Late Third Millennium BCE Religious Architecture At Tell Al-Hiba, Ancient Lagash

Darren Poehlein Ashby
University of Pennsylvania, dashby117@gmail.com

Follow this and additional works at: https://repository.upenn.edu/edissertations

Part of the History of Art, Architecture, and Archaeology Commons, and the Near Eastern Languages and Societies Commons

Recommended Citation
https://repository.upenn.edu/edissertations/2170

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/edissertations/2170
For more information, please contact repository@pobox.upenn.edu.
Late Third Millennium BCE Religious Architecture At Tell Al-Hiba, Ancient Lagash

Abstract
Tell al-Hiba, ancient Lagash, is one of the largest mounds in southern Iraq and part of one of the most important third-millennium BCE city-states on the Mesopotamian floodplain. A joint expedition of the Metropolitan Museum of Art and the Institute of Fine Arts of New York University conducted six seasons of excavation at the site between 1968 and 1990. However, despite the site’s significance, data from the excavations have only been published as preliminary reports. In this dissertation, I analyze the late third millennium (ca. 2600–2100 BCE) religious architecture from Tell al-Hiba using the original excavation records. My research focuses on two major temple complexes: the Ibgal of Inana and the Bagara of Ningirsu. Both complexes are well-attested in textual records throughout the latter half of the third millennium BCE. Through this work, I identify a new type of temple layout, demonstrate the existence of a regional religious architectural tradition, and reconstruct the layout and contents of the earliest well-excavated kitchen/brewery in a temple complex in southern Mesopotamia. Further, I contribute to rectifying the imbalance between textual and archaeological data concerning temples and temple activities during this period.

Degree Type
Dissertation

Degree Name
Doctor of Philosophy (PhD)

Graduate Group
Near Eastern Languages & Civilizations

First Advisor
Richard L. Zettler

Keywords
Beer and Brewing, Early Dynastic Mesopotamia, Lagash, Mesopotamian Archaeology, Religious Architecture

Subject Categories
History of Art, Architecture, and Archaeology | Near Eastern Languages and Societies

This dissertation is available at ScholarlyCommons: https://repository.upenn.edu/edissertations/2170
LATE THIRD MILLENNIUM BCE RELIGIOUS
ARCHITECTURE AT TELL AL-HIBA,
ANCIENT LAGASH

Darren P. Ashby

A DISSERTATION
in
Near Eastern Languages and Civilizations

Presented to the Faculties of the University of Pennsylvania

in Partial Fulfillment of the Requirements for the
Degree of Doctor of Philosophy

2017

Supervisor of Dissertation:

____________________________________________
Richard L. Zettler, Associate Professor of Near Eastern Languages and Civilizations

Graduate Group Chairperson:

____________________________________________
Grant Frame, Associate Professor Near Eastern Languages and Civilizations

Dissertation Committee:
Holly Pittman, Bok Family Professor in the Humanities, History of Art
Stephen J. Tinney, Clark Research Associate Professor of Near Eastern Languages and Civilizations
For Tegan, always
Acknowledgments

When I began as an undergraduate archaeology student, I thought that I’d study shipwrecks from the American Civil War. The topic of this dissertation is half a world and four millennia away from there. I couldn’t be happier with either the journey or the destination.

Three people bear principal responsibility for this change of heart. I thank them in the order I met them. First, thank you to Michael Danti, who opened my eyes to the Ancient Near East and gave me the opportunity to experience it firsthand. Your friendship and guidance in all things have been invaluable. Thank you as well to the Danti family for being welcoming hosts on all my visits.

Second, thank you to Richard Zettler for his unfailing support as my advisor. You have been there for me in matters great and small, crises of faith and questions about brick. You make the history of Mesopotamian archaeology come to life with your stories of the people, past and present, who have populated the field. One day, I hope to claim those stories as my own.

Third, thank you to Holly Pittman for introducing me to Tell al-Hiba—both the site and the people—and for being a mentor and advocate in and out of the classroom throughout my time at Penn. My life would be radically different had I not taken your course on the art of Mesopotamia those many years ago. Onwards to new endeavors.

I am also deeply grateful to the members of the Tablet Room for their kindness and helpfulness over the years. In particular, thank you to Steve Tinney for all his help as a member of my committee and for the many classes we’ve had together. Thank you as well to Grant Frame for the insightful conversations and teaching opportunities. It’s been a pleasure working with you in the classroom and in the field.

This dissertation would not have been possible without the many people who have contributed to the Tell al-Hiba Publication Project. My deepest thanks go to Gabe Pizzorno and Henry Bernberg for all their work to digitize the archive and develop the database. Thank you as well to Edward L. Ochsenschlager for his good humor, generosity, and willingness to share his deep knowledge of southern Mesopotamia and the wider world.

— iv —
I would also like to acknowledge several sources of financial support at Penn that made this work possible. Thank you to the Louis J. Kolb Society of Fellows, the Center for Ancient Studies, the Critical Writing Program, and the Department of Near Eastern Languages and Civilizations for their assistance and the opportunities they provided me to develop as a person and a scholar. I am especially grateful to Linda, Peggy, and Diane for all they do to keep the department running smoothly. You make NELC feel like home.

Thank you as well to McGuire Gibson, Professor of Mesopotamian Archaeology at the Oriental Institute of the University of Chicago, for permission to use a general map of archaeological sites in Mesopotamia and illustrations of the Enlil Temple from Nippur I.

I have been fortunate to meet some wonderful people while at Penn who have helped me see the light outside the library. Thank you to Katy Blanchard who first gave me a home and has been a stellar friend ever since. Thank you as well to Josh Jeffers and Ilona Zsolnay for their support and encouragement at all times. You kept me on the rails. To Steve Renette, Reed Goodman, and Marshall Schurtz, thanks for the hat tricks, hip checks, and everything else you’ve done to brighten my day. To Giacomo Benati, friend and fellow traveler in Sumer, thank you for your insight and wit. A further thanks to Katherine Burge and Kyra Kaercher, who let me cover our office in paper. Your friendship, and tolerance, is greatly valued.

To my parents, Douglas and Kathleen, thank you for your unconditional support, encouragement, and curiosity. I couldn’t have done it without you. To Brendan, thanks for all those late nights. To Victor, thank you for making sure I start my day early each morning.

Finally, thank you to Tegan, my partner in all things. Oh, the places we’ll go.
ABSTRACT

LATE THIRD MILLENNIUM BCE RELIGIOUS ARCHITECTURE AT TELL AL-HIBA,
ANCIENT LAGASH
Darren Poehlein Ashby
Richard L. Zettler

Tell al-Hiba, ancient Lagash, is one of the largest mounds in southern Iraq and part of one of the most important third-millennium BCE city-states on the Mesopotamian floodplain. A joint-expedition of the Metropolitan Museum of Art and the Institute of Fine Arts of New York University conducted six seasons of excavation at the site between 1968 and 1990. However, despite the site’s significance, data from the excavations have only been published as preliminary reports. In this dissertation, I analyze the late third millennium (ca. 2600–2100 BCE) religious architecture from Tell al-Hiba using the original excavation records. My research focuses on two major temple complexes: the Ibgal of Inana and the Bagara of Ningirsu. Both complexes are well-attested in textual records throughout the latter half of the third millennium BCE. Through this work, I identify a new type of temple layout, demonstrate the existence of a regional religious architectural tradition, and reconstruct the layout and contents of the earliest well-excavated kitchen/brewery in a temple complex in southern Mesopotamia. Further, I contribute to rectifying the imbalance between textual and archaeological data concerning temples and temple activities during this period.
# Contents

Acknowledgments iv
Abstract vi
List of Plates x

**Chapter 1: Introduction**

1. Late Third Millennium BCE Southern Mesopotamia 1
   1.1 Late Third Millennium BCE Southern Mesopotamia 1
   1.1.a The Early Dynastic Period (ca. 2900–2292 BCE) 2
   1.1.b The Akkadian, post-Akkadian, and Ur III Periods (ca. 2292–1995 BCE) 6

2. Temples in the Late Third Millennium BCE 8
   2.1 Temples in the Late Third Millennium BCE 8
   2.1.a The Study of Temples in the Early Dynastic Period 10
   2.1.b The Study of Temples in the Akkadian, Post-Akkadian, and Ur III Periods 14

3. Late Third Millennium BCE Temple Complexes at Lagash (Tell al-Hiba) 18
   3.1 Late Third Millennium BCE Temple Complexes at Lagash (Tell al-Hiba) 18
   3.2 Outline of the Dissertation 20

**Chapter 2: The History and Archaeology of Lagash**

1. The History and Archaeology of Lagash 21
2. The Physical Geography of Lagash 21
   2.1 The Physical Geography of Lagash 21
   2.1.a Lagash in the Swamps of Sumer 24
   2.1.b Settlement Patterns and Historical Geography 26

3. History 29
   3.1 History 29
   3.2 Pre-Lagash I 29
   3.2.a Pre-Lagash I 29
   3.2.b Lagash I 30
   3.2.c Lagash in the Akkadian Empire 40
   3.2.d Lagash II 41
   3.2.e Ur III 43
   3.2.f Lagash after Ur III 47

4. Economy and Society in the City-state of Lagash 49
   4.1 The Economy and Society in the City-state of Lagash 49
   4.1.a The E-Bau: An Institutional Household 50
   4.1.b The Income of the E-Bau 51
   4.1.c The Expenditures of E-Bau 53

5. Religion 54
   5.1 Religion 54
   5.2 Girsu 55
   5.2.a Girsu 55
   5.2.b Niĝin 56
   5.2.c Lagash 57

6. Foreign Influence and Divided Beginnings 57
   5.4.d Foreign Influence and Divided Beginnings 57
Appendix 1: Catalogue of Finds from Area A and Area B  214
Bibliography  221
Index  236
Plates  237
List of Plates

Plate 1. Map of Southern Mesopotamia
Plate 2. The Region of Lagash in Modern Times
Plate 3. The Region of Lagash in the Third Millennium BCE
Plate 4. Topographic Map of Tello
Plate 5. Tell K at Girsu
Plate 6. The Sanctuary of the Eninnu at Girsu
Plate 7. The Remains of the Brewery in the Eninnu at Girsu
Plate 8. Topographic Map of Lagash
Plate 9. Area G
Plate 10. Area A Deep Sounding: Eastern Section
Plate 11. Area A Deep Sounding: Southern Section
Plate 13. Area A Deep Sounding: Section of Eastern Baulk
Plate 14. Area A Deep Sounding: Level XI and Water Table
Plate 15. Area A Deep Sounding: Pottery from Below Water Table
Plate 16. Ibgal III
Plate 17. Ibgal II
Plate 18. Ibgal I
Plate 19. Ibgal I Foundation Deposits
Plate 20. Ibgal I: The Tripartite Entrance
Plate 21. Area B Excavation Sectors
Plate 22. The Remains on Top of the Area B Platform
Plate 23. Bricks on Top of the Area B Platform (Locus 2 from N)
Plate 24. The Substructure of the Area B Platform
Plate 25. The Foundation Deposit of the Area B Platform
Plate 26. 3HB III and 4HB IVB
Plate 27. The 3HB Building (From N)
Plate 28. 3HB III
Plate 29. 3HB II
Plate 30. 3HB I
Plate 31. 3HB II 14 and 3HB III 14 (From NW)
Plate 32. 3HB 17 Objects
Plate 33. 3H-69 (3HB III 17 Floor 1)
Plate 34. 3HB III 22 Sealings
Plate 35. 3HB III 22 Objects
Plate 36. 3H-70 (3HB III 23 Floor 1)
Plate 37. Trough Ovens: 3HB I 7 and 3HB II 7
Plate 38. 3HB II 23 Drain (From E)
Plate 39. 3HB II 18 Floor 1
Plate 40. 3HB II 18 Floor 1 Pottery
Plate 41. 3HB II 18 Floor 1 Sealings
Plate 42. 3HB II 16 (From N)
Plate 43. 3HB I 3 and 3HB II 3 (From N)
Plate 44. 3HB I 8 Bitumen-coated Bench (From NW)
Plate 45. 3HB 8 Objects
Plate 46. Trough Ovens: 3HB I 3
Plate 47. Miscellaneous 3HB Objects
Plate 48. The 4HB Building (From W)
Plate 49. 4HB IVB
Plate 50. 4HB III
Plate 51. 4HB II
Plate 52. 4HB I
Plate 53. Vat in 4HB IVA 29 (From N)
Plate 54. 4HB III 31 and 4HB IVB 31 (From E)
Plate 55. 4HB 29 Objects
Plate 56. 4H-25 (4HB IVB 29 Fill)
Plate 57. 4HB IVB 33 (From E)
Plate 58. Interior of Brick Tank in 4HB IVB 33 (From S)
Plate 59. 4HB 33 Objects
Plate 60. 4HB IVB 32 (From NE)
Plate 61. 4HB 32 Objects (1 of 5)
Plate 62. 4HB 32 Objects (2 of 5)
Plate 63. 4HB 32 Objects (3 of 5)
Plate 64. 4HB 32 Objects (4 of 5)
Plate 65. 4HB 32 Objects (5 of 5)
Plate 66. 4H-90 (4HB IVB 32 above Floor 1)
Plate 67. The Oven in 4HB III 35 and 4HB IVB 35
Plate 68. 4HB IVB 36 (From N)
Plate 69. 4HB 30 Objects
Plate 70. 4HB III 29 Pavements below 4HB I 29 Pavement (From W)
Plate 71. 4HB III 33 (From S)
Plate 72. 4HB III 35 (From NE)
Plate 73. 4HB 30 Pivot Stones
Plate 74. Bitumen-lined Pit in 4HB II 31 (SE Corner)
Plate 75. Drain in the West Wall of 4HB II 33 (From E)
Plate 76. 4HB I 29 Pavement (From N)
Plate 77. 4HB I 29 Pivot Stone with Earlier Installations
Plate 78. Miscellaneous 4HB Objects
Plate 79. Pottery with Textured Slip
Plate 80. Remains and Reconstructed Plan of EN V at Nippur
Plate 81. The NW and SE Temple Kitchens at Ur
Plate 82. Inana Temple VIIB and VIIA
Plate 83. Building B 33, Room 26
Plate 84. Gudea Statue B: The Eninnu Complex
Chapter 1: Introduction

In this dissertation, I utilize original excavation records to analyze the remains of two late third millennium BCE (ca. 2600–2100 BCE) temple complexes in the ancient city of Lagash (Tell al-Hiba), located in southern Iraq (Pl. 1–2). Through this work, I identify a new type of temple layout, demonstrate the existence of a regional religious architectural tradition, and reconstruct the layout and contents of the earliest well-excavated kitchen/brewery in a temple complex in southern Mesopotamia. Further, I contribute to rectifying the imbalance between textual and archaeological data concerning temples and temple activities during this time period.

This chapter lays the foundation for the study that follows. In section 1.1, I briefly describe the political history of southern Mesopotamia in the latter half of the third millennium BCE. In section 1.2, I define key terms in my study and survey the major archaeological studies of temple remains. In section 1.3, I present the problems that this dissertation seeks to address and the data and methods I use to approach these issues. The chapter concludes with section 1.4, an outline of the rest of the dissertation.

1.1 Late Third Millennium BCE Southern Mesopotamia

The purpose of this section is to provide a brief overview of the time periods—Early Dynastic, Akkadian, and post-Akkadian—Ur III—relevant to this dissertation. The discussion of each period presents its political framework and touches on elements of absolute and relative chronology.¹ Events in the city-state of Lagash during this time span will be covered in Chapter 2.

¹ All dates are drawn from Sallaberger and Schrakamp 2015.
The Early Dynastic Period (ca. 2900–2292 BCE)

The Early Dynastic (ED) period refers to the roughly 600 years of the earlier third millennium when city-states dominated the southern alluvium. This designation originated from the correlation of textual, archaeological, and visual evidence with rulers mentioned in the early dynasties of the Sumerian King List, an indigenous literature-cum-historiography text first attested after this period.²

The internal chronology of the ED period remains unsettled. The invention and delineation of the period originated from excavations conducted by the University of Chicago in the Lower Diyala river valley during the 1930s.³ Henri Frankfort, the lead excavator, based the chronology primarily on the major architectural levels of the Abu Temple at Tell Asmar and the Temple Oval and Sin Temple at Khafaje. Frankfort’s excavation of the Abu Temple uncovered a sequence of four temples, which he called, from earliest to latest, the Earliest Shrine, the Archaic Shrine, the Square Temple, and the Single Shrine. Each of these had a different general layout and the latter three each had multiple building levels. Frankfort also identified changes in the material culture that he thought paralleled the architectural changes.⁴

The tripartite division of the Abu Temple into the Archaic Shrine, the Square Temple, and the Single Shrine formed the basis for the delineation of the ED period into ED I, ED II, and ED III, respectively. Frankfort further subdivided ED III into an earlier (ED IIIA) and later (ED IIIB) phase based on evidence from the Temple Oval, the Sin Temple, and the graves from the houses between them at Khafaje. Frankfort differentiated between later finds from graves and Temple Oval III that were contemporary with material from Cemetery A at Kiš and the Royal Cemetery at Ur and earlier finds from graves, Temple Oval II, and the Sin Temple that had parallels with Mari and Ištar Temple H and G at Assur.⁵ As a result, he attributed Temple Oval III to ED IIIB and Temple Oval

---

² Frankfort 1936: 35; Jacobsen 1939; Steinkeller 2003; Sallaberger and Schrakamp 2015: 13–22.
⁴ Frankfort 1935: 79.
⁵ Frankfort 1936: 39.
II to ED IIIA. Notably, Frankfort was unable to distinguish a corresponding division of ED III in the remains from Tell Asmar.6

Since its publication, scholars have challenged the methodology used to create the tripartite sequence, the diagnostic criteria that underpin it, and its applicability outside of the Diyala region.7 In particular, some scholars have rejected the existence of a distinct ED II in the material from the southern alluvium, while others have maintained its validity.8 Part of the disagreement in the scholarly community comes from variation in the rates of change among different classes of material culture and their relative value for dating.9

The relative chronology that I use in this work follows that proposed by Donald P. Hansen. Hansen divided the ED Period into ED I (ca. 2900–2600 BCE) and ED III (ca. 2600–2292 BCE), subdivided into ED IIIA (ca. 2600–2470 BCE) and ED IIIB (ca. 2470–2292 BCE).10 The stratigraphy of the Inana Temple at Nippur played a major role in Hansen’s thinking. The ED architecture divided into two distinct layouts, each with multiple building levels. The material culture from the earlier layout (IT XI–IX) largely corresponded with that known from ED I contexts in the Diyala and elsewhere, while the levels of the later layout (IT VIII–VII) contained material identified as ED III. Hansen’s inability to identify anything distinctly ED II in this material, alongside the lack of any architectural evidence for a distinct period, led him to propose that ED II did not exist outside the Diyala, and perhaps not even there.11 Further, his exposure of a long sequence of ED I occupation at Tell al-Hiba convinced him that the ED I period was longer and more important than Frankfort originally proposed.12

In contrast to his larger division of the period, Hansen’s subdivision of ED III into ED IIIA and ED IIIB rests primarily on historical and art historical criteria. Hansen based

6 Frankfort 1936: 40.
9 Matthews 1997; Gibson and McMahon 1997; Marchetti and Marchesi 2011: 5, fn. 17.
this division on parallels between glyptic styles used by Eanatum of Lagash (see 2.2.b for the ED rulers of Lagash) and Mesanepada of Ur. The seal impressions of Mesanepada came from the strata above the Royal Cemetery at Ur and were also stylistically later than the seals and sealings found within the cemetery. Therefore, Hansen began ED IIIB in the reign of these two rulers and placed Ur-Nanše and Akurgal of Lagash, Meskalamdug and Akalamdug of Ur, and the bulk of the Royal Cemetery at the very end of ED IIIA.

Nicolò Marchetti recently rejected this dating and assigned the Royal Cemetery to ED IIIB. However, his redating appears to stem from a shift of the start of ED IIIB to the reign of Ur-Nanše rather than a change in the interpretation of the relationships of the material culture. Therefore, I have chosen to follow Hansen’s original point of subdivision.

The material covered in this dissertation largely dates to ED III and later. Over the course of the third millennium, the cuneiform writing system that was invented late in the fourth millennium expanded beyond its original administrative context to be used to produce new types of texts and textual genres. By ED III, the increase in the absolute number of texts available and a wider array of textual genres allows researchers to discuss the political, economic, and social organization of southern Mesopotamia to a degree hitherto unattainable.

Around thirty independent city-states controlled the alluvium during ED III. Royal inscriptions record shifting alliances and hierarchies of power that were contested militarily. The title “King of Kiš,” claimed at various times by rulers in the northern and southern alluvium, may indicate the achievement of political hegemony. Although it is clear that the “King of Kiš” had the authority to intervene and settle disputes between city-states other than his own, the specifics of this title and the authority it conferred remain poorly understood. It may relate to a time during ED IIIA when the rulers of the city of Kiš,

14 Hansen 1987: 54.
16 Sallaberger and Schrakamp 2015: 3.
17 Postgate 1994: 34.
18 Cooper 1983; Frayne 2008 *inter alia*.
located in the northern alluvium, had hegemony over much of southern Mesopotamia.  

Although the ED III royal inscriptions often reference conflict, other evidence indicates the existence of inter-polity cooperation throughout the third millennium. The best example of this is the city-seals, recovered predominantly on sealings from the Seal Impression Strata at Ur, but also in smaller numbers on tablets and sealings from Jemdet Nasr, and sealings from Uruk.  

Dating from ED I, these sealings include the names of multiple city-states and were used to seal bags, boxes, jars, and doors. Since sealing as an administrative practice indicates who has authority over the sealed goods, the presence of multiple city-states on the same sealing suggests a degree of economic cooperation. Textual evidence from the site of Fara, ancient Šuruppak, also documents potential economic and military cooperation. Dating from ED IIIA, these texts record the participation of soldiers from six city-states (Uruk, Adab, Nippur, Lagash, Umma, and Šuruppak) in cooperative action, possibly the garrisoning of fortresses for mutual defense.

Each city had its own tutelary deity who was an essential part of the city’s identity. The writing of many city names with the sign for shrine plus a symbol connected to the local deity visually depicts the close connection between the city and god. Within each city-state were numerous divinities that were linked to the main deity through genealogies or other associations. Likewise, at the regional level the major gods and goddesses of particular city-states were often interconnected genealogically with those of other city-states.

The god Enlil, whose main temple lay in the city of Nippur, was king of the gods during this period and the competing dynasts sought his favor as a sign of political legitimacy. Nippur, near modern Diwaniyah in al-Qadisiyyah Governorate, lay on the border between north and south in the geographical center of the alluvium. From early on, Nippur appears to have possessed primarily a religious significance, possibly amplified by

---

21 Matthews 1993.
its central location.\textsuperscript{25}

1.1.b The Akkadian, post-Akkadian, and Ur III Periods (ca. 2292–1995 BCE)

The end of ED IIIB saw the consolidation of control over the alluvium in the hands of a few dynasts. Lugalzagesi of Umma gained control over much of the southern alluvium during the first third of his 25-year reign.\textsuperscript{26} Sargon of Akkad united the northern alluvium under his control at roughly the same time.\textsuperscript{27} Around 2292 BCE, Sargon defeated Lugalzagesi and brought the entirety of the southern alluvium under his authority, creating the first world empire. The Akkadian period (ca. 2292–2172 BCE) begins with this unification.

Five kings—Sargon, Rimuš, Maništušu, Naram-Sin, and Šar-kali-šarri—ruled the Akkadian state before rebellion, invasion, and general instability caused it to fragment.\textsuperscript{28} At its greatest extent, Akkadian authority extended over much of northern and southern Mesopotamia.\textsuperscript{29} During this time, governors ruled the major cities of the southern alluvium on behalf of the king. Some of these, such as Meskigala of Adab, were already active under Lugalzagesi, but were kept in their position following Sargon’s conquest.\textsuperscript{30} Girsu served as the seat of one of these governors (see section 2.2.c).

The period following the disintegration of the Akkadian kingdom lasted around 70 years (ca. 2172–2103 BCE).\textsuperscript{31} The collapse initially resulted in a return to the division of

\textsuperscript{25} Despite the association between political legitimacy and the favor of Enlil, there is no evidence of dynastic rule at Nippur. Thorkild Jacobsen proposed that Nippur was originally the location where representatives of the Sumerian city-states came together to elect common leaders. He identified this practice as a form of “primitive democracy” and called this putative political union the “Kengir League” (Jacobsen 1970: 139–140).
\textsuperscript{26} Sallaberger and Schrakamp 2015: 86–90.
\textsuperscript{27} Sallaberger and Schrakamp 2015: 90–96.
\textsuperscript{28} The sequence of Rimuš and Maništušu is uncertain. The Ur III version of the Sumerian King List (Steinkeller 2003) places Maništušu first while the later, canonical version places Rimuš first. See Sallaberger and Schrakamp 2015: 105 for more on the sequence of these two rulers.
\textsuperscript{29} Sallaberger and Schrakamp 2015: 105–112, Maps 8–10.
\textsuperscript{30} Sallaberger and Schrakamp 2015: 94.
\textsuperscript{31} The exact period of time between the death of Šar-kali-šarri and the beginning of Ur-Namma’s reign has been a topic of numerous works, most notably Hallo 1957–1971 and Hallo 2005. See Sallaberger and Schrakamp 2015: 113–130 for an overview of work on this time period and Steinkeller 2015 for a recent attempt to reconstruct a history of the Gutean period.
the alluvium among a number of city-states. The Gutians, a semi-nomadic group from the Zagros Mountains that first appeared in texts during the reign of Šar-kali-šarri, ruled one of these states.\textsuperscript{32} They appear to have originally controlled the territory between Adab and Nippur before expanding their control over parts of the northern alluvium.\textsuperscript{33} The region of Lagash experienced a renaissance under the leadership of kings of the Lagash II dynasty during this time period (see section 2.2.d).

The victory of Utuhegal, king of Uruk, over Tirigan, last king of Gutium, broke the power of the Gutian state. Utuhegal’s death left his brother Ur-Namma, governor of Ur, in power.\textsuperscript{34} From this beginning, Ur-Namma went on to establish control over the alluvium as well as many surrounding territories. The five kings of the Ur III dynasty—Ur-Namma, Šulgi, Amar-Suen, Šu-Suen, and Ibbi-Suen—ruled southern Mesopotamia for around 100 years (ca. 2102–1995 BCE). The Ur III kingdom finally collapsed under the strain of economic pressures, internal rebellion, and the sacking of the capital, Ur, by the Elamites.\textsuperscript{35}

The relative chronology of material culture from late ED III–early Ur III remains problematic. The underlying difficulty is the relationship between different types of material culture and political change. During this period, some classes of material culture, such as glyptic, statuary, and bas-relief, were preferred media for socio-political statements due to their visibility, flexibility, and relative rarity. Thus, they were more likely to change along with socio-political developments. Other classes, such as pottery, were more closely attuned to gradual socio-economic changes, which could play out over centuries.

As a result, some objects can be dated more finely than others. For example, glyptic can be divided into a number of phases with some connection to the reigns of specific rulers, while pottery falls into broader categories—ED IIIB–early Akkadian, early Akkadian, late Akkadian, and late Akkadian–early Ur III—that are not sharply delineated.\textsuperscript{36} Fortunately, the recent excavation of a ceramic sequence that spans the entire period at Nippur has gone

\begin{itemize}
\item[33] Steinkeller 2015: 285.
\item[34] Sallaberger 1999: 132.
\item[35] Sallaberger and Schrukamp 2015: 131–133.
\item[36] Boehmer 1965.
\end{itemize}
a long way towards clarifying the development of pottery on the southern alluvium during the later third millennium, but the underlying issues of gradual development remain. 37

1.2 Temples in the Late Third Millennium BCE

The form and function of the temple in the late third millennium BCE has been a popular subject of study for both philologists and archaeologists. Within this literature, the word temple can refer to a range of entities. Before proceeding further, I will discuss the terminology I use in this study.

I define a temple as a non-domestic structure that housed a cella. The essential element of furniture in a cella was a platform, which served as the place where a cult statue rested. A cella could have additional furnishing, including benches, tables, drains, and hearths.

During this time period, cellae took two forms, based on their point of access. The frequency of these two forms shifted over the course of the third millennium. The vast majority of cellae during the ED period were bent-axis. A bent-axis cella consisted of a rectangular room with an entrance in one of the long sides and a platform against the short wall furthest from the entrance.

In contrast, a straight-axis cella was a square or rectangular room with the platform against the wall directly opposite the entrance to the space. Access could come from either a short or long wall of the room. Thus far, straight-axis cellae are only known from Adab, Girsu, and Nippur during the ED period. 38 Their rarity may point to a specific function distinct from what occurred in a bent-axis cella. 39 Alternatively, the location of Adab and

37 McMahon 2006.
Girsu along the eastern end of the alluvium may indicate that these structures belong to an architectural tradition that has thus far escaped widespread exposure.

The bent-axis cella continued to predominate during the Akkadian period. However, during the Ur III period the straight-axis cella became the primary form. At this time, the cella took on a regular form that persisted until the first millennium BCE. This consisted of a rectangular room with the main entrance in the middle of a long wall with the podium of the cella along the other long wall, opposite the doorway. An antecella of similar size usually preceded the cella. In some cases, a third similarly sized room lay in front of the antecella.

Excavation shows that temples varied dramatically in size from single-room structures with a podium to multi-room constructions that enclosed courtyards and one or more cellae to buildings that towered over their surroundings on a raised platform. In approaching this diversity, I share Tunça’s view that it is better to view these spaces as occupying different points on a continuum of complexity and size than to attempt to fit them into a more rigid typology.  

This study deals specifically with temple complexes, the largest and most complex of the religious structures built during the late third millennium. These complexes housed the most important deities in a settlement and were the focus of the community, who invested significant amounts of labor and resources in their construction and maintenance. The area of the temple complex was separated from the rest of the settlement by an enclosure wall. Within, the main temple of the complex rested on a platform that raised it above its surrounding environment. In addition to the temple, the complex contained additional rooms, installations, and open spaces dedicated to fulfilling the various needs of the temple household.

1.2.a The Study of Temples in the Early Dynastic Period

Excavations in northern and southern Mesopotamia in the late 19th and early 20th centuries exposed the first examples of temples from the Early Dynastic period. Beginning in the late 1870s, French work at Girsu (Tello), located in southern Mesopotamia, uncovered the main shrine and subsidiary structures of the Eninnu, a temple complex dedicated to the god Ningirsu.\(^{41}\) At the start of the 20th century, German excavators at Assur (Qalat Sherqat), located in northern Mesopotamia, exposed Levels H and G of the Ištar Temple and another German excavation began to expose portions of the late fourth and third millennium remains of the Eanna temple complex at Uruk.\(^{42}\) Around the same time, an American excavation at Adab (Bismaya) uncovered part of a temple platform and surrounding structures.\(^{43}\) Shortly after the end of World War I, British excavations at Nutur (Tell al-Ubaid) in southern Mesopotamia uncovered the remains of a temple platform as well as a large cache of materials used to decorate the platform and temple on top of it.\(^{44}\) Later work demonstrated that an enclosure wall surrounded the platform.\(^{45}\) After the work at Nutur, Anglo-American excavations at nearby Ur (Tell al-Muqayyar) exposed contemporary structures within the temple complex of Nanna, the moon god.\(^{46}\)

The work at these sites shed light on the layouts of temples, the types of furniture and small finds that they contained, and how they were decorated. In particular, Ištar Temple G played an influential role in how scholars reconstructed the contents and function of a third millennium cella. In his publication of the level, Andrae provided an image of the cella as a space filled with cultic furniture and statues of worshippers placed on benches along the walls.\(^{47}\) He also restored a cult image in a niche at the back of the room. This

\(^{41}\) de Sarzec and Heuzey 1884–1912; Heuzey 1897, 1900; Cros 1904; Cros 1910–1914; de Genouillac 1934; Parrot 1948.
\(^{42}\) Andrae 1922; Bär 2003; see Eichmann 1989 for the final publication of the work at Uruk as well as the history of excavations and bibliography for the series of preliminary reports.
\(^{43}\) Banks 1912; Wilson 2012.
\(^{44}\) Hall and Woolley 1927.
\(^{45}\) Delougaz 1938.
\(^{46}\) Woolley 1939.
\(^{47}\) Andrae 1922: Taf. 11a.
reconstruction established a model for a temple cella that influenced subsequent work on the topic.\textsuperscript{48} However, recent scholarship has shown that his reconstruction had little basis in archaeological reality.\textsuperscript{49}

The early excavations provided important insights into ED temples, but they largely failed to show how these structures developed over time and to what degree temple architecture varied in a single time and place. These questions began to be explored with the publication of \textit{The Temple Oval at Khafajah} and \textit{Pre-Sargonid Temples in the Diyala Region}, which presented detailed analyses of the seven structures identified by the excavators as temples at the sites of Khafajah, Tell Asmar, and Tell Agrab.\textsuperscript{50}

The work in the Diyala vastly expanded our understanding of both the third millennium in general and the forms and functions of third millennium religious architecture in particular. In the Diyala, the long architectural sequences recovered for a number of the temples, particularly the Sin Temple at Khafajah and the Abu Temple at Tell Asmar, provided the opportunity to study the development of single structures over centuries. The excavations also uncovered installations and small finds from a wide range of types, which provided insight into temple assemblages as well as the developmental sequence of different categories of material culture throughout the third millennium.

At the end of \textit{Pre-Sargonid Temples in the Diyala Region}, Henri Frankfort identified a number of traits characteristic of an ED temple.\textsuperscript{51} The essential element was the presence of a bent-axis cella, which served as the sanctuary of the temple. The platform against the short wall was the altar, upon which ritual activities occurred. A hearth or fireplace was also present in this room and a baking oven was common in a subsidiary room nearby.

In the following decades, the publication of older excavations and new work in Iraq and Syria—particularly the work at Mari, Tell Chuera, and Lagash—increased the

\textsuperscript{48} For example, Frankfort’s work on statuary from the Diyala (Evans 2012: 88).
\textsuperscript{49} Evans 2012: 81–88.
\textsuperscript{50} Delougaz 1940; Delougaz and Lloyd 1942.
\textsuperscript{51} Delougaz and Lloyd 1942: 299–312.
number of late third millennium temples available for study. The rising number of excavated temples led a number of scholars to attempt to identify general characteristics and developmental trends in the material. Attempts to produce overarching typologies of Mesopotamian temple architecture date back to Walther Andrae’s *Das Gotteshaus und die Urformen des Bauens im alten Orient*, which largely focused on the second and first millennia. *Die Tempel und Heiligtümer im alten Mesopotamien. Typologie, Morphologie, und Geschichte*, which came out in 1982, expanded on the categories proposed in the earlier work. In this book, Ernst Heinrich provided a typology for religious architecture in Mesopotamia and discussed the development of the structures from pre-history until the reign of the Seleucid kings. Temples from the Diyala and Mari constituted the majority of the late third millennium catalogue. Heinrich classified most of these as *Herdhaus*, which equated to the structures with a bent-axis cella previously discussed by Frankfort. However, Heinrich’s classification also demonstrated the existence of alternative architectural traditions—represented by the straight-axis shrines at Adab, Girsu, and Nippur—that did not fit neatly into his typological scheme. These divergent forms indicate both the potential pitfalls of typological studies as well as the likelihood that new temple forms will eventually be uncovered.

Öhanan Tunça’s *L’architecture religieuse protodynastique en mésopotamie*, published two years later, represents a more flexible approach to the study of ED temples. The book, based on the author’s dissertation, is a thorough archaeological study of most of the ED temple remains known up to that point. In it, Tunça discussed the architectonics, architecture, and contents of the structures and examined the problems of identification

---

53 Andrae 1930.
54 Heinrich 1982.
55 Heinrich largely drew his typological distinctions from earlier categories proposed by Walter Andrae in Andrae 1930.
56 Tunça 1984.
and attribution, typology, and chronology that arose in his study. The study is a valuable repository of quantitative and qualitative data and remains an essential text for the study of ED temples. However, important as it is, Tunça’s work was not exhaustive. He restricted his focus to contexts that were well-published enough to be analyzed. Most notably, he excluded the Tell K remains from Girsu.

More recently, Jean-Daniel Forest’s *Les premiers temples de Mésopotamie (4e et 3e millénaires)* explicitly sought to identify the characteristics of a southern Mesopotamian temple.\(^{57}\) According to Forest, not all religious architecture in Mesopotamia deserved the designation “temple”. He identified a series of morphological characteristics that he considered definitive:\(^{58}\)

1. Temples dominated their urban environment. They were an inescapable part of the daily experience of the city’s inhabitants, visible to them in one way or another as they went about their lives.
2. Temples were surrounded by an oval enclosure wall.
3. Temples rested on a raised platform, which could vary in height.
4. Temples were heavily decorated. The decorations were done in high-status materials and depicted symbolically potent imagery.
5. Temples were clearly linked to the political establishment through the amount of labor and material required to build them.

With these criteria in mind, Forest examined four independent contexts, all in southern Mesopotamia: the remains from Tell K at Tello, the remains of the temple oval at Tell al-Ubaid, and the remains of the Steingebäude and the Riemchengebäude from Uruk.

Through his analysis, Forest compiled preliminary findings on a “Sumerian temple”.\(^{59}\) These structures were narrow constructions with one or two rooms and a peripheral gallery that ran around them. Over time, they became increasingly secluded behind large enclosure walls, though they retained their visual presence in the lives of the community through their elevation on brick platforms.

Forest’s work has been rightly criticized for its selective use of archaeological

---

57 Forest 1999.
58 Forest 1999: 2.
59 Forest 1999: 89.
Further, his criteria for what constituted a temple—particularly the presence of an oval enclosure wall—was overly rigid. However, his reanalysis of the Tell K remains at Tello is a great contribution to the study of ED temples. He convincingly reconstructed an oval enclosure surrounding a two-tier concentration of structures. The central sanctuary of the complex, a two-room construction with a straight-axis cella, sat on the upper platform. The lower platform had a series of subsidiary structures. These remains were long underutilized due to the lack of stratigraphic control in the French excavations. Forest demonstrated that much more could be done with the records.

1.2.b  The Study of Temples in the Akkadian, Post-Akkadian, and Ur III Periods

Archaeological evidence for Akkadian-period temples in Mesopotamia remains sparse, particularly in southern Mesopotamia. This is partly due to the difficulty of identifying Akkadian-period contexts from those of the ED and Ur III periods on either side of it. Additionally, intensive building activity during the subsequent Ur III period disturbed or covered over many of these earlier remains.

Excavations in the late nineteenth and early twentieth centuries recovered limited architectural remains. At Nippur, the American excavations exposed work by Naram-Sin and Šar-kali-šarri in and around the E-Kur. The work in the temple complex at Adab also uncovered traces of Akkadian activity, although no architecture can be definitely assigned to that period. Further north, Level F of the Ištar Temple at Assur likely dates to the Akkadian period as well. Andrae, the original excavator, interpreted the scant remains of this level as domestic architecture and attributed it to the time of the Gutians. However, Bär’s reanalysis of these remains demonstrated that this level was actually a continuation of the Level G temple into the Akkadian period.

60 Marchetti and Marchesi 2011: 219–220.
63 Andrae 1922: 95–97; Andrae 1977: 112.
Some of the best-preserved Akkadian temple remains come from Temple Oval III at Khafajah and Abu Temple Single Shrine I–IV at Tell Asmar. Both sets of remains were originally dated to the end of ED III, but subsequent reanalysis has demonstrated that they all date mostly, if not entirely, to the Akkadian period. At Khafajah, the excavators only identified the main entrance and part of the enclosure wall of Temple Oval III. The remains indicate that the complex largely retained the same general layout and orientation as its predecessors. However, the enclosure wall appears to have become rectangular rather than oval in shape. The recovery of stone vessels with inscriptions of Rimuš and Naram-Sin in and around the upper layers of Temple Oval III suggests that the complex was first built during the early Akkadian period.

Abu Temple Single Shrine I–IV was better preserved. The building represented a starkly different layout than the preceding Square Temple. Instead of multiple cellae arrayed around a central courtyard, the Single Shrine initially consisted of a single bent-axis shrine that was entered from outside through a doorway at the eastern end of its northern wall. The only other room in the building was a single room with an oven that was accessible through a doorway in the western end of the northern wall. In the later two levels of the structure, the bent-axis shrine was subdivided so that the entrance to the building led into an antecella.

Recent Iraqi excavations at Tell Abu Sheeja, ancient Pašime, exposed part of a temple dedicated to the god Šuda that was occupied during the late third and early second millennia. These remains are particularly important since so little exploration has been conducted in the area east of the Tigris due to the Iran-Iraq War. The excavated levels of the temple, located in Area A, date to the Ur III period and later. However, the recovery of a stele of Ilšu-rabi of Pašime, a son of Maništušu, in the Level 1, Phase B indicates that the temple also existed during the Akkadian period. Level 2, exposed in a 1 x 1 m sounding, may date from this period.

68 Hussein et al. 2010: 49–61.
Though partial, the remains from southern Mesopotamia demonstrate that Akkadian temple architecture largely maintained the same local layouts and forms characteristic of the ED period. This continuity of tradition from the ED to the Akkadian period is also known from other categories of material culture.\textsuperscript{69} In places where there were changes, such as the Single Shrine at Tell Asmar, it is currently impossible to isolate exactly when and why those changes occurred.

Post-Akkadian religious architecture has been known since the French excavations at Tello in the late nineteenth century. Unfortunately, the attribution of temple architecture to the Post-Akkadian period remains extremely difficult for the same reasons that it is difficult to separate ED and early Akkadian architecture. Thus far, remains datable to Gudea of Lagash and his fellow dynasts are all that can be confidently assigned to this period. These remains largely come from Tello, though fragmentary remains of Gudea are also known from Tell al-Hiba. Too little remains of these structures to speak confidently about their appearance and how they compared with religious architecture that preceded and followed them.\textsuperscript{70} However, given their rough contemporaneity, similarities with the constructions of Ur-Namma and Šulgi seem likely.

The Ur III kings, particularly Ur-Namma and Šulgi, conducted work at all the major religious centers of the southern alluvium.\textsuperscript{71} This work frequently had an expanded footprint relative to the earlier remains and utilized more baked brick, which increased its longevity. Alongside this increase in size and complexity, two major changes occurred in temple architecture during this period: the construction of ziggurats and the predominance of the wide, straight-axis cella.\textsuperscript{72}

The ziggurat, a multi-stepped platform with the main shrine of a temple complex on top, is the most visible manifestation of the new practices utilized in the construction of religious architecture. In spirit, these constructions were a continuation of the earlier temple building tradition in which a central shrine rested upon a raised platform. Their

\textsuperscript{69} McMahon 2006: 1.
\textsuperscript{70} See Huh 2008 for a recent discussion of these remains as well as a bibliography of earlier work.
\textsuperscript{72} Heinrich 1982: 150.
novelty lies in the intensification of this practice into a whole new architectural form.

Since the nineteenth century, archaeologists have uncovered the remains of a number of these constructions, most notably at Ur, Uruk, Nippur, and Eridu.73 The ziggurat built by Ur-Namma at Ur is the best-preserved example. The platform had three tiers. Each tier consisted of a mudbrick core faced by baked brick laid with a bitumen mortar. The first tier had a footprint of 62.50 x 43 m and rose to 11 m high.74 The second tier was 36 x 26 m.75 Its preserved height was only 1.40 m but it may have originally been around 5.70 m high. Only a portion of the third tier was excavated. It was probably around 20 x 11.30 m.76

The ziggurat had three stairways, all located on its northeastern face.77 Two of these ran parallel to the façade, one from each corner. The third stairway, located in the middle of the wall, ran perpendicular. The three stairways met at a landing slightly above the level of the first tier. The perpendicular stairway ultimately continued up to the level of the temple on the third tier.

The second major change in temple architecture during the Ur III period is the predominance of a wide, straight-axis cella rather than the bent-axis cella of the preceding periods. This new layout continued to be the dominant form down into the first millennium BCE. The cella consisted of a rectangular room with the main entrance located in the middle of one of the long walls. The podium of the cella was located against the wall opposite the entrance. One or more antecellae could precede the cella.

The best example of this new type of cella comes from the Palace of the Rulers and the attached Temple of Šu-Suen at Tell Asmar.78 The shrine in the Temple of Šu-Suen, a large square building with rooms arrayed around a central courtyard, consisted of only a cella (O 30:18), which was accessed directly from the courtyard (O 30:17). The “Palace

74 Woolley 1939: 98.
75 Woolley 1939: 111.
76 Woolley 1939: 116.
77 Woolley 1939: 98.
78 Frankfort, Lloyd, and Jacobsen 1940; Reichel 2001.
Chapel” (L 31:11) in the adjacent Palace of the Rulers was slightly more complex. The cella of the “Palace Chapel” had an antecella (M 32:14) of equivalent width that lay between it and the courtyard (M 32:15) that provided access to the shrine.

1.3 Late Third Millennium BCE Temple Complexes at Lagash (Tell al-Hiba)

The excavation and publication of late third millennium temples from across Mesopotamia in the last century have provided a robust corpus of material evidence for the importance of temples in Mesopotamian society. The synthetic studies discussed above demonstrate the morphological variety within this corpus as well as the similarities in architecture and contents that many of these structures share. However, an examination of the locations where a temple has been recovered reveals an uneven geographical distribution. The majority of the temples are situated in northern and central Mesopotamia. In southern Mesopotamia, temples with a preserved cella are limited to Nippur, Adab, Girsu, and Lagash. When one counts portions of temples or temple complexes, the number of sites increases to include Pašime, Tell al-Ubaid, Ur, and Uruk.

There is much that can be asked of the southern material. How does it relate to that excavated elsewhere? Are there architectural practices that are identifiable as “southern”? If so, can possible functions for these be found in the textual and archaeological record? These are the questions that I pursue in this dissertation.

The archival dataset that I use to explore these questions comes from the city of Lagash (Tell al-Hiba). Over the course of six seasons of excavation (1968–69, 1970–71, 1972–73, 1975–76, 1977–78, 1990), the joint-expedition of the Metropolitan Museum of Art and the Institute of Fine Arts of New York University, directed by Dr. Donald P. Hansen and Dr. Vaughn E. Crawford, uncovered remains that date from the early third millennium to the early second millennium BCE. The majority of the exposed contexts come from the second half of the third millennium.
The project worked in four areas: Area A, Area B, Area C, and Area G. Two of these, Area A and Area B, contained the remains of temple complexes, both well-attested in contemporary inscriptions. In Area A, the excavators uncovered three architectural levels of the Ibgal of Inana (Ibgal III–I) and conducted a sounding that exposed earlier occupation in the area down to the water table. The remains dated from late ED I–ED IIIB.

The work in Area B exposed part of the temple complex known as the Bagara of Ningirsu. The remains in this complex were different from those in the Ibgal. Here, the excavators uncovered multiple building levels of two adjacent, free-standing structures that dated from ED IIIB–early Ur III. The excavators identified these buildings as a temple kitchen and a brewery in the service of the main shrine of the Bagara.79

Thus far, the excavations at Tell al-Hiba have only been discussed in preliminary reports. However, upon the death of Donald P. Hansen in 2007, Holly Pittman (University of Pennsylvania) assumed responsibility for the final publication of the excavations and moved all of the extant excavation records to the University of Pennsylvania Museum of Archaeology and Anthropology. The archive contains the field notebooks, object catalogues, pottery and object drawings, architectural plans, slides and negatives, and other excavation-related documents from all six seasons.

The remains from Lagash are essential to understanding the form and function of temple complexes in southern Mesopotamia. The variety of temple contexts uncovered, their contemporaneity, and the quality of the record-keeping make the site an excellent case study with which to explore the questions posed above. Further, these complexes are directly connected to rulers of the Lagash I, Lagash II, and Ur III dynasties through inscriptions, a level of chronological specificity that is rare in the study of the late third millennium period.

79 Hansen 1978: 82–83
1.4 Outline of the Dissertation

The remaining chapters are organized as follows. Chapter 2 provides an introduction into the geography, history, and archaeology of the city-state of Lagash. I present the environment in which the city of Lagash was located, discuss the rulers of the Lagash I dynasty, and survey what is known of their activities at home and abroad. I finish this chapter with a review of the archaeological activity at Girsu (Tello), Lagash (Tell al-Hiba), and Niğin (Zurghul) with an emphasis on the ED III period.

Chapter 3 begins with a discussion of the Tell al-Hiba archive and then presents a detailed description of the remains in Area A, primarily the Ibgal of Inana. Chapter 4 contains the same description for the material in Area B, the Bagara of Ningirsu. Chapter 5 explores the nature of the Bagara complex through archaeological and textual evidence. Chapter 6 summarizes the conclusions drawn from the analysis of the remains in Area A and Area B and suggests avenues for future research.
Chapter 2: The History and Archaeology of Lagash

This chapter provides an overview of the geography, history, and archaeology of the city-state of Lagash from the middle of the third millennium to the early second millennium BCE. Lagash has played a central role in the study and reconstruction of third-millennium southern Mesopotamia since the late nineteenth century due to the abundance of archaeological, textual, and iconographic sources that were discovered there. These materials, in conjunction with others found elsewhere in the alluvium, demonstrate the importance of the state of Lagash and its three main cities—Girsu (Tello), Lagash (Tell al-Hiba), and Niğin (Surghul)—in the political, economic, and religious affairs of the south (Pl. 2–3).

2.1 The Physical Geography of Lagash

Southern Mesopotamia is primarily a basin located above the area where the Arabian Plate subducts beneath the Iranian Plate. The basin, oriented northwest-southeast, is bordered by the foothills of the Zagros Mountains to the east and the limestone uplands of the Arabian Plateau to the west. The basin itself is largely filled with alluvial soils deposited during the Holocene.\(^{80}\) In some areas, Pleistocene turtlebacks are still visible in the midst of more recent deposits. This alluvial fan begins in the vicinity of Ramadi and Samarra to the northwest of Baghdad and extends roughly 660 km southeast to the Persian Gulf.

The tectonic foundations of the area have implications for the flow of water through the region. In general, the basin slopes downwards from the northwest to the southeast. However, in a number of places it twists, redirecting the flow of water. As a result, the Tigris tends to flow south-southeast along the foothills of the Zagros, while the Euphrates tends to flow west to east.\(^ {81}\)

\(^{80}\) Pournelle 2013: 13.  
\(^{81}\) Pournelle 2013: 14.
The gradient of a river channel strongly influences a river’s morphology. In the uplands of Turkey, Syria, and northern Iraq, the Tigris and Euphrates Rivers cut deeply into the bedrock. Upon entering the southern alluvium, the slope drops to under one percent and the rivers take a more meandering course to the Persian Gulf. In some places, an anastomosed river pattern developed. The Tigris and Euphrates behaved similarly in antiquity. From the 8th millennium BCE, the rivers appear to have had “anastomising and significantly intermingled flows” once they emerged onto the alluvium.\textsuperscript{82}

As the rivers slow, the rate of sediment deposition increases. Much of the sedimentation occurs during floods, which contribute to the development of levees along the river banks. When the rivers encounter still water, they drop their remaining sediment load. This results in the development of a “bird’s foot” delta, which is characterized by bifurcating channels with marshlands between the watercourses.\textsuperscript{83}

Since the area is so low, the geography of southern Iraq is heavily dependent upon the interplay between sea level and river flow. When sea levels are lower, the gradients of the Tigris and Euphrates increase, leading to upstream downcutting and downstream sediment dumping that accelerates the progradation of the delta. When they even off, the rivers level out and slow down. As a result, more sediment accumulates along their levees and in the alluvial floodplains and delta, which creates ideal conditions for the formation of marshes and estuaries.\textsuperscript{84}

In the millennia leading up to the ED period, fluctuations in sea level wrought major changes in the geography of the area that would become the state of Lagash.\textsuperscript{85} Around 6150 BCE, the head of the Persian Gulf was approximately at its current location. During the rest of the Ubaid, sea level rose at a variable rate, ultimately reaching a highpoint of about 2.5 m above that of today. By 4450 BC, the sea extended as far northwest as Ur. The stabilization of sea level at the beginning of the Uruk period promoted marsh and delta growth, which reached at least as far inland as Uruk. This situation persisted, with some

\textsuperscript{82} Pournelle 2013: 14.  
\textsuperscript{83} Pournelle 2013: 17.  
\textsuperscript{84} Pournelle 2013: 18.  
\textsuperscript{85} Pournelle 2013: 19.
slight fluctuation, into the ED period.

These shifts in the physical geography of southern Iraq had important repercussions for the development of urbanism in the region. The earliest settlements in the south date from Ubaid 0. During Ubaid 0 archaeologically visible sites were located on river levees near swamps and marshes. Many of these sites continued to be occupied into Ubaid 4. All but one of the newly-founded sites lay on Pleistocene turtlebacks. Naturally, many smaller Ubaid sites may be buried beneath Holocene deposits, as demonstrated by Ras al-Amiya.

Wetlands and their resources continued to be important during the Uruk and Jemdet Nasr periods. Nearly every identifiable turtleback was inhabited by the Early Uruk period.

As with the earlier periods, the limited surveys in many areas of southern Iraq restrict what can be said about settlement during the ED period. The survey zone around Eridu contained evidence for settlements that primarily exploited wetland resources, including reed harvesting and cattle husbandry, instead of cultivating grain. Further, dendritic channels may have linked these settlements to smaller occupations of cattle-raisers and reed harvesters.

Elsewhere, the exploitation of marshlands became less profitable. In the area north of Uruk, aggregate site sizes increased over the course of the ED period as the number of settlements fell. To explain this development, Pournelle proposed a model in which this increase in population density was partly the result of emigration from areas where the wetlands were drying up due to continued deltaic progradation to the southeast. As the delta and marshes shifted further away, people founded new settlements to continue

86 Huot 1983.
87 Pournelle 2013: 22.
88 Stronach 1961.
89 Pournelle 2013: 22.
90 The most significant of these surveys are Adams and Nissen 1972, Gibson 1972b, Adams 1981, and Wright 1981. The region of Lagash lay outside the boundaries of these surveys, so it remains a prime candidate for new research.
92 Pournelle 2013: 24.
exploiting their resources. These new settlements supplied the older ones, which continued to grow.

Following the ED period, this trend continued. During the Ur III period, the Tigris and Euphrates still flowed closely enough for them to be directly interconnected by watercourses at multiple points and textual evidence clearly shows the continued importance of marsh resources to the state economy.\(^93\) During the early to mid-second millennium, cities further upstream became more important, which coincided with the westward and eastward progression of the Euphrates and Tigris rivers, respectively. According to Pournelle, “as the climate dried and became more seasonalized, that succession privileged the (to those cities, proximate) Euphrates as a source of irrigation water, fostering the pearls-strung-through-the-desert view handed down through later historical periods.”\(^94\)

2.1.a Lagash in the Swamps of Sumer

The state of Lagash demonstrates the close connection between marshes and the development of socio-political complexity in southern Mesopotamia.\(^95\) Initially dominated by estuaries, by the ED III period the area was predominantly marshy. Around this time the sea level in the Persian Gulf rose to roughly 1 m above its current level, narrowing the distance between Lagash and the coast.\(^96\) Even after the sea level declined again and the delta prograded, seasonal flooding of lowland areas remained common.

This environment proved to be fertile ground for the exploitation of marsh and littoral resources alongside the gains provided by irrigation agriculture and animal husbandry. Textual evidence for the ED period and later documents the range of flora and fauna available to the inhabitants.\(^97\) Although intensive studies are lacking for the state of

\(^{93}\) For example, see Steinkeller 1987: 91–93 for the use of riverain thickets of for wood and other resources in Umma; Steinkeller 2001.

\(^{94}\) Pournelle 2013: 27.

\(^{95}\) Pournelle 2003a; 2003b; 2007; 2013; Pournelle and Algaze 2012.

\(^{96}\) Sanlaville 1989: 14; Potts 1997: 33; Sanlaville 2002: 147, Fig. 4; Pournelle 2013: 26.

Lagash, work on faunal remains from the city of Lagash confirms the proximity of these resources in antiquity.\(^98\)

This fertility is foremost a product of the rivers. For much of the 20th century, scholars assumed that an eastern branch of the Euphrates River supplied the water and silt that fed the marshes of Lagash. The idea originated in Thorkild Jacobsen’s study of the main watercourses that connected Ur to the rest of the major settlements in southern Mesopotamia.\(^99\) Using textual evidence and surface surveys, Jacobsen proposed the existence of two major branches of the Euphrates during the third millennium BCE. These two branches flowed parallel to each other through southern Mesopotamia until the eastern branch shifted south in the area of modern Nasiriyah and merged with the western branch in the vicinity of ancient Larsa. For Jacobsen, the Tigris was too far east to have supplied any significant amount of water, although a canal built by Enmetena, fifth king of the Lagash I dynasty, did siphon off some water from the Tigris for use in Lagash and elsewhere. However, the state of Lagash received the majority of its water from the Going-to-Niĝin Canal (\(id_{2}-\text{Niĝin-du-a}\)), which separated from the eastern branch in the vicinity of Zabalam.

In the late 1980s and early 1990s, Wolfgang Heimpel challenged Jacobsen’s proposal of a minor role for the Tigris in the lives of southern Mesopotamians.\(^100\) Through the use of literary and administrative texts, Heimpel demonstrated that Jacobsen’s eastern branch of the Euphrates is better understood to be the Tigris itself and that a number of watercourses connected the two rivers. Piotr Steinkeller has subsequently reinforced Heimpel’s assertion and refined our understanding of the connecting watercourses, particularly that of the Iturungal.\(^101\) In Steinkeller’s reconstruction, the Going-to-Niĝin Canal again branched off near Zabalam, guiding the water and silt of the Tigris into the heart of the state of Lagash.

This water and silt were essential for successful agriculture in this region, but could

---

\(^{98}\) Mudar 1982; Kenoyer 1990.  
\(^{100}\) Heimpel 1987; Heimpel 1990.  
\(^{101}\) Steinkeller 2001.
also be its undoing. The dry climate of the southern alluvium necessitated the use of irrigation. This practice could produce large agricultural surpluses, but also came with a set of risks. One of these was increased soil salinity, a constant problem in hot, flat environments like the southern alluvium.\textsuperscript{102} When water is directed into the fields, it evaporates, depositing its load of salts and other minerals into the soil. Over time, the salinity of the field increases, making it more difficult for certain crops to grow. Other dangers include the possibility that the river that supplies the irrigation water will overflow its banks during periods of high water and flood the surrounding fields or that upstream rivals may prevent water from reaching the canals of their downstream neighbors, as occurred between the city-states of Umma and Lagash.\textsuperscript{103}

2.1.b Settlement Patterns and Historical Geography

For such a well-known state, the exploration of Lagash through surface survey has thus far been very limited in scale. In 1953, Jacobsen visited the sites of Tello, Tell al-Hiba, and Zurghul.\textsuperscript{104} Through this work, he established that Tell al-Hiba was the city of Lagash rather than Tello, which had previously been identified as such. Jacobsen returned to the area in 1969.\textsuperscript{105} In a brief survey, he focused his attention on two peripheral areas. In the west, Jacobsen sought to identify the border canal between the states of Umma and Lagash, so well-known from historical inscriptions. To the north and east, he attempted to find the aforementioned Tigris feeder canal built by Enmetena. Through his 1969 survey, Jacobsen shed light on the arrangements of sites and canals along the borders of the state of Lagash, but the core remains largely unknown. An intensive survey of Lagash, combined with what is known about the historical geography of the state from the textual sources, would be very productive.

\textsuperscript{102} For more on this difficulty and its relation to southern Mesopotamia, see Jacobsen and Adams 1985, Gibson 1974, and Jacobsen 1982.
\textsuperscript{103} Redman 1978: 29; Cooper 1983.
\textsuperscript{104} Jacobsen 1958.
\textsuperscript{105} Jacobsen 1969.
Thanks to an abundance of texts from the last third of the third millennium BCE, particularly administrative documents, scholars have been able to reconstruct in broad strokes the historical geography of Lagash. As expected for a state in a marsh, numerous canals and natural watercourses are attested. The central focus of the state was the Going-to-Niĝin Canal. This watercourse formed the backbone of the region, serving as both the major source of fresh water to the area and as a transportation corridor that linked settlements in the state to each other and to their neighbors upstream. At its southern end, the canal debouched into “the sea” (Sumerian: a-ab-ba). At least during the Ur III period, the Sumerian term can be used for both the Persian Gulf and the estuaries behind the head of the Gulf that ultimately provided access to it. In this case, it is better to understand the canal as emptying into the estuaries than directly into the Persian Gulf.

In addition to the Going-to-Niĝin Canal, the territory of Lagash contained an abundance of smaller canals, many of which branched off of the Going-to-Niĝin Canal. The construction and maintenance of these canals and their associated irrigation features were an important responsibility of the temple and palace. However, recent work has shown the importance of local autonomy in irrigation management in the region as well.

The landscape of Lagash proved fertile for those who lived there. By ED III, the state of Lagash included three major cities——Girsu, Lagash, and Niĝin——that were connected to each other by the Going-to-Niĝin Canal, but the date of the first settlements in this area remains unknown. Excavations at Girsu and Niĝin have uncovered material culture from the Ubaid period. Additionally, recent observations on the morphology of Girsu suggest a substantial pre-ED occupation. At Lagash the excavators recovered Ubaid remains from the surface, but found nothing in situ.

106 Potts 1997: 35.
107 Carroué 1986: 25.
110 Rost 2011.
112 Hritz et al. 2012.
113 Hansen 1970: 244.
Girsu (Tello) was the northernmost of the three major cities, which were oriented on a northwest-southeast axis. The city covered around 450 ha. Its highest prominence, Tell A, reached about 15 m above the surrounding plain. The city served as the origin point of the Going-to-Niğin Canal and also functioned as the political capital of the territory by the end of ED IIIB, if not earlier. Girsu was also the home city of Ningirsu, the head of the state pantheon. The vast majority of the textual and archaeological evidence for the history of Lagash originates in Girsu.

Roughly 25 km southeast of Girsu lies Lagash (Tell al-Hiba), the next major city on the canal. Lagash covered ca. 600 ha, making it one of the largest sites in southern Mesopotamia during the third millennium BCE. Its highest point is six meters above plain level.\(^{114}\) The city seems to have reached its apex in the ED III period, before declining in political importance and size in the subsequent Sargonic and Ur III periods. The patron deity of Lagash may have originally been Gatumdug, although she appears to have been of secondary importance by the ED III period.\(^ {115}\)

Niğin (Zurghul) is situated an additional 8 km southeast of Lagash. The terminus for the Going-to-Niğin Canal, Niğin appears to have been much smaller than Girsu and Lagash with a size of roughly 66 ha. Notably, its highest point is ca. 15 m above the plain, similar to the highest point at Girsu. Despite its size, Niğin was an important center in the political and religious life of the state. Its patron deity was Nanše, the sister of Ningirsu. Niğin was also the location for a number of major festivals that occurred in the state throughout the year.

Alongside these three major cities, many smaller settlements populated the state. Carroué has divided the places into five categories based on the textual evidence: large urban centers (Girsu is one example), small urban centers, villages (both large and small), installations that developed around a temple or fortress, and localities that contain geographic designations (such as the forest of X or the riverbank of Y).\(^ {116}\) By the Ur III

---

\(^{116}\) Carroué 1983: 104.
period, the focus of activity in the state appears to have been on the southern side of the Going-to-Niĝin Canal.\textsuperscript{117} A similar situation presumably existed during the ED III period.

One settlement of particular importance was Gu’abba, a town located southeast of Niĝin on the Going-to-Niĝin Canal. Home to the temple of Ninmar, the daughter of Nanše, Gu’abba was already important during the ED III period, but increased in significance in the Ur III period.\textsuperscript{118} As the name implies (\textit{gu}_2-\textit{ab}-\textit{ba} “Bank of the Sea”), Gu’abba was located on the edge of the marshes, serving as Lagash’s harbor and providing access to the trade routes of the Persian Gulf.

\section*{2.2 History}

Thanks to the abundance of written documentation, the history of Lagash is better known than any other ED III state. Seen from a regional perspective, the state of Lagash was only one of a number of independent states that populated southern Mesopotamia. Located at the head of the Gulf, Lagash was in a protected position vis-a-vis its upstream rivals like Umma and Uruk. It also controlled a major access route to seaborne trade. However, Lagash’s location downstream from other states made it particularly susceptible to attempts to reduce the flow of water into its territory during times of strife. This is best demonstrated by the multi-generational border conflict between Lagash and Umma, which centered on access to fields and the canals that irrigated them.

\subsection*{2.2.a Pre-Lagash I}

Our knowledge of the political leadership of Lagash during ED IIIA is patchy. The oldest known (potential) ruler of Lagash is Enhegal. This individual, identified as \textit{lugal lagash}, was one of two sellers on a field sale document. Gelb, Steinkeller, and Whiting

\begin{itemize}
\item \textsuperscript{117} Carroué 1986: 47.
\item \textsuperscript{118} Grégoire 1962.
\end{itemize}
considered Enhegal to be a ruler and date the document to around 2600 BCE.\footnote{119 Gelb et al. 1991: 70.} In contrast, Powell thought that \textit{lugal} in this case indicated owner rather than king. He dated the tablet to around the reign of Ur-Nanše.\footnote{120 Powell 1994: 101; Sallaberger and Schrakamp (2015: 67) agree with Powell.}

The first definitively attested ruler of Lagash is Lugalshagengur. He was called \textit{ensi} of Lagash on a lion-headed macehead that Mesilim, King of Kiš, donated to Ningirsu.\footnote{121 Frayne 2008: E1.8.1.1.} We know from Eannatum and Enmetena that Mesilim was called in by Lugalshagengur to resolve a border conflict between Lagash and Umma.\footnote{122 Frayne 2008: E1.9.3.2; E1.9.5.1.} Bauer placed this event, at most, around two generations, or 40 years, prior to Ur-Nanše.\footnote{123 Bauer 1998: 446.}

2.2.b Lagash I

The evidence available for the history of Lagash increases significantly with the Lagash I dynasty (ca. 2470–2290).\footnote{124 The designation Lagash I exists to differentiate this indigenous series of rulers from a post-Sargonic indigenous series of rulers, Lagash II.} This dynasty consisted of nine rulers. The first six were definitely related, but the relationship of the final three—a father, son, and a \textit{novus homo}—to the first six is unclear.

The exact length of Lagash I is unknown. We only know the lengths of reign for the seventh and eighth rulers, who ruled for about a combined eleven years.\footnote{125 Cooper 1983: 20.} Cooper, reckoning by generations, suggested a period of around 150 years from the ascension of Ur-Nanše to the defeat of Uruiningina by Lugalzagesi.\footnote{126 Sallaberger and Schrakamp 2015: 136.} A recent re-assessment of the available evidence suggested ca. 175 years.\footnote{127 Sallaberger and Schrakamp 2015: 67.}
Ur-Nanše is the first ruler of Lagash who was well-documented by his own inscriptions. The founder of a dynasty that would make Lagash a regional power, Ur-Nanše appears to have set the tone with a very active foreign and domestic policy. Although the precise length of his reign is unknown, the number of inscriptions and diversity of activities recorded suggests that Ur-Nanše had a long reign.

The specifics of Ur-Nanše’s background remain unknown. He identified his father as Gu-NI.DU, son of Gursar. Whatever the specifics of his origin, Ur-Nanše likely originated from the south of the state, in Niĝin or its vicinity.

Ur-Nanše sponsored buildings all over Lagash. In total, he mentioned work on 20 large and small structures as well as nine different canals. He also recorded the creation and dedication of 13 statues for deities, both major and minor. The need for Ur-Nanše to complete so much temple building, canal construction, and statue creation is unclear. It is possible that the period before his ascension was characterized by destructive warfare. Another possibility is a shift in the depiction of deities that favored anthropomorphic depictions over symbolic ones.

Ur-Nanše also maintained active connections with the outside world. He mentioned trade connections with Dilmun, from which he imported timber. Closer to home, Ur-Nanše fought against both Ur and Umma. He appears to have defeated both of them, recording the names and professions of his most prominent captives.

128 The name Gu-NI.DU is never associated with an official title. As for “son of Gursar,” the Sumerian (dumu gur-sar) gives two options: parentage or locality of origin. In an administrative text from the reign of UruKagina, a location called Gursar is mentioned (DP 159 ii 1). It appears to have been in the south of the state. Based on the appearance of a Gu-NI.DU in offering lists to the deceased from the reign of UruKagina (e.g. DP 058 r i 1), Bauer suggests that Gu-NI.DU may have been a temple administrator of Ningirsu (Bauer 1998: 447).
130 Unlike some of his successors, Ur-Nanše did not mention the dedication of statues of himself to deities. However, he, or one of his successors, must have done so. During Lugalanda’s reign, a statue of Ur-Nanše received offerings (DP 53 IX 11; TSA 1 IX 8; Nik 1, 23 rev. II 3).
132 Frayne 2008: E1.9.1.2.
133 Frayne 2008: E1.9.1.6b.
No fewer than 11 votive plaques from Ur-Nanše’s reign have been recovered.\textsuperscript{134} We know from these plaques that Ur-Nanše had at least one daughter and seven sons.\textsuperscript{135} One of these, Akurgal, succeeded his father as ruler.

2.2.b.ii Akurgal

In contrast to his father, Akurgal remains largely unknown. He likely did not reign for very long. We have only one truly informative inscription from this ruler.\textsuperscript{136} In it, Akurgal claims to have built the Antasurra shrine for Ningirsu, which is located near the border with Umma. In addition, a fragmentary brick from the surface of Area B at Tell al-Hiba may have an inscription of Akurgal, but it could also be the end of an inscription of Enanatum I.\textsuperscript{137}

From Eanatum, his son and successor, we know that the conflict between Lagash and Umma again flared up during Akurgal’s reign.\textsuperscript{138}

2.2.b.iii Eanatum

Eanatum succeeded his father, Akurgal, as ensi of Lagash. The length of his reign is unknown, but the large number of inscriptions attributable to him suggests that he was on the throne for a while.\textsuperscript{139}

Of all the rulers of Lagash, Eanatum appears to have been the most martial, or at least the most vocal about his activities. Individually or in coalition, he fought Umma, Kiš, Akshak, Mari, Uruk, Ur, Kiutu, Uruaz, Mishime, Arawa, Arua, Adua, Susa, Elam, and

\textsuperscript{134} Parrot 1948: 86ff.
\textsuperscript{135} Frayne 2008: E1.9.1.2.
\textsuperscript{136} Frayne 2008: E1.9.2.1; a fragmentary brick from the surface of Area B at Tell al-Hiba may be from this ruler.
\textsuperscript{137} (3H-T13); see Crawford 1974: 34, fig. 14. and 35, n. 17; Frayne included it twice in his catalog: under Akurgal (Frayne 2008: E1.9.2.3) and Enanatum I (Frayne 2008: E1.9.4.13).
\textsuperscript{138} Frayne 2008: E1.9.3.1.
\textsuperscript{139} Sallaberger and Schrakamp 2015: 68.
Subartu.\textsuperscript{140} Because of his military success, he claimed the title “King of Kiš”.\textsuperscript{141} Despite the large number of opponents that he apparently overcame, there is no clear evidence for the expansion of his control over neighboring territory. The perennial conflict with Umma over water rights flared up during his reign. Eanatum seems to have won a victory over Umma that led to an agreement over water rights and rental obligations in the Gu’edena, a fertile zone located along the border between the two states. He erected the Stele of the Vultures to commemorate this victory.\textsuperscript{142}

Alongside warfare, Eanatum completed a number of construction and maintenance projects throughout Lagash. Notably, his descriptions of these activities are more laconic than either his predecessors or successors. For example, in one inscription he states simply that he restored Girsu for Ningirsu and Niģin for Nanše.\textsuperscript{143} When specific locations are mentioned, these tend to be located in or around the cities of Girsu and Lagash rather than Niģin and Guabba.

2.2.b.iv Enanatum I

Upon his death, Eanatum was succeeded by a brother, Enanatum I, rather than one of his own sons.\textsuperscript{144} Like those before him, Enanatum I actively supported the gods and the state through construction projects. He is particularly notable for his close relationship with Lugal-URUXGAN,\textsuperscript{2} indicated that this god granted him rulership over Lagash, and stated that Lugal-URUXGAN,\textsuperscript{2} placed all the foreign lands under his control.\textsuperscript{145}

\textsuperscript{140} Frayne 2008: E1.9.3.5 inter alia.
\textsuperscript{141} Frayne 2008: E1.9.3.5.
\textsuperscript{142} de Sarzec and Heuzey 1884–1912, vol. 2; pl. 3–4\textsuperscript{xxv}; Winter 1985; Frayne 2008: E1.9.3.1.
\textsuperscript{143} Frayne 2008: E1.9.3.5; Bauer (1998: 464) raises a few possibilities for this phenomenon. It is possible that Eanatum was so focused on warfare during his reign the he did not give much attention to the construction of temples and other structures. Alternatively, Lagash may have been so thoroughly ravaged during the reign of his father that Eanatum had to restore whole districts.
\textsuperscript{144} The reason for this is unknown. None of our sources contain information on Eanatum’s spouse or possible children. Additionally, there is little in the written record that can provide insight into the rules and processes for determining succession in Lagash.
\textsuperscript{145} Frayne 2008: E1.9.4.9.
building activities reflect this connection. In the town of URUxGAN₂@t, located near the city of Lagash, he built a palace (e₂-gal), a well, and a storehouse for Lugal-URUxGAN₂@t and established a regular source of supply for the god.¹⁴⁶ The divine relations of Lugal-URUxGAN₂@t also benefited. In the city of Lagash, Enanatum I completed a major reconstruction of the Ibgal complex (see Chapter 3) for Inana, spouse of Lugal-URUxGAN₂@t.¹⁴⁷ Additionally, he completed work on the Sagub temple for Amageshtinana, sister of Lugal-URUxGAN₂@t, which was located near URUxGAN₂@t.¹⁴⁸ Given Enanatum I’s close relationship with Lugal-URUxGAN₂@t, all of the work completed for this god, his wife, and his sister suggests an act of personal devotion, the form of which is unique to this ruler.

This does not mean that other deities went unsupported. Enanatum I recorded work on the Eninnu and the Dugru-shrine for Ningirsu as well as the Eurukug of Hendursaja.¹⁴⁹ He also completed restoration work on the temple of Nindara in or near Niĝin.¹⁵⁰

Enanatum I’s inscriptions give the impression of generally quiet relations with his neighbors. However, Lagash’s persistent foe Umma did decide to contest the settlement over the Gu’edena. Enanatum I successfully repulsed Ur-LUM-ma, the ruler of Umma, after a battle in Lagash’s territory.¹⁵¹

From votive inscriptions, we know of two of Enanatum I’s sons, LUM-ma-tur and Me-an-ne₂-si, as well as Ashurmen, his wife.¹⁵² However, it was a third son, Enmetena, who ultimately followed his father as ruler of Lagash.

2.2.b.v Enmetena

The length of Enmetena’s reign as ensi is unknown. However, an economic text

¹⁴⁶ Frayne 2008: E1.9.4.8; E1.9.4.12.
¹⁴⁷ Frayne 2008: E1.9.4.5.
¹⁴⁸ Frayne 2008: E1.9.4.10 ii 9–iii 1.
¹⁴⁹ Frayne 2008: E1.9.4.3; E1.9.4.2; E1.9.4.2.
¹⁵⁰ Frayne 2008: E1.9.4.2.
¹⁵¹ Frayne 2008: E1.9.4.2.
¹⁵² Frayne 2008: E1.9.4.14–16.
from his reign indicates that he ruled for at least nineteen years.\textsuperscript{153} During his reign, Lagash appears to have reached the height of its power. For at least part of his reign, Enmetena controlled Bad-tibira (Tell al-Madā’in), a city around 25 km southwest of Girsu that was usually under the influence of Uruk. In the city, he built the E-mush for Lugal-emush and Inana, which is documented on cones, foundation tablets, and bricks recovered from Tell al-Madā’in itself.\textsuperscript{154}

As his control of Bad-tibira suggests, Enmetena’s reign saw closer relations with the state of Uruk. During this time, he signed a pact of “brotherhood” with Lugal-ki-nesh-dudu, ruler of Uruk, and exempted the people of Uruk, Larsa, and Bad-tibira from labor obligations.\textsuperscript{155}

Alongside his dealings with Uruk, Enmetena continued the confrontation with Umma. During his reign, Il, the ensi of Umma, raised the issue of rents on the Gu’edena and diverted water from the border canals.\textsuperscript{156} Enmetena dealt with the matter diplomatically through the use of envoys. The specifics of the resolution remain unclear, but bloodshed appears to have been avoided.

2.2.b.vi Enannatum II

After the death of his father, Enanatum II ascended to rulership. Little is known

\textsuperscript{153} AO 4156; Sallabeger and Schrakamp 2015: 69–70.
\textsuperscript{154} Frayne 2008: E1.9.5.3–5.
\textsuperscript{155} Frayne 2008: E1.9.5.3–4; the motivations for both of these acts are unclear as is their relative sequence. Frayne took the statements about release from obligation to indicate that Enmetena may have controlled, for at least a bit of time, the cities of Uruk, Larsa, and Bad-tibira (Frayne 2008: 193). In contrast, Bauer took Enmetena’s grant of freedom from obligations to indicate a decline in the Lagashite ruler’s power. He reasoned that a ruler would only make such a concession if he were under duress or gained something in return. In this case, the removal of these people from obligations was a first step towards securing the pact of brotherhood with Lugal-ki-nesh-dudu (Bauer 1998: 471). Cooper agreed that Enmetena’s power ultimately declined as Lugal-ki-nesh-dudu’s rose. Based on inscriptions of Lugal-ki-nesh-dudu from Nippur and Ur, the Urukean ruler claimed the title King of Kiš as well as suzerainty over Uruk and Ur (ex. Frayne 2008: E1.14.14.2). Since it is plausible that Lugal-ki-nesh-dudu’s successes resulted in part from Enmetena’s setbacks, Cooper suggested that the pact of brotherhood must have been completed shortly after Lugal-ki-nesh-dudu rose to power. As with Bauer, Cooper did not think that Enmetena controlled Uruk itself.
\textsuperscript{156} Frayne 2008: E1.9.5.1.
about this ensi. Only a single inscription is known. This text, found on four pivot stones from Girsu, recorded his restoration of a brewery for Ningirsu.\textsuperscript{157} There are no legal or administrative documents that can be definitively dated to his reign.\textsuperscript{158} In the past, a late pre-Sargonic letter was used to suggest that Enanatum II ruled for five years.\textsuperscript{159} However, this has since been disproven.\textsuperscript{160} Nevertheless, given the lack of written evidence pertaining to this ruler, his reign was likely brief.

2.2.b.vii Enentarzid

Whenever and however Enanatum II died, the position of ensi did not pass to one of his direct descendants. Instead, Enentarzid, the sanga of Ningirsu, rose to power.\textsuperscript{161} The specifics of the transition from Enanatum II to Enentarzid are unknown. However, as Bauer points out, it need not have been a contentious issue.\textsuperscript{162} As the sanga of Ningirsu, Enentarzid occupied the most powerful position in the state under that of the ensi. Further, he was probably at least distantly related to the previous ruling family through blood or marriage since a man in such a powerful position likely had ties to his liege.

No votive or building inscriptions from this ruler have been recovered thus far. There is only a statue fragment excavated at Girsu that names Geme-Bau, his daughter.\textsuperscript{163} The inscription was written when he was still the sanga of Ningirsu. Since Enentarzid served as sanga of Ningirsu for part of Enmetena’s reign as well as all of Enanatum II’s, he is likely to have been advanced in age when he became ensi. Through date formulas on documents from the Emunusa, which is first attested in his reign, we know that he ruled for five full years. His son Lugalanda probably succeeded him in the first month of his sixth

\textsuperscript{157} Frayne 2008: E1.9.6.1.
\textsuperscript{158} Bauer 1998: 473.
\textsuperscript{159} CIRPL 46; Grégoire 1962: 11.
\textsuperscript{160} Kienast and Volk 1995: 29.
\textsuperscript{161} Sallaberger and Schrakamp 2015: 70; three sale documents (BIN 08, 352; RTC 16; DP 31) from the reign of Enmetena indicate that Enentarzid was the sanga of Ningirsu.
\textsuperscript{162} Bauer 1998: 474.
\textsuperscript{163} Frayne 2008: E1.9.7.1.
2.2.b.viii Lugalanda

Like his father, Lugalanda is little known through his own inscriptions. From seal impressions, we know that his full name was “lugal-anda-nuhunga”. Lugalanda was married to Baranamtara, who oversaw the E-Bau. Based on administrative documents from this household, he ruled for six full years. In the first month of his seventh year, he died and was replaced by UruKAgina.

Only a partial brick inscription gives any evidence of his public works. In it, Lugalanda claims to have erected a stele (na-ru₂-a) for Ningirsu and dedicated a statue of himself, presumably to that god. In an offering list, there is a similarly-named statue of Lugalanda in Ningirsu’s Tiraš shrine.

2.2.b.ix UruKAgina

After Lugalanda’s death, UruKAgina became the last independent pre-Sargonic ruler of Lagash. The new ensi does not appear to have been closely related to the previous one. In none of his inscriptions does he mention the name of his father, which suggests that he was not a son of Lugalanda. Traditionally, UruKAgina’s ascension has been viewed as a usurpation of power away from Lugalanda’s family. However, scholars now think that an overthrow of the previous dynasty is unlikely.

---

164 Sallaberger and Schrakamp 2015: 71.
166 Nik I, 134; Selz 1993: 92; Sallaberger and Schrakamp 2015: 71.
167 Frayne 2008: E1.9.8.2.
168 DP 66, VI 7–8.
169 The exact translation of UruKAgina’s name is uncertain (see Bauer 1998: 475–477 for a discussion of the possibilities). I have chosen to use the neutral version, UruKAgina.
170 There are many signs of continuity with the previous ruler. Oddly, at least one son of Lugalanda, Urtarsirsira, was still alive into the early years of UruKAgina’s reign (DP 107). Additionally, Baranamtara, Lugalanda’s wife, lived on into UruKAgina’s reign. When she died during his third year, she received the equivalent of a state funeral that was supported by cultic personnel
Another oddity in UruKAgina’s reign is his shift in titles. For the first year of his reign, UruKAgina retained the title “Ensi of Lagash”. However, beginning in year two, he began to use the title “King of Lagash” instead and started his count of regnal years over (i.e., Ensi 1, Lugal 1, Lugal 2, etc.). He kept the title “King of Lagash” until his seventh lugal year, when he was defeated by Lugalzagesi of Umma. After this defeat, he was referred to as “King of Girsu”, ostensibly because he no longer controlled the other parts of his realm.\textsuperscript{171}

UruKAgina’s defeat at the hands of Lugalzagesi during his seventh lugal year was only the culmination of intermittent fighting that is documented earlier in his reign. In his fourth royal year, the “man of Uruk” attacked Lagash.\textsuperscript{172} A partly damaged inscription on a clay cone suggests another campaign against Lagash, which Bauer placed in UruKAgina’s fifth lugal year and attributed to Uruk as well.\textsuperscript{173} In his sixth lugal year, the “man of Uruk” came back for the third time.\textsuperscript{174} Evidence for martial activity and its consequences also appear in the administrative texts.\textsuperscript{175}

Lugalzagesi’s attack seems to have been a crushing blow. The king of Umma apparently bypassed Girsu, laying waste to the middle of the state around the city of Lagash. UruKAgina documented the destruction in a detailed inscription that preserved the sequence of the campaign.\textsuperscript{176} The first sanctuaries looted and ravaged by Lugalzagesi were near the border with Umma, followed by those in the countryside outside of Girsu, which were hit on the way towards Lagash. The list of sanctuaries destroyed in Lagash begins with the Bagara (see Chapter 4), then the Dugru, the Absuega, the temple of Gatumdug, the Ibgal of Inana (see Chapter 3), and the Shagepada of Nanše. If the sequence of destruction within the city is spatially organized, it begins in the north and moves south. The campaign

\textsuperscript{171} Frayne 2008: E1.9.9.5.
\textsuperscript{172} DP 545; Frayne thinks that this was Lugalzagesi, but Bauer suggests that it was actually Enshagkushana (Frayne 2008: 247; Bauer 1998: 480). This latter king had a successful career against rulers to the north of him, including the King of Kiš. He bore the titles “Ruler of Sumer” and “King of the lands” (Frayne 2008: E1.14.17.1).
\textsuperscript{173} Bauer 1998: 480.
\textsuperscript{174} Nik I, 227.
\textsuperscript{175} See Bauer 1998: 480–489 for a discussion of these texts.
\textsuperscript{176} Frayne 2008: E1.9.9.5.
then continued south towards Niğin and Guabba, destroying temples and settlements in
the countryside. However, Niğin and Guabba seem to have been spared. Heading back
towards the north, additional temples were sacked.

In spite of and, sometimes, because of the ongoing conflict during his reign,
UruKAgina was an active builder and restorer of temples and canals. Among the major
deities of Lagash, he conducted work for Ningirsu, Bau, Nanše, and Enlil.\footnote{Frayne 2008: E1.9.9.6 inter alia.} He also
conducted work on the sanctuaries of a number of lesser deities, such as Shulshaga and
Igalima, the sons of Ningirsu and Bau, and other members of Ningirsu’s divine house-
hold.\footnote{Frayne 2008: E1.9.9.6; Bauer suggests that these might actually be structures in the complexes
of Ningirsu and Bau rather than independent locations. During UruKAgina’s reign, more lesser
divinities were mentioned in his inscriptions, which could be the result of his attempt to equal his
predecessors in spite of his reduced means and political power (Bauer 1998: 479). While earlier
kings mentioned their construction/reconstruction work at the level of entire complexes all over
the state, UruKAgina accounts for the individual buildings inside the complexes that he repaired.}

2.2.b.x Lugalzagesi and the end of Lagash I

Around the same time as UruKAgina’s ascension, Lugalzagesi took control of
Lagash’s neighbor and perpetual rival Umma.\footnote{Sallaberger and Schrakamp 2015: 81; Lugalzagesi’s father was a man named ū₃.UR, governor
of Umma. This man may not have been related to the earlier rulers of Umma. Lugalzagesi succeeded
his father in the position of ensi.} From his beginning as ruler of Umma,
Lugalzagesi went on to vastly expand his authority. Ultimately, he controlled, directly or
indirectly, a large part of the southern alluvium.\footnote{The length of Lugalzagesi’s reign is uncertain. The SKL gives him 25 years as King of Uruk.
Sallaberger and Schrakamp (2015: 81) accept the SKL amount as feasible.}

However, his suzerainty was not to last. Sargon of Akkad, a city in the northern
alluvium, challenged Lugalzagesi’s control of the south. Sargon defeated a coalition led by
Lugalzagesi in three battles and ultimately brought the Ummaite in captivity to the gate of
the Enlil-temple at Nippur.\footnote{Frayne 1993: E2.1.1.3.} Lugalzagesi was not heard of again after that.

The condition of Lagash during these events is unclear. Despite Lugalzagesi’s
successful raid against the state, there is no evidence that he directly controlled the area.\textsuperscript{182} However, it is clear that the territory of Lagash did not escape involvement in the conflict. As part of his defeat of Lugalzagesi, Sargon claims to have gone down to Gu’abba, where he sacked the temple and washed his weapons in the sea.\textsuperscript{183} There is no direct evidence as to what happened elsewhere in the state, but it is hard to imagine that Gu’abba was the only place to be sacked. Whether UruKAgina was around to see these events remains an open question.\textsuperscript{184}

2.2.c Lagash in the Akkadian Empire

With Sargon’s success over Lugalzagesi and his coalition, southern Mesopotamia was incorporated into the Akkadian Empire. For a period of around 119 years (ca. 2292–2173), a series of five kings—Sargon, Rimuš/Maništušu, Naram-Sin, Šar-kali-šarrī—reigned over a territory stretching maximally from the foothills of the Zagros in the east to the Euphrates River in the west.\textsuperscript{185}

Evidence for the history of the state of Lagash during this time is disjointed. After Sargon’s conquest, the area was incorporated into the empire without significant alteration and received its own ensi, who represented the authority of the king. Maximally, six ensis of Lagash are attested thus far after Uruinimgina.\textsuperscript{186} A certain Meszi was defeated by Sargon.\textsuperscript{187} During the reign of Rimuš, Kitushi, another ensi, appears to have participated

\textsuperscript{182} Although they decline in number, texts from Uruinimgina lugal years eight, nine, and ten are attested. Almost all of these come from excavated contexts at Girsu or the art market. However, there is one text excavated by the American project at al-Hiba that has recently been dated by the CDLI staff, with near certainty, to Uruinimgina lugal year nine (BiMes 03, 18; CDLI P221790). If this identification is accepted, it suggests that Lagash was under the control of Uruinimgina for at least the beginning of his ninth lugal year.

\textsuperscript{183} Frayne 1993: E2.1.1.1.

\textsuperscript{184} It is possible that he was still alive during the reign of Maništušu. See Sallaberger and Schrakamp 2015: 72 for discussion and the bibliography for this debate.

\textsuperscript{185} Sallaberger and Schrakamp: 136; the sequence of Rimuš and Maništušu is unclear. Different versions of the Sumerian King List place one or the other second (see Jacobsen 1939; Steinkeller 2003; Sallaberger and Schrakamp 2015: 105).

\textsuperscript{186} Volk 1992: 29, fn. 34.

\textsuperscript{187} Frayne 1993: E2.1.1.12.
in a revolt against the king led by Umma and KiAN.188 During Maništušu’s reign, Uruin-imgina, son of Engilsa, is recorded as a witness to the series of transactions recorded on the Maništušu Stele.189 During the reign of Naram-Sin and Šar-kali-šarri, Lugal-ushumgal served as ensi of Lagash.190 It is unclear when this ensi assumed his position during Naram-Sin’s reign as well as when he left it under Šar-kali-šarri. Associated with this uncertainty is the location of Ure.191

Puzur-Mama was the last subordinate ensi of Lagash during the Akkadian Period. He achieved his position under the authority of Šar-kali-šarri and served that king for an unknown period of time. As Šar-kali-šarri’s difficulties increased elsewhere in his kingdom, Puzur-Mama chose to take leave of his superior. In a partial inscription from a stone bowl excavated at Girsu, Puzur-Mama called himself the King of Lagash (lugal lagash) and utilized epithets drawn from the Lagash I inscriptions.192

2.2.d Lagash II

The events after the fall of Šar-kali-šarri remain cloudy. One major player in the post-Sargonic world was the Gutians, a people from the Zagros who first appeared in the textual record during the reign of Šar-kali-šarri.193 As the Akkadian Empire unraveled, the Gutians came to exercise control over a substantial portion of the northern alluvium.194

188 Frayne 1993: E2.1.2.2 a 63–65.
189 See fn. 129; as already discussed, this may or may not be the same UruKAgina as the one defeated by Lugalzagesi. Much depends upon which son of Sargon ascended the throne after his father.
190 Sallaberger and Schrakamp 2015: 110; see Zettler 1977 for a discussion of the imagery on the seal of Lugal-ushumgal.
191 Ure is mentioned in a letter written by Puzur-Mama, the last subordinate ensi of Lagash at the end of Šar-kali-šarri’s reign. Volk suggests that Ure may belong between Lugal-ushumgal and Puzur-Mama (1992: 26, fn. 18).
192 Frayne 1993: E2.12.5.1; notably, he invoked Ninshubura, who had disappeared from inscriptions after Uruinimgina, as the goddess who physically bore him and Shul-utul, the personal god of the Ur-Nansë dynasty, as his own personal god. The use of older titulary and deities is an attempt to legitimize Puzur-Mama’s authority and demonstrate continuity with the pre-Sargonic rulers of Lagash (Volk 1992: 28–29).
193 Westenholz 1999: 94.
194 See Steinkeller 2015 for a recent assessment of the chronology and events of this period.
This period of time, known as the Gutian Period, lasted about 70–100 years.\textsuperscript{195}

In Lagash, the series of rulers known collectively as the “Second Dynasty of Lagash” (Lagash II) reigned during this time.\textsuperscript{196} Overall, historical evidence for this period remains sparse.\textsuperscript{197} In particular, construction and restoration activities are poorly documented.\textsuperscript{198} In general, the inscriptions and year-names give the impression that royal work focused in and around Girsu in the northwest and in and around Guabba and Niğin in the southeast. Mentions of work at Lagash are surprisingly few, given the large number of temples present there in the pre-Sargonic period. Since the city and state of Lagash experienced widespread violence in the period between Lagash I and Lagash II, it is quite possible that the geography of the city changed.

Thus far, the only Lagash II activity attested in the city of Lagash belongs to Gudea, who rebuilt the Bagara. This probably occurred in his nineteenth year, since his twentieth year name recorded the activity.\textsuperscript{199} Additionally, three inscriptions refer to his work on this

\begin{itemize}
\item \textsuperscript{195} Sallaberger and Schrakamp 2015: 136; Steinkeller 2015: 286.
\item \textsuperscript{196} The assignment of these rulers to a single dynasty is a convenience. They were not all related by blood. The sequence consists of 12 rulers, whose total length of reign is unknown. They are as follows:
\begin{enumerate}
\item Ur-Ningirsu I
\item Pirig-me
\item Lu-Bau
\item Lugula
\item Kaku
\item Ur-Bau
\item Gudea
\item Ur-Ningirsu II
\item Ur-GAR
\item Ur-ayabba
\item Ur-Mama
\item Nammahani
\end{enumerate}
\end{itemize}

The relation of Ur-Ningirsu I to Puzur-Mama is unknown as is the amount of time between them.

\begin{itemize}
\item \textsuperscript{197} Much of what is known comes from building and votive inscriptions. Information drawn from year-names supplements the dataset. Further, the distribution across time and space is uneven. Gudea is by far the best-documented ruler. Geographically, almost all of the inscriptions were excavated at Telloh or purchased off of the art market. The resulting picture is one that is dominated by the life and times of Gudea.
\item \textsuperscript{198} One reason for this is the way that many building projects were recorded in the votive inscriptions from this time. Rather than record the specific name of the temple built for a god or goddess, often all that is mentioned is that a ruler built “his/her house” \((e_{z}.ani)\) or the “house of GN” \((e_{z}girsu)\).
\item \textsuperscript{199} \textit{mu e}_{z}\textit{-ba-gara}_{z} \textit{ba-du}_{z}\text{-a}; for the sequence of year names and the location of their attesta-
Despite the apparent prosperity and stability of Lagash under the reign of Gudea, the city-state came under the control of a contemporary dynasty based at the neighboring city of Ur not long after his death. Over the course of his reign, Ur-Namma, the first of five dynasts in the Third Dynasty of Ur (Ur III), united the city-states of the alluvium under a single ruler once again. Gudea was, at least partly, a contemporary of Ur-Namma and may have cooperated with him in attacking Elam. However, as Ur-Namma’s successes grew, the power of Lagash waned. The sequence of events that led to its annexation is unclear, but by the 24th year of Šulgi, Ur-Namma’s son and successor, Lagash was thoroughly incorporated into the Ur III state.

Under the Ur III kings, Lagash became one of around 20 provinces that constituted the core of the empire. Girsu served as the seat of the provincial administration, which was overseen by an ensi. The province was divided into three districts. The northwesternmost district was called Girsu, the middle was the “Banks of the Going-to-Niĝin Canal,” also known as “Kinunir and Niĝin,” and the southeasternmost was Guabba. The central district contained a number of settlements that are well-attested in the Lagash I and Lagash II corpus. Alongside Kinunir and Niĝin, the cities of Lagash, Kiessa, and URUxGAN were all located within that zone.

Royal building activity in the province was largely limited to Šulgi, who completed the majority of his work in Girsu. In the years prior to his deification, which happened...
between Šulgi 10 and Šulgi 20, he conducted work on the Ešeššešegara of Nanše in the city.\textsuperscript{206} Later, in the time between his deification and his 26th year, he completed work on the Eninnu of Ningirsu and the Emunusgisa of Ninmar.\textsuperscript{207} Outside of Girsu, Šulgi also rebuilt the Bagara of Ningirsu at Lagash, possibly during his twelfth year (see Chapter 4).\textsuperscript{208} The last three kings of the dynasty appear to have focused their attention elsewhere. However, temples dedicated to Amar-Sin and Šu-Sin are attested in the province.\textsuperscript{209}

Thanks to the French work at Girsu and the illicit excavations that coincided with it, the organization and function of Lagash province under the Ur III kings is well-known relative to the rest of the empire. 25,000–30,000 texts from this period were unearthed and dispersed to museums and other collections around the world.\textsuperscript{210} These predominantly come from the archive of the \textit{ensi}, who was responsible for the civil administration of the province on behalf of the king.\textsuperscript{211} In this capacity, he served as the chief legal authority, led the local cults, and oversaw both the direct affairs of the palace as well as a number of larger and smaller institutions headed by subordinate authorities.\textsuperscript{212}

Based on the documents from this archive, it is clear that Lagash was one of the most important and, possibly, the largest province in the Ur III state.\textsuperscript{213} Its economic importance can be seen in its yearly bala contributions.\textsuperscript{214} Based on documents recovered from Puzrish-Dagan, a centrally-administered redistribution center located near Nippur,

\begin{itemize}
\item \textsuperscript{206} Frayne 1997: E3/2.1.2.9; E3/2.1.2.10.
\item \textsuperscript{207} Frayne 1997: E3/2.1.2.11–14.
\item \textsuperscript{208} Frayne 1997: E3/2.1.2.15; Carroué 2000: 185.
\item \textsuperscript{209} During Amar-Sin’s reign, there is evidence in administrative documents of the existence of a temple to Amar-Sin in the city of Girsu (Maekawa 1986). More concretely, four door sockets recovered at Girsu document the construction of a temple for Šu-Sin by his sukkal-mah, Arad-Nanna (Frayne 1997: E3/2.1.4.13).
\item \textsuperscript{210} Jones 1975: 41.
\item \textsuperscript{211} Zettler 2003.
\item \textsuperscript{212} Sallaberger 1999: 191.
\item \textsuperscript{213} de Maaijer 1998: 52.
\item \textsuperscript{214} The bala was a redistributive system managed by the central authorities of the Ur III state. The core mechanic was a rotating monthly schedule in which each of the core provinces of the Ur III state was required to contribute goods at least once a year to central administrative centers. Upon satisfying their obligation, the provinces gained the ability to acquire livestock and other goods from the central authorities. For more on the bala, see Sharlach 2004; Sallaberger 1999: 195–196; Steinkeller 1987; Hallo 1960.
\end{itemize}
Lagash was responsible for bala payments during three months each year.\textsuperscript{215} In contrast, neighboring Umma had only one month per year and some northern provinces, like Babylon, were responsible for only part of a month.\textsuperscript{216} The province was also politically important through its association with the sukkal-mah, the highest civil administrative position in the empire.\textsuperscript{217}

In spite of the central importance of the province of Lagash during this period, the city of Lagash does not appear to have been a major population center. Thus far, the only known royal building activity conducted at the site was Šulgi’s work on the Bagara. More mundane evidence for occupation at Lagash is also lacking. During the six seasons of excavation conducted at Tell al-Hiba by the American project, only two tablets were definitively dated to the Ur III period.\textsuperscript{218} This impression of decreased significance is reinforced by a tablet from Amar-Sin 2 that records the total income and expenditures in Lagash province over the course of that year.\textsuperscript{219} Among the expenditures recorded on the text are those for regular temple offerings and rations for each of the three districts of the province.\textsuperscript{220} In the Girsu district, 12, 270 gur, 161 1/2 sila were expended, while in the district of Guabba 11,326 gur 140 sila were used. In contrast, the district of the “Banks of the Going-to-Niĝin Canal,” where Lagash was located, used only 6, 442 gur, 185 sila. The amount used in the central district is roughly half that used in either of the other two districts. Although these expenditures do not account for the entire population in the district, it does suggest that Lagash and the cities and countryside immediately around it had declined in importance relative to Girsu to the northwest and Guabba to the southeast.

2.2.e.i Ibbi-Sin and the Independence of Lagash

In the reign of Ibbi-Sin, the fifth and final ruler of the Ur III Empire, things began

\textsuperscript{215} Sharlach 2004: 66.
\textsuperscript{216} Sharlach 2004: 8.
\textsuperscript{217} Sallaberger 1999: 188–189.
\textsuperscript{218} Biggs 1976a: 5, no. 16 (2H-T24); Crawford 1974: 34, fig. 11 (3H-T8).
\textsuperscript{219} CT 7, pl. 8, BM 12926.
\textsuperscript{220} II 2–8.
to rapidly fall apart. Despite a reign of at least 24 years, only the early year-names of this king are attested outside of Ur. The reasons for this sudden disintegration remain unclear and the sequence of cause and effect is undoubtedly complex. However, the ultimate cause may lie in regional barley shortages.\textsuperscript{221}

From the very beginning of Ibbi-Sin’s reign, there is evidence of a decline in rations in the messenger texts from Girsu and Umma.\textsuperscript{222} This possible indication of a shortage is more clearly substantiated through economic texts from the capital city of Ur. By Ibbi-Sin 6, the provincial bala contributions for the maintenance of the eššēšu offerings of Nanna are no longer attested and there is a general decline in the offerings made in the city.\textsuperscript{223} Further, economic texts from the first decade of the king’s reign document both an increase in the substitution of foodstuffs other than barley in ration disbursements as well as a clear spike in the prices of barley, oil, and dates.\textsuperscript{224}

Unrest caused by neighboring groups as well as the loss of control over whole provinces exacerbated these shortages. Although no longer considered to be the primary cause of the collapse of the empire, nomadic groups, like the Martu, as well as long-time foes such as the Elamites continued to be a source of instability that had to be addressed. In some cases, victories over them were considered significant enough to become year-names.\textsuperscript{225} Disruptive though these outside groups were, Ibbi-Sin was more greatly hampered by the loss of whole provinces of his empire. In the major archives of the empire outside of Ur (Nippur, Girsu, Umma, and Drehem), there is a steep decline in the number of texts between IS 2 and IS 5.\textsuperscript{226} By his eighth year, Ibbi-Sin controlled little more than the area around Ur.\textsuperscript{227}

\textsuperscript{221} Sallaberger 1999: 175.
\textsuperscript{222} McNeil 1970: 162-170.
\textsuperscript{223} Jacobsen 1953: 41.
\textsuperscript{224} Gomi 1984.
\textsuperscript{225} Michalowski 2011: 185; those for IS 9 and IS 14 recorded actions against Elamite cities while the one for IS 17 proclaimed a victory over the Martu.
\textsuperscript{226} Lafont 1995: 4; fig.1.
\textsuperscript{227} Michalowski 2011: 185.
2.2.f  Lagash after Ur III

Thus far, the latest attested presence of an Ur III ensi in Girsu is IS 5.\textsuperscript{228} The history of Lagash after the disintegration of the Ur III state is very fragmentary. From inscriptions, we know of two ensis, an Ur-Nanše and an Ur-Ningirsu, who ruled in the years immediately after Lagash regained independence. Ur-Ningirsu was a contemporary of Ibbi-Sin, whom he initially served before deciding to go his own way.\textsuperscript{229} Ur-Nanše’s background is uncertain, but he may have been the same person identified as \textit{dumu ensi\textsubscript{2}} in texts from Šulgi 44 and Amar-Sin 1 (Richardson 2008: 153; HLC 91 and MVN 12 342, respectively).\textsuperscript{230}

After these rulers, things go dark until the kings of Larsa establish control over the area. Lafont suggests that this happened during the reign of Naplanum, who is the first ruler on the “Larsa King List” and would have been a contemporary of Ishbi-Erra.\textsuperscript{231} However, Charpin, following Edzard, interprets the representation of Naplanum as a contemporary of Ishbi-Erra to be a later fiction developed by the rulers of Larsa in order to assert the antiquity of their own dynasty vis-a-vis their rivals at Isin.\textsuperscript{232} Indeed, it is quite possible that part or all of Lagash was under the control of Ishbi-Erra for at least some of his reign. An administrative text from IE 16 records that shields were sent to Larsa, which suggests that the city was under Isin’s control (BIN IX 38; see Van de Mieroop 1992).\textsuperscript{233}

By the reign of Samium, third king of the Larsa dynasty, Lagash appears to have been under the control of Larsa until the defeat of Rim-Sin by Hammurabi in Rim-Sin’s 60th year. Much of the documentation for this comes from letters and votive offerings excavated by the French at Girsu.\textsuperscript{234} Girsu and Lagash are also mentioned in royal inscriptions from the later rulers of Larsa, though never in detail. The earliest mention found

\textsuperscript{228}  RIAA 122: 4; Richardson 2008: 153, fn. 2.
\textsuperscript{229}  Richardson 2008: 153.
\textsuperscript{230}  HLC 91 and MVN 12 342, respectively; Richardson 2008: 153.
\textsuperscript{231}  Lafont 1995: 7, fn. 8.
\textsuperscript{232}  Charpin 2004: 69; Edzard 1998: 5.
\textsuperscript{233}  BIN IX 38; see Van de Mieroop 1992.
\textsuperscript{234}  Arnaud 1983: 245; Frayne 1990: E4.2.7.2001.
thus far comes from Sin-iddinam, although this inscription is a copy of a royal inscription rather than the real thing.\textsuperscript{235} In these inscriptions, Lagash usually appears in the list of epithets at the beginning of a text that records all the places that are fortunate enough to be looked after by the ruler. However, during the reign of Rim-Sin, the area of Lagash received more direct attention as evidenced by the construction of a temple to Ninshubur in Girsu during RS 21 and may have benefited from canal construction around the same time.\textsuperscript{236} Indeed, two land cadastres (YBC 7257 and YBC 7259) document the control of agricultural lands by both large institutions and free-holders and may indicate an intensive focus on agriculture in the area of Lagash during RS 21–22 (Richardson 2008).\textsuperscript{237}

With Hammurabi’s victory, the area of Lagash came under the control of Babylon. No texts from Lagash have been found that date from the Hammurabi’s reign but Girsu and Lagash do appear in the prologue to the Codex Hammurabi among a group of cities located along the Tigris.\textsuperscript{238}

During the reign of Samsuiluna, Hammurabi’s successor, the situation in southern Mesopotamia became unstable and, ultimately, catastrophic for the now millennia-old cities located there. Little is known about the events of the first years of his reign, but by year 8 the Kingdom of Babylon faced economic and military crises. Based on the proclamation of a debt-relief edict a mere eight years after the one announced upon Samsuiluna’s accession to the throne, the kingdom appeared to be struggling economically.\textsuperscript{239}

That same year, multiple rebellions broke out in the south. At Uruk, a Rim-Anum declared his independence, while a Rim-Sin II took control of Larsa and the territories around it. The territory of Lagash came under the control of Rim-Sin II, who is mentioned in a year name on a text recovered at Girsu.\textsuperscript{240}

\textsuperscript{235} Frayne 1990: E4.2.9.1; VAT 8515.
\textsuperscript{236} Frayne 1990: E4.2.14.13; Richardson 2008: 156.
\textsuperscript{237} Richardson 2008: 154–156.
\textsuperscript{238} Frayne 1990: E4.3.6.add21 a 177–178.
\textsuperscript{239} This may have resulted from attempts by the central authorities to divert destructive flood waters in the northern alluvium away from populated areas. In doing so, they disrupted the irrigation of areas further south and caused a series of bad harvests (Charpin 2004: 337).
\textsuperscript{240} Arnaud 1983: 246; AO 21977.
In his ninth year, Samsuiluna headed south and killed Rim-Sin II near Kiš.\textsuperscript{241} In the aftermath, Samsuiluna claimed that he fought twenty-six rebel kings, which may indicate that the south splintered politically following Rim-Sin II’s death.\textsuperscript{242} By his tenth year, Samsuiluna had largely reconquered the south, including the area of Lagash.\textsuperscript{243}

However, the restoration of Babylonian authority was brief. Beginning in Samsuiluna 11, the textual records from all the major settlements of the southern alluvium dwindled and vanished.\textsuperscript{244} Texts from sites in the northern alluvium record the arrival of immigrants from the southern centers and archaeological exploration supports the reconstruction of a major disruption in settlement at this time.\textsuperscript{245} The events behind the disruption are unknown, but the regional scale of the disturbance suggests that it was something fundamental that changed, perhaps related to the supply of water to the southern alluvium.

The large-scale abandonment of Lagash happened outside the purview of the historical sources currently available. The last dated text comes from Samsuiluna 10, prior to the breakdown attested elsewhere. However, in the decades after their displacement the people of Lagash preserved their cultural identity despite their new surroundings. At the site of Kiš, there is evidence for people with names typical of Lagash and the development of an active cult of Bau in the latter city.\textsuperscript{246} The temples of the state lay empty but the people and their traditions persisted.

2.3 Economy and Society in the City-state of Lagash

The household was the fundamental socio-economic unit of third millennium southern Mesopotamia.\textsuperscript{247} This unit consisted of a hierarchically-organized group of people who were under the authority of single individual. As an organizing principle,

\begin{thebibliography}{99}
\bibitem{241} Charpin 2004: 341; Frayne 1990: E4.3.7.7.
\bibitem{242} Charpin 2004: 341.
\bibitem{243} Arnaud 1982: 246; AO 21952.
\bibitem{244} Charpin 2004: 342.
\bibitem{246} Pientka 1998: 188–189.
\bibitem{247} Gelb 1979; Schloen 2001; Garfinkle 2005: 389; Ur 2014.
\end{thebibliography}
the household was multi-scalar. A household could range from a single nuclear family to the largest temples and royal estates. The more complex the organization, the more a series of nested, subordinate households constituted its structure. Kinship often played an important part in the construction of relations within these households at all levels, though it was not an essential element of their function.

Households can be divided into two types: institutional and non-institutional. The temples and palace—the major economic units in ancient Mesopotamia—typify the former. Independent entities, characterized by smaller, individual holdings, represent the latter. The difference between these two classes was primarily one of scale and administrative complexity rather than sharply delineated spheres of economic activity. Non-institutional households could participate in the economic activities of the temples and palace, sometimes in significant ways. For instance, institutions used private entrepreneurs to attain foreign goods.

2.3.a The E-Bau: An Institutional Household

The E-Bau archive from Girsu presents the best documented example of the form and function of an institutional household in ED IIIB southern Mesopotamia. The almost 1700 texts that make up the archive, partly excavated and partly looted, date from the reigns of Enentarzid, Lugalanda, and UruKAgina, the last three rulers of the Lagash I dynasty. The household was under the administrative authority of the wife of the ruler of Lagash: Dimtur, Baranamtara, and Sasa, respectively.

For much of the 20th century, scholars believed that the archive of the E-Bau was

---

249 Prentice 2010: 100–125; Garfinkle 2012.
250 The name of the household changed during the period of time covered by the archive. Initially, the household was referred to as the e₂-ₘⁱ₂. The name changed to E-Bau (e₂-₅ₐₑ-ᵤ₂) while under the control of Sasa. The name change occurred as part of a wider reform in the city-state of Lagash implemented by UruKAgina (Maekawa 1973–1974: 130–132).
251 Beld 2002: 5.
wholly representative of the activities of a temple household. Based on these texts, some scholars argued that the temple originally owned all or almost all of the land in the city-state and that the temple was able to command the labor of every citizen of the city-state in its economic activities.\footnote{253 Schneider 1920; Deimel 1931; Falkenstein 1974.}

However, more recent work has shown that the E-Bau is better understood as a household led by the queen of Lagash that controlled the Temple of Bau and its resources, but also engaged in activities unrelated to the function of the temple itself.\footnote{254 Gelb 1971; Postgate 1972; Maekawa 1973–1974; Diakonoff 1974; Foster 1981; Maekawa 1996: 171; Schrakamp 2013.} Nevertheless, the vast majority of the texts in the archive concern the cultic and economic activities of the temple.

The texts of the archive deal primarily with the income and expenditures of the household over the course of the year. The texts reveal that the E-Bau was largely self-sufficient. It controlled its own fields and flocks and exploited the land for its resources. Merchants, acting on behalf of the E-Bau, acquired from elsewhere what the household could not produce itself, particularly metals such as copper and silver.\footnote{255 Prentice 2010: 99–124; Beld 2002: 31–32.} It used these various resources to fulfill its cultic responsibilities, support the labor it relied on to complete its daily activities, and produce any items needed during these activities.

2.3.b The Income of the E-Bau

The bulk of the E-Bau’s income came from agriculture and animal husbandry. Due to the climate, irrigation was essential to farming in this region. By ED IIIB, the state of Lagash had a complex network of irrigation and drainage canals. The construction and maintenance of these canals was a constant priority for the temple administration.\footnote{256 Maeda 1984.}

Fields were divided into three categories.\footnote{257 Deimel 1931: 80; Bauer 1998: 535.} The temple cultivated \textit{nig₂-en-na} land to supply its own needs. \textit{Sukud} land was divided into small parcels and given to temple
personnel for their own subsistence. The temple leased *apín-la₂* land to others, who paid a rent to the temple for that use.

The main crop was barley, which grew well due to its resistance to salinity. The household cultivated emmer and other types of wheat as well, although less extensively. Parts of the grain fields were also utilized for vegetable cultivation, particularly onions.

Additionally, the E-Bau maintained orchards, which contained a variety of fruits, including dates, grapes, apples, and figs. Wood was grown in the gardens as well in order to produce logs, branches, and bundles of sticks.

Reeds were another important material. These were harvested in the depressions and borders of canals, bundled, then sent to storage. Reeds were used as a craft and building material as well as fodder for animals and fuel for fires.

Animal husbandry was another major preoccupation of the E-Bau. The temple household maintained its own herds and flocks for consumption, production of secondary products such as wool and milk, and use in cultic activities. The temple kept flocks of sheep, goat, cattle, equids, and pigs. The administration divided these livestock into three categories: large stock, small stock, and swine. Donkeys and cattle qualified as large, sheep and goats were small, and swine were distinct from both. There is also rare evidence for the fattening of birds, primarily probably ducks.

The E-Bau exploited a range of aquatic resources through groups of saltwater and freshwater fishermen. There are almost 50 different types of fish and sea animals mentioned in the texts. Warehouses for the storage of salted and dried fish existed and

---

258 Soil salinity is a constant problem for the practice of irrigation agriculture in hot, flat environments like the alluvial plain of southern Iraq. For more on this difficulty and its relation to southern Mesopotamia, see Jacobsen and Adams 1985, Gibson 1974, and Jacobsen 1982.
259 Deimel 1925b; Beld 2002: 28.
261 Deimel 1925a.
264 Deimel 1926a; Deimel 1926b.
266 Deimel 1926c; Bauer 1998: 542.
fish were distributed like other commodities.²⁶⁸

In addition to its agricultural activities, the temple also received income from rents on fields as well as other contributions. Chief among the latter were maš-da-ri-a deliveries.²⁶⁹ These consisted primarily of items sent by the sanga of other temple households for use as sacrifices or offerings by the E-Bau.

### 2.3.c The Expenditures of E-Bau

The E-Bau conducted a range of activities that utilized the temple's resources. Foremost among these was the fulfillment of its cultic responsibilities.²⁷⁰ In addition to the daily offerings to the gods, the temple made offerings and sacrifices at a number of festivals and attended to the ancestor cult of the ruling family.²⁷¹ These festivals often involved the distribution of special rations, such as bread, wheat, fruit, fish, and beer, to circumscribed groups of people.²⁷²

Ration distributions to various individuals constituted another major expense for the temple household.²⁷³ The majority of the disbursements consisted of barley, although wheat was also circulated. Wool rations were issued several times a year, but the recipients of these were mostly connected to the royal family.²⁷⁴

These ration texts document the range of personnel involved in the activities of the household and serve as the foundation of our understanding of society in ED IIIB southern Mesopotamia.²⁷⁵ The E-Bau controlled some of these individuals directly while others, such as the lu₂-šuku-dab₃-ba, worked on behalf of the household in exchange for

---

²⁷¹ Deimel 1920; Bauer 1998: 552.
access to a plot of land to cultivate or other remuneration.\textsuperscript{276}

In conclusion, the E-Bau archive demonstrates the socio-economic importance of major institutional households in the city-state of Lagash. The institutions controlled large tracts of land, herds of animals, and raw materials as well as the skilled and unskilled labor to exploit them. Additionally, they supported a variety of professionals who helped with administration, the fulfillment of cultic responsibilities, and other activities.

The geographic distribution of the resources and labor controlled by the households could be widespread. In the case of the E-Bau, the household was based in the city of Girsu, but controlled fields and structures located outside the city as well as people, such as herdsmen and fishermen.

2.4 Religion

Lagash is rich in sources for the reconstruction of religion and religious history. The royal inscriptions of the Lagash I rulers take great care to emphasize the ruler’s assiduous support of the divine world, including the construction of temples, the fashioning of cult statues, and work on the infrastructure that ensured the prosperity of the whole state. Alongside these royal inscriptions, many inscribed votive objects have been found that record the dedication of an object to a deity for the life of the donor or on behalf of another, often the ruler. At the more mundane level, administrative documents provide insight into the daily activities of the temples, such as offerings to the gods, and the ritual events that happened throughout the year.

From these sources, scholars have reconstructed the divine world of Lagash. Out of 144 religious entities identified in the ED documentation, 60 constituted the core of this divine world.\textsuperscript{277} Six of these—Enlil, Ninhursaj, Enki, Suen, Utu, and Ninki—had a super-regional significance.\textsuperscript{278} Among the remaining 64 deities, three main groupings

\textsuperscript{276} Prentice 2010: 69–82.
\textsuperscript{277} Selz 1995: 291.
\textsuperscript{278} Selz 1995: 293.
existed, which correlated with the three major urban centers in the state: Girsu, Niğin, and Lagash.

2.4.a Girsu

At Girsu, Ningirsu and his wife Bau sat at the top of the local pantheon. Ningirsu was also the head god of the state of Lagash. His main temple was the Eninnu, which was located in Girsu. Ningirsu had a number of other associated temples, the most important of which were the Ahuš, the Tiraš, and the Antasura.

Bau was Ningirsu’s spouse. She was the goddess of Urukug, the holy city, and her most important temple was the Etarsirsirra, which was in Urukug. The location of Urukug is unclear. Falkenstein’s suggestion that Urukug was in Lagash now seems unlikely. One possibility is that Urukug and Girsu may have been two separate settlements, each with their own head divinity, that grew together over time. In contrast, Selz has suggested that the term Urukug referred to the cultic area of Girsu rather than to a specific locale.

Ningirsu and Bau had two children: Shulshagana and Igalim. Each had a temple in Girsu, the Kitushakkilli and the Emehushgalanki, respectively. Less is known about the remaining members of the divine court. Seven daughters of Ningirsu and Bau are mentioned in Cylinder B of Gudea. Three of these—Zazaru, Nipae, and Urnuntaea—are attested in pre-Sargonic Lagash under UruKAgina, who built chapels for them. Another one of the seven, Hejirnuna, appears as a lukur-priestess of Ningirsu during this period and also had her own temple. It is thus questionable whether this grouping existed during the ED period. Finally, two other deities, Ninmu and Kindazi, belonged

to Ningirsu’s court as a butcher and barber, respectively.

A number of temples dedicated to deities from outside the cult sphere of Girsu also existed in the city or its immediate hinterland. Connections with gods and goddesses from Niğin are particularly strong. This is not surprising given that Ningirsu and Nanše were siblings. The aptly-named Ešešejara of Nanše was located in the city as well as temples of Shulutula and Hendursaja.

2.4.b Niğin

At the other end of the state, Nanše and her spouse Nindara headed the local pantheon.287 The main temple of Nanše in the city was Esirara, which appears to have been right on the Going-to-Niğin Canal. Nanše’s spouse Nindara also had a temple in Niğin as well as one in nearby Kieş.

Ninmara was the daughter of Nanše and Nindara. Her main temple was in Guabba.288 Her spouse was Lugalmushbar. The two shared a residence in Niğin, but it’s not clear if this was an independent entity or part of the Esirara.289 Other divinities in the inner circle at Niğin are Ashnan, Esirnun, Gantura, Ninura, MesanDU, and Shultula, who had two cult locations.

Deities from settlements elsewhere in the state also had temples in Niğin. The Eninejara of Ningirsu was in the city as well as a possible temple of Bau located nearby in the settlement of Surgal. From closer to Niğin, temples of Gatumdug, a goddess from the city of Lagash, Lugal- URUXGAN₂@t, from an eponymous settlement located between Lagash and Niğin, and Dumuzidabsu, whose main temple was located in nearby Kinunir, are also attested.

2.4.c Lagash

In contrast to Girsu and Niĝin, sources for the divine hierarchy and cultic topography in Lagash are slim. The chief deity in the city appears to have been Gatumdug, who bore the epithet “Mother of Lagash.” A temple of Gatumdug was present in Lagash and it was important enough to have its own sanga. However, this apparent importance is not reflected in the ED IIIB royal inscriptions and prosopographical evidence. Instead, Inana of the Ibgal and her spouse Lugal-URUxGAN₂@t appear to have played a more important role. Amaještinana, whose temple was in nearby Sagub, also had a connection to the city through her brother, Lugal- URUxGAN₂@t.

This is not to say that the city lacked an active religious community. Alongside the Ibgal of Inana, the Bagara of Ningirsu played an important role as well as temples to Nanše, Enki, and possibly Bau. Other structures, including the Absue(ga), the Kisug, and the Kianaj, which was connected to the ancestor cult, are also known.

2.4.d Foreign Influence and Divided Beginnings

By the ED III period there was a significant amount of intermingling of the local pantheons in the worship conducted in the major cities of Lagash. This is not surprising given the integration of all three centers into one polity and the central role of some of the deities, particularly Ningirsu and Nanše, in the state ideology. However, evidence suggests that the three major centers of Lagash were not always so close.

Deities in all three local pantheons show strong connections with divine lineages from other urban centers in the surrounding region. The city of Girsu demonstrates connections to Nippur, Uruk, and Keš. Ningirsu was the son of Enlil, chief deity of Nippur, and

Ninhursaj, who came from the area of Adab and Keš. His spouse Bau was a daughter of An, head of the pantheon at Uruk. The city of Lagash shows an even greater connection to Uruk. Both Gatumdug and Inana were daughters of An and Lugal-URUxGAN, similar to Dumuzi, Inana’s spouse in the Uruk cult sphere. In contrast, Niğin and Guabba show an orientation towards Eridu through Nanše, who was the daughter of Enki.

These different influences upon the three major hierarchies in the state of Lagash suggest that the cities of Girsu, Lagash, and Niğin may have originally been independent polities earlier in the third millennium BCE. This suggestion also helps explain certain inconsistencies in the relations between the major deities in the state. The brother-sister relationship between Ningirsu and Nanše despite Ningirsu’s parentage being that of Enlil and Ninhursaj and Nanše’s that of Enki is most notable. Indeed, the association of Ningirsu and Nanše as siblings may have been a relatively recent development at that time; possibly at the start of the Lagash I dynasty under Ur-Nanše, who appears to have originated from the area of Niğin.

2.5 Archaeology

The region that constitutes the former city-state of Lagash—located in modern Dhi Qar province—has received extensive archaeological attention. Starting in the late 19th century, archaeologists excavated at all three of the major settlements in the state, exposing remains that date from the 5th to 1st millennia BCE. In this section, I will briefly survey each of the excavations conducted in the area and discuss the major late third millennium contexts that were uncovered. These discussions will be limited in scope. Only remains that are directly relevant for the current study will be covered in detail.

2.5.a Girsu

The site of Girsu (Tello), located roughly 16 km north of modern Shatra, consists of several prominences in a roughly 3 x 4 km oval area.\textsuperscript{296} Girsu has a long history of excavation. Beginning in 1877, French excavators spent 20 seasons digging in different parts of the mound.\textsuperscript{297} Their spectacular results, particularly the many statues of Gudea, excited interest in the Sumerian world and provided the foundation for the study of third-millennium southern Mesopotamia.

The material excavated at Girsu has been a goldmine for philologists and art historians. However, archaeologists have generally made less use of the remains. The reason for this is the quality of the excavation and record-keeping. Only the last two seasons were led by an archaeologist. Under earlier excavators, only architectural remains of baked brick were reliably identified. Unbaked mudbrick generally went unnoticed and was removed. As a result, only partial plans exist for much of the architecture uncovered at the site. Further, stratigraphic distinctions generally went unnoted, which could lead to the association of material from multiple time periods in a single context.

Recently, archaeologists have sought to reconstruct the remains exposed at Girsu in order to gain insight into the architecture and history of this important settlement.\textsuperscript{298} The most recent of these attempts is Su Kyung Huh’s \textit{Studien zur Region Lagaš: Von der Ubaid- bis zur altbabylonischen Zeit}.\textsuperscript{299} As the major part of this work, Huh considered all of the remains exposed by the French excavators and offered his own reconstructions for these contexts as well as the occupational history of Girsu. In light of this thorough work, I will only briefly discuss the current understanding of the history of settlement at the site and the major architectural units uncovered thus far, largely following Huh’s conclusions.

Finally, a note about the names of the mounds on the site. In the first season, de Sarzec identified the various mounds of Tello by a series of letters (Pl. 4). Upon working

\begin{itemize}
\item \textsuperscript{296} Parrot 1948: 9.
\item \textsuperscript{297} See Parrot 1948: 14–33 for an account of these twenty seasons.
\item \textsuperscript{298} Buchanan 1967; Forest 1999; Kose 2000.
\item \textsuperscript{299} Huh 2008.
\end{itemize}
in these areas, de Sarzec often gave them a secondary name based on the remains found therein. In referring to different areas of the site, I will use the letter designations originally given by de Sarzec rather than the secondary ones.

2.5.a.i The Ubaid until ED I

The earliest material at Girsu dates to the Ubaid period. Minimally, there is evidence for Ubaid 4 and Terminal Ubaid from Tell K and the Tell de l’Est. In Tell K, this material comes from the deep sounding conducted by de Genouillac in the area of the Building of Ur-Nanše and the “Construction inférieure.” In the Tell de l’Est de Genouillac and Parrot recovered material during their work in the area of the “hypogeum.” The deposit in this latter area was substantial. Parrot excavated around 4 m of painted Ubaid ceramics. Beneath this, he says he encountered a layer of unpainted ceramics. It’s unclear how deep the cultural deposits extended since he had to stop his excavations due to ground water ca. 7.40 m beneath the surface. Based on the zoomorphic depictions present on the painted pottery, the ceramics exhibit close connections with those excavated in the Iranian Zagros, the area of the Hamrin, and at Tell Uqair.

Girsu continued to be occupied in the Uruk period. Thus far, the material from Girsu dates to the Middle and Late Uruk periods. Two areas—Tell K and Tell de l’Est—appear to have been settled during this time. For both areas, the lack of architectural remains complicates their interpretation. In Tell K, the discovery of clay and stone thin cones may indicate the existence of a public building in the vicinity. If present, this could indicate a continuity in the existence of a core area of public architecture in the area of Tell K.

Finds from both the Jemdet Nasr and ED I periods have been recovered at Girsu, but no architecture has been found thus far. These remains largely come from the exca-
2.5.a.ii ED III

ED III is the first period with a large body of material attested at Girsu. The majority of the *in situ* remains come from Tell K and the areas directly adjacent to it (Pl. 5). The excavations here exposed the partial remains of the Eninnu, a monumental temple complex dedicated to Ningirsu (Pl. 6). This complex was one of the most important sacred centers in the state and a constant focus of royal support. The earliest clear evidence for religious activity in this area is the remains of the “Construction inférieure,” which was founded prior to Ur-Nanše.

The “Construction inférieure,” exposed by de Sarzec in 1899, was an 8.20 x 6.20 m building built of uninscribed baked plano-convex bricks. The entire structure, oriented northwest-southeast, contained only two rooms of unequal size. These two rooms shared a central wall, but did not communicate directly. Access to each room was in the wall opposite the shared internal wall. The entire building was preserved to a height 2.80—2.85 m high.

The occupational history of the structure is unclear. At the base of the building was a paving of gypsum slabs, which was preserved both in the larger room and in an area outside the building to the northeast. The walls of the structure were encased up to 2.15 m high in a platform made of layers of brick and gypsum slabs laid in bitumen. Notably, the occupation levels in the two rooms varied significantly in height. The smaller room supposedly used the upper surface of the covering, while the larger room used a floor at the foundation level of the structure. The encasement was also built at a slightly different angle than the original building.

The building had other peculiarities. In the walls of both rooms and in the floors of part of the platform were 22 vessel-shaped depressions 60 cm deep and 30 cm in diameter. These were lined with bitumen and still bore the impressions of reed basketwork. Within the structure, the floor of the larger room had a cross-shaped pillar built out of bricks.
inside of which was a rectangular hollow area. It is possible that this feature served as the foundation for a cult symbol.

The “Construction inférieure” was capped by a layer of bitumen upon which was founded a bottom course of narrow gypsum slabs with three courses of baked brick above it. The bricks and gypsum were laid in bitumen mortar.

The remains of the “Construction inférieure” are difficult to interpret. The building was originally founded upon the gypsum paving. Later, the walls were encased, which raised the surrounding occupation level everywhere but the larger room. This room became a subterranean space which had to be accessed from above. Heuzey explained these oddities as the result of the inexperience of the builders combined with the need to satisfy unknown religious demands. As to the bitumen capping, Heuzey interpreted these remains as part of a basement or substructure for the “Building of Ur-Nanše”, whose remains lie above it.

More recently, other scholars have proposed different interpretations. Forest notes that the gypsum paving within the large room and that in the exterior space to the northeast have different alignments. Despite being at roughly the same level, the outer paving runs parallel to the later encasement, while the interior paving of the large room follows the orientation of the walls around it. Through his reanalysis, Forest proposed the existence of two separate buildings within the remains exposed by de Sarzec. For Forest, the remains of the capping belong to this second building level. For both buildings, the preserved remains are actually the substructure of structures that would have had a second story and the bitumen capsules found within the walls are all that remain of these wood or reed pillars that would have supported the upper architecture.

Huh also believes in the existence of two building levels preserved in the “Construction inférieure.” However, he sees the external gypsum paving and the platform as

---

306 Heuzey 1900: 47.
307 Heuzey 1900: 50–51.
309 Forest 1999: 12.
310 Forest 1999: 15.
311 Huh 2008: 150.
the original construction. At a later date, another building was cut down into the earlier remains, which explains the off-center location of the walls vis-a-vis the platform and the difference in alignment between the two features.\textsuperscript{312} Like Forest, Huh sees the remains on top of the “Construction inférieure” as fragmentary evidence of another building rather than as part of the substructure of the “Building of Ur-Nanše.”

The dating of these remains is uncertain. Although foundation deposits were found beneath the “Construction inférieure,” they were uninscribed, as were the bricks used to build the structure. Whoever was responsible, they pre-date the reign of Ur-Nanše. However, the remains that capped the “Construction inférieure” may date to early in Ur-Nanše’s reign.\textsuperscript{313}

2.5.a.ii.a The “Building of Ur-Nanše”

Roughly 70 cm above the top of the remains that cap the “Construction inférieure” is the “Building of Ur-Nanše”. This rectangular building was 10.50 x 7.30 m. The walls were made out of planoconvex baked-bricks laid in bitumen. Six of these bricks had an inscription of Ur-Nanše that records his construction of the $e\ddot{s}_t$-girsu. A seventh named the place as the temple of Ningirsu. All seven bricks were recovered in the NW corner of the structure. The outer walls of the structure were 14 courses high, which equals around 1.12 m.

Inside there were two rooms of unequal size, which were surrounded by a corridor. In the 3-4 preserved courses, the excavators did not identify any entry points. There was evidence of burning in the building and the structure had ultimately been leveled and capped with a course of bricks laid in bitumen.\textsuperscript{314}

The building stands on a three course brick platform located more than 4 m below the surface of the site.\textsuperscript{315} The level of the platform marks what Heuzey called the “floor of

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{312} Huh 2008: 91, fn. 467.
\item \textsuperscript{313} Huh 2008: 149.
\item \textsuperscript{314} Heuzey 1900: 11.
\item \textsuperscript{315} Heuzey 1897: 93–94.
\end{itemize}
\end{footnotesize}
Ur-Nanše.”

The building itself was surrounded by 8 pillar bases made of cedar, whose carbonized remains were still present. To the south and east of the structure, there were three basins built of the same type of bricks as those used in the building as well as evidence of canals to the east.

The whole area was defined by canephoric foundation statues as well as foundation tablets. The statues recorded the name of Ur-Nanše and the eš₃-girsu. The tablets mentioned additional building activities of the king. In total, 10 foundation capsules are known.

Additional remains roughly contemporary to the “Building of Ur-Nanše” were located in an arc along the west side from southwest to north of the building. These include, from southwest to north, the well-known “Massif of Enmetena,” “Well of Eanatum,” and “Esplanade of Enmetena.”

2.5.a.ii.b The “Massif of Enmetena”

Roughly 20 m southwest of the “Building of Ur-Nanše” was a 17.7 m x 6.9 m structure made of baked-brick laid in bitumen.316 Its northern corner was about 3 m from the “Well of Eanatum” and may have had some functional relationship with the latter feature. The foundation of the massif reached down to the level of the “Construction inférieure.” The original height of the feature is unknown. Some of the bricks have an inscription of Enmetena that mentions the eš₃-gi of Ningirsu.

2.5.a.ii.c The “Well of Eanatum”

This installation was located 25 m NW of the Construction of Ur-Nanše. The upper portion of the well was about 50 cm above the “floor of Ur-Nanše.” It was built of plano-convex bricks that had two thumbs and a forefinger impression, in contrast to those of

Ur-Nanše, and many of the bricks bore the stamp of Eanatum. One of the inscriptions has a dedication to Ningirsu that records that the wells were placed in a courtyard (kisal).317

North of the “Well of Eanatum” was a brick paving and a small round basin whose bottom was covered with bitumen. This basin was connected to the well through a semi-circular channel. Another channel leading further north may have ultimately joined with a baked-brick canal excavated on the northwest slope of Tell K.

2.5.a.ii.d The “Esplanade of Enmetena”

A third concentration of remains lay roughly 25 m northwest of the “Building of Ur-Nanše” (Pl. 7). On the west side of this area, de Sarzec uncovered the remains of 1.7 m wide doorway made of square baked-bricks laid in bitumen.318 At the lower level of the threshold, the excavators exposed a paving of flat, oblong bricks without inscriptions, located just above the level of the “floor of Ur-Nanše.”

About 7 m further east, an irregular oval base with a height of 1.70 m rested on this paving. Upon this base was an “oval basin” of 5.10 m length and 4.60 m width with its mouth to the northeast. The interior was paved with square baked-bricks set in a bitumen mortar. An ash layer rested upon this paving. To the southeast was a series of four rectangular baked-brick basins. These were divided into two or three compartments and the walls were coated with bitumen. On the north side of the “oval basin” was the remains of a water channel that ran NE-SW.

These collected features date at least partially to the reign of Enmetena. In the area east of the doorway, de Sarzec found four foundation figurines with alabaster tablets on their heads. A fifth figurine was found directly in front of the door. Inscriptions on these tablets and figurines record the construction of a brewery by Enmetena for the god Ningirsu.319 Additional work by Enmetena is also attested in the area between the doorway

---

319 Frayne 2008: E1.9.5.12; E1.9.5.13.
and the “well of Eanatum.” Two door sockets of Enmetena, located 4 and 19 m northeast of the “well of Eanatum,” bore inscriptions that recorded their dedication to Ningirsu and mentioned the construction of an $eš_3$-$gi$-$gi$-$gu_3$-$na$.\textsuperscript{320}

Below the level of basins were earlier Early Dynastic III remains.\textsuperscript{321} After removing the baked-brick paving of the “oval basin,” de Sarzec encountered around 70 cm of mixed deposit that contained pottery, ash, and bitumen. Beneath this was another baked-brick pavement that rested upon an oval foundation of four courses of mudbrick. The foundation was covered with about 30 cm of mud plaster and was preserved 1.90 m high in the southwest and 1.50 m high in the northeast. In cleaning around the foundation, de Sarzec discovered another baked-brick pavement that was at the same level as the bottom of the doorway to the west.

2.5.a.ii.e The Lagash I Dynasty in Tell K and its Vicinity

A range of small finds attest to the building and dedicatory activities of most of the rulers from the Lagash I dynasty. Some, like the Stele of the Vultures, provide extensive historical information, while others are more laconic. The inscriptions indicate that the Eninnu, and the area around Tell K more generally, received regular building activity.

However, architectural evidence of these activities is minimal. Ur-Nanše clearly built the “Building of Ur-Nanše” and may have completed work on an earlier construction in the same area. The building possibly continued in use into the reigns of Enanatum I and Enmetena. At some point, the building was leveled and rebuilt, but the only \textit{in situ} textual evidence from above the “Building of Ur-Nanše” was foundation deposits from Gudea and Šulgi.

As discussed, Eanatum and, particularly, Enmetena completed work in the area around the “Building of Ur-Nanše.” Construction by Enanatum II is known from door sockets found elsewhere at Girsu, but no architecture can be attributed to his reign.

\textsuperscript{320} Frayne 2008: E1.5.9.10.  
\textsuperscript{321} Heuzey 1900: 84.
Likewise, little can be assigned to the reigns of Enentarzid and Lugalanda. In contrast, evidence from the reign of UruKAgina is relatively abundant, but this information comes largely from small finds in secondary or poorly-recorded contexts.

2.5.a.iii Post-Early Dynastic Remains

Small finds, particularly cylinder seals, constitute most of the material datable to the Akkadian period.\textsuperscript{322} The earliest material that can be securely attributed to an Akkadian king comes from the reign of Rimuš.\textsuperscript{323} Naram-Sin and Šar-kali-šarri are also attested textually. In general, Akkadian remains were common, but rarely had good stratigraphic context.\textsuperscript{324}

For the Gutian period and Lagash II, the evidence was unevenly distributed. The excavators recovered little architectural evidence for the first five rulers of the Lagash II dynasty. They are mainly mentioned in texts and seal impressions. A large baked-brick structure in the Tell de l’Est dates to this period based on the use of bricks of Pirigme and Ur-Ningirsu I in its construction. Parrot originally identified it as a hypogeum for the rulers of the Lagash II dynasty.\textsuperscript{325} However, the more recent identification of the structure as a hydraulic regulator is more convincing.\textsuperscript{326}

There is better archaeological evidence for the reign of Ur-Bau. Tell A and Tell B had intact architecture.\textsuperscript{327} In Tell K and Tell G, building activities of this ruler were attested but the specifics are largely unknown.\textsuperscript{328}

Evidence from the reign of Gudia is more abundant. Textual sources attest to the active building activities of this ruler throughout the state of Lagash. At Girsu, architecture and small finds datable to Gudea’s reign were encountered in almost every area that

\textsuperscript{322} For cylinder seals, see Delaporte 1920: 1–26.
\textsuperscript{323} Huh 2008: 289; Foster 1985.
\textsuperscript{324} Huh 2008: 289–292.
\textsuperscript{325} Parrot 1948: 211–219.
\textsuperscript{326} Barrelet 1965; Huh 2008: 211.
\textsuperscript{327} de Sarzec and Heuzey 1884–1912, vol. 1: 50, 58.
\textsuperscript{328} de Genouillac 1930: 171.
the French excavators explored. Often, these remains consisted of foundation deposits encountered near the surface, which suggests that much of the work of Gudea and subsequent inhabitants has largely eroded away.

The most significant and informative collection of finds from the reign of Gudea comes from a secondary context. Excavation in Tell A uncovered the palace of a second-century BCE ruler named Adad-nadin-ahhe. In the courtyard of this palace, the French excavators recovered many statues of Gudea. Additional statues came onto the art market through illicit excavations between seasons. The inscriptions on these statues account for much of what is known about Gudea’s reign.

Much less material dates to the final rulers of Lagash II. Ur-Ningirsu II, Gudea’s son, is attested through a number of small finds as well as some inscribed bricks. Nammahani, a contemporary of Ur-Namma, is mentioned on a number of small finds, including maceheads and a door socket.

During the Ur III period, Girsu served as the provincial capital of the province of Lagash, one of the most important provinces in the Ur III state. Therefore, it is no surprise that Ur III finds were common, particularly texts and small finds. However, architectural remains were rarer.

The most important Ur III remains excavated at Girsu is the large cache of tablets excavated in Tell V, the Tell des Tablettes. This archive consisted of over 30,000 tablets distributed between two rooms. The tablets, found on low benches along the walls and center of the room as well as on the floor, documented the various activities of the provincial administration and provide the foundation for our understanding of the society, economy, and politics of southern Mesopotamia at the end of the third millennium.

The building that housed this archive was probably the palace of the provincial

---

331 Huh 2008: 308.
332 Huh 2008: 309.
governor. This assumption is based on the recovery of four door sockets with an inscription of Arad-Nanna—the *suikkalmah*, the highest position in the Ur III state after the king, and provincial governor of Lagash—that documented his construction of a temple for his deified liege Šu-Suen in the vicinity of the archive.  

The evidence for individual Ur III rulers is unequal. Ur-Namma’s presence is largely known through clay nails and his mention in tablets from the archives. This relative lack of evidence is not surprising since Lagash retained its autonomy for at least part of his reign.

Šulgi, Ur-Namma’s son and successor, is better attested both in material culture and in the texts. This is partly due to Lagash’s integration into the Ur III state. By Šulgi 24, Lagash was incorporated into the state’s administrative system. Under Šulgi, a number of major temples in the province received royal attention through construction activities or votive offerings (see section 2.2.e).

Datable material decreases for the final three rulers of the Ur III dynasty. For Amar-Suen, the finds were limited to three excavation areas: Tell H, Tell V, and the area around de Genouillac’s excavation house. Šu-Suen is principally known from the mention of his name in the votive inscription on the door sockets of Arad-Nanna discussed above, though he is also mentioned in tablets and other inscribed objects. Ibbi-Suen, the last ruler of the dynasty, is almost exclusively known from texts out of Tell V and a cylinder seal from the Tell de l’Est. Since Lagash likely rejected his authority by his sixth year, a lack of attestations is not surprising.

Material from the subsequent Isin-Larsa and Old Babylonian periods is spread across the site, but much of it consists of small finds, particularly terracottas. Excavations in Tell H and Tell de l’Est uncovered residential structures. A number of texts also date from this time period.

337 Huh 2008: 313.
338 de Maaijer 1998: 52.
341 Arnaud 1983.
The history of occupation at Girsu goes dark with the apparent depopulation of the region in the reign of Samsuiluna. Whether settlement existed at the site later in the second millennium BCE remains unclear. The palace of a local ruler, Adad-nadin-ahhe, on the top of Tell A indicates the existence of settlement during the second century BCE.\textsuperscript{342} The building—53 m long by ca. 30 m wide and built of baked brick—consisted multiple courtyards with rooms arrayed around them.\textsuperscript{343} A stairway from one of the courtyards may have led to a second story or the roof. Though this substantial building was presumably not alone on the site, no other contemporary buildings were recovered.

2.5.b Niği̇n

The site of Niği̇n has thus far received the least archaeological exploration of the three major settlements in Lagash and much of what was done there has only recently been published.\textsuperscript{344} Niği̇n lies around 31 km southeast of modern Shatra. The site consists of four major groups of mounds that amount to about 66 ha in total area.\textsuperscript{345} Zurghul, the main mound, rises about 15 m above the plain and has lower surrounding prominences. Southwest of Zurghul is a second mound, Able, with a height of about 8 m. To the northwest and northeast of Zurghul are two additional mounds of undetermined elevation.

2.5.b.i Koldewey’s Excavations

The German archaeologist Robert Koldewey initially explored the site from

\textsuperscript{343} de Sarzec and Heuzey 1884–1912, vol. 1: 14.
\textsuperscript{344} Shortly thereafter, he published his work and interpretations in a short article without accompanying photography or illustrations of the architecture and small finds (Koldewey 1887). In the late 1950s, Arndt von Haller returned to Koldewey’s excavation records, reconstructed Koldewey’s work at Zurghul and Tell al-Hiba, and wrote a thorough report that included a contribution by Burkhart Kienast on the inscribed evidence. However, this report remained unpublished until it appeared as an appendix in Huh 2008.
\textsuperscript{345} von Haller 2008: 750.
January 9 to March 26, 1887 as part of an excavation season that also saw him working at Tell al-Hiba.\textsuperscript{346}

In the main mound, Koldewey dug an exploratory trench, Suchgraben A, which extended 75 m northeast-southwest. Below the surface, he came across a clay layer with red and light-colored pottery.\textsuperscript{347} Additionally, he uncovered bones with bitumen on them and the sherds of small dishes in association with bone ash and bitumen. Koldewey concluded that the area had been a locus of crematory activities.

In Suchgraben D, located southwest of A, Koldewey uncovered evidence of Islamic occupation, including burials, glazed sherds, and iron nails as well as earlier bricks, some stamped, that had been reused during the later period. Around 2.5 m further down, he exposed the ancient surface of the mound. From these contexts came pottery similar to that found elsewhere on the site.\textsuperscript{348}

Another exploratory trench, Suchgraben B, was opened to the northeast of Suchgraben A. This produced part of an inscribed brick, but otherwise little of substance was recorded.

In Mound Able, located to the southwest, Koldewey opened Suchgraben E. On the surface of the mound, part of a stone statue was recovered. The excavation itself uncovered around 30 clay nails. A visit in 1957 by Arndt von Haller and Adam Falkenstein identified other earlier material, including clay sickles and grey ware.\textsuperscript{349}

At Point F, located between Zurghul and Able, Koldewey found the remains of a packed mud structure with two groups of rooms. It is unclear whether these are the remains of one or two buildings and to which time period they belong.

Based on his work at Niğin, Koldewey identified the entire site as a necropolis.\textsuperscript{350} Textual evidence subsequently demonstrated that this interpretation was incorrect, but

\textsuperscript{346} Arndt von Haller and Adam Falkenstein briefly revisited Koldewey’s work at both sites in 1957.
\textsuperscript{347} Falkenstein thought the material was Ur III (von Haller 2008: 751).
\textsuperscript{348} von Haller 2008: 752.
\textsuperscript{349} von Haller 2008: 751.
\textsuperscript{350} Koldewey 1887: 406.
archaeological exploration did not occur here again until 2014.\textsuperscript{351}

2.5.b.ii The Italian Excavations

In 2014, a project directed by Dr. Davide Nadali and Dr. Andrea Polcaro returned to Niğin. Their work has uncovered remains from Ubaid 4 and Late Uruk as well as material from the later third millennium.\textsuperscript{352}

2.5.c  Lagash

The site of Lagash (Tell al-Hiba), located about 23 km east of modern Shatra, consists of a series of mounds arrayed in a northeast-southwest alignment (Pl. 8). In the aggregate, the site is around 3.6 km north-south and 1.8 km east-west with a surface area of around 600 ha. Overall, the mound is very low. The highest point, located in the center-west area of the site, rises to around 6 m above the surrounding plain.

Lagash has evidence for occupation as far back as the Ubaid period.\textsuperscript{353} However, the vast majority of the site is covered by Early Dynastic remains.\textsuperscript{354} Settlement appears to have reached its maximum extent during the ED IIIB period. After this, the site began to contract towards the central-west part of the mound, which contained the Bagara of Ningirsu. By the late Isin-Larsa/Old Babylonian period, a much-reduced settlement clustered around this temple complex.

2.5.c.i  Koldewey’s Excavations

Excavation at Tell al-Hiba dates back to the late 19th century when Koldewey

\textsuperscript{351}  Black 1989–1990.
\textsuperscript{353}  Hansen 1970: 244.
\textsuperscript{354}  Hansen 1980–83: 422.
conducted the excavations at the site from March 29 to May 11, 1887. The majority of the work focused on three main areas around the highest part of the site: the “grosse Huegel” [the Large Mound], the “zweiten Huegel” [the Second Mound], and the “Totenhaeuser” [the Houses of the Dead].

In the “Large Mound,” Koldewey uncovered a two-tiered terrace of mudbrick that he believed had been founded directly on the surrounding plain.\textsuperscript{355} The lower terrace was circular and had a diameter of 125 m and height of about 4 m. This terrace had no baked-brick facing. In contrast, the upper terrace, with a diameter of 96 m and a height of around 1.75 m, was faced with baked brick set in bitumen. This terrace had 3.07 m wide buttresses that projected about 40 cm in intervals of 5.35–5.70 m. Both terraces were paved with baked brick.

The architecture and features on top of the platforms were poorly preserved. Within a stratum of mixed ash and brick, Koldewey identified the badly eroded remains of a building with rounded edges on the upper terrace. Elsewhere on that terrace, Koldewey excavated a canal that drained onto the sloped wall of the lower terrace through a pillar. At its highest, the top of the architecture was around 7.3 m above the surface of the plain.

The “Second Mound” lay northeast of the “Large Mound.”\textsuperscript{356} The main feature in this area was a roughly rectangular platform with sloped walls that had a building on top of it. The southern side of the platform was around 34 m long and had projections. Approximately in the middle of this side was a 1.3 m wide stairway that provided access to the platform. On top of the platform, Koldewey exposed the partial remains of a building, but he was not able to make much sense of them.

Later, there was an addition to the east that extended the platform by around 8 m. Upon this extension, a new building was built that was better preserved than the other one. The building consisted of a number of rooms arrayed around a courtyard. The thickness of the outer walls of the building was 87–93 cm. In front of the southern side of

\textsuperscript{355} Koldewey 1887: 422.
\textsuperscript{356} There is a discrepancy in terminology between Koldewey and von Haller and Huh. Koldewey called this mound the “zweiten Hügel” while von Haller and Huh called it “Nordhügel.” See Koldewey 1887 and von Haller 2008: 753.
this structure were a number of cremation burials.

Koldewey uncovered a lot of clay, sherds, and ash in the area of the “Second Mound,” which he took to be the remains of cremations. In his interpretation, the remains of cremation activities completed on top of the platform were cast over the sides in order to clear the way for new cremations, slowly covering the sloped walls. Additional graves were later cut into these accumulated layers of ash and charcoal.

In a low area southwest of the “Large Mound” lay a concentration of buildings that Koldewey designated the “Houses of the Dead”. These buildings were associated with pieces of charcoal and burn layers. The main group of buildings consisted of four houses, three of which contained burials (Houses 1, 3, and 4). House 1 was particularly rich in mortuary finds. House 4 had also clearly been cut by later architecture, which indicates the presence at least two building phases in this area. Two additional houses (Houses 5 and 6) were located to the east. Both had a high number of drains that cut into them.

In addition to these three main areas, Koldewey also conducted some work at the so-called “North Mound,” which was a prominence northeast of the main mounds. Although neither Koldewey nor von Haller mention specific excavations here, multiple objects in the catalog of finds have this provenience. The material generally dates from the Ur III to Isin-Larsa period and at least one grave found there dates from the Isin-Larsa or Old Babylonian period.

Koldewey interpreted his discoveries at al-Hiba as the remains of an Old Babylonian crematorium for the inhabitants of the region. The remains of the buildings on top of the platforms and in the low area to the southwest were what was left of the houses of the dead into which both bodies and the ashes of cremations were installed. As we’ll discuss below, the later American excavations at the site disproved much of Koldewey’s interpretations and demonstrated that he had largely exposed the remains of the monu-

357 Koldewey 1887: 423–425.
359 Koldewey 1887: 405.
360 Huh 2008: 240.
361 Koldewey 1887: 430.
mental public architecture and residential areas of a living city of the Isin-Larsa and Old Babylonian time periods rather than a city of the dead. However, the amount of ash and charcoal that he encountered may indicate a widespread burning episode during the Isin-Larsa/Old Babylonian period.

2.5.c.ii The Work of the Al-Hiba Expedition


Ultimately, the project worked in four areas: Area A, Area B, Area C, and Area G. All four areas are located in the southern two-thirds of the site. In the following overview of the excavations results, I will only briefly discuss the ED remains in Area A and Area B since I will analyze them in detail in the following two chapters.

2.5.c.ii.a Area A

Work in Area A, located at the southwestern corner of the site, began in 1968 and lasted until the very beginning of the third season. Hansen’s work there uncovered the
Ibgal, a temple oval dedicated to Inanna. A 3.5 x 7.0 m sounding dug from the earliest level of the temple, Ibgal III, reached the water table. In it, the excavators identified eight building levels. Based on the pottery, all eight levels are ED with the lowest level dating to late ED I.

Ibgal III, the earliest recognizable level belonging to a temple complex, was only partially excavated, but the architectural remains included a niched-and-buttressed wall with a tripartite entrance. Two of these led into the interior of the complex while the third provided access to an isolated room. Based on parallels with Ibgal I, these doorways were likely the main entrance into the structure. Notably, Ibgal III contained plastered walls and floors associated with human occupation, which were rare or absent in the subsequent building levels.

Ibgal II lay above Level III, but the building was largely destroyed by the construction of Ibgal I. As a result, little is known about Ibgal II except its layout. Based on the recovery of a niched-and-butressed wall, the excavators may have uncovered the southern edge of this complex.

Ibgal I was the uppermost building level. This phase dates to the reign of Enannatum I, whose foundation deposits were incorporated into the lowest layers of the brickwork. Erosion had almost entirely destroyed the living spaces of Enannatum I’s building, leaving only the substructure. Before the construction of the Level I foundations a layer of sand was spread over the remains of Ibgal II. The foundations were then built on the layer of sand. These foundations consisted of thick walls enclosing variously-sized rectangular spaces, which were connected in some instances with other spaces through small passages and in other cases were completely isolated. Broken pieces of alluvial mud and layers of sand filled these spaces and they were capped by one or more courses of mud brick at or near the tops of the walls. The end result was a platform that appeared solid, but actually contained a network of filled cavities, all underlain by a layer of sand.

The relationship between the network of spaces in the foundations and the now vanished superstructure is unclear. Hansen suggested that the layout of the filled spaces
within the platform might have corresponded to the layout of the buildings built upon it.\textsuperscript{365}

2.5.c.ii.b Area B

Area B is located roughly 1500 m northeast of Area A. This region roughly corresponds to that of the “Large Mound” and “Second Mound” explored by Koldewey in 1887. The expedition worked in three different zones (east, west, and south) in this area.

The earliest work occurred in the eastern zone. During 1H, the excavators opened three test trenches (A, B, and C).\textsuperscript{366} Only Trench B contained architectural remains. The excavators identified four stratigraphic levels. Level III, the most important, contained part of a poorly-preserved niched-and-buttressed facade that was identified as part of a temple. The emplacement of the foundation disturbed a burial that included tablets from the reign of Nur-Adad and Sin-iddinam, which provide a terminus post quem for the building’s erection (see section 4.2).

The western zone received the most extensive exploration. This area was clearly connected to the Bagara of Ningirsu, a temple complex well-known from textual sources. The earliest remains date from ED IIIB. During 3H and 4H, the excavations uncovered two adjacent buildings separated by a narrow alley. These two comparably-sized structures each had multiple building levels and contained inscribed artifacts that linked them to rulers from the Lagash I dynasty. Based on their form and contents, Hansen identified the western building (called the 3HB Building in this dissertation, see 4.3.a) as a temple kitchen and the eastern one as a brewery (called the 4HB Building in this dissertation, see 4.3.b). The later levels of both the 3HB and 4HB buildings dated to the Akkadian period. The latest preserved level of the 4HB Building, 4HB I, belonged to Gudea.

Above these two buildings, Hansen uncovered part of a platform that had cut away the post-Gudea remains in the area.\textsuperscript{367} After leveling the area, the builders scattered bits of

\begin{thebibliography}{1}
\bibitem{365} Hansen 1970: 245.
\bibitem{366} Hansen 1970: 249–250.
\bibitem{367} Hansen 2001.
\end{thebibliography}
semi-precious stones and pieces of metal over the bottom before the first course of bricks was laid. As in Area A, this platform was built with chambers within it, some of which were connected through doorways. These chambers had been filled with sand, earth, and pieces of mud and then capped at their top with mudbricks, creating the appearance of a solid platform. The filling of the chambers exhibited a surprising complexity. In Locus 6, the largest chamber, the space was partially filled, two mud-plaster floors were laid down across the whole area, and then the rest of the area was filled with broken mud and presumably capped with brick, although this had eroded away.

Due to erosion, little of the structures built on top of the platform remained. One room was identified. It preserved evidence for three construction phases. The first dates to the erection of the foundation. At a later date, the mudbrick walls of this structure were removed and replaced with baked bricks that cut down into the earlier remains. The final phase involved the deconstruction of the walls. Stacks of baked bricks, presumably those removed from the walls, were excavated in the vicinity of the room. The period of time between construction, reconstruction, and deconstruction is unknown.

This platform was one of the areas explored by Koldewey in 1887. In different locations, Hansen came across trenches of varying size cut through the brick of the platform, some bearing the marks of shovels. He also uncovered part of a baked-brick drain that may be the remains of one discovered previously by Koldewey. In his preliminary report, Koldewey reconstructed the platform two-tiered and circular. Hansen’s own excavations corroborate Koldewey’s observation about the rounded nature of the structure, at least on its western side. Whether the platform was actually circular and/or two-tiered remains unclear.

No objects were recovered that can precisely date this structure. The dimensions of the bricks in the platform were the same as the ones used in the Level III structure in

371 Koldewey 1887: 422.
the east zone that post-dates Sin-iddinam, which may indicate a rough contemporaneity. However, these brick sizes are also known from the preceding Ur III period. Šulgi is known to have conducted work on the Bagara complex, so the original construction of this platform during the Ur III period is possible. Additionally, it is unclear whether the platform and associated building fragments belonged to the Bagara of Ningirsu, but a continuity of identity from the late third to early second millennia is likely based on the religious conservatism exhibited by the ancient Mesopotamians and the continuity of occupation at Tell al-Hiba during this time.

In 5H, Hansen conducted excavations in the southern zone, located approximately two-hundred meters south of the temple kitchen and the brewery, along a ridge that was closer to the surface of the plain. A combination of surface scraping and targeted excavation documented three parallel walls that extended for over 200 meters east-west. Hansen identified these as ED based on the use of plano-convex bricks in their construction. In the same area, he also uncovered part of a building in a wadi, which he attributed to Gudea on the basis of brick sizes and the presence of a Gudea-stamped brick loose in the room fill.

Isin-Larsa/Old Babylonian remains were also uncovered in the southern zone, but these were much less substantial than those to the north and east. In the center of the earlier series of walls was a poorly-preserved Isin-Larsa/Old Babylonian house with four rooms and a courtyard with an oven. To the west, a circular baked-brick feature, measuring three meters in diameter, was sunk through the earlier walls at the point where they began to turn south. This feature was excavated for four meters without reaching the bottom and without finding any artifacts. Additionally, ten burials were excavated, most of which could be positively dated to the Isin-Larsa/Old Babylonian period based on pottery. Along with the house, this may indicate that the area was residential in nature by the first half of the second millennium BCE. The location of this material south of the brick platform also works well with Koldewey’s discovery of multiple Isin-Larsa/Old

---

373 Hansen 2001: 216.
374 Hansen (unpublished manuscript).
375 Armstrong and Gasche 2014: 11.
Babylonian houses southwest of the same area.

2.5.c.ii.c Area C

Area C is located 360 m southeast of Area B. Excavation in this area was limited to 2H. The excavators were first drawn to the area by the visibility of burned plano-convex brick on the mound’s surface.\textsuperscript{376} Although they initially expected to find tombs, they instead exposed a large complex of rooms with a surface area of around 1000 m\textsuperscript{2} that dates to ED IIIB. Two building levels—IA and IB—were uncovered. During Level IB, the building developed in an agglutinative manner that resulted in warrens of rooms in a variety of sizes. Rather than regularize the building in Level IA, the builders largely preserved the layout of Level IB in their reconstruction.

This complex contained a large number of seal impressions and tablets.\textsuperscript{377} In Level IB, seal impressions and tablets signal activity during the reigns of Eannatum, Enannatum I, and Enmetena. Level IA yielded less conclusive evidence, but it presumably dates from the reign of Enmetena and his immediate successors.\textsuperscript{378}

In their preliminary report, the excavators suggested that this complex may have had an administrative function.\textsuperscript{379} For her dissertation, Zainab Bahrani conducted a functional analysis of each room of the building. She concluded that the complex may have been a craft workshop with different sectors devoted to metalworking, wool processing, reedworking, and possibly scribal education.\textsuperscript{380} Notably, the texts found within this complex largely deal with the delivery of raw materials rather than finished goods, which suggests that the scribes in this complex were on the receiving end of materials sent from elsewhere. The seal impressions also reflect a focus on control of access, possibly to finished goods or raw materials. Over half of the 151 impressions studied by Bahrani are

\begin{footnotes}{
\begin{itemize}
  \item \textsuperscript{376} Hansen 1973: 67.
  \item \textsuperscript{377} 151 impressions; 32 texts, 29 are ED; see Bahrani 1989: 110 and 112.
  \item \textsuperscript{378} Bahrani 1989: 114.
  \item \textsuperscript{379} Hansen 1973: 68.
  \item \textsuperscript{380} Bahrani 1989: 148–149, 171.
\end{itemize}
}
door sealings that bear the impressions of pegs or knobs.\footnote{Bahrani 1989: 110.} Impressions from containers, which may indicate the arrival of materials recorded in the texts or in situ storage, are also attested. These constituted about 21\% of the sample.\footnote{Bahrani 1989: 110.}

2.5.c.ii.d Area G

Area G is located around 800 m southwest of Area B along the western edge of the mound. The expedition spent three seasons (3H, 4H, and 6H) in this area, where they uncovered extensive ED I deposits. The work focused on two zones separated by about 30–40 m (Pl. 9). The architecture in these two areas was never connected archaeologically.

During 3H and 4H, work occurred in the east zone. The whole area had been cut by pits, intrusive vertical drains, and later burials, but the levels from which these came had eroded away. Beneath the surface, the excavators uncovered a 2 m-wide north-south running wall that curved towards the northwest. This wall was set upon a foundation and had drains at the base of it. Along the east side, a smaller complex of rooms was exposed, which persisted through multiple building levels. A sounding conducted in 4H extended down to the water level and exposed 7 m of ED I deposits.\footnote{Hansen 1980–1983: 426.}

In 6H, the 2 m-wide wall was traced further north and a complex of rooms was uncovered in a zone to the west. At the northern end of the curving wall, a smattering of architecture, including a small room, was exposed. Further west, the excavators dug more extensively. In the western complex, they uncovered 5 building levels (BL A–D). The earliest level (BL A) was only exposed in a few small areas, so nothing concrete can be said about it. Starting with BL B, the general form of the complex was set and would remain similar for the rest of the building levels. In BL C, the complex was rebuilt, but some dividing walls were removed in order to create a number of larger spaces. During BL D, a large courtyard was built on the southern end. The north and east sides of the
courtyard were bounded by two thick brick walls. The northern wall cut through some of
the BL C walls and rested upon a foundation that was similar to that seen in the oval wall
in the eastern section. Despite the disruption caused by the construction of the southern
courtyard, the rooms to the north continued to be used at this time. Finally, BL E is badly
preserved due to erosion, but the parts identified suggest that the complex retained a
similar layout to that seen in BL D.

The nature of the remains exposed in Area G are unclear. Their size suggests an
institutional affiliation. The curving wall in the eastern zone may indicate the existence
of a temple oval, but, if so, this would be the earliest attestation of such a structure. The
material culture found within does not provide much insight. Notably, seal impressions
recovered in BL B and C indicate a connection between the complex and access to goods
controlled by an administrative system.
Chapter 3: Area A

Before I begin my discussion of Area A, I would like to briefly describe the types of excavations records available for this analysis. First, I will describe the record-keeping process and the types of records generated. Then I will discuss how the excavation methodology, the recording process, and the subsequent preservation of the records have influenced my reconstructions of archaeological contexts.

The process of record keeping stayed fairly consistent across all six seasons. During the morning and evening digging sessions, the excavators kept notes on pieces of scrap paper. After each session, they turned these notes into a narrative of the day’s events, which was then entered into the official field notebook for the area. The excavators frequently took Polaroid photographs of relevant material, pasted them into the field notebook, and annotated them as needed. Accompanying sketches were rare.

Pottery recovered from the excavations was recorded on daily sheets, which were differentiated by context. Each sheet recorded a range of quantitative and qualitative data, including the part of the pot (body, rim, base), the vessel’s type, the number of sherds, the fabric, the dimensions of the sherds, and any evidence of use. The project maintained a complete typology with type pottery on-site. This was consulted for each diagnostic pottery sherd recovered in the field. If a sherd matched that in the typology, it was recorded with the number of the type artifact. If it was a new form, the sherd became the type artifact of that type. Only the type artifact of a pottery type was drawn. Edward L. Ochsenschlager, the project ceramicist, checked the work of other excavation members to ensure consistency.

All small finds were recorded in the season’s daybook. These entries included contextual information, measurements, a brief description, and, sometimes, a sketch or measured drawing. A subset of these small finds was given formal object numbers (e.g. 4H-12) and entered into the season’s object catalogue. The excavators collected floral and faunal remains when they were spotted, but did not employ a systematic sampling
strategy for their recovery. These often appeared in the daybook and could receive additional description elsewhere. Burials were recorded on separate forms, which included a description of the grave, measurements of the bones, and a sketch.

Mapping was done with a plane table. The excavators established an arbitrary datum of 50.00 m on the top of a government survey marker located at the far south end of the mounded site. They knew the absolute elevation of the marker (1.38 m asl), but chose to use the arbitrary datum to avoid the use of plusses and minuses.\textsuperscript{384} Elevations were taken from mapping points with known heights and were recorded directly onto the plans.

Alongside the Polaroid photographs used to document relevant material for the field notebook, the excavators used 35 mm and 120 mm black-and-white film as well as 35 mm slides to record objects, excavation-related activities, ethnographic information, and the varia of life in the field. In general, 35 mm black-and-white film was used for object photography, while the 120 mm film was used for field photography. The 35 mm color film was used for both object and field photography as well as life on the dig.

Although certainly well-recorded for the time, the project’s excavation and recording methodologies complicate attempts to reconstruct the archaeological contexts that were excavated. For the current work, three practices are particularly relevant. First, the practice of recording on scraps of paper and then turning the daily activities into a coherent narrative for the field notebook often simplifies the day’s activities and masks the thought processes behind the description. This makes it difficult to reconstruct what the excavators really encountered and why they interpreted something the way that they did. The designation of building levels is a good example of this. The appearance of new building levels in the notes often comes without any explicit explanation for why something belongs to one level and not another.

Second, the methodology for recording stratigraphy oversimplified the archaeological reality. The description of stratigraphy in the field notes largely consists of a binary division between “fill” and “floor,” e.g. “Fill above Floor 1” and “Floor 1.” Based on the field

\textsuperscript{384} Hansen 2001: 219, fn. 7.
photography, these units of “fill” could be quite heterogeneous. The excavators were not blind to the variation. In the few cases where sections were drawn, individual layers were separated out. Nevertheless, in practice multiple strata were often excavated as a single unit of “fill,” resulting in a mixing of material and a homogenization of a more diverse stratigraphy.

Third, the system for recording pottery masks the diversity of the ceramic assemblage, inhibiting any functional analysis of the excavated contexts. The reason for this is the reliance on the on-site typology for recording pottery on the daily sheets. As mentioned above, excavated pottery was identified by its type. Only the type artifact for each type was drawn. As a result, similar-looking pottery from a variety of contexts all over the site are all represented by a single drawing. This practice is particularly problematic when the assemblages from different buildings are similar. The 4HB Building exemplifies this. The pottery in this building, excavated during Season 4, much of it in situ and some of it intact, was very similar to that in another building, and from later cuts into that building, in Area C that was excavated in Season 2. As a result, only entirely new vessel forms from the 4HB Building were drawn, despite the building containing some whole examples of pottery known from fragmentary examples in Area C.

The final difficulty comes from the current state of the project archive. Following Donald Hansen’s death in 2007, Holly Pittman (University of Pennsylvania) took over responsibility for the final publication of the excavations. As part of this, she moved the entire physical archive to the University of Pennsylvania Museum of Archaeology and Anthropology. All of the documentation was then inventoried, digitized, and incorporated into a relational database.

This process revealed that portions of the excavation records were missing. The most significant of these for this work are the drawings of objects, features, and sections 3H and 4H. In some cases, other records, such as the photographs and the object cards, provide enough information to reconstruct these objects.
3.1 Introduction to Area A

The Al-Hiba Expedition spent three seasons (1H–3H) working in Area A, located at the southwestern end of the site near the modern village. The excavators originally explored this area because it was reported to be the source of a stele of Ur-Nanše, now in the Iraq Museum. Their work here uncovered three building levels (III–I) of the Ibgal, a temple complex dedicated to Inana.

Textual sources attest to a long history for the Ibgal, but they shed little light on the nature of the complex and the activities that occurred there. The name of the complex itself was Eanna, while Inana’s sanctuary within Eanna was called the Ibgal. The first mention of Inana of the Ibgal comes from ED IIIa texts from Fara and Girsu. Construction on the complex occurred during the reigns of Ur-Nanše and Enanatum I. The complex appears in the E-Bau archive as one of the locations visited in the city of Lagash during the journey of the queen of Lagash to Niğin and back in order to participate in the Barley and Malt-eating festivals of Nanše. During the reign of UruKAgina, the Ibgal was one of the sanctuaries sacked by Lugalzagesi during his campaign through southern Lagash. The complex continued to exist down until at least the Ur III period.

The chronological range of the archaeological evidence for the complex is more limited. Ibgal III–I all date to ED III on the basis of ceramics and other small finds. Inscribed foundation deposits in Ibgal I date the level to the reign of Enanatum I and are the reason for the identification of the structure as the Ibgal. A 3.5 x 7.0 m sounding

---

385 IM 61404; Basmachi 1960; Basmachi 1975.
386 In preliminary reports, the excavators referred to these three architectural levels from latest-to-earliest as Level I, Level II and Level III. In this work, these terms correspond to Ibgal I, Ibgal II, and Ibgal III, respectively.
388 Selz 1995: 147; SF 1 rev. i 26; RTC 8 iii 2.
391 Frayne 2008: E1.9.9.5.
392 For example, see ITT 2, 833 for an undated mention of the Ibgal in association with the Bagara complex. Ibgal also served as a theophoric element in personal names during this time.
through the floor of Ibgal III exposed an additional eight building levels down to ground water. Stratified remains continued below water level. The levels in the sounding date from late ED I to ED II A.

The majority of the architecture exposed in Ibgal III–I consisted of either substructures or the stripped remains of occupation levels. Very few intact occupation surfaces were found. Those that were uncovered were largely devoid of materials. Architecture and living surfaces were preserved in the sounding, but the limited exposure inhibits their interpretation.

In this section, I will provide an overview of the three Ibgal building levels and the remains exposed beneath them. This description is more general than my coverage of Area B. There are two reasons for this. First, the Area A remains have been discussed in a series of preliminary reports. These reports provide a thorough account of the work in Area A and differentiate the contents of each building level. Second, there is less that requires detailed discussion. This is particularly true for Ibgal I, which largely consisted of foundations whose construction was similar across the entire exposed area.

The discussion of the sounding is an exception. Although a limited exposure, the sounding sheds light on the long occupational history of this part of the site prior to Ibgal III. This work was not covered in great detail in the preliminary reports, so I will discuss it more thoroughly here.

3.2 The Deep Sounding

For a little over a month during the second season, the excavators dug a 3.5 x 7.0 m sounding from Ibgal III down to ground water, reaching a total depth of about 2.8 m below the floor of Ibgal III (Pl. 10–11). They identified eight building levels (Pl. 12). I have

---

393 The numeration of these levels carries onward from those of Ibgal I–III, but without the term Ibgal. Hence, Level IV, Level V, etc.
395 The area of the sounding decreased the deeper it went, in large part because of the creation of a stairway in the northwestern corner.
maintained the level designations and interpretations of the excavators for this description. However, I will present alternative interpretations when they seem warranted.\textsuperscript{396} In this description, numbers in brackets correspond to strata on the section drawing of the eastern baulk of the sounding (Pl. 13).

Level XI, the earliest level, was partly below groundwater (Pl. 14).\textsuperscript{397} A room, bounded on the north, west, and south by walls, was exposed in the middle of the sounding. The room was 1.2 m wide north–south. Open spaces lay to the north and south of the walls.

The excavators identified a single floor in the central room. The fill above it consisted of brown earth with very few sherds [41]. In the eastern part of the room the excavators discovered mud over reeds over brick “like platform fill.” This material was not recorded in the sounding and it is not identifiable in the photos. A sounding through the bottom of the floor reached ground water 0.18 m below it.

Along the southern face of the northern wall the excavators recovered a cache of whole vessels from below the water table (Pl. 15). The cache included two whole low-necked pots with spouts and rounded bottoms (2H-96, 2H-97) as well as three cups with straight rims and string-cut bases (2H-98, 2H-99, 2H-100), two of which were stacked one in the other. The cache was about 0.82 m below the top of the Level XI wall. Given its depth below the water level, it is impossible to say whether this pottery actually belongs with this building level or was recovered from an even earlier occupation.

The exposures north and south of the room were smaller. A clear stratum of burned material that contained sherds [40] lay in the northern locus. This layer filled all of the exposed space in the northern area. A thinner layer of brown fill [39] overlay this level. In the southern space, the fill consisted of clay and sherds [42].

The spouted pots with rounded bottoms (2H-96, 2H-97) are characteristic of ED I. Close parallels come from Sakheri Sughir and the Inana Temple XII–XI at Nippur.\textsuperscript{398}

\textsuperscript{396} The records available for the reconstruction of the sounding consist of the field notebook, a drawing of the east section, measured plans for all but the final level, and a series of photos taken at the end of the excavation. There are also daily records of the pottery and objects recovered.
\textsuperscript{397} This is the only building level without a measured plan.
However, similar vessels were recovered in ED IIIB levels in Area C, which suggests that the form continued into the later third millennium at Tell al-Hiba.\textsuperscript{399} Based on their depth below the ED III levels of the Ibgal, Level XI likely dates to the latter half of ED I.

The architecture of Level X largely followed that of Level XI. There continued to be a central room bounded by walls on the northern, western, and southern sides as well as additional spaces north and south of the walls. Some changes did occur. In Level X, there was a 0.65 m doorway in the north wall of the central room. On both sides of the southern wall there was a dado—this was presumably made of brick, but its material was not documented. The excavators did not record anything special about the fill in the three spaces, except that it was brown. A jar lid (2H-101) was recovered from somewhere in this fill.

The division of this earliest architecture into two building levels is debatable. The distinction between the two levels was based on the discovery of a layer of clean sand between the architecture in the southern wall and at the northern end of the western wall. However, the architecture drawn in the eastern section does not record this distinction. Further, the dado on the southern wall of Level X appears to be overlain by material attributed to Level XI. Given these discrepancies and the architectural similarities of the two levels, it may be better to think of Level XI and Level X as an early and late phase of a single building level rather than two separate building levels.

The layout of the space shifted in Level IX. The excavators identified only a single wall that partially rested on the north wall of the previous two levels. A thin layer of blue clay, approximately 0.02 m thick, separated the two walls. Another wall may have existed above the southern Level X wall. In photos of the western section there appears to be a homogenous brown square that is distinct from the ashy strata on either side of it. If there was a wall, it does not seem to have extended across the entirety of the trench. Perhaps it was a portion of the Level X wall that continued to be visible rather than a new construction.

\textsuperscript{399} Renette (unpublished manuscript).
The contexts on either side of the wall were similar. The fill north of the Level IX wall consisted of brown earth with some traces of burning [28]. That to the south [30] was also brown earth and had a higher amount of ceramic material. At the southern end of the space was a thin layer of burned material [31] that overlay the top of the Level X wall and the Level IX floor. The floor itself [32] consisted of a greyish clay mixed with straw that was laid over reed matting. Based on the photos of the western section, there were also traces of burning in the southwestern corner of the exposed area.

In Level VIII almost the entirety of the sounding was devoid of architecture. The only feature was a plastered platform a single brick high along the northern wall of the section. Three sides of the feature were excavated.

The original floor [27] of Level VIII consisted of mud plaster over sand. A stratum of brown earth [24] filled the majority of this level. Sherds were infrequent. A notable exception was a concentration of them at the northern end of the sounding [25]. A distinct layer of burned material with many sherds [26] occupied the southeastern corner of the sounding. It is unclear whether this overlay the southern end of the stratum of brown earth [24] or was cut down into it. Photos of the western section suggest the existence of an independent concentration of burned material in the southwestern corner at roughly the same level.

The excavators divided their Level VII into earlier strata [21–23], generated during the “foundation” of the Level VII architecture, and later strata [16–20], which corresponded to the occupation of the building. I find this division to be questionable. Most notably, the Level VII wall was cut down into the earlier stratum [21]. There is also evidence for a developed internal stratigraphy within the earlier stratum, as evidenced by the ash layer [22] in the lower level of the deposit. These elements suggest that the “foundation” strata represent an earlier period of occupation when there was no architecture present in the exposed area rather than a phase of preparation for the construction of a building.

As mentioned, the Level VII “foundation” level had no architecture. The layer [21] consisted of brown earth with occasional sherds above a floor [23]. An ash lense [22] lay in the center of the stratum.
The Level VII “occupation” level was more complex. There was a single east-west wall in the northern half of the sounding. This lay directly above the location of the similar walls in Levels XI–IX. As in Level X, the Level VII wall had a doorway. Along the base of both sides of the wall were large pieces of mud, which presumably served some role in the foundation of the wall.

The floors on either side of the wall ran over the top of the pieces of mud. The fill [16, 18] to the north and south of the wall was brown. A stratum of burned material, which also contained sherds, was identified above the initial Level VII floor [20].

Level VII had a richer array of finds than any other level of the sounding. In the northern locus, the excavators found the sherds of a large vessel on the floor along the eastern section. They also recovered a spiral terracotta bead (2H-47) and a dark plum painted sherd—typical of Jemdet Nasr—from the fill and floor in this area.400 A small jar with a round base and collar neck (2H-59) came from the vicinity of the wall.401 Other finds from the fill included a conical cup (2H-61), a terracotta ring (2H-233), and a possible stone slingball (2H-226). The pottery suggests an ED IIIA date.

In Level VI, the layout of the space changed yet again. The entire sounding was open except for an east-west wall that was halfway hidden in the northern baulk. South of the Level VI wall, the initial Level VI floor [14] ran up over the top of the Level VII wall and then dipped back down as it ran away further to the south. In the northern part of the section, this Level VI floor consisted of an initial surface covered with reeds over which the Level VI occupation floor was laid. There was supposedly a Level VI hearth in the northern part of the room, but there is no evidence for either a hearth or ashy strata in this northern area in the photos and plan. In the center of the excavated area was a sherd floor [15] embedded into the Level VI floor [14]. This seems to have filled the center and southwestern portions of the sounding. At the southern end of the Level VI floor was a concentration of sherds mixed with burned material [13].

400 The latter is clearly in a tertiary context, but could indicate the existence of Jemdet Nasr occupation in the vicinity of Area A.
401 This vessel parallels the form of an example from an ED IIIB grave at Abu Salabikh (see Moon 1987: 87, no. 429 (6G84:44)). On the basis of its stratigraphic position, it belongs to ED IIIA.
The construction of Level V resulted in a further modification of the area. The line of flat sherds [11] that extended just below the level of the initial Level V floor [7] suggests that the area probably underwent some leveling. After this, a single east-west wall was built in the southern portion of the trench. Though separated by about 1.2 m, this later wall was directly above the southern Level X wall. A brick dado lay along the northern face of the Level V wall. Although nothing is mentioned in the notes or recorded on the plans, the form of this wall in the eastern section suggests that there was a similar dado along the southern side of the wall as well.

The stratigraphy on either side of the wall differed. South of the Level V wall, the excavators identified a stratum of black earth and frequent brick fragments [10]. Above this was a Level V floor [9] that ran up over the top of the dado on the southern side of the wall. Sherds were recovered from this floor. Above this floor was an additional series of Level V floors [8]. Besides the initial floor of Level V, the excavators failed to identify any subsequent surfaces north of the Level V wall. Given the series of Level V floors further south, these undoubtedly existed. In general, the fill of the northern side [6] consisted of occasional sherds and traces of ash.

Level IV represents a distinct change in the architectural layout of this space. Prior to construction, the area underwent some degree of leveling, as evidenced in the eastern section by the way the Level IV foundation floor [5] cut down into the southern side of the Level V wall. Above this was a heterogeneous layer consisting of green, brown, and black ashy earth with an increased amount of ceramic and brick material [4]. The excavators interpreted this stratum as foundation fill for the Level IV structure. Another possibility is that it was the remains of a pre-Level IV occupation level that was largely cut away in the construction of the walls. The color and contents of the deposit suggest that it was a trash dump.

Level IV architecture filled more than half of the exposed area in the sounding. In the northern half was a room surrounded by walls on its northern, eastern, and southern sides. The southern wall had a brick dado on its southern face. The wall was reportedly bonded to the dado, but there is no trace of this frieze in either the drawings or photos of
the section. It is also unclear exactly how this bonding would have worked. No description of the fill in the northern room was recorded.

A second open space existed south of the wall with the dado. Another wall served as both the southern boundary of this southern space and the southern end of the sounding. Notably, this Level IV wall was much shallower than the northern walls in the sounding. The fill [2] in this area consisted of brown earth with ash, sherds, and bone.

An overlay of the Ibgal III and Level IV walls in the sounding displays a high degree of correlation between the two levels. Two options present themselves. One possibility is that Level IV was the original foundation of that layout and Ibgal III was a rebuilding along similar lines. This was the excavators’ interpretation. The other option is that Level IV was actually a series of foundations for Ibgal III, similar to the system preserved in Ibgal I (see section 3.4 below). The difference in the width of the walls in the two levels supports this interpretation. A common practice in Mesopotamian religious architecture was the construction a substructure upon which the “living” walls of a structure rested. These substructures were usually wider than the walls that they supported. In the case of the Ibgal, the only fully exposed wall in Level IV was the east-west wall in the center of the sounding, which was 1.75 m thick. The Ibgal III wall resting on top of it was 1.1 m.

3.2.a General Observations on the Deep Sounding

The Area A Deep Sounding demonstrates a long sequence of occupation in the southwestern part of the mound prior to the construction of Ibgal III. The discovery of material below the water table indicates that the earliest inhabitation of this area lies deeper still. The earliest recovered remains date from ED I, probably the latter half. The following levels span the period between late ED I and ED IIIA.

The limited exposure precludes any definitive conclusions about these occupations.

402 For example, the construction of Temple Oval I at Khafajah utilized this construction method (Delougaz 1940: 17–18). See Tunça 1984: 136–137 for a discussion of this and other temple foundation practices.
However, some general observations are possible. First, despite the variations between the levels, the continuities across building levels suggest that there was a stable organizational framework that structured the use of space in this area prior to Level IV. Continuity of occupation between Level XI and Level VII is clear, particularly in the placement of the walls in these levels. With the exception of Level VIII, an east-west wall consistently lay in the same place in the northern half of the trench throughout this period. The area south of these walls was subject to more variability. In Level XI and Level X, the existence of a second east-west wall created a room in the middle of the sounding that was accessed—at least in Level X—from the north. In the following periods, this southern wall vanished, opening up the southern space.

Continuity between the earlier levels and Levels VI and V is more difficult to establish. The sole wall in Level VI ran roughly east-west at the northern end of the sounding. The excavators decided to leave this wall standing and stepped the sounding in towards the south. As a result, any earlier walls beneath the one in Level VI would be unexcavated.

However, there is some circumstantial evidence for the presence of a wall in at least Level VIII. In this level a one-brick high, plastered feature extended into the trench from the northern baulk. Three sides of this feature were uncovered in the sounding but the fourth side was still in the baulk. Such a feature could be free-standing, but, alternatively, it could have abutted a wall. In Level V there was again only one wall, which ran east-west. Located in the southern half of the sounding, it was directly above the southern east-west Level X wall, situated 1.3 m below. Though the positioning could be coincidental, the placement of the Level V wall could also be the result of the same requirements or conditions that resulted in the placement of the Level X wall there initially.

Second, the majority of this area was an outside space in most of the building levels. In Levels XI and X, the central room was interior but the northern and southern spaces may have been exterior. In particular, the black burned layer with sherds [40] at the north end of the trench in Level XI could indicate a place for dumping or proximity to pyrotechnic installations. The lack of this type of material in the central room of these
two levels suggests that the burned material was not the result of a fire in that part of the building.

Starting with Level IX, the southern half of the trench, and sometimes more, was an exterior space. Between Level IX and Level V, deposits of ash and burned material were common. Surfaces made of sherds [15] or areas of sherd dumping [25] were also present. In Level IV, the fill continued to be ashy with sherds and bone.

Third, Level IV is the earliest level that can confidently be attributed to the Ibgal of Inana. This level probably served as the foundation for Ibgal III.

The religious nature of the earlier remains found in the section is unknown. Level IV appears to represent a new spatial organization of the area. However, this does not mean that the Ibgal was nonexistent in earlier levels. Since the sounding was conducted through part of the entrance complex of Ibgal III, any architecture belonging to earlier versions of the Ibgal complex is likely to be located further southeast towards the core of the complex in Ibgal III–I.

A possible indication of the existence of the Ibgal in earlier levels nearby is a lack of any intensive pre-construction purification of the landscape like that evident for Temple Oval I at Khafajah. If Level IV represents an expansion of the complex rather than a new foundation, then perhaps such a visible intervention in the landscape was unnecessary.

### 3.3 Ibgal III

Ibgal III was the earliest building level traced over a wide area as well as the level with the best preservation of occupation surfaces (Pl. 16). In total, the excavators uncovered about 700 m$^2$ of the complex. Their work exposed a tripartite entrance through the enclosure wall as well as a few adjacent rooms. Based on its location beneath the main entrance of Ibgal I, this was probably the main entrance in Ibgal III as well. The excavators also traced part of the niched-and-butressed enclosure wall northeast and southwest of

---

403 Delougaz 1940: 11–17.
the entrance. The southwestern portion of the wall began to curved towards the south before it disappeared. The enclosure wall may have been oval in form, as in Ibgal I, but too little was excavated to be certain.

Access to the complex was from the northwest. A screen wall, preserved about 0.10 m high, enclosed the space in front of the doorways. A narrow door at the northern end of this wall provided access to the area within. The part of the low wall north of this door was decorated with elaborate niches. In contrast, the wall to the south was plain.

The entrance itself consisted of three doorways, flanked by buttresses. All three doors were located south of the narrow door through the outer screen wall. Two of the doorways led into the interior of the complex while the third provided access to an isolated room, Ibgal III, Room E.

The northernmost entrance had a straight-axis approach. It consisted of two rooms. Ibgal III, Room A was rectangular, while Ibgal III, Room B was nearly square. Both had a similar width. The doorways through these two rooms were all located in the center of the long walls. The doorway in the southeastern wall of Ibgal III, Room B led into an open courtyard.

Both rooms contained hearths. In Ibgal III, Room A, a single hearth lay in the center of the room, located just south of the central axis that passed through the doorways. This was made out of the top of a large pot that was flipped over and set into the ground. The interior of the pot was blackened and many blackened sherds were recovered from it. Ibgal III, Room B had two hearths, located opposite each other in the northwestern and southwestern corners of the room. The hearth in the northwestern corner was made out of a pot sunk into the ground. Based on its description, the one in the southwestern corner was probably similar, but there are no photos that show it. Not surprisingly, the floor in both rooms had evidence for charring in many places.

In contrast to the first entrance, the second entrance, located immediately to the south, had a bent-axis approach to the oval. The exterior door led into Ibgal III, Room C, a rectangular room oriented northwest-southeast. A doorway opposite opened into the northern end of Ibgal III, Room D. A third doorway in the middle of the eastern long wall
of Ibgal III, Room D led into the same exterior courtyard as the first entrance. Nothing of note was found in these two spaces.

The southernmost entrance led into Ibgal III, Room E. This external, isolated room was an example of a local religious architectural tradition that is also attested in Area B at Tell al-Hiba as well as in nearby Tell Senkereh, ancient Larsa (see section 5.2.a.iv). The room played an important role in the religious activities of the complex, although the specifics of those activities remain unclear. Besides a few sherds and bones, the room was empty.

In addition to the tripartite entrance, the excavators uncovered two further rooms that belonged to the complex, Ibgal III, Room F and Ibgal III, Room G. These were located immediately southwest of the entrance along the interior of the enclosure wall. The two rooms were connected through a doorway, but their relationship to the wider complex is unknown.

Ibgal III, Room F was completely excavated. Oriented northwest-southeast, the room was subdivided at its southeastern end by a low wall that ran all the way across the room. In the area north of the subdivision, the walls of the room were lined with a low dado of large sherds. This was particularly well-preserved along the northern wall where the dado extended to the partition wall. In the middle of the northern part of the room was a roughly triangular hearth—0.47 m long and 0.35 m at maximum width—that was filled with dark ash. In general, this area was ashy and charcoal was common. At the southwestern end of the northern area, the excavators uncovered two layers of reed mats laid in bitumen. These covered an area of about 0.30 x 0.38 m. In the southern part of the room, a pot rested against the southern face of the partition wall.

Ibgal III, Room G lay to the south of Ibgal III, Room F. This room was poorly-preserved but wall fragments suggest that it had a similar size and orientation to the latter room. At the northwestern end of Ibgal III, Room G, the excavators uncovered a keyhole-shaped hearth. Northwest of this was a rounded storage jar embedded into the ground with a second pot resting nearby. Traces of bitumen were found around the sides of the embedded pot. A door socket lay along the inner face of the enclosure wall north of the
storage jar. The excavators understood this socket to be in a secondary context.404

On the basis of their contents, Ibgal III, Room F and Ibgal III, Room G were part of an open-air zone for productive activities involving heat and liquids. The lack of any obvious by-products of these activities may indicate that they were connected to small-scale food production.

3.4 Ibgal II

The excavators uncovered around 1600 m² of Ibgal II over two seasons (Pl. 17). The exposure consisted of architecture arrayed along the northwestern, southwestern, and southeastern sides of an open courtyard. These remains were heavily disturbed by the construction of Ibgal I. The enclosure wall for this level was not uncovered. One undoubtedly existed, but it was probably removed by the foundation trench for the Ibgal I enclosure wall.

The architecture in the northwest, situated above the Ibgal III tripartite entrance, presumably continued to be the main entrance to the building. As suggested by the excavators, the walls in this area were probably the remains of a foundation for a platform on which the occupation levels of the complex rested.405 In their opinion, the voids in the foundations would have corresponded to the layout of the occupied rooms above.406 The fragmentary remains suggest the existence of multiple rooms with different orientations.

Not enough remains to determine definitively whether Ibgal II had a tripartite entrance or some other arrangement. However, there are reasons to think that two entrances led into the complex. First, the Ibgal I entrance was probably tripartite. If both the Ibgal III and Ibgal I entrances were tripartite, the Ibgal II entrance likely was as well. Second, there are two features that could be the remains of stairways. In the southeastern

404 The socket was flat and flush against the enclosure wall. Given that door sockets usually rest below their associated occupation surface, another possible explanation is that the socket was connected to a later occupation, presumably Ibgal II.
wall that bordered the courtyard, the excavators found a single 1.4 m-wide step built into the wall just north of its center. The step presumably served as a way down into the courtyard from the raised entrance. A bit further south was a plastered 1.5 m-wide brick feature that abutted the wall. The excavators interpreted this as a bench. Another possibility is that this feature was part of a second stairway. The wall behind the bench was preserved only a few centimeters higher than the top of the bench so it is possible that a second stairway existed in that part of the wall.

The aforementioned courtyard continued for an unknown distance to the north and east. Its width at its southern end was around 18 m.

Though mostly empty, the courtyard was not completely devoid of features. In the southwestern corner was a rectangular table made of carefully-laid plano-convex baked bricks. Over the course of its lifetime, the feature was replastered many times, creating a layer around 0.15 m thick. The feature was not intact when excavated. A cut from above, perhaps from Ibgal I, removed much of the core of the table as well as almost all of the northeastern corner. In light of this disruption, it is unclear how high this feature originally was and whether the top had any kind of elaboration. As preserved, it was around 1 m high. The bottom of the feature was below the level of the courtyard floor. The excavators did not indicate whether it was founded on an earlier floor or partly embedded into the floor at the time of its construction.

Along the northern exterior face of the entrance were two ovens. Each was about 1.1–1.2 m in diameter and had an inverted ED III fruit stand in the middle that functioned as a central support.

The final notable element in the courtyard was a 1.1 m-wide wall that ran parallel to and abutted the original southern wall of the space. The building sequence of this wall is challenging. Following the field notes, the southern portion was built first and the northern portion, which rested on the courtyard floor, was built at a later date. However, as part of its construction, the western end of the wall was cut into the extreme southern

---

end of the western wall of the courtyard. The bottom of this cut was at the same level as the bottom of the southern portion, which suggests a degree of contemporaneity. The reason for the construction of the wall is also unclear. Its use may be connected to the architecture on the eastern side of the courtyard.

The remains along the eastern side of the courtyard consisted primarily of the corner of two walls. The presence of two steps in a 1.25 m-wide plastered staircase in the northern end of the western wall suggests that these walls served as part of the foundation of a raised space, similar to the entrance to the building. The excavators linked these walls stratigraphically with the northern portion of the later wall along the southern end of the courtyard. This suggests that it was built after the western and southern units of Ibgal II architecture. Given the apparent importance of the architecture on the eastern side of the courtyard, it seems likely that all of the Ibgal II remains exposed by the excavators were built more or less simultaneously.

Further east, at X 1141 Y 1110–1111, there was a 0.07–0.10 m high bench or podium that was set against a wall. This feature was coated with bitumen, which also ran up onto the wall. This was preserved just below the surface in a badly eroded area. The excavators attributed it to Ibgal II.

A third zone of architecture was located south and southwest of the courtyard. This zone consisted of two suites of rooms, one to the south and the other to the southwest. These two suites were not connected to each other nor were the excavators able to find any doorways that provided access to the rest of the complex.

Excavation also exposed the southern and eastern exterior walls of this zone. The southern wall was niched-and-buttressed, which suggests that there was a second open air space between the excavated area and the enclosure wall of the complex. There was also a bench against the eastern wall of the southern zone, another sign of usable exterior space.

The southern suite had six rooms (Ibgal II, Rooms A–F) divided into two sets of three (Ibgal II, Rooms A–C and Ibgal II, Rooms D–F). All six rooms were rectangular

408 A shallow cut in the bench contained sherds, an alabaster nail, a possible jar stopper, a shell bead, and fragments of seal impression (1H-130a–e).
and roughly similar in size. The three rooms in each set were arranged in a row and were interconnected. A doorway between Ibgal II, Room B and Ibgal II, Room E joined the two sets. The southwestern suite, situated south of the entrance to the building, also consisted of three rooms (Ibgal II, Rooms G–J). These were arranged in an irregular manner.  

As part of the construction procedure for Ibgal I, the walls in these two suites were stripped of their plaster and the floors were dug out. Although some portions of wall plaster and floors escaped destruction, this practice essentially left nothing of substance in the rooms that could shed light on their use. Given the use of the area southwest of the entrance as a work area in Ibgal III, it is possible that a similar situation existed in Ibgal II. However, as I will argue below, this area in Ibgal I likely had a cultic character. A cultic function in Ibgal II cannot be ruled out.

3.5 Ibgal I (Enanatum I)

Through excavation and surface scraping, the excavators recovered much of the overall ground plan of Ibgal I (Pl. 18). This level dates to the reign of Enanatum I, whose foundation deposits were found incorporated into the lowest layers of the brickwork. These deposits also provide the identification of the building remains as those of the Ibgal of Inana. The complex consisted of multiple suites of rooms located along the western and southern ends of the enclosed space. The area north and east of the rooms was possibly a large courtyard. The southern extent of the complex was largely untraceable due to the presence of a wadi.

Erosion destroyed almost all the occupational levels of Ibgal I. What remained

---

409 This may have actually been four rooms. There was a small trace of cross wall left projecting west into the southern part of Ibgal II, Room J. The existence of a cross wall would also produce a more recognizable floor plan based on a symmetrical layout of four rectilinear rooms.
410 In total, the excavators cleared around 2500 m² of the Ibgal I complex and traced an additional 200 m of the enclosure wall.
411 Hansen 1970: 245; the excavators conducted some scraping and minor sounding activities in this area in order to establish if there was any architecture. A more thorough exploration is needed to prove it definitively.
were the foundations of the building. The construction sequence of this substructure was fairly uniform. First, the area was leveled. In some places, this required cutting away the rooms of Ibgal II, as occurred in the area of the entrance. Elsewhere, the rooms were stripped of occupation material and filled with relatively homogeneous fill. The leveled terrain was covered with a layer of sand upon which the foundations were then built. The foundations consisted of thick walls enclosing variously-sized rectilinear spaces. Passage-ways connected some of these spaces while others were entirely isolated. Broken pieces of alluvial mud and layers of sand filled these spaces, which were capped by one or more courses of mud brick at or near the tops of the walls. The end result was a platform that appeared solid, but actually contained a network of filled cavities.

As the excavators suggested, this construction sequence and the materials involved in it probably had more to do with issues of purity and the rituals of temple building than with functional concerns, such as how to facilitate drainage.412 Different types of intervention in the landscape prior to the construction of a temple are known from contemporary sites elsewhere. The large-scale replacement of earlier occupation levels with clean sand beneath Temple Oval I at Khafajah is a particularly dramatic example, but less intensive actions, such as laying a layer of sand between two building levels, are also attested.413 The textual record likewise sheds light on the activities involved. Though a couple centuries later, the description of the events involved in Gudea’s reconstruction of the Eninnu of Ningirsu is a good example of the diverse ritual practices involved in the temple building process and the serious investment of labor and resources that it could entail.414

An additional element of the construction rituals was the placement of foundation deposits. Fourteen of these were recovered in situ (see Pl. 18 for their locations). Ten consisted of an inscribed stone with an inscribed peg-shaped figurine erected upright behind it; four had only the stone (Pl. 19).415 An additional peg figurine and an inscribed stone—different in shape than those recovered by the expedition—from this building were

---

413 Delougaz 1940: 11–18; see Tunça 1984: 133–136 for an overview of the different practices.
in a private collection prior to the start of excavations. Many of these deposits were found right below the surface, so it may be that the deposits with only a stone originally had a companion figurine that was looted or otherwise became uprooted. Two deposits were found in the oval wall. The rest were located in the interior architecture, primarily in the remains along the western end of the complex.

The method of placement was similar for all the deposits. First, the figurine was inserted into the ground, facing east. Then the first three courses of brick for the foundation were laid around it. The inscribed stone was then placed behind the head of the figurine as part of the fourth course of brick.

The rationale behind the placement of foundation deposits in Mesopotamia is not always clear. However, given the practice's close connections to religion, it is safe to assume that it was intentional and meaningful. There are a few identifiable patterns in the Ibgal I foundations. First, foundation deposits were frequently placed in the middle of walls. Second, deposits were placed in opposite door jambs. Some of the placements may be the result of proximity to cultic spaces, which I will explore further below.

Four zones of architecture were uncovered in the Ibgal I complex, all arrayed around a central courtyard as in previous levels. Nothing was found in these spaces that speaks to specific functions, but the location of foundation deposits in conjunction with reference to earlier iterations of the Ibgal permits some hypotheses. My discussion of these spaces proceeds on the assumption that their layout in the foundations corresponded to that of the occupied rooms above. I have numbered each one in order to facilitate their discussion. I call each space a locus rather than a room since it is unclear whether each one equated to a livable space in the occupied building.

Zone 1 was the main entrance to Ibgal I. The core of the entrance was a 20 x 26 m rectangular brick area with eight loci (Loci 1–8) of varying size within it. The northwestern

---

417 See Ellis 1968 for a study of foundation deposits and practices from the third to the first millennium BCE.
corner of the core, as well as part of the adjacent oval wall, had eroded away.

The eight loci fall into three rows. The northernmost row consisted of three loci of similar width (Loci 1–3) arrayed in a series from northwest to southeast. Locus 1 was markedly narrower than the other two.

The second row has three loci of different sizes (Loci 4–6) that did not share a single alignment. Instead, Locus 4 was aligned with the top of Locus 6 and Locus 5 was aligned with the bottom of Locus 6. A fourth locus in the eroded area south of Locus 4 is also conceivable.

Locus 7 and Locus 8 made up the third row. A third locus, located in the eroded area, may have aligned with these two. Alternatively, the significance of Locus 7 and Locus 8 may be their alignment with Locus 5 and Locus 6, respectively. Given the size of these rooms, the latter scenario appears more likely.

Based on the layout of these loci, the Ibgal I entrance probably had the same general organization as the tripartite Ibgal III entrance (Pl. 20). The northern row of loci (Loci 1–3) were all of similar width and in direct alignment, which suggests a straight-axis approach. In the second row, Locus 5 and Locus 6 were in an arrangement characteristic of a bent-axis approach—as in Ibgal III, Rooms C–D—where Locus 5 would open into the southern end of Locus 6, which would have a door to the courtyard, Locus 26, further north. How Locus 7 and Locus 8 fit into this scheme is not clear. Given their small size, they may not correspond to living spaces.

Locus 9 probably corresponded to Ibgal III, Room E, which was located directly beneath it. Ibgal III, Room E was an example of an external, isolated room, an architectural form that was connected to cultic activities (see section 5.2.a.iv). The placement of cultic locations in ancient Mesopotamia was very conservative. These locations usually did not move much across building levels. The construction of Locus 9 directly above Ibgal

---

420 The relationship of Locus 4 to this approach is unclear. One possibility is that Locus 4 actually extended further south than depicted in the published plans. The southern corner of this locus was left in the baulk at the end of 1H. In 2H, there is no record in the plans for the mapping of this southern corner. It first appears in the composite plans made later. The excavators may have reconstructed this corner rather than identified it on the ground.

421 For example, see the limited movement of the main cella in the Inanna Temple at Nippur
III, Room E suggests that it served as the external, isolated room in the tripartite entrance of Ibgal I.

Additionally, four foundation deposits lay in close proximity to Locus 9, the highest concentration of deposits around any space in the excavated building. The deposit behind the southeastern wall of the locus appears to be directly associated with it, which suggests that Locus 9 had a heightened importance.

Zone 2, located immediately south of Zone 1, had two separate suites of loci, both accessed from the courtyard, Locus 26. The layout of the rooms in Zone 2 differed markedly from that of Ibgal II. This change in plan may indicate a new use of space in this level. On the basis of the layout of the loci and the location of the foundation deposits around them, I suggest that they were connected to the cultic activities in the complex.

The first suite consisted of Locus 10 and Locus 11, which served as the anteroom for Locus 10. The two doorways in this suite were in alignment, permitting vision from the courtyard straight to the back of Locus 10. There was a foundation deposit in each jamb of the door that led into Locus 11 from the courtyard.

Loci 12–14 made up the second suite. Entry was from the courtyard via a bent corridor into Locus 12. This, in turn, led into Locus 13, which was connected to Locus 14 by a doorway in its southern wall. Locus 13 had part of a vertical brick drain near its eastern corner. This was made by building a plano-convex brick shell, inserting drain pipes vertically in the middle of the shell, and then packing the remaining space with dirt and large amounts of pottery, much of it ED III. There was no definite indication that this drain belonged to Ibgal I rather than a later building level. However, its position in the room suggests an awareness of the layout of the Ibgal I substructure.

Five foundation deposits surrounded this suite. The proximity of some of these may be incidental. The locations of three are particularly noteworthy. Two flanked the doorway from Locus 13 into Locus 14. The third was located behind the southeastern

---

between IT IXB and IT VIIA (Zettler 1992: 29).

422 Notably, the door between Locus 10 and Locus 11 was the only door in the exposed foundations with a door sill. Perhaps the floor of Locus 11 was a continuation of the exterior courtyard while Locus 10 was a fully interior space.
short wall of Locus 14.

The assignation of cultic importance to this zone depends mainly on the location of the foundation deposits. The placement of foundation deposits during ED III is not well-known. In the Ur III period, there was a preference for door jambs and the corners of buildings. When the deposits were placed in door jambs, the doors were usually the principal doorways in the structure.

Zone 2 is the only area in the excavated portions of Ibgal I where deposits were recovered in door jambs. The two doorways that had deposits differ in important ways. The set associated with Loci 10–11 was located at the interface between the courtyard and the entrance to the two-room suite. In contrast, the set associated with Loci 12–14 was located at the innermost door of the suite. If the drain in Room 13 indicates that the space was an open courtyard, then the deposits may again be located at the interface between an exterior and an interior space like they were in Locus 11.

One additional deposit may signify a cultic use for the area. A single deposit lay in the middle of the southeastern wall of Room 14, which had a bent-axis approach. The placement of a deposit at the far end of a bent-axis room is unique among the deposits recovered thus far. If this room functioned as a sanctuary, the shrine would have been against the southeastern wall, directly in front of the foundation deposit.

Zone 3, located south of the main courtyard, consisted of Loci 15–22. Like Zone 2, the layout of Zone 3 did not match the Ibgal II layout in the same area. The majority of these spaces, Loci 15–21, were part of a complex that was accessed from south of the excavated area. Locus 17 served as the nexus of this area and facilitated movement north-south and east-west.

Little within these spaces sheds light on their function. A sherd-packed drain in the

---

423 An important factor in this discussion is the recovery rate of the foundation deposits. Given the removal of the Ibgal I foundations in order to explore the earlier levels, the excavators likely recovered most, if not all, of the foundation deposits present in their excavation area.
425 Ellis 1968: 66.
426 Tunça 1984: 187; for example, see the location of the deposits in Inana Temple IV at Nippur (Zettler 1992: 39–41, fig. 10).
southwestern corner of Locus 21, if contemporary with Ibgal I, could indicate that Locus 21 was a courtyard. Another possible drain, consisting of two bricks over the top of an embedded pot, was recovered in the area of Locus 15.

The only foundation deposit found in this area was at the far eastern corner of Zone 3 near Locus 22, which was a long, narrow space that extended south from the central courtyard of the complex. The purpose of the room is unclear, but it definitely does not correspond to a living space.

Zone 4 lay along the eastern side of the central courtyard, directly opposite the entrance to the complex. The core of this zone consisted of three loci, Loci 23–25, and associated corridors. The area was badly eroded, so none of these spaces were recovered intact. The layout of the voids in the platform suggests that the main corridor into this area was on the western side.

In addition to these foundations, Zone 4 also contained scattered elements of the living levels of the Ibgal I complex. The excavators uncovered two steps of a rounded stairway along the northern corner of the foundations. These were built out of brick and covered with plaster. Two to three courses of the upper step remained. The lower step was about 0.25–0.50 m wide. These steps would have led up to the living surface associated with Loci 23–24. Further west in X 1120–1130 Y 1120–1130 was a low, plastered, mudbrick bench built on two layers of pottery sherds. To the east in X 1120–1130 Y 1100–1110 was part of a horizontal drain that was covered by several baked bricks coated with bitumen.

3.6 Summary and General Observations

The excavations in Area A exposed around 3.5 m of continuous occupation dating from at least the late ED I until ED IIIB. Additional remains below the water table in the sounding indicate the presence of even earlier occupation.

427 The excavators attributed this to Ibgal II in their notes, but it seems likely that it belongs to the living surface of the Ibgal I courtyard.
When the Ibgal was founded remains an open question. The sounding was too narrow to permit the identification of the sacred or profane nature of the remains found within it. What is clear is that the remains retained a similar layout across multiple building levels, which suggests continuity in the use of space in the wider area.

The construction of Level IV, which served as the foundations of Ibgal III, appears to represent a change in the use of this space during ED IIIA. The earliest attestation of the Ibgal thus far in the textual records also comes from ED IIIA.\textsuperscript{428} Therefore, Ibgal III may correspond to the foundation of this complex during that time.

Alternatively, Ibgal III may represent an expansion of the boundary of a pre-existing Ibgal complex. Temples with long occupational histories have a tendency to expand in surface area over time. Although the locations of the most sacred spaces in a temple usually do not change much, the borders of a complex can be more fluid.\textsuperscript{429} Based on Ibgal III–I, the center of the Ibgal complex lay to the southeast of the sounding. If an earlier version of the Ibgal existed here, then it should lay in that direction.

Ibgal III–I represent three building levels with a similar layout, albeit one that grew in complexity and size over time. All three levels had a tripartite entrance. This combination of a straight-axis and bent-axis entrance as well as an external, isolated room is thus far unique in Mesopotamian religious architecture.

The rationale behind the division is unclear. The screen wall and the width of the doorways indicate that access to both entrances was by foot. The presence of multiple hearths in the straight-axis entrance and its placement as the first doorway one encountered after passing through the screen wall suggests that this was the primary entrance into the complex. The lack of furniture and small finds from the second entrance provides little insight into the function of the bent-axis entrance. Perhaps it was only used at certain times, such as festivals, or by certain people.

A curved enclosure wall surrounded all three levels. Ibgal I was the only level

\textsuperscript{428} See fn. 325.

\textsuperscript{429} The Inana Temple (IT) at Nippur is a good example of this. Between IT IXB and IT VIIB the boundaries of the complex expanded significantly to the north and east while the location of the cella remained fixed (Zettler 1992: 22–35).
where the wall was extensively traced. A wadi destroyed the southern end of the complex, so its maximum extent is unknown. However, the Ibgal III enclosure wall began curving towards the south just after the tripartite entrance, which suggests that the southern end of the Ibgal III complex was not too far away. A similar situation may have existed in Ibgal I.

The location of the sanctuary in the complex is unclear. The most likely candidate among the preserved remains is the architecture along the eastern end of the courtyard—Ibgal I, Loci 23–25—in Ibgal II–I.\textsuperscript{430}

In Ibgal I, Zone 2 may have also had a cultic focus. If so, one possible function of this area was to house Lugal-URUxGAN\textsubscript{2}@t, her spouse. According to Ur-Nanše, he fashioned and installed statues of Lugal-URUxGAN\textsubscript{2}@t and Lugal-ur-tur\textsubscript{3} in the Ibgal.\textsuperscript{431} These were presumably still there at the time of Enanatum I’s reconstruction.

Finally, the historical date of Ibgal III and Ibgal II remains unknown. Thus far, Ur-Nanše is the only ruler prior to Enanatum I who mentioned work on the Ibgal. Given the proximity of the two rulers in time and the lack of any mention of work by Akurgal and Eanatum, I attribute Ibgal II to Ur-Nanše.\textsuperscript{432} This means that Ur-Nanše’s building was a reconstruction of an earlier structure rather than an entirely new creation.

\textsuperscript{430} Hansen 1970: 245.
\textsuperscript{431} Frayne 2008: E1.9.1.11; the sequence of events in the text suggests that the two statues were placed in the Ibgal.
\textsuperscript{432} Cf. Huh 2008: 281, who suggested that Ur-Nanše built Ibgal III.
Chapter 4: Area B

In this chapter, I begin with a general overview of Area B and the remains found there. This will be followed by a detailed description of the architecture and stratigraphy for the 3HB and 4HB buildings from earliest to latest. I will conclude with an occupational history of each building based on the results of the analysis.

In this work, I use different names for the buildings than those utilized by the excavators in the preliminary reports. I did this so as not to prejudice the functions of the structures. The 3HB Building is equivalent to the structure identified as a possible antecedent to a “kitchen temple.”\textsuperscript{433} The 4HB Building is the same as that proposed to be a brewery.\textsuperscript{434}

I also use a different set of terminology for the building levels. These new designations are based on my reanalysis of the excavated remains. Each building level is marked with a roman numeral. They correlate with the original levels used in the field records and publications in the following way:

**3HB Building**

Old = New  
Level I (OB) = 2\textsuperscript{nd} mil. platform  
Level 2A = 3HB I  
Level 2B = 3HB II  
Level 3 = 3HB III  
Level 4 = 3HB IV

**4HB Building**

Old = New  
Second-mil. platform = 2\textsuperscript{nd} mil. platform  
Gudea-period remains = 4HB I  
Level 1 = 4HB II  
Level 2A = 4HB III  
Level 2B = 4HB IV  
Level 3 = 4HB V

Finally, loci are identified by adding an arabic numeral to the end of the building level. For example, 3HB I 8 for Locus 8 in Level I of the 3HB Building.

\textsuperscript{433} Hansen 1978: 79–82.  
\textsuperscript{434} Hansen 1978: 82–83.
4.1 Introduction

Work in Area B, the highest point on the mound, occurred in four seasons—1H (1968–69), 3H (1972–73), 4H (1975–76), and 5H (1977–78). Excavation in the area focused on three zones: east, west, and south (Pl. 21). The majority of the remains found in these three zones came from the first half of the second millennium BCE. In the western and southern zones, the excavators uncovered earlier architecture from the second half of the third millennium BCE.

Inscribed evidence from the third-millennium remains in the western zone indicated that this area was part of the Bagara of Ningirsu, a religious complex well-attested in contemporary textual evidence from Girsu. Nothing in the second-millennium remains shed light on whether this area continued to be part of the Bagara complex at the time of the platform’s construction.

I will begin with a general description of the second-millennium remains uncovered in Area B before discussing the earlier remains uncovered in the western zone, which form the focus of this chapter. The second-millennium remains cut into the earlier levels, so it will be beneficial to know about them before moving on to the 3HB and 4HB buildings.

4.2 The Second-Millennium Remains

During 1H, limited excavation occurred in the eastern zone in three test trenches (A, B, and C). Only Trench B contained architectural remains. In it, the excavators identified four stratigraphic levels. Level III was the most important. It contained part of a poorly-preserved niched-and-buttressed facade that was identified as part of a temple. The construction of the foundation disturbed a burial that included tablets that came from the end of the reign of Nur-Adad (ca. 1865–1850 BCE) and the beginning of the reign of his son and successor Sin-iddinam (ca. 1849–1843 BCE), which provide a terminus post

---

Work in the western zone occurred during 3H and 4H. In this area, the excavators explored part of a baked-brick platform that exhibited an elaborate construction sequence (Pl. 24). After the foundation trenches were cut, the builders scattered bits of semi-precious stones and pieces of metal over the soil before the first course of bricks was laid (Pl. 25). Like in Area A, this platform was built with chambers within it, some of which were connected through doorways. These chambers had been filled with sand, earth, and pieces of mud and then capped at their top with mudbrick, creating the appearance of a solid platform.

The filling of the chambers could exhibit a surprising complexity. In Locus 6, the largest chamber, the space was partially filled, two mud-plaster floors were laid down across the whole area, and then the rest of the area was filled with broken mud and presumably capped with brick, although this had eroded away. There was no indication that the two floors had ever been occupied.

Due to erosion, little of the structures built on top of the platform remained (Pl. 22). The excavators identified one room, which preserved evidence for three use-phases. The first dated to the construction of the foundation. At a later date, the mudbrick walls of this structure were removed and replaced with baked bricks that cut down into the earlier remains. The final phase involved the deconstruction of the walls. Stacks of baked bricks, presumably those removed from the walls, were uncovered near the room (Pl. 23). The period of time between construction, reconstruction, and deconstruction is unknown.

This platform was one of the areas explored by Koldewey in 1887. In different areas, the excavators came across trenches of varying size cut through the brick of the platform, some bearing the marks of shovels. They also uncovered part of a baked-brick

---

437 Hansen 1970: 250; Biggs 1976a: no. 36 (1H-136a), 38 (1H-135), 39a (1H-137a), and 39b (1H-137b); see Sigrist 1990: 22 for the assignation of the date formula on 1H-136a and 1H-137b to Nur-Adad and Steinkeller 2004: 30, fn. 17 for the suggestion that it dates to the end of Nur-Adad’s reign.
drain that may be the remains of one discovered previously by Koldewey.\footnote{Hansen 2001: 217; Koldewey 1887: 422.} In his preliminary report, Koldewey reconstructed the platform two-tiered and circular.\footnote{Koldewey 1887: 422.} Hansen’s later work did not definitively prove or disprove this hypothesis.\footnote{Hansen 2001: 217.}

No objects were recovered that can precisely date the initial construction of this structure. Hansen argued that it dated to the same time as the Level III remains in the eastern zone—i.e., Sin-iddinam or later—on account of similarities between the dimensions, color, firing, and temper of the bricks used in both constructions.\footnote{Hansen 2001: 216.} However, similarity in bricks is a tenuous argument for contemporaneity.

Another possibility is that the platform dates to Šulgi’s reconstruction of the Bagara complex. This construction is primarily known from a foundation tablet in the Ashmolean Museum that records Šulgi’s construction of the Bagara for Ningirsu.\footnote{Frayne 1997: E3/2.1.2.15; the tablet’s accession number (1922-9) may indicate that it came into the collection in 1922, which would coincide with a period of heavy looting in the region of Lagash, particularly at Girsu (R. Zettler, pers. comm.).} Additionally, a year name from the first half of Šulgi’s reign, possibly Year 12, records the entrance of a statue of Ningirsu into the Bagara.\footnote{mu ḫugal-ba-gara₂ e₂-a kur₃-ra; see Carroué 2000 for a discussion of this year name and its relation to Šulgi’s reign.} This year name may relate to the construction of the Bagara complex or it could represent a separate episode in the history of Šulgi’s activities in the Bagara.

Nothing in the archaeology precludes an earlier dating for the platform. The average brick size in the construction of the platform was 0.25 x 0.18 x 0.08 m.\footnote{Hansen 2001: 218.} The ephemeral remains on top of the platform contained two brick sizes: 0.23–0.24 x 0.16–0.18 x 0.07 m and 0.31–0.34 x 0.22–0.23 x 0.07–0.08 m.\footnote{Hansen 2001: 217.} Bricks with these approximate dimensions were also used during the Ur III period at sites across the alluvium.\footnote{See Sauvage 1998: 256–267.} Further, the multiple construction episodes on top of the platform indicate the passage of a longer
period of time. Only additional excavation will reveal whether the platform was part of Šulgi’s version of the complex or whether its construction cut away Šulgi’s temple.

Isin-Larsa/Old Babylonian remains were also uncovered in the southern zone, but these were much less substantial than those to the north and east. In the center of the earlier series of walls (see 2.5.c.ii.b) was a poorly-preserved Isin-Larsa/Old Babylonian house with four rooms and a courtyard with an oven. To the west, a circular baked-brick feature, measuring three meters in diameter, was sunk through earlier remains. This feature was excavated for four meters without reaching the bottom and without finding any artifacts. Additionally, ten burials were excavated during the fifth season that dated to the Early Isin-Larsa Period on the basis of their associated pottery.451 Along with the house, this may indicate that the area was residential in nature by the time of the first half of the second millennium BCE. The location of this material south of the brick platform also works well with Koldewey’s discovery of multiple Isin-Larsa/Old Babylonian homes southwest of the same area.452

4.3 The Third-Millennium Remains in the Western Zone

The construction of the second-millennium platform cut down deeply into earlier occupation levels. The removal of the platform revealed two adjacent buildings separated by a 1-m wide alley way.453 The western building, exposed during 3H, consisted of a central niched-and-buttressed structure surrounded by a low enclosure wall. During the following season, the excavators uncovered another, slightly smaller niched-and-buttressed building immediately to the east. Based on the season and area of their discovery, I call these two structures the 3HB Building and the 4HB Building.

3HB III and 4HB IV were the only building levels that were linked stratigraphically (Pl. 26). Based on the proximity of the buildings, I assume that the two buildings were

452 Koldewey 1887: 423–425.
rebuilt at around the same time. The elevations on the floors and walls of both structures support this. Therefore, the building levels correlate from top to bottom:

- $3HB\ I = 4HB\ II$
- $3HB\ II = 4HB\ III$
- $3HB\ III = 4HB\ IVB$
- $3HB\ IV^{454} = 4HB\ IVA\ and\ 4HB\ V$

Due to differences in the height of the remains, the level of the 3HB Building that was equivalent to 4HB I was cut away by the platform.

4.3.a The 3HB Building

The excavators identified three distinct building levels in the 3HB Building (3HB III–I; Pl. 27). 3HB III, the earliest level, was the only level in which the entire plan of the building was preserved. Based on the preserved remains, 3HB II and 3HB I maintained the same general layout.

4.3.a.i 3HB III

3HB III consisted of an outer enclosure wall and an inner niched-and-butttressed building (Pl. 28). The enclosure wall was roughly 31 m x 25 m, giving a total surface area of 775 sq. m. The inner building had dimensions of 24 x 20 m, for a total surface area of 480 sq. m.

The 3HB III walls were made with plano-convex bricks and covered with mud plaster. The bricks were laid both flat and on edge. Some of the walls were built with the herringbone pattern of bricks on edge between flat courses. Some of the walls had a few courses of brick as a foundation, but this was not a uniform practice.

The excavators identified two main occupation floors, separated by 0.10–0.20 m—roughly 54.10 and 54.30 in the northern part of the building and 54.60 and 54.80 in the

---

$^{454}$ The existence of 3HB IV is hypothetical.
south. The surfaces sloped up as they moved south, rising 0.40–0.50 m over the course of the building.

3HB III ended with the building destroyed by fire. Concentrations of pottery and other small finds resting on the floor in rooms throughout the structure indicate the building was not cleaned out before the construction of 3HB II.

3HB III Exterior

3HB III 25 was the area north of the northern enclosure wall. A series of floors excavated in this area sloped up towards the enclosure wall. Elevations on the floors along the north face of the wall ranged from 53.57–53.77. The excavators uncovered a layer of white ash and burned material in this area. This does not seem to have been extensive, which suggests a small-scale burning episode rather than a significant conflagration.

It is unclear what existed north of the 3HB Building. The photographs show that the excavators did not dig beneath the level of the second-millennium platform in this area except for about a meter-wide zone along the north face of the enclosure wall in order to trace its extent.

The northern enclosure wall was about 1.2 m wide and 0.30–0.40 m high. Plaster accounted for much of the width. The brick core of the wall was only rarely exposed. It consisted of two rows of bricks, one row of flat stretchers and a second row of headers on edge. The top of the wall was at 53.66 in the northwest corner and 54.10 in the center.

The northern enclosure wall had two doorways in its center. The eastern doorway was 1.8 m wide and was rabbetted on the eastern jamb. A round, plastered base with a diameter of 80 cm and a preserved height of 18 cm filled the center of the doorway.

The western doorway was also 1.8 m wide. Both door jambs were rabbetted with a single step back. These rabbetts were a later addition. A plastered base also filled the middle of this entrance. Due to plastering, this base was roughly one meter square. The

---

455 This arrangement may have only been that of the top courses of the wall. A photo of the south side of this wall shows that the lower courses were laid in a herringbone pattern.
original brick core was roughly 50 cm N-S x 60 cm E-W. It was preserved no more than 10 cm high.

Both doorways led to an open area in front of the inner niched-and-buttressed building, 3HB III 12/13/19/26. The dominant feature of the space was a low apron that ran across the whole front of the inner building. The top of the apron was about 0.10–0.15 m above the surface of the doorways in the northern enclosure wall. The surface sloped up towards the northern wall of the niched-and-buttressed building.

The method of construction for this apron was not explored. In general, the apron projected around 2 m from face of the inner building. In the area of the two doorways, its extent increased to around 3.2 m. The elevations on the top of this feature clustered in the 54.10–54.20 range. On the projections by the doorways, it sloped down slightly with elevations of 53.87–53.94.

The northern façade of the 3HB Building consisted of five buttresses; two at the corners and three that framed two doorways into the interior of the building. Each buttress was about 2 m long and projected 0.30–1 m from the wall. The two buttresses that flanked the eastern doorway had a niche; the western of these buttresses possessed a rounded protrusion that was repeatedly plastered.

The two doors in the northern façade were located directly opposite the two doorways in the northern enclosure wall. The western doorway, which was rabbeted, provided access into 3HB III 14, an isolated room with a platform (Pl. 31). 3HB III 14 was roughly square, measuring 2.9 m N-S x 2.6–2.7 m E-W. The excavators recorded two floors in 3HB III 14. Floor 2 was at 54.19–54.29, while Floor 1 was at 54.47–54.51. In a sounding below Floor 2 along the west wall of the room, the excavators exposed burned plano-convex brick that may have belonged to a pavement. A mud-plastered platform,

---

456 The loci in this exterior area were not strictly demarcated. For ease of discussion, I have combined all of the loci into one larger unit. The locations of the individual loci are as follows. 3HB 26 was the westernmost portion of the space, although this area was originally included in 3HB 13. 3HB 13 was east of 3HB 26 and loosely corresponded to the area south of the west doorway in the enclosure wall. East of this was 3HB 12, which began south of the east entrance of the enclosure wall and extended east. 3HB 19 was the easternmost locus in this area. It overlapped with 3HB 12 and largely corresponded to the area adjacent to the southern face of the enclosure wall.
located against the southern wall of the room, dominated the space. Three courses of
the platform were recovered, an initial flat foundation course and two courses on edge
in a herringbone pattern. The platform measured 1.6–1.7 m N-S x 2.1 m E-W and was
preserved 0.55 m high.

3HB III 9 was the area of the niche in the eastern doorway and the space immedi-
ately north of it. The elevations on the floor in this locus clustered around 54.15–54.18.
A two-course high, brick-covered drain passed through this space. The drain began in
the doorway into 3HB III 8 and extended 3.55 m north almost to the end of the apron.
The drain had a width of 0.60–0.75 m and sloped distinctly downwards from 54.40 at its
southern end to 54.04 at its northern end.

As excavated, this drain lacked the ability to debouch out into the eastern door in
the north enclosure wall due to the lack of a channel all the way through the apron. It seems
likely that one originally existed and that it filled in over time or was intentionally filled in
when the drain was abandoned. Alternatively, the amount of liquid directed into the drain
at any one time may have been so minimal that a longer channel was not necessary.

A 0.60 m-wide doorway in the northern end of the eastern enclosure wall led to
3HB III 21, a 1 m-wide corridor between the 3HB and 4HB buildings.

3HB III 20 was a 0.40–1.6 m-wide exterior space between the 3HB Building and
the eastern enclosure wall. A series of three soundings in the north, center, and south of
the locus reached 3HB III. This level was disturbed by later cuts.

The excavators identified two floors in 3HB III 20. It is unclear how much sepa-
ration existed between them. Three floor elevations were recorded on the plans for 3HB
III: 54.52, near the first buttress south of the northeast corner, and 54.72 and 54.85,
both located in the area between the southeast corner and the first buttress north of it.
The excavators did not indicate how these floors corresponded to the two floors that they
recorded.

The eastern enclosure wall was built in the same manner as the northern part of
the enclosure wall, i.e. two rows of bricks, one flat headers and the other stretchers on
edge. The elevations on the tops of the walls ran from 54.92 in the north to 55.16–55.25
in the south. As preserved, it was roughly 40–50 cm high and had a width of around 1 m.

The eastern façade of the 3HB Building consisted of four buttresses: one located at the northeast corner, another at the southeast corner, and two in between. The buttresses were 1.5–1.8 m long and projected 0.50–0.70 m from the side of the building. The distance between each buttress was roughly 5.5 m. The preserved height of the wall varied from 0.85 m at the southeast corner to 0.45 m at the northeast corner with some lower heights in between where later walls cut down deeper than elsewhere.

3HB III 11, the corridor between the 3HB Building and the southern enclosure wall, was only partly preserved due to erosion and the intrusion of the second-millennium platform. The width of the corridor ranged from 1.9–2.1 m, making it slightly wider than 3HB III 20. Floor elevations were 54.53 in the west and 54.72–54.76 near the southeast corner.

Only the eastern half of the southern enclosure wall was recovered. The wall was built in the same manner as elsewhere and had multiple layers of plaster. As preserved, the wall sloped upward towards the east with an elevation of 54.58 on the far west and 55.38 at the southeast corner. The preserved height of the wall reached nearly 0.70 m at its east end. It had a width of just over 1 m.

About three-quarters of the southern façade of the 3HB Building was preserved. Contrary to the eastern façade, the southern façade appears to have had a single long, shallow central buttress in addition to the southeast corner buttress. The southwest corner of the building was gone, but it presumably had a corner buttress as well. The wall was preserved 0.50–0.80 m high.

The western corridor, 3HB III 24, was similar to 3HB III 20. Its width ranged from 0.90–1.6 m. The excavators exposed a series of floors. The elevations for these were 54.17 in the south, 54.03 in the middle, and 53.56 in the northwest corner. As in 3HB III 20, this suggests a gradual slope upwards towards the south.

The eastern face of the western enclosure wall was relatively well-preserved. The western face was never confidently identified, but the wall presumably had the same width of just over 1 m seen elsewhere. The wall was preserved 0.20–0.30 m high.
The western façade of the 3HB Building was only partially preserved. As mentioned above, the southern end of the wall was missing, but it presumably had a buttress similar to that in the southeast corner of the building. The northwest buttress and the two center buttresses were all preserved and had the same spacing as those in the east wall, i.e. roughly 5.5 m between each buttress. The wall was plastered multiple times, with the thickness reaching up to 0.65 m. At some point post-construction, the wall immediately south of the northwest corner buttress was repaired. The wall was preserved around 0.50 m high in the south, but decreased down to 0.24 m in the north where the second-millennium platform cut down into the earlier remains.

3HB III Interior

The eastern doorway in the northern façade ultimately led into 3HB III 8. 3HB III 8 was a rectangular foyer, measuring 2.35 m N-S x 3.45–3.5 m E-W. The walls were preserved 0.30–0.40 m high, their tops clustering around 54.60—just below the 2B floors. A 0.70 m-wide doorway in the eastern wall provided access to 3HB III 5/6/15, while a 0.85 m-wide doorway in the southern wall led to the central courtyard, 3HB III 7/23. A table in the southeast corner of the room measured 1.5 m N-S x 0.70–0.95 m E-W.

The excavators identified two floors in 3HB III 8. The earlier floor, Floor 2, was at 54.22. Floor 1 was at 54.31. The northwest corner was paved with plano-convex bricks at this level. An additional elevation of 54.44 in the doorway into 3HB III 5/6/15 may correspond to Floor 1.

3HB III 5/6/15 measured 5.1 m x 2.85–3.00 m.457 The room contained a number of features, all of which had been plastered. A bench lay against the western wall. It measured 1.5 m x 0.70–0.95 m and consisted of five courses of bricks laid flat. A platform, roughly 1.1 x 1.55 m, was adjacent to the center of the southern wall. This exhibited two

457 This area of the building was badly disturbed by the second-millennium platform. As a result, the room was divided into three different loci. Locus 15 covered the northern three-quarters of the room, while Locus 5 and Locus 6 covered the southeast and southwest corners, respectively.
construction phases. Both consisted of three flat courses of brick, the latter laid in thick mud plaster. The third feature, located along the eastern wall, consisted of a series of four small square brick platforms laid out in the shape of an L—three squares N–S, one located on the west side of the north end. Each was preserved 5–6 courses high. The platforms rested on about 0.10 m of fill, so they may not have been original features of the room.

The excavators recovered a spearhead (3H-65; Pl. 47) in the fill above “Floor 2.” This may be equivalent to the earlier construction phase in the platform.

3HB III 7/23, a rectangular courtyard, was the largest space in the building. It measured 5.1–5.75 m N–S x 11.4–11.5 m E–W. The exposure of 3HB III 7/23 was limited to the areas along the northern and southern walls of the space. Six elevations documented the floors in this space. Four along the north wall and one in the southwest corner ranged from 54.33–54.43. The sixth elevation, located in the southeast, was 54.67. This may indicate that the floor sloped up towards the southeast; alternatively, it belongs to a later floor in the occupation. In general, the elevations on the Level 3 floors in the south and southeast of the building are higher than those further north.

Field photographs provide evidence for one or more brick features in the northeast corner of 3HB III 7/23. These were not explored due to the presence of trough ovens above them in 3HB II and 3HB I, but it is likely that they were also part of a pyrotechnic installation.

The excavators found a number of small finds on the floor in front of the doorway to 3HB III 22. These included a blade bearing a dedicatory inscription that mentioned Eanatum (3H-70; Pl. 36) and a fragment of a worked flint blade. The fill above the floor contained two additional corroded blades, one with relief on both sides (3H-95), as well as one large bitumen object (possibly a receptacle), two stone bowl fragments, and miscellaneous clumps of corroded metal and bone.

A 0.85-m wide doorway in the northwestern corner of 3HB III 7/23 led to 3HB III.
22. The room measured roughly 3.00 x 2.50 m. The elevations on the floor in this room ranged from 54.13–54.16. An additional elevation at 54.20 in the doorway into the room was slightly higher.

This area contained a large quantity of small finds (Pl. 34–35). The excavators assigned all of it to the fill above Floor 1. However, Floor 1 in 3HB III 22 was about 0.20 m below the adjacent 3HB III 7/23 Floor 1, which had objects resting on it. This suggests that most, if not all, of the small finds in 3HB III 22 were associated with a later floor that the excavators missed. These finds consisted of a stone rod (3H-60), an inscribed bowl fragment (3H-64), a spearhead (3H-66), three seal impressions (3H-90a–b, 3H-92, 3H-94), a piece of a worked stone object (very similar to that found above 3HB III 17 Floor 1), three lumps of corroded metal, a small round tablet (3H-T9), and twenty-one unbaked lumps of clay that may have been sealings.

Two doorways pierced the southern wall of 3HB III 7/23. The western doorway, ca. 1.2 m wide, led into 3HB III 18, while the eastern doorway, 0.75 m wide, provided access to 3HB III 7/10. Both spaces serve mainly as transit zones to other rooms and were, in fact, directly linked through a 0.60 m-wide doorway.

3HB III 18 was a 1.90 m x 2.80 m space that provided access to 3HB III 16 to the west, 3HB III 17 to the south, and 3HB III 7/10 to the east. At least two floors were uncovered here. Based on photographic evidence, these were probably 0.15–0.20 m apart. The elevations recorded for this room, 54.61 and 54.66, probably belonged to the earlier floor. The southwest corner of 3HB III 18 bore evidence of multiple repairs and may have been reused in 3HB II.

A 0.80 m-wide doorway led into 3HB III 16, located in the southwest corner of the building. Its exact dimensions could not be determined due to destruction of the southern end of the room. Based on comparison with 3HB III 3 in the southeast corner of the building, it was probably about 9 m x 4 m. The excavators identified two floors. Floor 2, the earlier floor, overlay a plano-convex brick pavement. The two elevations recorded—54.36 (west) and 54.43 (east)—were probably from this surface. Floor 1 was probably at a similar level to the floor in 3HB III 18 (54.61 and 54.66).
3HB III 17 was a small rectangular room that contained a large number of small finds (Pl. 32–33). The room measured 5.00 x 3.70 m. A 0.65 m-wide doorway provided access from 3HB III 18. This doorway was apparently blocked in preparation for the construction of 3HB II. The blocking was not removed during excavation. Like the southwest corner of 3HB III 18, the west door jamb of 3HB III 17 showed evidence of repair in 3HB III or, perhaps, 3HB II.

The excavators identified two floors in this level, but a sounding below Floor 2 along the face of the eastern wall exposed a plano-convex brick pavement approximately 0.10–0.20 m further down. It is uncertain whether this pavement extended across the entire room, but it seems possible that it represents the earliest occupation floor in this space. A rim fragment of an inscribed stone vessel came from the fill below Floor 2.

Six elevations taken across Floor 2 ranged from 54.54–54.68. Patches of ash were recovered on the floor. A pivot stone, sunk below Floor 2 in the northwest corner of the room, indicates that this space could be sealed off. This irregularly shaped stone was roughly 0.35 m x 0.25 m and had a circular depression of 0.08 m in diameter where the door post rotated. Most of an inscribed, gadrooned macehead (3H-63) was recovered from Floor 2. The fill above the floor contained three fragments of the base and side of a stone bowl, two rim fragments of alabaster bowls (possibly the same bowl), a large number of fish and animal bones, and abundant pottery. Bones were also recovered in the mortar and plaster of the eastern wall.

Two elevations on Floor 1, 54.80 and 54.83, both came from the south end of the room. A large number of items came from Floor 1 and the fill above it. On the floor itself, the excavators recovered a stone macehead with relief carrying depictions of an Anzu-bird grasping two addorsed goats (3H-69; Pl. 33), an intact high-neck jar (3H-75), an intact conical bowl, miscellaneous animal bone, and an unfinished stone object, possibly a bead, made of brown translucent stone. The fill above the floor contained two uninscribed piriform maceheads (3H-58, 3H-62), a piece of worked stone, a corroded metal object, and a pinkish-red stone object shaped like a truncated cone that had evidence of work with a drill on its larger end. This fill also contained pieces of broken red brick and a marked
increased in the amount of broken pottery relative to 3HB II 17.

3HB III 7/10 served as a transit space to the east of 3HB III 18.\textsuperscript{459} The irregularly-shaped room measured 1.40–1.90 m x 1.35–1.70 m. The only elevation in the room was 54.83, taken in the doorway to 3HB III 18. This is higher than the floor recorded in 3HB III 18, but matches Floor 1 in 3HB III 17 and 3HB III 3 (see below).

3HB III 7/10 provided access to a stairway to the south. Steps could not be definitively identified in 3HB III, although a change in the color of the brick in that area may be evidence for their existence. As will be seen below, steps definitely existed in 3HB II and 3HB I. Since the 3HB III building served as the layout for the following two levels, it seems safe to assume that a stairway did exist in 3HB III.

3HB III 3 and 3HB III 4 formed a two-room suite. 3HB III occupied the southeast corner of the building. 3HB III 4 was located directly north of it. A 0.75-m wide doorway led into 3HB III 3 from 3HB III 7/10. A second doorway, ca. 0.55 m wide, in the northeast corner of 3HB III 3 provided access to 3HB III 4.

3HB III 3 measured 8.95 m x 3.65–4.10 m. The excavators took elevations on two floors, but also exposed a pavement of unbaked plano-convex bricks below the earlier floor in the north of the locus. Floor 2 ranged from 54.66–54.74 and sloped from west to east at the southern end of the room. Two clay “slingstones” were recovered from the fill above this floor. Floor 1 was at 54.80 and lay just below a 3HB II oven (see below). Two clay “slingstones” were recovered from the fill above Floor 2. In addition, two stacked conical bowls came, more generally, from 3HB III fill.

Unlike the two later subsequent building levels, 3HB III 3 apparently had no oven. The mapping sheets for the locus recorded the existence of a tannur along the southern end of the east wall, but the field notes made no mention of this feature.\textsuperscript{460}

3HB 4 measured 2.20 m x 3.60 m. The excavators identified two distinct floors.

\textsuperscript{459} This space was excavated as part of Locus 7. For the excavators, Locus 10 referred solely to the adjacent stairs. For clarity, I have decided to combine these two designations when referring to this space.

\textsuperscript{460} It is possible that this feature is actually the hearth that was built into the floor of the 3HB II 3 oven.
Floor 2 was only identified in the northeast corner of the room on the last day of work in January, 1973. The field supervisor called it a foundation floor but gave it no other designation. It would likely have been at roughly the same elevation (54.38) as the bottom of the northeast corner of the 3HB III wall. Floor 1 was exposed across the entirety of the room. Two elevations on the floor gave a range of 54.87–54.89. Five plano-convex bricks were on the floor in the doorway to 3HB III 3 and may have formed a sill at this level. Floor 1 had six conical bowls face down upon it along the northern and eastern walls of the locus. It is unclear if these are related to ritual activity or just coincidental. Additionally, part of a basket impression was recovered along the face of the southern wall.

The excavators recorded removing about 0.35 cm of occupation surfaces above Floor 1. These included a baked-brick threshold in the doorway to 3HB III 3 that lay above the level of the plano-convex bricks on Floor 1. The debris associated with the surfaces contained bones and sherds.

3HB III Chronology

3HB III dates to Early Dynastic IIIB, specifically from the reign of Eanatum or later. The pottery from the building correlates well with ED III pottery from other sites in Mesopotamia. The combat scenes on the impressed sealings parallel those from late ED III contexts in Area C at Tell al-Hiba, Ur, and elsewhere. The scene on the macehead with relief (3H-69) likewise fits this time period. This scene consists of a central image of an Anzu-bird grasping the backs of two addorsed goats, which are each on hind legs eating from a plant with pointed leaves and a single rosette. A bald, bare-chested man with a flounced garment approaches from the right with his hands clasped in front of his chest. The imagery on the macehead is well-attested on other ED III media. More specifically, the form of the navel on the belly of the Anzu-bird parallels that of the Anzu-birds on the

---

461 McMahon 2006.
silver vase of Enmetena from Girsu.463

The only inscription of historical significance is the copper/bronze blade with a votive inscription that mentions Eanatum (3H-70). None of the individuals mentioned in the other votive inscriptions from 3HB III currently have any chronological significance.

4.3.a.ii 3HB II

3HB II was only partially-preserved (Pl. 29). The construction of the second-millennium platform removed the northwest and northeast corners of the building as well as part of the southwest corner. Despite the disturbances, the excavated remains clearly indicate that 3HB II largely maintained the layout and character of 3HB III. The walls continued to be built using plano-convex bricks.

The initial floor in 3HB II was around 54.50–54.60 in the northern part of the building and 55.00–55.10 in the southern rooms. As in 3HB III, the floor sloped upwards as it moved south. Some of the rooms had later surfaces, but these were not traceable throughout the whole building.

3HB II ended with the destruction of at least part of the building by fire. 3HB II 4 had a particularly thick layer of ash above the floor, but traces of burning were recovered elsewhere as well.

3HB II Exterior

Evidence for an enclosure wall was limited. The excavators uncovered a 4-step stairway with the partial remains of walls, preserved ca. 0.34 m high, on either side of it in the area above the western door in the northern 3HB III enclosure wall. From bottom to top, the stairs rose about 0.40 m. As preserved, the walls on either side of the stairs were about 1.3 m wide, which was roughly equivalent to the width of the 3HB III enclosure wall.

Elsewhere the remains were even more fragmentary. In 3HB II 20, near the first northernmost preserved buttress on the eastern façade of the building, the excavators exposed three courses of a plano-convex brick wall that appeared to rest on top of the eastern 3HB III enclosure wall and have the same alignment as that earlier wall. In the same area, they found a baked-brick pavement about 18 cm above 3HB III 20 Floor 1. 3HB II 11 also contained possible remains. Beneath later fill, the excavators uncovered three courses of plano-convex brick directly above, and on the same alignment as, the plastered face of the southern 3HB III enclosure wall. A thin layer of silty soil separated these two walls.

The low apron that extended across 3HB III 12/13/19/26 in Level 3 was not maintained in 3HB II 12/13/19/26. Instead, the floors gradually sloped upwards towards the northern façade of the building. The removal of the apron may have been the result of the gradual leveling of the space through repeated plastering over the course of 3HB III.

In sum, these isolated examples suggest that 3HB II rested in an enclosed area raised above the surrounding terrain. Stairs in the northern enclosure wall provided access to this space. Although stairs were only preserved above the western 3HB III doorway, a second stairway above the eastern 3HB III doorway seems likely.

3HB II continued to have two doorways in the northern façade of the building, both located in the same place as their counterparts in 3HB III. Each doorway had a brick base situated at the north end of the entrance. The base in 3HB II 13 was round with an irregularly-laid brick core. It was 0.15 m high with its base at 54.38. In contrast, the base in 3HB II 9 was square. The core of this base consisted of three rows of flat bricks stacked four courses high. As preserved, the feature had about 0.13 m of plaster on top of it.

Only the east and south wall of 3HB II 14 were preserved (Pl. 31). The room measured roughly 2.85 m N–S. It is unclear whether the doorway had projections like in 3HB III. As in 3HB III 14, a platform, ca. 1.60 x 2.00 m, filled the southern end of the room. A thin layer of fill separated it from the 3HB III platform beneath it. It was preserved about 0.50 m high.

The excavators identified two floors in the space. Floor 2 was red and partially ran
beneath the platform. Neither floor had recorded elevations. The bottom of the platform was at 54.76, so Floor 2 was around that level.

Although only half of 3HB II 14 was preserved, the similar layout and the placement of a platform in the exact same place as the one in 3HB III 14 suggests a continuity of function from one level to another and that this room was likewise inaccessible from the rest of the building.

3HB II 9 resembled 3HB III 9 with some minor changes. In addition to the aforementioned square base at the northern mouth of the entrance, the doorway into 3HB II 8 had a rounded projection on each jamb. Additionally, 3HB II 9 no longer had a drain running through it. The floor recorded in this area sloped upward from 54.48 to 54.67 as one entered the building.

3HB II Interior

3HB II 8 retained the same layout as 3HB II 9. The room measured 2.30 x 3.65 m. A brick platform, coated with mud plaster, continued to occupy the southeast corner of the room. Its dimensions (1.45 x 0.90–1.1 m) were similar to its predecessor.

Two floors were identified in this space. Floor 2 (ca. 54.66) was the first floor in the room. In 3HB II, the western wall of the room was situated further west than in 3HB III, so Floor 2 ran partially over the top of the 3HB III wall. A thin layer of fill separated the floor from the wall. Two elevations in the northeast corner of the room (54.67) and in the doorway to 3HB II 5/6/15 (54.61) likely correspond to this floor.

Floor 1 was 0.10–0.20 m above Floor 2. Prior to its construction, 2–3 courses of plano-convex brick were laid on top of Floor 2. Floor 1 ran over the top of this paving. Two elevations along the southern wall (54.72 and 54.73) and one in the doorway to 3HB II 7/23 (54.88) probably belong to this floor. Floor 1, as well as the walls and platform in the southeast corner, bore traces of gypsum plaster or white paint. At this level, two flat bricks were embedded into the floor at the southern end of the of the doorway to 3HB II 9. A brick sill in the doorway into 3HB II 5/6/15 also likely belonged to this level. A circular depres-
sion, 0.40 m in diameter, was located along the eastern jamb of the doorway to 3HB II 9. This may mark the location of a pivot stone, although no stone was found within. The fill above Floor 1 contained burned and unburned brick fragments, although these were not as prevalent as the contemporary deposit in 3HB II 7/23. Floor 1 was also probably the surface that had a conical bowl (3H-78) resting on it.

Only the southern third of 3HB II 5/6/15 was preserved. Despite its poor condition, the room was clearly similar to 3HB III 5/6/15. A platform, measuring 1.10 x 1.55 m, abutted the southern wall of the space, directly above the 3HB III platform. It was built on a layer of reeds laid over a thin layer of fill. Additionally, a 1.30 x 0.40 m bench or buttress abutted the western wall of the room. No floor elevations were recorded for this level. The elevations on the bottoms of the walls and platform clustered around 55.00, so the initial occupation surface was likely around this same point or a bit lower if the 3HB III walls were used as stubs, which did occur elsewhere in the building.

As preserved, 3HB II 7/23 closely resembled the earlier courtyard. The stratigraphic relationships between the floors and other features uncovered in this space were hard to delineate. The excavators uncovered a number of surfaces in different parts of the room, but only two received a concrete designation. Both were originally identified in 3HB II 18 and then traced out into 3HB II 7/23. Floor 2 was traced across the entirety of 3HB 7/23. The elevations of this floor along the southern wall of the space were 54.81–54.82. No elevations were taken on Floor 1. In 3HB II 18, the two floors were about 0.10–0.20 m apart. Based on a column of stratigraphy left along the east wall, a similar distance separated the two floors in 3HB 7/23.

Features were exposed along the western and eastern walls of 3HB 7/23. A baked-brick paving, measuring 2.50 x 2.40 m, abutted the western wall (Pl. 38). The paving sloped gently downward towards a 3.30 m-long, baked-brick drain that ran through the west wall of the 3HB Building and debouched into 3HB II 24. The paving and drain were

464 The excavators attributed this depression to 3HB I. However, it is clear that the depression continued down below Floor 1. If it functioned in 3HB I, it extended more than 0.40 m below the level of the 3HB I doorway, which is deeper than usual for these types of features. Additionally, the depression was mapped on the 3HB II plan, which suggests that the excavators reassigned it.
associated with Floor 2. The excavators recovered a funnel-shaped object, roughly 0.24 m in diameter, about 0.75 m southeast of the paving. The object was embedded vertically in the ground with its top at 54.83, which connected it to Floor 2. The bottom of the 0.16 m-high object was rounded, while the top, which was at the level of the floor, was open-mouthed. The excavators called this object a drain. Another possibility is that it was the remains of water-proofing on the bottom of a perishable material.

Two pyrotechnic features rested along the eastern wall. In the northeastern corner was an elongated feature that I call a “trough oven” (Pl. 37). This oven was associated with Floor 1. As the name implies, the majority of this oven consisted of a 2.77 m-long, fire-reddened trough that was full of ash. A pavement of five bricks was embedded in Floor 1 at the southern end of the trough. Based on examples from 3HB I 7/23 and 3HB I 3, the northern end of the oven likely rose up higher as part of some type of superstructure, but the excavators did not remove the 3HB I oven above it to confirm this.

A second pyrotechnic feature was recorded south of the trough oven. Only the southern end of the feature was exposed. The excavators described it as being similar to the trough oven, with a preserved length of 0.75 m.

3HB II 18 retained the layout of 3HB III 18. The excavators identified two floors.

---

465 These presumably continued in use throughout 3HB II, but nothing definitively linked them to Floor 1.
466 Two courses of brick at the same level as Floor 2 were visible beneath this feature in the field photographs. They could be part of the foundation of the oven or the remains of a still earlier oven.
467 The field notes contain the only record of this feature. No sketches of it exist and nothing in the field photographs obviously corresponds to it.
468 The excavators did not conclude this. Their field plans for 3HB II recorded a different layout. On these, a large block of masonry projected into the northeast corner of the room and blocked off the eastern doorway. However, there are multiple reasons to identify this architecture as later. First, the field notes and photographs demonstrate that this was not a solid block of masonry, as depicted on the plans, but actually an area that was badly cut up. In particular, the southern wall face was almost completely cut away by a 3HB I wall. Second, this masonry rested on 3HB II 18, Floor 1 and abutted the eastern wall of the room. The northern face of this eastern wall had traces of gypsum plaster that ran down onto Floor 1. The use of Floor 1 ended with the destruction of the building (see below), so any later construction corresponds to the 3HB I reconstruction of the building. The northern end of the eastern wall was in nearly the same place as the southern jamb of the eastern doorway in 3HB III 18. The traces of plaster on the northern end of the eastern 3HB II wall suggest that this was also a door jamb. All of this suggests that 3HB II 18 had roughly the same layout as 3HB III 18, but that the northern side of this room was destroyed by later construction.
Floor 2 ran over two courses of plano-convex brick laid in yellow mortar. This pavement filled 3HB II 18 and extended north into the doorway to 3HB II 7/23. Later, another course of plano-convex brick was laid on Floor 2. This served as the foundation of Floor 1, which had an elevation of 55.14.

Four whole vessels—a spouted pot with a ring base (3H-71), another pot with a ring base (3H-72), a round-bottomed jar (3H-73), and a large round-bottomed, low-neck pot (no object number)—rested on Floor 1 in the southeastern corner of the room (Pl. 39–40). These vessels were covered with mud plaster that had traces of burned straw on and within it. A band of deteriorated reed matting was also visible. The pots clearly experienced some type of disturbance. In the field photographs, the top of the large vessel was clearly flipped over and the other pots were lying on their sides. Mud and reeds are common materials in roof construction, so perhaps these pots were hit by roof collapse.

Alongside the pottery, two fragmentary seal impressions (3H-91, 3H-93) were recovered in the fill above Floor 1 near the door to 3HB II 16. Both were ED IIIB combat scenes (Pl. 41).

3HB II 16 had the same layout as its predecessor (Pl. 42). As part of the construction of 3HB II 16, the northern end of the western wall and the southern end of the eastern wall stepped down along the inner face of the 3HB III walls, creating a wider foundation for the upper courses.

The excavators identified two floors in 3HB II 16. Floor 2 consisted of a brick paving that extended over almost all of the room and about 0.05 m of floor deposit that built up from use and plastering. Two types of flat bricks were used in this paving. The majority were Type 1. These filled the northern half of the room as well as the center of the southern half. The Type 2 bricks lay about 2.5 m south of the doorway to 3HB II 18 along the base of the east and west walls in a single course directly opposite each other. Due to

---

469 The excavators also found a series of floors below the brick paving of Floor 2. However, they provided no additional information on them, so it is unclear whether they belong to 3HB III or 3HB II.

470 The excavators did not record the heights of these bricks. The dimensions of Type 1 were 0.24 x 0.35. Those of Type 2 were larger and more irregular in size, ranging from roughly square to rectangular: 0.68 x 0.535; 0.64 x 0.575; 0.60 x 0.58; 0.535 x 0.56.
the erosion at the southern end of the room, it is unclear how far these bricks extended.

Three features were associated with Floor 2. The partial remains of a bitumen-coated brick installation occupied the northwestern corner of the room. The footprint of the feature measured roughly 1.20 x 1.15 m. The bricks of the paving were built around this installation, which suggests that its inclusion was planned from the beginning. Only the southern side of the feature was well-preserved. This consisted of a three-stepped facade with a rounded depression on the second step. The entire face of the southern side was lined with bitumen and a small preserved portion wrapped around the east corner of the feature. Traces of bitumen on the face of the north wall of 3HB II 16 on the same alignment as the east face of the feature suggest that the bitumen lining ran all the way to the wall. Based on these traces, the entire feature was probably originally coated with bitumen.

The brick paving had a gap in the northeastern corner. Given the thorough paving of the rest of the room, this absence suggests the presence of something there during its use. South of the door was a single course of plano-convex bricks that rested on Floor 2. 0.08 m of mud plaster separated this feature from a later brick feature directly above it that the excavators called a buttress. This single course of bricks may be the remains of an earlier version of this feature.

Floor 1 extended over the entirety of 3HB 16. It had a coat of gypsum plaster and sloped upwards towards the south. Two features were associated with this surface. As mentioned, just south of the doorway, a small feature, approximately 0.41 m high x 0.30 m long, rested on Floor 1 and abutted the eastern wall of the 3HB 16. The feature consisted of a single stack of four plano-convex bricks covered in a thick layer of mud plaster. The top of the feature was flat. The excavators called the feature a buttress.

The second feature, a low, bitumen-coated platform, was located at the southern end of 3HB II 16. Only a portion of it remained due to erosion. The construction of this feature appears to have been planned with Floor 1. The substructure for it consisted of a single course of plano-convex brick laid directly on Floor 2. As preserved, this was roughly 1.40 x 2.00 m. Floor 1 was laid directly over the northern half of the substructure. Two courses of flat baked bricks, laid in two rows, rested directly on the southern end. The
upper course projected above the level of Floor 1. Mud plaster overlaid with bitumen coated this upper course. A whole conical bowl was recovered in the fill near this feature.

About 0.50 m north of the bitumen-lined bench, a single bitumen-coated brick sat on Floor 1. This was presumably associated with whatever activities occurred on and around the bench.

Based on the features present and the brick paving, 3HB II 16 likely had an association with activities involving liquids. It was also probably unroofed. However, there is little evidence for what specific activities occurred here. The bitumen-lined depression in the northwest corner could have been used as a receptacle or perhaps as an area for pressing fruit or other products. Notably, there is no evidence for a drain anywhere in 3HB 16.

3HB II 17 lay directly south of 3HB II 18. The room retained the same dimensions that it had in 3HB III. The excavators recorded two floors. Floor 2 was at 55.11. The emplacement for a pivot stone was present in the northwestern corner, in the same area as the one found in 3HB III. The emplacement consisted of a packing of plano-convex bricks around a central depression that was lined with bitumen. No pivot stone was found inside. A low brick “frieze” ran along the southern end of the eastern wall. Similar concentrations of brick were also visible at the same level in other parts of the room. A small ash deposit rested on the northern end of Floor 2. A piriform macehead (3H-57), a complete inscribed stone bowl (3H-59), and a clay “slingstone” came from the fill above Floor 2.

Floor 1 was at 55.31 at the southern end of the room (Pl. 32). The floor was only about 0.20 m below the level of the second-millennium platform.

3HB II 7/10 continued to be small, about 1.00 x 2.00 m, and provide access to 3HB II 3 as well as to the roof via a stairway to its south. The floor in the room was at 54.93. The stairs on the southern side were poorly-preserved. Only the first four steps on the north end were identified. They had elevations of 55.21, 55.48, 55.67, and 55.89, respectively. The rest of the stairway was cut away by the second-millennium platform.

3HB II 3 had similar dimensions to those of 3HB III 3. The faces of the northern and western walls slightly overhung those of 3HB III. The excavators explored 3HB II
in the northern and southern parts of the room, but left a column of stratigraphy in the middle that prevented them from directly linking the material in the two soundings. In the north were two elevations that both seem to belong to a single floor. The floor sloped slightly upwards towards the south from 54.91 to 54.98. This floor was roughly 0.08 m thick, based on its preservation in the doorway.

The southern half of the room contained a large oven, roughly 2.30 x 2.20 m (Pl. 43). Its maximum preserved height was 0.38 m. As preserved, the oven consisted of two courses of headers on edge capped by a course of flat stretchers. The base of the oven was paved with flat bricks and a single course of 4 flat bricks just outside the mouth of the oven served as a sill. The floor just north of the oven was at 54.73–54.77, while the oven base was ranged from 54.67–54.80. The elevations indicate that the floor sloped downwards about 0.10–0.20 m as it progressed from north to south.

3HB II 4 retained the dimensions it had in 3HB III. A layer of fill separated the two sets of walls. The excavators identified a single floor at 55.07. Smashed pottery covered the floor and about 0.60 m of ashy deposit lay over the ceramics. A composite “macehead” (3H-44; Pl. 47) and a whole conical bowl (3H-76) were recovered in the fill above this floor. The excavators also found fish bones mixed in with the smashed pottery.

The doorway to 3HB II 3 was blocked with at least two courses of headers on edge at some point prior to the construction of 3HB I. This was probably the result of preparation for the subsequent building level rather than a blocking off of the space during 3HB II.

3HB II Chronology

3HB II dates from ED IIIB to late Akkadian. A round-bottomed jar (3H-73) from the pottery cache on Floor 1 of 3HB II 18 closely parallels examples from Tell al-Wilaya, which were identified as Akkadian.471 The vessel also shares similarities with a copper/
bronze bucket from a burial with at Nippur with a Late Akkadian cylinder seal. The two impressed sealings from the fill above Floor 1 of 3HB II 18 bore ED IIIB contest scenes.

4.3.a.iii 3HB I

3HB I was largely cut away by the second-millennium construction (Pl. 30). Only the central and southeastern portions of the building escaped major disruption. Despite the damage, the parts that remain suggest that 3HB I largely maintained the layout of the previous two iterations of the building. The walls were built with plano-convex bricks.

As in previous levels, the floors in the building sloped upwards from north to south. The initial occupation of 3HB I occurred around 55.00–55.10 in the northern part of the building and 55.40–55.50 in the southeast.

3HB I Exterior

The excavators recovered no evidence for the presence or absence of an enclosure wall. Since the previous two buildings had some type of outer architecture, 3HB I probably did as well.

The southern half of the eastern façade of 3HB I was recovered. This consisted of two buttresses directly above their 3HB II predecessors. This suggests that the rest of the façade reflected the 3HB II layout as well.

The northern façade of the building was badly damaged. The western doorway was gone, but a small portion of the southeastern corner of 3HB I 14 was identified. Given the other similarities between the three building levels, the room was probably similar to 3HB II 14.

Enough of 3HB I 9 remained to indicate a modification of the eastern entrance to the building. The entrances of 3HB III and 3HB II contained an enclosed niche on either

472 McMahon 2006: pl. 150: 3 (19 N 36).
side of the passageway. In 3HB I, the entrance was flanked by a smooth buttress on its western side. A similar buttress presumably stood on the eastern side, but this area was cut away. The inner face of each door jamb had a rounded projection. A row of four flat baked bricks formed a low sill at the southern end of the doorway. The elevation of the floor in the middle of the doorway to 3HB I 8 was 55.01.

3HB I Interior

3HB I 8 retained the dimensions of its antecedent. A brick platform again occupied the southeastern corner of the room (Pl. 44). It had a smaller footprint than the one in 3HB II 8. The top of the platform consisted of two steps, a broad lower step and a narrow upper step that ran along the face of the eastern wall of the room. This platform was covered with 0.08 m of mud plaster overlain with bitumen. The floor in the room was at 55.06.

3HB I 8 contained most of the small finds from 3HB I (Pl. 45). Two pieces of inlay—the upper torso of a man holding a spouted vessel (3H-46a) and a chignon coiffure (3H-46b)—, a metal fork (3H-53), and a worked stone object came from the floor of the room. Additional pieces of inlay, including a vase with streams of flowing water (3H-45), the depiction of the tail of an Anzu-bird (3H-47), and part of a flounced garment (3H-48), as well as a stone object mended with bitumen (3H-54) were recovered in the fill above the floor.

3HB I 5/6/15 was almost completely removed by the second-millennium platform. The partial remains of its western and southern walls suggest the it had similar dimensions to the room in the earlier levels. One or two courses of brick on top of the plaster of the 3HB II platform at the southern end of this room may be the bottom of a 3HB I platform in the same location.

The western half of 3HB I 7/23 was cut away. The room may have had a different layout. The excavators identified part of an east-west oriented wall along the W 120 grid line in the middle of the room. Three courses, all headers laid on edge, were preserved 0.76 m high. 0.05 m of plaster coated the bricks. Given the layout of the previous building
levels, an east-west wall in this area is difficult to understand. Although the bottom of the wall (55.26) was at roughly the same level as the surrounding 3HB I architecture, this architectural fragment probably belonged to a later building level.

The eastern half of 3HB I 7/23 was in better condition. The excavators uncovered two pyrotechnic installations along the eastern wall of the space. Both features were associated with Floor 1, which had elevations in the range of 55.25–55.50. A trough oven occupied the northeastern corner (Pl. 37). This feature was cut into the top of the trough oven in 3HB II 7/23. Only the northern end of the 3HB I oven was preserved. The excavators found an intact pot with a rounded base (3H-74) at the southern end of the oven.

The partial remains of a tannur were recovered against the eastern wall about 2.50 m south of the trough oven. Only the round base was preserved. This base measured 0.60 m in diameter and was about 0.12 m high.

Only the eastern half of 3HB I 18 escaped destruction. The extant portion of the room had a different layout than 3HB II 18. The eastern doorway to 3HB 7/10 no longer existed. Instead, an east-west oriented wall occupied this space, creating a niche in the eastern side of the room. This new wall was narrower than the northern wall of the space in previous levels, which resulted in a shift of the southern limit of the central courtyard, 3HB I 7/23, further to the south. These remains were preserved about 0.40–0.50 m high. The excavators did not identify a floor in this space. Based on the elevations of the wall bottoms, it was probably in the area of 55.60.

Only the northeast corner of 3HB I 17 remained intact. It was preserved about 0.30–0.50 m high. It presumably had the same layout as earlier versions of 3HB 17.

3HB I 7/10 was fully preserved and closely resembled its 3HB II predecessor. A stairway continued to exist in the southern wall of the room. The three lowest steps of this stairway were recovered. They had elevations of 55.70, 55.86, and 56.18, respectively. A single floor, Floor 1, was exposed in this area. It consisted of red mud and had an

---

473 The 55.50 elevation may well be on a later surface. An elevation of 55.25–55.30 seems likely for the initial occupation floor of 3HB I 7/23.
474 This third step was double the height of the previous one. It is possible that the excavators failed to identify an intervening step.
elevation of 55.46. The excavators found a cluster of three large vessels on this floor near the doorway into 3HB I 3.

3HB I 3 was largely intact, although the southern end was found just beneath the surface of the site (Pl. 43). The room retained the dimensions of 3HB II 3. The excavators identified two floors, which represented the lowest and highest of a series of occupation surfaces. Floor 2 was at 55.39–55.44. Floor 1 was about 0.10 m higher.

3HB I 3 contained four distinct features, which were all associated with Floor 2. In the northwestern corner of the room was a door socket. This socket consisted of a packing of plano-convex bricks with a 0.40 m deep shaft in the center.\textsuperscript{475} At the bottom of the shaft was a rounded cavity that was lined with bitumen. The cavity did not contain a pivot stone nor was there any reason to think that one had been removed in antiquity.

South of the doorway from 3HB I 7/10 was a bitumen-lined basin that was sunk into the ground. The basin was 1.50 x 1.35 m from outside corner to outside corner and was about 0.50 m deep. It was built out of nine courses of flat baked bricks laid in mud plaster. Three of these courses were above Floor 2 and six below it.\textsuperscript{476}

Based on the relationship of the basin, west wall, and bitumen coating, the basin and wall were built in the following sequence. First, the bricks of the wall and basin were laid so that they directly abutted each other. Then the face of the wall received a coating of mud plaster, which partially covered the western side of the basin. Finally, the interior and top of the basin were coated in bitumen. This bitumen coating extended partially down onto Floor 2 on the eastern side of the basin and partially up the mud plaster of the adjacent wall on the western side.

The third feature in the room was a trough oven (Pl. 46). This was located along the eastern wall of 3HB I 3 directly opposite the doorway to 3HB I 7/10 and the bitumen-lined basin. This oven, 2.85 m long end-to-end, largely resembled the contemporary trough oven in the northeast corner of 3HB I 7/23. Like the one in 3HB I 7/23, this oven consisted of

\textsuperscript{475} This method was very similar to that used in the construction of the door socket built in the northwest corner of 3HB II 17.

\textsuperscript{476} The dimensions of the bricks were 0.32 x 0.25 x 0.06 m.
stacks of brick on either side of the north end of the trough. These were slightly corbeled, but it is unclear whether they actually enclosed the top of the trough or just narrowed it. The trough oven in 3HB I 3 had a brick-lined box sunk into Floor 2 at its southern end. This box was formed by placing flat bricks on edge. A notch had been cut out of the top of the brick in front of the trough, perhaps so it would be easier to scrape material from the trough into the box. Soil samples from within the brick box as well as on the adjacent Floor 2 had a high concentration of charcoal chunks.

In the wall alongside the brick-lined box of the oven was a baked-brick repair that utilized bricks similar to those used in the box. In total, the repair was about 0.08 m high and was limited to the area adjacent to the box. Its location suggests that the oven and the activities associated with it had a negative impact on the structure of the wall.

The final feature, a horseshoe oven, filled the entire southern half of 3HB 3. The oven was accessed through an opening on its northern side that had a sill of four bricks across it. The interior cavity of the oven was 2.8–3.1 m in diameter. The walls of the oven were preserved five courses high and were built by alternating courses of flat stretchers and headers on edge, beginning with a course of headers on edge. The courses were covered by a mud plaster that had been baked red over the course of the oven’s use. Elevations on the floor of the oven ranged from 55.38–55.52.

3HB I 4 retained the dimensions it had in 3HB II. The 3HB I walls were separated from those below by a thin layer of fill. In some places, such as the east wall, this fill was capped by a layer of reeds.

The excavators identified a single floor in this room, Floor 1. Located at 55.47, this floor was situated just above the division between the 3HB I and 3HB II walls. However, features associated with the doorway suggest that the occupation level of the room was above Floor 1. In the southeastern corner of the room along the northern face of the eastern door jamb, the excavators uncovered a small pivot stone. This stone rested upon a brick that in turn lay upon Floor 1. The elevation on the top of the socket was 55.54, 0.09 cm above the level of Floor 1 in the middle of the room. Four courses of unplastered brick filled the adjacent doorway. These bricks rested on Floor 1. The pivot stone rested at the
level of the second course of brick from the bottom.

In southern Mesopotamia, pivot stones generally rest below the level of the floor they correspond to. Setting them on a brick base is also common. There is a sensible rationale behind this. Sinking the pivot stone into the ground and giving it a good foundation helps keep it in position and stable as the door post rotates. However, if the pivot stone in 3HB I 4 corresponded to the occupation of Floor 1, it would not have had these benefits. Further, the bricks in the doorway probably served as a sill to keep water and sediment from flowing into the room from 3HB I 3, which was unroofed. Given the height of the pivot stone relative to these courses of brick, the top of the sill would have projected slightly above the occupation floor.

3HB I Chronology

3HB I is late and post-Akkadian. This identification is based mainly on the dating of the earlier levels and the material in the roughly contemporary 4HB II. The pottery within 3HB I does not contradict this assignation. Nor does the fragmentary inlay from 3HB I 8, although this material looks more like pieces from the ED IIIB or early Akkadian periods. It could be from an object that remained in use for a long time.

4.3.a.iv Summary of the 3HB Building

All three levels of the 3HB Building consisted of a central niched-and-buttressed building surrounded by an enclosure wall. The original height of the enclosure wall is unknown. The narrow core of brick in the 3HB III version does not suggest that it was very high. However, the bases in the 3HB III doorways may have been used for columns, which could indicate that the wall was high enough to shield the central building from view. The thick plaster on both faces of the 3HB III wall may have helped stabilize it.

477 Only 3HB III and 3HB II contained evidence of an enclosure wall. Based on the other similarities between 3HB I and the earlier levels, the former probably had one as well.
Alternatively, the enclosure wall may have been a low feature that delineated the space but did not block movement or sight, similar to the low wall that bounded the space in front of the straight-axis shrine in Inana Temple VII. Based on the presence of the bases in the 3HB III doorway, a high enclosure wall seems the most likely.

The central building was raised about 0.50 m above the area outside the enclosure wall. The structure was a single story. A steep stairway at the southern end of the building provided access to the roof. Margeuron argued that the building had a second story that covered the entirety of the first floor. However, the layout of the building and the features found in the various rooms do not support his reconstruction. The features in 3HB 3, 3HB 7/23, and 3HB 16 suggest that they were all likely open-air. Further, the building burned at the end of 3HB III and 3HB II (see below). No traces of a second story were found in these destruction levels.

Room Functions

Based on the similarities in the rooms of the 3HB Building across multiple levels, I understand the functions of these spaces to have also been similar. Therefore, I utilize evidence from all three building levels in this discussion. As the best-preserved level, the material from 3HB III forms the core of this discussion.

An external straight-axis shrine with a platform, 3HB 14, was embedded in the northern façade of the building. This type of room has a close connection to religious architecture at Tell al-Hiba and may be an element of religious architecture characteristic of the region around the site (see Chapter 5).

3HB 8 served as the vestibule of the building as well as the anteroom to the cella in 3HB III 5/6/15. Based on the presence of the bitumen-coated table in 3HB I 8 and the drain in 3HB III 8, an ablution station may have existed in the southeastern corner for use by those who were going to enter the cella. The confinement of the bitumen to the

478 Margueron 1996: 36.
479 Ablution installations are known from roughly contemporary temples elsewhere in Meso-
table suggests that this involved a limited amount of liquid, perhaps using a container that rested on top of the table.

3HB 5/6/15 was a bent-axis cella. 3HB III 5/6/15, the only fully-preserved level, contained a platform against the far wall of the room as well as a bench and series of tables in front of the podium. These types of features are well-attested in the cellae of contemporary temples across Mesopotamia; for example, the tables in Shrine II (D 17:9) the Square Temple at Tell Asmar or the benches of the the bent-axis shrine (Locus 179) in Inanna Temple VII at Nippur.480

3HB 7/23 was the central courtyard. All access to the rest of the building passed through it. The room served as a multipurpose space. The baked-brick pavement and drain at the western end of 3HB II 7/23 indicate the presence of activities involving liquids. The trough oven and tannur along the eastern wall point to activities involving heat. In the absence of evidence to the contrary, both were probably used for cooking.

The presence of the trough ovens in the 3HB Building is noteworthy. One occupied the northeastern corner of 3HB 7/23 in both 3HB II and 3HB I. An additional trough oven lay in 3HB I 3. Despite the higher number of pyrotechnic features in the 4HB Building, none of them were trough ovens. This suggests a specific connection between trough ovens and a specialized activity that occurred in the 3HB Building.

It is unclear how they functioned. As preserved, the troughs were exposed to the air, but traces of the walls suggest that they were originally covered. The trough led to a high superstructure with bricks on either side. This could have served as a base on which to put a vessel, perhaps for cooking. The trough could have served as a flue to provide oxygen to a fire in the base of the superstructure. No similar structures exist in the archaeological record that can provide additional insight into how these functioned.481

481 Morphologically, the closest examples are the troughs from Eanna III–I7 at Uruk (see Lenzen 1937–1939: pl. 15). However, these are both much larger and from much earlier in time (Jamdat Nasr). They also lack the superstructure of the examples from the 3HB Building.
3HB 22 probably served as a storeroom, perhaps for items connected to the daily activities of the building. The finds from 3HB III 22 and 3HB III 7/23, just south of it, contained impressed and unimpressed sealings, a tablet, a number of metal blades and metal fragments, fragments of stone vessels, and a large object made of bitumen.

3HB 18 and 3HB 7/10 both served as transit spaces to the rooms along the southern edge of the building. They also functioned as places to store pottery, as demonstrated by the caches from 3HB II 18 and 3HB I 7/10.

3HB 16 served as a workspace. The baked-brick pavement throughout the room and the presence of bitumen-coated installations in the northern and southern ends indicate that manipulation of liquids played a central role in the activities performed here. Since it was damaged, the function of the bitumen-lined feature in the northwestern corner is difficult to ascertain. The bitumen-lined depression on the southern side of the feature could be connected to some type of mixing, pressing, or grinding activity. Too little of the southern feature remained to say what, if any, specific purpose it might have had.

3HB 17 also functioned as a storeroom. Unlike 3HB 22, this space housed inscribed and uninscribed high-quality objects, including maceheads and stone vessels, that presumably played less of a role in the mundane activities of the building. A pivot stone in the northwestern corner allowed this room to be sealed off from the rest of the structure.

3HB 3 and 3HB 4 functioned as a two-room cooking suite. 3HB 3 housed ovens and a bitumen-lined baked-brick tank, which are well-attested as installations in contemporary temples. A pivot emplacement in the northwestern corner of the room indicates that access could be restricted. 3HB 4 served as a storage place for vessels and foodstuffs connected to the activities in 3HB 3. A pivot stone in the southeastern corner allowed this room to be sealed off.

4.3.b  The 4HB Building

The 4HB Building lay immediately east of the 3HB Building (Pl. 48). The excava-
tors identified five building levels. Too little of 4HB V was exposed to ascertain its layout. The following four levels, 4HB IV–4HB I, all had the same general layout.

The walls of 4HB V–4HB II were built with plano-convex bricks. 4HB I, which dated to the reign of Gudea, was built with both flat, square bricks as well as plano-convex bricks. In particular, the plano-convex bricks formed the core of a feature that was faced with thin flat bricks. Their use may represent an opportunistic reuse of available materials for a specific feature rather than a more general practice in the construction of 4HB I.

4.3.b.i 4HB V

4HB V was the earliest exposed building level. This level was only explored in a few areas. A sounding along the southern end of the western exterior wall of the 4HB Building exposed part of a 4HB V wall directly beneath the 4HB IVB wall. An adjacent gypsum-plastered floor was also identified.

The excavators uncovered more extensive remains further east. In the middle of 4HB 29 was part of a wall running north-south. Only a small part of the western face of this wall was exposed. The top of the wall was at 53.49. A gypsum-plastered floor was uncovered next to it.

Immediately south in 4HB 32, the excavators attributed courses of headers on edge in the northern wall of the locus to 4HB V. However, none of the other walls in the room had courses of brick identified as 4HB V. Additionally, nothing on the field plans recorded the existence of these walls. They may actually belong to 4HB IVB.

The remains from 4HB V shed little light on the layout and function of the building. The western limit of the building was likely the same as its successors. In contrast, if the north-south oriented wall in 4HB 29 represented the eastern limit of the building, then the structure was thinner than in later levels.
4.3.b.ii 4HB IVA

4HB IVA was only identified in 4HB 29 and 4HB 32. The division of 4HB IV into two phases—4HB IVA and 4HB IVB—is based on the 4HB IV remains in 4HB 29. In this locus, the excavators uncovered a large vat, ca. 1.13 m in diameter, located in the center of the southern third of the room (Pl. 53). This vat had three stacks of conical bowls—thirty-two in total—resting inside of it as well as additional bowls and other vessels on the floor nearby. The excavators did not record the level of this floor. Based on the bottom of the vat (53.54), the floor was probably in the range of 53.64–53.74.

The occupation level associated with the vat definitely post-dated the north-south oriented wall of 4HB V, which lay 0.05 m below the base of the vat. However, the bottom of the 4HB IV doorway, the earliest exposed entrance into the room, lay at roughly 54.47. This suggests that the vat belonged to either an earlier phase of the 4HB IV building or an entirely distinct building level. Given the limited exposure of this level, I chose to identify these remains as an earlier phase of 4HB IV rather than an independent building level.

4HB 32 was the only other locus where the excavators reached this level. They identified a division between 4HB IV and earlier architecture, but they did not provide any elevations on this material.

4HB V and 4HB IVA Chronology

The minimal exposures of 4HB V and 4HB IVA provided little with which to date these levels. The pottery and the dating of the later levels indicates that they likely belong to ED III.

4.3.b.iii 4HB IVB

4HB IVB was the first completely-exposed level of the 4HB Building (Pl. 49). Oriented north-south, this building measured 23 x 14 m. At 322 square meters, it was
about 160 square meters smaller than the 3HB Building to the west.

The initial occupation surface in the building lay around 54.20–54.30. Occupation in 4HB IVB ended with a destruction event. The level of occupation in the north was around 54.60 and 54.80–54.90 in the south.

4HB IVB Exterior

The construction of the 4HB III walls cut away much of the 4HB IVB façade. Nevertheless, multiple buttresses were identified. Two buttresses flanked the entrance to the building, 4HB IVB 26, located at the northern end of the western façade. Only the foundations of these were preserved. Additional buttresses were located in the middle of the southern façade, at the northern end of the eastern façade, and in the middle of the northern façade.

The 4HB IVB building was likely surrounded by architecture on all four sides. In 4HB IVB 21, along the western side of the building, approximately 1 m separated 4HB IVB from the enclosure wall of 3HB III to its west.

More open space existed in 4HB IVB 34, located along the southern exterior wall. The excavators identified two floors in this space, both at the western end. Floor 2 was at 54.39, Floor 1 at 54.59. At the eastern end of the locus, a 1.1 m-wide wall extended south from the southeast corner of the 4HB Building.

At the southern end of 4HB IVB 38, which covered the southern half of the area along the eastern façade, another wall abutted the eastern face of the southeastern corner of the building. A third wall abutted the northern face of the northeastern corner in 4HB IVB 37, located along the northern end of the building. A floor along the western face of the wall was at 53.98. A second elevation near the center of the northern façade was 54.04. An inscribed fragment of a statue (4H-27; Pl. 78) came from fill in the vicinity of the wall at the northeastern corner. A pierced piece of worked stone was also recovered in the fill of the locus.
4HB IVB Interior

4HB IVB 26 was the sole entrance into the building. A baked-brick paving filled the 1.2 m-wide doorway. A horizontal drain in the middle of this paving debouched into 4HB IVB 21. Two floors were recorded in this doorway. Floor 2 was at 54.10. Floor 1 was the top of the paving, located at 54.33. The paving rested on Floor 2, which suggests that Floor 2 was a foundation surface. Floor 1 was presumably the first occupation floor of the building.

4HB IVB 26 led to 4HB IVB 30. The rectangular room measured approximately 6.80 x 3.20 m. The excavators recorded only one floor, located at 54.23. The remains of an emplacement for a pivot stone occupied the northwestern corner of the room. The depression in the emplacement was partially lined with baked brick. No pivot stone was found inside.

Three vessels were found in situ in 4HB IVB 30. Two vats rested along the southern wall of the room east of the doorway into 4HB IVB 33. The diameter of the western one was 0.74 m and that of the eastern one 0.87 m. A third vessel was found in the southwestern corner of the room. The field notes contained nothing about its size or shape. The excavators also found eighteen fragments of sealings in the fill of this locus.

A 1.6 m-wide doorway in the middle of the northern wall of 4HB IVB 30 provided the sole access to 4HB IVB 31. The room measured 7 x 2.20 m. As elsewhere in the building, the 4HB III walls cut down into and over the 4HB IVB walls. A bed of reeds separated the two levels in the northern, eastern, and southern walls.

The excavators largely exposed 4HB IVB 31 only at its eastern end (Pl. 54). Here, two vats were embedded into the floor. Both had a diameter of 0.90 m. The top of the northern vat was at 54.34, which corresponded well with the level of a 4HB IVB floor in the middle of the room (54.29). A third vat was uncovered in the western area of the room beneath a 4HB III vat. Based on the locations of the 4HB III vats, the 4HB IVB vat was

---

482 The dimensions of the bricks in the paving were 0.29–0.30 x 0.22 x 0.05 m; the size of the drain opening was 0.11 x 0.20 m.
likely in the northwestern or southwestern corner.

A 1.1 m-wide doorway in the eastern wall of 4HB IVB 30 led to 4HB IVB 29. The room measured 4.8 x 3 m. The walls of 4HB IVB 29 were preserved much higher in this area than much of the rest of the building—the western wall of the room had 20 courses, including the foundations. 483

The excavators recorded two floors in 4HB IVB 29. Floor 2 was at 54.47. Floor 1, a red floor, was at 54.62. At least one additional floor was visible between Floor 1 and Floor 2 in a section. A seal impression (4H-73) and an inlay depicting a feather or leaf (4H-28) came from one of these floors (Pl. 55). It is unclear which floor it was. A flint blade was recovered in the fill.

A pivot stone emplacement rested in the southwest corner (Pl. 77). This consisted of 3–4 bricks stacked on top of each other as well as a worn stone object with an inscription of Eanatum (4H-25; Pl. 56) pressed up against them. The stacked bricks may be the result of raising the level of the pivot stone as the level of occupation in the room rose. No pivot stone was recovered.

A single stack of bricks two courses high rested upon Floor 1 in the southeast corner. This was immediately below the earliest 4HB III floor, so the original height of the feature is unknown. Its use is unclear. It could have served to partition the room or to support something in the southeast corner.

4HB IVB 33 lay to the south of 4HB IVB 30, which measured 6.80 x 3.60 m (Pl. 57). The doorway between the two rooms was cut by the second-millennium platform. As preserved, it was 2.6 m wide.

The field notes mentioned multiple 4HB IVB floors. The only elevation given for one was 54.92, taken from a red floor in the doorway to 4HB IVB 32. Since this elevation was much higher than many of the features attributed to 4HB IVB 33, it presumably corresponded to a late, if not the latest, floor of the level.

4HB IVB 33 had multiple features. A 3 x 1.5 m baked-brick tank occupied the

483 Some of this may actually belong to 4HB IVA.
entirety of the room along the west wall (Pl. 58). The 4HB IVB version of the feature was preserved six courses high. It had been filled with brick and used as the foundation for a similar structure in 4HB III, so the original height of the feature is unknown. Only the northern end of the interior was explored. Its floor was at 54.18. Both the southern and northern exterior ends of the feature were rounded.

The northeastern corner had a round fireplace embedded in the ground that was 1.2 m in diameter and 0.43 m high. South of this two vats were sunk into the ground. The eastern one was 0.88 m in diameter, the western one was 0.76 m.

Multiple objects came from the fill in this room. A black cylinder seal (4H-23) was recovered along the eastern side of the baked-brick tank (Pl. 59). A rim fragment of an alabaster bowl came from the middle of the room. A piece of worked limestone and a flint blade rested to the west and south of the fire pit, respectively. A possible stone pounder and metal fragments also came from the fill.

4HB IVB 32 was east of 4HB IVB 33 (Pl. 60). The room measured 4.8 x 3.2 m. The doorway into the room was 1.1 m wide. The 4HB IVB walls were well-preserved in this room, standing up to 23 courses high in the northern wall. A cut in the middle of the eastern wall contained a large door socket on edge. This likely occurred at some point prior to the construction of the 4HB III wall.

Two floor levels were identified. Floor 2 was at 54.54. Along the west wall, three bricks embedded in this floor formed a small box. A piece of worked stone came from within this box. A small cup (4H-63; Pl. 61) and a flint blade may also come from the fill of above this floor.

Floor 1, made of red mud, was at 54.92. Twelve impressed sealings (4H-71a–c, 4H-72, 4H-74–4H-83; Pl. 61–65) and four copper/bronze nails came from the floor. The deposit above the floor consisted of ashy strata that extended throughout the room. A partial tablet (4H-90; Pl. 66) was recovered above it. A shell eye inlay also came from the fill, but from a less secure context (Pl. 61).

484 Some of this may actually belong to 4HB IVA.
4HB IVB 35 lay south of 4HB IVB 33. The doorway between the two rooms was cut by the second-millennium platform. A low, narrow footing made of two courses of bricks occupied the eastern side of the doorway. It is unclear whether this formed part of the sill of the door or served some other purpose, perhaps as the base for a screen or other feature.

The room itself measured 7.20 x 6.20 m. A corbelled oven, 5 m in diameter, filled the room (Pl. 67). The mouth of the oven was oriented towards the entrance from 4HB IVB 33. A brick paving sat at the mouth of the oven. The elevation on top of this paving was 54.24. The interior walls of the oven were baked red and the oven floor was stained black with ash. The level of the floor ranged from 54.21–54.30. A ridged ceramic vat, 0.86 m in diameter, rested in the northwestern corner of the room. The vat showed signs of burning inside. The bottoms of both the vat (54.53) and the brick feature in the doorway (54.46) were above the floor level of the oven, which may indicate that they belonged to a later 4HB IVB occupation.

The room contained only a couple small finds. An agate bead was recovered from a floor near the northern end of the locus. A copper/bronze nail came from within the oven.

4HB IVB 36 occupied the southeastern corner of the building (Pl. 68). It measured 6.8 x 3.2 m. The room was accessed through a 1 m-wide doorway in its northwestern corner. The doorway had a brick sill.

The exposure of 4HB IVB was largely limited to the northern half of the locus. The excavators identified multiple floors. One of these had a brick box embedded in it near the entrance to the room. Two of the later floors had elevations. Floor 2 was at 54.75 and Floor 1 at 54.84. These may have corresponded to two red floors identified in the doorway. The relationship of the two floors in the doorway to the brick sill was not discussed, but, following the general practice at the site, they probably referred to the surfaces at the bottom and top of the sill.

4HB IVB Chronology

4HB IVB dates to ED IIIB. The impressed sealings from the floor of 4HB IVB 32
contain a number of contest scenes whose style is typical of ED IIIB. The pottery is consistent with this date. Further, this level was stratigraphically linked to 3HB III, which has equally strong evidence for an ED IIIB date.

4.3.b.iv 4HB III

4HB III retained the same overall layout as 4HB IVB (Pl. 50). Despite the intrusion of the second-millennium platform, particularly in the south, occupation surfaces were identified in all the rooms of the building.

The initial occupation level was 54.90–55.00. By the final floor of the building, the occupation level was around 55.30–55.40.

4HB III Exterior

The exterior walls of 4HB III stepped down into and over the earlier 4HB IVB walls. They consisted of a wider foundation of 1–3 flat courses with the narrower wall, made of bricks laid flat and on edge, above.

The number of buttresses on the facade of the building decreased. Two buttresses continued to flank the entrance to the building, 4HB III 26.485 The buttress at the northern end of the eastern façade also remained. However, the buttresses on the southern and northern façades disappeared.

New features appeared in 4HB III 34 and 4HB III 37. At the west end of 4HB III 34 was a brick feature that consisted of two stacks of bricks—11 courses in the south stack, 8 courses in the north stack—separated by about 0.10 m. These two stacks projected down below the level of the 4HB III foundations—the bottom of the eastern stack was at 54.86 and the top at 55.03. The feature probably served as the mouth of a channel that drained into 4HB III 21. Based on the symmetry of the feature, another structure probably existed

485 These were both disturbed, so their reconstruction is partly hypothetical.
immediately south of the 4HB III building. Further east, the excavators recorded a floor at 54.84.

In 4HB III 37, a wall was rebuilt on top of the 4HB IVB wall that projected north from the northeastern corner of the building. Another wall abutted the center of the northern façade of the building. A fragment of a macehead with a couchant lion (4H-69; Pl. 78) came from fill near the northwestern corner of the building.

4HB III Interior

4HB III 26 was poorly-preserved due to disturbance by 4HB II and 4HB I. A gypsum-plastered, tamped-earth floor belongs to this level. There was evidence for repeated plasterings over it. 0.10 m above the white floor was a second, sandy floor. No elevations exist for these surfaces. No evidence of a pivot stone emplacement was recorded.

4HB III 30 remained roughly the same size as its predecessor. Six floors were attributed to this level. All were identified in the doorway between 4HB III 30 and 4HB III 29. The earliest floor was a red floor. No elevations were given for any of these. Based on photographic evidence, all of these floors rested between 54.60 and 55.28.

Multiple items were found in this locus. A single row of flat bricks at least three courses high lay in the southeastern corner along the eastern wall. This appears to belong to a late occupation of the level. A vat, ca. 0.40 m in diameter, was located immediately west of the doorway to 4HB III 31. Part of a second pot with a ring base was found within the vat. A copper/bronze adze (4H-11; Pl. 69) was found on a floor against the southern wall of the room east of the doorway into 4HB III 33.

The walls of 4HB III 31 cut down deeply into the walls of 4HB IV 31. The two levels were separated by a bed of reeds. The doorway into 4HB III 31 had a brick foundation.

---

486 Two additional walls were mentioned in the field notes. One projected north from the northwest corner of the 4HB III building. The other ran parallel to the structure about 2.5 m further north. Neither of these was mapped and I was unable to confidently identify either in the available photographs.

487 The excavators attributed the floor and adze head to 4HB IVB. Based on the reclassification of the floors by the excavators later in the season, it seems likely that this belongs to 4HB III.
Four vats were found in the room (Pl. 54). Two of these occupied the northwestern and southwestern corners, the other two sat along the center of the northern wall. The spacing between the two groups allowed easy access to both sets.

Only one floor was recorded for the room. The two elevations on it, one in the doorway and the other in the center of the room, were both 54.86. However, the measurements on the tops of the vats were all in the range of 54.59–54.67. This suggests one of two options. Either there was an earlier floor into which the vats were embedded or one stepped down into the room from a raised sill in the doorway.

4HB III 29 retained the same dimensions as its predecessor. Two floors were identified. On the initial floor, the brick feature that first appeared in the southeastern corner in 4HB IVB was rebuilt directly on top its predecessor. The 4HB III version of the feature consisted of three courses of brick that extended further south than in 4HB IVB. The elevation of the initial floor in the southeastern corner of the room was around 54.90. An elevation, 55.02, recorded in the northwestern corner of the room may also be from this floor.

After a period of use, the level of the room was raised and a new floor laid above the level of the brick feature in the southeastern corner. As part of this new occupation, two pavings were built in the northeastern and southeastern corners of the room (Pl. 70). Each paving had a pot sunk into the ground next to it along the side that was closest to the center of the room. Only the bodies of the pots were present. One of the pots, possibly the northern one, had evidence of charring on the interior. The excavators interpreted these two pots as drains, but the evidence for charring may indicate that they served as small fireplaces. The elevations on the pavements situated the later occupation level around 55.27–55.46.

Based on its proximity, the pivot stone emplacement located in the southwestern

---

488 Part of a third paving was visible in photographs along the eastern wall of the room north of the southeast paving. This was not mapped and nothing was said about it in the field notes, so its nature is unclear.

489 This vessel had a “textured slip,” which is characteristic of the late and post-Akkadian periods. See 4HB III Chronology at the end of this section for more information.
corner in 4HB IVB 29 may also have been used with the initial floor of 4HB III 29 (Pl. 77). Above this emplacement, the excavators uncovered a stone pivot stone inscribed with a text of Gudea (4H-17) that was seated on two bricks that rested directly on the initial floor of 4HB III 29. Although the pivot stone belonged to 4HB I, its great depth below that level (0.40 m) suggests that the bricks it rested upon belonged to an earlier pivot stone emplacement that was reused in 4HB I. Based on the location of the bricks, this emplacement was probably created at the same time as the installation of the two brick pavements on the later floor of 4HB III 29.

4HB III 33 also retained similar dimensions to its predecessor (Pl. 71). The northern walls of the locus were largely cut away by the second-millennium platform, but the doorway into the room from 4HB III 30 was presumably unchanged based on the location of the features.

An earlier and later phase of occupation were identifiable in 4HB III 33. The features in the room initially remained similar to those in 4HB IVB 33. Along the western wall, the 4HB IVB brick tank was filled in with bricks and a new brick tank was built on top of it. The two tanks had similar dimensions, but the 4HB III version had square corners rather than rounded ones. The 4HB III tank was divided into two chambers. The base of the southern chamber was lined with a coating of bitumen that ran partly up the adjacent walls. There was no evidence for a coating in the northern chamber. The elevation of the bottom of both chambers was 54.50. Although the feature was disturbed by later occupation, the northwest corner was preserved up to 55.23.

A sunken fireplace dominated the eastern side of the room. This feature was built above the 4HB IVB version and increased in diameter. Only the southern and eastern sides of the pit were recovered. The base of the pit ranged from 54.97–55.11. The bricks of the base were stained black from use. Immediately to the west were a number of isolated bricks at roughly the same level as the pit. At least some of these may be part of the feature. In the southeastern corner of the room, a vat, 0.30 m in diameter, was sunk into the ground.

The lower half of a stone vase with a votive inscription of Eanatum (4H-10; Pl. 59) came from the fill in the southwestern corner of the room at this earlier level.
The later occupation in 4HB III 33 was largely cut away by the construction of the second-millennium platform. At some point, the tank in the western side of the room fell out of use. After this, an oven was cut into the southwestern corner of the structure. The oven was built on a bed of vat sherds. The bed of sherds was at 54.88. It is unclear how high the feature was preserved. Another partially-preserved oven was located about a meter further south. The base of this one was at 55.30.

In the eastern side, part of a later fire pit was preserved above the earlier one. Only the far eastern portion of the installation remained. The base of this feature was 55.27–55.31. A few isolated bricks uncovered further west may have been part of this later feature.

Outside of the features, the only surface with an elevation was a floor in the doorway to 4HB III 32, located at 55.11.

4HB III 32 had similar dimensions to 4HB IVB 32. The first floor in the room was at 55.11. A few bricks formed a sill on this surface in the doorway into the room. A later floor, visible in a photograph of a section on the eastern side of the room, was about 0.40 m higher.

The only feature in the room was a tannur, 0.81 m diameter, in the southeast corner. The base was on the first floor. A stratum of ash on the northern side of the oven tapered away to nothing as it extended north.

4HB III 35 also had an early and late occupation (Pl. 72). A large oven continued to dominate the space (Pl. 67). In preparation for its construction, the interior of the 4HB IVB oven was filled with burned material—this may have been the upper part of the oven—and then leveled with a couple courses of bricks on edge. This leveling served as the base for the new walls and floor of the 4HB III oven. The elevations on the new floor, which was stained black from ash, ranged from 54.70–55.06. The new oven also had a brick pavement in front of its entrance. The top of this was at 54.85 and the bottom at 54.73. A fragment of inlay depicting a tail or leaf (4H-84; Pl. 78) came from just below this pavement.

Two floors with elevations correspond to the initial occupation of the room. One,
54.71, was next to the base of pavement at the mouth of the oven. The other, 54.94, was located at the northeastern corner of the room. A stone object used for pounding or grinding came from the fill above one of these floors.

Two tannurs occupied the northwestern corner during the initial occupation. The northern tannur had a diameter of 0.85 m and was 0.30 m high. The southern tannur, located directly above the 4HB IVB vat, was 0.80 m in diameter and 0.44 m high. A lining of bricks placed along its top separated it from the adjacent oven and wall of the building. The bottoms of the two vats were at 54.88 and 54.93, respectively.

Two brick features also belonged to the initial occupation. As in 4HB IVB, there was a low, narrow brick feature in the east side of the entrance from 4HB III 33. Its bottom was at 54.85. Additionally, there was a mass of brick that filled the space between the northeastern edge of the oven and the eastern wall of the room. Its bottom was also at 54.85. The purpose of this mass is unknown.

Evidence for a later occupation was more ephemeral. A single course of four bricks occupied the northeastern corner of the room. The tops of these bricks ranged from 55.35–55.44. A floor just south of them was at 55.42.

No definite floor was identified inside the oven at this level. However, the excavators did record a partial surface along the eastern side of the oven that ranged from 55.31–55.42. This may be all that remained of a later oven.

4HB III 36 had similar dimensions to its predecessor. A new brick sill was installed in the doorway. Four separate floor elevations were recorded for the room. These ranged from 54.99–55.20. It is unclear how they all related. Layers of reeds coated in bitumen covered one of these floors about 1 m north of the southeastern corner.

Two new features appeared in this level. In the northeastern corner, a stack of bricks was partly sunk down into the 4HB IVB level. The top of this feature was at 55.02. There was a more elaborate installation in the southeastern corner. This consisted of two rows of bricks three courses deep with a smaller stack of bricks resting on top of them. Along the northern side of the feature was a ceramic ring embedded in the ground. The top of the feature was at 55.14 and the top of the ring at 55.04.
Additionally, at least one course of dry-packed brick filled the central part of the room. This material was found just below the bottom of the second-millennium platform. It may be connected to the construction of 3HB II 36 rather than the use of 3HB III 36.

4HB III Chronology

4HB III spanned from ED IIIB until late Akkadian. This identification is primarily founded on the presence of “textured slip” in fills and primary contexts in this building level (Pl. 79). At other sites in southern Mesopotamia, vessels with “textured slip” come from late Akkadian to post-Akkadian contexts. The examples of “textured slip” from other sites were found on triangular-rim jars with plain shoulders, which are diagnostic of late Akkadian and early Ur III. The majority of examples of “textured slip” on diagnostic sherds from Tell al-Hiba were found on this vessel form.

4.3.b.v 4HB II

The upper remains of the 4HB Building were heavily disturbed by the second-millennium platform (Pl. 51). The excavators divided these remains of the building into two levels. The main criterion was the use of plano-convex bricks in 4HB II and flat, square bricks in 4HB I. However, no clear division between these two levels existed. Plano-con-

---

490 At Nippur, it was recovered in Level XIIB of Area WF, dated to late Akkadian, (McMahon 2006: 80 and pl. 109: 4) and in Level VIII of Area WA 50c, identified as late to post-Akkadian (Gibson 1975: 73; Algaze (unpubl.): Fig. 4, no. 29). Examples also came from Area B and Area D at Umm el-Jir (Gibson 1972a: Fig. 43, no. 14 and Fig. 46, no. 26) and from Area C, Lots 263, 371, 391, and 393 at Umm al-Hafriyat (R. Zettler, pers. comm.). The areas at both sites were occupied from the Akkadian to the Ur III periods.

491 See McMahon’s discussion of Types C-16a and C-16b from Area WF at Nippur (McMahon 2006: 73).

492 “Textured slip” was also found on a large hole-mouthed jar (4HP-514) in 4HB I.

493 At the time of excavation in 1975, the excavators considered the use of plano-convex bricks in construction to be diagnostic of the Early Dynastic period (Hansen 1978: 79). Since then, scholars have recognized that plano-convex bricks continued to be used beyond the Early Dynastic period (see Sauvage 1998: 122–123). In some places, this practice lasted for centuries afterwards. At Nippur, plano-convex bricks were still in use during the Ur III period (see McMahon 2006: 9).
vex bricks were also used in 4HB I and some of the architecture attributed to 4HB II was at the same level as other material assigned to 4HB I. Here, I have maintained the division proposed by the excavators, but it is possible that most of the contexts I describe for the two levels were more or less contemporary.

The fragmentary remains of 4HB II suggest that the building had the same general layout as the earlier levels. The features found within suggest that the function remained the same as well.

The initial occupation of the building was around 55.60–55.70, which correlates well with a floor in a contemporary building immediately to the south.

4HB II Exterior

The platform largely removed the exterior walls of the building. Only portions of the western and southern façades remained. The southwestern corner of the structure was particularly well-preserved. No buttresses were identified on any of the wall fragments.

Little remained of the areas surrounding the 4HB II building. 4HB II 34 had the best preservation. In this level, the space served as a narrow alley between the 4HB II building and another building immediately to the south. A red mud floor existed at 55.67. The excavators only recovered a single room of the southern building, but it presumably extended further to the south and east. Access to this room was through a doorway in its southern side.

4HB II Interior

Little of the entrance into the building, 4HB II 26, remained. Part of the northern jamb was uncovered, but the southern jamb was cut away. A pivot stone—a reused fragment of a stele of Ur-Nanše (4H-5; Pl. 69, 73)—was found resting on a few flat bricks in the area of N 549, W 101, near the southern jamb of the earlier building levels. No elevations were provided, but the context of the find and its discovery early in the season suggest that it
belongs to 4HB II. The location of the object near the southern jamb indicates that the
door now opened inwards towards the south rather than towards the north as in 4HB
IVB. ⁴⁹⁴

The excavators recovered isolated elements of the interior of 4HB II. 4HB II 30
continued to serve as an anteroom for the rest of the structure. It is unclear whether this
room was separated from 4HB II 33 by a wall.

Part of the doorway into 4HB II 31 remained intact. A pivot stone rested at the
northern corner of the eastern door jamb. The pivot cut down into the northwestern corner
of the 4HB III eastern jamb. A brick above the socket bore abrasion from repeated contact
with the door post. A series of layers of bitumen lay immediately west of the socket in the
area of the door. The excavators also uncovered an ash-covered surface north of the pivot
stone, but recorded no elevations on it.

A bitumen-lined basket occupied the southeastern corner of 4HB II 31 (Pl. 74).
It was probably embedded into a 4HB II floor. ⁴⁹⁵ The basket contained broken pottery, a
fragment of metal, and some animal bones.

A partial ceramic vat was uncovered in the western end of the room. No elevations
were recorded and no photos exist, so it is unclear whether it belonged to 4HB II or a later
occupation.

Little of 4HB II 29 remained intact. The extant portion was located at the southern
end of the room, particularly in the area around the doorway, which had a low sill made
of a single row of bricks two courses high. The space appears to have been subdivided in
this level. A new wall projected east from the western wall just north of the doorway. There
may have originally been an opening between this wall and the eastern wall of the building
that led north into the rest of the space. In 4HB II, the wall tapered away to nothing, but in
4HB I this arrangement was clearly preserved in the paving of the room.

⁴⁹⁴ It is possible that this change occurred in 4HB III rather than 4HB II. This, however, was the
first evidence of it.
⁴⁹⁵ This interpretation is based on the fact that the basket supposedly cut the adjacent 4HB III
north wall and that the top of the feature is at roughly the same level as the top of the 4HB II door
socket. It also parallels the embedding of ceramic vats in the same room in earlier levels.
The platform removed almost all of 4HB II 33. What remained consisted of features and architecture on either side of a north-south oriented second-millennium trench that ran through the middle of the room. On the west near the southern end of the locus, a drain passed through the western wall and debouched into 4HB II 21 (Pl. 75). This consisted of two elongated ceramic tubes fitted together. The drain rested on top of the 4HB III wall and ran beneath the 4HB II wall. Another elongated tube was found in a secondary context a bit further south along the exterior face of the wall. It presumably belonged to the in situ drain. North of the drain, half of an oven, 1 m in diameter, sat along the western wall. A partial macehead with a depiction of a lion and bull or calf came from the fill south of this oven.

As with earlier building levels, a fire pit existed in the east half of the room. Only a portion of the eastern wall of the 4HB II version remained. This was at 55.53–55.62. Though situated further east than the earlier ovens, enough space still existed around the feature for access to 4HB II 32 to be possible.

Though damaged, the outline of 4HB II 32 generally followed that of its predecessors. It is possible that the room extended further east than in earlier levels. A round oven, 0.83 m in diameter, occupied the northwestern corner. Near the southeastern corner was a small brick feature that was probably the remains of a brick box similar to that found in 4HB IV 32.

The wall fragments of 4HB II 35 indicate that the room was similar in size to earlier levels. The only feature found in the room was the partial floor of an oven at the level of 55.55–55.72. Three possible sealings came from fill along the eastern wall of the locus.

4HB II 36 was completely cut away. As mentioned above, the dry-packed brick recorded in 4HB III may have been connected to the construction of 4HB II.

---

496 The excavators attributed this to 4HB II, but the location of the feature suggests that it would have cut the western wall. Either it was cut down in from a later level or it abutted right up against the 4HB II west wall.
497 The excavators mentioned the existence of a flue along the western side. However, there is no photographic evidence of this and it does not correspond to the form of all the earlier ovens, so its existence is questionable.
4HB II Chronology

4HB II dates from late Akkadian to post-Akkadian on the basis of the pottery and the location of the building level in the stratigraphic sequence. “Textured slip” continued to be present.

4.3.b.vi 4HB I

4HB I was built during the reign of Gudea (Pl. 52). Very little of the building escaped the construction of the second-millennium platform. The elements that remained suggest that the structure’s general layout reflected that of its predecessors.

The floor in this building was only exposed in 4HB I 29, where it ranged from 55.64–55.82. The tops of isolated inscribed bricks from 4HB I 33 were also around 55.60–55.75. As mentioned at the beginning of the 4HB II description, these elevations are essentially the same as those for the 4HB II floor, which suggests that the division of the remains into two building levels is unwarranted.

4HB I Contexts

A square stone door socket with an inscription of Gudea (4H-7; Pl. 69, 73) was embedded in the ground in the area of 4HB I 26. This was associated with a concentration of brick that served in part as a sill or paving in the entrance to the building. The location of the door socket suggests that the door of 4HB I was situated further east than in earlier levels.498

4HB I 29 had the best preservation. The remains in this area consisted primarily of a baked-brick pavement (Pl. 76). The pavement began in the eastern end of 4HB I 30, extended through the doorway of 4HB I 29, and ran all the way to the limit of the eastern

498 As noted above, this shift in door location may have occurred in 4HB II.
wall of the building in earlier levels. This was presumably also the limit of the building in 4HB I. At the eastern end, the pavement turned north and ran for a couple rows of brick before disappearing. The top of the pavement ranged from 55.64–55.82.

The pavement consisted predominantly of roughly-square baked bricks. 499 Twenty-nine of these bore a handwritten inscription of Gudea; an additional one had only the outline of the box for the inscription. All but one of these were laid with the inscription facedown. The brick with the inscription face up was situated in the middle of the door sill.

Two features were located just inside 4HB I 29. Along the northern side of the pavement, a row of plano-convex bricks on edge formed a low dado that ran along a now absent wall. In the southwestern corner was a circular pivot stone with an inscription of Gudea (4H-17; Pl. 55, 77). This was situated directly above the remains of an earlier pivot stone emplacement in the same area (see 4HB III 29). The depression in the middle of the socket was stained green from the rotation of a copper/bronze-sheathed door post. The socket rested on two flat bricks. Four bricks placed on edge around the mouth of the hole through the adjacent pavement served to delineate the borders of the emplacement. Notably, the top of the socket was about 0.40–0.50 m below the level of the pavement. This is much deeper than usual for door sockets. One possible explanation is that the pivot stone emplacement used in 4HB II was reused in 4HB I without any modifications.

A more enigmatic feature existed in the southeastern corner of the room. This consisted of two rows of plano-convex bricks stacked up to four courses high. 500 A dado of thin, flat bricks separated the north face of this feature from the adjacent pavement. A round pot with no base was sunk into the pavement right next to the bricks of the dado. This pot had “traces of black paint” on the interior, which could be the remains of a bitumen coating. The function of this installation is unclear. The stacks of plano-convex bricks could have been the core of a table.

Little remained of 4HB I 33. There continued to be a fire pit in the eastern part

499 Most of the bricks were 0.32 x 0.32 x 0.08 m.
500 Immediately to the west of this feature, the excavators uncovered a pile of bricks that appeared to have toppled onto the pavement from somewhere further east. These bricks may have been the top of this feature.
of the locus. Roughly half of it escaped destruction. Built of baked-bricks, it had an internal diameter of 2.6 m. The base, made of flat bricks, was blackened from use and the fill found within was ashy. Fragmentary architecture and isolated bricks, some inscribed, were found in the west side of the locus. They are too incoherent to reconstruct what existed there.

The platform completely cut away the remains in 4HB 32, 4HB 35, and 4HB 36.

Post-4HB I

Post-4HB I remains were sparse. All of them probably date to the Ur III period. In 4HB 29, a wall, built of flat square bricks and half-bricks, cut down into the northern face of the southern wall of 4HB II 29. An oven, 1 m in diameter, lay in the western end of 4HB 33. Gudea-inscribed bricks were used as a packing around the exterior of the oven, which suggests a reuse of 4HB I building material at a later date. However, the elevations on the oven are similar to those for nearby 4HB I bricks, so its attribution to 4HB I is possible. The top of the oven was filled with brick, possibly inserted during the construction of the second-millennium platform.

Further east was a fragment of architecture that cut through the 4HB I fire pit. This feature was made with flat bricks. At the northern end of the eastern face were a few bricks that formed a low dado. The western side of the feature was cut away by the second-millennium platform.

---

501 The excavators attributed this fire pit to 4HB II since the feature was cut by architecture that they identified as part of the 4HB I building. However, it is unclear why this architecture must be part of 4HB I. There do not seem to have been any inscribed bricks of Gudea, so it was probably based on brick sizes. Similar bricks need not equate to contemporary structures. Elsewhere in the building, bricks from the Gudea building were reused in a post-4HB I oven. Additionally, the fire pit partly cut into the 4HB II walls and entirely blocked the entryway to 4HB II 32. All this suggests that the feature post-dates 4HB II.

502 The excavators attributed this wall to 4HB I. However, the bottom of this wall was 55.83, about 0.20 m above the adjacent Gudea pavement.
4.3.b.vii Summary of the 4HB Building

4HB I–V represent a long sequence of similar occupation in this part of the Bagara complex. The layout of 4HB V is unclear, but from 4HB IVA to 4HB I the 4HB Building retained the same general layout. The features within the building were also largely rebuilt with limited modification. This conservatism in the form of the building and its major installations suggests that the activities that occurred here were also fairly similar across building levels.

Functions

Access to the 4HB Building came from an alleyway along its western side. In 4HB IVB a drain passed through this doorway, 4HB 26, but this installation was not rebuilt in the later levels.

The doorway led to 4HB 30, which was as a multipurpose space. In addition to providing access to the rest of the building, the vats recovered along the walls of this room indicate that 4HB 30 served as a storeroom.

4HB 31 served as a dedicated storeroom. The room was situated at the northernmost end of the building, out of the way of any activities occurring elsewhere. The room had vats embedded in the ground along the walls in multiple levels. The bitumen-lined basket from 4HB II is further example of this practice in a different material. A pivot stone in 4HB II allowed the room to be sealed. This was presumably the case in earlier levels as well.

4HB 29 was a workspace. The purpose of the stacks of bricks in the southeastern corner of 4HB IVB is unclear. However, the flat brick pavements with pots sunk into the ground next to them from 4HB III represent dedicated workplaces. The recovery of ash and charring on the interior of one of the vessels suggests that these pots functioned as small fireplaces.

4HB 33 was the central workspace in the building. The features in the room were
situated along the eastern and western sides of the room with an open-path running through the middle. A fire pit was present in the eastern side of the room in each level, gradually growing in diameter with each rebuilding. Vats along the southern side of the fire pit in multiple levels indicate connection between the activities of the fire pit and the presence of vats. Their specific use is unclear. They could have held liquids. Alternatively, they could have served as dedicated locations for holding ingredients, equipment, or other materials connected to the activities in the fire pit.

The western side of the room exhibited a shift in function between 4HB IVB and 4HB I. In 4HB IVB, a baked-brick tank with two divisions occupied the western side of the room. This was rebuilt in 4HB III. Towards the end of 4HB III, an oven was built that cut into the southern end of the brick tank. The northern end may have continued in use. In the following levels, the western side of the room was only occupied by ovens.

The reason for this shift is unclear. The abandonment of the baked brick tank may have happened around the same time as the appearance of the brick pavements in 4HB III 29. If so, this could have been part of a larger reorganization of the features and activities in the 4HB Building.

4HB 32 served as a multipurpose space. Given its proximity to the features in 4HB 33, the use of this space may have been closely connected to the activities in that room. The features in 4HB 33 demonstrate a range of potential activities. A small brick fireplace in 4HB IVB provided a place to make food or do other small tasks that required heat or light. The high number of sealings from the final floor of 4HB IVB suggests that this area was used for storage or processing deliveries. In 4HB III, a tannur in the southeastern corner could be used to cook food.

A large oven dominated 4HB 35 in each building level. Given its size, this oven presumably played a central role in the activities of the building. The presence of smaller fire installations in the northwestern corner of the room indicate that this room was also used for smaller-scale productive activities.

4HB 36 was a multipurpose space. Its connection solely to 4HB 35 suggests that its features and contents were closely connected with the activities in the adjacent room.
The features in this room changed over time. In 4HB IVB, a baked-brick box embedded in the ground provided a place to cook or do other small-scale activities with fire. In 4HB III, the brick installations in the northeastern and southeastern corners probably served as workspaces. The ceramic ring in the ground next to the southern brick feature could have served as a pot stand or as a fireplace, as seen in 4HB III 29.

4.4 Chapter Summary

The exposed levels of the 3HB and 4HB Buildings were occupied between the Early Dynastic IIIB and early Ur III periods. 3HB III and 4HB IVB, which were linked stratigraphically, date to the end of ED IIIB. Both of these buildings were destroyed by fire, probably at the same time. This destruction may be the result of Lugalzagesi’s attack on the city of Lagash during Urukagina’s reign, which resulted in the looting and burning of the Bagara of Ningirsu, the Ibgal of Inana, and a number of other sanctuaries in the city (see 2.2.b.ix).\textsuperscript{503}

The later building levels were essentially contemporary, but were not necessarily rebuilt at the same time. 3HB II ended with another fire, but this does not appear to have ended the use of 4HB III. However, the late occupation of 4HB III, which exhibited a shift in the use of a number of rooms through the appearance of new features, correlates well with the initial floor of 3HB I. 4HB II also overlapped with the occupation in 3HB I. The 3HB Building was presumably rebuilt by Gudea at the same time as 4HB I, but the construction of the second-millennium platform removed all trace of the later structure.

The 3HB and 4HB Buildings shed new light on the layout and activities of a third-millennium religious complex in southern Mesopotamia. Thus far, I have avoided any extensive investigation of the nature of the Bagara complex, the role of the 3HB Building and the 4HB Building within it, and the relationship of the two buildings to each other. Now that the form and contents of these two buildings have been established, I will

\textsuperscript{503} Frayne 2008: E1.9.9.5 col. iii 3–col. iv 14.
address all three of these issues.
Chapter 5: The Bagara of Ningirsu

In this chapter I will explore the nature of the Bagara complex and the locations and roles of the 3HB and 4HB buildings within it. I begin with a review of what is known about the Bagara from textual sources in order to aid the interpretation of the two buildings. The following section addresses the 3HB and 4HB buildings individually. The final section discusses the relationship between the two buildings and assesses how these two structures relate to contemporary religious architecture elsewhere in Mesopotamia.

5.1 The Bagara in Textual Sources

Most of what is known about the Bagara from textual sources comes from royal inscriptions and administrative documents.\(^{504}\) In these texts, the name of the complex was written \(ba-gara\). The exact translation of this remains unclear, but the name might be connected to a dairy product.\(^{505}\)

The earliest mention of the Bagara comes from the reign of Ur-Nanše, who undertook building activities in the complex. The majority of Ur-Nanše’s inscriptions record solely that he “built the Bagara.”\(^{506}\) However, a fragmentary stele from Tell al-Hiba (4H-5)—reused as a door socket in 4HB II—provides a more extensive description of the ruler’s activities in the complex.\(^{507}\) The text records the construction of the Bagara with baked bricks, the digging of a canal for the complex, the construction of a kitchen (\(e_2\)-mu-...)}
haldim), and the installation of a “cook oval” (eb muhaldim) in the kitchen.

None of the subsequent rulers of the Lagash I dynasty recorded any building activities in the complex.\footnote{A piece of brick with a fragmentary inscription of Akurgal (3H-T13) from the surface of Area B may indicate some work completed there by that ruler, but this identification is contested. See Crawford 1974: 34, fig. 14. and 35, n. 17; cf. Frayne 2008: E1.9.4.13 for the attribution of this brick to Enanatum I.} The next mention of the Bagara in a royal inscription comes from the reign of UruKAginna, the final ruler of the dynasty. During his eighth year, Lugalzagesi of Umma sacked the Bagara complex as well as a number of other sanctuaries in the city of Lagash.\footnote{Frayne 2008: E1.9.9.5 col. iii 3–6.} As mentioned in Chapter 4, this event may be responsible for the end of occupation in 3HB III and 4HB IVB.

Only two administrative texts (3H-T9 and 4H-90) were recovered in the Bagara complex, so the specifics of its sacred and profane activities remain largely unknown. The brewery mentioned in the partial tablet (4H-90) from 4HB IVB was probably part of the Bagara, but the text contained no explicit mention of the complex. Texts in the E-Bau archive (see section 2.3.a), which date from the last three rulers of Lagash I, indicate that the Bagara interacted with other temple households and participated in state festivals as one of the most important sanctuaries in the city of Lagash. For example, during Month 1 (the Barley-eating Festival of Nanše) and Month 9 (the Malt-eating Festival of Nanše) the queen of Lagash traveled to Niĝin to participate in the festivals.\footnote{Selz 1995: 189–198; Beld 2002: 117–118, 158–160.} As part of her trip, she made offerings at important shrines and other locations in the major cities and countryside of Lagash. The Bagara was an important stop during this procession, with the queen making offerings on her way to and from Niĝin.

Textual evidence for the activities of the Bagara complex during the Akkadian period is rare. The complex does not appear to have benefitted from royal attention. However, administrative texts recovered from Girsu attest to the involvement of the complex in the economic activities of the Akkadian state.\footnote{See ITT 1, 01081; ITT 2, 04582; ITT 2, 04709; ITT 5, 06822.}

The Bagara continued to be a major sanctuary in the state during the Lagash II
dynasty. The complex played an important role in Gudea’s literary account of the reconstruction of the Eninnu, the main temple of Ningirsu in Girsu. In this text, Gudea stopped and spent the night in the Bagara while on his way to Niğin to confer with Nanšē about the meaning of a dream. While in the Bagara, Gudea prayed, made offerings to Ningirsu, and celebrated the eš₃-eš₃ festival.⁵¹² Gudea’s visit to the Bagara on the way to Niğin parallels the practice of the queens of Lagash at the end of Lagash I.⁵¹³

Gudea’s account also provides some additional information about the nature of the Bagara. The temple is called the “House hanging over the river” (e₂ id₂-de₃ la₂-a), which suggests that the complex, or just the main sanctuary, was on a raised platform along a watercourse, presumably the Going-to-Niğin Canal.⁵¹⁴ Later in the text, Ningirsu speaks to Gudea about the qualities of his different temples in Lagash. Speaking of the Bagara, he says: “In the Bagara House, my dining place, the great gods of Lagash assemble for me” (e₂-ba-gara₂ ki banšur-ra-ju₁₀ dijir-gal-gal lagaš{ki}-a-ke₄-ene gu₂ ma-si-si-ne).⁵¹⁵ This description indicates that the Bagara complex served as a place for the gods to gather and eat.⁵¹⁶ The presence of “cream” (gara₂) in the name of the complex may be connected to this function.

Gudea’s reign was a period of reconstruction in the state of Lagash. The Bagara was restored near the end of it. This work was considered important enough to be used as his twentieth year name.⁵¹⁷ Material evidence for this work includes the inscribed bricks and pivot stones from 4HB I as well as a stone foundation tablet in the State Hermitage Museum, St. Petersburg.⁵¹⁸

The latest historical record of work on the Bagara complex comes from the reign of

---

⁵¹² Cyl. A col. ii 7–23.
⁵¹³ Beld 2002: 118, fn. 16.
⁵¹⁴ Cyl. A col. ii 7.
⁵¹⁷ mu e₂-ba-gara₂ ba-du₃-a; for the sequence of year names and the location of their attestations, see “Year Names of Gudea,” CDLI, accessed April 26, 2017, http://cdli.ox.ac.uk/wiki/doku.php?id=year_names_gudea.
⁵¹⁸ Hermitage 8068; Edzard 1997: E3/1.1.7.50.
Šulgi, second ruler of the Ur III dynasty.\textsuperscript{519} A year name from his reign also celebrates the entrance of Ningirsu into the Bagara complex. This year name may have been connected to the reconstruction of the Bagara, but could also represent a separate event.\textsuperscript{520} A partial brick with a stamped inscription of Amar-Sin (1H-64) from the surface near the eastern zone in Area B may indicate some work on the Bagara or another complex in the area.\textsuperscript{521} The Bagara household, under the control of a sanga, continued to be an active participant in the economic activities of Lagash province.\textsuperscript{522}

In sum, the textual sources demonstrate that some or all of the Bagara complex was rebuilt multiple times during the latter half of the third millennium. These sources show that the Bagara was one of the most important sanctuaries in the city of Lagash, but most do not shed any light on the physical layout of the complex or its religious importance. However, two sources (4H-5 and 4H-90), both from the complex itself, record the existence of a kitchen with a large oven, a canal that presumably served the complex in some capacity, and, probably, a brewery. Additionally, the accounts of the Bagara in Gudea’s literary description of the construction of the Eninnu depict the temple as situated on a major canal and reveal the Bagara’s mythological significance as the place where Ningirsu came to eat and receive the other gods of Lagash, a role possibly alluded to in the name of the complex.

5.2 The 3HB and 4HB Buildings

The first, and most thorough, account of the 3HB and 4HB buildings by the excavators was a preliminary report detailing the accomplishments of the first four seasons of excavation at Tell al-Hiba.\textsuperscript{523} In this article, Hansen described the features and contents of both buildings in detail. A composite plan of the 3HB Building as well as photos of parts

\textsuperscript{519} Frayne 1997: E3/2.1.2.15 (stone foundation tablet).
\textsuperscript{520} Carroué 2000.
\textsuperscript{521} Biggs 1976a: 10, no. 46.
\textsuperscript{522} e.g., MVN 7, 335 (AS 9) and ASJ 13, 227 72 (ŠS 9–IS 1).
\textsuperscript{523} Hansen 1978.
of the 3HB and 4HB buildings accompanied the description. Hansen’s later discussions of these two buildings closely adhered to the description and conclusions provided in the first publication.\footnote{Hansen 1980–83; Hansen 1992.}

Hansen argued that both buildings were subsidiary structures dedicated to serving the needs of the main sanctuary, which was located elsewhere in the complex. In his view, the 3HB Building was subordinate because it lacked a “primary focus or an obvious cella.”\footnote{Hansen 1978: 82.} On the basis of the ovens and other features found within, he suggested that it was an early form of a “kitchen temple.”\footnote{Hansen 1978: 82.} Similarly, the vats, ovens, and partial tablet (4H-90) mentioning beer, a brewery, and brewer led Hansen to propose that the 4HB Building may have been the brewery of the Bagara.\footnote{Hansen 1978: 83.}

Subsequent discussion of the 3HB and 4HB buildings has been limited. Some major works on religious architecture have passed over them.\footnote{Heinrich 1982; Tunça 1984.} Others have examined the architecture, but been restricted in their analyses by the limited published information.\footnote{Sievertsen 1998: 100–102; Huh 2008: 229–231.} The most methodical attempt to reanalyze this material was Margueron’s work on the 3HB Building.\footnote{Margueron 1996.} Based on his analysis of the composite plan by Hansen, he argued for the existence of a second story and a high outer enclosure wall.\footnote{See 4.3.a.iv for why the archaeology does not support this suggestion.} Following Hansen, Margueron concluded that this building was not a temple. He felt that the small amount of surface area that the rooms with cultic furniture (3HB 5/6/15 and 3HB 14) occupied relative to the whole building indicated that the building had some other primary use.\footnote{Margueron 1996: 38.} He did not explore what that use might have been.
5.2.a The 3HB Building

Hansen’s identification of the 3HB Building as a forerunner of a “kitchen temple,” a structure dedicated to producing food for the shrine of a deity and the complex in which it lay, was based on the lack of “a primary focus or an obvious cella” in the building and the presence of ovens and other installations that may have served as workspaces.\(^{533}\) His identification raises two main questions. First, does the 3HB Building lack a primary focus or an obvious cella? Second, is the 3HB Building similar to dedicated kitchen facilities in temple complexes elsewhere?

5.2.a.i Does the 3HB Building have a cella?

The analysis in Chapter 4 showed that 3HB 5/6/15 was a cella, albeit a small one (ca. 16 m\(^2\)).\(^{534}\) Admittedly, the location of the room off the entrance is abnormal. In Early Dynastic religious architecture, a cella was usually located at the opposite end of a building from the entrance. Even in cases where a cella was closer to the front of a building, such as in the Square Temple at Tell Asmar, access was usually through a courtyard.\(^{535}\) I am unaware of any ED temple where the cella was connected to the vestibule of a building.

However, it is difficult to assess whether this was truly a divergence in practice without knowing the wider context of the building. If access to the area that contained the 3HB Building was already restricted, then there may not have been a need to locate the cella away from the entrance. Indeed, if access was already restricted, then fronting the cella made it easier for those with permission to enter the space without having to pass through other elements of the building.

\(^{533}\) Hansen 1978: 82.
\(^{534}\) See section 4.3.a.iv for the identification of the room as a cella.
\(^{535}\) Delougaz and Lloyd 1942: pl. 22.
5.2.a.ii Is the 3HB Building Similar to Kitchens in Temple Complexes Elsewhere?

Hansen was not explicit about which buildings he considered to be “kitchen temples.” However, at the time that he was writing, the only subsidiary structures identified as kitchens in southern Mesopotamia were the roughly contemporary remains in the temple complexes of Enlil at Nippur and Nanna at Ur. In order to compare them with the 3HB Building, I will describe their remains and give a brief history of their interpretation.

Nippur

For Hansen, the archetypical example of a “kitchen temple” was the Ur III “Temple of Enlil” at Nippur (Pl. 80).\(^{536}\) Located along the northeastern side of the ziggurat of Enlil, this 52 x 21 m building was originally built by Ur-Namma. The building (EN Level V) retained essentially the same layout until the Kassite period, though there was some change in the nature of the features within. Occupation in the area of the building continued into the first millennium, but not enough remains of these later levels to state definitively whether there was a connection in form and function with the earlier remains.\(^{537}\) A number of soundings through the floors of different rooms uncovered earlier occupation in the area. Epigraphic evidence from Naram-Sin and Šar-kali-šarri, ceramics, and other small finds date these levels to at least the Late Akkadian period, if not a bit earlier. The recovery of multiple fire installations, including two rectangular hearths, ash layers, and bitumen-coated surfaces may indicate that the area was connected to food and beverage production prior to the Ur III period as well.\(^{538}\)

In many places, a later Isin-Larsa period rebuilding (EN Level IV) disturbed the contents of EN V. This level, in turn, was largely cut away by the construction of the Kassite-period building (EN III). The remains of these two building levels, EN V and EN IV, are used in conjunction to talk about the function of this building during the late third

\(^{536}\) McCown and Haines 1967.
\(^{537}\) McCown and Haines 1967: 33.
\(^{538}\) McCown and Haines 1967: 3–4.
and early second millennia.

EN V consisted of two rectangular rooms, Rooms 13 and 18, with a number of smaller, square rooms arranged around them. The two rectangular rooms were undoubtedly the focus of the activities in this building. In Room 13, the main preserved feature was a low platform along the northeast wall of the room. Only two courses of the EN V brick platform remained. A similarly-sized EN IV platform rested directly on top of it. The bottoms of two circular fire pits, each about 1.25 m in diameter, were preserved in the top of the EN IV platform.\(^539\) I assume that a similar set of features existed in the EN V version of the platform.

No distinctive features were preserved in Room 18. Two rooms accessed through doorways along its southern side, Rooms 16 and 17, were each filled by a circular oven roughly 5 m in diameter. Both rooms had a layer of ash above the floor.\(^540\)

Small finds from EN V and EN IV were limited.\(^541\) In Room 13, only a bronze nail (2N 319), lapis lazuli inlay fragment (2N 635), and a bowl (2P 329) were recovered. Room 18 contained a bowl (2P 202) and a piece of bronze sheeting (2D 142). Notably, Room 17 contained all five of the bronze knives/blades (2N 265–269) found in the EN V and EN IV building levels. One blade (2N 267) bore an inscription that read “property of the E-kur” (/nig\(_2\)-ga\(_2\)-kur-r[\(a\)])\(^542\).

In EN III, the features in Rooms 13 and 18 were better preserved. Room 13 contained two main features. Along the back wall was a large square installation that had traces of burning within.\(^543\) In total, it had five phases. In the final two, it was equipped a series of niches that projected out from its southeastern corner. In addition, there was a hearth along the middle of the western wall. At the southwestern end of the room were two additional baked-brick tables or platforms. The table in the western corner had at least twelve coatings of bitumen, while the other table had received eight to ten coatings of mud.

\(^{539}\) McCown and Haines 1967: 8.
\(^{540}\) McCown and Haines 1967: 9.
\(^{541}\) McCown and Haines 1967: 22; these finds are only those from the publication. The excavation daybook has a wider selection of finds (R. Zetter, pers. comm.).
\(^{542}\) McCown and Haines 1967: 22, pl. 30:5.
\(^{543}\) McCown and Haines 1967: 14.
plaster.  

Similar to Room 13, a large square installation filled the southeast end of Room 18. The floor of the installation was raised three times. Each of the brick fills between the floors were baked to an orange-red color. Tables or benches made of baked bricks abutted the north and south walls of the space. A coating of bitumen covered the tops of these features.

Donald McCown, the Director of the project, identified this building as a “kitchen temple.” On the basis of its contents, he viewed it as a later version of the two structures at Ur (see below), which he also called “kitchen temples.” McCown’s use of the term “kitchen temple” was grounded in his perception of the layout of these spaces. For McCown, the essential distinction between a “kitchen temple” and a “temple kitchen” was that the former “had a plan characteristic of temples used for worship.”  

This was an expression of the kitchen’s “divine” nature.

Rooms 13 and 18 played a central role in McCown’s classification. Since the remains in EN V–IV were sparse, he partially based his interpretations on the more substantial features found in EN III. Based on the bent-axis approach of Rooms 13 and 18 and the position of the EN III “altars” along the wall furthest from the entrance, McCown identified these two spaces as cellae. He viewed the “altars” found in EN III as locations for either cooking or the burning of offerings and extended this interpretation to the EN IV and EN V fire installations preserved in Rooms 13, 16, and 17. McCown viewed the other tables/platforms in the EN III rooms as linked to the performance of rituals that accompanied the productive activities in these spaces.

McCown’s interpretation was also influenced by a strain of thought that saw these ovens and hearths not as places for cooking, but as locations for the burning of offerings to
the gods.550 This line of thinking was convincingly disproved by Marie-Thérèse Barrelet in her article on fire installations.551 In the same article, Barrelet also challenged McCown’s interpretation of the buildings at Ur and Nippur as having the form of a temple. Specifically, she pointed out that the rejection of the use of ovens as places for burning offerings made the interpretation of the features in Rooms 13 and 18 of the “Enlil Temple” as altars unsustainable. Instead, these features should be interpreted as the remains of ovens used to prepare food for the god in the main sanctuary.552 Shorn of the main feature that connected this building with other temples, little else remained to support McCown’s use of the term “kitchen temple.” Instead, Barrelet suggested that the buildings at Nippur and Ur simply be called “kitchens” in recognition that although the buildings were important in daily cultic practice, they did not possess the same qualities as the sanctuaries that they served—a suggestion that I find to be sensible.553

Ur

The remains at Ur consisted of two buildings, the Southeast Temple Kitchen and the Northwest Temple Kitchen, excavated by C. Leonard Woolley between 1931 and 1933 (Pl. 81).554 The structures were part of a larger set of remains uncovered along the inner face of the enclosure wall of the Archaic I ziggurat terrace. The main sanctuary of the complex, dedicated to the god Nanna, presumably sat on a raised platform in the southwestern end of the enclosure, which was not explored due to the presence of the Ur III ziggurat. Woolley dated the Archaic I remains to the First Dynasty of Ur, which corresponds to the late ED IIIA–early ED IIIB.

The Southeast Temple Kitchen lay near the center of the eastern enclosure wall.

550 See Lenzen 1939–1941 and van Buren 1952 for examples of this thinking. McCown himself never seems to fully embrace this interpretation, but does mention it in his account of the building multiple times.
551 Barrelet 1974.
552 Barrelet 1974: 279.
553 Barrelet 1974: 280.
554 Woolley 1933; Woolley 1933.
It measured roughly 20 x 21 m, giving it a surface area of 420 m². The building consisted of multiple rooms arrayed around a central courtyard. The presence of ash layers above many of the floors in the building, especially in Room CC, led Woolley to conclude that it had been destroyed by fire.555

Entrance to the building was from the south into Room JJ. A door in the western wall of the room led to Room HH, while one in the north lead to the central courtyard, Room FF. Doorways in the western, southern, and eastern walls of Room FF led to Rooms CC, KK, and GG, respectively. Each of these rooms was only accessible from Room FF.

A brick feature occupied the eastern corner of Room FF, which was made up of two courses of baked bricks with courses of mudbrick above. A lower step, also made of baked brick with mudbricks above, abutted the southwestern end of the feature. The top of the feature was coated with bitumen with a depression at its southern end and a runnel along the northwest side.556 A number of small finds lay against the southwestern wall of the courtyard. These included pieces of stone and shell inlay, a headless stone figurine (U.18309), and part of a seal impression (U.18310). Further west was a minute wig in steatite (U.18338) and a steatite amulet in the form of a tortoise (U.18352).

Two openings in the northeastern wall of Room FF led to single isolated rooms, Room DD and Room EE. Both openings had a pier of brick in the middle. The floor in Room DD, the western space, consisted of the sherds of a large vessel laid flat and coated with plaster. A thick layer of ash lay above the floor. The walls of the room were burned to a deep red. To the east, a circular oven, nearly 4 m in diameter, filled Room EE. The floor of the oven had been relaid at least ten times. Cut into the top floor was a smaller fireplace, 0.85 m in diameter, which was situated next to the pier in the doorway. Ash and burned straw filled the corners of the room and some of the oven surfaces were black with soot from burning.557

The Northwest Temple Kitchen was located along the western enclosure wall,
directly across the complex from the Southeast Temple Kitchen. At roughly 26 x 17 m (442 m² in surface area), it was slightly larger than the latter structure. Like the Southeast Temple Kitchen, entrance into the Northwest Temple Kitchen was from the south. The doorway led into Room 1, which had an emplacement for a door socket along the inner face of both door jambs. A third socket was found in the northern corner of the room. A pathway made of brick and coated with bitumen ran from the exterior of the building, through Room 1, and into the central courtyard, Room 2. This path was relaid at least once.\textsuperscript{558}

Access to the rest of the building passed through Room 2. A rectangular brick basin coated in bitumen lay in the northwestern corner of the courtyard. The bitumen ran up over the brick edges of the basin and down onto the surrounding floor.\textsuperscript{559} A runnel on the northwestern edge ran parallel to the adjacent wall. The contents of the basin included a number of plain cups, part of a vase, remains of reed matting, and a mixture of fish scales and animal bone. Woolley noted that the context was disturbed.\textsuperscript{560} In addition, two spearheads (U.17659) were recovered on a floor in the northeast quadrant of the room.\textsuperscript{561} One of the spearheads bore an inscription mentioning Meskalamdug.\textsuperscript{562}

A doorway in the southwestern wall of Room 2 led to Room 3, which had nothing of interest. A single doorway in the eastern wall facilitated access to Rooms 4, 5, and 10. This area was particularly disturbed by later occupation. A baked-brick feature coated with bitumen rested against the wall opposite the door into Room 4. This was not included on the published plan. Woolley called it a box, but perhaps it was a basin similar to that in Room 2.

Two doorways in the northeastern wall of Room 2 led to Rooms 6 and 8 and Rooms 7 and 9, respectively. A partially-preserved circular oven filled Room 6. The inside

\begin{flushleft}
\textsuperscript{558} Woolley 1939: 21.  \\
\textsuperscript{559} Woolley 1939: 21; pl. 13a.  \\
\textsuperscript{560} Woolley 1939: 22.  \\
\textsuperscript{561} Woolley 1939: 22; however, the object card only mentions the existence of one (see Benati 2013: 202, fn. 32). This may mean that one fell apart after recovery (R. Zettler (pers. comm.).  \\
\textsuperscript{562} Müller-Karpe 1994: 638–639, fig. 79; Müller-Karpe 2004: pl. 103, no. 1554; Benati 2013: 203.
\end{flushleft}
contained a thick layer of ash and charcoal. The walls of the oven were fire-reddened.\textsuperscript{563} In contrast, Room 7, located to the east, contained a square hearth, which filled most of the room. The floor of this space had been relaid at least thirteen times. Like in Room 6, the walls of this hearth were fire-reddened.

Woolley based his identification of the Archaic I buildings as “temple kitchens” on later archaeological and epigraphic evidence. A series of buildings lay above the Northwest Temple Kitchen. These were poorly-preserved due to later construction, but, starting with the Ur III building, enough remained to demonstrate the existence of structures that retained the general layout of the earlier remains, including the entrance from the south and the existence of a courtyard with a series of rooms arrayed around it. This layout was rebuilt with minimal modification multiple times over the course of the second millennium.\textsuperscript{564}

Epigraphic evidence for the function of the buildings came from two brick boxes that were cut down into the Ur III foundations. One of these boxes contained two copper cylinders bearing an inscription of Nur-Adad (1865–1850 BCE). The other contained one deposit of Nur-Adad and a second of Marduk-nadin-ahhe (1100–1083 BCE).\textsuperscript{565} The inscription of Nur-Adad records the construction of a large oven (\textit{gir}₄⁻\textit{mah}) and a \textit{du₄⁻mah}—translated by Frayne as a “great cauldron”—, which were both explicitly dedicated to supplying food to Sin and all the rest of the gods.\textsuperscript{566} Woolley assumed that the continuity in the layout of the buildings in this area corresponded to a continuity in the function of the spaces. If the building of Nur-Adad was a kitchen, then those before it probably were as well.

On the basis of this evidence, Woolley proposed the existence of two kitchen complexes—one in the northwest and one in the southeast—that each served an independent temple in the complex. He envisioned the one in the northwest as focused on a

\textsuperscript{563} Woolley 1939: 22.
\textsuperscript{564} Woolley 1939: 38.
\textsuperscript{565} Woolley hypothesized that the box had been uncovered during renovations to the complex by Marduk-nadin-ahhe, who substituted one of his own deposits for that of Nur-Adad (Woolley 1939: 38).
\textsuperscript{566} Frayne 1990: 142; E4.2.8.3 38–46.
structure that housed Nanna and his entourage while the southeast building supplied the needs of a building with Ningal, Enlil, and others. The existence of a southeast kitchen building in post-Archaic I levels is based on the presence of the Southeast Temple Kitchen. Only fragmentary remains were found in the space between the Archaic I building and the Temple of Ningal from the Kassite period.

Since their publication, the “temple kitchens” at Ur, and the Archaic I terrace more generally, have been reassessed multiple times and have played a central role in debates over how the gods received their sustenance. Most recently, Giacomo Benati completed a reanalysis of the Archaic I ziggurat terrace remains as part of a broader study on all of the Early Dynastic remains uncovered at Ur. Based on this work, he suggested a division of labor between the Southeast Temple Kitchen, which may have been involved with the production of beer, and the Northwest Temple Kitchen, which focused on food production.

5.2.a.iii Is the 3HB Building a kitchen?

The kitchens at Ur and Nippur shared a number of qualities. First and foremost, they contained multiple large ovens that were each situated in their own dedicated space. At Ur, these ovens opened onto courtyards. At Nippur, they opened onto a large, possibly covered, room. Second, bitumen-coated basins and other types of bitumen-coated features (tables, benches, and platforms) were common. Third, they each had metal blades. Fourth, they did not have a cella.

A comparison of the 3HB Building with these structures reveals similarities as well as some significant differences. The 3HB Building had multiple fire installations, but the locations, types, and sizes of these features all differed from those at Nippur and Ur. Most

---

567 Woolley 1939: 39.
569 Benati 2013.
of the installations lay in 3HB 3 as part of a suite of features rather than each in their own space. The 3HB Building had three types of features: circular ovens, “trough ovens,” and tannurs. Although circular ovens were present in the Nippur and Ur examples, the “trough ovens” were unique to the 3HB Building. Further, the circular ovens in the 3HB Building were significantly smaller than those at Nippur and Ur. The diameter of the 3HB examples was around 2.5 m. Those at Nippur and Ur were closer to 4–5 m in diameter.

Similar bitumen-coated installations existed at all three sites. However, morphological similarities alone do not equate to similar activities. Bitumen was commonly used to water-proof features and surfaces in a variety of circumstances in the ancient Mesopotamia. The wider contexts of these features must be considered. The only features that probably had similar functions were the bitumen-lined tanks in 3HB I 3 and Room 2 of the Northwest Temple Kitchen. These were similarly constructed and comparably sized, though the basin in 3HB I 3 was slightly larger. The placement of the two features in the buildings differed—Room 2 was a central courtyard while 3HB I 3 was an isolated room in the southeast corner of the building—but in both cases the basins were located in close proximity to ovens. Beyond this example, I do not see any obvious specific connections between the uses of the bitumen-coated features at the three sites.

The buildings at all three sites also contained some similar small finds. Most notable was the presence of metal blades. At Ur, a single spearhead (U. 17659) bearing a dedication by Meskalamdug came from the floor of Room 2, the central courtyard of the Northwest Temple Kitchen. Five blades were found in EN V or IV. All five came from the floor or fill of Room 17, which contained a circular oven. All the metal blades in the 3HB Building were recovered in 3HB III. One spearhead (3H-66) and two blades—one decorated (3H-95) and one inscribed (3H-70)—were found in the extended area of 3HB III 22 and the adjacent portion of 3HB III 7/23. Another spearhead came from the north 571  The 3HB I 3 basin was 1.5 x 1.35 x 0.50 m, while the basin in Room 2 of the Northwest Temple Kitchen was 1.55 x 0.80 x 0.55 m. 572  One possible exception, if one follows Woolley’s interpretation, is a connection between the table in 3HB I 8 and the “altar” in Room FF of the Southeast Temple Kitchen. I do not accept Woolley’s interpretation. Instead, I think that the “altar” was a bitumen-coated workspace.
end of the cella, 3HB 5/6/15.

Additionally, both the Southeast Temple Kitchen at Ur and the 3HB Building had inlay. Those at Ur were largely geometric, while those in the 3HB Building were representational.\textsuperscript{573}

The similarities between the three buildings indicate that cooking occurred in the 3HB Building. However, the size of the installations and their concentration in an isolated part of the building suggest that cooking was an activity subsidiary to the structure’s main function as a temple. Further, none of the structures at Nippur and Ur had a cella, while the 3HB Building had both an internal cella and an exterior shrine. For these reasons, despite their shared elements, the kitchens at Nippur and Ur are not good sources for the interpretation of the 3HB Building.

5.2.a.iv The 3HB Building and Contemporary Temples

Instead, the 3HB Building has much more in common with contemporary buildings identified as temples. Three similarities are particularly salient. First, the presence of a bent-axis cella. Second, the existence of auxiliary rooms used for cooking, storage, and other activities in close proximity to the cella. Third, the presence of inscribed and uninscribed votive objects as well as inlay from furniture or wall decoration.

Inana Temple (IT) VIII and VIIB–A at Nippur provide a good example of these characteristics in a large temple complex (Pl. 82).\textsuperscript{574} The temple in these levels, which date to ED III, contained two cellae in a courtyard at the southern end of a walled complex. One cella (IT 179), located at the southern end of the courtyard, was bent-axis with a podium against the far wall and a number of benches and tables along the other walls. The second cella (IT 178), in a courtyard immediately north of IT 179, was a free-standing structure with a straight-axis approach. The structure consisted of a single covered room with a podium against the back wall. The area in front of the entrance to the room (IT 177) was

\textsuperscript{573} See Benati 2013: 205–206 for a review of the inlay from the Southeast Temple Kitchen.

\textsuperscript{574} See Zettler (in press) for the source of the details in this description.
surrounded by a low wall.

In both levels, two suites of rooms lay immediately south of the two cellae. Both of these functioned as places for food and beverage production, among other possible tasks. One suite, accessed from a corridor to the west of the courtyard, consisted of three rooms—IT 181, IT 194, and IT 195—arrayed along the eastern and southern sides of a small courtyard, IT 180. In IT VIIB, IT 180 contained a tannur in the southwestern corner and a low brick table or platform along the eastern wall. The floor at the northern end of the courtyard was coated with bitumen and sloped down to a drain that passed through the western wall. An oven, roughly 4 m in diameter, filled IT 181. To the south, IT 194 had a tannur in the northwestern corner of the room. IT 195 contained a rectangular platform with a bin set into it along the northern wall of the room. The interior of the bin was lined with potsherds and coated with bitumen. A square, bitumen-lined basin rested against the southern wall with the bitumen-coated intake of a drain through the wall nearby.

The second suite of rooms—IT 182 and IT 193—was connected to the courtyard with the free-standing, straight-axis cella by a 1 m-wide corridor. A brick table or platform rested against the southern wall of IT 182, next to the door into IT 193. A large, ovoid bin filled most of IT 193.

Both suites retained a similar layout and function in IT VIIA, although a doorway now separated the eastern suite from the courtyard with the cellae. There continued to be a large oven in IT 181 in the western suite. This oven had a depression along its eastern wall that appears to have been the primary location for fires in the feature. The other rooms in the western suite were empty. In the eastern suite, IT 182 originally had a cooking installation in the southeastern corner and a low bench or table against the eastern wall. The cooking installation had two separate chambers for cooking activities. At a later level, IT 182 had a baked-brick tank sunk into the floor against the western wall of the room. The tank was lined with bitumen, which extended out onto the surrounding floor. An oven, around 4 m in diameter, occupied most of IT 193. An elliptical depression along the eastern wall of the oven was filled with ash. Variation in the discoloration of the walls inside the oven indicates that the heaviest burning occurred in the eastern side.
The placement of the two suites in IT VIIB–A suggests that the features within them served different needs. The eastern suite was part of the enclosed area that included the two cellae. In IT VIIB, the function is unclear. However, in IT VIIA the presence of ovens and a bitumen-lined baked-brick tank points to cooking activities, which suggests that the spaces in IT VIIB had a similar function. In contrast, the western suite was located outside of the area. The cooking activities conducted here may have been directed towards feeding the staff of the temple.

The suite of rooms—3HB 3 and 3HB 4—in the southeastern corner of the 3HB Building served a similar function to the eastern suite in IT VIIB–A. The features in 3HB 3 primarily served the needs of the god in the cella, 3HB 5/6/15, while 3HB 4 functioned as a storeroom for foodstuffs and equipment. In contrast, the “trough oven” and tannur along the eastern wall of the courtyard, 3HB 7/23, serviced the daily needs of the priests and staff in the building.

The small finds from the 3HB Building also parallel those from contemporary temples. Late third-millennium temples contained a wide variety of objects that entered the temple as votive offerings. These included maceheads, door plaques, statues, inscribed metal and stone vessels, metal weapons, and stelae, among others.575 Offerings could bear inscriptions recording their dedication to a deity for the life of the dedicator or on behalf of a third party, usually the ruler. Some even stipulated how the object should be used in the temple.576

When these objects were no longer of use, due to breakage or other reasons, they were kept in the boundaries of the temple through their incorporation into features, such as tables or benches, or their deposition in pits. This practice was widespread in Mesopotamia. For example, IT VIIB and VIIA had multiple deposits, which held such objects as statuary, cosmetic containers, door plaques, and a variety of stone vessels. One deposit in a pit in the southwestern corner of IT 179, the bent-axis cella, contained around ten statues in addition to other materials. Based on their location below the first floor of IT

575 See Braun-Holzinger 1991 for a study of these and other materials given as votive offerings.
576 e.g., Frayne 2008: E1.9.4.4.
VIIB, these objects may represent a hoard of materials from the IT VIII bent-axis cella that was buried in the foundations of IT VIIB at the time of the cella’s reconstruction.\footnote{Evans (in press).}

Four types of objects predominated in the 3HB Building: maceheads, stone vessels, metal weapons, and inlay. The maceheads, stone vessels, and weapons came from 3HB 17, 3HB 22, and 3HB 7/23. Some of these bore inscriptions, which recorded their dedication to the Bagara of Ningirsu. Room 14:4 in the Main Level of the Shara Temple at Tell Agrab compares well with 3HB 17 and 3HB 22, which both served as storerooms. This room was the second in an isolated suite of three rooms that was accessed through a door in the back of the main cella, M 14:2. These rooms contained a wide variety of materials.\footnote{Delougaz and Lloyd 1942: 274–282.} Room 14:4, in particular, contained more than 50 stone maceheads, numerous stone vessels, beads, amulets, statues, and other small finds.\footnote{See Delougaz and Lloyd 1942: 278–282.} Maceheads were particularly common in the Shara Temple. The main cella (M 14:2) and its attached rooms (L 14:1, M 14:3, M 14:4, and M 14:5) contained hundreds of stone maceheads between them. Many of these were buried in pits or incorporated into the podium of the cella.\footnote{Delougaz and Lloyd 1942: 238, 245.}

Alongside the votive objects, 3HB I 8 contained a number of shell and stone inlay. Inlay are well-known from temple and palace contexts in the Early Dynastic period.\footnote{Dolce 1978.} The pieces from 3HB I 8 are all representational—a vase with streams of flowing water (3H-45), the upper torso of a man holding a spouted vessel (3H-46a), a chignon coiffure (3H-46b), a depiction of the tail of an Anzu-bird (3H-47), and part of a flounced garment (3H-48). Some of this imagery was religiously symbolic. Depictions of a man with a spouted vessel appear in scenes of ritual activity. For example, a stone plaque with two registers from Ur (U. 6831) depicts a man pouring a libation from a spouted vessel into a vase outside of a temple. The upper register depicts the pouring of a second libation into a vase situated in front of a seated deity.\footnote{Woolley 1955: 45; pl. 39, c.} Streams of water from a vessel also have religious connotations. The vessel was often depicted in the hands of a goddess, but it could also appear in the
hands of a ruler, as in Gudea Statue N. The same is true for the Anzu-bird, a mythological creature with connections to the cult of Ningirsu. On the Stele of the Vultures, the Anzu-bird appears at the top of the battle-net grasped by Ningirsu as well as at the top of the standard affixed to the god’s chariot. The connection between the two was so strong that a depiction of an Anzu-bird grasping addorsed mammals could represent Ningirsu instead of anthropomorphic image of the deity, as occurs on the macehead (3H-69) found in 3HB III 17.

In review, the 3HB Building shared some similarities with the kitchens at Nippur and Ur. However, the building had more in common in terms of layout, features, and contents with contemporary temples from elsewhere in Mesopotamia. These parallels suggest that the 3HB Building functioned as a shrine in the Bagara complex. The presence of an external, isolated room with a podium, 3HB 14, in the northern façade of the building reinforces this identification.

5.2.a.v External, Isolated Rooms

An external, isolated room is a single, walled space with a straight-axis approach, located at the entrance to a temple or temple complex, that is only accessible from outside the building in which it is embedded. Thus far, only three examples have been excavated in late third-millennium buildings: Two at Tell al-Hiba—3HB 14 and Ibgal III, Room E—and one at Tell Senkereh (ancient Larsa)—Building B 33, Room 26. The presence of a brick podium is not a defining characteristic of this space. Two examples, 3HB 14 and Building B 33, Room 26, had one, while Ibgal III, Room E did not.

In this section, I will compare each of these three examples in order to explore their possible uses and what their presence says about the functions of the buildings to which they belonged. I have already described the two examples from Tell al-Hiba in Chapters 3

---

584 de Sarzec and Heuzey 1884–1912: pl. 4, 4bis, 4ter.
585 I am not the first to note this connection. See Sievertsen 1998: 100; Thalmann 2003: 61.
and 4, so we will begin with Building B 33.

**Building B 33**

Located at the northern tip of Tell Senkereh (ancient Larsa), Building B 33 was first identified and cursorily explored in 1985. Two additional seasons in 1987 and 1989 exposed a building covering more than 2,000 square meters. The excavators identified three building phases. Phases I and II correspond to the original construction and use of the building. Phase III includes a period of abandonment during which the building filled with aeolian and fluvial deposits followed by a later reuse of the building. This reuse appears to be unrelated to the original function of the building. The excavators considered it to be a “squatter” occupation.

Through surface scraping and targeted excavations, the excavators distinguished three sectors in the building: West, Central, and East. Work in the Central sector uncovered most of the original occupation of the building. Despite erosion and later building activity, the walls in this area were preserved around 2 m high. The building rested on a terraced platform that raised the structure about 1.2 m above the area immediately north of it. The northern facade of the building was niched-and-buttressed. The main, and perhaps only, entrance to the building was on the north side. In Phase I, this was reached by a series of three steps built into the platform. These led to a 7.8 meter wide porch with an open room with double-niches flanking the entrance directly opposite the stairs. There was a two-tiered podium attached to the back wall of this room. A panel of five engaged columns adorned the wall above it.

A passage to the east of the room with the podium led into the interior of the building. The rest of the Central sector consisted of a series of three rooms that extended south through the majority of the structure. These facilitated access to the other sectors and, through the presence of multiple door sockets, helped control the movement of people through the building.

Excavations in the East sector largely focused on the Phase III remains. Although
the inhabitants utilized some of the walls of the earlier building, they also modified and removed parts of them, altering the original layout of the East sector. The new walls constructed at this time were narrower than their predecessors. The excavators attribute an agricultural character to the late occupation.\(^{586}\)

Except for the rooms in its southeastern corner, the West sector was only explored through tracing the outlines of its walls. The largest zone of the building, it consisted of rooms arrayed around the northern, western, and southern sides of a large courtyard. Three doorways pierced the western wall of the courtyard, which was decorated with a niched-and-buttressed facade. On the basis of its size and architectural elaboration, this area was likely the most important part of the whole building.

Most of the pottery and small finds from Building B 33 came from the surface or Phase III. On the basis of these materials and the minimal evidence of rebuilding and replastering, the excavators proposed that the building was originally built and occupied during ED IIIA (Phases I and II). After a period of abandonment, it was reoccupied (Phase III) during ED IIIB and continued to be inhabited into the Akkadian period.

The nature of this building is contested. Jean-Paul Thalmann, the lead excavator of Building B 33 during the second and third seasons, considered it to be the remains of an elite residence that worked in a manner similar to the “pseudo-temples” of the Diyala identified by Forest.\(^{587}\) He acknowledged the formal similarities between the 3HB Building and the niche in Building B 33, but did not think they represented the same thing.\(^{588}\) Instead, Thalmann suggested that the podium in the niche at the front of the building was used as a location where an elite inhabitant of Building B 33 could receive or otherwise interact with a public that was not allowed inside the building.

Others have identified the building as a temple and their arguments seem well-founded.\(^{589}\) The size of the building and the architectural elaborations suggest that this building served a public function. The small finds from the building reinforce this

\(^{586}\) Thalmann 2003: 56.
\(^{587}\) Thalmann 2003: 61; Forest 1996.
\(^{588}\) Thalmann 2003: 61.
\(^{589}\) Sievertsen 1998: 87; Marchesi and Marchetti 2011: 84; 221, n. 16.
Among this material were a number of objects that are typically votive objects in other temple contexts. These included a badly-worn statue of a seated figure (surface), two inscribed stone vessels and many more uninscribed ones (Phase III), as well as two piriform maceheads and another more-globular one (Phase III and surface). The excavators also found a fragment of a perforated plaque with relief that was reused as part of a door socket installation in Room 2, Phase II (floor 2/3).

Building B 33, Room 26

The excavators identified three phases in Room 26, the external room with a podium at the main entrance to the building: Phase I (A and B), Phase II, and Phase III (Pl. 83). In Phase IA, three stairs built into the platform provided access to the building from the area to north. Each step was about 2 m wide and 0.25 m deep. The steps, which were aligned with the axis of the niche, led to a 7.8 m wide porch directly in front of the room. The walls at the entry to the room were double-niched in Phase IA.

The niche itself was 3.3–3.4 m x 2.9–3.0 m. Against the back wall of the room was a two-stepped podium. The lower step, 3.0 x 1.4 x 0.50 m, filled the entire back of the niche. The upper step was 1.35 m x 0.90 m x 0.25 m. A small stairway on either side of the lower part of the podium had three steps, each about 0.40 m wide. There was evidence of wear on the steps as well as in front of the podium.

Behind the podium was a panel of five engaged columns. The total width of the panel was 2.10 m and each column was about 0.20 m deep and 0.25 m in diameter. The columns extended upwards for the entire preserved height of the building.

Mud plaster tempered with finely chopped straw covered the walls, podium, and columns. In some places, the coating still bore traces of gypsum plaster.

At the start of Phase IB, the entrance of the building and the niche were modified.

590 Nearly all the small finds came from Phase III or the surface. Many of these were in secondary or tertiary contexts. The excavators suggested that they probably came from the original occupation of the building.

591 The plaque is dated by Huot to the end of ED II–beginning of ED III (Huot 2003).
The platform and the stairs built into it were covered by a layer of clay and brick debris, creating a ramp that sloped slightly up towards the south. At the entrance to the niche, the western double-niche was squared off, filling in the space up to the face of the western wall of the niche and up to the face of the northern wall of the building. Part of the eastern double-niche was also filled, making it flush with the eastern wall of niche. A new gray floor was also laid in the niche.

In Phase II, the entrance to the niche underwent a further change. The addition of two walls narrowed access to the niche down to 1.60 m, creating a room with a wide doorway rather than an open niche like that in Phase I. A new yellow clay floor was also laid in the room at this time. Two post-holes were created from the level of this new clay floor. They were each about 0.15 m in front of the podium, one in the middle of the feature and the other at its eastern corner. The diameter of these holes was 0.05–0.06 m. There was no evidence of a third hole by the western corner.

Phase III corresponded to the abandonment and later reuse of the building by “squatters.” In Room 26, about 2 m of aeolian sand filled the space, with occasional layers of fluvial deposits. The excavators identified no surface that could correspond to the “squatter” occupation known from elsewhere in the building.

No ceramics or small finds were found in any of the levels inside Room 26. The only artifact attributed to the area was a single jar base from stratum 26/C, which corresponded to the layer of fill used to create the ramp at the main entrance in Phase I. A new gray floor was also laid in the niche.

The Eninnu

In addition to the three archaeological attestations of an external isolated room, visual evidence from the reign of Gudea displays a possible fourth example. Gudea Statue B depicts the ruler seated with a plan of the Eninnu—the main temple complex of the god Ningirsu in the city of Girsu—resting on his lap (Pl. 84). The plan shows the niched-
and-butressed facade of the Eninnu complex. Six gates, flanked by clearly-delineated gate towers, provide access to the interior of the complex. Two additional features appear as part of the exterior of the complex alongside the buttresses, gates, and gate towers. At the bottom left corner, there is a horseshoe-shaped object between the corner of the complex and one of the gate towers. At the upper right, there is a second object situated between two gate towers. The object itself is presumably depicted from above like the rest of the plan. It consists of two nested shapes with flat tops and slightly-concave sides.

The object at the upper right of the Eninnu plan is strikingly similar to the isolated rooms preserved at Tell al-Hiba and Senkereh. Its depiction between two gate towers suggests that it is actually within a space that one had to enter rather than up against the exterior wall of the complex like the object at the bottom left.593 Further, the shape of the object closely resembles the top-down outline of the two-tiered platform.

As a schematic depiction, one expects only the most important elements of the enclosure walls of the Eninnu complex to be portrayed. If the object at the upper right represents an isolated room with a podium, it suggests that these spaces were considered to be one of the most important elements of the exterior of a religious building in the state of Lagash.

Comparisons of the Three Excavated Examples

Comparison of the three rooms demonstrates that they are all manifestations of the same architectural practice. This is based on multiple similarities. First, all three had similar dimensions. Each was around 3 m wide—Ibgal III, Room E was 3.2; 3HB III 14 was 2.7; Building B 33, Room 26 was 3 m. They varied slightly more in depth, all falling within the range of 2.9–4.25 m. There was a greater divergence in door width. Building B 33, Room 26 was originally 2.9 m wide, but was narrowed to 1.6 m in Phase II. Ibgal III, Room E was 1.1 m wide. On the smaller end, the door into 3HB III 14 was 0.80 m,

narrowing to 0.40 m between the projections.

Second, two of the rooms, 3HB III 14 and B 33, Room 26, contained platforms. The platform in 3HB III 14 was a simple construction. The top was not preserved, so it is unclear whether it was flat or had some type of elaboration. The two-tiered platform in Building B 33, Room 26 was larger and more complex. It was also the only room with any architectural decoration around the area of the platform. Further, the post-holes in front of the platform during Phase II suggest the existence of furniture or some other installation. In contrast, Ibgal III, Room E has no evidence of features or decoration. This may indicate a different function for this space. Alternatively, the use of mobile furniture might have filled the role of the platforms in the other two examples.

Greater variation existed in the accessibility and visibility of the rooms, particularly between the two at Tell al-Hiba and the one at Tell Senkereh. Access to Ibgal III, Room E was possible without ever entering the Ibgal complex. Since it was furthest from the door in the curtain wall, one could also go into the Ibgal complex without having to pass the doorway to Room E. Vision into the room from a distance was restricted. The existence of a curtain wall in front of the tripartite entrance may have completely obscured view from the outside. Additionally, the narrowness of the door relative to the width of the room would have prevented one from seeing much more than the back wall of the room from a distance. All of this suggests that interaction with whatever was in this room would have been from within the space, but that it was not essential to see what was in this space in order to access the complex.

A similar situation existed for 3HB 14. Since the 3HB Building was presumably part of a larger enclosed complex, access to the vicinity of the 3HB Building would have been limited to whoever was allowed into the complex. Once there, the enclosure wall around the building blocked vision from outside. The narrow entrance to 3HB 14 itself would have further obscured the platform inside. Like Ibgal III, Room E, these characteristics

594 Thalmann (2003: 61) suggested that the post-holes could have been for a balustrade. 595 The low preserved height of the walls precludes definite conclusions on how the room may have looked.
imply that interaction with the platform within was an intimate encounter. Given the size of the room, no more than a person or two could fit comfortably. Further, the existence of an opening in the enclosure wall in front of both entrances to the 3HB Building suggests that access to 3HB 14 and access to the rest of the 3HB Building were conceived as being independent of each other.

Building B 33, Room 26 was the most accessible and visible of the three spaces. During Phase I, the entire north wall was open and the stairs up to the building’s entrance porch were directly in front of the room. Anyone entering the building itself would first see the podium and panel of columns in the back of the room. In Phase II, the narrowing of the north wall created a room with a similar layout to the two examples from Tell al-Hiba. Still, the doorway remained wide enough for one to see most of the lower tier of the platform, all of its upper tier, and the full panel of columns in the back wall while standing on the entrance porch. The two post-holes in front of the podium in this level could be the remains of supports for a screen, awning, or balustrade, as suggested by Thalmann. If a screen or balustrade, visibility would have been partially blocked.

Comparanda

Elsewhere in Mesopotamia, there are architectural arrangements in contemporary religious buildings that are similar to the isolated external rooms at Tell al-Hiba and Tell Senkereh. One comparable type is the presence of podia at or near the entrances to complexes. This is evident across multiple levels of the Inana Temple (IT) at Nippur. In IT VIII benches or podia flanked the main northern doorway into the building. This doorway was located at the southern end of an entry porch, IT 368. In the subsequent level IT VIIB, stepped podia again flanked the main entrance to the building, which continued to be situated at the southern end of an entry porch, IT 104. There was also an isolated podium in the street in front of the building. The two stepped podia were maintained when the temple was enlarged in IT VIIA. In this level, IT 104 was the largest part of a three-room suite located immediately south of the main entrance to the building. In addition to the
two stepped podia, IT 104 was equipped with two benches along the western wall. Closer to Tell al-Hiba and Tell Senkereh, another possible example, recently suggested by G. Benati, is the bitumen-coated platform against the northeastern wall of the “guard room” in the southern entrance through the southeastern side of the Archaic I temenos wall at Ur.\footnote{Woolley 1939: 10; Benati 2013: 208.}

Podia located at access points to sacred spaces within religious structures may also be related. Sometimes these were situated in a courtyard. In Sin Temple VIII and IX at Khafajah, there was a podium, Q 42:32, against the south wall of the courtyard, located immediately outside the entrance to the sacred spaces of Q 42:1 and Q 42:2.\footnote{Delougaz and Lloyd 1942: 55, 64; pl. 10–11.} Another example from Khafajah is M 45:3, a stepped platform in the courtyard of Temple Oval I.\footnote{Delougaz 1940: 40; pl. 3–4.} This platform abutted the northwestern face of the niched-and-buttressed platform upon which the central shrine of the complex was presumably located. The stairway to access the shrine was located about 10 m east of M 45:3.

### Possible Functions

Beyond the physical characteristics discussed above, little was found in the rooms at Tell al-Hiba and Tell Senkereh that sheds light on the activities that occurred within. Contemporary textual sources provide some possible options. These options are neither exhaustive nor mutually exclusive. It seems likely that these rooms were multipurpose spaces.

One possibility is that these rooms were used to display objects associated with the cult of the divinities to which the building belonged. Hoards excavated in temples demonstrate the range of objects held in temple treasuries (see above). Administrative texts likewise attest to the wealth of objects and materials that temples could hold.\footnote{See Zettler 1992: 144–147 for an account of the material in the treasury of the Inana Temple at Nippur.} Although from a century or two later than the buildings under discussion, Cylinder A
of Gudea features a description of the types of objects placed at the gates of the Eninnu complex at the time of Gudea’s reconstruction efforts. These included steles, at least one standard, and a number of other indeterminate named objects.\(^{600}\)

Another possibility is that they were used for rendering judgment or the determination of fates. Temples had a variety of locations where these activities could occur.\(^{601}\) One location was at the entrance to temples and temple complexes. The Shugalam gate of the Eninnu complex, referred to as the place where “destinies are determined” and “judgment is pronounced,” was one such location.\(^{602}\)

A third option is that these spaces were occupied intermittently by the cult statue of the associated deity during specific events. As part of festivals and other celebrations, cult statues would move around within and between the temples of various cities.\(^{603}\) The travel of Inana to the temples of Enlil and Suen at Nippur is one example of this practice.\(^{604}\)

They may also have functioned as the primary locus of interaction between the vast majority of the populace and the deity of the complex. Who could access sacred spaces during the Early Dynastic period and when they could do it remains an open question. In general, scholars consider access to the central shrine of a building or temple complex to have been restricted, although the specifics of this varied across time and place.\(^{605}\) For those who could not progress closer to the cella for whatever reason, these rooms could have been a place where an individual came to honor the deity, make a request, or leave a votive offering.

The architecture of the isolated, external rooms clearly supports some possibilities over others. The size and limited visibility of the two rooms at Tell al-Hiba suggest that they did not house steles and other elements traditionally associated with the decoration of temple facades. These were presumably in the open spaces outside of the entrances where

---

600 Heimpel (1996: 19) calls these indeterminate named objects “gate figures,” but it is unclear from the text what they might have looked like or where, specifically, they were placed.
603 Sauren 1969.
they could be viewed more easily. In contrast, the covered space of the rooms provided an intimate setting for some type of activity. The significance of the presence of a podium in 3HB 14 and its absence in Ibgal III, Room E is unclear. It may indicate different functions for an isolated room at the entrance to a religious complex and an isolated room at the entrance to a building within a religious complex.

Though morphologically similar, the placement and heightened visibility of Building B 33, Room 26 differentiate it from the two other examples. Anyone entering Building B 33 was meant to see the contents of the room—it is no accident that this room was the most elaborately furnished of the three examples. What occurred within here is unclear. Wear on the stairs and on the floor in front of the platform indicates that this room was regularly accessed. The two postholes in front of the platform in Phase II could be the remains of a balustrade, or perhaps the supports for a screen or a standard.606

There is a notable lack of evidence in all three for libation activities. This is striking, given the evidence for these features—embedded receptacles, plaster runnels, drains—associated with podia in contemporary temples elsewhere.607

In conclusion, there is a clear connection between isolated, external rooms and religious practice. Located at the entrance to a religious building or complex, an isolated, external room could serve as the locus of a variety of potential activities. During the third millennium, they are, thus far, limited to the state of Lagash and areas in its immediate vicinity, which suggests that this architectural practice was characteristic of the Lagash region. The presence of a similar room (P 27:3) in the 19th-century BCE Audience Hall of Narām-Sin at Tell Asmar may indicate the continuation of this architectural practice down into the second millennium in the area east of the Tigris.608

606  Thalmann 2003: 61
607  For a discussion of these features in contemporary temples, see Tunça 1984: 150–152
608  Frankfort, Lloyd, and Jacobsen 1940: 107
5.2.a. vi What is the 3HB Building?

The internal evidence demonstrates that the 3HB Building was a shrine in the Bagara of Ningirsu. The building had all the elements characteristic of contemporary temples elsewhere. An enclosure wall restricted access to the area. The building had a niched-and-buttressed façade. The structure contained both an external, isolated room with a podium at the entrance and a traditional bent-axis cella inside the building. The small finds, recovered largely in two storerooms, were typical objects from temple treasuries. Some of these bore inscriptions recording their dedication to Ningirsu.

Therefore, the identification of this structure as a temple kitchen in the service of the main shrine of the Bagara is unwarranted. The building had ovens, but these were arguably dedicated to supplying the internal needs of the building and its cella. Moreover, the 3HB Building lay next to the 4HB Building, a structure much more similar to the kitchens discussed at Nippur and Ur, to which we now turn.

5.2.b The 4HB Building

The 4HB Building had no evidence for sacred spaces. Instead, the building consisted entirely of places for work and storage (see 4.3.b.vii). This was most evident in the features, which included ovens, fire pits, and a bitumen-lined brick tank. The small finds also reflected productive activities.

The features and contents of the 4HB Building parallel material from buildings dedicated to food and craft production at Tell al-Hiba and elsewhere. The pottery recovered in the 4HB Building shared many similarities with that found in the contemporary complex of rooms uncovered in Area C, which housed a variety of craft-production activities.

609 Flint blades and stones with evidence of grinding or pounding came from multiple levels. A copper/bronze adze as well as smaller fragments of metal, including nails, indicate the use of metal implements in this space. An oblong stone bearing an inscription of Eanatum (4H-25), which had traces of abrasion, may have represented a grinding stone. The bottom of a stone vase (4H-10), also carrying an inscription of Eanatum, likewise could have been used in the building.

610 Bahrani 1989.
Additionally, some of the rooms in the Area C building contained small brick fireplaces similar to those found embedded in the floor of 4HB III 32 and 4HB III 36. These features are also known from the Earlier and Main Levels of the Northern Palace at Tell Asmar as well as from IT 150 in Inana Temple VII A at Nippur, where they contained traces of burning.\footnote{Delougaz, Hill, and Lloyd 1967: 181–194, pl. 36, pl. 37; Zettler and Wilson (in press).}

5.2.b.i Beer and Brewing in Institutional Contexts

In his preliminary report, Hansen tentatively identified the 4HB Building as a brewery ($e_2$-bappi$\_r_3$).\footnote{Hansen 1987: 83.} Hansen based his suggestion on a fragmentary tablet (4H-90) recovered in 4HB III 32. This tablet—drawn up on the authority of Lugal-teš-mu, a brewer ($lu_2$-lunga$\_3$)—documented expenditures of beer for different people, places, and things and recorded deliveries made to a brewery. On account of the features in the 4HB Building, Hansen suggested that the structure could be the brewery mentioned in the text.

Hansen’s identification of the 4HB Building is difficult to test. Despite its importance in the social and economic life of ancient Mesopotamians, specific evidence for the production of beer in the ancient Near East is sparse.\footnote{See Damerow 2012: 2–4 for a recent review of the sources for beer in ancient Mesopotamia from the late fourth to late third millennia.} Textual sources currently provide the bulk of our information. Administrative documents, particularly those from Girsu, record the types of materials involved in the process as well as some of the contexts where beer was consumed.\footnote{Powell 1994.} They also reveal that temple households maintained their own staff and facilities for the production of beer. Dedicatory inscriptions document that these facilities were subjects of royal patronage.\footnote{Frayne 2008: E1.9.5.12; E1.9.6.1.}

In ancient Mesopotamia, beer ($ka\_s$) was usually made with barley, although wheat was a component in some special types.\footnote{Damerow 2012: 6–8.} The exact process for brewing beer in third-mil-
lennium southern Mesopotamia remains unclear. The process likely varied from place to place based on local traditions and personal preferences. However, certain steps had to occur in order to produce a fermented beverage, which would have kept the various practices from diverging too far from one another.

The “Hymn to Ninkasi,” a literary text from the first half of the second millennium BCE, serves as the foundation for our understanding of the brewing process. In this text, the goddess Ninkasi, goddess of beer, is repeatedly praised as she performs different steps in the brewing process. As Damerow points out, the “Hymn to Ninkasi” does not mention every step in the brewing process nor is its interpretation possible without a modern knowledge of chemistry. However, the activities recorded in the texts do provide insight into what types of installations and equipment would be used to make beer, which can help guide interpretations of possible breweries in the archaeological record. A simplified version of the relevant portions of the text (lines 13–48) as translated by Miguel Civil reads as follows:

Ninkasi, you are the one who handles the dough (and)... with a big shovel,
Mixing, in a pit, the bappir with sweet aromatics.
Ninkasi, you are the one who bakes the bappir in the big oven,
Puts in order the piles of hulled grain.
Ninkasi, you are the one who waters the earth-covered malt,
The noble dogs guard (it even) from the potentates.
Ninkasi, you are the one who soaks the malt in a jar,
The waves rise, the waves fall.
You are the one who spreads the cooked mash on large reed mats,
Coolness overcomes....
Ninkasi, you are the one who holds with both hands the great sweetwort,
Brewing (it) with honey (and) wine.
Ninkasi, [...]
[You...] the sweetwort to the vessel.
The fermenting vat, which makes a pleasant sound,
You place appropriately on (top of) a large collector vat.
You are the one who pours out the filtered beer of the collector vat,
It is (like) the onrush of the Tigris and the Euphrates.

The description in this text covers the brewing process from beginning to end. Ninkasi began by making the dough for bappir, one of the two major ingredients in beer

---

617 Civil 1964; Sallaberger 2012.
618 Damerow 2012: 15.
619 Civil 1964.
making during the later third millennium, and then baking it in an oven. The precise nature of this product is unclear.\textsuperscript{620} The second essential ingredient was malt. In the text, the barley malt was soaked so that it would germinate. The sprouted barley was then heated in a jar with water in order to make the mash. Once ready, the mash was cooled on reed mats. Following this, the wort was prepared and then fermented in a dedicated vessel. Once fermentation was complete, the beer was transferred to another vat for storage and consumption.

Although the specifics of the brewing process remain unsettled, the “Hymn to Ninkasi” clearly demonstrates that ovens and fireplaces as well as installations for working with liquids were essential equipment for beer making. Specialized pottery was also used at different stages of the brewing process.\textsuperscript{621}

Despite the guidance provided by the textual record, the identification of brewing in excavated contexts proves elusive. The remains that have been found are widely spread in time and space.\textsuperscript{622} For third-millennium southern Mesopotamia, archaeological evidence for beer production in institutional contexts is almost non-existent. The only definite example is the brewery in the Eninnu of Ningirsu at Girsu.\textsuperscript{623} This structure, called the “Esplanade of Entemena” by the excavators, was located roughly 25 m northwest of the “Building of Ur-Nanše,” which was likely the main shrine of the Eninnu complex.

The identification of this area as a brewery comes from foundation deposits. In the area east of the doorway, de Sarzec found four foundation figurines with alabaster tablets on their heads. A fifth figurine was found placed directly in front of the door. Inscriptions on these tablets and figurines record the construction of a brewery by Enmetena for the god Ningirsu.\textsuperscript{624} This area may have received additional attention in the reign of his son, 

\begin{itemize}
  \item \textsuperscript{620} During the Early Dynastic period, the sign for \textit{bappir} was KAŠxGAR, a combination of the words for beer and bread, which led scholars to call it “beer bread.” (Powell 1994: 97) However, this ingredient was usually measured by volume rather than units, which suggests that calling it “bread” may be inaccurate. See Damerow 2012: 6–7 for a discussion of the uncertainties that surround it.
  \item \textsuperscript{621} Civil 1964: 73–74; 83–89.
  \item \textsuperscript{622} Gates 1988; Zarnkow et al. 2006; see Zaina 2015: 192–193 for an interpretation of part of the Plano-convex Building at Kiš as a brewery.
  \item \textsuperscript{623} de Sarzec and Heuzey 1884–1912: 420–422.
  \item \textsuperscript{624} Frayne 2008: E1.9.5.12; E1.9.5.13.
\end{itemize}
Enanatum II. Four door sockets, one from the slope of Tell J (MNB 1417), located nearby, and three from an unknown location (AO 249, EŞ 390, EŞ 1551), bear an inscription that records the restoration of a brewery of Ningirsu by Enanatum II.\footnote{Frayne 2008: E1.9.6.1; see Huh 2008: 285 for the findspots.}

The remains consisted of five features in close association (Pl. 7). A 1.7 m-wide doorway, made of square baked-bricks laid in bitumen, provided access to the building.\footnote{de Sarzec and Heuzey 1884–1912: 420.} At the lower level of the threshold was a paving of flat, oblong bricks. An irregular oval base with a height of 1.70 m rested on this paving about 7 m further east. Upon this base was an “oval basin” of 5.10 m length and 4.60 m width with its mouth to the northeast. The interior was paved with square baked-bricks mortared with bitumen.

The exact nature of the “oval basin” is uncertain. The excavators identified it as a feature connected to liquids on the basis of its pavement mortared with bitumen and the slope of the pavement in different places, which they connected to an intentional effort to direct the drainage of liquids.\footnote{de Sarzec and Heuzey 1884–1912, vol. I: 422.} However, it is conceivable that this feature was actually the base of an oven.\footnote{Huh (2008: 98, fn. 501) also suggested this possibility.} A layer of ashes was found on top of this pavement, which may indicate pyrotechnic activity. Further, no other ovens were recorded in the building. Ovens are an integral part of the brewing process, so there should be at least one inside the structure. The “oval basin” is the only feature recorded by the French that meets that requirement.

To the southeast was a row of four rectangular baked-brick basins.\footnote{de Sarzec and Heuzey 1884–1912, vol. I: 421; only three of these were mapped, see de Sarzec and Heuzey 1884–1912, vol. II: Plan D.} The largest of these was tripartite. Two more to the northeast were bipartite. The walls of the basins were coated with bitumen. On the northern side of the “oval basin” was the remains of a water channel that ran northeast-southwest.

It is not clear whether these remains belonged to buildings constructed by Enmetena or Enanatum II. Huh considered them to be contemporary with Enmetena, while Heuzey felt that they were later.\footnote{Huh 2008: 98; de Sarzec and Heuzey 1884–1912, vol. I: 420.} Below the level of the “oval basin” were earlier...
remains, some of which may have been an earlier version of the basin.\footnote{Heuzey 1900: 84.}

The 4HB Building shared a number of elements with the brewery in the Eninnu. The bipartite brick tank from the 4HB Building had a comparable morphology to the the tripartite bitumen-lined basin from Girsu.\footnote{See de Sarzec and Heuzey 1884–1912, vol. II: pl. 55, no.2 for a view of the tripartite tank.} Additionally, the “oval basin” at Girsu, which I understand to be an oven, and the main oven in the 4HB Building were similarly-sized.

5.2.b.ii Is the 4HB Building a brewery?

Hansen’s identification of the 4HB Building as a place for brewing beer is well-founded. The building contained a range of installations—a large oven, a fire pit, a baked-brick tank—that could be used during the brewing process. Additionally, the partial tablet (4H-90) mentioning beer, a brewery, and a brewer is as closely connected to brewing as possible.

However, neither of these pieces of evidence is conclusive. All of the features in the 4HB Building could be used for activities other than brewing. The tablet was found in the fill above the floor, not on it, which calls into question whether it was originally in the building.

Except for the tablet, there was little in the 4HB Building that points definitively to brewing. The excavators identified no residues in the vats or other ceramic vessels. Calcium oxalate, a yellow by-product of the fermentation process, is a typical index for the brewing of barley beer.\footnote{See Michel, McGovern, and Badler 1992 for more on calcium oxalate as an index for brewing.} The ceramic evidence is also equivocal. Based on textual and archaeological evidence, fermentation vessels (\textit{dug\textsubscript{2}-dur\textsubscript{2}-bur\textsubscript{3}}) had an opening at the bottom so that the beer could be drained after fermentation.\footnote{Civil 1964: 82; see Burial 12 in Gibson, Sanders, and Mortensen 1981: 73–75; pl. 96: 2, 6 for two vessels that may have served this function.} In the 4HB Building, there was a single pierced sherd (4HP-212) that consisted of a rounded base with a single hole in the center of the bottom.
In both of these cases, reasonable explanations exist for how this building could still be a brewery despite the lack of these expected features. However, their absence leaves the door open for other interpretations.

One possibility is that the 4HB Building was actually a kitchen (\(e_2\)-muhaldim).\(^635\) A stele of Ur-Nanše, reused as a door socket for the main entrance of 4HB I, recorded his construction of the Bagara, generally, and, more specifically, of the kitchen and “cook oval” (\(eb\ muhaldim\)) of the Bagara.\(^636\) The contents of the 4HB Building, particularly the large oven in 4HB 35, match this description very well. Further, the building shares a number of similarities with the temples kitchens at Ur and Nippur. On the other hand, the stele is in a secondary context and large ovens need not be solely found in kitchens.

In the end, there is little from within the 4HB Building that indicates conclusively whether it was a kitchen or a brewery. Cooking and brewing in the ancient Near East utilized the same types of features and involved some of the same equipment. Without the use of residue analysis or the recovery of certain types of vessels the separation of cooking and brewing activities is nearly impossible.

Further, it is unclear how well the daily practice of cooking and brewing in Early Dynastic institutions correlated to the administrative categories preserved in the texts. For example, in the Ur III period an \(e_2\)-muhaldim under provincial control in Girsu delivered both bread and beer for local use.\(^637\) Did the distinction between a kitchen (\(e_2\)-muhaldim) and a brewery (\(e_2\)-bappir\(_3\)) in administrative texts always equate to the existence of two separate structures? Did every major temple have one of each? How rigid was the classification and could it shift over time? For example, could the 4HB Building be both an \(e_2\)-muhaldim at the time of Ur-Nanše and an \(e_2\)-bappir\(_3\) at the end of the Lagash I dynasty?

In any case, it is clear from its layout and features that the 4HB Building served the food and/or beverage needs of the Bagara complex. In the next section, I consider the 3HB and 4HB buildings in relation to each other and what that suggests for the Bagara

---

\(^{635}\) This was previously suggested by Frayne (2008: 89) in his description of this text in RIME 1.
\(^{636}\) Frayne 2008: E1.9.1.6b, col. ii 2–7, col. iii 1–6; Crawford 1977: 192–197.
\(^{637}\) Allred 2006: 108.
5.3 The Nature of the Bagara Complex in the Late Third Millennium

The foregoing analysis demonstrates that Hansen’s interpretation of the 3HB and 4HB buildings as subsidiary structures that served the food and beverage needs of the main shrine of Ningirsu is not wholly accurate. Only the 4HB Building was dedicated to food and beverage production. The 3HB Building was a shrine.

The reinterpretation of these structures raises new questions about their relationship to each other and their role in the Bagara complex. First, were the activities in these two structures related? The placement of the two structures in close proximity, the location of the doorway of the 4HB Building at the same level as the entrance to the 3HB Building, and the presence of a doorway in the enclosure wall of 3HB III directly opposite the doorway to 4HB IVB suggests that they were.

If the activities were connected, was the 4HB Building a subsidiary structure of the 3HB Building? The limited exposure of the complex precludes a definitive answer. However, the difference in the dimensions of the two structures indicates that the 4HB Building was at least spatially subordinate, if not functionally so.

What role did the 3HB Building play in the Bagara complex? Again, the lack of a wider exposure makes this difficult to answer. The building itself was free-standing and separated from the surrounding area by an enclosure wall. It contained the spaces and installations it needed for its daily activities. Alongside the cella, it had its own cooking facilities, storerooms, and work places.

Accounts of the Bagara in textual sources rarely mention the types of structures in the complex. None of them make any reference to multiple shrines. The inscribed artifacts from within the 3HB Building mention solely Ningirsu and the Bagara and the depiction of an Anzu-bird on one of the maceheads also indicates close ties with that deity.

A few possibilities exist for the role of the 3HB Building. First, it could be a shrine
for one of the members of Ningirsu’s household. In addition to his wife Bau, Ningirsu had two sons—Igalim and Šulšagana—and a number of other members of his retinue. The question of where family and members of a deity’s retinue resided in a temple complex remains largely unanswered. Occasionally royal inscriptions report on the construction of shrines for these lesser deities, but they do not indicate whether these constructions were independent structures with their own supporting installations or part of the shrine of the head of the household. For example, UruKAgina built “temples” for Igalim and Šulšagana, but gave no indication of where they lay; presumably, they were part of the Eninnu of Ningirsu.638

However, there are good reasons to reject this hypothesis. First, there is no definite evidence for the presence of shrines to other members of Ningirsu’s household in the city of Lagash. Some scholars have proposed that the e₂-dam “House of the Spouse,” known from royal and administrative documents, was a shrine of Bau in the Bagara complex, but this suggestion is controversial.639 Additionally, if the 3HB Building was the shrine of another deity, then the prevalence of votive objects bearing dedications to Ningirsu would be difficult to explain.

Another possibility is that the 3HB Building served as a secondary shrine in the complex for use during special occasions. Visits by one deity to the shrine of another, sometimes in a distant city, are well-attested.640 Usually, these trips occurred so that a deity could participate in a festival at the hosting temple. For example, deities visited Inana in her temple at Nippur during the sixth month.641 In Gudea Cylinder A, Ningirsu describes the Bagara as “my dining place” where “the great gods of Lagash assemble for me.”642 This passage may refer solely to the behavior of the gods in the metaphysical realm, but it could also refer to visits made by divine statues from other temples in Lagash. Additionally, the Bagara was a stop on the circuit performed by the Queen of Lagash during her trip to

638 Frayne 2008: E1.9.9.6.
640 Sauren 1969.
641 This statement is based on the offering of fish to deities in the sanctuary of Inana during her festival. See Zettler 1984: 330–331 for more on the relevant texts.
Niĝin to celebrate the Barley and Malt-eating festivals of Nanše. While there, she made sacrifices. The 3HB Building could be a place where Ningirsu received special visitors from the divine and terrestrial worlds.

If the 3HB Building served as a secondary shrine for special occasions, then it would be unique in that role. The only other example of a free-standing structure that might have served a similar function is the straight-axis shrine in the Inana Temple. However, that structure was just a cella with a forecourt, not a complete building inside of an enclosure wall.

A third option is that the 3HB Building was the main shrine of the Bagara. The consensus among scholars is that the main temple in a city consisted of a walled complex inside which the main shrine rested alone on a high platform. Subsidiary structures and rooms lay around the base of the platform. The temple ovals at Khafajah and Ubaid as well as the remains of the Later Temple from Bismaya all demonstrate this practice.

The 3HB Building does not fit this paradigm, but a number of factors speak for its central importance in the Bagara complex. First, it possesses many of the same architectural qualities as major complexes elsewhere, if not to the same degree. The shrine was raised above its surroundings and separated from the rest of the complex by an enclosure wall. The exposure of a plano-convex brick paving at the bottom of soundings in three different rooms of the 3HB III—3HB III 3, 3HB III 17, and 3HB III 22—suggests that 3HB III rested on a brick pavement, which could represent the top of a platform. Additionally, a kitchen and/or brewery, the 4HB Building, lay immediately outside, which parallels what is known from the Eninnu at Giršu and the temple enclosure of Nanna at Ur.

Second, the votive objects with inscriptions are all dedicated to Ningirsu of the Bagara. Further, the types of small finds from the building are typical of those found in temples elsewhere.

Third, the 3HB and 4HB buildings were located directly below the apparent focus of the Ur III/Isin-Larsa/Old Babylonian Bagara complex. Given the conservatism in

643 See Forest 1999: 2–3, 89 for one formulation of this view.
Mesopotamian religion regarding the placement of main shrines, the location of these earlier structures in the same area as the focus of the later complex suggests that the earlier structures were significant.

Finally, if the building is not the Bagara, then another explanation must be found for it. As discussed above, other interpretations are even more problematic. I am unaware of any other third-millennium temple complex where a structure with features comparable to the 3HB Building lay in the same temple enclosure as another structure that served as the main shrine of the temple. On the basis of the current evidence, the interpretation of the 3HB Building as the main shrine of the Bagara is the most convincing. Only further excavation will reveal if this is correct.

5.4 Conclusions

The Bagara remains a poorly-understood complex. Textual records indicate that it was a major institution in the state of Lagash as well as one of the principal shrines in the city of Lagash. However, the texts reveal little about the Bagara’s administration. We do not know much about its contents or the activities that occurred within it.

The 3HB and 4HB buildings shed light on the activities in the complex, but raise more questions than they answer. The buildings functioned as a shrine and a cooking facility. I suggest that they were the main shrine of the Bagara and a subsidiary kitchen or brewery, respectively. If true, this hypothesis requires a revision of the current paradigm for the appearance of a major temple in a southern Mesopotamian city.
Chapter 6: Conclusions

In this dissertation, I reconstructed the structural remains of two major temple complexes, the Ibgal of Inana and the Bagara of Ningirsu, in the city-state of Lagash. For the state of Lagash, there is a great disparity between our knowledge of the activities of temple complexes from textual sources and the minimal record we have of their physical remains. This work serves as a step towards rectifying that imbalance. Through this work, I demonstrated that the 3HB Building was a shrine, possibly the main shrine of the Bagara of Ningirsu. The 4HB Building served the food and beverage needs of the 3HB Building, not another structure elsewhere. Further, I proposed that external, isolated rooms and tripartite entrances represent local religious architectural traditions in the state of Lagash and analyzed how they might have functioned.

6.1 Overview of Major Claims

The Ibgal of Inana and the Bagara of Ningirsu represent two temple complexes with different forms. Both complexes share similarities with temple complexes elsewhere, but also have their own particularities. The oval wall of the Ibgal relates it to the temple ovals at Khafajah and Tell al-Ubaid. However, the interior layout of the Ibgal differed from the ones present at the two other sites. In the Ibgal, the interior buildings were concentrated in the southern half of the complex while open space filled the northern half. Additionally, the Ibgal contained no evidence for a high, central platform on which the main shrine of the complex rested, as in the other two ovals. The differences between the Ibgal and temple ovals at Khafajah and Tell al-Ubaid raise the question of whether the Ibgal is an example of an abnormal temple oval or an indicator of a greater diversity in temple ovals than has been uncovered thus far.

The excavated portion of the Bagara displays a layout different from the Ibgal. The close association of three free-standing structures—the 3HB Building, 4HB Building, and
a building immediately south of the 4HB Building—suggests that this area of the Bagara complex, minimally, was densely occupied. I propose that the reason for this proximity is that all three buildings were on a large raised platform. The second millennium remains support this identification. The layout of the foundations of the second millennium platform suggests that the center of that complex was in the area of the 3HB and 4HB Buildings. Further, the remains of a structure rested directly above the 4HB Building. Given the conservatism of religious architecture in Mesopotamia, the centrality of the area in the second millennium likely means that it had a similar importance in the late third millennium.

The 3HB Building is a rare example of a shrine in the state of Lagash. The only other example, the “Building of Ur-Nanše” in the Eninnu at Girsu, has a very different appearance. At this time, the significance of this variation is unclear. Until recently, the shrine of the Eninnu appeared to be unique. The reconstruction of a similar shrine from remains uncovered at Bismaya may indicate that this temple form had a wider distribution.645

The 3HB Building had its own idiosyncrasies. The location of the bent-axis cella off the vestibule of the building is unique in Mesopotamian religious architecture. In addition, it had an external, isolated room next to its entrance. The exact purpose of these rooms is unknown and it was probably multifarious. They likely served a similar function to podia located at the entrance to temples elsewhere.

Based on their attestations thus far, I proposed that an external, isolated room was typical of religious architecture in the state of Lagash and the area immediately around it. Their distribution may be quite large. Settlement east of the Tigris during the third millennium is poorly understood.646 The inclusion of a similar room, P 27:3, in the Audience Hall of Narām-Sin, a late 19th-century BCE ruler of Ešnunna,—also a building with an unusual form—may speak to a long-lived architectural tradition in the eastern alluvium that has so

646 Excavations at Tell Abu Sheeja, ancient Pašhime are a notable exception (Hussein et al. 2010).
far escaped documentation.\textsuperscript{647}

The 4HB Building demonstrates the difficulties in differentiating food and beverage production without archaeometric methods. It served as a kitchen and/or brewery for the 3HB Building and the Bagara complex more broadly. Based on the archaeological and textual evidence, it is highly probable that this building was used for brewing beer. However, a stele recovered in a secondary context within the building mentions the existence of a kitchen with a large oven in the Bagara; the 4HB Building may have been this structure. Ultimately, the building could have been used for both activities and there is no reason to think that there would have been anything inherently wrong in doing so.

Finally, the analysis conducted in this dissertation reassigned the date of the Bagara remains from entirely ED IIIB to ED IIIB–early Ur III. These building levels now shed light on the Akkadian period, a period that was previously known at Tell al-Hiba by pottery recovered from pits into Area C. This period likewise remains poorly-explored in southern Mesopotamia, although recent work has significantly advanced our understanding of the material culture of this time.\textsuperscript{648} This is particularly true for temples. The remains of 3HB II–I and 4HB III–II now represent the best-preserved example of a temple complex from the Akkadian Empire in the southern alluvium.

In material terms, the Bagara remains confirm what has already been shown about religious architecture in the Akkadian period elsewhere.\textsuperscript{649} Plano-convex bricks were used for construction throughout the period and into the early Ur III levels. The pottery evolved gradually over time rather than changing sharply with the establishment of Akkadian hegemony under Sargon.

Historically, the remains demonstrate a degree of impoverishment in the complex during the Akkadian period. Nothing from these levels gives any indication of royal patronage. For example, the reuse of part of a stele of Ur-Nanše as a pivot stone in 4HB II

\textsuperscript{647} This room consisted of a niche in the back wall of the space. A fragment of a stele mentioning Tišpak, head god of Ešnunna, that was found on the surface near this room may have originally been set up here. See Frankfort, Lloyd, and Jacobsen 1940: 107 for more information.
\textsuperscript{648} McMahon 2006: 9.
\textsuperscript{649} McMahon 2006: 9.
suggests a need to manage with materials on hand. This appearance of decline relative to earlier periods corresponds well with Foster’s suggestion that land in the state of Lagash underwent extensive redistribution from local elites and institutions to Akkadian royal control after Rimuš’s defeat of a rebellion in southern Mesopotamia in which Lagash took part. As one of the major temple households in Lagash, the Bagara is likely to have been impacted by these developments.

6.2 Avenues of Future Research

As a final contribution, I would like to offer some thoughts on the study of third-millennium religious architecture and, in light of the recent increase in excavation there, the study of the state of Lagash more specifically.

First, the expectation that the main shrine of a city rested on a high platform with subsidiary structures arrayed around the base of it should be discarded. This was one possibility, as the temple ovals from Khafajah and Tell al-Ubaid and the complex of Ninhursaš at Bismaya demonstrate. It may have even been the primary form. In later periods, this form of temple complex certainly predominated. The construction of ziggurats—an intensification of earlier temple platforms—in the major cities of southern Mesopotamia during the Ur III period represents the solidification of its dominance through the standardization of the appearance of major shrines across the alluvium. Of course, this standardization went hand-in-hand with the establishment of unified political control of the alluvium.

However, we still know too little about the shrines beneath the Ur III ziggurats in the major cities of the alluvium to confidently state that they all lay on raised platforms. Temples large and small from earlier in the third millennium display a diversity of forms. A similar degree of diversity should be expected in the shrines of the temple complexes. This is especially true for cities that had a long history of occupation and political independence where local customs, environment, and historical contingency over the longue

---

durée could result in divergent practices within a shared architectural tradition.

Second, more attention should be given to local architectural practices, religious and otherwise. Given the current difficulties in conducting research in Iraq and the chance nature of all archaeological exploration, this will largely remain an aspiration for the foreseeable future. However, the appearance of two unique forms—external, isolated rooms and tripartite entrances—at Lagash demonstrates what types of discoveries may lie in wait as exploration begins again in the territory of Lagash.
Appendix 1: Catalogue of Finds from Area A and Area B

The entries in this catalogue are grouped together under the locus of their discovery. Each entry consists of the object number, a brief description of the object, and its context. The Area A catalogue contains only registered finds. The Area B catalogue contains both registered and unregistered finds. In the case of unregistered finds, the date of recovery replaces the object number. Plate numbers refer solely to registered objects. Unregistered objects were not systematically recorded.

AREA A

X 1090–1100, Y 1120–1130
2H-65 | Shell fragment with two holes drilled through it | Ibgal I; in first two courses of brick at northeastern end

X 1090–1100, Y 1140–1150
1H-89 | Ceramic weight or sinker | Ibgal I fill
1H-119 | Inscribed stone foundation tablet (Enanatum I) | Ibgal I; in 4th course of brick above bottom
2H-64 | Partial toy chariot | Ibgal III fill against niched-and-butressed portion of screen wall

X 1100–1110, Y 1130–1140
2H-26 | Lapis lazuli eye pupil | Fill above Ibgal III floor
2H-27 | Partial scalloped ceramic wheel | Ibgal II fill; north face of courtyard wall

X 1100–1110, Y 1140–1150
1H-36 | Ceramic lid | Floor of Ibgal III, Room A
1H-113a–b | a: Inscribed stone foundation tablet (Enanatum I); b: Inscribed copper/bronze foundation figurine | Ibgal I; in 4th course of brick above bottom
2H-7 | Inscribed stone foundation tablet (Enanatum I) | Ibgal I; in X 1100 baulk

X 1100–1110, Y 1050–1060
2H-2 | Fragmentary four-legged animal figurine | Ibgal I; northeastern side of enclosure wall

X 1110–1120, Y 1130–1140
1H-111 | Inscribed stone foundation tablet (Enanatum I) | Ibgal I; 20 cm above bottom in 4th course of brick

X 1110–1120, Y 1140–1150
1H-112a–b | a: Inscribed stone foundation tablet (Enanatum I); b: Inscribed copper/bronze foundation figurine | Ibgal I; in 4th course of brick above bottom

X 1110–1120, Y 1150–1160
1H-115a–b | a: Inscribed stone foundation tablet (Enanatum I); b: Inscribed copper/bronze foundation figurine | Ibgal I; in 4th course of brick above bottom
1H-117a–b | a: Inscribed stone foundation tablet (Enanatum I); b: Inscribed copper/bronze foundation figurine | Ibgal I; in 4th course of brick above bottom
1H-118a–b | a: Inscribed stone foundation tablet (Enanatum I); b: Inscribed copper/bronze foundation figurine | Ibgal I; in 4th course of brick above bottom
2H-4 | Copper/bronze pin | Ibgal III
2H-24 | Pierced stone disk | Ibgal III fill; Room C
2H-25 | Ceramic wheel | Ibgal III fill; Room C

X 1110–1120, Y 1160–1170
1H-95 | Stone bowl | Fill below Ibgal I
1H-96 | Stone bowl | Fill below Ibgal I
1H-102 | Copper/bronze fish hook | Fill below Ibgal I
1H-124 | Conical bowl | Cut into Ibgal I in southern baulk

X 1110–1120, Y 1170–1180
1H-97 | Partial inscribed stone bowl | Fill below Ibgal I; top bowl in stack of 1H-97–1H-99
1H-98 | Partial inscribed bowl | Fill below Ibgal I; middle bowl in stack of 1H-97–1H-99
1H-99 | Partial inscribed bowl | Fill below Ibgal I; bottom bowl in stack of 1H-97–1H-99

X 1120–1130, Y 1100–1110
2H-10 | Conical bowl | Ibgal I drain
2H-12 | Conical bowl | Ibgal I drain

X 1120–1130, Y 1110–1120
2H-9 | Impressed clay sealing | Ibgal I; corner of substructure in first course of brick

X 1120–1130, Y 1140–1150
1H-25 | Stone bowl fragment | Fill below Ibgal I; Room 14
1H-114a–b | a: Inscribed stone foundation tablet (Enanatum I); b: Inscribed copper/bronze foundation figurine | Ibgal I; in 4th course of brick above bottom
2H-8 | Inscribed stone foundation tablet (Enanatum I) | Ibgal I; in Y 1140 baulk

X 1120–1130, Y 1150–1160
1H-116 | Inscribed stone foundation tablet (Enanatum I) | Ibgal I; in 4th course of brick above bottom
2H-5a–b | a: Inscribed copper/bronze foundation figurine; b: Inscribed stone foundation tablet (Enanatum I) | Ibgal I; in X 1120 baulk
2H-6a–b | a: Inscribed copper/bronze foundation figurine; b: Inscribed stone foundation tablet (Enanatum I) | Ibgal I; in Y 1150 baulk
2H-23 | Ceramic jar stopper | Ibgal II fill; northwestern corner

X 1130–1140, Y 1120–1130
1H-120a–b | a: Inscribed stone foundation tablet (Enanatum I); b: Inscribed copper/bronze foundation figurine | No information given
2H-28 | Partial ceramic sickle-shaped “blade” | Ibgal II fill; in Y 1120 baulk
X 1140–1150, Y 1120–1130
1H-130a–e | Fragments of clay sealings with portions of impression of same seal | Ibgal II; depression in bitumen-coated bench

Deep Sounding
2H-47 | Ceramic bead with spiral incision | Level VII fill; in northeastern half of trench
2H-59 | Convex-based jar with collar rim | Level VII fill
2H-61 | Conical cup | Level VII fill
2H-96 | Low-necked spouted jar with flat base | Level XI
2H-97 | Low-necked spouted jar with flat base | Level XI
2H-98 | Conical cup | Level XI
2H-99 | Conical cup | Level XI
2H-100 | Conical cup | Level XI
2H-101 | Ceramic jar lid | Level X foundation fill
2H-226 | Stone slingball | Level VII fill
2H-233 | Ceramic ring-shaped object | Level VII fill

AREA B

The 3HB Building

Platform Fill and Below
3H-56 | Inlay strip | 3HB I fill N 550–60 W 110–20
3H-77 | Conical bowl (3HP313) | 3HB I fill N 530–40 W 120–30

Locus 3
1/1 | 2 conical bowls, one in other | 3HB III fill
1/2 | 2 clay “slingstones” | 3HB III fill above Floor 2

Locus 4
3H-44 | Composite “macehead” | 3HB II fill (Pl. 47)
3H-76 | Conical bowl (3HP323) | 3HB II fill
11/22 | Fish bones in 3HB II fill; found in broken jar neck
12/27 | 4 conical bowls | 3HB III fill (facedown near north wall)
12/27 | Bone frags | 3HB III fill
1/1 | 2 conical bowls | 3HB III fill, facedown

Locus 7
3H-74 | Low-neck jar with round base | 3HB I near trough oven
3H-55 | Partial statue | In fill below second-millennium platform (Pl. 47)
11/26 | Shell ring | 3HB I (?) fill
11/26 | Tip of clay cone | 3HB I (?) fill
12/4 | Copper frags | 3HB II (?) fill and floor in west end of Locus 7

Locus 8 (Pl. 45)
3H-45 | Inlay | 3HB I fill
3H-46 | Inlay (2 pieces: torso and hair) | 3HB I Floor 1
3H-47 | Inlay | 3HB I fill
3H-48 | Inlay | 3HB I fill, found in door into Locus 7
3H-53 | Metal fork | 3HB I Floor 1
3H-54 | Mended stone object | 3HB I fill, in door to Locus 9
3H-78 | Conical bowl (3HP310) | 3HB II floor
12/18 | Worked stone object (called “duck stone”) | 3HB I floor, W side of N door
12/23 | Corroded metal frag | Below 3HB II floor, NW corner

**Locus 9**
11/26 | Alabaster fragment | 3HB I (?) fill
12/3 | Stone bowl fragment | 3HB I (?) fill east of door into building

**Locus 12**
12/4 | Conical bowl | 3HB II fill
12/16 | Conical bowl | 3HB II “Floor” 2; found in Locus 12N

**Locus 15 (Pl. 47)**
3H-65 | Spearhead | 3HB III fill above Floor 2

**Locus 16**
12/4 | Conical bowl | 3HB II fill; associated with southern brick bitumen feature

**Locus 17 (Pl. 32–33)**
3H-57 | Macehead | 3HB II fill, probably above Floor 2
3H-58 | Macehead | 3HB III Floor 1 fill
3H-59 | Stone bowl | 3HB II Floor 2 fill
3H-62 | Macehead | 3HB III Floor 1 fill
3H-63 | Gadrooned Macehead (3H-T6) | 3HB III Floor 2
3H-69 | Inscribed macehead with relief (3H-T4) | 3HB III Floor 1
3H-75 | High-neck jar (3HP332) | 3HB III Floor 1
3H-79 | Inscribed stone rim frag | Fill below 3HB III Floor 2
12/9 | Conical bowl | 3HB III Floor 1
12/10 | Clay “slingstone” | 3HB II Floor 2 fill
12/10 | Worked stone (called a “door stop”) | 3HB III Floor 1 fill
12/16 | Corroded metal object | 3HB III Floor 1 fill
12/17 | Pinkish-red stone object (truncated stone with depression drilled in larger end) | 3HB III Floor 1 fill
12/18 | Fish bones | 3HB II Floor 2 fill
12/19 | Bone (possible fish and other) | 3HB III Floor 1
12/19 | Unfinished stone bead (?) (brownish translucent stone) | 3HB III Floor 1
12/20 | 2 rim frags of alabaster bowl (don’t fit together) | 3HB III Floor 2 fill
1/4 | 3 frags of stone bowl (base and side) | 3HB III Floor 2 fill
1/4 | 2 large, irregular stones | In 3HB III pivot stone

---

The context of this object is unclear. The field notebook says that it came from the floor. The object card assigns it to the fill above the floor. I have followed the field notebook since that entry is closer to the time of its initial discovery.
Locus 18 (Pl. 40–41)
3H-71 | Spouted Jar (3HP328) | 3HB II Floor 1 pottery cache
3H-72 | Ring-base Jar (3HP327) | 3HB II Floor 1 pottery cache
3H-73 | Round-bottom Jar (3HP329) | 3HB II Floor 1 pottery cache
3H-91 | Seal impression | 3HB II fill above Floor 1 near door to Locus 16
3H-93 | Seal impression | 3HB II fill above Floor 1 near door to Locus 16
12/9 | Round-based low-neck jar | 3HB II Floor 1 pottery cache
1/2 | 3 possible seal impressions | 3HB III fill

Locus 22 (Pl. 34–35)
3H-60 | Stone rod | 3HB III floor
3H-64 | Inscribed bowl frag | 3HB III floor
3H-66 | Spearhead | 3HB III floor
3H-90a–b | Seal impression | 3HB III floor
3H-92 | Seal impression | 3HB III floor
3H-94 | Seal impression | 3HB III floor
12/18 | Worked stone object (very similar to “door stop” from Locus 17 on 12/10) | 3HB III floor
12/18 | 3 lumps of corroded metal | 3HB III floor
12/18 | Small round tablet (3H-T9) | 3HB III floor
12/19 | 21 possible sealings (unbaked lumps of clay) | 3HB III floor

Locus 23
3H-70 | Blade with inscription of Eanatum (3H-T7) | 3HB III Floor 1 (Pl. 36)
3H-95 | Blade with relief, corroded | 3HB III fill
12/3 | Shell/shell frags | In doorway at north end of Locus 7; maybe into Locus 22?; level unk.
12/26 | Fragment of worked flint blade | 3HB III Floor 1
1/7 | 2 corroded metal blades (one is 3H-95) | 3HB III fill
1/7 | 1 large bitumen object (a receptacle?) | 3HB III fill
1/7 | 2 stone bowl frags | 3HB III fill
1/7 | Misc. lumps of corroded metal | 3HB III fill
1/7 | Misc. bone | 3HB III fill

Locus 24 (Pl. 47)
3H-61 | Metal chisel | 3HB II fill

The 4HB Building

Locus 26
12/4 | Seal impression (animal frieze; not recorded as object) | In repair to north 4HB IVB buttress

652 See the discussion of 3HB III 22 for the assignation of all this material to the final 3HB III floor of the room.
Locus 27 (Pl. 78)
4H-6 | Partial macehead with lion and bull/calf | 4HB II fill south of oven

Locus 28 (Pl. 78)
4H-85 | Stone hand tool (scraper?) | 4HB IV fill

Locus 29 (Pl. 55–56)
4H-17 | Gudea socket | 4HB I
4H-25 | Partial “galet” of Eanatum | 4HB IVB fill below Gudea socket (4H-17)
4H-28 | Partial inlay of feather or leaf | 4HB IVB fill
4H-73 | Seal impression | 4HB IVB fill
4H-86 | Conical bowl from cache in vat | 4HB IVA
4H-87 | Conical bowl from cache in vat | 4HB IVA
4H-88 | Conical bowl from cache in vat | 4HB IVA
12/4 | Pottery object/container | Associated with vat in 4HB IVA
12/27 | Chunk of worked reddish-brown stone | 4HB IVB fill with 4H-25
12/28 | Flint blade | 4HB IVB fill
12/28 | Possible unimpressed sealings | 4HB IVB fill

Locus 30 (Pl. 69, 73)
4H-5 | Ur-Nanše stele reused as socket | 4HB II
4H-7 | Gudea socket | 4HB I
4H-11 | Cu/br adze | Called 2B, probably 4HB III
12/27 | Eighteen fragments of sealings | 4HB IVB fill
12/25 | Flint core | 4HB II/4HB III fill, south end

Locus 31
11/9 | Metal fragment | 4HB II inside bitumen-lined basket

Locus 32 (Pl. 61–66)
4H-14 | Shell eye inlay | 4HB IVB fill; SW corner
4H-63 | Small wheel-made cup | 4HB IVB/4HB IVA fill
4H-71a–c | Seal impression | a,c 4HB IVB Floor 1; b, under 4HB IVB Floor 1
4H-72 | Seal impression | Under 4HB IVB Floor 1
4H-74a–b | Seal impression | 4HB IVB Floor 1
4H-75 | Seal impression | 4HB IVB Floor 1
4H-76 | Seal impression | 4HB IVB Floor 1
4H-77 | Seal impression | 4HB IVB Floor 1
4H-78a–d | Seal impression | 4HB IVB Floor 1
4H-79 | Seal impression | 4HB IVB Floor 1
4H-80 | Seal impression | 4HB IVB Floor 1
4H-81 | Seal impression | 4HB IVB Floor 1
4H-82 | Seal impression | 4HB IVB Floor 1

653 The object card says Level 3, but this likely belongs to 4HB IVB (=Level 2B) based on the level of excavation.
4H-83 | Seal impression | 4HB IVB Floor 1
4H-90 | Partial tablet | Over 4HB IVB Floor 1
12/30 | Flint blade | 4HB IVB or 4HB IVA fill
12/27 | Worked stone | In brick box in 4HB IVB Floor 2
12/21 | Four metal fragments (cu/br nails) | On 4HB IVB floor

**Locus 33** (Pl. 59)
4H-10 | Inscribed votive vase of Eanatum | 4HB III fill
4H-23 | Black cylinder seal | 4HB IVB fill east of tank
12/30 | Worked stone (pounder?) | 4HB IVB fill
12/30 | Cu/br fragment | 4HB IVB fill
12/25 | Small baked clay doughnut | Level not listed, along north wall
12/27 | Piece of worked stone limestone | 4HB IVB fill, west of fire pit
12/21 | Flint blade | 4HB IVB fill, south of fire pit
12/29 | Rim fragment alabaster bowl | 4HB IVB fill, middle of room

**Locus 34** (Pl. 78)
4H-24 | Partial inlay of feather or leaf | Level not listed
12/17 | Nine whole clay balls; two damaged balls; two biconical balls | 4HB IVB fill, east end

**Locus 35** (Pl. 78)
4H-84 | Fragment of tail or leaf | Just under 4HB III oven entrance pavement
12/6 | Worked stone pounder/grinder | 4HB III
1/5 | Serrated flint blade | In construction of large oven, second stage (4HB IVB?)
1/12 | Agate bead | 4HB IVB floor, north edge
12/4 | Three possible sealings | Level 4HB II fill, along east wall of locus
12/6 | Cu/br nail | In 4HB IVB oven

**Locus 36**
12/18 | Two fragments of bitumen with reed mat impressions | Under 4HB III floor
1/9 | Bitumen object (plug?) | Level not listed

**Locus 37** (Pl. 78)
4H-27 | Statue frag | 4HB IVB fill, easternmost end
4H-69 | Macehead fragment with couchant lion | 4HB III fill, NW corner
12/6 | Pierced worked stone | 4HB IVB fill

---

654 This may belong to 4HB III.
Bibliography


Algaze, Guillermo. “Akkadian–Ur III Ceramics from the WA50c Sounding at Nippur.” Unpublished manuscript, University of Chicago.


Civil, Miguel. “A Hymn to the Beer Goddess and a Drinking Song.” In From the Workshop of the Chicago Assyrian Dictionary: Studies Presented to A. Leo Oppenheim, eds. R. D. Biggs and J. A. Brinkman, 67–89. Chicago: University of

— 223 —


—. “An Ur III Manuscript of the Sumerian King List.” In *Literatur, Politik und...*


—. E-Kur: The Ur III and Isin-Larsa Levels. Unpublished manuscript.


Index

B

Bagara  72, 77, 79, 111, 113, 164, 166, 168, 169, 170, 171, 172, 204, 205, 207, 208, 209
Building B 33  187, 188, 190, 192, 197

D

Deep Sounding  87, 93, 216

E

External, isolated room  97, 104, 108, 198, 209, 210

G

Girsu  6, 21, 27, 28, 33, 35, 36, 38, 41, 43, 44, 45, 46, 47, 48, 50, 54, 55, 56, 57, 59, 60, 61,
       66, 68, 169, 199, 203, 204, 210
Going-to-Niĝin Canal  25, 27, 28, 43, 56, 170

I

Ibgal I  76, 101, 103, 108, 109
Ibgal II  76, 98
Ibgal III  87, 93, 95, 101, 104, 108, 187, 192, 193

N

Niĝin  20, 28, 56, 58, 70, 72, 169, 170

T

Temple Kitchen  19, 77, 176, 177, 178, 180, 181, 182, 198
Plates
PLATE 1.  MAP OF SOUTHERN MESOPOTAMIA

Source: Oriental Institute Map Series, The Oriental Institute of the University of Chicago
PLATE 2. THE REGION OF LAGASH IN MODERN TIMES
Plate 3. The Region of Lagash in the Late Third Millennium BCE

Map after de Maaijer 1998: 64, fig. 1
PLATE 4.  Topographic Map of Tello

Source: de Sarzec and Heuzey 1884–1912, vol. 2: Plan B
Plate 5.  Tell K at Girsu

Source: de Sarzec and Heuzey 1884–1912, vol. 2: Plan D
Plate 6. The Sanctuary of the Eninnu at Girsu

Source: de Sarzec and Heuzey 1884–1912, vol. 2: Plan C
PLATE 7. THE REMAINS OF THE BREWERY IN THE ENINNU AT GIRSU

Source: de Sarzec and Heuzey 1884–1912, vol. 2: pl. 55, 2
Plate 8. Topographic Map of Lagash
Plate 10. Area A Deep Sounding: Eastern Section
Plate 11.  Area A Deep Sounding: Southern Section
PLATE 12.  AREA A DEEP SOUNDING: LEVELS III–X
Plate 14. Area A Deep Sounding: Level XI and Water Table
PLATE 15.  AREA A DEEP SOUNDING: POTTERY FROM BELOW WATER TABLE
PLATE 16. Ibgal III

AL HIBA
AREA A
LEVEL III
PLATE 17. IBGAL II
Plate 18. Ibgal I
Plate 19. Ibgal I Foundation Deposits
Plate 20.  Ibgal I: The Tripartite Entrance
Plate 21. Area B Excavation Sectors

Northern Zone

Eastern Zone

Southern Zone
Plate 22. The Remains on Top of the Area B Platform
Plate 23. Bricks on Top of the Area B Platform (Locus 2 from N)
Plate 24. The Substructure of the Area B Platform
PLATE 25. THE FOUNDATION DEPOSIT OF THE AREA B PLATFORM
Plate 26. 3HB III and 4HB IVB
Plate 27.  The 3HB Building (From N)
PLATE 28.  3HB III
Plate 29. 3HB II
Plate 30. 3HB I
Plate 31. 3HB II 14 and 3HB III 14 (From NW)
Plate 32. 3HB 17 Objects

3H-57 (3HB II 17 Floor 2 Fill)
3H-58 (3HB III 17 Floor 1 Fill)
3H-59 (3HB II 17 Floor 2 Fill)

3H-62 (3HB III 17 Floor 1 Fill)
3H-63 (3HB III 17 Floor 2)
3H-75 (3HB III 17 Floor 1)

3H-79 (3HB III 17 Fill Below Floor 2)
Plate 33.  3H-69 (3HB III 17 Floor 1)
Plate 34. 3HB III 22 Sealings

3H-90a–b
3HB III 22 Fill

3H-94a–b
3HB III 22 Fill
Plate 35. 3HB III 22 Objects

3H-92
3HB III 22 Fill

3H-60
3HB III 22 Fill

3H-64
3HB III 22 Fill

3H-66
3HB III 22 Fill
Plate 36. 3H-70 (3HB III 23 Floor 1)
Plate 37.  **Trough Ovens: 3HB I 7 and 3HB II 7**
Plate 38. 3HB II 23 Drain (From E)
Plate 39.  3HB II 18 Floor 1
Plate 40.  3HB II 18 Floor 1 Pottery

3H-71

3H-72

3H-73
PLATE 41. 3HB II 18 FLOOR 1 SEALINGS

3H-91
3HB II 18 Floor 1 Fill

3H-93
3HB II 18 Floor 1 Fill
Plate 42. 3HB II 16 (From N)
Plate 43. 3HB I 3 and 3HB II 3 (From N)
Plate 44. 3HB I 8 Bitumen-coated Bench (From NW)
Plate 45. 3HB 8 Objects

3H-46a  
(3HB I 8 Floor 1)

3H-46b  
(3HB I 8 Floor 1)

3H-48  
(3HB I 8 Fill)

3H-45  
(3HB I 8 Fill)

3H-47  
(3HB I 8 Fill)

3H-54  
(3HB I 8 Fill)

3H-53  
(3HB I 8 Floor 1)
Plate 46. Trough Ovens: 3HB I 3
Plate 47. Miscellaneous 3HB Objects

3H-44
3HB II 4 Fill

3H-55
3HB 7 Fill Below Platform

3H-61
3HB II 24 Fill

3H-65
3HB III 15 Fill Above Floor 2
Plate 48. The 4HB Building (From W)
Plate 49. 4HB IVB
PLATE 50.  4HB III
PLATE 51.  4HB II
Plate 52. 4HB I
Plate 53. Vat in 4HB IVA 29 (From N)
Plate 54. 4HB III 31 and 4HB IVB 31 (From E)
Plate 55. 4HB 29 Objects
PLATE 56.  4H-25 (4HB IVB 29 Fill)
PLATE 57.  4HB IVB 33 (FROM E)
Plate 58. Interior of Brick Tank in 4HB IVB 33 (From S)
Plate 59. 4HB 33 Objects

4H-10
4HB III 33 Fill

4H-23
4HB IVB Fill
Plate 60.  4HB IVB 32 (From NE)
PLATE 61. 4HB 32 OBJECTS (1 OF 5)

4H-71a
4HB IVB Floor 1

4H-71b
4HB IVB Floor 1

4H-71c
4HB IVB Floor 1

4H-14
4HB IVB Fill

4H-63
4HB IVB Fill
Plate 63. 4HB 32 Objects (3 of 5)
Plate 64. 4HB 32 Objects (4 of 5)

4H-78a
4HB IVB Floor 1

4H-78b
4HB IVB Floor 1

4H-78c
4HB IVB Floor 1

4H-78d
4HB IVB Floor 1
Plate 65.  4HB 32 Objects (5 of 5)

4H-81
4HB IVB Floor 1

4H-82
4HB IVB Floor 1

4H-83
4HB IVB Floor 1
Plate 66. 4H-90 (4HB IVB 32 Above Floor 1)
Plate 67. The Oven in 4HB III 35 and 4HB IVB 35
Plate 68. 4HB IVB 36 (From N)
Plate 69. 4HB 30 Objects

4H-5
4HB II 30

4H-7
4HB I 30

4H-11
4HB III
Plate 70.  4HB III 29 Pavements below 4HB I 29 Pavement (from W)
Plate 71.  4HB III 33 (From S)
Plate 72. 4HB III 35 (From NE)
Plate 73. 4HB 30 Pivot Stones

4H-5
4HB II 30

4H-7
4HB I 30
Plate 74.  Bitumen-lined Pit in 4HB II 31 (SE Corner)
Plate 75. Drain in the West Wall of 4HB II 33 (From E)
Plate 76.  4HB I 29 Pavement (From N)
Plate 77. 4HB I 29 Pivot Stone with Earlier Installations
PLATE 78. MISCELLANEOUS 4HB OBJECTS

4H-6
4HB II Fill

4H-69
4HB III 37 Fill

4H-27
4HB IVB 37 Fill

4H-24
4HB 34 Fill

4H-84
4HB III 35 Fill

4H-85
4HB IVB 28 Fill
Plate 79.  Pottery with Textured Slip

4HP527
4HB III 33 Fill

4HP-527
4HB II 30 Fill in Bitumen-lined Pit

4HP-501
4HB II 31 Fill

4HP-514
4HB II 30 Fill in Bitumen-lined Pit

— 316 —
Plate 80. Remains and Reconstructed Plan of EN V at Nippur

McCown and Haines 1967: Plates 16–17
Plate 81. The NW and SE Temple Kitchens at Ur

Woolley 1939: Plate 66
PLATE 82.  INANA TEMPLE VIIB AND VIIB

Source: Zettler 1992: 32 fig. 7, 33 fig. 8

— 319 —
Plate 83. Building B 33, Room 26

After Thalmann 2003: 67, fig. 5

Phase IA

Phase IB

Phase II

To Interior of Building
PLATE 84.  Gudea Statue B: The Eninnu Complex