dated to the 8th–7th century BC (Clayden 2014). There are also glass bottles that have been dated by Barag to the 7th century BC (*ibid.* 24). Another fertile area for investigation would be seals and seal impressions. For example, in his publication of cylinder seals from Ur, Legrain (UE 10:ix) has identified 42 seals as Assyrian or Late Babylonian, and in her catalogue of cylinder seals in the British Museum, Dominique Collon has identified 23 seals from the excavations of Taylor and Woolley at Ur as Neo-Assyrian or Neo-Babylonian (Collon 2001:198). There is also, as we shall see, a need to re-examine the graves to see which can be attributed to the Assyrian period, but all that is unfortunately beyond the scope of this modest paper.



Fig. 1 Clay apotropaic figures from Ur (from UE 8: Figs 33–4)

2. *Giparu* site

We will start our survey on the site of the *giparu* of Kurigalzu where there seems to have been considerable activity in the Late Assyrian period. According to Woolley (UE 8:37), over the whole area they found “immediately below the surface sand, a very heavy bed of ashes, usually more than a metre thick”, associated with the destruction of the Kassite building. In the upper levels of the ash stratum, he says, there “there had been buildings of a later... date”. Penelope Weadock has plausibly suggested (1975:112–14) that the fragmentary remains on the site of Kurigalzu’s *giparu* are successive rebuildings of the *giparu* by Sin-balassu-iqbi and Nabonidus respectively. There may also, as we shall see, have been Persian remains on this site.

The first objects to be considered from the *giparu* site are clay apotropaic figurines of Assyrian type (Fig. 1). They were discovered in foundation boxes in the area designated KP, and were associated with a post-Kassite building of which Woolley could only retrieve a fragmentary plan (UE 8: Pl. 53, fig. 6 on p. 93; Amrhein 2021: Fig. 3). The brick sizes here, however, matched those of the nearby Ningal Temple built by Sin-balassu-iqbi (UE 8:35–6) and the building is assumed to be by him.³

These figurines have been studied in depth by Anastasia Amrhein (2021), so we need only provide a very brief survey here. They were found in the course of two seasons. In 1924–25, 14 bird-headed *apkallu* figurines were found in two brick foundation boxes, and in 1925–26 a variety of different figures were recovered from individual boxes. These included lion-demons (*ugallu*), a bull-man (*kusarikku*), *mušhuššu* dragons, bearded figures, probably gods, either holding a vase or a

³ Here, we should note that the foundation deposit in the Temple of Ningal Temple, dated by Woolley to the Kassite period, has been re-dated by Clayden (1995) to the 8th–7th century BC.

staff, figures that are possibly scorpion-men (*girtablullu*), and snake-like figures. Many had remains of black and/or red paint and most were coated with white lime. All are of unbaked clay. Interestingly, most of the Ur figurines appear to have been modelled by hand whereas most Assyrian figurines were made in moulds, which might be interpreted as an example of an Assyrian tradition that has been adapted to suit local circumstances. Clay dog figurines were also reported from area KP (Amrhein 2021:113) but none has survived. With other vernacular clay figurines found at Ur, it is difficult to identify any that are recognisably Late Assyrian. As Amrhein has stated (2021:119–20), “figurines produced under Assyrian domination cannot be distinguished from those of the Neo-Babylonian period.” Bronze dogs and a bronze figurine of a man holding an *aryballos* (UE 9: Pl. 25) are regarded by Braun-Holzinger as Late Babylonian (1988:126, 128).⁴

3. Bronze coffins from the *giparu* site

Close to the site where these foundation boxes were discovered were two rich burials in bronze coffins (PG1–2). In his preliminary report in the *Antiquaries Journal* (1926:379), Woolley tells us that “cut across the ruins of the south-west wall of the Kuri-Galzu edition of the Gig-Par-Ku lay two brick vaults, rather unusually rough, in which were copper coffins” (Fig. 2).

Rather confusingly, and apparently mistakenly, in *The Neo-Babylonian and Persian Periods* (UE 9:56, 68) he says the graves were set in vaults in the south-west wall of the Nin-gal Temple. He presumably meant the south-west wall of the Gig-Par-Ku. These bronze coffins are squared-off at one end and rounded at the other and have high straight sides (UE 9: Pl. 16–18). One is now in the British Museum, and one in Birmingham Museum (Figs 3–4). The sides are made from two sheets of bronze with the join in the middle of the long sides covered by vertical strips of bronze which have incised decoration. There is a flat ledge around the top, and at each end there are two heavy bronze handles. The vertical strips on the sides have incised decoration showing goats standing on rosettes (Fig. 5). This is an Assyrian style motif, and parallels include such a design on a glazed brick panel from Khorsabad dating to the reign of Sargon (Botta 1849–50 II: Pl. 155).

In an article in *Anatolian Studies* (Curtis 1983) I argued that these two bronze coffins were of Late Assyrian type and dated probably from the late 8th century BC. I cited at that time similar bronze coffins from Sincirli⁵ and probably from Ziwiye, and terracotta coffins of the same shape from various Assyrian sites including Assur.



Fig. 2 The two bronze coffins as found at Ur (from UE 9: Pl. 17)

⁴ A bronze figurine of a bearded, smiting god, apparently from the North Harbour Palace (UE 8: Pl. 34; Amrhein 2021:115, fig. 12) could well be Late Assyrian of the 8th century BC.

⁵ For the Sincirli coffin see now Jendritzki & Martin 2001. An unprovenanced bronze coffin of this type formerly in a private collection in Cologne (Curtis 1983: Pl. XXVI) was offered at the Bonhams (London) antiquities sale on 2nd October 2014, lot no. 117.



Fig. 3 Bronze coffin from Ur in the British Museum (from UE 9: Pl. 17)



Fig. 4 Bronze coffin from Ur (photo: courtesy of Birmingham Museum and Art Gallery)



Fig. 5 Incised decoration on side of Ur coffin (photo: courtesy of Birmingham Museum and Art Gallery)

incised decoration showing elaborate narrative scenes. Two further coffins were found in 2007 at Jubaji near Ramhormoz (Shishegar 2015:68–71, Figs 6–7, Plan 2) with a rich assortment of grave-goods including bronze and silver pans with long strap-like handles adorned with figures of a fish-tailed Elamite goddess. The Arjan and Jubaji coffins date from the period known as Neo-Elamite III (c. 653–539 BC), probably from the latter part of that period (IIIB, c. 585–39 BC). There are some differences from the Ur and Nimrud coffins in that the Arjan coffin has four segmented handles while the Jubaji coffins have eight plain handles arranged either vertically or horizontally. In all, therefore, we have bronze coffins dating between the late 8th century BC and the early 6th century BC. The

Since my article several bronze coffins of this type have come to light, and there has been a comprehensive study of such coffins by Yasmina Wicks (2015). At Nimrud, three coffins, with handles but apparently undecorated, were found in 1989 in the antechamber of (the royal) Tomb III at Nimrud, under the floor of Room 57 in the North-West Palace of Ashurnasirpal II (Damerji 1999: Figs 37–8; Hussein 2016: Pls 99–101; Curtis 2008). In the main chamber of this tomb was an empty stone sarcophagus with an inscription recording that it was the grave of Ashurnasirpal's queen Mullissu-mukannišat-Ninua. The coffins contained the remains of 13 individuals together with a wealth of jewellery. These secondary burials date from the second half of the 8th or the 7th century BC. In addition, bronze bath-tub coffins with burials have been found at two locations in South-West Iran.⁶ At Arjan near Behbahan a coffin found in 1982 (Álvarez-Mon 2010: Pl. 6–8) was accompanied by grave-goods that included a bronze candelabrum and a bronze bowl with

⁶ A bronze coffin with a burial and a rich assortment of grave-goods found on the acropolis at Susa in 1901 (Curtis & Tallis 2005:174) has sometimes been identified as a 'bath-tub coffin' (e.g. by Farjamirad 2015:6.51) but it is oval in shape and belongs to a different tradition. It does however demonstrate that in the late Achaemenid period wealthy people were sometimes buried in metal coffins, at least in Susa. For a second bronze coffin of similar shape found at Susa containing skeletal remains and an ivory and gold comb see Wicks et al. 2018. A bronze basin with two sets of handles found at a site near Kermanshah that has been described as a Neo-Assyrian 'bath-tub' coffin (Alibaigi & Khosravi 2016) is circular and may not have been used for a burial.

Ur, Nimrud and Sinjirli coffins can all be dated to the Late Assyrian period, while the Elamite coffins are probably slightly later. The difference in date is perhaps reflected in the different forms of handle.

Lastly, Yasmina Wicks has pointed out that what seems to be a bronze coffin with handles is shown on an Assyrian relief, amidst the booty from a conquered people in Chaldaea (Wicks 2015:45–6, Fig. 42).⁷ The relief was in the South-West Palace of Sennacherib at Nineveh, but post-dates the reign of that king (Barnett et al. 1998: Pl. 234-5).

A Late Assyrian date for the bronze coffins from Ur is also supported by the existence of similar terracotta coffins attested at various Assyrian sites in Late Assyrian contexts. It seems that these bath-tub shaped coffins first appeared in Assyria in the 8th century BC,⁸ and were used in the 8th–7th centuries. For example, a “baked clay bath-shaped coffin” was found in a tomb beneath the floor of room NN in the North-West Palace at Nimrud; it contained the famous ‘Nimrud jewel’ (Mallowan 1966 I: 114–15, Fig. 58).⁹ At

Khirbet Khatuniyeh in the Eski Mosul Dam salvage project a terracotta bathtub coffin was found sealed within a Late Assyrian destruction level, albeit used for storing grain rather than burying a body (Fig. 6; Curtis & Green 1997: Fig. 21, Pl. XII).

At Assur 25 bath-tub coffins were found (Wicks 2015:80–1). A terracotta coffin was found in a tomb at Humaidat west of Mosul together with Late Assyrian pottery and metalwork (Ibrahim 2002),¹⁰ and one broken example was found in a tomb at Erbil (van Ess et al. 2012: Fig. 16). These clay Assyrian coffins sometimes have a pair of handles at each end and a band of applied cable-pattern decoration around the body.

Each of the Ur coffins contained a woman’s body wrapped in linen and woollen textiles.¹¹ The grave-goods in PG1 consisted of a glazed pottery jar,¹² three gold earrings, a bronze bracelet, four bronze fibulae, three strings of beads, and a bone comb. The grave-goods with PG2 consisted of two glazed pottery jars, a gadrooned bronze bowl, a wooden bowl with two lug handles, a gold earring, a string of beads, a bronze mirror, the remains of a wooden box, and the remains of a basket (Figs 7–8). Some of these items are not particularly diagnostic, but others are helpful for dating purposes. Thus, the three glazed pottery jars (Figs 9, 21) belong to a well-known Late Assyrian type, often with polychrome



Fig. 6 Terracotta coffin found at Khirbet Khatuniyeh (photo: J.E. Curtis)

⁷ Cf. also Bucci & Giusto 2016: Fig. 2.3 on p. 31.

⁸ The attribution of six terracotta bath-tub coffins to the Middle Assyrian period at Assur is no longer accepted; for references, see Wicks 2015:45, 80.

⁹ Also found under the floor of Room DD was what Mallowan described as “another terracotta grave” (Mallowan 1966.I:115). This may also have been a bathtub coffin. It contained the Assyrian bronze bowl ND 775 now in the Ashmolean Museum (ibid. Fig. 59). Other bathtub coffins found in the excavations of the British School of Archaeology in Iraq at Nimrud (*Iraq* 16 (1954):144; *Iraq* 19 (1957): Pl. VI,2; *Iraq* 20 (1958):134) are apparently post-Assyrian.

¹⁰ The Humaidat coffin had stamped decoration around the body “with a repeating pattern of merlons” suggesting that a large terracotta fragment found in Fort Shalmaneser at Nimrud with stamped decoration of rosettes and crenellations, identified by Mallowan as “the fragment of a pottery storage bin” (Mallowan 1966.II: Fig. 378 on p. 462), is actually part of a terracotta bath-tub coffin.

¹¹ See Hero Granger-Taylor in Curtis 1983:94–5.

¹² British Museum 118562/1927,0527.35.



Fig. 7 Earrings, beads and fibulae from bronze coffins found at Ur (from UE 9: Pl. 24)



Fig. 8 Bronze mirror and bronze bowl from bronze coffins found at Ur (from UE 9: Pl. 24)



Fig. 9 Glazed pottery jar from bronze coffin PG1, British Museum 118562/1927,0527.35.

Assyrian or Assyrianizing vessels in pottery and bronze, other bronze vessels, jewelry, and fibulae” (Armstrong 2021:55). After the end of the Assyrian period bathtub coffins continued to be used

decoration. There are examples from Nimrud (e.g. Hussein 2016: Pl. 180, 193–4), Khirbet Khatuniyeh (Fig. 10; Curtis & Green 1997:89–90, Pl. XIXc, with references) and the Humaidat tomb (Ibrahim 2002: Fig. 9, no. 7). The three gold earrings from PG1 (Fig. 7; U6680A–B, U6681, all apparently in Baghdad) are more difficult to pin down precisely but can be compared with earrings shown on Assyrian stone figures and reliefs from the reign of Sargon (Madhlom 1970: Pl. LXVIII, no. 30, LXIX, no. 20; Maxwell-Hyslop 1971: Figs 127/26, 167). The gadrooned bronze bowl from PG2 (Fig. 8) is similar to the magnificent example from Fort Shalmaneser at Nimrud (Mallowan 1962.II: Fig. 357) and there are bronze examples from Assur (Luschey 1939:76, Figs 28–9). We can conclude with some confidence, then, that not only do the coffins themselves date from the Late Assyrian period but so do the burials.

Penelope Weadock has made the interesting suggestion (1975:112–14) that the graves are those of *entu*-priestesses who live in the *giparu*. Woolley himself at first dated the Ur graves, correctly I think, to the period 700–650 BC (Woolley 1926:379) but later (UE 9:55–6, 68) changed his mind and attributed them to the Persian (i.e. Achaemenid) period. This was on the grounds that the bronze coffins were similar to the large number of similarly shaped terracotta coffins found at Ur which he believed all belonged to the Persian period. But this was mistaken. In a series of important contributions, Eva Strommenger (1964), Heather Baker (1995) and Yasmina Wicks (2015) have shown that terracotta bath-tub coffins first appeared at sites in Babylonia (including Babylon) in the late 8th century BC and they continued in use until the 4th century BC, that is down to the end of the Persian period.¹³ In Babylonia during this time period they occur at a large number of sites including Uruk, Kish, Sippar, Tell al-Lahm, Isin, Babylon, and Nippur (see Wicks 2015: Fig. 55). In a recent article on ‘Assyrians in Nippur’ Armstrong concluded that “in the late seventh century, newly introduced bathtub coffins were being used by wealthier members of the community. In these bathtub burials were found glazed vessels,

¹³ By the late Achaemenid period bathtub coffins had become uncommon (Baker 1995:220). Bathtub coffins have not as yet been found in Iran (Farjamirad 2015).

at Nippur for several centuries, and Armstrong (2021:52) agrees with Strommenger and Baker that over time the sides of bathtub coffins became lower.

A similar picture emerges in the Levant. Bathtub coffins began to appear at southern Levantine sites in the late eighth or seventh centuries BC, introduced from Assyria, and continued to be used into the Persian period (Stern 2009:33–4, 341, 470–3; Mazow 2014:31–2). Mazow lists twenty-three such coffins that have been found in the southern Levant (Mazow 2014:34–5) including one from Tel Qitaf and two from the Tomb of Adoni Nur in Amman (Harding 1953), but points out that thirteen were found in non-burial contexts, suggesting that some coffins were used for purposes other than burial.¹⁴

Woolley lists from Ur 156 terracotta ‘bath-tub’ coffins with one squared-off end and one rounded end which he has classified as burials of the Persian period (UE 9:68–77). He says that Persian period graves can be distinguished from earlier graves by the common occurrence in Persian graves of the bow fibula (UE 9:103) and its absence in earlier graves. He supposes that “the Persian regime introduced a change of costume which necessitated the use of the new fastener” (UE 9:103). As we now know, this is incorrect. Fibulae are very common in the Late Assyrian period, as evidenced by the large numbers found at Nimrud (Stronach 1959; Hussein 2016: Pl. 171a; Curtis 2013:114–15, 192–5, Pls. LXXXVII–LXXXVIII) and Assur (Pedde 2000) and they are also present in Late Babylonian contexts. They are indeed found at Achaemenid period sites, for example at Deve Hüyük (Moorey 1980: Figs. 12, 14), but they are by then less common. Braun-Holzinger has pointed out (1988:125, 131, n. 18) that at Babylon the first appearance of bathtub burials and fibulae occurred simultaneously, presumably in the late 8th century. The same phenomenon was seen at Nippur in burials of the 7th–6th century BC (Armstrong 2021:50–2). The association between bathtub coffins and fibulae was also noted by Baker (1995:220) and Wicks (2015:58).

At Ur, fibulae were found in 18 of the terracotta bathtub coffins,¹⁵ in addition to the four fibulae found in the two bronze coffins. This does not mean that all the terracotta coffins in question should be dated to the Late Assyrian period, as fibulae continued in use until the Persian period, but some of the terracotta coffins might be of Assyrian date. A fibula was also found in one of the double-jar burials at Ur, suggesting that some of these graves might also be of Late Assyrian date.

Woolley also remarked that “the use of scarabs and scaraboid seals in place of the traditional cylinder is also characteristically Persian” (UE 9:103), but both occur in earlier Late Assyrian and neo-Babylonian graves.

The conclusion seems inescapable that Woolley’s classification of the late period graves at Ur needs radical revision. This has already been noted by Baker (1995:215) and Wicks (2015:83). Braun-Holzinger (1988:124) has written that “the date of the so-called ‘Persian’ graves from Ur should be reconsidered carefully”. Ideally, in addition to the grave-contents, the shape and form of



Fig. 10 Polychrome glazed pottery jar from Khirbet Khatuniyeh (photo: J.E. Curtis)

¹⁴ There are further examples of terracotta bathtub coffins from Til Barsip (Achaemenid period?) and Bahrain (for details see Wicks 2015:82–3).

¹⁵ Graves P3, 47, 49, 52, 59, 60, 68, 74, 85, 98, 104, 107, 122, 125, 133, 141, 142, 155. So, fibulae were found in 11.5% of the 156 “Persian” graves, hardly the “common occurrence” referred to by Woolley.

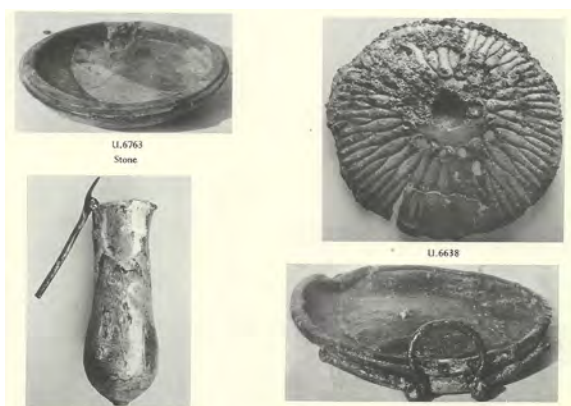


Fig. 11 Objects from the ash level above the *giparu* (from UE 8: Pl. 35)

the coffins should also be taken into account, but unfortunately this information was not recorded by Woolley. Such a study is beyond the scope of this brief paper, but a re-examination of the evidence should show that some of the terracotta coffins as well as some of the other grave-types could be dated to the 7th century BC. Others no doubt belong to the Late Babylonian and Persian periods.¹⁶

silver bowl with a bar-shaped attachment for an omega-shaped handle (Fig. 11; U.6656). Richard Barnett (1974:22, Pl. XVIIb) compared this bowl with what he called the “swinging-handle bowls” found by Layard at Nimrud. These belonged to the great hoard of bronze bowls from Room AB in the North-West Palace that dates from the 8th–7th century BC. Although of Assyrian date, however, the Nimrud bowls are mostly not of Assyrian manufacture and derive from Phoenicia or Syria. In spite of the Nimrud parallels, and another close parallel from a Late Assyrian tomb at Humaidat to the west of Mosul (Ibrahim 2002: Fig. 10), we cannot be sure that the Ur bowl is Late Assyrian in date as similar bowls are also found in later contexts, such as in a Lydian tumulus at Iziktepe dated to the late 6th–early 5th century BC (Özgen & Öztürk 1996: 29, Fig. 103 A–B on p. 51, no. 61 on p. 107).

Also from the ash level above the Kassite *giparu* is a silver omphalos bowl with lotus flower pattern (Fig. 11; WUE 8: Pl. 35, U.6638). This type of bowl is difficult to date precisely, with comparable examples dating between the 8th century BC and the Achaemenid period. From the queens’ tombs at Nimrud are two omphalos bowls with lotus flower decoration, one in silver from Tomb 1 and one in gold from Tomb III (Hussein 2016: Pl. 12d–e, 138–9). In the Achaemenid period, bowls with lotus flower patterns are widespread, for example from the cemetery at Deve Hüyük (Moorey 1985: Fig 6, no. 85), and from Tell es-Safi and Tell el-Far’ah in Israel (Stern 1982: Figs 240–1). There is also an example from a tomb at Til-Barsib that was identified by the excavators as Achaemenid (Thureau-Dangin & Dunand 1936:75–6, Pl. XIX, no. 2).

Next, we have a silver situla with height of 14.5 cm (Figs 11, 21; UE 8: no U.6644).¹⁷ It may be compared with a well-known class of Babylonian bronze situlae, often decorated with embossed scenes, that are usually regarded as dating from the 10th century BC or a little later (Calmeyer 1973; Moorey 1971:270–2, Pl. 81). A shallow stone bowl with double rim now in Philadelphia (Fig. 11; UE 8: Pl. 35, no. U.6763) may be compared with a bowl probably from Nineveh in the British Museum (Reade et al. 2008: no. 411, Fig. 29), and is possibly of Late Assyrian date. A large sherd from a glazed pottery bowl has on the inside painted decoration showing bulls on either side of a floral motif (Fig. 12; UE 9: Pl. 35); this unusual piece is reminiscent of decorated bronze bowls of around the 8th century BC and may be of the same date. A plain silver bowl was “decayed” when found and the form reconstructed, so too much reliance should not be placed on the published drawing (UE 8:104,

4. Ash level above the *giparu* site

In the ash level above the *giparu* site, Woolley found many objects which he thought “must be of Kassite date” (UE 8:37). They included a

¹⁶ One of the terracotta bath-tub coffins was empty when found except for almost 200 seal impressions on clay, with designs ranging from the Late Assyrian to Persian periods (Collon 1996; Mitchell & Searight 2008: nos. 525–88).

¹⁷ This silver situla is now in the British Museum (Fig. 21; BM 118598/1927,0527.74). Attached to the mouth of the situla through an ingenious arrangement that is very unusual is a silver spatula. On the back of the spatula, near the head, is a loop fastener, and a thin rod, passing through this, is attached on either side to lugs protruding from the rim of the vessel. The spatula could be detached by withdrawing the rod. A bronze situla of comparable size (ht 14.5 cm) and shape was brought in from the outlying site of Reijebbeh (UE 9:104, 130, Pl. 32, no 13: U.18731). Also from Reijebbeh is a bronze spouted bowl with a lion’s head where the handle meets the bowl (U.18364; British Museum 1933,1013.09). Misleadingly, in UE 9 it is illustrated on a plate (Pl. 24) that is labelled ‘Copper vessels and beads from Persian copper coffins’. Woolley maintained (UE 9:194) that it was “certainly of Persian date”, but an attribution to the 8th–7th century BC is much more likely.

Pl. 37, no. U.6654C), but a Late Assyrian date is not impossible. The presence of an iron dagger (?)¹⁸ (Fig. 21) and iron arrow-heads found in the remains of a bronze quiver (UE 8:38) indicate a post-Kassite date at least for these items. Other miscellaneous objects found in the ash layer (UE 8:37–8) are not obviously datable. They include a gold mount for a scarab; gold nail-tops; various studs in gold, steatite and bone; a silver disc; bronze and silver furniture feet (?); two whetstones; remains of a wooden staff with bronze and silver rings; and various bronze fragments.

The likelihood is that all these miscellaneous items from the ash level above the *giparu* are of differing dates, but it is certainly feasible that the silver swinging-handle bowl, the silver lotus flower bowl, the stone bowl, the plain silver bowl, the painted sherd and possibly the silver situla could all derive from an 8th–7th century BC occupation, though the possibility of a later date for a few items should not be overlooked. As we have said above, Woolley wrote that the objects found in the ash layer “must be of Kassite date” (UE 8:37) but he later changed his mind and included some of the items, notably the swinging-handle bowl and the lotus flower bowl in *The Neo-Babylonian and Persian Periods*, written later but published earlier (UE 9: Pl. 23).¹⁹

5. Jewellery hoard from Enunmah Temple

I want to consider next a hoard of jewellery found on the site of the old Sumerian temple of Enunmah. This building was rebuilt or restored in turn by Kurigalzu, Marduk-nadin-ahhe, Nebuchadnezzar and Nabonidus. There was a further rebuilding by Cyrus, identified by Persian-sized (not inscribed) bricks, with a floor 65 cm above that of Nebuchadnezzar. The hoard was found in 1922 in Room 5, according to Woolley immediately below the bricks of the Persian pavement (UE 9:29–30). In the hoard were various items of jewellery, some of which I suggested in an article in *Sumer* 42 (Curtis 1985) might be of Late Assyrian date, a few metal vessels and sundry beads (UE 9: Pls. 21–3).

Of the seven earrings (Fig. 13), three are plain, and two have boat-shaped bodies decorated with fine granulation and with wire bindings at either side. Two further earrings are similar but more elaborate in that they have attachments on the underside of the body. These attachments had

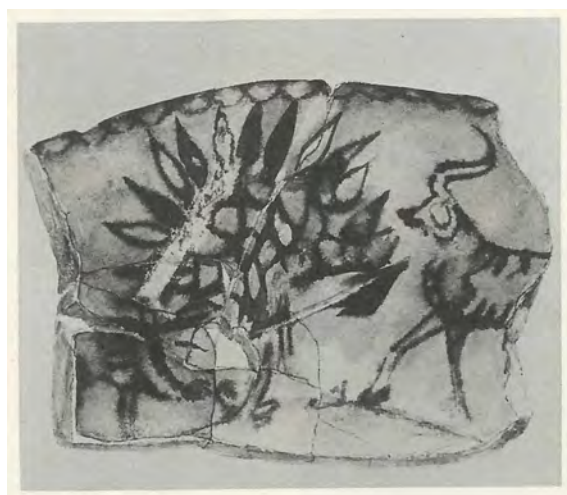


Fig. 12 A painted pottery sherd from above the *giparu* (from UE 9: Pl. 35)

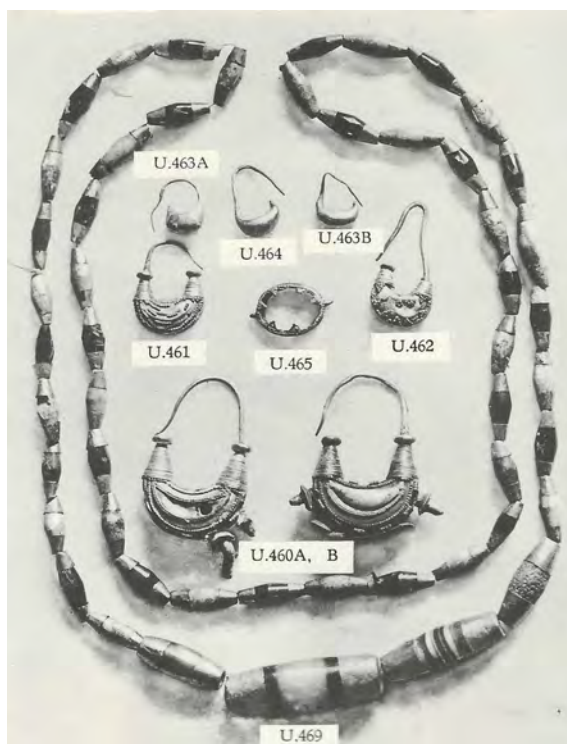


Fig. 13 Earring and beads from the Enunmah Temple (from UE 9: Pl. 22)

¹⁸ This iron blade, now in the British Museum (1927,0527.119), is very corroded (see Fig. 21) and not certainly part of a sword or dagger.

¹⁹ Braun-Holzinger (1988:124) thought that an Achaemenid date for these silver vessels from the ash layer, as later suggested by Woolley, was “hardly probable”.

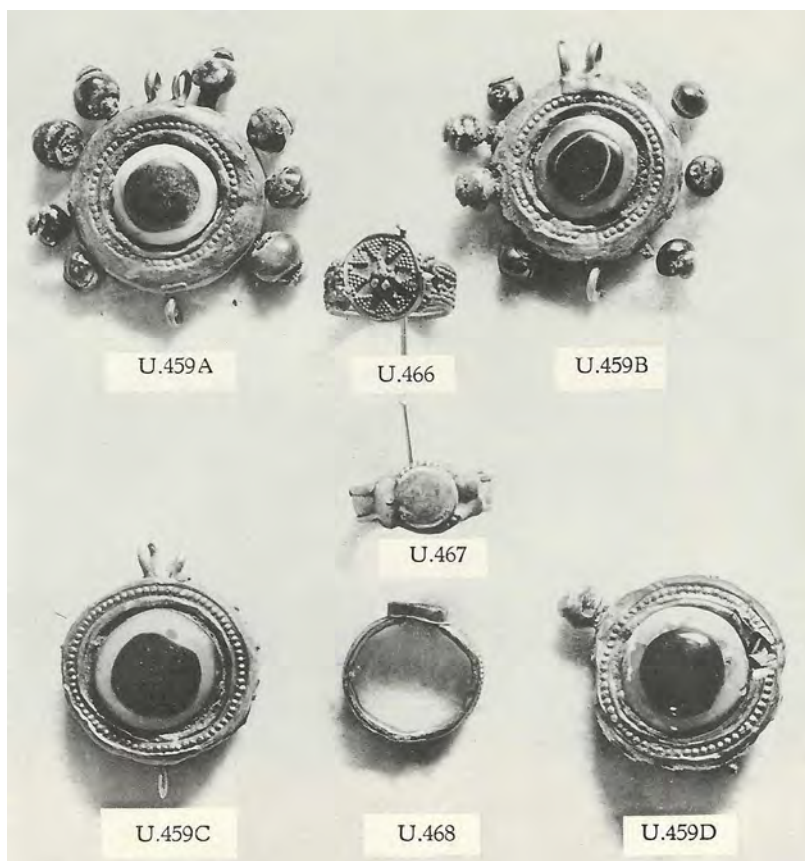


Fig. 14 Eye-stones and finger-rings from the Enunmakh Temple (from UE 9: Pl. 22)



Fig. 15 Pendants from the Enunmakh Temple (from UE 9: Pl. 21)



Fig. 16 Gold pin from the Enunmakh Temple (from UE 9: Pl. 21)

completely disappeared when the earrings were photographed (UE 9: Pl. 22), but it is clear from one of the earrings now in the British Museum (Fig. 17) that the attachments were held in place by little gold pegs. They were probably beads or segments of precious stone. The form of these elaborate earrings is closely paralleled by earrings from the royal tombs at Nimrud (Hussein & Suleiman 2000: Pl. 77, 150; Hussein 2016: Pl. 44a–b) and by earrings shown on Assyrian reliefs in the reign of Ashurbanipal (Madhloom 1970: Pl. LXVIII/ 32–3, LXIX/ 26–8). There is therefore good reason to believe that the Ur earrings are of 8th or more probably 7th century date.²⁰

Related to the earrings through the use of gold pegs to hold bead-shaped attachments in place are four pendants in the form of eye-stones of banded agate set in gold mounts decorated with granulation work (Figs 14, 17; UE 9: Pl. 22).²¹ At the top and bottom are loops for suspension or attachment, and arranged around the side are eight carnelian beads fixed in position with gold pegs. Eye-stones were greatly treasured in Ancient Mesopotamia, and examples date between the ED III

²⁰ Maxwell-Hyslop (1971:244) also pointed to the similarity of the Ur earrings with depictions on reliefs of Ashurbanipal.

²¹ One example is now in the British Museum, 1923,1110.164.

and Achaemenid periods (Clayden 2009). There is a series of magnificent eye-stones from the royal tombs at Nimrud (Hussein 2016: Pl. 52–3) set in gold mounts that are not dissimilar to the Ur examples, indicating that the latter could certainly be of 8th–7th century BC date.

Also with some connection to the royal tombs at Nimrud are four arch-shaped gold pendants, now hollow, with embossed rosettes on the front and back surfaces (Figs 15, 17; UE 9: Pl. 21).²² On one face of each there is an inlaid stone (carnelian?) in the centre. Each pendant has one suspension loop above and six below, the latter probably for the attachment of tassels. Comparable pendants from Nimrud have been identified as parts of diadems (Hussein & Suleiman 2000: Pl. 42–3; Hussein 2016: Pl. 38).



Fig. 17 Jewellery from the Enunmakh Temple now in the British Museum. (1923,1110.164–6, 169)

Amongst the finger-rings, one is of particular interest (Fig. 14, U. 466). It has delicate granulation work around the hoop and on the bezel, the latter arranged in a triangle shape around a cluster of granules in the centre. Distinctive finger-rings of this type have been found both at Nimrud, in Room T2 of Fort Shalmaneser (Fig. 21; Curtis 2013:110–11, Pl LXXXV, 909) and at Assur (Haller 1954: Pl. 19g). Another finger-ring (Figs 14, 17, U. 468) has a transverse ribbed pattern around the outside of the hoop and a bezel with provision for inlay which is now missing.²³

Perhaps the most outstanding item in this hoard was a gold pin with at the top the figure of a woman in a long dress with hands clasped under her breasts (Fig. 16). Woolley identified this figure in one place as Sumerian (UE 9:30) but elsewhere suggested a comparison with ivories from Ephesus of the 1st millennium BC (UE 9:106). More plausibly, Braun-Holzinger proposed a Late Babylonian date (6th century BC) for this figure (1988:128, Figs 95–6) but a date in the 7th century BC is equally likely.²⁴

As we have said, the hoard was found in fill beneath a Persian period pavement and above a Nebuchadnezzar pavement. It might be assumed, therefore, that the hoard was buried in the Persian period. However, there was no sign of a pit and none of the items in the hoard is distinctive of the Persian period. A possibility is that the hoard belongs with the Late Babylonian period, but it is unclear why it should have been found in a deposit 60 cm above the Nebuchadnezzar pavement. Woolley concluded (UE 9:30) that it was a temple treasure, containing material of mixed dates. He pointed to etched carnelian beads and others that he believed to date from the 3rd millennium BC. His last thoughts on the matter were that it was “a votive deposit rather than a hoard hidden for safety” (Woolley 1982:243). However that may be, the nature of this hoard, and the circumstances of its deposition are elusive. What is clear is that some of the items are most probably of 8th or more likely 7th century BC date, and they reflect an element of Assyrian influence at Ur in this period.

6. Cache of Ivories from Enunmah Temple

We next come to what may have been a cache of ivories recovered from Enunmah, found in the fill beneath the Nebuchadnezzar pavement (Figs 18–19). In his note about a piece of ivory box with a two-line Phoenician inscription (BM 120528; Barnett 1975: U.11, Pl. CXXXII), Terence Mitchell (1991) convincingly argued that it was found under the floor of Room 5 rather than Room 4 as

²² One example is now in the British Museum, 1923,1110.165.

²³ British Museum 1923,1110.169.

²⁴ Also found with the hoard of jewellery was a silver vase (UE 9:30, Pl. 21, U.472). This vase (Fig. 21) is now in the British Museum (116536/1923,1110.137).

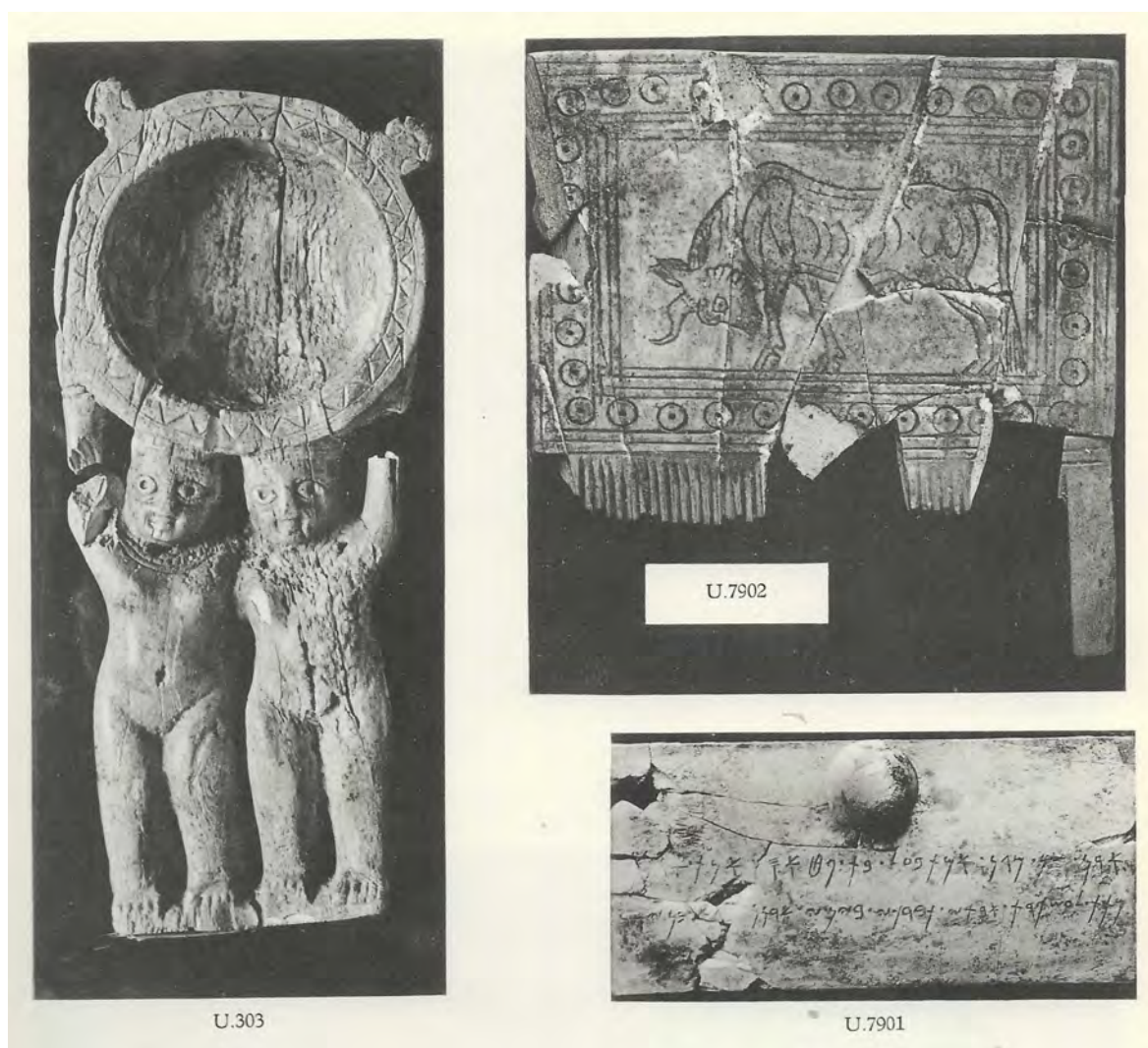


Fig. 18 Ivories from the Enunmakh Temple (from UE 9: Pl. 19)



Fig. 19 Ivory cosmetic pot (?) from the Enunmakh Temple (from UE 9: Pl. 20)



Fig. 20 Ivory pyxis from the Egipar (from UE 9: Pl 19)

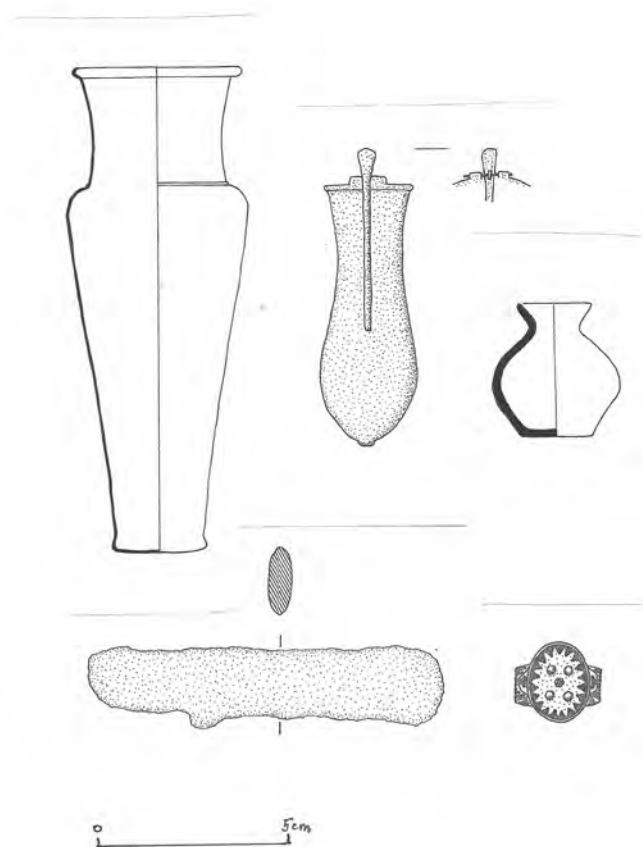


Fig. 21 Silver vessels, glazed pottery jar and iron dagger from Ur, silver finger-ring from Nimrud. Scale 1:2, except finger-ring 1:1. British Museum 1923,1110.137; 1927,0527.35; 1927,0527.74; 1927,0527.119; Iraq Museum (finger-ring). Drawings J.E. Curtis.

stated by Woolley (UE 9:114). If that was the case, it would have been associated with a number of other ivories that were definitely found under the floor of Room 5 (UE 9: Pl. 19–20). These were two ivory combs, one decorated on each side with the incised design of a bull, a small ivory pot in the form of a crouching sphinx perhaps for cosmetics, an ivory rosette, a mirror handle, two kohl pots and a kohl stick. Mitchell plausibly suggested (1991:122) that the ivories were a homogenous cache and could have been deposited in the temple around 665–50 BC. These ivories are typical of the sort of material that was circulating in the Assyrian Empire in the 8th–7th century BC. Large quantities of ivories were brought to Assyria from Syria and Phoenicia and have been found in all the major Assyrian centres, particularly Nimrud. In terms of style, the incised bulls on the ivory comb can be compared with those shown on carved ivories (Herrmann 2017: Figs 234, 237, 268–9) and on bronze bowls (Falsone 1985). An ivory spoon with a handle in the form of two naked girls was also found in Enunmah, but over Room 15 of the Kassite building (BM 116544; Barnett 1975: U.10, Pl. CXXV; UE 9:105–6, Pl.19, no. U.303).

Nevertheless, in style and date it belongs with the other ivories. The 7th century attribution of this cache is supported by the finding of a brick of Sin-balassu-iqbi below the Nebuchadnezzar floor in room 6 of Enunmah (UE 6:50, 99; Mitchell 1991:122) suggesting there was some Assyrian building work on this site.

The problem is that although these items were found below the Nebuchadnezzar pavement Woolley says they were high up in the fill (in one case “in ashes below the Nebuchadnezzar pavement”) and he therefore concludes they “must be associated with the Nebuchadnezzar building”. This must be wrong, as all these items are undoubtedly 8th or 7th century in date and must belong to a pre-Nebuchadnezzar building. The fact that they were high up in the fill is neither here nor there, as they might, for example, have come from a collapsed upper storey. None of these objects is Assyrian, but they are typical of the sort of objects that circulated in the Assyrian empire in the 8th–7th centuries BC. It is a strange coincidence that the jewellery hoard and the cache of ivories, perhaps of similar date, should both come from the area of Room 5 of the ancient temple of Enunmah, but found under different pavements. One is tempted to wonder whether there is not some connection between the two groups of material, even though the find-spots are apparently of different date.

An ivory pyxis with dancing girls from the Egipar (Fig. 20) is of the same date as the ivories from Enunmah and also Syro-Phoenician. Here there was a pavement of Sin-balassu-iqbi about 1 m above the Kassite pavement, and pavements of Nebuchadnezzar and Nabonidus above that. The pyxis was found in Room 12, according to Woolley (UE 9:111) on a pavement of Nabonidus, but it is obviously older. It had been broken in antiquity and mended with copper rivets.

7. Conclusion

I hope I have managed to show that there are a number of objects from Ur that can either be identified as Assyrian products or products that would have circulated in the Assyrian Empire. What does all this amount to? Inevitably, with or without Assyrian domination, there would have been Assyrian influence at Ur, as this was a city living under the shadow of the greatest power in the region at that time. However, the limited survey that we have undertaken shows that there was more than just Assyrian influence. We have the adoption of Assyrian practices, witness the foundation figurines and the bronze coffins, and the circulation of Assyrian products, witness the jewellery. This is certainly not enough to show that Ur was an Assyrian satellite state, but there is enough to show that in the 7th century at least Ur was an Assyrian dependency. Lastly, I am aware that I have only just scratched the surface of this difficult subject, and much remains to be done disentangling the late periods at Ur, and although the obstacles are formidable I hope that others will take up the challenge.

Bibliography

Bibliographical Abbreviations

Ur Excavations

UE 6	Woolley 1974
UE 8	Woolley 1965
UE 9	Woolley & Mallowan 1962
UE 10	Legrain 1951

- Alibaigi, S. & S. Khosravi 2016. "The Neo-Assyrian bronze coffin discovered in Sarāb-e Qareh Dāneh, Kouzarān, Kermānshāh: a clue to an important burial in Western Irān", *Ancient Near Eastern Studies* 53:137–48.
- Álvarez-Mon, J. 2010. *The Arjān Tomb at the Crossroads of the Elamite and the Persian Empires* (Acta Iranica 49). Leuven: Peeters.
- Amrhein, A. 2021. "Detecting social tensions in the archaeological record: official and vernacular figurine-making traditions at Ur in the first millennium BCE", in G. Frame, J. Jeffers & H. Pittman (eds.), *Ur in the Twenty-First Century CE* (Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016):105–34. Philadelphia: Penn State University Press, Eisenbrauns.
- Armstrong, J.A. 2021. "Assyrians in Nippur", in M. Altaweel & C. Hritz (eds.), *From Sherds to Landscapes: Studies on the Ancient Near East in Honor of McGuire Gibson*, Chicago: 41–59.
- Baker, H. 1995. "Neo-Babylonian burials revisited", in S. Campbell & A.R. Green (eds.), *The Archaeology of Death in the Ancient Near East*: 209–20. Oxford: Oxbow Books, Oxbow Monograph 51.
- Barnett, R.D. 1974. "The Nimrud bowls in the British Museum", *Rivista di Studi Fenici* II:11–33.
- 1975. *A Catalogue of the Nimrud Ivories in the British Museum* (2nd ed.). London: British Museum Press.
- Barnett, R.D., E. Bleibtreu & G. Turner 1998. *Sculptures from the Southwest Palace of Sennacherib at Nineveh* (Text and Plates). London: British Museum Press.
- Braun-Holzinger, E. 1988. "Bronze objects from Babylonia", in J.E. Curtis (ed.), *Bronzeworking Centres of Western Asia c. 1000–539 B.C.*:119–34. London: Routledge.
- Brinkman, J.A. 2015. "Ur.A.III. Philologisch. Mitte 2.–1. Jahrtausend", *Reallexikon der Assyriologie* 14:364–7.
- Bucci, I. & F. Giusto 2016. "Aspetti morfologici, tecnici e funzionali", in A. Cellerino (ed.), *La brocca d'oro dalla Tomba Reale III a Nimrud: un caso di studio* (BAR 2817):29–94. Oxford: BAR.
- Calmeyer, P. 1973. *Reliefbronzen in babylonischem Stil: eine westiranische Werkstatt des 10. Jahrhunderts v. Chr.* Munich: Bayerische Akademie der Wissenschaften.
- Clayden, T. 1995. "The date of the foundation deposit in the temple of Ningal at Ur", *Iraq* 57:61–70.
- 2009. "Eye-stones", *Zeitschrift für Orient-Archäologie* 2:36–86.
- 2014. "Kassite housing at Ur: the dates of the EM, YC, XNCF, AH and KPS houses", *Iraq* 76:19–51.
- Collon, D. 1996. "A hoard of sealings from Ur", *Bulletin de Correspondance Hellénique*, Supplément 26:65–84.
- 2001. *Neo-Assyrian and Neo-Babylonian Periods* (Catalogue of the Western Asiatic Cylinder Seals in the British Museum. Cylinder Seals V). London: British Museum Press.
- Curtis, J.E. 1983. "Late Assyrian bronze coffins", *Anatolian Studies* 33:85–95.
- 1985. "Late Assyrian jewellery from Ur", *Sumer* 42:149–54.
- 2008. "The bronze coffins from Nimrud", in J.E. Curtis, H. McCall, D. Collon & L. al-Gailani-Werr (eds.), *New Light on Nimrud: Proceedings of the Nimrud Conference 11th–13th March 2002*:163–9. London: British Institute for the Study of Iraq & British Museum.
- 2013. *An Examination of Late Assyrian Metalwork with Special Reference to Nimrud*. Oxford: Oxbow.
- Curtis, J.E. & A.R. Green 1997. *Excavations at Khirbet Khatuniyeh* (Saddam Dam Report 11). London: British Museum Press.
- Curtis, J.E. & N. Tallis (eds.) 2005. *Forgotten Empire: the World of Ancient Persia*. London: British Museum Press.
- Damerji, M.S.B. 1999. "Gräber assyrischer Königinnen aus Nimrud", *Jahrbuch des Römisch–Germanischen Zentralmuseums Mainz* 45 (1998):1–84.
- Falsone, G. 1985. "A Syro–Phoenician bull-bowl in Geneva and its analogue in the British Museum", *Anatolian Studies* 35:131–42.
- Farjamirad, M. 2015. *Mortuary Practice in Ancient Iran from the Achaemenid to the Sasanian period* (BAR International Series 2247). Oxford: British Archaeological Reports.
- Haller, A. 1954. *Die Gräber und Gräfte von Assur* (WVDOG 65). Berlin: Gebr. Mann.

- Harding, G.L. 1953. *Four Tomb Groups from Jordan* (Palestine Exploration Fund Annual No.6). London: Palestine Exploration Fund.
- Herrmann, G. 2017. *Ancient Ivory: Masterpieces of the Assyrian Empire*. London: Thames and Hudson.
- Hussein, M.M., (with M. Altaweel & M. Gibson) 2016. *Nimrud: the Queens' Tombs*. Baghdad / Chicago: Iraqi State Board of Antiquities and Heritage / The Oriental Institute.
- Hussein, M.M. & A. Suleiman 2000. *Nimrud: a City of Golden Treasures*. Baghdad: Al-Hurriyah.
- Ibrahim, J.K. 2002. "The Humaidat tomb", in L. al-Gailani-Werr, J.E. Curtis, H. Martin, A. McMahon, J. Oates & J.E. Reade (eds.), *Of Pots and Plans: Papers on the Archaeology and History of Mesopotamia and Syria presented to David Oates in Honour of his 75th Birthday*: 158–64. London: NABU Publications.
- Jendritzki, G. & L. Martin 2001. "Badewanne oder Sarkophag", in J.-W. Meyer, M. Novák & A. Pruss (eds.), *Beiträge zur Vorderasiatischen Archäologie Winfried Orthmann gewidmet*: 180–95. Frankfurt am Main: Johann Wolfgang Goethe-Universität.
- Legrain, L. 1951. *Ur Excavations Volume X. Seal Cylinders*. London: Published for the Trustees of the Two Museums.
- Luschey, H. 1939. *Die Phiale*. Bleicherode am Harz: Carl Nieft.
- Madhloom, T.A. 1970. *The Chronology of Neo-Assyrian Art*. London: Athlone Press.
- Mallowan, M.E.L. 1966. *Nimrud and its Remains*. 2 vols, London: Collins.
- Maxwell-Hyslop, K.R. 1971. *Western Asiatic Jewellery c. 3000–612 BC*. London: Methuen.
- Mazow, L.B. 2014. "The 'bathtub coffin' from Tel Qitaf: a re-examination of its content and function", *Palestine Exploration Quarterly* 146:31–9.
- Mitchell, T.C. 1991. "The Phoenician inscribed ivory box from Ur", *Palestine Exploration Quarterly* 123:119–28.
- Mitchell, T.C. & A. Searight 2008. *Impressions of Stamp Seals on Cuneiform Tablets, Clay Bullae, and Jar Handles* (Catalogue of the Western Asiatic Cylinder Seals in the British Museum. Stamp Seals III): Leiden / Boston: Brill.
- Moorey, P.R.S. 1971. *Catalogue of the Ancient Persian Bronzes in the Ashmolean Museum*. Oxford: Clarendon Press.
- 1980. *Cemeteries of the First Millennium BC at Deve Hüyük* (BAR International Series 87). Oxford: British Archaeological Reports.
- Searight, A., J. Reade & I. Finkel 2008. *Assyrian Stone Vessels and Related Material in the British Museum*. Oxford: Oxbow Books.
- Shishegar, A. 2015. *Tomb of the Two Elamite Princesses: Of the house of King Shutur-Nahunte son of Indada. Neo-Elamite period, phase IIIB (ca. 585–539 B.C.)*. In Persian. Tehran: Pažuhešgāh-e Sāzmān-e Mirās-e Farhangi.
- Stern, E. 2009. *Archaeology of the Land of the Bible II: the Assyrian, Babylonian and Persian Periods, 732–332 BCE*. New Haven / London: Anchor Bible.
- Strommenger, E. 1964. Grabformen in Babylon", *Baghdader Mitteilungen* 3:157–73.
- Stronach, D.B. 1958. "The development of the fibula in the Near East", *Iraq* 21:181–206.
- Thureau-Dangin, F. & M. Dunand 1936. *Til-Barsib* (Bibl. Arch. et Historique 23). Paris: P. Geuthner.
- Toker, A. & J. Öztürk 1992. *Metal Vessels* (Museum of Anatolian Civilizations). Ankara: Ministry of Culture.
- van Ess, M., A. Hausleiter, M.M. Hussein & N.B. Mohammed 2012. "Excavations in the city of Arbil, 2009–2011: the Neo-Assyrian Tomb", *Zeitschrift für Orient-Archäologie* 5:104–65.
- Weadock, P.E. 1975. "The *giparu* at Ur", *Iraq* 37:101–28.
- Wicks, Y. 2015. *Bronze 'Bathtub' Coffins in the Context of 8th–6th Century BC Babylonian, Assyrian and Elamite Practices*. Oxford: Archaeopress.
- Wicks, Y., J. Álvarez-Mon, F. Bridet & J. Cuny 2018 "The mysterious second Achaemenid bronze coffin and the ivory comb from Susa", *Iranica Antiqua* 53:155–78.
- Woolley, C.L. 1926. "The excavations at Ur, 1925–6", *Antiquaries Journal* 6:365–401.
- 1965. *Ur Excavations Volume VIII. The Kassite Period and the Period of the Assyrian Kings*. London: Published for the Trustees of the Two Museums.
- 1974. *Ur Excavations Volume VI. The Buildings of the Third Dynasty*. London: Published by the Trustees of the Two Museums.
- 1982. *Ur 'of the Chaldees'*. The final account revised and updated by P.R.S. Moorey. London: Herbert Press.
- Woolley, L. & M.E.L. Mallowan 1962. *Ur Excavations Volume IX. The Neo-Babylonian and Persian Periods*. London: Published for the Trustees of the Two Museums.

Notes of excavations at Mugeyer during January and February 1858

J.G. Taylor

Preface

The following handwritten report was submitted by J.G. Taylor to the Trustees of the British Museum and loaned by them to the Royal Asiatic Society for publication in their journal. For reasons that are now obscure the report was never published and was not returned to the British Museum, despite having a number showing it is a British Museum Trustees' Paper. It was identified by R.A.S. archivist Nancy Charley and J.E. Curtis was able to transcribe it in the R.A.S. study room before it was transferred back to the British Museum. Best thanks are due to Nancy Charley and the officials of the R.A.S. for their cooperation.

Taylor's abbreviations (tho, altho, and &) have been left as he wrote them, and xxxx is written where his handwriting could not be deciphered. Letters or words supplied by us, and question marks where the reading is uncertain, are given in square brackets []. The footnotes here correspond to Taylor's additions in the margins of his main text (which are often less easy to decipher).

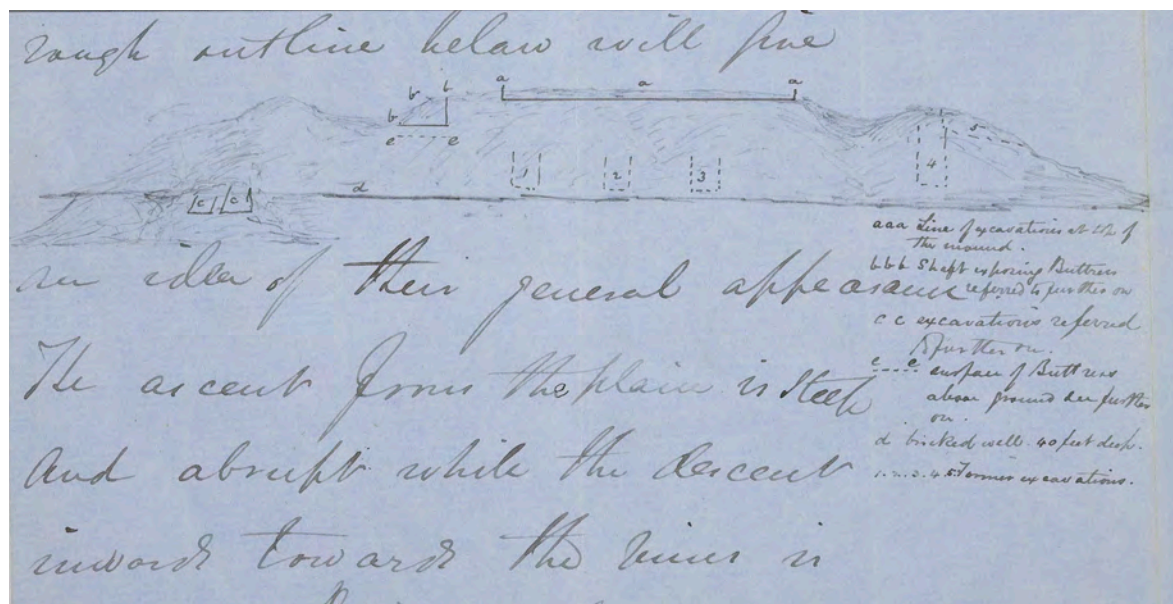
Taylor's previous reports on his work at Ur were published in JRAS 15 (1855):260–76 and 414–5. On the basis of this article Hall refers to Taylor's work, in H.R. Hall, *A season's work at Ur* (1930):80–90, but we presume that he did not see this unpublished report. Taylor's 1858 work, including the "Foundation deposit", is discussed in John Curtis' contribution to a forthcoming Festschrift "Two Babylonian beakers and an unpublished report on excavations at Ur in 1858".

The Mugeyer ruins having been described on a former occasion it only remains for me to record the results of my excavations this year on the same site. It will be necessary however in the first instance to describe that locality among the ruins where the most interesting results were obtained. In the paper alluded to above¹ I observed "that the small range of mounds to the East has a wall like appearance and preserves the same breadth and height throughout its length". The height of this long mound is about thirty feet reckoning from the level of the ruins,² not the dessert [sic] outside, its greatest length 300 yards and its breadth at top about forty (40) feet. Towards its N & S end this mound is continued for some short distance in each direction, but these continuations, if I may use the term, are separated from the centre line by a depression or hollow, and they merge at either side into the plain. At a distance they present a wall like appearance from their even and regular form, so unlike the other mounds in the ruins. The rough outline below will give an idea of their general appearance [see Figure 1].

The ascent from the plain is steep and abrupt while the descent inwards towards the ruins is gradual. During my previous visit, I had made one or two excavations in this mound, but had commenced there on a level near with the plain intending to bore through to the other side. I had to forsake this work before being able to complete it. As my time was limited this year I commenced operations at the surface by digging a trench along a line of brick building that first appeared above the ground. I regulated the depth of this trench by the height of the wall laid bare which never exceeded six feet. On the other side is a second place of the building exposed in this trench [see Figure 2].

¹ See Journal R.A.S. Vol XV Part 2

² And not taking into account the xxxx of platform forming the base.



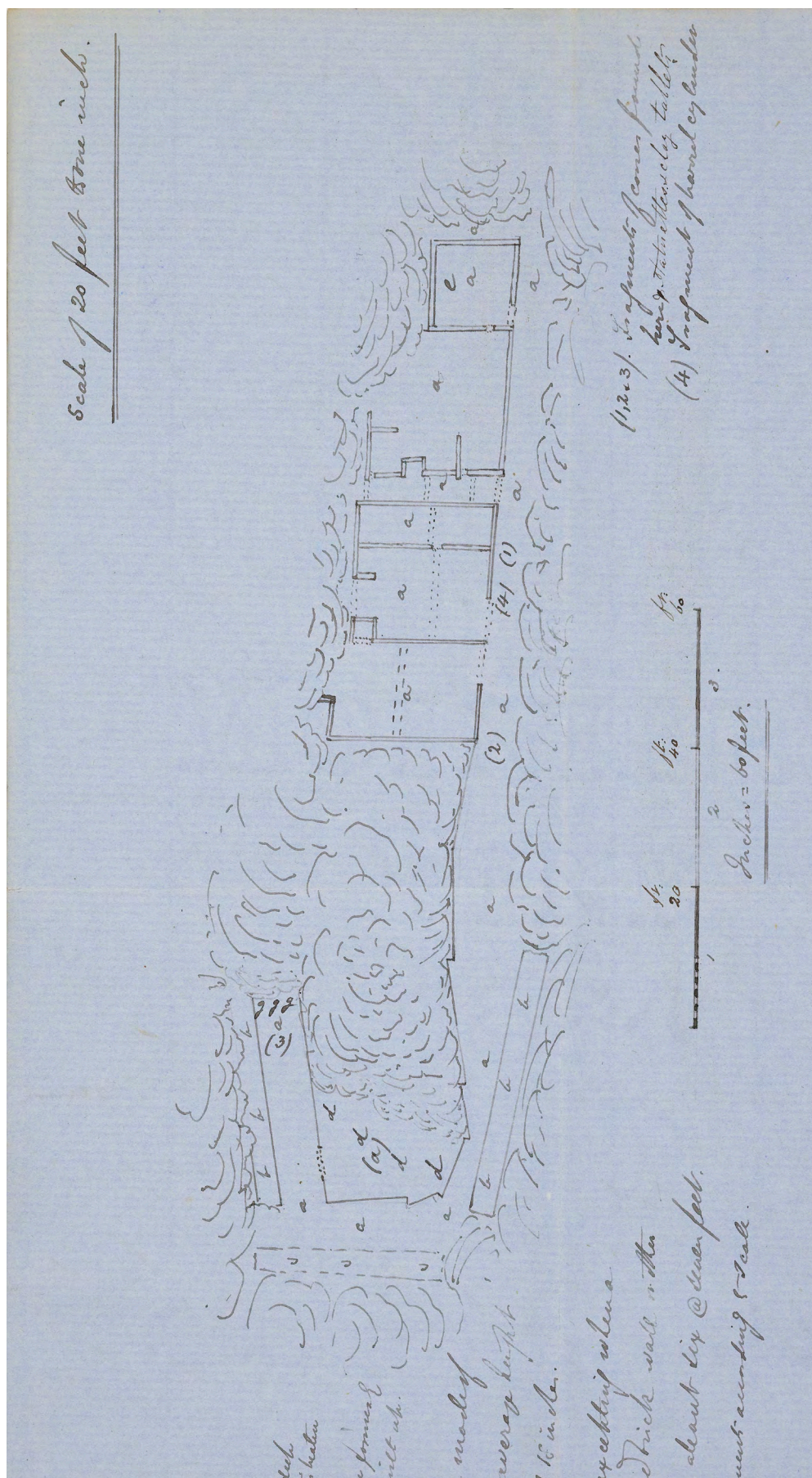


Fig. 2 Building plans

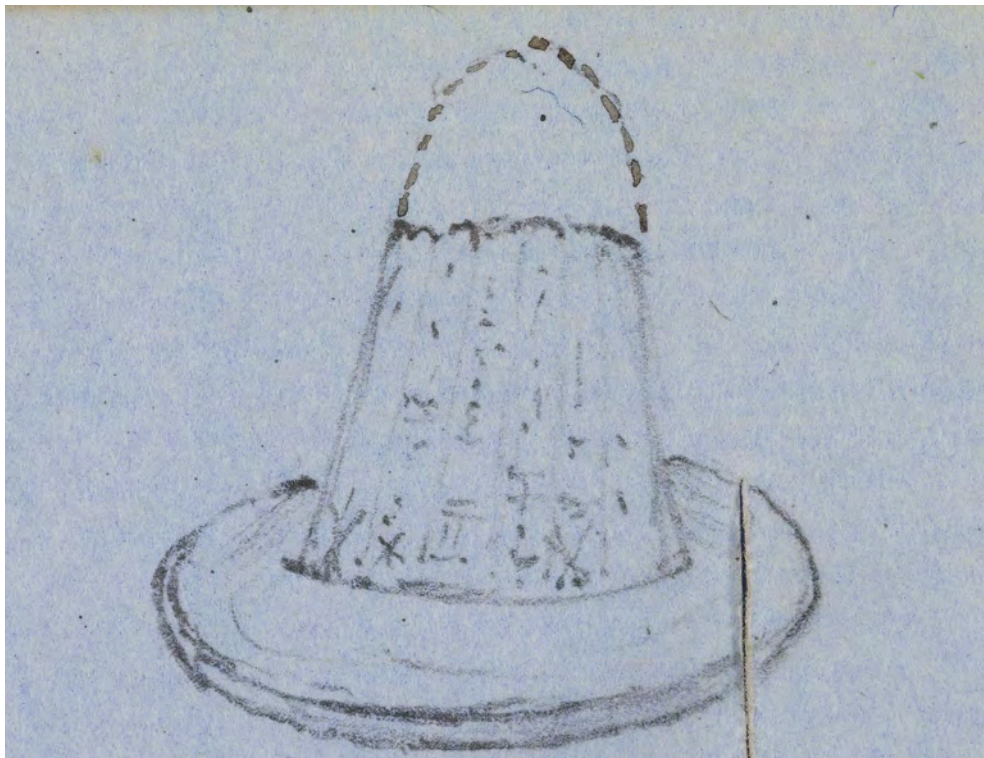


Fig. 3 Inscribed cone

barrel cylinder but much defaced. The inscription originally fine and minute has become nearly entirely illegible and indistinct.

Several statuettes in terracotta were also dug out here. As noted before, the spaces inclosed by the low brick walls were full of vaults and remnants of funeral jars. None of these however yielded anything of interest. The former were generally crammed with human remains, each vault having an average space of 6 ft. 6 inches long, 4 ft. 6 broad and 4 ft. 8 inches high, & containing from six to nine skeletons. The only relics obtained after demolishing the bricked up entrances were found immediately behind the wall or in the vicinity of a vault, generally speaking under one corner, & consisted mostly of inscribed clay tablets but all in a most dilapidated state. From the extreme end of this excavation, at e, was found the fragment of a statuette resembling a duck with a small portion of finely inscribed writing, in black stone. Near this were a couple of small stone cylinders, one red the other black, & all were found in the loose earth. Touching the brick wall at the dotted line near the excavation **d d d d** was a species of step about 3 ft. high & 2 broad leading to the bricked up aperture at the same point. Having first demolished this and the rubble that closed the aperture I penetrated into the space enclosed by the brick walls. Working on the level of the base of the wall, I immediately struck upon a brick pavement above which was loose earth four feet thick [and] above this a pavement of single brick then six inches of earth, then another pavement of single brick, above which to the surface [was] again two feet of earth & debris of pottery. I completely cleared this point but with the exception of some mutilated fragments of clay tablets and pieces of brick with illegible inscriptions nothing was found. I should have wished to have sunk a shaft here and carried the excavation to a greater depth, besides completing the tour of the brick wall at **g g g**, but other avocations compelled me to relinquish my work at this point.

Further on, in the same long mound at the dotted line between **e e** I had on a former occasion sunk a shaft down the inner face of a buttress that just appeared above the ground. Three years having elapsed from that date, the excavation which had been of considerable depth was found completely filled up with loose sand. Wishing to procure some specimens of the bricks composing this building and of

the wall that ran at an angle from it into the mound at a depth of 26 feet from the surface I sunk a shaft at **b b** of that depth and worked along till I struck upon the wall. To enable me to get perfect specimens the wall was cleared along its breadth while the shaft was being deepened to enable me to form some idea as to the nature of the ruin. After digging however for more than 18 feet, thus making the shaft 44 ft. deep I was obliged to relinquish the work without being able to form the slightest conception as to the original object of the ruin. Below is a sketch of this pile as it appeared in the shaft [see Figure 4].

The wall from **a** to **a** is extremely irregular and either from decay or design is composed of fragments only of brick imbedded in clay. It has an appearance as if leaning on one side and threatening to fall. The casts marked **A**⁶ were procured from several fragments of bricks picked out of this wall & that only after some five feet of it had been

demolished for this purpose). In no one instance could I procure the perfect half even of an inscribed brick. The part marked **c** to **c** is a ledge projecting from the upper and overlapping the bottom wall. Here the bricks as well as in the wall **d** to **d** are large and perfect. This state is owing to their being all embedded in masses of bitumen between each layer. None are inscribed. The strata of this shaft are so curious that I have given them in detail on the other side. The space at **h** to **h** is composed entirely of pottery with brick fragments at rare intervals. Where these appear they correspond with the fragments composing the irregular upper portion of this pile. The shaft having attained a depth of 44 feet without any appearance of a speedy arrival at the base or at a point materially different from the rest, altho as the shaft was deepened progress was made towards the outer brick buttress at **e e**,⁷ and as my time of departure was drawing near, it was reluctantly relinquished. The workmen indeed

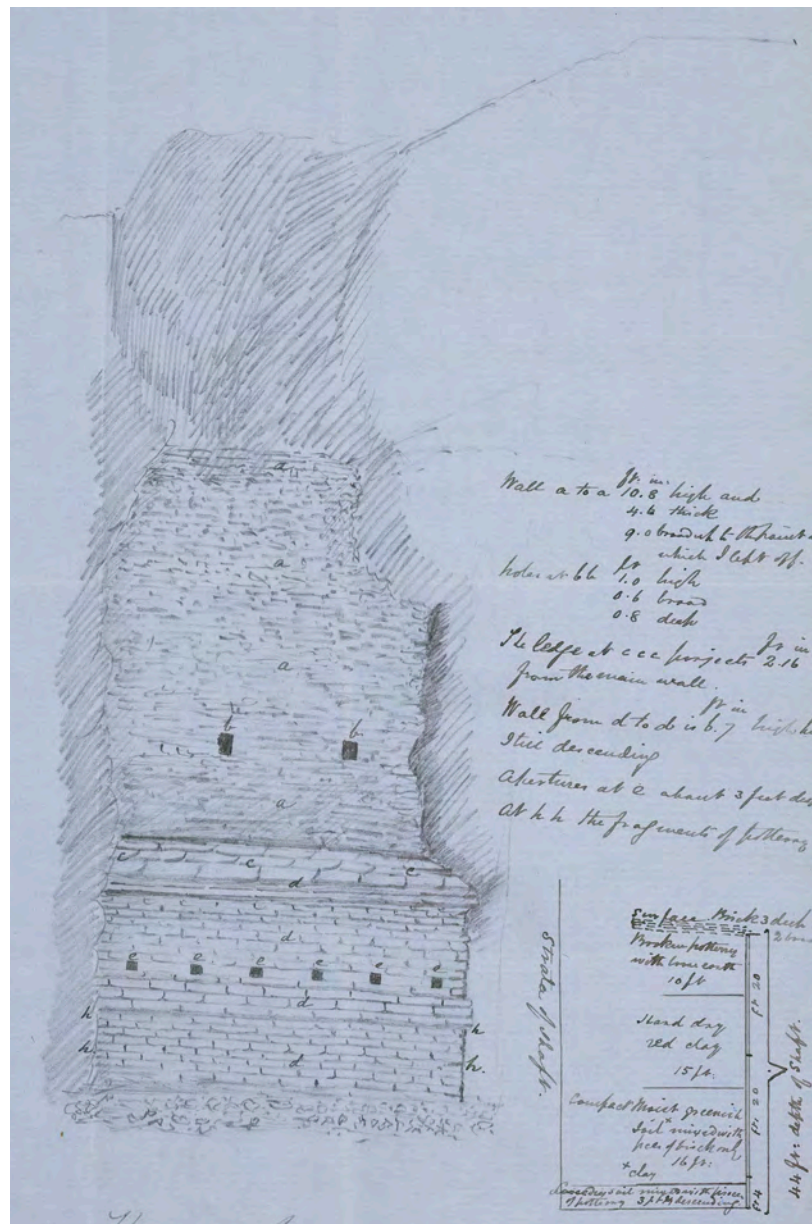


Fig. 4 Section showing brickwork

⁶ I did not think it worthwhile bringing away these fragments & contented myself therefore with the casts only. The only fragments I brought with me from this part of the wall are those marked A 2 & 3. With regard to the portions of bricks marked A 2 & A 3 I forward a brick with a perfect inscription and seemingly the same as above would be if whole. This brick was found at the very opposite side of the Mugeyer mound and is marked thus A 2,3.

⁷ Of pencil sketch on 1st page.

several of whom had received smart blows from fragments of pottery falling out of the baskets used in elevating them to the surface, showed great unwillingness to remain in the work so many feet below the level of the soil, their gaze being oftener directed to its aperture than to their proper object, and it was only by my stopping in the shaft a considerable time every day that they remained as long as they did in this spot.

More successful as regarded the obtaining of perfect inscribed bricks were the efforts directed against the brick buttress at **e e**. All those marked A were procured here but again from the cement used in the construction of this pile being simple clay they are not in such a state of perfection as regards the clearness of the inscription as could be wished. The generality of these bricks have a double inscription a few inches apart⁸ upon their face and an inscription on one and occasionally on two sides. The long half bricks in addition to a long inscription⁹ on the face have another on the side. On my former visit to these ruins my endeavour to obtain perfect specimens of these bricks had been frustrated and it was only by demolishing about fourteen feet of this solid masonry and thus penetrating to a portion less exposed to the weather that I obtained them now. At the extreme edge of the slope of this mound and immediately under one of the hollows, there was an inclined plane paved with large bricks (coloured red) that acted as a conductor to rain water leading to a well at **d** of the first pencil outline. It was of sufficient dimensions to allow of one of the Htair [?] workmen (no Arab could be induced to descend) being let down to the bottom. The well was perfectly dry and at its base it opened out into a small brick reservoir full of fine dust. The mouth of the well was covered by a stout tile found¹⁰ which while it admitted the passage of a moderate sized bucket, debarred the entrance of any larger object & then ensured the prevention of accidents. The aperture of this funnel again was closed by a brick removable at pleasure. Several of these wells constructed on the same principle are scattered over the ruins.

Nearby at the extreme Sn end of this range are low spurs diverging from the main line. Lines of brick work running parallel and others at right angles to each other cover their surface. The space enclosed by them has a baked appearance and seemed to consist of fragments of half-baked brick. Two excavations were made [at] **cc**¹¹ between the lines of brickwork. These latter were found to be 2½ ft. broad and one foot deep, under this beaten clay. The space included between the masonry was composed entirely of partially burnt brick, amongst the debris of which were preserved the fragments of two clay tablets & a portion of a baked clay cylinder. All these relics partook in a measure of the same nature as the remains they had been rescued from. The bricks in the masonry¹² were 13 inches square and 5 thick having an inscription in the centre 6 inches long and 5 broad with 13 lines of fine character. They were all extremely fragile, [and] in spite of all the care I bestowed on their transport all of them were broken, the inscriptions however remaining perfectly legible. A peculiarity about these bricks is that some are red others yellow and all have a strong resemblance to the fragments obtained by me at an excavation made during my first visit at the edge of the platform close to the line **b**¹³ xxxx: many of the fragments then found had a double crescent back to back on one side or face. The construction of these spurs are the same as nearly all the grave mounds as to outward appearance; inasmuch as they all exhibit the same kind & form of masonry on their surface. The nature of the contents included in the spaces bounded by these brick lines were here however, instead of loose earth and pottery, the same as that forming the upper storey of the big pyramidal pile, which is a species of half-baked brick. Having spent a week at this spot with ten men working in each

⁸ These bricks Sir H. Rawlinson states bear the same inscription as those obtained from the ruins of Abu Shahreyn.

⁹ This inscription is apparently the same as one of the double ones on the square bricks.

¹⁰ JGT here adds "reversed".

¹¹ Of pencil sketch on the 1st page.

¹² Specimens of thick bricks & their casts now forwarded are labelled B/@b.

¹³ Of the plan accompanying my 1st paper on these ruins. The fragments I obtained on that occasion were also painted red and yellow & were found in clearing out what seemed to me to be the foundations or remains of rooms. Sir H. Rawlinson at the time pronounced them very interesting and wished there had been some perfect specimens. See p. 268 13th line from top, Vol XV part 2 Journal R.A.S.

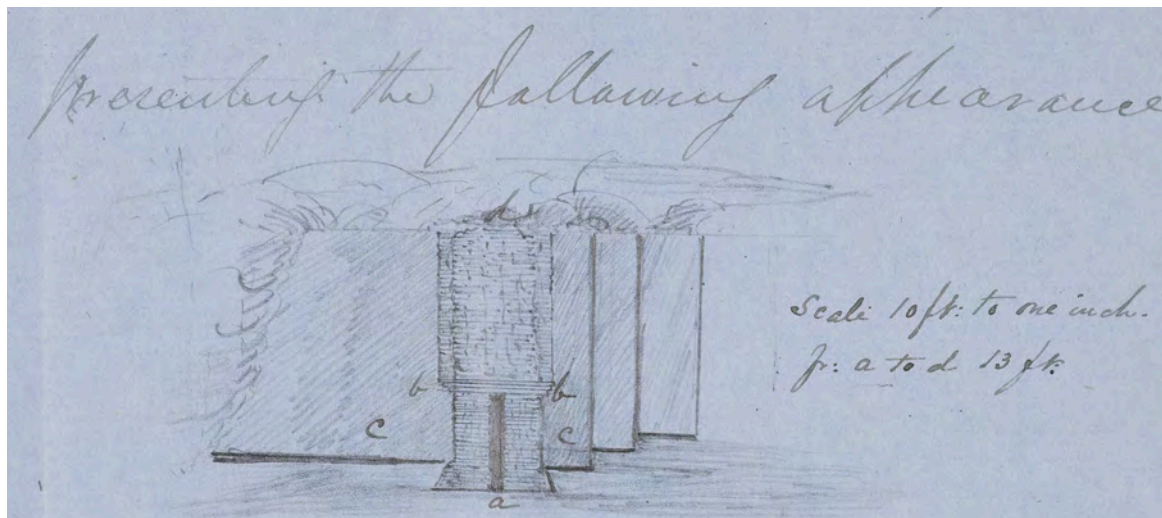


Fig. 6 "Curious formation" of brickwork

With the exception of a small headless terra cotta figure found in the centre chamber not a single relic nor even the fragment of a brick was exhumed from this site, altho I made sure of having arrived at the original flooring by digging several feet under the mass of hard beaten clay that composed it both throughout the chamber and the passages. The only portions built of kiln burnt bricks are those marked (a) and (b). Bricks composing the buttress at (a) bore an inscription of five lines¹⁵ which with the composition and general appearance of the bricks themselves bore a strong resemblance to those composing the second storey of the big ruin.¹⁶ The cement used in this part was bitumen while at the other two portions of masonry it was simply mud and the bricks used were uninscribed. A curious feature with regard to these latter¹⁷ is that the lowest part of the wall (for a height of five feet) is separated into two distinct parts by a clear passage six inches broad and extending throughout its thickness to the sun dried brick wall at its back. The one in the inner or centre chamber had also a curious formation presenting the following appearance [see Figure 6].

The passage at (a)¹⁸ altho it went back as far as the mud wall at (cc) did not seem to ascend higher than (bb); on sinking a small shaft along the whole face from its surface above the ground at (d) a passage could be traced here and there but not a very definite or continuous one. It is difficult to imagine the use of these buttresses as no corresponding ones exist at the opposite side nor as before remarked are there the ruins of any corresponding masses inside the chamber and passage where they are respectively found. On the surface of the hillock corresponding columns can just be traced above ground but again they are situated beyond the walls composing the above chamber and passage. The sun dried brick walls were throughout coated with a thin plaster or white wash. From the traces visible along the whole length of the surface of this hillock it is very evident that one eighth of the building has not been exhumed but the extreme barrenness of the site, not affording a single relic, induced me to be content with so much of the building as had already been cleared. The small hillocks, they do not deserve the name of mounds as they are but slightly elevated from the level of the plain in the immediate vicinity of this one all exhibit traces of walls on their surface & pieces of brick bearing apparently the same inscription as those composing the buttress (aa) of the place. Before leaving this work, my men blocked up the several entrances to the tunnels leading from the trench & shafts to prevent their getting filled in order that should this site be again visited the excavation may be at once resumed.

¹⁵ Specimens of these bricks accompany this and are marked C1&2.

¹⁶ Size of inscription also the same, 8 inches long and 4 broad.

¹⁷ The portions marked by bb & bb.

¹⁸ The passage was choked with clay & common earth and cleared out xxxx.

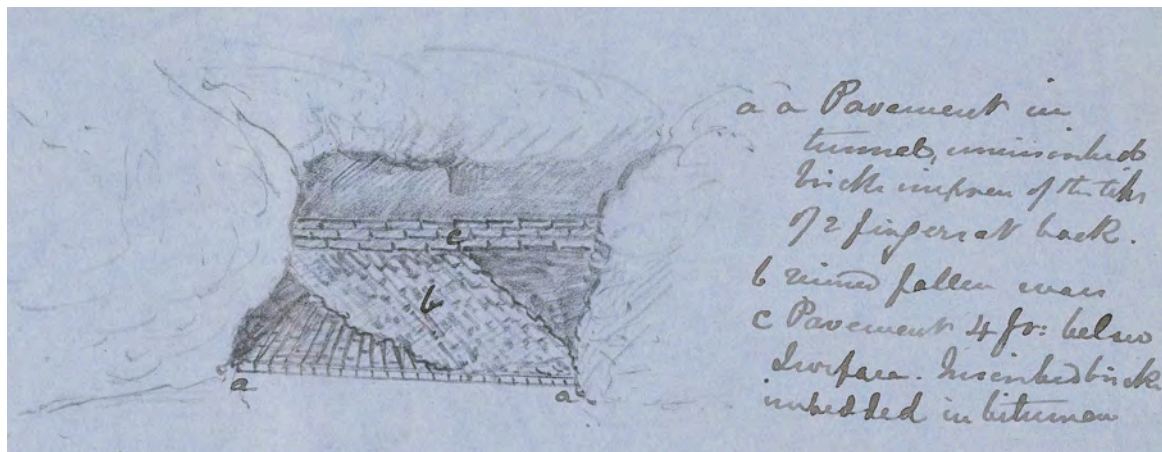


Fig. 7 Pavement

Resuming the work alluded to in my first report on these ruins¹⁹ at the E [?] edge of the House platform, the workmen followed the pavement which was easily struck upon, until their progress was arrested by a mass of bricks cemented with mortar. This seemed as if it had fallen from some other building onto the pavement, the whole wall altho perfect lying in a slanting position and under another pavement that was struck upon here composed of three layers of brick embedded in bitumen most of the latter inscribed and having quite a fresh appearance.²⁰ The bricks composing the ruined wall were generally red coloured and yellow uninscribed and might perhaps be the remains of the foundations of the rooms alluded to, in a former paper, as existing here.²¹ The pencilling below may probably give a better idea of the disposition of these fragments and of those of the upper & lower pavements [see Figure 7].

After excavating at this spot for six days the gang was removed to the low mounds North of the big ruin.

The disposition of the mounds about immediately surrounding this pile are sufficiently irregular as to call for some notice here in the hope that it may afford some clue to explain the uses and purposes of the masses of masonry which they no doubt conceal. The East and North sides are comparatively clear, the former only presenting a slight undulation on the summit of which are traces of brick work not far removed from the lower step of the stair leading to the summit of the big pile; while the latter is entirely unencumbered, if the piles of debris that have fallen from the ruin itself may be excepted, by mounds or hillocks of any sort. The South end towards its North corner has a kind of bald spur or mound apparently a part of the ruin itself, that stretches up to the centre only of that side, the other part being free & open to the ravine separating it from the house platform.²² The North side in front of it at its base has a species of platform (whose edge towards the base of the pile is encumbered with masses of fallen masonry covered by the drift sand) about 50 yards broad where it ends in an undulating ridge separated by a shallow ravine from the grave mounds at the extreme North end of the ruins. An excavation on the platform about 12 yards from the big pile resulted in nothing more than the exposure of a mass of masonry composed of bricks embedded in bitumen bearing a small square inscription.²³ Results attending another excavation made on the slope of the undulating ridge and close up to the summit of a small hillock at one end of it, were more interesting. The remains exhumed were however so complicated and apparently undefined as to their object & purpose that

¹⁹ See page 267/8 of memoir.

²⁰ Bricks marked D1 & 2 forwarded with this paper.

²¹ See p. 268 of original notes on these ruins.

²² Of original plan.

²³ Inscription 3 1/4 inches square. Bricks same as to inscription and size as those composing 1st or basement storey of the big pile.

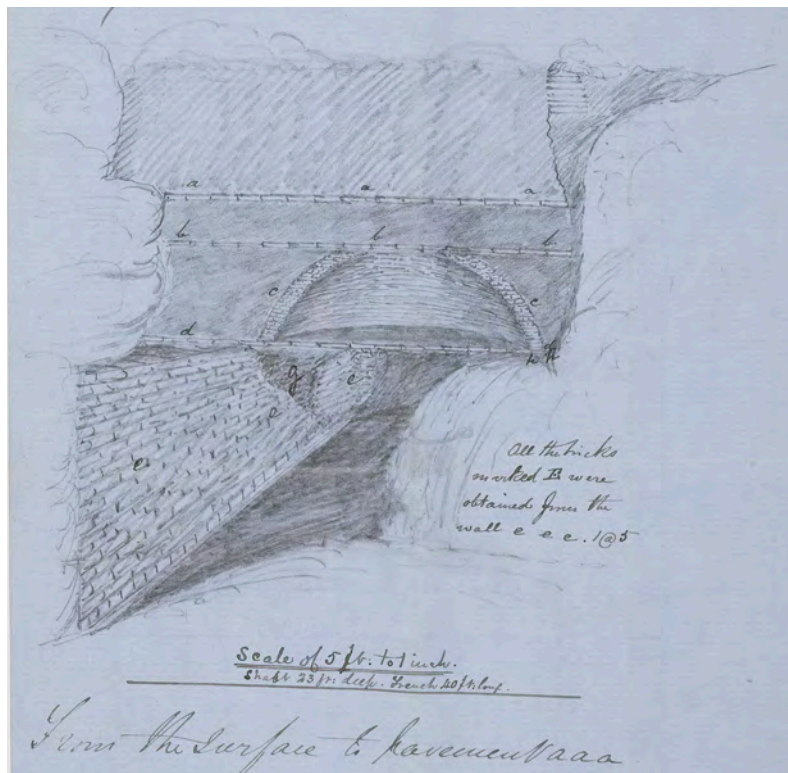


Fig. 8 Arch.

it is only by giving the sketch below that I can hope to render myself intelligible [see Figure 8].

From the surface to pavement aaa a depth of six feet is a loose soil mixed up with fragments of pottery, between pavements (aaa & bbb) loose friable clay for two feet and just below this the remains of a cupola. The xxxx again rested on another pavement; all three pavements were composed of large thick bricks imbedded in bitumen. At the corner (hh) of the cupola, there was a hole in the pavement caused by the omission of four bricks, its further progress on every other side being uninterrupted; naturally following this aperture, I soon struck upon the top of

the large mass of brickwork eee;²⁴ from this time for a period of fourteen days the line of masonry was followed both East and West but without arriving at any point materially different in shape or position. Towards the North it is slightly ruined and there are appearances of a kind of drain that ends however at the broken part (g).

The length of this building was not determined but its breadth was 12 feet. Whether this wall forms part of a line of building serving for the foundation of the big ruin it is as yet & in the absence of further excavations impossible to say. Its general appearance on being first brought to light induced me to think I had struck upon the vault or tomb of some of the exalted personages whose remains without doubt exist somewhere in these ruins and probably near this site,²⁵ in consequence of the increased sanctity of the soil as it approaches nearer the remains of their great temple. Its great length however in proportion to its breadth led me very soon to ignore the supposition. If time had been allowed me I should have sunk a shaft between it and the big ruin and worked along its inner face, several interesting relics might then have been discovered particularly if a tunnel had been carried on to each corner of the big pile itself.²⁶ I have every reason to believe that extended operation on a larger scale than heretofore at this particular site and carried to a sufficient depth could well repay any extra trouble and expense. Generally speaking on every occasion my time and the means at my

²⁴ All the bricks marked E1@5 were obtained from this mass. The inscription they have is in a different style of writing and appears more ancient than the rest. The uninscribed bricks of this mass were the largest, measuring 15 inches square and 4 thick. A few at rare intervals were 4 inches thick 18 inches long and 8 broad.

²⁵ Taking it for granted that the remains of the big pile are the ruins of an ancient temple of peculiar sanctity, it would be natural that the burial ground in its neighbourhood would increase in value as it neared the building; if this supposition then be true the vaults of rich and influential people alone would be found here and in effect the remains of graves are much less numerous here than at other points among the ruin. In corroboration of the supposition I have advanced, I may state that the price of the burial ground at the holy cities of Kerbella and Meshhed Ali or Nejef is regulated by its vicinity or otherwise to the shrine contained in the big mosque.

²⁶ As I obtained a perfect inscribed cylinder at each corner of the base of the 2nd storey (3 and 2) why should not similar relics exist under the corners of the foundations of the basement storey?

command considering the isolated state of the ruins have been too limited to enable me to pursue the work I could wish. Considering the great accumulation of ruins, the height of the mounds and their extent together with their peculiar formation, as exhibited in the long ranges I designated as grave mounds, it is pretty evident that the successive strata of ruins and debris, existing throughout this site are the relics of periods one antecedent to the other. For otherwise how can we account for the almost perfect remains of houses existing so far below the level of the grave mounds as exhibited in the case of the chambers exhumed on the N spur of the long mound²⁷ and also for the masses of masonry in the shaft at the S end of the same mound.²⁸ These formations of graves are observable at the bases of the lowest as well as at the summit of the highest mounds and on one in the South portion a graduated range of these receptacles are plainly distinguished, in a series of bricked shafts, from the base to the surface, something similar to a flight of steps. It may I think be fairly presumed that therefore the remains of houses & chambers if any other than those already exposed, existed, are to be looked for at a depth below the soil greater than has as yet been attained, and as it would be in such places that the most curious specimens of antiquity, would most probably be found it may be deemed worthwhile to undertake excavations on this enlarged scale at a future period with a staff of workmen and material adequate to the task.

In the meantime a party had been at work on the extreme North mounds which contain the double jars used as coffins referred to in the notes detailing my second visit to these ruins. The results of this work²⁹ were interesting only with regard to the bricks bearing new inscriptions obtained from the superficial brick lining separating different series of these jar coffins. Below is a section of a part of this excavation, showing their position [see Figure 9].

Lines of brickwork of the same thickness as that shown in the sketch run at right angles to the wall at (a). These bounded the excavation at each side and it was among them that all the fragments marked H were obtained. None unfortunately are perfect, and those comparatively so bear inscriptions so minute that age has nearly obliterated them. There is however a considerable degree of resemblance between nearly all of them, if not positive identity, so that it is to be hoped that a full and corrected inscription is capable of collation from the different pieces.

A most curious relic resembling the instrument carried in the left hand of the figure on the Nineveh marbles, representing priests or divinities, was dug out of an excavation made at the edge of one of the lowest mounds.³⁰ Having at this spot observed an unusual collection of small tiles and cones,³¹ a small party was put upon the site. The tiles and cones soon assumed a regular appearance, being disposed like a pavement thus [see Figure 10], the cones which had a circular base and a sharp point

²⁷ Plan of which is given in the first sheet.

²⁸ Site of bricks A & Aa.

²⁹ The contents of several of these jar coffins are now forwarded contained in the jar **JM/2**. In one I found a perfect basket made of twisted date leaves and which to the present day is in common use among the Arabs here. Strange to say however it is only at Laksa /Hassa that they are made and are imported from thence. They are called "suffut". On being exposed to the air the basket dissolved into a mass of fine dust on being handled. The skeleton of a female in another coffin was shrouded in a bright scarlet cloth of the most vivid colour. I had time to inspect it minutely but all attempts to rescue portions even of it were unavailing, the whole subsiding into a fine red dust. In another mound close to this but 25 feet below the surface, a part of an elephant's tooth now forwarded was obtained from a brick enclosure I found at the above depth 7 ft broad & 10 long full of fragments & debris of pottery. Specimens of two jar coffins, one with, the other without a cover, and both of a different shape from those described above are sent with this marked M/1 & M/2. The former contained the skeleton of a female child and the latter that of a male adult, the bones being doubled up to allow of the jar receiving them. The one marked M1 had no cover, a simple brick closing the mouth. The generality of these coffins are however as shown in section at a and consist of 2 jars of nearly equal size joined together by a band of bitumen effectually closing any interval that might be left by the irregularity of the mouths of the jars not exactly fitting each other, a small hole being left at one end to allow the escape of any gas that might be generated after burial.

³⁰ In SW portion of the part marked **f f f f** on original plan of the ruins.

³¹ As those contained in box marked BM/M/1.

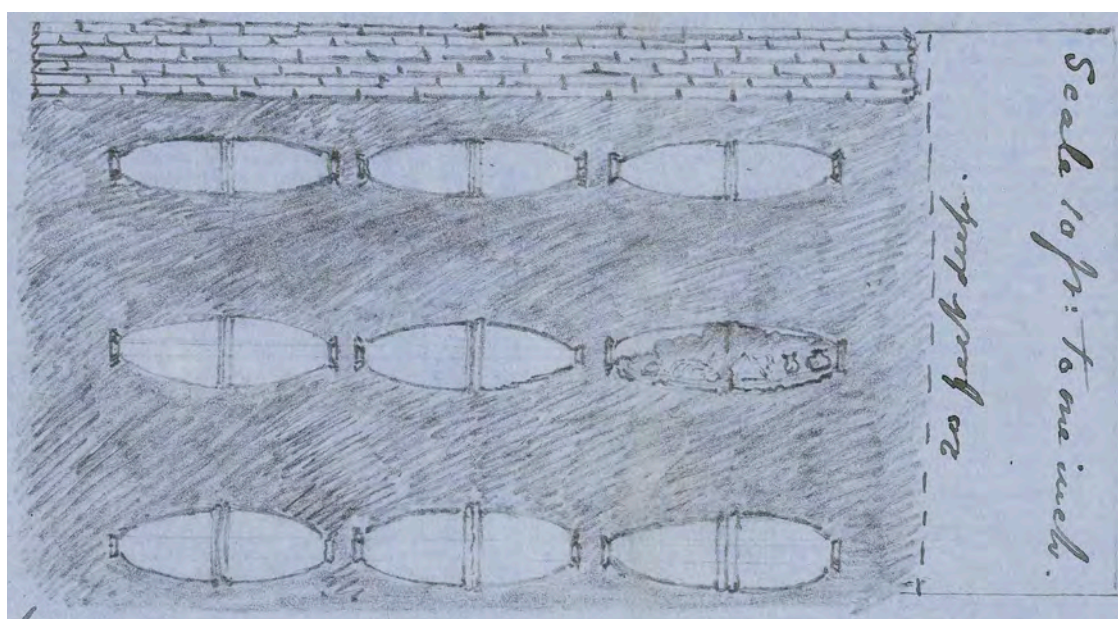


Fig. 9 Double jar burials

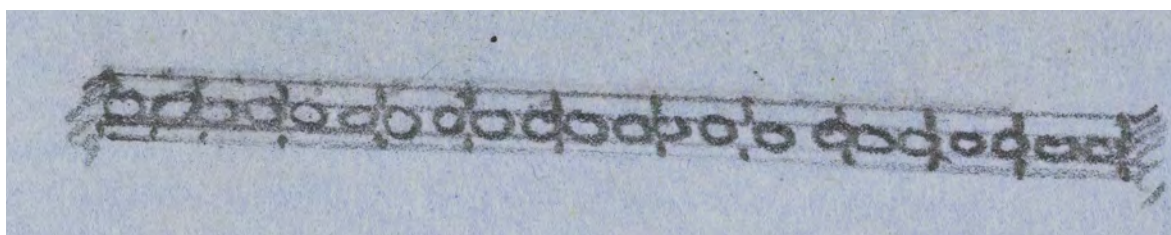


Fig. 10 Sketch of pavement

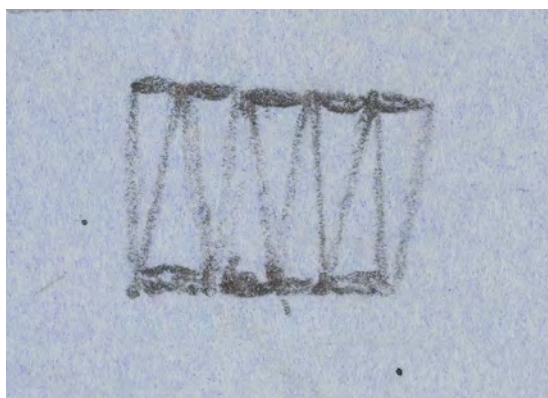


Fig. 11 Sketch of cones



Fig. 12 Stone votive deposit ("handbag") (BM 91700; see Julian Reade, above p. 43, Fig. 15)

forming the platform on which the tiles were disposed, the former on removing the tiles were found to lie thus: [see Figure 11].

The whole rested on a firm base of sun dried brick. At one corner of the tile paving resting against a copper instrument like a large headless nail³² was the relic alluded to above. One side had been destroyed by damp and exposure. The other was nearly perfect. The whole was made of stone but of so fragile a nature that the merest touch caused pieces to fall or peel off. The shape of this relic which was thus [see Figure 12] had on its perfect side two lines of emblems one being a star, two eyes and a star and the lower one an eye, two stars and an eye. The handle and indeed the whole of this relic was well and neatly carved; near it I picked up the grotesque mask in blue stone forwarded with it. One day exposed all that was interesting in this spot, for as I had not time to work deep and far into the mound the mere surface work of the next two days was unproductive of any other remains beyond turning up large pieces of the peculiar clay from which all the inscribed raw clay tablets are made.

An excavation carried on in the North spur of the Tomb Mound³³ was productive of a new brick.³⁴ On former occasions I had obtained this brick, which bears an inscription of four lines, in different parts of the ruins but invariably with the writing or stamp totally defaced. The specimens now sent are but very indifferent but a careful collation of them may perhaps supply isolated and particular deficiencies. A low mound with a flat table-like surface at the extreme North edge of the ruins has a pavement on its summit composed entirely of them; they exist also at the remains of the rooms near the trench (b) of the original plan and again on the surface of the mounds North of Mugeyer.

During the progress of the excavation I had employed two men & the camp idlers in exploring and clearing the upper portion of the North end of the big ruin. Altho no interesting relics were discovered, the peculiar formation and shape of this part of the pile was laid bare; by furnishing a section of it, a better idea will be obtained than I could give by a written description [see Figure 13].

It would be an interesting work to clear the whole of this side as well as the East and South (the North is completely [?] clear) and amongst the masses of debris encumbering the surface of the basement story of the latter, several relics might be discovered; it was on this side and amongst the debris towards its centre that the fragments of a barrel cylinder were found on my first visit and I see no reason to doubt the existence of similar relics in the rubbish as yet undisturbed.

During my stay here I made a flying visit to the Hazem close to and marched deliberately along its summit as far as the Suleybeea wells. In a former paper I remarked that this Hazem or belt bounded the Valley of Abu Shahreyn and had the appearance of a cliff bordering a sea. Its formation is sandstone sprinkled with pebbles. Its descent towards the Euphrates is gradual but towards the Abu Shahreyn valley steep & abrupt & presenting an appearance as if worn by the constant action of water. At intervals throughout its length it is separated by broad ravines and their terminations are generally steeper, higher and more abrupt than other portions. On the summits of several of them was a perfect chaos of graves and funeral jars as at Mugeyer in the brick lined enclosures. The most conspicuous head "Ras al Ghanara[?]" as it is termed by the Arabs is known by the name of Abu Raseyn.³⁵ Here I spent a few hours groping among [?] the graves & jars but they had all been rifled by previous visitors belonging to the pastoral tribes³⁶ that frequent these localities in spring; pieces of masonry

³² In box BM/M/1.

³³ Tomb Mound marked C in original plan of the ruins.

³⁴ Marked I.

³⁵ (Abu Raseyn written in Arabic.) The 2 heads from two hillocks on its summit visible a long way off.

³⁶ The females of these tribes after rains visit these mounds and by poking here and there with a spear generally find out the locality of a funeral jar which is soon dug out & despoiled of its contents. In all beads of agate stones are found, in some cylinders and gold earrings and toe rings. I have never seen a single female in these parts without a necklace obtained from these sources. Several of them had fine cylinders attached to them but their extreme avarice, in holding out for prices far beyond I was prepared to give, prevented me from purchasing.

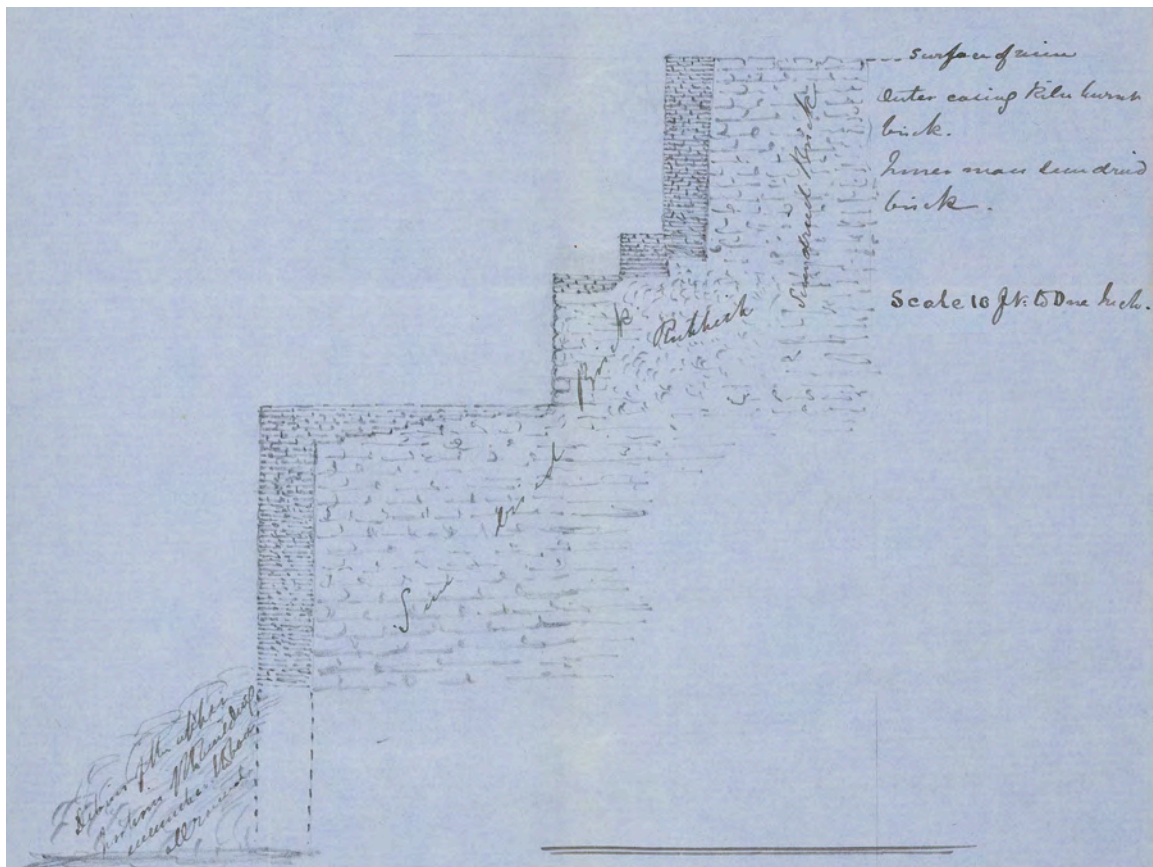


Fig. 13 Stepped brickwork

were observed here and there and isolated bricks found near this spot were of an unusual size [and] none were inscribed. Time would not permit me devoting a few days to excavations here, altho considering its peculiar site it would be worth the attempt and expense, The whole line of the Hazem indeed affords numerous interesting sites, its whole surface nearly being dotted and pitted by these ancient burial grounds and remains. Its favourable position in full view of Mugeyer on one side and Abu Shahreyn on the other together with its natural elevation may have been an inducement for its selection by the ancients as a last resting place for their friends & relatives.

Relinquishing my work at Mugeyer with regret, I turned my face homewards and spending an hour two at Tel al Lahm, Tel Sebbara [?], Tel Sederda & Tell Biut es Saigh (each one within view of the other), reached Busrah in three days.

Busreh

1st Augt. 1858

J.G. Taylor