THE UNIVERSITY OF CHICAGO

STATE, PROVINCE, AND TEMPLE IN KASSITE NIPPUR:
A CASE STUDY OF THE LIVESTOCK ECONOMY
OF THE EREŠ.DINGIR PRIESTESSES

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE DIVISION OF THE HUMANITIES

IN CANDIDACY FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

DEPARTMENT OF NEAR EASTERN LANGUAGES AND CIVILIZATIONS

BY

AMI HUANG

CHICAGO, ILLINOIS

AUGUST 2020

TABLE OF CONTENTS

ABBREVIATIONS

By and large, the abbreviations used in this dissertation follow those presented in the U/W volume of the *Chicago Assyrian Dictionary* (CAD), pp. vii-xxix. Those abbreviations that do not follow the CAD's conventions or that do not appear in the CAD, are listed below:

ASJ	*Acta Sumerologica*
ATR	Torczyner, H. 1913. *Altbabylonische Tempelrechnungen*. Vienna: A. Hölder
BATSH	Berichte der Ausgrabung Tall Šēḫ Ḥamad / Dūr-Katlimmu
BBVO	Berliner Beiträge zum Vorderer Orient
BPOA	Biblioteca del Proximo Oriente Antiguo
BSA	*Bulletin of Sumerian Agriculture*
CBS	Tablets in the Penn Museum collections
CCEM	Contributions to the Chronology of the Eastern Mediterranean
CDLI	Cuneiform Digital Library Initiative
CHANE	Culture and History of the Ancient Near East
CM	Cuneiform Monographs
CT	Cuneiform Texts from Babylonian Tablets in the British Museum
CUSAS	Cornell University Studies in Assyriology and Sumerology
EANEC	Explorations in Ancient Near Eastern Civilizations
JCSSS	Journal of Cuneiform Studies Supplemental Series
LAPO	Littératures anciennes du Proche-Orient
MBTU	Gurney, O. R. 1983. *The Middle Babylonian Legal and Economic Texts from Ur*. London: British School of Archaeology in Iraq.

MRWH	Petschow, H. P. H. 1974. *Mittelbabylonische Rechts- und Wirtschaftsurkunden der Hilprecht-Sammlung Jena mit Beiträgen zum mittelbabylonischen Recht.* Berlin: Akademie-Verlag.
MUN	Sassmannshausen, L. 2001. *Beiträge zur Verwaltung und Gesellschaft Babyloniens in der Kassitenzeit* (Baghdader Forschungen 21). Mainz am Rhein: Verlag Philipp von Zabern.
OBO	Orbis Biblicus et Orientalis
OPBF	Occasional Publications of the Babylonian Fund
OrNS	*Orientalia, Nova Series*
PIHANS	Publications de l'Institut historique-archéologique néerlandais de Stamboul
SANER	Studies in Ancient Near Eastern Records
TMH NF	Texte und Materialien der Frau Professor Hilprecht Collection of Babylonian Antiquities im Eigentum der Friedrich Schiller-Universität Jena. Neue Folge.
UAVA	Untersuchtungen zur Assyriologie und Vorderasiatischen Archäologie

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

This dissertation would not have been possible without the guidance of my advisor and committee chair, Prof. Susanne Paulus, whose feedback, support, and patience have been invaluable to me throughout the entire dissertation process. I would also like to express my gratitude to the other members of my committee, Profs. Hervé Reculeau and McGuire Gibson; this dissertation has benefited greatly from their insightful comments.

I am also indebted to the following people for their willingness to share resources with me: Prof. John Brinkman, for providing me with information on various unpublished tablets relevant to my topic of study; Dr. Philip Jones of the Penn Museum, for allowing me access to the Nippur tablets stored in the Babylonian Collection; Drs. Agnete Lassen and Klaus Wagensonner, for providing me with photographs of a tablet in the Yale Babylonian Collection; Prof. J. N. Postgate, for his feedback on a conference talk related to Chapter 3; and to Profs. Odette Boivin and Elena Devecchi, for graciously allowing me access to as-of-yet unpublished articles that are relevant to my research. Thanks must also go to the A. Leo and Elizabeth Oppenheim Memorial Fund, managed by Prof. Christopher Woods, for providing me with substantial financial support during the years of my candidacy.

It would be remiss of me not to mention those Assyriologists who taught me over the years. There are, somewhat surprisingly, too many to individually name here, but I would like to single out Profs. Walter Farber, Matthew Stolper, and Andrea Seri for introducing me to Akkadian and setting me on this path close to a decade ago now.

Finally, I would like to thank my parents, Peili Hou and Shih Yee Huang, and my brother Kenneth Huang. Despite never quite understanding my career choice or my studies, they nonetheless opted to support me wholeheartedly over the long years. Thank you.

CHAPTER 1:
INTRODUCTION

1.1. Introduction

After the end of the Old Babylonian period around 1595 B.C.E.,[1] southern Mesopotamia was gradually united into a single territorial state under the rule of the Kassite dynasty, which proceeded to govern Babylonia for the next four centuries until its own demise around 1155 B.C.E. During this time, Babylonia was divided up into multiple provinces, each administered by a governor (*šaknu* or *šakin māti*).[2] The best-documented province is that centered at Nippur, a site located in southern Iraq. Documents excavated from the city reveal that it was headed by a well-attested governor with a special title, the *šandabakku* (written logographically as GU_2.EN.NA),[3] who appears to have administered the province from an administrative building that is known today as the governor's palace.[4]

---

[1] For an overview of the chronological issues plaguing the reconstruction of the second millennium B.C.E., see Pruzsinszky 2009 and the developments by Manning et al. 2016 and 2017 (with references to previous literature). The dates used in this proposal are provisional and follow the Middle Chronology, though the specific date ranges given for the reigns of the Kassite kings follow those suggested in Brinkman 1976. Although the absolute chronology of the second millennium B.C.E. is still debated, it should be noted that absolute dates are not of primary importance to this study.

[2] For a list of provinces, see Sassmannshausen 2001: 22-23. See also Brinkman 1963, Brinkman 1974, Sassmannshausen 2001: 22-29, Paulus 2014a: 251-259, and Paulus 2014b for overviews of this provincial system and its associated officials, though it should be noted that some of this discussion is based on documents from the post-Kassite period, and the extent to which one can extrapolate this back into the Kassite period remains uncertain.

[3] For the latest list of confirmed governors of Nippur, see Sassmannshausen 2001: 16 (cf. Brinkman 2004: 292 for comments about the relationship between the governors). One can add to this list Bēlānu and Ninurta-apla-iddina, for whom, see Chapter 3, n. 73, 80, and 81. While the translation "governor" is traditional in English, Sassmannshausen (2001: 21 and *passim*) opts to translate this position as "Kanzler" instead (see n. 14 and Section 1.3).

[4] See Section 1.2 for more discussion on the governor's palace, which is identified as the structure uncovered in Area WB. Explicit references to a palace (*ekallu*, log. E_2.GAL), however, are found in only 17 published texts from Nippur (Sassmannshausen 2001: 151-154). This

The governor's duties were extensive. As an important local administrator serving under the Babylonian king[5] and head of the provincial administration at Nippur, he corresponded

suggests that the institutional archive(s) discovered in Area WB exclude royal archive(s) and that the palace is a provincial rather than royal palace. The relative lack of documentation dealing with the luxury goods—at least, in comparison to the wealth of texts about agro-pastoral production—may also be suggestive of the building's function as a provincial center. (For this proposed economic distinction between palaces, provincial centers, and temples, see Sallaberger 2013, but cf. Boivin 2018: 180 for evidence speaking against Sallaberger's model.)

On the other hand, it has been observed that the layout of the governor's palace is reminiscent of the layout of the royal residence excavated at the contemporary site of Dūr-Kurigalzu (Gibson et al. 1978: 66-70). And though he primarily regards this as the residence of the governor, Sassmannshausen (1999: 155, 2001: 1, 10, 153 and *passim*) has suggested that this building may have served as a secondary royal residence for the king and the royal family (see also early remarks by Radau 1908: 29-58). Similarly, in a review of Sassmannshausen 2001, Brinkman (2004: 287, n. 26) states, "For Nippur and Dūr-Kurigalzu, the positive evidence [i.e., 'for the existence of palaces in various Babylonian cities where such buildings *could have served* as royal residences during the Kassite period'] is unambiguous" (emphasis mine). However, years later, Brinkman (2017: 14 and *passim*) acknowledges only Babylon and Dūr-Kurigalzu as the "two capitals or at least royal residential cities" during the Kassite period and primarily characterizes Nippur as a "religious and commercial center" (p. 15). See also Tenney 2011: 142, who describes Nippur as a "religious center" and "favored provincial capital," and Biggs 1965: 96, who argues that the royal court was situated in Babylon and Dūr-Kurigalzu and never Nippur. The question of whether the king ever utilized the governor's palace as a secondary royal residence or possibly a royal administrative center when in residence (as opposed to a strictly provincial one) cannot be verified.

[5] It is to be understood that the Kassite king presided over this provincial system, with the governor of Nippur serving under him as a local administrator. However, it should be noted that this relationship is more implied than explicit. The king (*šarru*, log. LUGAL) and the palace (*ekallu*, log. E_2.GAL) are attested infrequently in the Nippur corpus (see Sassmannshausen 2001: 10-12 for attestations of the king in the Nippur corpus and 151-154 for attestations of the palace), and the exact link between the king and the governor remains frustratingly unclear. Sassmannshausen's (2001: 17 and *passim*) claim that various governors were members of the royal family is unsupported, as pointed out already by Brinkman (2004: 287), while Balkan's (1986: 9-10) early assertion that the governor acted as a "second king" has not been verified. However, we do find attestations of the king granting personnel to the governor of Nippur (Tenney 2011: 133) and issuing orders to the governor and other officials via letters (Sassmannshausen 2001: 10-12). Furthermore, we know from the *kudurru*s that the king could remove lands from the jurisdiction of the provincial administration via land grants (see Paulus 2014a and 2017, with cited literature). All of these combined point towards the subordination of the provincial administration to the royal authority.

regularly with important officials and messengers from outside the province[6] and was, amongst other things, responsible for supervising a sizeable labor force numbering in the thousands,[7] collecting taxes,[8] maintaining the province's irrigation system,[9] and providing for the city's shrines and temples.[10] Additionally, it has been assumed that the management of temple properties and estates also fell under his control.[11] Together, these attestations of and assumptions about the scope of the governor's activities have resulted in a model of Kassite administration that paints the provincial system at Nippur as a highly centralized form of governance that possessed significant political and economic oversight over the city's establishments, religious or otherwise.[12]

This present study is an investigation of this reconstruction. More specifically, it questions the extent of state centralization by reexamining the economic relationship between the governor of Nippur, both in his capacity as a regulatory body and as a commercial agent,[13] and a

---

[6] These individuals include an administrator in Dilmun as well as the Assyrian king Enlil-nērārī. For the history of scholarship on these documents, see especially Sassmannshausen 2001: 21, n. 279-280.
[7] For the most comprehensive treatment of this labor force, see Tenney 2011. These workers have been characterized by Tenney as a "public" work force.
[8] See Sassmannshausen 2001: 18-19 and Devecchi forthcoming.
[9] See Sassmannshausen 2001: 19.
[10] Most recently, Tenney 2011: 1; Brinkman 2017: 18; and Section 2 (on the redistribution of *tēlītu*-tax revenues as temple foodstuffs) in Devecchi forthcoming.
[11] See the discussion in Section 1.3 and Chapter 5. This particular claim can be traced from Balkan 1943 (Turkish), 1945-51 (German; translation and summary by Güterbock) and 1986 (English; translation by Foster and Gutas), through Biggs 1965, Petschow 1973 and 1974, and Sassmannshasuen 2001.
[12] Again, for more discussion, see Section 1.3 and Chapter 5. The most extreme and explicitly stated version of this model is presented by Balkan (1943), which was translated and summarized in German by Güterbock (1945-51) and then into English by Foster and Gutas (1986). Echoes of it have since trickled into subsequent scholarship (see previous note), but there has been very little transparent and critical discussion about the provincial administration since Balkan's publication.
[13] Whether the extant documents that record the governor's activities necessarily involve the governor acting *only* in his role as a regulatory body has been considered by Petschow (1983) in

temple institution represented by a pair of priestesses. These priestesses, known as the EREŠ.DINGIR priestesses, are the best-represented temple functionaries in the Middle Babylonian Nippur corpus. They appear to have possessed significant agricultural and pastoral holdings and are the subject of a cohesive, if scattered, bookkeeping dossier that records transactions made between their households and the governor of Nippur. As such, these transactions have historically been held as prime examples of how the provincial government as a rule interacted with temple institutions under the rule of the Kassite dynasty.[14]

In the subsequent chapters, I revisit the current interpretation of the EREŠ.DINGIR dossier and propose another interpretation of the known texts. Additionally, I will also introduce into the discussion information garnered from a group of poorly treated documents related to the care and management of institutional livestock. These texts are significant for two primary reasons:

---

connection with the governor Enlil-kidinnī. In his discussion of Enlil-kidinnī's extensive slave-purchasing activities, Petschow (1983: 151-152) questions whether these transactions were made on behalf of the state or whether they were "private" purchases. Tenney (2011: 126-127) observes that no explicit link has been found between the workers purchased and those listed in the worker rosters, though this lack of connection may be due to the temporal distribution of the texts.

[14] Sassmannshausen (2001: 21), for instance, claims that the *šandabakku* during this period did not merely act as a "governor" but likely administered the properties of the temple of Enlil as well. Though he is not particularly explicit in his argumentation, such a hypothesis seems to stand on two legs: (1) that some governors of Nippur are also referred to as *nêššaku*-priests of Enlil, which Sassmannshausen (2001: 17 and *passim*) translates as "high priest" (cf. Brinkman 2004: 287), and (2) his assumption (after Petschow 1973 and 1974) that BE 14 136 lists properties of the EREŠ.DINGIR priestesses that are also being managed by the governor (Sassmannshausen 2001: 19 and *passim*). For more discussion on this latter point, see Chapter 5. This reconstruction is reminiscent and well-documented at Nippur during the earlier Ur III period; see especially the literature by Hallo 1972 and Zettler 1992b on the Ur-Meme family, whose members were appointed as provincial governors ($ENSI_2$) and administrators (UGULA) of the Inanna temple.

(1) While these tablets, upon first glance, seem far-removed from topics relating to the responsibilities of the governor, the extent of state centralization, and the relationship between a temple institution and the provincial administration, they in fact provide a much-needed alternative window into these questions, as they are witness to several high-level administrative and economic relationships, including those made between the governor and the EREŠ.DINGIR priestesses, that I argue in later chapters to be *contractual* in nature. The dossier that has been studied thus far provides only a view into what I will argue to be practices surrounding the taxation of temple properties, and it behooves us to study the interrelationship between these two types of documentation to form a more nuanced picture of how the governor and the provincial administration might interact with other large households during this period.

(2) Pastoralism forms a major cornerstone of the Mesopotamian economy. However, existing scholarship on Babylonian administration and society during this period concentrates almost exclusively on the cultivation and circulation of cereal grains. Indeed, studies on livestock management during this period are nearly nonexistent. Of the existing literature, two were published over a century ago (Luckenbill 1907: 300-311 and Torczyner 1913: 7 and 34-64); these are replete with outdated and inaccurate readings,[15] and their reconstructions of the administrative system tend to be

[15] This is at least partially the fault of the copyist. Luckenbill's (1907) and Torczyner's (1913) editions are based only off copies by Clay (1906a and 1906b), which contain various copying errors. E.g., see BE 14 168. An examination of the photo on CDLI reveals that Clay accidentally omitted row totals (l. 37 and 38 by Clay's copy), a verb (l. 39), and, most egregiously, half of a line spanning six columns (l. 54). These omissions are reproduced in the edition provided by Torczyner (1913: 44-45). This is not an isolated incident, and various other errors persist, especially for more complicated texts featuring multiple columns.

inconsistent, confused, and/or founded on shaky assumptions made about Kassite society, administration, or bureaucracy.[16] A third publication, by Kessler (1992), is a six-page edition and discussion of a livestock inventory text. Meanwhile, the most recent literature pertaining to livestock by Sassmannshausen (2001) forms a small section of his book on Kassite administration and society and is largely descriptive, with little attempt made to analyze and synthesize the existing material.[17] This lack of treatment has not only resulted in a skewed and incomplete reconstruction of an agro-pastoralist society, it also has resulted in the deplorable fact that Kassite livestock management is conspicuously absent in publications such as the *Bulletin of Sumerian Agriculture* (vols. 7-8), which otherwise treats these topics at length for other areas and time periods.

---

[16] See the discussion in Section 1.3 for more details. To provide some examples, however, Luckenbill (1907) simply assumes that the published texts document the economic activities of the Ekur temple, that the attested livestock are the property of the Ekur, and furthermore claims that the *kaššû* ("Kassite") officials frequently mentioned in connection with livestock were "royal overseer[s]" that "looked after the king's interests in the flocks and herds connected with the temple" (p. 282, 304-305)—all despite a complete lack of evidence. Torczyner (1913: 37), meanwhile, argues that the livestock recorded in the large tabular text BE 14 99a were brought back to Nippur for counting and processing, physically passing through the hands of the herdsmen, the mayors, and the "Kassite" officials listed in the herding contracts and tabular accounts despite the physical impracticalities of the proposal. Furthermore, Torczyner (1913: 7) also argues that the large tabular texts do not count temple property, because the amounts of secondary products listed in the tablets are calculated from the number of animals in a herd or flock. Why the latter necessarily excludes the former is unclear, however, and left unexplained. Two paragraphs later on the same page, he argues that the herdsmen listed in these very same texts take care of temple livestock but does not address how this fits with his earlier interpretation.

[17] Sassmannshausen (2001: 378-404) edits around 50 animal-related texts. Comments about the various functionaries connected with herding must be pieced together from various places throughout the book, including (but not restricted to) pp. 29-34 (*ḫazannu*), 62-64 (*entu*), 109-113 (*nāqidu*), 113-114 (*rē'û*), and 137-150 (*kaššû*, here treated as an ethnic group; cf. Brinkman 2004: 297). The book presents no explicit discussion of the actual management of the animals.

These documents will be treated at length and in detail in the remainder of the dissertation. For the rest of this introduction, however, I will first revisit the complicated find circumstances of the Nippur text corpus and trace how the lack of secure archaeological context has influenced the direction of scholarship on Kassite economy and administration. I then describe the corpus I am dealing with and explain the methodology I developed to select those sources. Finally, the chapter concludes with an outline of my dissertation.

1.2. The corpus and its find circumstances

One of the obstacles impeding the study of Kassite economy, administration, and society stems from the unknown provenience of over 11,000 tablets excavated from Nippur during the late 1890s.[18] These documents, which include those that are the focus of this dissertation, make up around 80% of the textual finds for the Kassite period.[19] Unfortunately, due to the archaeological practices of the time, the find spots of most of these tablets were not recorded, which has resulted in no small amount of confusion regarding the archives to which these documents belong. To wit, we do not know exactly how many archives we are dealing with, which buildings are linked to which documents, the nature of the structures with which the known archives are associated,[20] and therefore the nature of some of the archives and documents

[18] For this count of the extant documents, see Brinkman 2017: 2. Other publications might estimate the number of tablets to be 12,000 instead (e.g., Brinkman 1974: 1, Brinkman 1976: 41, Tenney 2011: 2, n. 3 and 93, n. 1).

[19] Three other major sites known to furnish Middle Babylonian tablets include Dūr-Kurigalzu, Ur, and Babylon. Additionally, it is suspected that the 454 texts recently published in CUSAS 30 originate in Dūr-Enlilē (see van Soldt 2015: 29-30). For a list of other sites that have furnished fewer tablets, see Brinkman 1976: 40-41. Tablets from other sites than Nippur may be referenced in this study for comparative purposes when relevant.

[20] Especially the Kassite levels southwest of the Court of Columns area, itself located southwest of Area WA. See below for more discussion.

in question. These uncertainties have greatly impacted scholarly reconstructions, and so I offer a brief summary of the situation in the following pages.

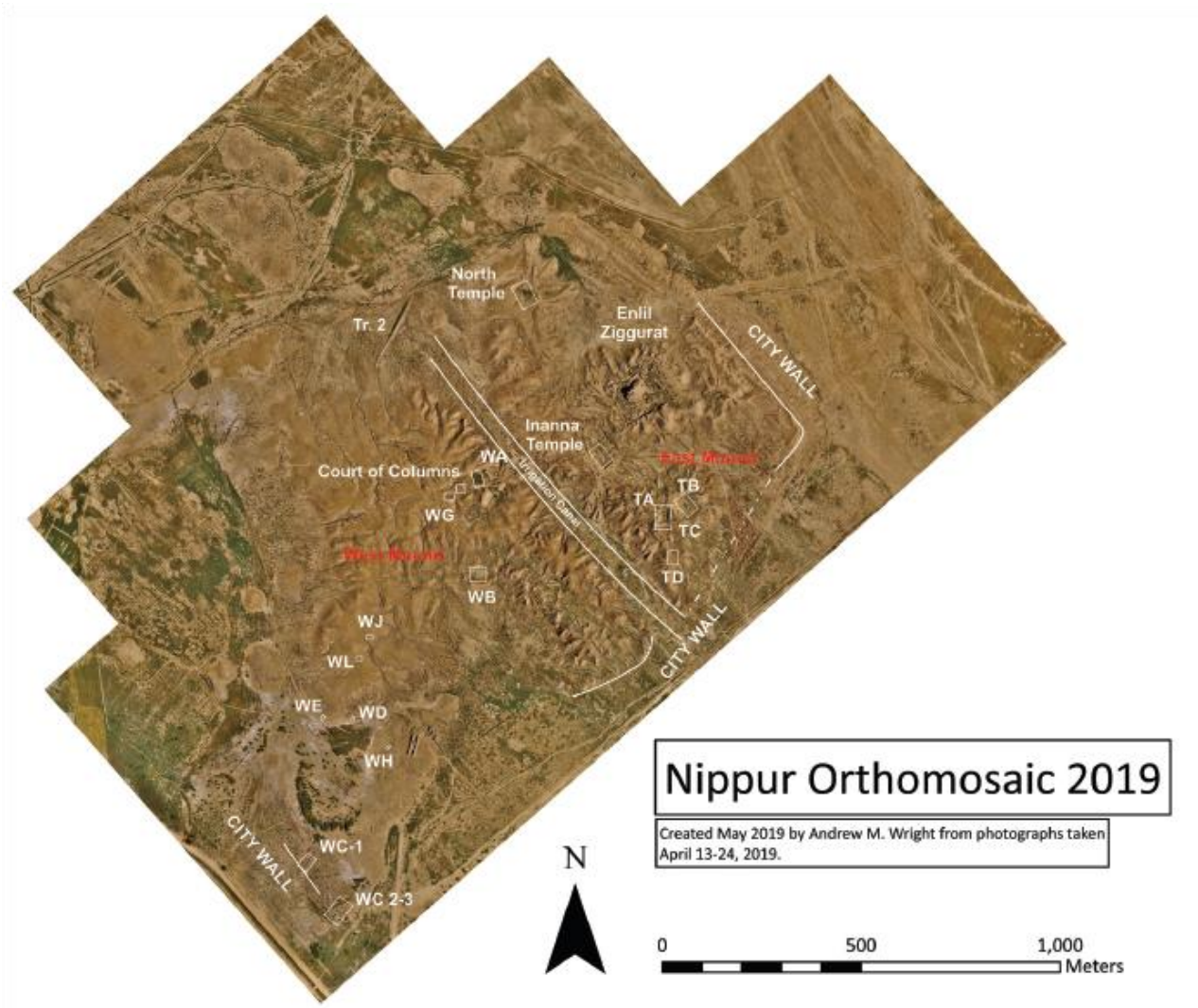

Figure 1.1: Aerial map of Nippur, with excavated areas indicated.[21]

[21] From Alizadeh 2019: 94, Fig. 1, "Aerial image of Nippur showing all the areas excavated from 1948 to 2019." Image reproduced courtesy of the Oriental Institute of the University of Chicago.

The early excavations at Nippur were carried out over the course of four campaigns, which took place in the years 1889, 1890, 1893-1896, and 1898-1900 under the sponsorship of the University of Pennsylvania.[22] Reports by the expedition team reveal that the 11,000 tablets were likely unearthed from two main areas on the West Mound of the city. Of these 11,000 documents, around 300 administrative tablets were reportedly discovered in the northern part of the West Mound southwest of a Parthian structure known as the "Villa with a Court of Columns" during the second expedition.[23] The most complete account of the discovery of these tablets was published by the director of the dig at the time, Peters (1904: 188), who recounts the following:

---

[22] A fifth campaign was planned but never materialized, and Nippur was abandoned until excavations resumed in 1948, this time under a team jointly sponsored by the Oriental Institute of the University of Chicago. The two most notable firsthand accounts of the early Penn expeditions were published by Peters (1897-1904), who directed the first two seasons of the dig, and Hilprecht (1903), an Assyriologist attached to the expedition from the start. Although Hilprecht was only ever present at the site during the first season and briefly in the last season, he took over as one of the leaders of the expedition, alongside Haynes, beginning with the third season. Additional firsthand accounts include those published by Geere (1904) and Fisher (1907). For studies of the early Nippur expeditions, see especially Kuklick 1996, but also Myer 1992, Westenholz 1992, Zettler 1992a, and Bregstein and Schneider 1992.

[23] This area corresponds to Hill I on Peters' (1904) map, with the tablets found in the region marked B (Peters 1904: 188). On the initial dating of this building to the Seleucid period by Edward Keall, see Gibson et al. 1975: 6 and the cited literature. Later work by Gibson has re-dated the Villa to the Parthian period.

The excavation of this structure and its surroundings is described in detail in Peters 1904: 172-192. It should be noted that later literature has consistently conflated the Court of Columns with what is now known as Area WA, which contains the temple of the healing goddess Gula (e.g., Gibson et al. 1975, Pedersén 1998: 115, Tenney 2011, etc.). The mistake originates in Gibson et al. 1975, which reconstructs the court right on top of Area WA. However, it is actually located around 30 meters southwest of the area—i.e., between Areas WA and WG—and is four meters higher than indicated in the published figures. According to Gibson (personal communication 4/24/19), during the eleventh season when the Chicago team began excavation of Area WA, sand dunes had covered up the villa and they mistook "a few rounded bricks in the northern end of the deep trench left by Penn" for the surviving columns. However, years later, the sand dune on top of the court blew away, revealing the true location of the structure to the southwest. For a more recent site map showing the locations of the structures, see Alizadeh 2019: 94, Fig. 1. In spite of all this, however, it remains possible that the tablets found in this area are nevertheless associated with the Gula temple of Area WA based on the description in Peters' book.

> … in a small tunnel from the great trench on the opposite or southeastern side, at the depth of 11.20 meters, we discovered two hundred and forty-five baked tablets, practically entire. These lay in the earth, and the clay about them showed marks of burning. There was no trace of a wall immediately about them. Further excavation added about fifty-three tablets found in the adjoining earth, together with a very large number of fragments; all found within a radius of a few feet, and apparently loose in the earth. Scarcely had we made this discovery, however, and secured the tablets, when the trench caved in, and we were unable to remove the superincumbent earth and reach our old level again that year.[24]

Clay (1906a: 1-2) alleges to have published the better part of these 300 documents in line drawing in BE 14 and BE 15.[25] However, we possess no clear records of which these might be, as Clay mixed these tablets in with others discovered elsewhere in the city, publishing a total of 392 line drawings across the two volumes.[26] Additionally, recent work by Sassmannshausen (2001: 186-187) has opened up the possibility that a small number of tablets from this archive was also published by Clay (1912) years later in PBS 2/2.[27] This conclusion is based on prosopographical analysis, research into the dates on which these tablets were registered in the museum catalogs, and assumptions made about the tablets' conditions based on Peters' original

[24] See also Hilprecht 1903: 340. According to Hilprecht, the unearthed documents were dated to the reigns of Kurigalzu (1332-1308 BCE), Nazi-maruttaš (1307-1282 BCE), and Kadašman-Turgu (1281-1264 BCE). Sassmannshausen's (2001: 187-194) reconstructed "Archiv des Speichers" falls within these date ranges. However, cf. Pedersén 1998: 115, who states that the dates of the texts range from Year 25 of Burnaburiaš II (1384 BCE) to the accession year of Šagarakti-Šuriaš (1245 BCE).

[25] "The greater part of the tablets here published, as well as nearly all of those of Vol. XV, were discovered during the second Expedition to Nippur sent out by the Babylonian Committee of the University of Pennsylvania, in the years 1889-90, under the directorship of Prof. John P. Peters, D. D. The tablets were found quite close to the south-west wall of the palace, known as the 'Court of Columns,' although at a slightly lower level" (Clay 1906a: 1). Gibson (personal communication, 4/7/2020), however, notes that the tablets would have been found at least four or five meters lower than the Villa and that the tunnel from Trench 1 may have been made in Season 1. Peters himself does not indicate when the tunnels were made, only the trenches.

[26] 188 were published in BE 14 and 204 in BE 15.

[27] See especially the list provided in Sassmannshausen 2001: 187 and Pedersén 1998: 115, n. 115, who agrees with Sassmannshausen's conclusions. PBS 2/2 contains 145 additional line drawings of tablets.

description of their state of preservation. A list of tablets that may have belonged to this archive has been provided by Sassmannshausen (2001: 187-194) under the name "Archiv des Speichers." This archive also corresponds to Pedersén's (1998: 115) Nippur 2 archive. Though these tablets are clearly institutional and administrative in nature, whether they formed a temple or palace archive is at present unknown. The tablets that purportedly make up this archive play only a minor role in my investigations.

In contrast to the above-mentioned archive, the largest fraction of the Nippur tablets, by far, was unearthed in the southern part of the West Mound in the vicinity of two hills, labeled Hills IX and X on Peters' maps.[28] According to Peters (1904: 188-189):

> In the first year of his work [i.e., 1893], Haynes undertook a further excavation of this site, and had the good fortune to discover in the same locality a large number of tablets of the same type [as those found near the Court of Columns]. I am unable to identify the precise spot at which he discovered his tablets… On examination, these tablets proved to be, without exception, records of the Cossaean dynasty. The large tablet represented in the accompanying photograph bears the name of Nazi-Marruttash, and is a record of temple income, as are all the other tablets of this find. They are archives of the Cossaean dynasty, dealing with the receipts of the great temple of Bel.

An unpublished report by Haynes, reproduced by Clay (1906a: 1), indicates that he extracted around 25,000 tablets and fragments from this area, some of which were clearly kept as an archive:

> In the spring of 1893 and in the winter and spring of 1895, twenty-five thousand tablets [and fragments][29] were recovered from the ruins of this mound. Several rooms of an

[28] The excavation of Area WB began again in the eleventh season (Gibson et al. 1975: 104-122).
[29] As noted above, only 11,000-12,000 or so Middle Babylonian tablets are known to have been excavated from Nippur. Cf. also McGuire et al. 1978: 53, n. 2, which cites unpublished notes by Haynes as giving an estimate of 22,000. A few possibilities exist to explain these discrepancies. It could be that the enlarged count includes a number of unregistered fragments (as indicated by Clay 1906a: 1) and/or includes tablets from other periods (Tenney 2011: 2, n. 3), though cf. Peters 1904: 188-189, who certainly seems to assume that these tablets all originate from the Kassite period. The third—and unfortunately a likely possibility—has been discussed by Sassmannshausen (1999: 155, n. 2): Hilprecht apparently edited Haynes' reports (see also Sassmannshausen 2001: 186 and Kuklick 1996: 83), and it is this version that is quoted by Clay

> ancient palace were explored and found to preserve the archives in the very position and arrangement in which they had been left when the building was destroyed. In several instances the tablets were placed on their edges, reclining against each other like a shelf of leaning books in an ill kept library of to-day. In other instances the tablets were found in great confusion, showing that at the time when they were buried they had fallen [perhaps from wooden shelves] into the debris which covered them.

"[A] goodly number" of tablets in BE 14, Clay (1906a: 1) claims, originates from this location, but again, we have limited indications of which texts these may be. Pedersén (1998) suggests (correctly, in my opinion) that at least some of the letters published by Radau (1908) in BE 17 were excavated from these areas as well. Additionally, it is almost certain that the Middle Babylonian texts in the Hilprecht-Sammlung collection at Jena were among the tablets excavated by Haynes from Hills IX and X.[30] These include the EREŠ.DINGIR dossier.[31]

(1906a). According to Sassmannshausen (1999: 155, n. 2), the original report housed at the University of Pennsylvania states that "several thousand" tablets were unearthed, while a second updated version provides a revised count of 21,000 tablets. How Hilprecht may have arrived at these numbers is unknown.

[30] Hilprecht's acquisition of these documents remains shrouded in some mystery. However, it is likely that these tablets originally formed part of the finds that he received from the Turks when he took over negotiating the division of the Nippur tablets with the Ottomans (on which, see Kuklick 1996: 63-64 and 129-130). Although he turned over most of the texts to the Penn Museum, he apparently kept some tablets for his personal collection. Since he only became the primary liaison between the Turks and Penn beginning with the third campaign—prior to that time, Peters was responsible for brokering the deal with the Turks (Kuklick 1996: 35-36 and 56-57)—this would suggest that the tablets acquired by Hilprecht were excavated from Area WB and its surroundings rather than Area WA, which was excavated in the second season and whose finds were divided up under the purview of Peters. Implicit support for this hypothesis can be taken from the complete absence in the Hilprecht-Sammlung collection of the major actors of the Nippur 2 archive (e.g., Innannu and Martuk(k)u), as well as the presence of documents that are related to the governor's activities. See especially the Enlil-kidinnī dossier, which is a discrete and curated collection of documents related to slave purchases by the governor Enlil-kidinnī (see Petschow 1974: esp. 45-49; Petschow 1983; and Sassmannshausen 2001: 20-21), and the EREŠ.DINGIR dossier (see Petschow 1973, 1974: 51-62, and the discussion in Chapter 5), which, as I argue later, are documents created and/or pulled together by the governor for the purposes of an audit.

[31] See Chapter 5.

Area WB, a region between Hills IX and X, was later excavated by a team from the University of Chicago during their eleventh and twelfth season (Gibson et al. 1975: 104-122 and Gibson et al. 1978: 53-106). This area was initially selected for excavation because it appeared to have been left untouched by the Pennsylvania team, but according to Gibson et al. 1975: 104, "[a]n hour of digging made it obvious that WB was not what it had seemed and had, in fact, been investigated by Pennsylvania. There were extensive tunnels and trenches, descending as much as 4.5 m. The earlier excavators had heaped debris from nearby operations on their trenches." However, during their twelfth season, the Chicago team made a discovery of several hundred fragments of Kassite economic documents that were in Locus 13 of Area WB, a loci like others in this area that the Pennsylvania team had excavated extensively.[32] Of these fragments, 78 are represented in the Oriental Institute tablet collection as casts, the originals being in the Iraq Museum. One of the fragments is dated to the reign of Kudur-Enlil and another to the reign of Šagarakti-Šuriaš.[33] The surrounding architecture suggests that these tablets were kept in a room that would have surrounded the inner court of a Kassite palace or administrative building.[34] Since then, it has become customary to refer to this building as the "governor's palace," on account of frequent references to the governor of Nippur (*šandabakku*) in the Kassite administrative texts thought to originate from this findspot.[35]

In his overview of the Kassite archives, Pedersén (1998: 115) groups together all the tablets excavated from the region of Area WB, including those discovered by Haynes around

[32] As noted, by Gibson et al. 1978: 68, it remains up in the air as to whether these join tablets that were removed by the Pennsylvania team.
[33] Gibson et al. 1978: 68.
[34] It seems likely that this structure is to be equated with the palatial structure described by Haynes in Clay 1906a: 1.
[35] Gibson 1993.

Hills IX and X, into the Nippur 1 archive. However, he admits that "it cannot be determined whether all of the tablets from this area of the city come from one archive in this palace, from several palace archives, or even from houses nearby." Even so, he allows that "[t]he archive, or one of the larger archives if there were more than one, may have belonged to the governor (*šandabakku*) of Nippur,"[36] which should be considered a palace or state archive of sorts rather than a temple archive. Additionally, given the presence of what appear to be private documents mixed into the publications (e.g., BE 14 40), it is possible that at least one other ("private") archive was also unearthed in this area, though it should be kept in mind that these texts may plausibly belong to the governor's own personal archive or the archive of an underling.[37]

1.3. Previous literature

The lack of secure provenience for these 11,000-plus tablets and the consequent uncertainty over the nature of the archives—especially the one found in the vicinity of the "Court of Columns"—has resulted in various broad claims made about the institutions that produced these documents. For instance, early literature on the Middle Babylonian Nippur tablets assumed that all the tablets, on account of their institutional contents, were found in temple archives. The initial publications of the tablets by Clay (1906a, 1906b, and 1912) and Radau (1908) are

[36] So also Sommerfeld 1995: 919, Sassmannshausen 2001: 229, Paulus 2013: 90. Three additional archives are also discussed by Pedersén (1998: 115-116). One is an administrative archive excavated from Area WC-1, southwest of the governor's palace (see Zettler et al. 1993: 93-111 for catalogue and pl. 18-20 for photographs). Two others come from private houses on the East Mound, one situated on Tablet Hill (see Armstrong 1989: 128-131 and cited field reports), and the other near the North Temple (see McCown et al. 1978: 47-48 for catalogue). The private archives are unpublished and unedited, while the administrative archive from WC-1 is unedited but published in photograph.

[37] See n. 13 for discussion of the governor's personal archive. For an example of the storage of underlings' personal archives in palaces, see the discussion in Arkhipov 2019 on the personal archive of Iddiyatum/Iddin-Numušda, the chief merchant, in the palace of Mari.

respectively (and tellingly) titled *Documents from the Temple Archives of Nippur* and *Letters to Cassite Kings from the Temple Archives of Nippur*, and the first systematic studies of the material did little to reexamine these assumptions. Luckenbill (1907), for example, presumed that the documents published in BE 14 and BE 15 originated in the archives of the Ekur temple, and split the texts into various dossiers in an attempt to reconstruct the general flow of goods into and out of the supposed temple.[38] Torczyner (1913), working from the same documents, contested many of Luckenbill's earlier readings and reconstructions but nevertheless accepted the underlying assumption that these were temple documents. Hence, all the early reconstructions of the administration and economy of the Kassite period tend to focus solely on "the temple" and the control it wielded over the Nippur economy.

It was only in 1943 that this reconstruction was challenged. In a summary of a dissertation he wrote under Landsberger,[39] Balkan (1986: 8) drew attention to the issues of provenience and argued that, "from their [i.e., the published tablets'] contents it is understood that they were an archive that belonged to the palace of the governor (guenna) [i.e., *šandabakku*] of Nippur" rather than a temple archive as had been assumed by his predecessors.[40] It was therefore not the temple that controlled the economy of Nippur, Balkan argued, but the governor,

[38] Note that while Luckenbill does not ever explicitly state that these are the Ekur archives, the fact that he opens up his study of these documents with an excursus about the Ekur at Nippur is very telling (see Luckenbill 1907: 1).
[39] Balkan 1943. For a partial German translation and summary, see Güterbock (1945-51: 130-131). For an English translation, see Foster and Gutas (1986), which also contains additional comments and modifications made with Balkan's input. Page numbers and references cited and quoted here are from the English translation. It should be noted that Balkan does not cite specific tablets in his article, and the dissertation upon which this article is based has never been published.
[40] As I mentioned in the previous section, however, it has now generally accepted that most of the documents in BE 14 and 15 were excavated from Area WA (the Court of Columns) rather than Area WB (the governor's palace).

who stood at the head of "an extremely centralized overlordship which in all its economic activities was governed by the guenna regime in Nippur." This governor, Balkan further claimed, embodied "the personality of a second king" beside the Kassite ruler; was responsible for administering the province of Nippur plus other provinces; and was additionally charged with the care and management of all royal property. Within this model, the temples of Nippur were to be considered state dependents. "May I remind the reader here," Balkan writes, "that this very involved system has been portrayed until now by the simple and *entirely erroneous theory of a temple economy.* In fact, our studies have shown that the temple in this period was not the owner of landed property at all, but was provided with all its needs by the state."[41]

Such a line of interpretation is likely grounded in the larger debate over the existence of the so-called "temple-state," which was first expounded upon by Deimel in various publications on third-millennium Sumerian city-states.[42] In short, Deimal, as well as others,[43] argued that Sumer's economy was controlled by various temples, which owned more or less all the agricultural land in southern Mesopotamia; consequently, political power at the time was ultimately derived from managing temple possessions. This is to be contrasted with feudal models proposed for second-millennium states, such as Nuzi (Koschaker 1928), Ugarit (Boyer 1955), the Hittite state (Goetze 1964), among others. Various critiques of these models have been made over the years, especially by Diakonoff and Gelb.[44]

---

[41] Balkan 1986: 10. See also p. 11.
[42] See especially Deimel 1931: 71-113, which summarizes the evidence and conclusions of 17 articles (for which, see Foster 1981: 226, n. 2).
[43] E.g., Schneider 1920, Falkenstein 1954 and 1974, Ebeling 1971.
[44] For a more extensive discussion of the feudal and temple-state models, as well as a history of scholarship and references (of which there are many), see especially Schloen 2001: 185-200.

Against this backdrop, the consequences of Balkan's reinterpretation have proven to be significant. Over the years and despite pushback over various aspects of Balkan's model,[45] various scholars commenting on Kassite administration have accepted his assumptions and reconstructions, especially with regard to the nature of the archives, the extent of state centralization, and the relationship between the temples and the state.[46] For instance, in the most recent monograph published on Kassite administration, Sassmannshausen (2001: 229) states that while it is unclear how Balkan came to his major conclusions, his own research nevertheless supports Balkan's findings. And indeed, throughout Sassmannshausen's study, he asserts that the governor, whose title he translates as "chancellor," should be regarded as one of the highest religious and political authorities in the Kassite kingdom, not only connected to the royal family[47] but also installed as the "high priest" (*nêšakku*)[48] of Enlil and responsible for managing and administering the assets of the EREŠ.DINGIR priestesses.[49]

Since then, little has been said to directly contradict Sassmannshausen's reconstruction, though Brinkman (2004: 286-287) has drawn attention to the flimsy nature of some of Sassmannshausen's conclusions, noting that "[t]here is no documentation that any governor of Nippur was a member of the royal family. There is no proof that the *nêšakku* was the high priest (*CAD, AHw,* and *CDA* list no such meaning for *nêšakku* or *nešakku*); and Sassmannshausen

[45] Especially with respect to Balkan's characterization of this entire system as "feudal." See, for instance, Sommerfeld 1995: 922-925 and Brinkman 1974: 408 and 2006: 36-37, n. 159. Additionally, subsequent scholars such as Biggs (1965), Petschow (1974), and Sassmannshausen (2001) have cast doubt on Balkan's assumption that the temple owned no landed property, but nevertheless agree that the management of temple estates ultimately fell under the purview of the governor.
[46] E.g., Biggs (1965), Petschow (1974), and Sassmannshausen (2001), to name only a few. For a more detailed discussion of the literature, see Chapter 5.
[47] Sassmannshausen 2001: 181 and *passim*.
[48] Sassmannshausen 2001: 61-62 and *passim*.
[49] Sassmannshausen 2001: 63 and *passim*.

simply gives the translation 'high priest' (*Oberpriester*), without discussion." Furthermore, as regards the relationship between the governor and the temple, Brinkman (2017: 18-19) has remarked, in an overview of the Kassite period, that while the governor is "clearly involved in the supervision of a large unfree labor force, provision of personnel and supplies for the temple," it still remains the case that "[t]he relationship of the governor to the religious institutions is as yet not clearly understood."

1.4. Methodology and source selection

The process by which I selected the sources used in this study is heavily influenced by both the find circumstances of the tablets and the current state of publication. The first has been discussed already in Section 1.2, so I will devote some attention below to clarifying what I mean by the latter.

There is, as of yet, no comprehensive database or catalogue of the Middle Babylonian Nippur corpus. The texts are presently divided amongst various museums, with roughly 11,000 tablets split more or less equally between the University of Pennsylvania Museum of Archaeology and Anthropology ("Penn Museum") and the Istanbul Archaeology Museum.[50] The remaining 1,000 or so tablets are scattered amongst the collections of the Oriental Institute (Chicago), the Hilprecht Collection (Jena), the Iraq Museum (Baghdad), the British Museum (London), the Louvre (Paris), the Yale Babylonian Collection (New Haven), and the Free Library (Philadelphia).[51]

---

[50] Brinkman (1976: 41) comments that around 12,000 total "inscriptions and inscribed fragments" were excavated from Nippur and that these two collections by themselves hold more than 11,000 tablets (42, n. 59). For the Kassite period more generally, Brinkman (2017: 2) has most recently estimated that around 15,000 inscribed objects exist.
[51] Brinkman 1976: 41-42.

Many of the tablets housed in the Penn Museum are either published in print or digitally and can, furthermore, be visited for direct study. However, the Istanbul Archaeology Museum possesses well over 5,000 tablets and fragments that are difficult to access and have not been made generally available to scholars through print or digital means. The largest catalogue available for these Istanbul tablets is that published by Brinkman (1976), which for the most part provides only tablet numbers and dates for the dated documents.[52] Other publications by Brinkman and his collaborators, however, do feature additional citations of these Istanbul texts, sometimes with tablet descriptions and/or transliterations attached,[53] making it possible, if difficult and somewhat tedious, to pull together limited dossiers from the unpublished material. However, due to the fact that I have been unable to verify readings from the Istanbul texts, I prefer to make arguments based on the Philadelphia material whenever possible,[54] which is largely published in line drawing in BE 14, BE 15, BE 17, CT 51, TMH NF 5, MUN, PBS 1/2, PBS 2/2, PBS 13, TBER, and WZJ (Tf. 1-XV), in addition to individual articles and series.[55] Images are also available for many of the Nippur documents through the Cuneiform Digital Library Initiative (CDLI), an extensive digital database and catalogue that is the product of a joint project of the University of California, Los Angeles, the University of Oxford, and the Max Planck Institute for the History of Science. However, the readability of these photographs varies from one tablet to another, and in most cases, direct collation is a necessity.

[52] Note that Brinkman (1976: 378-393) provides transliterations of selected lines, mostly those featuring dates, from the following Istanbul texts: Ni. 21, Ni. 65, Ni. 435, Ni. 437, Ni. 805, Ni. 861, Ni. 3199, and Ni. 6254.
[53] E.g., Brinkman and Matthews 1990, Tenney 2011, and Matthews 1992.
[54] The one major exception lies in Chapter 5, which relies heavily on a tablet held in Istanbul.
[55] These additional line drawings can be found in those publications listed in Hölscher 1996.

Owing to this state of affairs, it was necessary to create a personal electronic database in Microsoft Access and to identify those texts from the accessible Nippur documents that contained references to objects, people, and subjects that were of interest to me. As this dissertation began first as an investigation into the livestock management practices of the Kassite period, I included texts that referred to sheep, goats, cattle, and their secondary products, which include wool, goat hair, ghee, sheep fat, sinews and tendons, and hides.[56] I also made a point to include texts that mention fodder for animals (*kurummatu*) and various types of animal "taxes" or other extractions (*ṣibtu*, *ṣabittu*, *aklu*), as well as certain livestock-related officials, such as the shepherds (*rē'û*) and herdsmen (*nāqidu*).

Later, in response to more specific research questions related to the role of the provincial administration and temple institution attested in my existing list of tablets, my search criteria expanded even further. I started adding texts that feature other officials and figures that I noticed were often associated with livestock, such as the mayors (*ḫazannu*), the "Kassite" officials (*kaššû*), the governor of Nippur (*šandabakku*), and the EREŠ.DINGIR-priestesses (EREŠ.DINGIR.GAL, "the major *entu*-priestess," and EREŠ.DINGIR.TUR, the "minor *entu*-priestess"). Following the addition of these texts, detailed prosopographic analysis allowed me to link individual officials to yet even more documents, some more relevant than others. All of these tablets were then put into the aforementioned electronic database and tagged by publication

[56] Documents dealing with the care of birds, lions, dogs, pigs, and/or horses are not the focus of the following discussion, though they exist (see Brinkman 2017: 19) and may provide interesting comparative material, especially those that deal with the care and management of horses (see especially Balkan 1954: 11-24).

number, museum number, MSKH number,[57] CDLI number, seal number,[58] date (king, month, day, and year), typology, keyword, and associated bibliography when applicable.

As for the actual identification of the relevant documents, initial phases of my project involved conducting multiple triages of the corpus by quickly skimming through the Nippur tablets that have been published in line drawing and/or critical editions. These early triages of the material yielded several hundred texts, as well as an expanded list of keywords. After each triage, I would then consult Sassmannshausen's study (2001) of Kassite administration, which cites several hundred more texts, both published and unpublished; keyword searches of his study yielded many more documents, especially in connection with officials, institutions, and households. In his review of Sassmannshausen's book, Brinkman (2004) also provides citations of numerous supplementary texts as comparative material, which I also added to my database, though it should be noted that many of these are unpublished and stored in Istanbul. Meanwhile, in order to establish prosopographic links and to isolate tablets that refer to specific individuals of interest, I referenced both Sassmannshausen's (2001) and Hölscher's (1996) personal name indexes, once again with attention to Brinkman's reviews of these two pieces of scholarship, which include not only amendments to some of the published readings but further tablet citations as well.[59]

These triages resulted in an extensive database of texts that can be filtered according to multiple criteria—including keywords, dates, and text typology—based on the research questions under investigation. This method is particularly advantageous when dealing with an otherwise

[57] Brinkman 1976.
[58] Matthews 1992.
[59] See Brinkman 2003/2004 for a review of Hölscher 1996 and Brinkman 2004 for a review of Sassmannshausen 2001.

large and unwieldy corpus composed of a jumble of documents that may not have been produced by a single institution or for the exact same purpose, as it allows one to isolate the texts that are most relevant to the discussion at hand while also eliminating a large degree of white noise. In keeping with this observation, it should be noted that the following study does not make use of all the texts in my database, because several documents were simply not pertinent to the investigation. Only those that are directly related to the main argument in this study are treated in the following pages.

These aforementioned documents are, as one might surmise, typologically varied, though it is possible to discern a few major text categories, which form the basis of the discussion in the following chapters. Herding contracts, for instance, are highly distinct in terms of layout, content, and dating and are treated extensively in Chapter 3, which investigates the stipulations laid out in the contracts, as well as the identities of the two involved parties. Similarly, large livestock account tables are introduced in Chapter 4, which builds on the previous chapter to argue that these contractual arrangements likely existed between the EREŠ.DINGIR priestesses and the governor of Nippur. Chapter 5 then reanalyzes the balanced accounts of the EREŠ.DINGIR institution and brings in material from the grain dossier to investigate the policies governing the taxation, storage, and circulation of both agricultural and pastoral goods in the province of Nippur.

Throughout these chapters, other supplementary documents that fall outside of these major text categories make an appearance. These tablets were selected and identified by keyword(s) and/or prosopography, with many relevant to the investigation of the institutions and individuals mentioned in the herding contracts, the livestock account tables, and the balanced accounts. These documents include the following:

- Letter correspondence made from, to, or between officials and individuals named in the aforementioned documents.
- Livestock inventories: These inventories record counts and/or inspections of livestock. They superficially resemble the aforementioned herding contracts (especially the obverse of these contracts),[60] but they often lack detailed stipulations and are not sealed.
- Personnel inspections: These documents fall under the category of "simple rosters" as described by Tenney (2011: 15-18) and appear to record the results of inspections of various individuals, conducted either by Nippur's governor or by another official on behalf of the governor. As noted by Tenney (2011: 16), these texts can be identified by the appearance of the idiom *rēša + našû*.
- Tax records: These records are often tabulated and record taxes assessed and/or received (often in cereal grains) from a number of sources, including individuals, households, and/or whole towns.
- Transaction records: These documents make up a large bulk of the supplementary texts I consult in this study, as they include both receipt and expenditure documents.[61] Their primary purpose is to record the transfer of commodities (e.g., grain, wool, oil, livestock, etc.) from at least one individual to another. These documents may be simple—that is, they may record only one transaction on a specific day—or they may be complex and record several transactions over longer periods of time. These latter, more complex texts often tabulate rather than list transactions and often serve to collate and recapitulate

[60] On which, see Chapter 3, Section 3.2.
[61] It should be noted that it can be difficult to distinguish between receipts and expenditure documents. The actual recorded transaction is, after all, the same in both cases—i.e., the transfer of commodities from one individual to another—but whether it is the former or latter depends on the point of view from which the document is written, which is not always clear.

information drawn from simpler texts. Some distinct sub-categories include the following:

- Ration disbursement texts[62]: Tenney (2011: 23-31) calls these documents "ration rosters." These are multi-transaction texts that record barley, oil, and/or wool allocations given out as rations to listed individuals.[63]
- Loans: These texts record the transfer of some commodity from one individual to another, with the understanding that the amount is to be repaid at a later date, with or without interest. Formal loan documents that deal with single transactions are sealed by the recipient of the commodity and include a clause specifying the date of repayment. Multi-transaction loan documents do exist, however, and often appear in a tabulated or list format.
- *Aklu*-texts: Murai (2018) provides a recent overview of the *aklu* documents. On the whole, these texts contain lists and amounts of edible commodities (i.e., livestock, grain, beer, etc.) and can be identified by the presence of the term *aklu*, at least one name, a date or date range, and (often) a seal impression. Some *aklu* documents have also been found with envelopes. They may record single or multiple transactions and may therefore be simple or tabulated in form. However, though it is clear the *aklu* is some form of expenditure, whether these tablets should be considered receipts or expenditure documents is unresolved.

[62] While I prefer the more neutral term "allotment," for the purpose of this dissertation I use the term "ration." For more discussion on the difficulties of the translation "ration," see especially Sallaberger and Pruß 2015: 79-80 and cited literature.
[63] Tenney (2011: 23-31) does not include those ration disbursement texts that involve wool allocations in his five principle types of ration rosters, though these documents are occasionally referenced throughout his study and are highly pertinent to my discussion in Chapter 5.

In instances where no material from the Nippur corpus can help fill in the gaps, I turn to texts found at other sites. For instance, legal documents from Ur, published by Gurney (1983), feature multiple cases that revolve around the theft or disappearance of livestock, and the penalties discussed therein are helpful in clarifying and elaborating upon the stipulations and penalties as related in the herding contracts that I will be discussing in Chapter 3. Another contemporary corpus, likely originating in Dūr-Enlilē and published by van Soldt (2015), is comprised of various economic and administrative texts that serve as useful comparanda when juxtaposed with the Nippur material. Similarly, studies on livestock management from other periods and places likewise aid in filling in the gaps left by the Nippur corpus.[64]

1.5. Dissertation structure

The dissertation is comprised of six chapters, including this present introduction. The first two chapters are introductory chapters that provide an overview of recent literature on subjects relevant to my study. The next three chapters are the main body chapters of my dissertation and introduce new materials and interpretations. The dissertation closes with a concluding chapter, an appendix, and a bibliography.

In **Chapter 2,** I introduce the various livestock-associated officials and the livestock terminology used in the Nippur corpus. I then provide a general overview of the ancient Near Eastern livestock calendar and its potential impact on the administrative and economic activities of centralized institutions. Drawing upon sources from other regions and periods, including ethnographic parallels, I elaborate upon the various obstacles that scholars have encountered in reconstructing this calendar and propose an alternative calendar.

[64] Especially those that deal with herding contract arrangements, discussed in Chapter 3.

In **Chapter 3**, I take a legal-historical approach to analyzing the contractual relationship between the client and contractor parties as spelled out in a number of distinct but poorly understood herding contracts. I then link these contracts in **Chapter 4** to a series of terse but information-dense livestock account tables and argue that these contracts were drawn up on behalf of temple priestesses (the EREŠ.DINGIR priestesses), who owned extensive herds and flocks that they contracted into the care of the city's provincial administration as evidenced by the herding contracts. I investigate the economic motivation behind the creation of this contractual relationship for both the priestesses and the provincial administration. Then, in **Chapter 5**, I synthesize this material with balanced accounts, tax records, and other related documents to show that the temple enjoyed a significant degree of economic autonomy vis-à-vis the provincial government, contrary to the view espoused in current scholarship. By engaging with recent literature on the storage and circulation of agro-pastoral staples, I also argue that such a relationship was mutually beneficial and economically productive for both parties.

Finally, in **Chapter 6**, I bring together and reiterate the major points of my argument before discussing avenues of future research. An appendix of text editions and a bibliography conclude the dissertation.

CHAPTER 2:
LIVESTOCK BASICS: THE OFFICIALS, TERMINOLOGY, AND CALENDAR

2.1. Introduction

In this chapter, I introduce the livestock-related professions and officials that most frequently appear in the Middle Babylonian Nippur corpus and briefly discuss what we know of their responsibilities and duties. I follow this up with an introduction to the Middle Babylonian sheep, goat, and cattle terminology. I then provide a general overview of the ancient Near Eastern livestock calendar and its potential impact on the administrative and economic activities of centralized institutions. Drawing upon sources from other regions and periods, including ethnographic parallels, I elaborate upon the various obstacles that scholars have encountered in reconstructing this calendar and propose an alternative calendar, especially as it pertains to sheep and goat husbandry.

2.2. Livestock officials

A number of officials and professions are attested in association with the care and management of livestock. The usual suspects—the shepherd (Akk. *rē'û*, Sum. SIPAD) and herdsman (Akk. *nāqidu,* Sum. NA.GAD)[1]—are present. However, during this period, we also find mayors (*ḫazannu*) and the so-called "Kassite" officials (*kaššû*) consistently linked with large flocks and herds, especially in the herding contracts and livestock account tables (on which, see Chapters 3 and 4) and in connection with the herdsmen. In the following sections, I will provide

[1] Also translated as "flock-master" in some secondary literature (e.g., Ismail and Postgate 2008).

a brief overview of these officials and the roles that we see them performing in the Nippur corpus. Their institutional ties will be discussed in more detail in Chapters 3 and 4.

2.2.1. The shepherd (*rē'û*) and herdsman (*nāqidu*)

As in other periods, the Nippur corpus distinguishes between two major types of livestock professions, one of which is responsible for the day-to-day care of the livestock and the other of which serves primarily as an administrative intermediary between livestock caretakers and livestock owners. This distinction is explicitly attested from the Old Babylonian through the Neo-Babylonian periods,[2] though the terminology for each of these professions may differ depending on the era and region. For example, in the Old Babylonian contract edited by Finkelstein (1968), those directly caring for the animals are commonly called the *kaparrum*, which Finkelstein (1968: 31) translates as "shepherd boy," while the intermediary is the *rē'ûm*, which is translated "shepherd." As noted by Postgate and Payne (1975: 2, n. 1), however, the terminology can vary by area, as the intermediary in some Old Babylonian documents from Larsa is called the *nāqidum* rather than the expected *rē'ûm*.[3] This latter case also holds true in the administrative corpora from Middle Assyrian Tell Ali and Neo-Babylonian Uruk,[4] wherein the *nāqidu* are the responsible officials and the *rē'û* those individuals pasturing the livestock.

[2] For more discussion, see Kraus 1966: 16; Finkelstein 1968: 31-32; Postgate and Payne 1975: 2; Ismail and Postgate 2008: 149; and Kozuh 2014: 67-68.
[3] This terminology may not be systematically applied even within the same city. For instance, see the late Old Babylonian letter AbB 14 1, sent from Hammu-rāpi to the ruler Sîn-iddinam of Larsa, which attests to three *rē'û* complaining of being deprived of their *kaparrū*. See also JCSSS 2 42, which lists 11 sealed tablets (likely contracts) naming *kaparrū* that were entrusted to the *rē'û* Sîn-iddinam, as well as Charpin's (2015: 163-164) discussion of the tablet.
[4] Ismail and Postgate 2008: 149 and Kozuh 2014: 67-68, respectively.

A similar distinction between these two professions can be found in the Middle Babylonian period. In his overview of the *rē'û* and *nāqidu*, Sassmannshausen (2001: 110) observes that there is almost no overlap between the names of shepherds and herdsmen attested in published corpus,[5] and further remarks that, while shepherds appear as recipients of rations or fodder, herdsmen generally do not.[6] Furthermore, while shepherds are often specifically called shepherds of particular types of livestock[7]—e.g., shepherd of the horses,[8] shepherd of the cattle,[9] shepherd of the sheep and goats[10]—herdsmen are not distinguished in such a fashion in the documentation.

---

[5] For a list of individuals explicitly attested as shepherds or herdsmen, see Sassmannshausen 2001: 110-112. As noted by Sassmannshausen (2001: 110), there is only one positive overlap out of nearly 150 names. Sassmannshausen mentions one possible exception to be that of Qunnunu, but he states that it is unlikely that the attestations should be taken to refer to the same person. A more certain exception is that of Balāṭu, the son of Sîn-rā'im-zēri. In BE 14 132: rev. 53, he is listed under a column with a header that reads "herdsmen of the god" (^{lu2}NA.GAD.MEŠ *ša* DINGIR). MUN 326: rev. 49', however, refers to him unambiguously as the shepherd of the god (SIPAD *ša* DINGIR). One possible explanation for this seeming contradiction is to assume that between the Year 5 and Year 7 of Šagarakti-Šuriaš, Balāṭu's profession changed from shepherd to herdsman. A second possibility is that the header does not account for all of the following entries, a frequent lapse that occurs in Middle Babylonian administrative documents; see e.g., BE 14 91a, wherein the header indicates an allocation period of six months, but some entries note an allocation period of ten months. Finally, it is possible that the responsibilities of shepherds and herdsmen are not as precisely delineated as we would like and that there may have existed some overlap in the duties they performed, rendering the distinction somewhat moot at an administrative level. For instance, BE 14 131 is a table listing those responsible for the collection and/or delivery of the *esirtu* of the EREŠ.DINGIR.GAL. In the column listing names, we find a mixture of individuals who are attested as herdsman in some documents (BE 14 89, BE 14 99a, and BE 14 132) but also those who are attested as shepherds (UM 29-15-370), which might imply that the two could occasionally share the same responsibilities despite the named difference in profession.

[6] Sassmannshausen 2001: 110 and 113. See also Tenney 2011: 231-232 for a count of shepherds known to receive rations in Middle Babylonian worker rosters. Note the lack of herdsmen attested as ration recipients.

[7] Already noted by Sassmannshausen (2001: 113), though he chooses not to use this evidence to argue for a differentiation between the two professions.

[8] E.g., BE 14 43: rev. 12. For more examples, see Sassmannshausen 2001: 263, n. 3380.

[9] E.g., UM 29-15-370: u.e. 1 and obv. 5 and 22.

[10] E.g., UM 29-15-370: u.e. 1 and rev. 31'.

This latter evidence might suggest that, as in the Middle Assyrian and Neo-Babylonian periods, the shepherds were the ones interacting with the animals, while the herdsmen acted as the administrators whose responsibilities were physically removed from the care of the livestock. Such a claim can be further bolstered by the fact that some herdsmen are attested in documents beside various different types of livestock, including sheep, goats, and cattle.[11] For example, the herdsman named in the sheep and goat contract BE 14 137, Rabâ-ša-Gula, is attested in other documents delivering both sheep and cattle.[12] Given that sheep and goats are herded separately from cattle, it seems likely that the herdsmen did not "specialize" in the management of any particular type of livestock the same way that the shepherds might have done, thereby making it less likely that they were involved in the caretaking of the animals.

With regard to the responsibilities of these two professions, we can observe that, in addition to receiving, transferring, and/or being entrusted (*paqādu*) with livestock,[13] shepherds were also partially responsible for hitting explicit production quotas for both livestock and their secondary products in the herding contracts. Though Sassmannshausen (2001: 113-114) is correct in observing that shepherds' arrears are attested only rarely in the documentation, stipulations in the herding contracts commonly refer to the shepherds' arrears (LAL_2.GAG $^{(lu2)}$SIPAD),[14] which could be comprised of promised offspring (50% of the number of listed female breeding stock) or ghee, wool, and/or goat hair. These last three products also appear in

[11] Note also that several other herdsmen on the obverse of BE 14 132 (which deals with sheep) also show up in CBS 10691, where they are either delivering or receiving cattle.
[12] BE 14 132: obv. 7 and rev. 45 and MRWH 27: obv. 14.
[13] E.g., MUN 327.
[14] For attestations of shepherds' arrears in other texts, see for further examples, BE 14 136 and CBS 4612, which specifically detail arrears comprised of the relevant secondary products.

administrative records such as BE 14 136 and CBS 4612, where they are once again referred to as arrears owed by the shepherd.

Turning now to the herdsman, we can observe that their exact duties are more ambiguous. Sassmannshausen (2001: 110) argues based on the broken inspection roster UM 29-15-370 that multiple shepherds would have been supervised by a single herdsman.[15] Such a claim is attractive—as has been stated, in other places and periods, herdsmen often acted as the responsible parties involved in contractual relationships and would have been the ones held liable for arrears should the shepherd not hit their production quotas—but this role seems to have been largely taken over by the mayor (see Section 2.2.2 below), at least as related in the Nippur herding contracts. Moving onto other documents,[16] we find that the herdsmen are most often connected to the delivery of secondary products (wool, goat hair, hides, tendons/sinews, and likely ghee), livestock, and in some cases, garments given over in lieu of promised quotas of wool. This might suggest that the primary responsibility of the herdsman lay in conveying and transporting animals and their byproducts, in contrast to the aforementioned caretaking duties of the shepherd.

2.2.2. The mayor (*ḫazannu*)

[15] The right-most column of UM 29-15-370 is almost entirely broken off, and the column header is no longer visible. Sassmannshausen's (2001: 110) proposal that this column contains the names of herdsmen should be treated with caution. Furthermore, the relationship between one column and the next may not necessarily be best characterized as that of "oversight" or "supervision."

[16] Sassmannshausen 2001: 112-113. In particular, three herdsmen (Sîn-apla-iddina, Sîn-ēriš, and (the son of) Abī-enši) are attested delivering goat hair (BE 14 94), hides (BE 15 78), sinews (BE 15 78), sheep fat (BE 15 78), wool (CT 51 17), and, in the case of the son of Abī-enši, garments (BE 14 94). *Mandattu*-garments in connection with herdsmen are mentioned in MUN 373.

The mayor (*ḫazannu*) is attested throughout the Middle Babylonian period in connection with a variety of administrative and legal operations.[17] Generally speaking, mayors were provincial officials often associated with the governance of local towns and villages within one of the many Kassite provinces.[18] Their responsibilities were manifold; they served as both witnesses and adjudicators in various legal contexts,[19] and, furthermore, were involved in the supervision of agricultural activities around Nippur, including irrigation and fieldwork.[20] The collection or assessment of land taxes also seem to have fallen under their purview,[21] and there is some evidence that they were responsible for the organization of state labor.[22]

In livestock contexts, they are most notably attested in the herding contracts and large livestock account tables, where they are associated with named herdsmen and *kaššû* officials. Some mayors are connected with administrative domains (*pīḫatu*), each of which encompasses multiple herds or flocks.[23] Based on the latter accounts, Sassmannshausen (2001: 31-32) argues that the mayors were responsible for the supervision of livestock belonging to unidentified "authorities"[24] and for overseeing multiple herdsmen, though he does not elaborate upon what

---

[17] For a broad overview of their activities, see Sassmannshausen 2001: 29-34.
[18] Brinkman 1963: 237; Brinkman 1968: 298; Sassmannshausen 2001: 30; and Paulus 2014: 254 and *passim*. Note that there is little research specifically conducted on the Middle Babylonian *ḫazannu*, and much of the published literature is based on sources drawn from later Babylonian dynasties, such as the Isin II dynasty, rather than the Kassite Nippur corpus.
[19] Sassmannshausen 2001: 30-31.
[20] Sassmannshausen 2001: 31.
[21] See Devecchi forthcoming, who notes that in PBS 1/2 18: obv. 4-9, one Ninurta-rēṣūšu, "perhaps to be identified with the homonymous *ḫazannu* of Nippur at the time when Amīl-Marduk was *šandabakku*, during the reign of Šagarakti-Šuriaš, sends a detailed report on the '*ṭēlītu* of sesame of the god' of several districts."
[22] Sassmannshausen 2001: 31.
[23] For more discussion on the *pīḫatu* domains, see Chapter 4. Not all mayors in these accounts are connected with a *pīḫatu*, and not all individuals attributed with a *pīḫatu* (via the construction *pīḫat* PN) are specified to be mayors.
[24] In the original, "Obrigkeit" (Sassmannshausen 2001: 31).

this supervision or oversight might have involved. From the connected herding contracts, however, we know that the mayors were held legally responsible for counting and keeping track of those livestock contracted out to them and would be liable to pay for any missing stock and/or promised secondary products if they could not locate the animals. In short, they acted as guarantors for the shepherds and seem to have taken on a role similar to the one held by the herdsmen from the Middle Assyrian and Neo-Babylonian periods.

2.2.3. The "Kassite" official (*kaššû*)

Confirmed attestations of *kaššû* officials involved in the management of livestock appear entirely within the context of the herding contracts and livestock account tables. The role and function of these officials remain a frustrating mystery, due in part to two major obstacles. The first is rooted in the ambiguity of the term *kaššû* (lit. "Kassite") in the Nippur corpus.[25] The second is tied to the terseness of the aforementioned contracts and accounts.

The use of the term *kaššû* during the Kassite period has been the subject of a study by Shelley (2017).[26] The term displays a wide semantic range, and Shelley (2017: 203-206) distinguishes between as many as nine different usages of *kaššû* in the Middle Babylonian Nippur corpus. In some cases, it arguably serves as a marker of "ethnicity,"[27] but in others, *kaššû*

[25] See CAD K s.v. *kaššû*.
[26] This article is based on research from Shelley's PhD dissertation (Shelley 2016) on ethnicity in the ancient world.
[27] Shelley (2017: 203-204) argues that in the administrative text CBS 8685, *kaššû* is clearly used as an "ethnic" descriptor, serving to delineate the Kassites from other "ethnic" groups, such as the Arameans (*aḫlamû*), but notes that the text also distinguishes based on profession. Many of the texts listed by Shelley as Type 2, however, are also accounts that include the juxtaposition of *kaššû* and *aḫlamû* beside more extended lists of professions, which include the *sakrumaš* and even cooks, and I wonder at the value of separating these attestations into distinct categories.

is clearly being used to refer to a group of professionals, possibly related to the military.[28] The attestations under consideration here are, however, those that are specifically related to the management of livestock (Type 4b, in Shelley 2017);[29] these attestations can be identified by the co-occurrence of certain officials—that is, the *ḫazannu* and/or *nāqidu*—with the *kaššû* official, and appear only in two genres of texts, the herding contracts (see Chapter 3) and the connected livestock account tables (Chapter 4), where they are listed together with flocks of sheep and goats, herds of cattle, herds of donkeys (rare), and amounts of secondary products. That *kaššû* in these contexts is a reference to an office and not an ethnic designation has already been commented upon by Brinkman (2004: 297).[30]

Compounding this issue is the fact that these contracts and accounts are very laconic and reveal little about the actual responsibilities of the *kaššû* officials. Even the herding contracts, which include multiple stipulations covering the obligations and penalties for some of the listed parties, only state the responsibilities of the mayors, shepherds, and potentially the herdsmen,[31] while the livestock account tables merely list the names of the *kaššû* officials linked with each flock, herd, herdsman, or mayor. While it has been observed by many that there is a tendency in

---

[28] Shelley 2017: 204 and Sassmannshausen 2001: 137.

[29] I am skeptical that some of the texts that Shelley (2017: 208) files under Type 4b (e.g., MUN 72 and MUN 74) can be definitively said to refer to the same type of official as those found in the herding contracts and livestock account tables, which Shelley (2017: 204) himself observes: "It is uncertain if all references to *kaššû*-officials were describing the same rank or position, i.e. the *ḫazannu*-mayor's superior, but the documentation types are similar enough to make the assumption reasonable. This does not mean that all references to *kaššû* are references to officials; but among the herding contracts this meaning can be confidently established."

[30] As has also been noted by Tenney (2011: 103, n. 64), individuals labeled as Kassite in the livestock documents bear a mix of Kassite and Babylonian names—e.g., Mandar-ban (MUN 329: obv. 16); Ninurta-aḫa-iddina (CBS 11107: obv. 16); Kilamdu (BE 14 99a: obv. 2 and *passim* and BE 14 168: rev. 42); Bānû (BE 14 99a: rev. 23 and *passim*); Aḫa-iddin(a)-[…] (BE 14 99a: 35); Ḫunanu (BE 14 168: obv. 15); Šagarakte (BE 14 168: obv. 29); Kurušni (BE 14 168: rev. 43); and Rigim-[Adad] (BE 14 168: rev. 49), to mention a few.

[31] See Chapter 3 for more discussion of these stipulations.

these accounts for one *kaššû* official to be connected with multiple mayors and for each mayor to be connected with multiple herdsmen—thereby giving rise to reconstructions of a three-tiered hierarchy of herding officials, involving the *kaššu* officials overseeing the mayors, who in turn supervise the herdsmen (in the hierarchy depicted below in Fig. 2.1)—little else has been said on the matter.[32] Further prosopographic research has unfortunately yielded nothing further in terms of additional information; although we have the names of some of these *kaššû* officials, they do not occur in other document types dating to the same period, limiting our ability to say more.

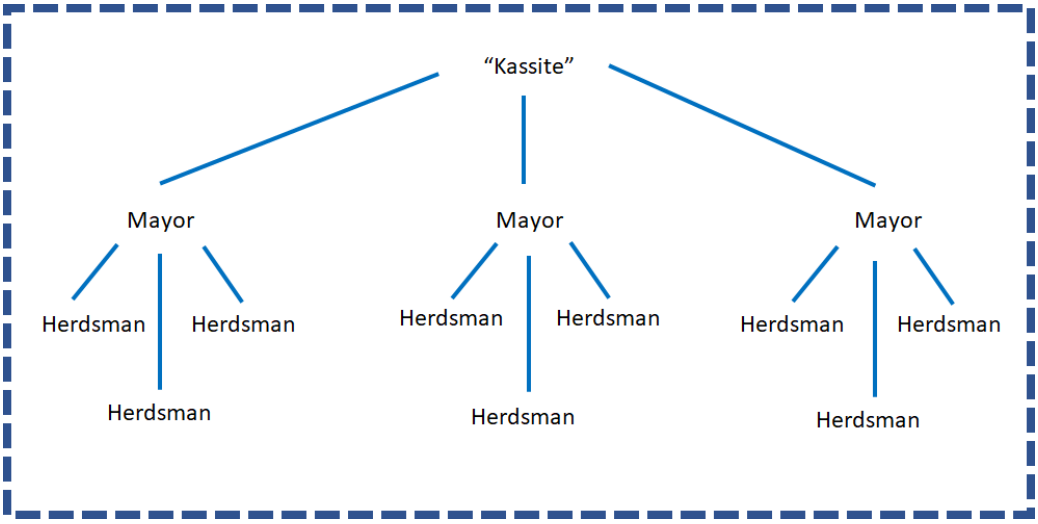

Figure 2.1: The three-tiered hierarchy reconstructed by Sassmannshausen (2001), Brinkman (2004), and Tenney (2011).

2.3. Livestock terminology

The livestock terminology is, comparatively speaking, less fraught with uncertainty, even though the terms featured in the Middle Babylonian livestock corpus are limited, especially when compared to the more diverse vocabulary present in livestock-related documentation from other

[32] See already Sassmannshausen 2001: 112 and *passim*; Brinkman 2004: 297; Shelley 2017: 204; and Murai 2018: 9-10 and *passim*.

periods and regions.[33] In the Nippur corpus, livestock are distinguished primarily on the basis of species, sex, and age, though how the age terminology maps onto the animals' life cycles has been a matter of some debate. I provide a brief sketch of the terminology below in Table 2.1, followed by a more detailed discussion of the various breakdowns in subsequent sections.

	Collective	**Male, adult**	**Female, adult**	**Male, young**	**Female, young**
Sheep	BABBAR.MEŠ U_8.UDU.ḪI.A	UDU.NITA$_2$	U_8.GAL	SILA$_4$.NIM	^{munus}SILA$_4$.NIM
Goats	UZ$_3$.(MEŠ) U_8.UDU.ḪI.A	MAŠ$_2$.GAL	UZ$_3$	MAŠ$_2$.TUR	^{munus}AŠ$_2$.GAR$_3$
Cattle	AB$_2$.GUD.ḪI.A	UTUA GUD MU.2(+) GUD.ŠA$_3$.GUD GUD.NINDA$_2$ GUD ŠU.GI	AB$_2$.GAL AB$_2$ MU.2(+) GUD.NINDA$_2$	AMAR.GA	AB$_2$.GA

Table 2.1: Livestock terminology featured in Middle Babylonian livestock corpus.

2.3.1. Sheep and goats

As sheep and goats were herded together in the ancient Near East (and in modern times), they are unsurprisingly referred to as a collective by the logogram U_8.UDU.ḪI.A, often translated "flock (of sheep and goats)," though it may be more accurately translated as "ovicaprid(s)."[34] When considered separately, sheep are frequently called BABBAR.MEŠ ("whites"); this term, which is also used during the Neo-Babylonian period to refer to sheep,

[33] E.g., see Van de Mieroop 1993: 162-166 for terminology used in Old Babylonian Ur livestock documentation, which distinguishes between shearlings, suckling lambs, and weaned(?) lambs. See also Steinkeller 1995 on sheep and goat terminology featured in livestock texts from Ur III Drehem, which furthermore distinguish between species of sheep and goats.
[34] See CAD s.v. *ṣēnu.* The word closely approximates the German word *Kleinvieh*, "small livestock."

likely refers to the color of their wool.[35] Goats, on the other hand, are generically called UZ_3.MEŠ ("goats").[36]

When further breakdowns are provided, both species are distinguished only by sex and age. Ewes are referred to as U_8.UDU while adult male sheep are called UDU.$NITA_2$. As for goats, does are simply referred to with the logogram UZ_3, and bucks are called $MAŠ_2$.GAL. As in other periods, the Middle Babylonian texts do not use different terms for castrated and uncastrated male sheep and goats. That some male sheep and goats were indeed wethers—that is, castrated males—can be inferred from the existence of sizeable flocks composed only of male sheep and goats,[37] as well as flocks that contain near-equal numbers of male and female sheep.[38] Although it is possible to run multiple rams and bucks together in a single flock without encountering problems, this practice is discouraged even today as it may result in unnecessary in-fighting, injury, or death, especially during the breeding season. For the sake of convenience, however, I will refer to male sheep and goats in the following pages as "rams" and "bucks," but with the understanding that not all of these animals were necessarily intact. The age of castration for these male animals is unknown.

Newly-born offspring and young sheep and goats are, like their adult counterparts, distinguished by sex. Ram lambs are called $SILA_4$.NIM, ewe lambs $^{munus}SILA_4$.NIM, buck kids $MAŠ_2$.TUR, and doe kids $^{munus}AŠ_2.GAR_3$. It is uncertain what qualities specifically distinguish a lamb from an adult sheep or a kid from an adult goat, as these criteria can be culturally and/or

[35] For Neo-Babylonian examples, see CAD P s.v. *peṣû*, mng. 1fb' for examples. During the Neo-Babylonian period, this term is contrasted with GI_6.ḪI.A or GI_6.MEŠ ("blacks"), which designates goats (see CAD Ṣ s.v. *ṣalmu*, mng 1a2' for examples).
[36] CBS 11060 and MUN 330 forego the plural marker MEŠ.
[37] E.g., BE 14 99a: rev. 32.
[38] E.g., MUN 329, which lists 64 adult male sheep and 66 ewes.

economically determined. For instance, modern domesticated sheep are considered lambs through their first year of age, after which they may either be considered hoggets (from age 1-2) or fully-grown sheep. These modern designations are, however, directly influenced by the meat market, which prices cuts of meat differently based on the tenderness and flavor of the meat, both of which are greatly affected by age.[39] In other periods and places, these categories may shift based on economic priorities.[40]

For the sheep and goats in the Nippur textual corpus, it seems likely that the primary distinguishing factor is based on perceived breeding viability. This assumption is made based on analogy with the cattle categories, which explicitly distinguish between animals not only according to age but also whether or not they were used for breeding.[41] If this is true, then lambs and kids could potentially have been considered fully-grown adults as early as four months of age, as this is the usual time at which the animals reach sexual maturity. Today, female lambs may come into heat at around six to eight months of age, and female kids as early as four months. Similarly, male lambs and kids can begin breeding as early as four or five months. However, sexual maturity is only the baseline qualification for breeding, which can and is often

[39] Lambs, hoggets, and sheep are the sources of lamb, hogget, and mutton cuts, which fetch different prices on the market.

[40] For instance, Allison (1958: 101, n. 6) reports that in the Norfolk flock records, age categories are determined by time of shearing. Young sheep are considered lambs "from birth until weaning or first shearing time (not normally then shorn)," hoggets between their first and second shearings, and shearlings between their second and third shearing times. Female sheep are considered ewes only after their third shearing time.

[41] On which, see Section 2.3.2 below. There is a small possibility that the primary distinguishing feature between lambs and adult sheep is not sexual maturity but whether the animals are old enough to be plucked, on which, see Van De Mieroop's (1993: 162-164) discussion on shearling lambs in Old Babylonian livestock documents from Ur; he estimates that these shearlings were around 16-17 months old. However, it should be noted that modern lambs can, biologically speaking, be shorn as early as six months, though it is often the case that shearing is put off until they are a year old.

delayed until the animals are at least a year old for reasons of fertility and health. We therefore cannot know when, exactly, these sheep and goats were deemed ready to breed. Consider, for instance, Van De Mieroop's (1993: 163) study on Old Babylonian sheep and goats, which places the transition between lambs and adults at some point between one and two years of age, and Hruška's (1995: 87) observations that lambs were considered mature at first *shearing* in the archaic Uruk texts. Although these studies cite livestock documents that utilize more detailed and granular categories than the ones discussed here, possibly resulting in different age breakdowns, they should nevertheless serve as a reminder of the ambiguity of these groupings.[42]

2.3.2. Cattle

Fortunately, cattle breakdowns are more specific. As with the sheep and goats, cattle are generally divided by sex and age. However, they are also separated into breeding and non-breeding stock. Stud bulls are called UTUA as opposed to the more generic GUD.[43] Given this explicit distinction drawn between stud bulls and other male cattle in the Middle Babylonian documentation, we can, by analogy, assume that a similar distinction was drawn between breeding cows and heifers (or females that have not yet calved)—and indeed, we find adult female cattle divided into AB_2.GAL, or "fully-grown cow(s),"[44] and AB_2, or "heifer."[45]

[42] See already n. 33 and 41.
[43] Many of these male cattle were probably castrated. See, for instance, the attestation of 24 five-year old male cattle being used to transport work assignments in BE 14 99a: obv. 11-12; these animals are unlikely to have been intact. However, it remains possible that some male cattle were not castrated and were being aged up to eventually serve as stud bulls.
[44] On reading AB_2.GAL as *burtu*, see CAD B s.v. *burtu*.
[45] On reading AB_2 as *littu* rather than *arḫu* in the Middle Babylonian documentation, see CAD A/II s.v. *arḫu* B.

Both non-breeding male and female cattle receive additional age qualifications, as well; for example, an AB_2 MU.3 is a two-year old heifer (i.e., "heifer (in her) third year") while a GUD MU.4 is three-year old male.[46] However, the scribes evidently did not care to track the ages of stud bulls and cows, which are referred to only as UTUA and AB_2.GAL. Due to this lack of specificity, some question exists as to how old cattle have to be in order to be considered viable for breeding purposes; in other words, under what circumstances are cattle moved from the categories of GUD and AB_2 to UTUA and AB_2.GAL?

This question is difficult to answer with certainty. Age is certainly a qualification. At a bare minimum, male and female cattle only reach sexual maturity after around a year, and even beyond that, it is possible that cattle were simply not bred before a predetermined age for health and fertility concerns. However, age seems to have been the only requirement necessary for female cattle but only one of many qualifications for the male cattle.

Speaking first of the female cattle, the livestock documentation from this period, to my knowledge, does not list heifers over three years of age (i.e., *AB_2 MU.4+), with the exception of one witnessed sale document (PBS 2/2 27: obv. 1), which mentions a heifer in her fourth year

[46] For further discussion on whether MU.n means "in its nth year" or "n-year old," see already Stol 1995: 174 for the Old Babylonian period and Landsberger 1960: 76-77 for the Kassite period in particular. As noted already by Landsberger, occurrences of GUD MU.1 and AB_2 MU.1 are extremely rare in the Middle Babylonian livestock documentation, with the typical age sequence beginning with AB_2.GA or AMAR.GA and jumping to AB_2 MU.2 or GUD MU.2. To my knowledge, there exist only two published exceptions: MUN 315: obv. 15, which contains a broken entry for a cow or male that ends [… M]U.1; and the livestock inventory BE 14 52: obv. 7, which features a blank entry for AB_2 MU.1. It is possible that the entry in this latter text is a mistake, however, given the null count and the lack of a corresponding line listing GUD MU.1; rather, the ages of the male cattle proceed as expected, from AMAR.GA to GUD MU.2. The present evidence would therefore seem to suggest that AB_2.GA and AMAR.GA are suckling calves in their first year of life, while those marked with MU.2 are those in their second year of life (i.e., one year old). Note that Sassmannshausen (2001: 385) mistakenly reads AB_2 MU.1 instead of AB_2 MU.2 in MUN 319: obv. 4 (collated).

(AB_2 MU.4).[47] However, given that PBS 2/2 27 is a legal text, it is possible that different terminology from that found in the administrative texts was being used or different information emphasized.[48] The rare appearance of heifers over three years of age in the Nippur administrative corpus suggests that all female cattle in that particular institutional setting were simply considered "fully-grown cows" (AB_2.GAL) once they are three years old.[49]

For the male cattle, the situation is more complicated. For one, the age maximum of listed males is more variable. In the livestock documentation, the maximum age of the males listed after the stud bulls ranges from three years (GUD MU.4)[50] to five years (GUD MU.6).[51] While one could assume that, like the cows, males were simply moved into the bull category after reaching six years of age, we know that not all of these male cattle were used for breeding; in some cases, five-year old male cattle were being utilized as draft animals and almost certainly castrated.[52] Furthermore, not all male cattle would have been used as stud bulls. A single bull can adequately breed around 50-60 cows,[53] thereby rendering surplus male cattle more valuable as

---

[47] Sassmannshausen's (2001: 386) suggested restoration of AB_2 [MU 4?] in MUN 321: 4 is untenable given that ages in Middle Babylonian herding contracts are always given in descending order.

[48] It may be that institutional documents—as opposed to private sale documents—were more concerned with mass grouping/labeling and less concerned with specific details about individual cows. In contrast, a sale document attesting to the sale of one cow provides rather more detail: that is to say, PBS 2/2 27 notes that the cow in question is black with an unbranded ear and that she is three-years old but has not yet calved—or in other words, is a three-year old heifer—all of which may affect the price.

[49] Note that this proposed age-at-first-breeding seems to fall in line with various ethnographic studies and surveys done on nomadic and semi-nomadic African cattle herds. Dahl and Hjort (1976: 33) report that, in general, "[t]he time of first birth thus ranges from two to four or even five years." For further details and specific figures, see Dahl and Hjort 1976: 33-35.

[50] E.g., BE 14 137: obv. 5 and MUN 316: obv. 5.

[51] E.g., see BE 14 99a: obv. 11, 14, and 17, and likely to be restored in the break in BE 14 168: obv. 21.

[52] See already n. 43.

[53] For more figures, see Dahl and Hjort 1976: 29.

sources of meat or labor. This floating age maximum for male cattle should therefore be interpreted more cautiously, as it may reflect the greater variety of use to which they were put. Hence, it is possible that bulls began breeding as early as their second year.

Other common designations for adult cattle also appear in the documentation. GUD.NINDA$_2$ refers collectively to "young cattle (between one and four years of age)," while GUD.ŠA$_3$.GUD specifically means "plow ox." One instance of GUD.MEŠ ŠU.GI, "old male cattle" is attested in BE 15 199: rev. 42, though no details are given as to the exact age of these animals.

As for offspring, cattle are considered calves through their first year of life, with male calves referred to as AMAR.GA and female calves as AB$_2$.GA. After they are one year old, they would then be moved into the categories GUD MU.2 or AB$_2$ MU.2, respectively.[54]

2.4. Livestock calendar

Scholarship on the Mesopotamian livestock calendar is rife with vagaries and uncertainties. Given this study's focus on animal husbandry, however, it behooves us to establish a rough outline of the accepted calendar and to provide an overview of the problems plaguing its reconstruction. Due to the relative amount of information available, I focus on the calendar especially as it pertains to sheep and goats, as the breeding, lambing, and plucking seasons almost certainly had an impact on Mesopotamian economic and administrative activities on account of the time-intensive labor required during those times of the year. As noted by Russell (1988: 83) and Algaze (2008: 88), "under Near Eastern conditions, a herd of 100 animals would require the full-time work of one adult herder year-round (365 days) to take care of the mature

[54] See n. 46 on occurrences of GUD MU.1 and AB$_2$ MU.1.

herd, one full-time herder for 2 months (61 days) to take care of juveniles in the field, and one part-time herder for 2 months (31 days) to take care of infant animals, usually around encampments… This amounts to 457 workdays per year (3 workmen) per 100 animals."[55] Given that the Middle Babylonian documents attest to the existence of thousands of sheep and goats, we can consider these seasons to be relatively labor-intensive.

As for the cattle calendar in the ancient Near East, there is, comparatively speaking, less information on the topic. This gap in the scholarship can be attributed to the fact that cattle husbandry does not appear to have been as seasonally marked as that of sheep and goats. However, for the sake of comparison, I follow up my overview on sheep and goats with a brief discussion on the cattle calving and breeding "seasons" as well, before finally addressing the timing of the slaughter season for sheep, goats, and cattle.

2.4.1. Sheep and goats[56]

2.4.1.1. Breeding and lambing/kidding seasons

As previously noted, two of the most important times of the year for sheep and goat husbandry are the breeding and lambing/kidding seasons. Ewes are seasonally polyestrous

[55] Ryder (1993: 14) calculates that the largest flock that one man would be able to independently manage stands at around 300 head, though ethnographically speaking, the most common flock sizes from semi-arid zones tend to fall between 20 and 100 sheep and goats (Ryder 1983: 238).
[56] I speak at length about sheep in this section. However, goats exhibit many of the same traits I discuss, even though the finer details may vary. Like sheep, goats are seasonally polyestrous animals, with estrous cycles separated by 21-22 days. The breeding season typically begins in the fall or winter and is triggered by decreasing day length (Gómez-Brunet et al. 2012: S50-S52). The gestation period for goats is the same as that for sheep—i.e., around 5 months—and so kidding tends to occur in either the spring or summer. It should be kept in mind, however, that, as with sheep, there can be a great amount of variability amongst different breeds and even within the same breed.

mammals, with estrous cycles separated by approximately 17 days for modern sheep.[57] The gestation period lasts for around five months,[58] and, with proper specialized care, ewes can lamb more than once a year.[59] Establishing the timing of the breeding season can therefore help pinpoint the timing of the lambing season and vice versa. Unfortunately, the current evidence remains somewhat ambiguous, and so I offer only a brief overview below.

Generally speaking, the breeding season for sheep is tied to the length of daylight.[60] As days grow shorter, the pineal gland in the brain secretes increasing amounts of the hormone melatonin during the night, which eventually triggers the beginning of the sheep reproductive cycle, usually in the autumn.[61] Ryder (1983: 11-12) notes that wild sheep (presumably those of the northern hemisphere)[62] typically breed between the months of November and December (roughly corresponding to Months VIII through X of the Nippur calendar), though slight variations in breeding season and/or gestation length have been observed for high latitude and/or

[57] Ryder 1983: 12.
[58] Ryder 1983: 11.
[59] As noted by Ryder (1983: 13), after lambing, ewes can enter heat again after 30 to 40 days given proper management.
[60] Ryder 1983: 12. Note that there is no absolute day length that triggers the reproductive cycle. According to Rosa and Bryant (2003: 165), the beginning and end of the breeding season is "highly dictated by the recent photoperiodic history experienced by the animal." That is to say, studies have shown that ewes kept on short day lengths eventually stop breeding, while those kept on long day lengths eventually start breeding.
[61] See Rosa and Bryant 2003: 163-164 for an in-depth discussion of the role of melatonin on sheep reproductive cycles and further studies and literature.
[62] When speaking of wild sheep, Ryder (1983: 11-12) does not explicitly specify which hemisphere they reside in, but scientifically and contextually speaking, he must be referring to northern hemisphere breeds, as the months would be flipped for those in the southern hemisphere (with autumn beginning in March rather than September). He later acknowledges the difference in breeding calendars for those sheep residing in the northern versus southern hemispheres, noting that domestic ewes "quickly adjust to a transfer between hemispheres" (12).

cold climate breeds, with some breeds lambing as late as June in the colder regions of the northern hemisphere.[63]

Domestication has no doubt influenced the timing of the breeding and lambing seasons, but Ryder (1983: 12) claims that, like their wild cousins, domesticated sheep also show a tendency to breed in the autumn and winter, with the season beginning in early September (Month VI) and ending in late December (Month X) for northern hemisphere breeds.[64] Assuming the average five month gestation period, Ryder (1993: 18) therefore argues that the main lambing period for so-called "primitive" sheep would most likely have fallen in the spring, perhaps between February and May (Month XI/XII through Month II/III), following the typical autumn/winter breeding season.[65]

Such a proposition has not found much favor in most of the Assyriological literature thus far. Already in 1975, Postgate (1975: 12-13, 14, and *passim*) observed that there is no strong textual evidence for the timing of the lambing and breeding seasons. However, based on

---

[63] Ryder 1983: 12: "Wild sheep have adapted to high latitudes and cold climates either by delaying the breeding season (which is controlled by day length) or by extending the gestation period."

[64] Ryder (1983: 12) acknowledges that there is some room for adjustment concerning the end of the breeding season, which can extend as late as February for some breeds in the northern hemisphere, but is otherwise convinced that the main breeding season begins in the early autumn for domestic sheep: "[d]ifferent breeds tend to come into season at about the same month (September), but vary in the date at which the season ends." Rosa and Bryant 2002: 156, on the other hand, stress that "domestication and artificial selection has contributed to minimize the effects of season on reproductive activity," pointing to the study by Lincoln *et al.* (1990), which shows that wild, feral, and domesticated rams kept in the same conditions have a tendency to exhibit significant variations in peak breeding times. It should also be noted that it is now possible to artificially stimulate a breeding season through a combination of hormonal injections/implants, light treatments, and introduction of rams into a flock before the onset of the normal breeding season (known as the "ram effect"), all with varying degrees of success; for more discussion of these strategies, see Chemineau et al. 1992 and Gómez-Rosa et al. 2012: S58-S62.

[65] Ryder 1993: 18-19. Ryder (1983: 12) also notes that even those sheep that have been bred for an extended year-long breeding season have a tendency to lamb in the spring and/or autumn.

reconstructed flock accounting practices drawn from livestock documents from Larsa,[66] Kraus (1966: 51-52), as well as Postgate and Payne (1975: 13 and *passim*), argue for a main lambing season in the autumn/winter.[67] This suggestion is in accordance with claims made by other Assyriologists. Based on Old Babylonian livestock documents from Ur, Van De Mieroop (1993: 163) proposes a lambing season in the autumn or winter,[68] though he draws our attention to the existence of spring or summer lambs.[69] Likewise, Heimpel (1993: 122 and 143-144) notes a pattern amongst texts dated to the Old Babylonian period or later wherein they list more sheep and goats in the last five months of the year rather than the first seven months, which may suggest fall or winter lambing.[70] Further north, from the Nuzi corpus, Morrison (1981: 276-277) argues for a summer breeding season and a subsequent winter lambing season,[71] but acknowledges that "[w]ithout further information regarding such practices it is difficult to ascertain conclusively when the main lambing season occurred."

Most recently, in a 2014 study on sheep and goat husbandry in the Eanna temple of Uruk, Kozuh (2014: 14) states that there exist no Babylonian texts to his knowledge that explicitly establish a common Mesopotamian livestock calendar. In lieu of direct evidence, Kozuh (2014: 14-15) instead draws on modern ethnographic studies as well as the other previously discussed Assyriological literature for data. He concludes that the main breeding season likely occurred

---

[66] These documents were originally studied by Kraus (1966).
[67] Payne pins the main lambing season down to late autumn/early winter, from October to December (Postgate and Payne 1975: 19). Postgate, on the other hand, merely remarks that most of the lambing may have taken place between November and April (Postgate and Payne 1975: 14).
[68] "Lambing probably took place in the fall or winter, although this is not certain" (Van De Mieroop 1993: 163).
[69] Van De Mieroop 1993: 164.
[70] However, cf. Heimpel's (1993: 122) acknowledgement of the difficulty in interpreting these documents and counts.
[71] Morrison (1981: 277) suggests the possibility of early fall lambing but finds it less likely.

between May/June (ca. Months II-IV) and July/August (ca. Months IV-VI), thereby resulting in an autumn/winter lambing season, with the peak lambing season apparently occurring sometime in February or March (ca. Months XI-I),[72] and a secondary lambing season between August/September (ca. Month V-VII) and October/November (ca. Month VII-IX).

van Driel (1993: 227), also working from the Neo-Babylonian evidence, notes that a winter lambing is directly attested in Month XI (January/February) in the letter YOS 7 140, but remarks that "not much weight can be placed on this type of evidence," which he describes as "[p]urely anecdotal." Nevertheless, van Driel (1993: 228) finds a winter lambing season likely based on the appearance of 355 lambs in their first year in the herding contract TCL 13 162, which is dated to January 8.[73] Though he acknowledges the possibility of a (secondary) spring lambing, he is skeptical, arguing out that "[d]earth of fodder through dryness would make a spring lambing season unattractive in Southern Mesopotamia…" (229).[74]

---

[72] As a note, a lambing season in February or March would require ewes to be successfully bred in September or October. Kozuh (2014: 15-16) does not specify these months as breeding months, however; the only breeding period mentioned is May/June through July/August, with the remainder of the year apparently being given to, in order, the secondary lambing (August/September through October/November), the beginning of the main lambing season (November/December through January/February), and the main lambing season (February/March through April/May).

[73] Note that van Driel (1993: 288) seems to assume *a priori* that the main lambing period occurred in the winter. If the promised lambs are indeed less than a year old, then there is no real reason why they cannot have been born any time within the past year (i.e., anytime between the previous winter and the current winter).

[74] One assumes that van Driel means fodder for the ewes rather than the lambs here, as it is true that the nutritional demands of lactating ewes increases depending on how many lambs they are nursing. However, Gibson (personal communication, 12/10/19) notes that fields and canal banks are actually rather lush at this time of the year, so there is in fact no need for fodder in early spring. As fields are prepared for the planting of summer crops like vegetables, land is reduced for grazing, but the canal banks continue to provide some, though limited, vegetation, even into the summer. However, by that time, there would indeed be a need for supplementary fodder.

van Driel (1993: 229) further points out that there may be differences in breeding and lambing seasons on account of geography: "… but it [= fodder dearth] would be of less importance in the North, where the cold could take a heavy toll from the winter lambs and where the present

In response to the possibility of winter lambing, Ryder (1993: 18-19) simply makes the following remark:

> The usual time for lambing today is spring, (as in most wild sheep) and few breeds have a sufficiently long breeding season to allow lambing in autumn, which tends to be a specialised adaptation in areas with pasture growth in winter, but not in summmer [sic!]. Since the reproductive cycle (like the wool growth cycle) is controlled by changes in day length, it has been assumed that breeds with a long breeding season evolved in regions nearer the equator with little change in day length.[75] But there is no historical evidence to support this view, and it is more likely that the season has been extended by human selective breeding. It would therefore be interesting if a long breeding season had been developed by the third millennium BC.

Explicit textual evidence in support of Ryder is, however, difficult to find. Hruška (1995: 91), citing Sallaberger's (1993: 91-92) research on Ur III month names in the cultic calendar, raises the possibility that breeding occurred in the autumn/winter, between October and December, and lambing in the late winter through early spring, between February and April. However, Sallaberger himself is more cautious, stating that domestication may already have influenced the seasonality of sheep and goat breeding.[76]

As for the Middle Babylonian corpus, it offers little explicit evidence that can help resolve the issue. Many of the extant herding contracts are dated to Months VIII (October/November) or X (December/January), and though they provide general data on flock compositions, the previously discussed ambiguity of the age categorizations makes it impossible

---

situation of overgrazing was probably not reached. The season of the herds in the Jezira may have been different from that of herds kept in the South." On the other hand, both supplemental feeding and transhumance (and even, in the case of wild sheep, migrations) can ease harsh conditions brought on by lack of fodder. See, for instance, the section below on sheep and goat herding practices.

[75] For more discussion of this phenomenon, see especially Rosa and Bryant 2003: 156 and cited literature.

[76] "Man darf darüber hinaus gar nicht von einer festen Paarungszeit ausgehen, da die Verwischung des jährlichen Sexualrhythmus, wie er noch Wildtieren eigen ist, zu den typischen Domestikationserscheinungen gehört" (Sallaberger 1993: 91-92).

to determine with certainty the specific age (in months) of the listed lambs and kids, therefore limiting our ability to determine the breeding and lambing seasons. However, given that the contract terms specifically include flock growth rate stipulations, it seems as if a lambing season was expected to take place after the contracts were drawn up in the autumn/winter, which may serve as partial evidence of the existence of a regular spring lambing season.[77]

2.4.1.2. Plucking season

As in other periods of Mesopotamian history, sheep were plucked for wool and goats combed for hair on an annual basis during the Middle Babylonian period.[78] Though we once again have precious little direct information for the exact timing of the wool harvest, we are nevertheless on firmer grounds when it comes to determining when this activity occurs during the calendar year due to biological limitations. Sheep during this period had not yet developed the ability to grow fleece all year-round; it has been argued that this adaptation likely only arose after the invention of shears during the following Iron Age.[79] Therefore, sheep had to have been plucked in the spring when they began to naturally molt.[80]

---

[77] For more discussion, see Section 2.4.4.
[78] E.g., MUN 120.
[79] See Ryder 1993: 14-15: "Selective breeding for continuous wool growth is unlikely to have begun until shears to remove the fleece had been developed in the Iron Age." These days, domestic sheep no longer naturally molt and must be regularly shorn to avoid overheating and/or contracting flystrike, among other health issues (Ryder 1983: 45).
[80] Algaze 2008: 89: "… unlike modern sheep populations in the Near East, fourth-millennium sheep still molted their coats annually at the end of the spring, and their soft wooly undercoats were still covered by a layer of bristly kemp hairs. Plucking had to take place just after the undercoat was released from the skin but before the external hairs molted, so as to prevent the coarser hairs from contaminating the softer wool." See also Ryder 1993: 15: "You cannot pluck before the moult begins, but if plucking is left too late, wool is lost."

The textual evidence corresponds well with this hypothesis, and most Assyriologists agree that the wool harvest would have occurred in the spring. Postgate (1975: 4) remarks that "[s]hearing is a springtime activity, and it is obvious that our contracts were drawn up after the shearing."[81] As most of Postgate's contracts are dated to Months XII or I (ca. mid-March through mid-April), the sheep would likely have been plucked in March as the weather grew warmer.[82] Van De Mieroop (1993: 163), working off Old Babylonian texts from Ur, is in agreement, and Morrison (1981: 268) likewise times the wool harvest to the spring based on texts from the Nuzi corpus.[83] Waetzoldt (1972: 14) specifically prefers a harvest season between April and July but draws attention to the fact that the timing of the harvest may differ based on location (10).[84]

For the Neo-Babylonian period, van Driel (1993: 226) similarly states that shearing was also a spring activity. Kozuh (2014: 15) specifically dates the beginning of the wool harvest to Month II (April/May) and extends it through Month V (July/August), arguing that most of the shearing likely falls between Months III and V (May/June through July/August).[85]

---

[81] On shearing vs. plucking prior to the Iron Age, see already the previous paragraph and CAD G s.v. *gazāzu*, which observes that sheep during the Old Babylonian period are plucked (*baqāmu*) rather than sheared (*gazāzu*).

[82] Postgate (1975: 4) cites AbB 2: no. 48, 49, and 52 as evidence.

[83] The *buqūnu* documents alluded to by Morrison (1981: 267-269) are not dated. However, she believes that the sheep were likely plucked before being taken out to pasture. Referencing a number of grain documents that record disbursals made to herdsmen and their flocks, she maintains that the sheep and their herdsmen were within the vicinity of certain distribution centers between mid-November and mid-May. The wool harvest would have taken place shortly before they left—i.e., sometime in the spring, likely in April, since northern Mesopotamia tends to stay cold well into March (Gibson, personal communication, 12/10/2019).

[84] Waetzoldt (1972: 10) notes that at Ur III Lagaš, the wool harvest occurred between February and April; at Ur III Ur, in May; and at Ur III Umma, in March and, curiously, November, though this last date may be related to the timing of butchering practices, during which they would likely have taken wool off the sheep before slaughtering them. The Old Babylonian documents he surveys has him assigning the harvest to March and April.

[85] Kozuh's reconstructed shearing season seems to have lasted well into the summer. However, by this period, sheep were being shorn (*gazāzu*) rather than plucked (*baqāmu*), which raises the

Generally speaking, few plucking records are published for the Middle Babylonian period.[86] One plucking record from Ur, tentatively dated to Day 12 of Month V, falls towards the latter end of a theoretical plucking season, while two documents from Dūr-Enlilē mention sheep that have been previously plucked; one is dated to Month II,[87] while the other is dated late in the year to Month VIII.[88] Further references to plucked wool or the wool harvest exist in the Kassite corpus (e.g., BE 14 128, MUN 21, MUN 120, and CUSAS 30, no. 411), but one should be wary of using these documents to determine when the procedure took place, as they may be dated to the time at which the wool was received by or sent to the institution in question as opposed to when it was actually plucked from the sheep. Additionally, BE 14 128 and MUN 120 are clearly secondary or tertiary documents drawn up at a remove from the primary event, so their dates cannot be taken at face value as evidence for the timing of the plucking season.[89]

The scarcity of these plucking records in the Nippur corpus could be explained by the chance nature of discovery and/or the uneven publication record that plagues Middle Babylonian studies. However, it is also possible that the actual plucking took place off-site outside of the city proper, perhaps in local towns close to where the flocks were ordinarily pastured.[90] For instance, BE 14 128 records the amount of wool that was plucked at the town of Tukultī-Ekur, plus the transportation costs incurred in sending the wool back to Nippur.[91] This outsourcing of the

---

possibility that sheep had already begun to grow fleece continuously. See already the previous discussion.

[86] MBTU 72.

[87] CUSAS 30, no. 380: obv. 3.

[88] CUSAS 30, no. 382: obv. 5.

[89] CUSAS 30: no. 411 is undated.

[90] It likewise seems possible that the plucked wool would have been stored in these towns as well.

[91] BE 14 128: u.e. 1-2: $^{(1)}$SIG$_2$.ḪI.A *bu-qu-nu ša i-na* MU.SAG.LUGAL.LA $^{(2)}$*i-na* ^{uru}*tukul-ti-*E$_2$.KUR^{ki} *i-na* ^{iti}SIG$_4$ MU.1.KAM$_2$ *ḫi-i-ṭa*, “Plucked wool that was weighed out in the accession

procedure might explain the general paucity of plucking records in our corpus, as the primary records may not have been stored at Nippur.[92]

2.4.2. Cattle

2.4.2.1. Breeding and calving seasons

Like ewes and does, cows are polyestrous. However, their estrous cycles are continuous rather than seasonal, meaning that cattle can theoretically breed at any point during the year so long as the cows are in heat.[93] This occurs around once every three weeks, assuming that the cows are not already pregnant. This absence of strict seasonal limitations therefore means that the breeding and calving "seasons" are likely to have been determined largely by human preference and the availability of fodder and labor.

This creates a rather wide range of dates for a given breeding or calving season, and the available textual data from Mesopotamia is, once again, too terse and general to be of much use. Speaking of Neo-Babylonian sources, van Driel (1995: 229) plainly states that "[i]nformation about the calving season is difficult to obtain from the Uruk and Sippar texts."[94] Furthermore, although we can surmise that in the Middle Babylonian texts, cattle are moved from one age

---

year of the king, in Tukultī-Ekur in Month II, Year 1." On the interpretation of the *kiṣru*-tax as a transportation fee, see Boivin 2016b: 56-57 and cited literature.

[92] As opposed to, for instance, the plethora of plucking records present for the Eanna temple archive in the Neo-Babylonian period.

[93] This is not to say that season has no effect on cattle reproduction (on which, see Hansen 1985). However, even herds of wild cattle exhibit year-round breeding, assuming the presence of adequate fodder. The Chillingham wild cattle, for instance, breed year-round (Hall 1989: 215). And although studies of the Amsterdam Island cattle indicate that breeding tends to happen between January through March (summer in the southern hemisphere) and calving between October and December (spring in the southern hemisphere), this marked seasonality has been chalked up to poor nutrition (Berteaux and Micol 1992: 273).

[94] Cf. van Driel 1995: 235-236, n. 24 for speculation on the timing of the calving season.

category to another on an annual basis, the generality of the age categories and the length of the gestation period (nine months) does not help narrow down the possibilities. To illustrate the difficulties: the Middle Babylonian cattle contracts are dated to Months VIII or X and list calves as part of the inventories. These calves must be within their first year of life, which means that they can be anywhere from a day old to slightly less than a year old. Assuming that this is the case, then the breeding season could conceivably be located between Month XI and Month I (i.e., the winter). However, if the calves are actually six months old, then they will have been born in Month II through Month IV (i.e., the spring), meaning that the breeding season would have occurred in Month V through Month VII (i.e., the summer through fall).

A more promising avenue of speculation relies on determining when there might be enough fodder and/or labor on hand to facilitate breeding and calving, as both activities no doubt require a not insignificant amount of energy input. Additionally, and though it is not strictly necessary on account of the practice of stall-feeding, it might be advantageous to birth calves when more grazing is available for the cows so that they can produce higher-quality milk in greater quantities for the calves. Hence, it may be that calving was (ideally) timed for the summer or the autumn when more grazing is available, especially since cattle one the whole cannot be taken far from the canals given their food and water requirements.[95] On the other hand, one could argue that there is no textual evidence to support the existence of any particular

[95] On water and grazing requirements for cattle, see especially Dahl and Hjort 1976: 238-241 and 268-269. Potts (1997: 82) similarly remarks that "[u]nlike sheep and goats, cattle do not graze on the steppe in Iraq today, nor did they in antiquity. Thus, for all practical purposes their feeding, and hence part of their cost, must be subtracted from the food produced for feeding the human population. Draught animals were given rations … and, when not in their stalls or working, could only be pastured on cultivated land." Outside of convenience and necessity, one additional advantage to keeping cattle close to the fields is their manure, which can be used as fertilizer for crops.

"season" for calving.[96] Breeding could have been staggered to ensure a steady rate of milk and calf production throughout the entire year rather than a single season.

2.4.3. Slaughter season

There is little evidence for a specific slaughter season for sheep, goats, and/or cattle. Although there is ample proof that livestock were culled for meat (esp. sheep and goats),[97] much of the documentation in the Middle Babylonian period tends to be secondary and removed from the primary event, thereby providing general rather than exact dates;[98] and focused on the extraction of animals from herds and flocks rather than their slaughter.[99] These latter two events, though connected, should not be equated. After all, the attestation of fattened livestock and stables, the issues associated with long-term meat storage, and the value of animal secondary products (including wool, goat hair, and labor) suggests that even those animals ultimately destined for the table were stored on the hoof and fattened until a specific need for meat arose,

---

[96] Dahl and Hjort (1976: 264) report cattle breeding tends to be seasonal in regions boasting only one rainy season; this is not the case for Iraq.
[97] See especially the discussion in Chapter 4.
[98] This is especially the case for multi-transaction documents—e.g., MRWH 27, which records deliveries of sheep and goats to various temples and shrines between Month V of Year 9 of Šagarakti-Šuriaš and Month VIII of Year 10; and BE 14 133, which records hundreds of sheep delivered for cultic purposes between Day 1, Month II of Year 6 to Day 30, Month I, of Year 7 of Šagarakti-Šuriaš. Many entries do not have individual dates or date ranges. One might observe however that various documents from Dūr-Enlilē record specific days for particular rites (e.g., CUSAS 30, nos. 390, 393, 394, 396, 401, etc.). Note also CUSAS 30, no. 387, dated to Day 2, Month I, Year 9 of Kudur-Enlil, which lists cuts of meat distributed as offerings. Nevertheless, we do not possess the necessary density of data to hazard a guess at any overarching patterns.
[99] Kozuh's (2010: 537) remark on the lack of records attesting to what happened to the Eanna sheep during the Neo-Babylonian period is well-made: "The Eanna's economic texts allow us to follow the lambs up to the point of slaughter, whereupon the Eanna's documentary trail dies out … Without refrigeration, butchered meat must have been consumed quickly; hence, the Eanna's scribes had no need to document relationships of storage or credit, mark transfers between temple departments, and so on."

likely in conjunction with various religious practices, such as rituals, rites, banquets, etc. These cultic activities appear to have been spaced throughout the year,[100] thereby rendering any attempt to pin down a specific slaughter season an exercise in speculation.

2.4.4. Discussion

In summary, a definitive reconstruction of the livestock calendar for the Kassite period still eludes us. However, pulling together the preceding information and combining it with reconstructions of the agricultural calendar proposed by Potts (1997: 70-73; see also Hruška 1990: 105-114) and reports of the British Naval Intelligence Division (2014: 467) on the herding activities of Iraqi shepherds in southern Iraq, we can propose two possible reconstructions, especially with regard to the management of sheep and goats.[101]

In southern Iraq, the winter months bring with them a gradual decrease in available grazing close to the cities and rivers, especially as fields were sowed and prepared. At this time, shepherds may have taken their flocks out to their winter pastures, possibly located in the steppe and/or desert for better grazing, though there is a possibility that they could be grazed on nearby

[100] On which, see Sassmannshausen 2001: 165-171.

[101] As for the cattle, though they are more valuable during certain months of the agricultural year, there appear to be no noteworthy deviations in the text corpus in terms of how they are administratively managed by the institution(s) responsible for their care. For instance, cattle herding contracts are drawn up at the same time as contracts for sheep and goats—i.e., in Month VIII and Month X, which incidentally coincide with plowing and other field preparations—and the contract terms exhibit only marginal deviations dealing with the tawing of hides, on which see Section 3.1.4. Counts of cattle, sheep, and goats also co-occur in the livestock account tables discussed in Chapter 4, suggesting they were inventoried at roughly the same time. Due to the more specific care required for sheep and goats on account, it stands to reason that the herding contracts may have been originally drawn up for sheep and goat flocks and adapted for cattle herds without much variation.

fallow fields even in the winter, assuming the practice of supplemental feeding.[102] Regardless of where exactly the flocks were taken, however, during the springtime, they would be shorn when they molted, and when the summer arrived, they would return to the cities and towns to graze upon empty or fallow fields and remain there until the beginning of the next winter.[103]

If the popular Assyriological reconstruction of the livestock calendar is correct, then lambing would have taken place in the autumn or winter when the flocks have not yet been taken out to pasture and should therefore be within the administrative reach of the institution(s) in question. As has already been discussed, herding contracts during the Kassite period are dated to Months VIII (October/November) or X (December/January). These contracts would not have been drawn up when flock populations are unstable and therefore would have to have been created *after* the lambing and kidding are complete but *prior* to the flocks leaving for their winter pastures.[104] Under this model, the lambs and kids listed in the contracts should therefore be considered newly-born offspring. Breeding and shearing would then occur in the spring, out in the pastures and under the supervision of the contractors.

If, on the other hand, Ryder is correct in his suspicions regarding the breeding and lambing seasons, then the model is flipped. Breeding would have taken place in the autumn or

---

[102] Shepherds would still have needed to accompany these animals to make sure they did not stray into and damage neighboring cultivated fields.

[103] Flocks could also be grazed along the edges of the southern marshes in the late summer as the waters recede and before the winter rains come (Ochsenschlager 2004: 8-9, 203-204). As for the winter months, one should also note there is some evidence in the Middle Babylonian documentation of sheep being fattened on grain between Month VIII (October/November) and Month XII (February/March)—e.g., BE 15 53: obv. 7 (Month XII); BE 15 85: rev. 12 (Month XI); BE 15 200: col. v, rev. 7-9 (Month IX); CT 51 18: obv. 4 (Month VIII); and MUN 124: 2 and *passim* (Month XII). However, I have been unable to detect evidence of large-scale and extensive supplemental feeding of flocks, and it would not be surprising for some flocks to remain close to the city for slaughtering.

[104] Again, as noted previously, it is possible these winter pastures were simply nearby fallow fields.

early winter while the flocks were within the vicinity of the city and fields. At this time, and before the animals were moved to their winter pastures or nearby fallow fields, the contracts would be drawn up between the flock owners and external contractors. The contractors would then take the flocks out to the pasturelands, where lambing and shearing would occur off-site in the spring. The flock would then return the following summer.[105] In this latter model, the lambs and kids listed in the contract inventories should be interpreted as months-old offspring from the previous spring lambing period rather than newly-born animals.

As I alluded to before, this latter possibility is somewhat supported by the existence of growth rate stipulations in the herding contracts. As I will discuss in the following chapter, these stipulations require the contractors to meet or exceed a 50% growth rate during the contract's term, or else pay an increased penalty rate in offspring equal to 70% of the listed ewes and does.[106] Because these contracts were drawn up in Months VIII or X (October/November and December/January), we can consequently presume the existence of a lambing season that begins after the late-autumn and winter. While this does not entirely exclude the possibility of an autumn/winter lambing—sheep can, after all, lamb twice a year—it nevertheless suggests that the main lambing season under consideration in the contracts took place in the spring.

[105] Note that the situation may be reversed in northern Iraq. As noted by the British Naval Intelligence Division (2014: 467), "a few shepherd tribes make an extensive migration to the high mountain pastures of the Persian border in summer and withdraw to the valleys and plains in winter," and indeed, it would seem that in the Nuzi documentation, herdsmen received fodder (i.e., were within the administrative reach of the city) during the fall and winter but took their flocks out for grazing in the spring and summer (Morrison 1981: 269).

[106] See Section 3.1.4. The lines of the contracts read as follows: "Per 100 (ewes), he will exceed 50 offspring. If per 100 (ewes), 50 offspring are the arrears, they will press him for 70 offspring per 100 (ewes)."

CHAPTER 3:
HERDING CONTRACTS[1]

3.1. Introduction

In this chapter, I investigate the contractual relationship between a group of institutional livestock owners and the individuals to whom they entrusted their animals for care and management. In the first major section, I explore this relationship by analyzing a distinct assemblage of so-called "herding contracts."[2] I provide a critical introduction to these contracts, arguing why they should be considered contracts despite the lack of listed witnesses and touching upon their formal aspects and the legal stipulations related therein. These stipulations have been subject to poor or meager treatment in the existing literature. Drawing upon studies of herding contracts from other regions and periods, I reanalyze these contracts and elaborate upon what the contract terms can reveal about the parties and their economic relationship.

The second part of this chapter is devoted largely to identifying the parties to these contracts. Although herding contracts from other periods in the ancient Near East explicitly identify the client and the contractor by name, these Middle Babylonian herding contracts are terser and tend to lack these identifiers. Through a series of prosopographic links, I argue that these contracts were ultimately drawn up between an unnamed temple institution (the client) and the *šandabakku* of Nippur and his administration (the contractor). The exact identification of the client temple and household will be explored in more detail in the following chapter.

---

[1] Some of the findings of this chapter were presented at the 64th Rencontre Assyriologique Internationale in Innsbruck, Austria and parts of it form the basis of Huang forthcoming.
[2] For instance, see Brinkman 2004: 290 and *passim*; Tenney 2011: 103, n. 64; and Shelley 2017: 204. For further discussion of the terminology and whether these should be considered contracts, see especially the discussion below in Sections 3.2 and 3.3 on the seeming lack of a witness list and a client party, which is curious in a contract.

3.2. Herding contracts

Herding contracts are attested throughout Mesopotamian written history, with records from the Old Babylonian through the Neo-Babylonian periods surviving well into the modern day.[3] These contracts were records of legal arrangements made between livestock owners and the individuals to whom their animals were entrusted. They were sealed by the liable party (or their representative) as acknowledgement of the receipt of the animals and the corresponding responsibilities. As such, many herding contracts across various regions and periods share similarities in content and can be identified by the presence of the following contract components: (a) a livestock inventory detailing herd or flock composition, (b) calculated yields of secondary products, (c) the name of at least one individual responsible for a herd or flock, (d) contract stipulations imposed upon the individual(s), (e) the identity of the client party, (f) a list of witnesses, (g) a date, and (h) a sealing.

[3] For a more general overview of Mesopotamian herding contracts, drawn mostly from evidence from the Ur III and Old Babylonian periods, see Postgate 1992: 159-161. On Old Babylonian herding contracts specifically, see Kraus 1966, Finkelstein 1968, and Postgate and Payne 1975. On the Nuzi herding contracts (deemed "consignment texts"), see Morrison 1981: 269-273 and Abrahami 2014: 284-285. For Neo-Babylonian herding contracts, see von Bolla-Kotek 1969: 125-129; van Driel 1993: 223-224 (for sheep and goat contracts) and 1995: 216 (on the absence of cattle herding contracts); and Kozuh 2014: 69-75. Stipulations found in the Neo-Babylonian herding contract are mirrored in the Aršam herding contracts from Achaemenid Persia, on which see von Bolla-Kotek 1969: 120-129, Stolper 1985: 23, and van Driel 1993: 222-223. Herding contracts (or at least the contractual arrangements stipulated in these contracts) almost certainly existed in periods not mentioned here. However, their existence can often only be inferred from the surviving documentation, and it is not certain those arrangements were written down. For example, see comments made by Englund (1995: 388 and *passim*) on contracted herders during the Ur III period and Postgate 2012: 1-2 on the likelihood of contractual arrangements made during the Middle Assyrian period at Dūr-Katlimmu.

Additional Middle Babylonian texts that may be herding contracts originating from outside Nippur can be found in van Soldt 2015: 473 (CUSAS 30, no. 389, likely from Dūr-Enlilē); and P 134 (Peiser 1905: 26-27 provenance uncertain).

Depending on the period and region, some of these components may be missing. For instance, Nuzi herding contracts are not dated, do not contain contract stipulations, and are not witnessed,[4] while secondary product quotas are not listed in some Old Babylonian contracts.[5] Similarly, the Middle Babylonian contracts I discuss below seem to lack both witness lists and the names of the clients,[6] which indeed brings into question whether they should be considered "contracts," and therefore legal texts, at all. As previously noted,[7] it has been customary in the literature to call these documents "herding contracts." However, even within the same review, Brinkman (2004) alternates between labeling these texts "contracts" and "accounts," whereas Sassmannshausen (2001: 112 and *passim*) eschews the term "contract" altogether and simply groups them together as "Musterungen." The issue is not a trivial one, as one could conceivably argue that these texts cannot serve as permissible legal proof of existing liabilities and therefore should not be considered legal per se.

Here, it may be beneficial to turn to some of Postgate's (2013: 79-80) text classifications as a starting point to better evaluate these Middle Babylonian contracts and their purpose. In his overview of Middle Assyrian archives and bureaucratic practices, Postgate establishes several

---

[4] Morrison 1981: 270.
[5] Especially those discussed in Postgate and Payne 1975.
[6] However, note the existence of at least one unpublished contract from Istanbul that suggests that that these contracts had at one point involved invoking the name of a god or swearing an oath. According to Brinkman (personal communication, 11/15/19), the contract Ni. 421, a close parallel to the contract UM 29-15-691, concludes with the following clause: (r.30) MU DINGIR *za-kir*. This clause can either be translated, "The name of the god is invoked" (if interpreting MU as a logographic spelling for *šumu*, "name") or "An oath is sworn by the life of the god" (if interpreting MU as a logographic spelling for *nīšu*, "oath (lit. life)"). Both constructions are attested in the Middle Babylonian textual corpus, the former in *kudurru*s (e.g., BBSt. No. 4) and the latter in sale documents (e.g., BE 14 40). Regardless of the actual reading, the existence of this line in a contract suggests that there was indeed a concern with reinforcing the strength of the obligation upon the debtor, even absent a witness list.
[7] See n. 2.

descriptive binary categories in order to communicate the functions that various Middle Assyrian documents may have served. The most relevant categories for this discussion are the *informal-formal, unilateral-bilateral,* and *internal-external* distinctions (though note that I eschew Postgate's categories and definitions of *legal* and *administrative*).[8]

In his discussion of formality, Postgate (2013: 80) states that "there are a number of criteria which lend a tablet an appearance of formality, and whose absence will tend to suggest that it does not have a formal purpose." For Postgate (2013: 77-79), these criteria include the presence of seal impressions, witnesses, captions indicating the identities of the seal owners, patronymics, as well as explicit penalty clauses given for the nonobservance of obligations. Though he is quick to remark that "[t]here are no hard and fast rules" (77) given that some tablets may drop one feature or another,[9] the accumulation of several components in a single

[8] Postgate (2013: 80) largely equates *legal* and *administrative* with the categories *private* and *public*, with some caveats. For him, legal documents are not only "drawn up according to the conventions which will make it a valid document under public law," but must also record "private affairs of an individual," whereas administrative documents are those "records generated as part of the processes of a government institution or similar establishment (such as a temple or a large private household), which regulated administrative relationships between its members or with outsiders." Under these definitions, all institutional contracts would therefore be considered "administrative" in nature rather than legal, while all private contracts would be labeled "legal," even though they both deal with matters of juridical significance and would, under the standard definitions of "legal" and "administrative," simply be considered legal texts. See esp. Postgate's (2013: 379-380) discussion of palatial and private contracts and compare that with Postgate 2013: 78, Table 3.3; Postgate evidently does not consider "contracts" to be inherently "legal," so to speak. This distinction is rather confusing and is not particularly germane to my discussion, and so I avoid using his definitions of these terms in my dissertation. Additionally, as has been amply addressed by other scholars and even acknowledged by Postgate (2013: 80) himself, the distinction between public and private is not so clear-cut in ancient Near Eastern contexts, and the ability of large institutions to engage in relationships with external contractors is well-documented in Mesopotamia (e.g., see Garfinkle 2005 and cited literature, Kozuh 2014, and Charpin 2012: 183-198 for further discussion and examples).

[9] See especially Postgate 2013: 77-78 for examples.

document may help determine whether a document should be considered more or less formal and, similarly, *bilateral* or *unilateral*.[10]

According to Postgate (2013: 80), bilateral documents are those tablets that "have a dispository force intended to constitute evidence of a liability of one party vis-à-vis another, and would need to be drawn up in the presence of and with the agreement of both sides." He contrasts these with unilateral documents, which are those "texts drawn up solely to provide an institution (or in some cases, an individual) with its own written record of an event." In other words, the more formal a tablet, the more likely it is that it is intended to record some obligation or liability.[11]

However, Postgate (2013: 79) also notes that degree of formality can help indicate whether a document is concerned with *internal* or *external* transactions. Internal documents record transactions made between individuals of a single institution or household, while external documents record transactions between individuals of different institutions or households. More formal documents, he argues, tend to indicate the existence of "greater social distance between the parties." On the other hand, "when the administration wished to record commodities owed to it by members the state apparatus, it used the legal formulae familiar in the private sector, but felt it could dispense with some of the formalities" (79).

These distinctions are particularly relevant for our discussion of these Middle Babylonian herding contracts, because the presence of *formal features* can help assess whether these documents should be considered bilateral (and therefore concerned with documenting liabilities)

---

[10] Postgate (2013: 80) states that the presence or absence of formal characteristics "naturally tend to correlate with the unilateral:bilateral and internal:external oppositions, with unilateral and internal texts likely to be less formally presented." However, cf. Postgate 2013: 78, n. 133.
[11] It should be noted that the formal feature most indicative of a bilateral document, according to Postgate (2013: 417), is the presence of a seal impression.

or unilateral (and therefore concerned with recordkeeping). As will be covered in more detail in the following section, these Middle Babylonian contracts, without fail, include seal impressions, identification of the seal owner via seal captions, and explicit and formulaic penalty clauses detailing consequences for the nonobservance of responsibilities. For these reasons, they are clearly bilateral instruments that document legally enforceable agreements between two parties.[12] They might be contrasted with texts such as MUN 327, which contains a livestock inventory and a statement that four sheep were entrusted (*paqda*) to the shepherd Arad-ilī; however, the lack of a seal impression, as well as the absence of penalty clauses, suggests the document is less formal and may be unilateral in nature.

Similarly, the accumulation of these formal features in these contracts bring up the possibility that they primarily record external transactions, or at the very least, transactions involving parties at some "social remove." I will return to the ramifications of this supposition in Section 3.3.

3.2.1. Middle Babylonian herding contracts

Using these criteria listed above for herding contracts, a total of twenty-six herding contracts from Kassite Nippur have been identified thus far (see Table 3.1 below).[13] Only fifteen

[12] For evidence that contracts might have served adequately as proof in court despite the lack of witnesses, see observations by Morrison 1981: 260-261, which reveals that livestock owners at Nuzi did, in fact, sue herdsmen for missing animals, in spite of the lack of penalty clauses and witnesses on the Nuzi contracts and consignments texts.

[13] Brinkman (personal communication, 7/18/2019) remarks that there are seven texts dated before the reign of Šagarakti-Šuriaš that also begin with animal inventories. By my reckoning, I have accounted for four of these texts (CBS 3002 or BE 14 48, UM 29-15-691, Ni. 421, and CBS 8872), leaving three unaccounted for and bringing the total herding contracts up to a potential twenty-nine tablets. One of these texts is apparently dated to the reign of Kurigalzu II, Year 21 and another to Year 9 of Nazi-maruttaš, but I have been unable to identify the tablets from

are available for study in line copy or photograph.[14] The contents and nature of the remaining nine have been discussed in passing by Brinkman in print,[15] but their identification has not been confirmed first-hand. Hence, it should be kept in mind that the following discussion is based largely on fifteen documents, some of which are in poor condition.

The herding contracts examined here contain all of the previously listed components when fully preserved.[16] Similarities between these contracts allow us to group some of them into subcategories. For instance, eleven of the herding contracts can be assigned to one major category (which I here term Group 1) based on similarities in both formal aspects and content.[17] This Group 1 can be further subdivided into Groups 1a and 1b based on variations found in the contracts' stipulations. The remaining four contracts examined here are more unique in content and form, though the extent to which they differ from the Group 1 contracts varies from text to text, with some showing only slight differences.[18] Some of these parallels may indicate that the stipulations of the Group 1 contracts are a later development of an earlier, perhaps less regular

---

crosschecking Brinkman (1976: 238 and 270)'s catalogue with the photographs of the Philadelphia tablets from CDLI; they are presumably located in Istanbul.

[14] BE 14 48, BE 14 137, CBS 10623 (photo), CBS 10738 (photo), CBS 11060 (photo), CBS 11107 (photo), MUN 316, MUN 318, MUN 319, MUN 321, MUN 329, MUN 330, UM 29-13-642 (photo), CBS 8872 (photo, partial edition in Murai 2018: 289), and UM 29-15-691 (photo, partial edition in Murai 2018: 311-312). My thanks go to Brinkman (personal communication, 2/12/2018) for drawing my attention to CBS 8872.

[15] These documents, identified by Brinkman (2004: 290, n. 36), consist of the following tablets currently located in Istanbul: Ni. 882, Ni. 1548, Ni. 2879, Ni. 6272, Ni. 6916, Ni. 7147, Ni. 7992, Ni. 8236, and Ni. 11502. Brinkman (personal communication, 11/15/2019) also drew my attention to Ni. 421, which contains stipulations that partially parallel those in UM 29-15-691.

[16] Calculated yields of secondary products likely appear in a damaged line in UM 29-15-691: obv. 10.

[17] MUN 321 and CBS 10623 are badly damaged but can be identified as Group 1 herding contracts from the readable signs. Furthermore, the visible seal impressions have been attributed by Matthews 1992: 114 to seal no. 149, whose seal impression appears on all Group 1 contracts. Unfortunately, the lines on the reverse that would allow us to determine if they fall into Group 1a or 1b are not preserved.

[18] These four contracts are CBS 8872, UM 29-15-691, MUN 316, and BE 14 48.

practice of contracting that only reached a standardized form during the reign of Šagarakti-Šuriaš, from whose reign the Group 1 contracts are attested, though it should be noted that only two of these four contracts are dated with a royal name (BE 14 48 and MUN 316), and one of them (MUN 316) is similarly dated to the time period of the Group 1 contracts.

In the following sections, I will describe the typology and diplomatics of these documents in more detail, beginning with an in-depth description and philological treatment of the Group 1 contracts, because they comprise the overwhelming majority of the herding contracts under study. Afterwards, I will treat the more unique texts, CBS 8872, UM 29-15-691, MUN 316, and BE 14 48.

Museum No.	**Publication No.**	**MSKH No.**	**Date (RN M/(D)/Y)**	**Seal No.**[19]	**Livestock**
CBS 3002	BE 14 48	U.2.24.56	NM II/(ers.)/5	20	Sheep and goats
CBS 6616	MUN 321	V.2.10.261	ŠŠ ˹VIII˺/[…]	149	Cattle
CBS 8872	Murai 2018: 289	-	- XI/˹12?˺	61	Sheep and goats
CBS 10623	-	-	[ŠŠ …/…]	149	Cattle
CBS 10738	-	-	ŠŠ […]/11	149	Sheep and goats
CBS 10772	MUN 318	V.2.10.185	ŠŠ X/11	149	Cattle
CBS 11060	-	-	ŠŠ ˹X˺/11	149	Sheep and goats
CBS 11104	MUN 329	V.2.10.34	ŠŠ ˹X˺/11	149*	Sheep and goats
CBS 11105	MUN 330	V.2.10.186	ŠŠ ˹X˺/11	149	Sheep and goats
CBS 11107	-	V.2.10.224	ŠŠ X/12	149	Sheep and goats
CBS 12910	BE 14 137	V.2.10.153	ŠŠ VIII/10	149	Cattle
UM 29-13-642	-	-	ŠŠ […]/11	149	Cattle
UM 29-15-112	MUN 319	V.2.10.191	ŠŠ X/11	149	Cattle
UM 29-15-312	MUN 316	V.2.10.152	ŠŠ VIII/25/10	149	Cattle
UM 29-15-691	Murai 2018: 311-312	-	- I/10[(+x)]	61	Cattle
Ni. 25	-	O.2.7.60	Kaš II/13/1	Nails	Sheep and goats
Ni. 421	-	-	- XI/12	61	Cattle
Ni. 882	-	V.2.10.188	ŠŠ X/11[(+x)]	149	Sheep and goats
Ni. 1548	-	-	[ŠŠ?]	[149?]	N/A

Table 3.1: A list of identified herding contracts from Kassite Nippur.

[19] From Matthews (1992)'s index of seals.

Ni. 2879	-	V.2.10.155	ŠŠ VIII/10	149	Cattle
Ni. 6272	-	V.2.10.189	ŠŠ X/11	[149?]	Sheep and goats
Ni. 6916	-	-	[ŠŠ?]	[149?]	N/A
Ni. 7147	-	-	[ŠŠ?]	[149?]	N/A
Ni. 7992	-	-	[ŠŠ?]	[149?]	N/A
Ni. 8236	-	-	[ŠŠ?]	[149?]	N/A
Ni. 11502	-	-	[Š]Š […]/[(x+)]1	149	Sheep and goats

Table 3.1 (cont.): A list of identified herding contracts from Kassite Nippur.[20]

3.2.1.1. Herding contracts: Group 1

Museum No.	**Publication No.**	**MSKH No.**	**Date (RN/M/Y)**	**Seal No.**	**Livestock**	**Group**
CBS 6616	MUN 321	V.2.10.261	ŠŠ ˹VIII˺/[…]	149	Cattle	1
CBS 10623	-	-	[ŠŠ …/…]	149	Cattle	1
CBS 10738	-	-	ŠŠ […]/11	149	Sheep and goats	1a
CBS 10772	MUN 318	V.2.10.185	ŠŠ X/11	149	Cattle	1b
CBS 11060	-	-	ŠŠ ˹X˺/11	149	Sheep and goats	1a
CBS 11104	MUN 329	V.2.10.34	ŠŠ ˹X˺/11	149*	Sheep and goats	1a
CBS 11105	MUN 330	V.2.10.186	ŠŠ ˹X˺/11	149	Sheep and goats	1a
CBS 11107	-	V.2.10.224	ŠŠ X/12	149	Sheep and goats	1a
CBS 12910	BE 14 137	V.2.10.153	ŠŠ VIII/10	149	Cattle	1a
UM 29-13-642	-	-	ŠŠ […]/11	149	Cattle	1b
UM 29-15-112	MUN 319	V.2.10.191	ŠŠ X/11	149	Cattle	1b

Table 3.2: A list of the confirmed Group 1 contracts.[21]

There are eleven confirmed Group 1 contracts total (see Table 3.2). These contracts can be further divided into two subcategories (Group 1a and Group 1b) based on variations that

[20] Brinkman (personal communication, 7/18/2019 and 11/15/2019) provided me with more detailed date, sealing, and livestock information for the following Istanbul contracts in particular: Ni. 25, Ni. 421, Ni. 882, Ni. 2879, Ni. 6272, and Ni. 11502. For the last four texts, he notes that the seal impression may not have always been preserved or even present, but these contracts all preserve the phrase ^{na4}KIŠIB PN following the date. The other Istanbul contracts listed in Brinkman 2004: 290, n. 36 (Ni. 1548, Ni. 6916, Ni. 7147, Ni. 7992, and Ni. 8236) apparently do not contain preserved dates, though Brinkman has observed that their style and content appear to fall in line with my Group 1 contracts. Whether this allows us to securely date these contracts to the reign of Šagarakti-Šuriaš is uncertain, though Brinkman allows that he has not seen this exact set of stipulations mirrored in texts written under any other Kassite king.

[21] See previous note for possible Group 1 contracts in Istanbul.

appear in the contract stipulations. Group 1a consists of one cattle contract (BE 14 137) and five sheep and goat contracts (CBS 10738, CBS 11060, CBS 11107, MUN 329, and MUN 330). Group 1b, meanwhile, includes three cattle contracts, MUN 318, MUN 319, and UM 29-13-642. The remaining two contracts, MUN 321 and CBS 10623, are cattle contracts, but they are sufficiently broken so as to make grouping them into the subcategories impossible. As has been already noted by Brinkman (2004: 290, n. 36), all of the herding contracts that preserve a date can be dated to the tenth or eleventh year of Šagarakti-Šuriaš, usually Months VIII or X;[22] days are not provided in the date formulae of these contracts.

In addition to the expected substitution of cattle for sheep and goats in the cattle contracts, other minor stylistic differences are visible. For instance, KI.MIN is used liberally in some contracts but not in others, and line breaks, especially on the reverse, are not always consistent.[23] These variations suggest that different scribes may have been responsible for penning the contracts, though solid conclusions await a more in-depth study of the paleography.

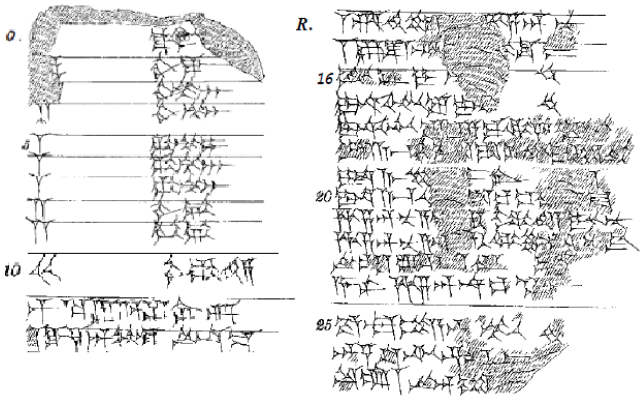

Figure 3.1: A line drawing of the herding contract BE 14 137.[24]

[22] But note MUN 321, dated to Month V.
[23] E.g., MUN 321.
[24] Line drawing by Clay (1906: pl. 52-53). The seal impression is not illustrated. I have slightly modified the original line drawing, which was split between two plates, to more accurately depict the layout of the tablet.

The textual content and the tablets' physical layout make it relatively easy to identify Group 1 contracts by sight (see Figure 3.1 above for a line drawing). Formally speaking, the obverse of these tablets is ruled, while the reverse is not. A horizontal dividing line on the reverse separates the date from the rest of the text. No signs are inscribed on the bottom and upper edges of the tablets, but the tablets are always sealed on the left edge.[25] In some instances, the seal impression is also visible on the other edges of the tablet and/or on the reverse following the last line of text. All preserved sealings can be identified with Matthews (1992)'s seal no. 149, which is attributed to Amīl-Marduk, the *šandabakku* of Nippur during the reign of Šagarakti-Šuriaš.[26]

The herding contract components mentioned above are organized in the following manner, with two minor exceptions:[27]

- Obverse:
    1. Livestock inventory detailing herd or flock composition
    2. Calculated yields of secondary products
    3. Names of three officials and their corresponding titles (*nāqidu*, *ḫazannu,* and *kaššû*)
- Reverse:
    4. Contract stipulations (obligations and penalties)

[25] The left edge of CBS 10623 is not preserved, but traces of the seal impression (Matthews 1992: 114, no. 149) can be seen on the tablet's bottom edge. Matthews (1992: 114) notes, "This is the only impression showing the inscription."
[26] Matthews 1992: 114-115. MUN 329 (CBS 11104) is not included in Matthews 1992, but the sealing in the photograph is identifiable as that of seal no. 149.
[27] In BE 14 137, the last two lines of Section 3 creep onto the reverse of the tablet. It is divided from Section 4 by a horizontal dividing line. Additionally, the fragment CBS 10623 also appears to push the first line of Section 4 onto the obverse of the tablet; the reverse is unfortunately too damaged to read.

i. Type A penalty variant

ii. Type B penalty variant

5. A date (month, year, king) and "Seal of PN"

3.2.1.1.1. Livestock inventory

The contracts open with inventories that provide the sex-age composition of either a herd of cattle or a flock of sheep and goats. Quantities are listed in a left column and types of livestock in the right column.[28] Vertical lines are not used to separate the columns. An example of a typical cattle inventory is provided below, with the translation given on the right:

Text 3.1.) BE 14 137: obv. 1-10[29]

o.1	[1]	UTUA	[1]	bull
2	˹9˺	AB_2.GAL	9	full-grown cows
3	˹1˺	AB_2 MU.3	1	two-year old heifer
4	2	AB_2 MU.2	2	one-year old heifers
5	1	GUD MU.4	1	three-year old male
6	1	GUD MU.3	1	two-year old male
7	1	GUD MU.2	1	one-year old male
8	2	AB_2.GA	2	heifer calves
9	2	AMAR.GA	2	male calves
10	PAP 20	AB_2.GUD.HI.A	Total:	20 cattle

The scribes list the animals in a strict order. For cattle contracts, the livestock is first divided into three categories: breeding cattle (e.g., BE 14 137: obv. 1-2), non-breeding cattle (e.g., BE 14 137: obv. 3-7), and calves (e.g., BE 14 137: obv. 8-9). These animals are then

[28] See Section 2.3 for a more detailed discussion of livestock terminology and age-sex categories. Quantities can be as low as zero, in which case the left column is simply left blank. For Group 1 examples, see CBS 11107, MUN 319, and MUN 321. The tablets were clearly prepared ahead of time according to some standard form and filled in with the relevant information when available.
[29] For the full edition, see Appendix.

separated by sex and finally organized by descending age.[30] A grand total of the number of cattle is provided at the end of the inventory. Typically, these totals are simply labeled with the logogram for cattle, AB_2.GUD.ḪI.A, though one text (MUN 318: obv. 8') describes the cattle as AB_2.KUD.GA, "pure(?) cows."

Flock compositions are given in a different manner, as many flocks consisted of both sheep and goats,[31] which the scribes took care to list separately. An example is provided below:

Text 3.2.) MUN 330: obv. 1-11[32]

o.1	185	UDU.NITA$_2$	185	rams[33]
2	˹609˺	U$_8$.GAL	609	ewes
3	˹140˺	SILA$_4$.NIM	140	male lamb
4	˹141˺	^{munus}SILA$_4$.NIM	141	female lamb
5	PAP 1075	BABBAR.MEŠ	Total: 1075 "whites"	
6	101	MAŠ$_2$.GAL	101	bucks
7	194	UZ$_3$	194	does
8	44	MAŠ$_2$.TUR	44	male kids
9	45	^{munus}AŠ$_2$.GAR$_3$	45	female kids
10	PAP 384	UZ$_3$	Total: 384 goats	
11	ŠU.˹NIGIN$_2$˺ 1,459	U$_8$.UDU.ḪI.A	Total: 1,459 sheep and goats	

The inventory is organized first by species. Scribes list counts of sheep (MUN 330: obv. 1-5), then goats (MUN 330: obv. 7-10). Within each animal category, subdivisions by age and then sex are made. Hence, for sheep, adult males (castrated and uncastrated) head the list (UDU.NITA$_2$), followed by ewes (U$_8$.GAL), then male lambs (SILA$_4$.NIM) and female lambs

[30] For the breeding cattle, bulls are always listed before cows, but for the non-breeding cattle, heifers are listed before bulls.
[31] But note CBS 11107, which is a flock that consists only of sheep. Age-sex categories for goats are listed (CBS 11107: obv. 6-10), but no numbers are tallied in the corresponding left column. See n. 28 for further discussion.
[32] For the full edition, see Appendix.
[33] As noted in Section 2.3.1, many of these were likely castrated, but the language does not distinguish between castrated and uncastrated adult male sheep. I translate UDU.NITA$_2$ consistently as "rams" throughout the dissertation for the sake of convenience.

(^{munus}SILA$_4$.NIM). A subtotal of sheep (BABBAR.ḪI.A) concludes the subsection.[34] The goat flock is treated next, following the same basic organizational scheme, with bucks listed first (MAŠ$_2$.GAL), followed by does (UZ$_3$), then male kids (MAŠ$_2$.TUR) and female kids (^{munus}AŠ$_2$.GAR$_3$). A subtotal for the number of goats is provided, and a grand total of both sheep and goats appears at the end of the inventory.

3.2.1.1.2. Secondary products

After the inventory, calculated quotas of secondary products are listed. For cattle contracts, the secondary product in question is ghee (wr. I$_3$.NUN, Akk. *ḫimētu*), and for sheep and goat contracts, wool (wr. SIG$_2$.ḪI.A, Akk. *šipātu*) and goat hair (wr. SIG$_2$ UZ$_3$, Akk. *šārtu*). In most cases, these amounts correspond to the number of livestock listed in the inventories and are typically calculated at a fixed rate. For instance, yields of wool and goat hair consistently equal ½ mina of wool per listed sheep and ¼ mina of goat hair per listed goat. It should be noted that these ratios coincide with those featured in BE 14 99a, a large livestock account that lists several flocks along with expected wool and hair yields.[35]

The ghee quotas for the cattle contracts are more variable and preserved in only three herding contracts: UM 29-13-642, MUN 321, and BE 14 137. The amount of ghee listed in UM 29-13-642 comes out to 2.5 silas of ghee per milk-producing cow, which is estimated by the calf count indicated on the tablet; this ratio corresponds to the ratios found in the livestock tables BE

[34] Literally, "whites." See Section 2.3.1 for more discussion on this term. BABBAR.ḪI.A or the variant BABBAR.MEŠ is used to refer to sheep in the following Group 1 contracts as well: CBS 10738: obv. 5, CBS 11107: obv. 5, MUN 329: obv. 5, and MUN 330: obv. 5. It also appears in the contract BE 14 48: obv. 5 as BABBAR.ḪI.A.MEŠ and in MRWH 35: obv. 5, a livestock inventory.
[35] See already Torczyner 1913: 7.

14 99a and BE 14 168. However, the ratio in MUN 321 is 2.743 silas per calf, while that of BE 14 137 is 2.969 silas per calf. Unfortunately, the inventories for MUN 321 and BE 14 137 are not fully preserved, making it difficult to ascertain the method of calculation.[36]

Though the contracts do not stipulate who is the recipient of these secondary products, they are likely to be the amounts delivered to the livestock owners. Functionally speaking, herding contracts are drawn up to outsource both the labor and the risk inherent in animal husbandry in return for security; that is to say, one foregoes potential profit in return for an agreed-upon amount or percentage of offspring and/or secondary products. Hence, if an amount is noted on a contract, it is assumed that it goes to the owner. Anything in excess of this listed amount is presumed to go to the contractor.[37]

For more detailed discussion on these secondary products, including remarks on the quota amounts, see Chapter 3 and Huang forthcoming.

3.2.1.1.3 Associated officials

Following the calculated yields of secondary products are the names and titles of three officials. Each official is listed on a separate line in the following order: NA.GAD (Akk. *nāqidu*, "herdsman"), *ḫazannu* ("mayor"), and *kaššû* ("Kassite"). The order in which these officials are

[36] BE 14 137 lists four calves and 11.875 silas of ghee. MUN 321 lists 18 calves and 49.375 silas of ghee. UM 29-13-642 lists 14-15 calves and 37.5 silas of ghee. Torczyner (1913: 61) suggests based on ghee and livestock counts in the livestock account table BE 14 99 that the calculation in BE 14 137 is being made based on the total number of non-breeding stock is both nonsensical and untenable, as the formula does not even hold for all of the herds listed in BE 14 99 (e.g. obv. 5).

[37] See already Postgate 1975: 5, Van De Mieroop 1993: 168, and Kozuh 2014: 72 and 73-74. However, cf. Postgate 1975: 5, n. 1 and Kraus 1966: 29-31 on the possibility that surpluses could also be kept by the owner.

listed mirrors the order given in the header of large livestock tables.[38] Minor deviations from this expected pattern can be occasionally discerned in a few texts. In MUN 329, dated to Year 11 of Šagarakti-Šuriaš, the scribe inserts the logogram MAŠ$_2$ (*ṣibtu*, a type of animal tax) before the name of the first official, likely as a descriptor for the animals listed in the inventory.

Text 3.3.) MUN 329: obv. 13-16

o.14 MAŠ$_2$ MU.8.KAM$_2$ ^{m}*man-nu-ki-*^{d}IŠKUR NA.GAD
15 ^{m}ARAD-^{d}*ba-u$_2$ ḫa-za-an-nu*
16 ^{m}*man-dar-ban kaš-šu-u$_2$*,

Translation:

(o.14) *ṣibtu*-tax of Year 8.[39] Mannu-kî-Adad, the herdsman.
(15) Arad-Ba'u, the mayor.
(16) Mandar-Ban, the "Kassite" official.

This text otherwise conforms to the expected form.

Another deviation can be detected in the contracts CBS 10738 and CBS 11107, both of which insert the phrase *qer$_3$-be-tu$_4$* MU.n, "the pasture, Year n," after the name of the herdsman. For more discussion of the pasture, see Section 4.4.2 and commentary to the texts in the Appendix.

For an overview of the role and function of these officials within the Nippur administrative corpus, see Section 2.2.

3.2.1.1.4. Stipulations: obligations and penalties

[38] E.g., BE 14 99a and BE 14 168. The headers of BE 15 199 and CBS 7267 (extremely broken) omits the column that would otherwise contain the names of "Kassite" officials.
[39] The *ṣibtu*-tax appears infrequently in the administrative corpus. I have identified only six occurrences, including the herding contract under discussion: BE 14 132, MRWH 27, MUN 274, MUN 329, CBS 2129, and N 1922.

The contract stipulations are comprised of several obligation and penalty clauses, the latter of which spell out the consequences for the contractors should the obligations not be fulfilled. These clauses explicitly address four overarching concerns: (a) regulations for the disposal of dead animals, (b) the allowable loss rate for a herd or flock, (c) the expected growth rate for a herd or flock, and finally (d) the responsibilities of the mayor. Slight variations are visible in those clauses that deal with the remains of dead animals and the mayors' responsibilities. To better enable discussion of these stipulations, I provide a composite edition of the stipulations for both Group 1a and Group 1b herding contracts below, with the clauses split up by topic (A, B, C, D, corresponding with the letters above):[40]

	Group 1a	Group 1b
A1	(var. in ovicaprid contracts only: **KUŠ *gab-bi-šu₂ u₂-ša-kal***)	---
A2	^{uzu}SA *i-nam-din*	^{uzu}SA *i-nam-din*
B1	*i-na* 10-*ti* KUŠ *i-nam-din*	*i-na* 10-*ti* KUŠ *i-nam-din*
B2	*i-na* 10-*ti* KUŠ DIRIG-*ma ul im-ma-ḫar*	*i-na* 10-*ti* KUŠ DIRIG-*ma ul im-ma-ḫar*
C1	*i-na* 1 ME 50 *il-da* u_2*-še-et-te-eq*	*i-na* 1 ME 50 *il-da* u_2*-še-et-te-eq*
C2	*i-na* 1 ME 50 KI.MIN LAL_2.GAG-*ma*	*i-na* 1 ME 50 KI.MIN LAL_2.GAG-*ma*
C3	*i-na* 1 ME 70 KI.MIN *is-si-ru-šu*$_2$	*i-na* 1 ME 70 KI.MIN *is-si-ru-šu*
D1	*ḫa-za-an-nu a-na* ITI-*šu* AB_2.GUD.ḪI.A/U_8.UDU.ḪI.A *i-man-nu*	*ḫa-za-an-nu a-na* ITI-*šu* AB_2.GUD.ḪI.A *i-man-nu*
D2	*ḫa-za-an-nu a-na* ITI-*šu* KI.MIN *ul in-da-nu-ma* (var. *im-ta-nu-ma*)	*ḫa-za-an-nu a-na* ITI-*šu* KI.MIN *ul in-da-nu-ma* (var. *im-ta-nu-ma*)
D3	**^{lu2}SIPAD *u₂-maš-ša-ru-ma***	---
D4	**LAL_2.GAG *ḫa-za-an-na is-si-ru***	**LAL_2.GAG SIPAD *ḫa-za-an-na is-si-ru***
D5	---	***u₃* SIPAD *ḫi-ṭa₃ im-mi-du***

	Type A	Type B
A1-A2	(1)(var. in ovicaprid contracts only: **He will taw all the hides**.) (2)He will give the sinews.	(2)He will give the sinews.

[40] Five of the eleven herding contracts (MUN 318, 319, 321, 329, and 330) are edited in Sassmannshausen 2001. They were later collated and corrected by Brinkman 2004: 291-292. I have adopted Brinkman's readings here. For the list of texts used to construct these composite editions, see Table 3.2. For complete editions of the individual texts, see Appendix.

B1-B2	(1)Per ten, he will give a hide. (2)If it exceeds a hide per ten, it will not be accepted.	(1)Per ten, he will give a hide. (2)If it exceeds a hide per ten, it will not be accepted.
C1-C3	(1)Per 100 (ewes/cows), he will exceed 50 offspring. (2)If per 100 (ewes/cows), 50 offspring are the arrears, (3)they will collect from him 70 offspring per 100 (ewes/cows).	(1)Per 100 (cows), he will exceed 50 offspring. (2)If per 100 (cows), 50 offspring are the arrears, (3)they will collect from him 70 offspring per 100 (cows).
D1-D5	(1)The mayor will count the cattle/ ovicaprids monthly. (2)If the mayor does not count the cattle/ovicaprids) monthly, **(3)they will release the shepherd, and (4)they will collect the arrears from the mayor.**	(1)The mayor will count the cattle monthly. (2)If the mayor does not count the cattle monthly, (3)**they will collect the arrears of the shepherd from the mayor. (4)Furthermore, they will impose a punishment upon the shepherd.**

The bolded sentences are those clauses or words that are exclusive to Group 1a or 1b contracts. Some of these variants can, however, be explained by the type of livestock that is the focus of the contract rather than the contract type specifically. For instance, some Group 1a contracts contain stipulations about sheep and goats that do not appear in the Group 1b contracts. However, Group 1b contracts consist only of cattle contracts, while Group 1a contracts include both sheep and goat and cattle contracts. Hence, these variations are not unique to Group 1a contracts but to sheep and goat contracts.

More significant variations are present especially in those clauses that deal with the mayors' responsibilities. I discuss these variants below at length, but on the whole, the stipulations are highly formulaic.[41]

(A) *Regulations for the disposal of dead animals* (KUŠ *gab-bi-šu* u_2*-ša-kal* / ^{uzu}SA *i-nam-din*, "He will taw all the hides. He will give the sinews."): The first two clauses are concerned with what is done with the remains of dead livestock, specifically the hides (KUŠ) and sinews (^{uzu}SA). The second clause concerning the disposal of the sinews is, grammatically speaking,

[41] A brief explanation of these clauses is provided in Brinkman 2004: 290-291.

unproblematic; it specifies that an unnamed subject—possibly the shepherd mentioned later in clauses D3-D4[42]—will deliver the sinews.[43] However, the first clause, present only in sheep and goat contracts, raises an issue due to the semantic ambiguity of the verb *ušakkal*.[44] The infinitive of this form, *šūkulu* (logographically written GU_7), can either be understood as the standard causative of the base verb (i.e., "to cause to consume") or, more technically, "to steep an object in a liquid."[45] Several translations of this phrase have therefore been proposed in the past: "Alle seine Felle soll er verbrauchen lassen" (Torczyner 1913: 55), "Sein ganzes Leder läßt er verbrauchen" (Sassmannshausen 2001: 391, following Torczyner), "He will tan all the hides" (CAD M/1 s.v. *mašku*, mng. 2 and CAD G s.v. *gabbu* A, mng. a), and "He shall taw all the hides" (Brinkman 2004: 291, n. 37, following the CAD).

Support for the CAD's and Brinkman's interpretation can be found in two Middle Babylonian texts, PBS 2/2 140 and BE 15 78. In PBS 2/2 140, hides are explicitly described as

---

[42] Cf. Brinkman (2004: 290), who identifies the subject as the herdsman (*nāqidu*). It seems unlikely that the shepherd (*rē'ū*) mentioned in D3-D4 is to be identified with the named herdsman on the tablets' obverse, however, for the reasons I mention in Section 2.2.

[43] There is some indication that at least one Nippur-based institution expected herdsmen to meet sinew quotas in the Kassite period. Cols. i-ii of the reverse of BE 15 78 list amounts of sinews received from herdsman beside arrears of sinew. Unfortunately, I have been unable to ascertain a consistent ratio between the amount of sinews and the number of skins received from the same herdsmen on the tablet's obverse.

Giving over sinews upon the death of an animal is not unparalleled in the ancient Near East. The Aršam herding contracts from the Achaemenid period stipulate that herdsmen must provide 2½ shekels of sinew per deceased animal as evidence of death (Kozuh 2014: 79). See also CAD G s.v. *gīdu* for more attestations of sinews being collected with hides.

[44] Cf. Clay 1906: 27, who translates the phrase, "The total of his hides he shall weigh." Clay interprets the verb as a D-stem durative of *šaqālu* ("to weigh"), evidently reading the signs u_2-*ša*-*qal*$_4$. However, the reading *qal*$_4$ for the KAL sign is extremely rare and otherwise unattested in Middle Babylonian documents (Borger 2010: 352). Moreover, see below for attestations of hides described as KUŠ GU_7 and KUŠ NU.GU_7 in PBS 2/2 140: obv. 1-3 and *passim* and BE 15 78: obv. 2-3, which strongly support taking the base as *akālu* rather than *šaqālu*.

[45] CAD A/1 s.v. *akālu*, mng. 9e.

KUŠ GU_7 or KUŠ NU.GU_7.[46] The text records the number of both KUŠ GU_7 and KUŠ NU.GU_7 that are used in the construction of wagons and chariots. Another text, BE 15 78 also tallies the number of hides, which include both KUŠ GU_7 and KUŠ NU.GU_7, received from herdsmen.[47] These hides therefore cannot have been "used up" as suggested by Torczyner and Sassmannshausen, because both types of hides are counted in the totals column. Hence, the distinguishing feature between KUŠ GU_7 and KUŠ NU.GU_7 cannot be whether they are consumed or not, but rather which hides were tawed and which were not. These hides no doubt would have been delivered alongside the sinews to the livestock owner, as noted in the second clause.

Why the stipulation concerning the hides is present only in the sheep and goat contracts is unclear, however. Brinkman has suggested that this stipulation may have been included for flocks but not cattle "presumably because the simpler tanning process for these hides with salt and alum—as opposed to the more complex and lengthier tanning procedure for bovine hides—could at least be started while the herdsman was in the field."[48]

(B) *Allowable loss rates* (*ina* 10-*ti* KUŠ *i-nam-din* / *ina* 10-*ti* KUŠ DIRIG-*ma ul im-ma-ḫar*, "Per ten, he will give a hide. If it exceeds a hide per ten, it will not be accepted."):[49] In his

---

[46] Specifically cited in the sequences KUŠ GUD (NU).GU_7 and KUŠ UDU.$NITA_2$ (NU).GU_7. Here, GU_7 is the logographic writing for the derived adjective *šūkulu*, "steeped, tanned (hide)" (CAD s.v. *šūkulu*, mng. 2).

[47] BE 15 78: u.e. 1: $^{(ue.1)}$KUŠ.ḪI.A *ša* MU.16.KAM u_3 MU.17.KAM *i-na* ITI.$BARA_2$.ZAG.GAR *ša* MU.18.KAM *i-na* NIBRU^{ki} *maḫ-ru*$_3$, "Hides of Year 16 and Year 17 received in Month I of Year 18 in Nippur." The reference to tawed and untawed hides is more elliptical in BE 15 78: obv. 2-3 (column headers), which elides the GU_7 when referencing untawed hides (e.g., KUŠ UDU NU instead of KUŠ UDU NU.GU_7). This abbreviation is presumably made on account of space constraints. Shortening headers to save space is a common practice in Kassite tables. For more overt references to tawed and untawed hides in column headers, see CBS 3278.

[48] Brinkman 2004: 291, n. 37.

[49] Cf. Sassmannshausen 2001: 391 (MUN 329: rev. 19-20): $^{(19)}$*i-na* 10-*ti-su i-nam-din* $^{(20)}$*i-na* 10-*ti-su* DIRI-*ma ul im-ma-ḫar*, "Als Zehntabgabe davon gibt er. Über die Zehntabgabe hinaus wird

review of MUN, Brinkman tersely states that this section concerns "the division of the hides (KUŠ) of dead animals."[50] This interpretation is presumably built off a literal translation of the final verb of the second clause (*ul immaḫḫar*, "it will not be received/handed over"). However, it is more likely that what we are seeing here is a statement concerning the allowable death rate for a herd or flock—i.e., it is acceptable for up to a tenth of the animals to die, so long as the shepherd provides their hides as proof of their deaths.

There are three primary arguments for why it is preferable to interpret these clauses as stipulations concerning the allowable loss rate. First, herding contracts from a number of

---

nichts empfangen." Sassmannshausen's reading of the KUŠ sign as the pronominal suffix *-su* has already been noted by Brinkman (2004: 291) to be "contextually impossible." His interpretation of 10-*ti* as *ešrūtu* ("tithe") is similarly untenable. He argues, "An der Interpretation kann indes kaum ein Zweifel bestehen, da wir in Z. 11 330 Stück Vieh haben, in Z. 21 und 22 zusammen 300 Felle, d. h. es wurde in der Tat etwa ein Zehntel abgezogen." However, this argument is based on a fundamental misunderstanding of the following lines MUN 329: rev. 21-22 (see Brinkman 2004: 291). Furthermore, these exact clauses are preserved in other herding contracts (e.g., MUN 330: rev. 21-22; BE 14 137: rev. 16-17; UM 29-13-642: rev. 2-3, etc.), which report herd and flock sizes that are not around 300 animals large, thus rendering his calculations null.

The word hiding behind 10-*ti* may be *eširtu* (CAD E s.v. *eširtu*, "group of ten persons"), here referring to a group of ten animals rather than people. While the CAD does not cite Middle Babylonian examples, the word shows up in Old Akkadian, Old Babylonian, and Neo-Babylonian texts and is often written 10-*tum/tim* or 10-*ti*, especially in the official title ^{lu2}GAL 10-*ti* (CAD E s.v. *eširtu* in *rab eširti*). See also *ušurtu* (CAD U/W s.v. *ušurtu*, "unit of ten"), which may be a variant writing of the same word; *ušurtu* is used to refer not only to men but objects as well. In this context, the entire phrase *i-na* 10-*ti* KUŠ *i-nam-din* can be translated literally as follows: "Among a group of ten, he will give a hide." See Kraus 1966: 9 for a similarly constructed stipulation in the Old Babylonian Larsa herding contracts (*u₃ i-na* 100 U_8.UDU 15 KUŠ RI.RI.GA *ḫa-ar-ṣu₂*, "And among 100 sheep, 15 skins of dead animals are deducted"); and Postgate 2012: 4 and *passim* for various examples of this type of phrase in the Middle Assyrian Dūr-Katlimmu corpus (e.g., Röllig 2008, no. 56: obv. 6: *i-na* 1 ME 10 KUŠ.MEŠ *na-aṣ-ṣu*, "In 100 10 skins have been brought"). As Postgate (2012: 5) mentions later, these constructions are clearly being used to indicate percentages.

Another alternative is to read the signs as 10 TI, interpreting TI as a logogram for the substantivized verbal adjective *balṭu* (here, *balṭūti*), a term used to refer to living animals in neighboring periods and regions (see CAD B s.v. *balṭu*, mng. 1a2'). The resulting translation might be as follows: "Per 10 live ones, he will give a hide. If it exceeds a hide per 10 live ones, it will not be accepted."

[50] Brinkman 2004: 291.

neighboring regions and periods explicitly set a limit on how many animals are allowed to die. These rates typically fall between 10% to 15%. For instance, the allowable loss in a Neo-Babylonian sheep herding contract from Uruk, YOS 6 155, and the nine Aršam contracts is set to 10%.[51] This figure is lower than the rates mentioned in the Old Babylonian Larsa contracts, which stand at 15% of the number of adult livestock.[52] The figure given above in our texts, one skin per ten animals (i.e., 10%), therefore matches the rate given in the Neo-Babylonian contracts.

The second argument delves into the purpose of delivering hides. This practice is attested in different periods and regions as a way to provide physical proof that an animal has indeed died;[53] otherwise there would be no way to ascertain whether the shepherd is lying or not about an animal's death and thereby stealing livestock for his own use. Therefore, including a stipulation that allows the shepherd to keep any hides that exceed the 10% loss rate is difficult to explain from an administrative standpoint, and indeed, would be an unprecedented practice when compared to other Mesopotamian herding contracts.

The third and final argument concerns the preceding clause A1 in the sheep and goat contracts. As already stated above, this clause states that the shepherd is to taw all of the hides.

---

[51] See Kozuh 2014: 71-72 and van Driel 1993: 223.
[52] See Kraus 1966: 36-38. and Postgate and Payne 1975: 6.
[53] Such a practice is also implied in the Middle Babylonian legal text MBTU 11 from Ur. This text is a record of a judgment concerning the disappearance of an ox. According to the tablet, Nergal-aḫa-iddina had entrusted an ox to Sîn-bunūni. The ox then died, but Sîn-bunūni was unable to produce the carcass as proof of its death. Instead, he claimed that Nergal-aḫa-iddina's messenger had taken the carcass and thrown it to a dog, thereby explaining the carcass's disappearance. The messenger protested this accusation, and the judgement handed down for the case involves establishing who is telling the truth, Sîn-bunūni or the messenger. On the practice in other periods and regions, see e.g., Postgate and Payne 1975: 6 (Old Babylonian), Postgate 2012 (Middle Assyrian, Dūr-Katlimmu), Morrison 1981: 270-271 (Nuzi), and Kozuh 2014: 78-79 (Neo-Babylonian Uruk).

If, for the sake of argument, we assume that the shepherd is allowed to keep a portion of the hides, then why would the contract explicitly demand that he is responsible for tawing all of them rather than the just the portion he is to hand over to the owner(s)? This mismatch between clauses A1 and B1-B2 can be resolved by reinterpreting B1-B2 as statements concerning the acceptable loss.

The question now shifts to how to interpret the concluding *ul immaḫḫar*, which at first glance seems to state, "It will not be handed over." This conundrum can be resolved by looking into another attestation of the verb in MUN 10, a legal text that concerns the sale of real estate. Following the sale of the property in question, it is stated that the sale is final: ŠAM$_2$ *ut-tar-ma ul im-maḫ-ḫar*, "If the (purchase) price is returned, it will not be received."[54] The understanding here is that, even should the seller wish to renege on the sale by reimbursing the buyer, it is not legally acceptable to revisit the deal and to exchange the initial purchase price for the property.

It is possible that clause B2 can be understood in a similar vein. Should there be more than one hide provided per ten animals—that is, should the loss exceed the acceptable death rate of 10%—then it is not legally acceptable for the shepherd to simply turn in the hides. Although the penalty is not explicitly stipulated, it stands to reason that the excess would count towards the shepherds' arrears and that they would have to somehow make up for the deficit, possibly from their own herds or flocks.

(C) *Expected herd/flock growth* (*i-na* 1 ME 50 *il-da u$_2$-še-et-te-eq / i-na* 1 ME 50 KI.MIN LAL$_2$.GAG-*ma / i-na* 1 ME 70 KI.MIN *is-si-ru-šu*. "Per 100 (ewes/cows),[55] he will exceed 50 offspring. If per 100 (ewes/cows), 50 offspring are the arrears, they will collect from him for 70

[54] MUN 10: rev. 23.
[55] Though not explicitly stated, these calculations must be based off the number of productive female livestock.

offspring per 100 (ewes/cows).”): Following the allowable loss clauses, these clauses predictably provide stipulations concerning herd or flock growth.[56] *Šūtuqu*, which typically means “to cause to pass (by),” may possess an additional nuance here of exceeding a 50% growth rate.[57] The following two clauses are concerned with the possibility that the shepherd fails to exceed the 50% growth rate and stipulates that if the shepherd does not produce 50 offspring, 70 total offspring—that is, 70% of the initial count of productive female livestock—will be collected from him as the penalty instead. These additional animals would presumably come from his personal flocks or herds.

(D) *Responsibilities of the mayor* (*ḫa-za-an-nu a-na* ITI-*šu₂* U₈.UDU.ḪI.A (or AB₂.GUD.ḪI.A) *i-man-nu /* KI.MIN *a-na* ITI-*šu₂ ul im-da-nu-ma /* SIPAD *u₂-maš-ša-ru-ma ḫa-za-an-na is-si-ru* (var. of last line: LAL₂.GAG SIPAD *ḫa-za-an-na is-si-ru / u₃* SIPAD *ḫi-ṭa₃ im-mi-du*). “The mayor will count the ovicaprids/cattle monthly. If the mayor does not count the ovicaprids/cattle monthly, they will release the shepherd, and they will collect (the arrears) from the mayor” (var. of last line: “They will collect the arrears of the shepherd from the mayor. Furthermore, they will impose punishment upon the shepherd.”)): These final clauses concern the responsibilities of the mayor named on the obverse and likely reflect concerns over the

---

[56] See already Brinkman 2004, 291. Cf. Sassmannshausen 2001: 391 (MUN 329: rev. 21-23): (21)*i-na* 1 ME 50 *šim-da u₂-še-te-eq* (22)*i-na* 1 ME 50 KI.MIN LAL₂.GAG (23)[*i*]-*na* 1 ME 70 ˹KI.MIN *is-si-ru-šu₂*, “Aus 150 (Fellen) wird Farbe hergestellt, 150 (Felle) ditto (für Farbe) Rückstand und von 170 wird man ditto (Farbe) einfordern.” As already noted by Brinkman, Sassmannshausen misreads *il-da* (“offspring”) for *šim-da* (“paint, glue, varnish”) and reads *i-na* 1 ME 50 and *i-na* 1 ME 70 as “from 150” and “from 170” instead of “from 100, 50” and “from 100, 70.”

[57] For attestations of *šūtuqu* in contexts where it clearly means “to exceed or surpass,” see esp. CAD E s.v. *etēqu*, mng. 5d. Note also that *etēqu* is attested in the large livestock account tables BE 14 99, BE 14 99a, BE 14 168, and CBS 2129, though likely with a different meaning (see Section 4.2.1.2). The 50% growth rate mentioned in our herding contracts is noticeably lower than the 66.67% growth rate of the Neo-Babylonian contracts. On the use of this construction to indicate percentages, see especially Postgate 2012 and this chapter’s n. 49.

possible disappearance or theft of livestock. The first two clauses explicitly state that the mayors were responsible for keeping monthly counts of the livestock.[58] In the following two penalty clauses, however, the Group 1a and Group 1b contracts diverge.

Group 1a contracts stipulate the following consequences upon failure of his duties: ^{lu2}SIPAD *u₂-maš-ša-ru-ma* / LAL₂.GAG *ḫa-za-an-na is-si-ru₃*, "They will release the shepherd (i.e., from obligations?) and collect the arrears from the mayor." Group 1b contracts, on the other hand, stipulate the following penalty: LAL₂.GAG SIPAD *ḫa-za-an-na is-si-ru / u₃* SIPAD *ḫi-ṭa₃ im-mi-du*, "They will collect the arrears of the shepherd from the mayor. Furthermore, they will impose punishment upon the shepherd." In short, in both types of contracts, if the mayor is unable to provide a count of animals,[59] then he has neglected his duties and is forced to make up for any existing arrears that would ordinarily have been assigned to the shepherd. The repayments would likely have been taken from the mayor's personal property.

What of the shepherd, however? At first glance, these two clauses seem to stipulate mutually exclusive consequences for the shepherd; while he is "released" in one version of the contracts, he is apparently punished in another. However, they are not so contradictory upon closer

[58] For the phrase *ana arḫišu*, see CAD A/2 s.v. *arḫu*, mng. 3b6'. However, Postgate (personal communication, 9/18/2019) is doubtful that the mayors were able to keep monthly counts. He proposes that the count was not monthly but annual, as in other regions and periods, and suggests the translation, "at his (prescribed) month." This is not unlikely, though I wish to draw attention to the possibility that the contract stipulations were not meant to be followed word for word. Kozuh (2014: 121-152), for instance, argues that in the Neo-Babylonian period, "the Eanna did not rigidly hold its herdsmen to the terms of their contracts. Instead, the contract served as a legal template of last resort, its full weight only coming to bear in atypical circumstances. For day-to-day practice, while the contract set a general framework for the relationship between the Eanna and its herdsmen, actual business took place extra-contractually."

[59] Whether the mayor's inability to provide a count is due to simple neglect of duties or the shepherd actively absconding with the livestock is left unspecified. As discussed in the following paragraphs, the penalty clauses appear to stipulate punishments for *both* the mayor and the shepherd (see the discussion about the clauses in UM 29-15-691), which raises the possibility that fault was, at the very least, assigned to both parties in the case of a missing monthly count.

examination of another herding contract from Nippur, UM 29-15-691,[60] which contains both penalty clauses in its stipulations, thereby revealing that the release and punishment clauses are not incompatible, and that the "release" clause was perhaps omitted in the Group 1b contracts.

Regardless, the exact meaning of these clauses remains somewhat unclear, especially as the verb *uššuru* has a wide semantic range. One possibility is that the shepherd is being explicitly "released" from having to pay his existing arrears in the Group 1a contracts (versus being implicitly released in the Group 1b contracts), as those arrears would have been transferred to the mayor,[61] who later would have exacted his own punishment upon the shepherd. Though we have few indications of what this punishment may have consisted of, it is possible that the mayor would have wanted to recover the arrears he paid on behalf of the shepherd; the punishment in this scenario might then have involved the mayor pressing the shepherd to repay his debt.[62] Another interpretation of the verb, however, is to take it more literally: perhaps the shepherd was to be physically relinquished and handed over to the owner,[63] or released (perhaps from captivity?)[64]

---

[60] See Text 3.5 for a more detailed treatment of this tablet.
[61] See CAD U/W s.v. *uššuru*, mng. 6b.
[62] This form of punishment was suggested to me by Postgate (personal communication, 8/2/18). Additional support may be taken from Gurney's comments on a similar scenario recounted in the broken legal text MBTU 16, which deals with a case of cattle theft in Ur, as well as the case recounted in MVN 3 219, discussed by Westbrook and Wilcke (1974/1977: 114-115). Both cases involve guarantors paying on the behalf of others and then pressing the latter individuals for repayment, with MBTU 16 involving the guarantor imprisoning the debtors.
[63] See CAD U/W s.v. *uššuru*, mng. 3.
[64] See CAD U/W s.v. *uššuru,* mng. 2. The possibility that the shepherd may have been imprisoned is intriguing when taking into consideration BE 14 135; in this tablet, Rīš-Nergal, the son of a mayor Arad-nubatti, serves as guarantor for the release of the *iššakku* farmer Mīnâ-ēgu-ana-Šamaš from the prison of Amīl-Marduk. See also the recent legal text published by Levavi (2017: 94-96, no. 3), which details the imprisonment of mayor Arad-nubatti himself on account of an escaped worker that Amīl-Marduk had earlier entrusted to him; Arad-nubatti is only released under the condition that he finds and returns the worker within a specified period of time. For more extensive discussion on imprisonment in the Kassite period and its connection to public authorities, see Levavi 2017: 99-104.

into the hands of the mayor,[65] both of whom could then impose an appropriate punishment upon the shepherd.

3.2.1.2. Other herding contracts

In the following section, I provide an overview of the remaining herding contracts CBS 8872, UM 29-15-691, MUN 316, and BE 14 48, and discuss the ways in which they parallel or diverge from the Group 1 contracts. As with the other contracts, I provide the transliteration and translation first, then discuss the differences.

3.2.1.2.1. MUN 316 (= UM 29-15-312)

Formally speaking, MUN 316 resembles the Group 1 contracts in many respects. Though broken, the text clearly includes (a) a cattle inventory, (b) possible contract stipulations, and (c) a date and sealing. The bottom edge of the obverse is unfortunately missing, so we cannot definitively conclude that it contains secondary product yields or the names of responsible individuals, but it would not be out of the question.

As in the Group 1 contracts, the inventory on the obverse is ruled, and a horizontal line separates the date formula from the contract stipulations on the reverse. The tablet is dated to Month VIII, Day 25[(+x)], and Year 10 of Šagarakti-Šuriaš, falling within the range of dates covered by the Group 1 contracts. The unbroken edges are uninscribed and impressed with Amīl-Marduk's seal, seal no. 149. The major deviations from the Group 1 contracts occur in the stipulation section of the contract.

[65] Postgate (personal communication, 8/2/18) suggests that the shepherd may also have been released to continue watching over livestock in the field.

Text 3.4.) MUN 316[66]

o.1		UTUA
2	16	AB_2.GAL
3		AB_2 MU.3
4		AB_2 MU.2
5	3	GUD MU.4
6	2	GUD MU.3
7	1	GUD MU.[2]
8	4	AB_2.[GA]
9	˹4˺	AMAR.[GA]
10	˹PAP˺ 30	LAL_2.[GAG]

(Remainder broken.)

r.1’	˹GU_2.EN.NA NIBRU˺^{k}[^{i} …]
2’	[G]UD *i-te-es-ra* […]
3’	MU LI SISKUR$_2$ KAL *i*-[
4’	*a-na* SIPAD$^{?}$ *a-na* $E_2^{?}$ [
5’	*u_2-ka-an-nu*
6’	^{iti}APIN.DU_8.A UD.25[+(x).KAM]
7’	MU.10.KAM *ša-ga-rak-te*-[*šuriaš*]
8’	LUGAL.˹E˺
9’	^{na4}KIŠIB $^{m}LU_2$-^{d}AMAR.˹UTU˺
10’	GU_2.EN.NA NIBRU^{ki}

Translation

(o.1)	0	bulls
(2)	16	fully-grown cows
(3)	0	two-year old heifers
(4)	0	one-year old heifer
(5)	3	three-year old male
(6)	2	two-year old male
(7)	1	one-year old male
(8)	4	heifer calves
(9)	4	male calves
(10)	Total:	30 arrears

(Remainder of obverse is broken.)

(r.1’) The *šandabakku* of Nippur […] (r.2’) He has collected the male cattle […] (r.3’) … the offering ... (r.4’) For/to the *shepherd*, to the house of […] (r.5’) he will establish.

[66] For the full edition, see the Appendix.

(r.6'-10') Month VIII, Day 25[(+x)], Year 10 of Šagarakti-Šuriaš, the king. Seal of Amīl-Marduk, the *šandabakku* of Nippur.

(a) *Livestock inventory:* The grand total of cattle counted in the inventory are referred to as "arrears" (MUN 316: 10) rather than AB_2.GUD.ḪI.A, as is more typical. Although one might be tempted to identify these arrears as the additional calves demanded by the herd growth stipulations one finds in the Group 1 contracts, it should be noted that these arrears evidently include adult cattle. Therefore, it is unlikely to refer to the arrears owed by the shepherds as part of the arrangements noted in the Group 1 contracts. Another possibility is to equate these arrears with those that may be due by the mayor for the nonperformance of duties related to the counting of cattle; these arrears, as stipulated in the contract UM 29-15-691, do not have to paid strictly in offspring.

(b) *Stipulations*(?)*:* These lines are sufficiently broken so as to make the interpretation of the clauses difficult, but the visible signs clearly do not match the clauses that we find in the Group 1 contracts, nor the stipulations discussed for the other contracts. The traces of r.1' match Sassmannshausen's (2001: 381) suggested restoration of GU_2.EN.NA NIBRU^{ki}; if he is correct, the *šandabakku* would appear to be an active party in this arrangement, though his exact role is impossible to determine based on this contract alone.

It is tempting to link the reference to the collection of cattle in r.2' with the collection of arrears mentioned in the other contracts, especially given the use of the verb *esēru* in combination with the reference to arrears in the inventory on the obverse. This possibility raises the question of whether or not this tablet should be regarded as a contract per se as opposed to a settlement of a contract. However, it should be noted that the verb at the end is given in the durative rather than the stative or preterite, which might be more typical for a record of a

settlement. For now, however, the matter must remain the subject of some speculation for lack of additional parallels.

(c) *Date and sealing:* The specific date for the creation of this contract is given in the date formula, unlike in the Group 1 contacts, which only specify month and year. As the sealing is attributed to Amīl-Marduk, he once again represents the liable party in this contract.

3.2.1.2.2. UM 29-15-691

Like the previous contract, UM 29-15-691 superficially resembles the Group 1 contracts but diverges in several major aspects. This contract contains the typical contract components: (a) a livestock inventory, (b) a list of responsible individuals, (c) calculated yield of secondary products, (d) contract stipulations, and (e) a date and sealing. Formally speaking, however, the tablet is only partially ruled on the obverse, unlike the Group 1 contracts. Its upper edge is also inscribed with text, and it is sealed on not only the bottom edge but the obverse as well. According to Brinkman,[67] this text is partially paralleled by the Istanbul tablet Ni. 421.

Text 3.5.) UM 29-15-691[68]

o.1	1	UTUA
2	37	AB_2.GAL
3	8	AB_2 MU.3
4	9	AB_2 MU.2
5	16	AB_2.GA
6	8	AMAR.GA
7	PAP 79	$^{m.d}$*en-* ˹*lil*$_2$$^{?}$˺-[(x)]
8		ŠU ^{m}x-*un*-˹x˺-[(x)]
9		^{m}*ši-in*-[*di*$^{?}$-…]

[67] Brinkman (personal communication, 11/15/19).
[68] For the full edition, see Appendix. Brinkman (personal communication, 11/15/2019) kindly helped with the reading of the more broken and damaged sections on the tablet based on parallels from Ni. 421, a cattle contract dated to Month XI, Year 12. This contract, like UM 29-15-691, also features Bēlānu as a supervisor of sorts.

10 ˹4?˺ (BAN$_2$) 1 SILA$_3$ 15˺ [GIN$_2$] ˹I$_3$.NUN˺

r.11 [(x)] ˹x˺ […]
12 *i-n*[*a* …]
13 *i-na* ˹x˺ […] ˹U$_2$˺ […]
14 [*i*]-*n*[*a* …]
15 [x x] ˹x˺ […]
16 [(…)]
17 ˹*i*˺-[*na* …]
18 *i-*˹*na*˺ […]
19 *i-na* ˹1˺ […]
20 *ḫa-za-*˹*an-nu a-na* ITI˺-[*šu*] ˹AB$_2$˺.[GUD.ḪI.A *i-man-nu*]
21 *a-na* ˹ITI-*šu ul*˺ *im*-[*ta-nu-ma*]
22 ^{lu2}˹SIPAD˺ *u$_2$-ma-*˹*ša-ru-ma*˺
23 LAL$_2$.˹GAG *ḫa*˺*-za-an-na* [(*is-si-ru*)]
24 ^{lu2}SIPAD *ḫi-i-ṭa i-*˹*mi-du*˺
25 *ša ḫa-za-an-ni* AB$_2$.GUD.ḪI.A-˹*šu*˺
26 U$_8$.UDU.ḪI.A-*šu ṣe-ḫe-er-šu*
27 *ṣe-ḫe-er-ta-šu a-na* ^{m}*be-la-ni*
28 *i-ḫa-ra-ṣu ul ut-ta-*˹*ar*˺

ue.29 ˹^{iti}BARA$_2$˺.ZAG.GAR MU.10[(+x).KAM]

Translation

(o.1) 1 bull
(2) 37 fully-grown cows
(3) 7 two-year old heifers
(4) 9 one-year old heifers
(5) 16 heifer calves
(6) 9 male calves
(7) Total: 79 Enlil(?)-[(…)]
(8) Responsibility (lit. “hand”) of […]
(9) Šindi(?)-[…]
(10) *4 sūtu*, 1 sila, and 15 [shekels] of ghee

(11-19) […] (20) The mayor will count the cattle monthly. (21-23) (If) he does not count (them) monthly, they will release the shepherd, and (they will collect) the arrears from the mayor. (24) They will lean punishment upon the shepherd. (25-26) Of the mayor, his cattle, his ovicaprids, (26-27) his young males, and his young females, they will deduct for Bēlānu. It will not be returned.

(a-b) *Livestock inventory and list of responsible individuals*: The livestock inventory in this contract is merged with the list of responsible officials. In Group 1 tablets, the total number

of cattle is related as follows: PAP *n* AB_2.GUD.ḪI.A. Here, rather than designating the animals as AB_2.GUD.ḪI.A, the names of three individuals are listed in the right column, each on a different unruled line. Their offices are not given, and the second individual's name is preceded by ŠU (Akk. *qātu*, "hand"), which in administrative contexts means "responsibility of PN."[69] The remainder of the obverse—which accounts for around a third of the obverse's space—is left uninscribed and is impressed with a seal that can be identified with Matthews's (1992) seal no. 61.

(c) *Secondary products*: This line, though heavily broken, contains sign traces that suggest a calculated amount of ghee.[70] The numbers are, however, rather broken, making it difficult to determine the formula used to calculate the ghee yield.

(d) *Contract stipulations*: The contract stipulations cover the entirety of the reverse. Though the top half of the reverse is heavily damaged, a section of the visible stipulations duplicates the Group 1 contract stipulations. Both Group 1a and Group 1b variant penalties are included in this tablet, which, as I argue above, implies that the Group 1a and 1b penalties are not mutually exclusive despite the initial impression that they decree different consequences for the shepherd. Major additions to the stipulations, however, appear at the end of the tablet (l. 22-25). The first two lines follow logically from the preceding clauses and state the usual consequences for the mayor should he not count the cattle—that is, he is to pay the arrears. The next two lines then elaborate further on his penalty by providing details as to what his arrears

[69] On this terminology, see CAD Q s.v. *qātu*, mng. 6: "authority, possession, custody, charge, care, control, jurisdiction." See also comments by van Soldt 2015: 31 and Postgate 2013: 258-259 and *passim* (the latter referring to Middle Assyrian documents).
[70] Brinkman (personal communication, 11/15/2019) notes that Ni. 421 also contains amounts of ghee, though these are listed immediately after the livestock inventory and before the associated officials.

will consist of—i.e., cattle, sheep, and goats, as well as male and female "little ones"[71]—and for whom he is deducting these arrears, named in the text as Bēlānu. This individual is probably to be identified as the owner of the seal, who is said in the inscription to be the grandson of Kurigalzu and a *šandabakku* of Nippur.[72]

(e) *Date and sealing:* The tablet is dated on the upper edge rather than on the reverse as is typical with the Group 1 tablets. The date does not provide a royal name. It is possible, however, to suggest a dating to the reign of Nazi-maruttaš on account of the seal impression. The seal responsible for the sealing is Matthews' (1992) seal no. 61,[73] and it appears on one other fully-dated and published tablet, MUN 324, which is dated to the fourth year of Nazi-maruttaš.

3.2.1.2.3. CBS 8872

CBS 8872 is an unruled sheep and goat contract. The tablet contains the following components: (a) a livestock inventory, (b) calculated yields of secondary products, (c) a list of responsible individuals, (d) a date, (e) contract stipulations, and (f) a sealing.

---

[71] Whether these "little ones" are animals or people is uncertain. I find it plausible that the reference here is to livestock young, especially given that the arrears will be comprised of animals. However, the words *ṣeḫru* and *ṣeḫertu* are, as substantivized adjectives, more accurately translated as "male little one" and "female little one," respectively speaking, with no specifications made as to what these little ones actually are. Although the adjective by itself can be used to qualify a variety of nouns, including people, animals, and objects (see CAD Ṣ s.v. *ṣiḫru*), the substantivized form is typically used in a more limited sense to refer to people, sometimes young boys or girls, but also servants. If one is to interpret these words as references to servants, it could be that the contract is specifying that the arrears may be paid back in the form of people as well as livestock.

[72] See the following note.

[73] See Matthews 1992: 86-87 and Murai 2018: 149-150 for more on seal no. 61. This particular tablet is not listed in Matthews' catalog, but it is noted in Matthews and Brinkman 1990, which also discusses the inscription at length. The seal would appear to be that of a high official, given that the inscription states that it originally belonged to a grandson of Kurigalzu, and Brinkman (personal communication, 8/22/2019) states that Bēlānu is given the title of *šandabakku* in two unpublished Philadelphia documents.

Text 3.6.) CBS 8872

o.0’	[x	UDU.NITA$_2$]
1’	1 ME [(+x)	U$_8$.GAL]
2’	29	[SILA$_4$.NIM]
3’	30	[^{munus}SILA$_4$.NIM]
4’	PAP 250 U$_8$.UDU.ḪI.A	
5’	2 GUN$_2$ 4 MA.NA SIG$_2$	
6’	^{m}SUM$^{?}$-^{d}30	
7’	^{m}UD-*šu$_2$*-ZALAG$_2$-*ir*	
8’	^{iti}ZIZ$_2$.AM$_3$.	

be.9’ ˹MU.x.KAM$_2$˺

r.10’	[KUŠ *ga*]*b-bi-šu* ˹*u$_2$*˺-[*ša*]-*kal*
11’	[^{uz}]^{u}SA ^{uzu}I$_3$.˹UDU *i-nam-din*˺
12’	˹x x x˺
13’	[x] *i-nam-din* ˹*ša* x x˺
14’	˹x x x˺ AŠ$_2^{?}$ TI$^{?}$ [*i*]-*nam-din*
15’	[*i-na* 1 ME 50 *il-da u$_2$-še*]-˹*te-eq*˺
16’	*i-na* 1 ME [50 LAL$_2$].˹GAG˺-[*ma*]
17’	*i-na* 1 ME [70 *is-si-ru*]-*šu*
18’	U$_8$.UDU.ḪI.A ˹*ḫa-za-an-nu a-na* ITI˺-*šu$_2$*
19’	*i-ma-an-<<na>>-nu ḫa-za-an-na*$^{sic!}$ *a-na* // ˹ITI-*šu$_2$*˺
20’	*ul im-da-nu* SIPAD [*umaššarū*]
21’	LAL$_2$.[GAG *ḫazanna*]
22’	*is*-[*si-ru*]

<u>Translation</u>

(o.0’)	[…	rams]
(1’)	100[(+x)	ewes]
(2’)	29	[ram lambs]
(3’)	30	[ewe lambs]
(4’)	Total: 250	sheep
(5’)	2 talents, 4 minas of wool	
(6’)	*Iddin*-Sîn	
(7’)	Aṣûšu-namir	
(8’-9’)	Month XI, Year [x]	

(r.10’-11’) He will taw all the hides. He will give tendons (and) sheep fat. […] (13’-14’) … he will give … he will give. (15’-17’) Per 100, he will exceed fifty offspring. (If) per 100, 50 (offspring) are the arrears, they will collect from him 70 per 100. (18’-20’) The mayor will count the sheep monthly. (If) he does not count (them) monthly, they will [release] the shepherd. (21’-22’) They will collect the arrears from the mayor.

(a) *Livestock inventory*: Sheep are referred to as U_8.UDU.ḪI.A rather than BABBAR.MEŠ in the totals. No goats are present, unlike the typical practice in Group 1 texts of listing goat categories even if there are none in the flock.[74]

(b) *Calculated yields*: There are no deviations from the Group 1 contracts aside from the lack of goat hair mentioned.[75]

(c) *Responsible individuals*: Only two individuals are named. Their offices are not given.

(d) *Date*: The date, rather than appearing as the last element listed in the tablet, is listed after the responsible individuals. The date is broken into two lines, one on the last line of the obverse and the next on the bottom edge, which is typically uninscribed in Group 1 contracts. No royal name is indicated, but given the seal impression, one can potentially date the tablet to the reign of Nazi-maruttaš (see below).

(e) *Contract stipulations:* The stipulations on the tablet's reverse mostly duplicate the Group 1a stipulations, with the exception of the appearance of sheep fat as a required delivery. Furthermore, the beginning of the reverse is effaced, and traces suggest there may be some additional deviations in this section (esp. l. 12'-14'), though it is difficult to tell without further parallels.

(f) *Sealing*: CBS 8872, like UM 29-15-691, is sealed with Matthews' (1992) seal no. 61,[76] which may suggest a dating to the time of Nazi-maruttaš (see Section 3.2.1.2.2). The seal impression appears on the obverse of the tablet; very faint traces may be visible on the edges.

3.2.1.2.4. BE 14 48 (= CBS 3002)

[74] E.g., CBS 11107.
[75] See previous note.
[76] See already n. 73.

BE 14 48 is a sheep and goat contract that features (a) a livestock inventory, (b) calculated amounts of secondary products, (c) one named responsible official, (d) contract stipulations, and (e) a date and sealing. Oddities throughout every category except the livestock inventory set it apart from the contracts mentioned above.

Text 3.7.) BE 14 48

o.1	47	UDU.NITA$_2$
2	28	U$_8$.GAL
3	7	SILA$_4$.NIM
4	7	^{munus}SILA$_4$.NIM
5	PAP 89	BABBAR.ḪI.A.MEŠ
6	34	MAŠ$_2$.GAL
7	31	UZ$_3$
8	7	MAŠ$_2$.TUR
9	8	^{munus}AŠ$_2$.GAR$_3$
10	PAP 80	UZ$_3$.ḪI.A
11	˹ŠU.NIGIN˺ 169 U$_8$.UDU.ḪI.A	
be.12	1⅓? MA? 9? GIN$_2$ SIG$_2$.ḪI.A 1 UDU.NITA$_2$	
13	1 GIN$_2$	
r.14	44½ MA.NA SIG$_2$.ḪI.A	
15	20 MA.NA SIG$_2$.UZ$_3$	
16	PAP	ŠU ^{m}GAL-*a-ša$_2$*-^{d}*nin-urta*
17	KUŠ *ga-ab-bi-šu u$_2$-ša-ak-ka-al*	
18	^{uzu}SA ^{uzu}I$_3$.UDU 2 KUŠ MAŠ$_2$ SIG$_5$	
19	1 TUG$_2$ SIG$_5$ *i-nam-di-in*	
20	ITI.GUD.SI.SA$_2$ <<UD>> (erasure: 2+[(x)]) <<[KA]M>>	
21	MU.5.KAM	
22	*na-zi-mu-ru-ut-ta-aš*	

<u>Translation</u>

(o.1)	47	rams
(2)	28	ewes
(3)	7	ram lambs
(4)	7	ewe lambs
(5)	Total	89 “whites”
(6)	34	bucks
(7)	31	does
(8)	7	buck kids
(9)	8	doe kids

(10) Total 80 goats
(11) Grand total: 169 sheep and goats
(12-13) *1⅓ minas, 9* shekels of wool, *1 ram, 1 shekel*
(14) 44½ minas of wool
(15) 20 minas of goat hair
(16) Total Responsibility of Rabâ-ša-Ninurta

(17-19) He will taw all the hides. He will give the tendons, sheep fat, two good goat hides, (and) one good garment.

(20-22) Month II, Year 5 of Nazi-maruttaš

(a) *Livestock inventory*: The inventory is unruled. Like in the Group 1 contracts, sheep are referred to as "whites," though with a redundant spelling (BABBAR.ḪI.A.MEŠ).

(b) *Secondary product yields*: The bottom edge, which is uninscribed in the previously described contracts, is inscribed with what appear to be amounts of wool calculated from the previous inventory quantities at a different ratio than has been encountered thus far. I am unable to make much sense of the calculations; the second and third signs of the sequence appear to have been written over. If Torczyner's (1913: 7) reading of 1⅓ minas, 9 shekels is correct, then the result is 89 shekels of wool, which corresponds with the number of sheep listed in the inventory, as well as the following statement, "One ram, one shekel," a qualification that shows up in a number of other texts, though without any explanation.[77] While the numbers appear to match up, this ratio seems nonsensical, given that a shekel of wool is roughly equivalent to 8.3 grams.

The typical expected calculations of secondary product amounts—i.e., ½ mina of wool per sheep and ¼ of a mina of goat hair per goat—are then made on the reverse of the tablet.

[77] See also BE 15 11, CT 51 17, and CT 51 35 for more attestations of these rams of one shekel. Torczyner (1913: 7) states that this amount is owed to the mayor; however, he provides no argument for this interpretation.

(c) *Responsible official:* Unlike the previous texts discussed, only one responsible individual is named. No official title is given.

(d) *Stipulations:* The stipulations deviate significantly from the stipulations discussed above, tersely stating, "He will taw all the hides. He will give tendon(s), sheep fat, two good goat skins, and one good garment." The first clause is identical to the clause found in Group 1 contracts, but the following clauses are unique. Though sinews and sheep fat are not attested in the large livestock account tables, which only account for the usual secondary products and hides, we have evidence that some institutions expected deliveries of sheep fat alongside deliveries of hides and sinews. For example, BE 15 78 lists amounts of both sinews (^{uzu}SA) and sheep fat (^{uzu}I$_3$.UDU) received, as well as amounts that are still owed by individual herdsmen.[78] Herdsmen are also occasionally attested in connection with the delivery of garments; see for instance, BE 14 94, wherein a herdsman delivers two garments in lieu of arrears in goat hair, and MUN 373, which records the receipt of three *mandattu*-garments belonging to the herdsmen of Enlil-kidinnī by Iddin-Enlil.[79]

(e) *Sealing and date*: The seal impression, which is visible on all edges of the tablet, can be attributed to Matthews' (1992) seal no. 20, whose impression only appears in this text and whose owner is unidentified.[80] Furthermore, in the date formula, a day is given, rather than just

[78] BE 15 78: rev. 1-2.
[79] Brinkman (personal communication, 11/15/2019) informs me that Ni. 421 (a partial parallel to UM 29-15-691, discussed above) also requires the delivery of "one good garment" (1 TUG$_2$ SIG$_5$) beside hides and tendons.
[80] Matthews 1992: 75. The inscription mentions the personal name Ninurta-apla-i[ddinam], though whether he is the one actually sealing the tablet is uncertain, as the sealer may be the individual named in the text, Rabâ-ša-Ninurta. There is a possibility here that the Ninurta-apla-iddinam of the seal is to be identified with Ninurta-apla-iddina, the *šandabakku* of Nippur during the reign of Nazi-maruttaš. Though Sassmannshausen (2001: 17, n. 210) expresses some skepticism over the evidence for this *šandabakku*'s existence, Brinkman (personal

the month and the year. The reign is explicitly identified as that of Nazi-maruttaš, unlike in the previous texts.

3.3. Discussion

Given the consistency of formal features, content, and dating, the Group 1 contracts are almost certainly the product of a single administrative unit and may be tentatively assigned to the same archive.[81] Such a statement necessarily begs the following questions, however: what administrative unit and whose archive? I consider some possibilities below.

The Group 1 contracts are, like other legal texts, formal documents. They are always sealed, and the seal's owner is invariably identified at the end of the contracts. They also exhibit a high consistency in terms of layout, formatting, and content, with minor variations made to the last in order to account for differences in types of animals herded, herd or flock compositions, and/or responsible officials. Also similar to other contracts, these herding contracts necessarily posit the existence of at least two separate parties, a client party—that is, the party that has need of a service—and a contractor, the party that agrees to provide the services under the conditions stipulated in the contract. Functionally speaking, all contracts exist in part so that a client may, in the event that the terms of the contract are not fulfilled, pursue legal action against the contractor,

---

communication, 2/6/18) has informed me that there is an undated reference to a Ninurta-apla-iddina as the GU_2.EN.NA in the unpublished tablet Ni. 2574, which also mentions Amīl-Marduk.

[81] Given the similarities in the stipulations of the other contracts discussed in Section 3.2.1.2, as well as the identification of the sealers of these latter contracts as Ninurta-apla-iddina and Bēlānu, both of whom are elsewhere attested as previous *šandabakku*'s of Nippur (see n. 73, 80, and 87), it is possible that these other contracts are the product of an earlier, but similar, contractual system as the one that produced the Group 1 contracts. Whether the contractual form was more fully standardized during the reign of Šagarakti-Šuriaš, or whether we simply have more examples of these Group 1 contracts, is uncertain.

who may otherwise fall outside the authority of the client party.[82] A contractor's acceptance of the responsibilities and liabilities detailed in the contract is then marked by rolling a seal over the contract, and the contract would subsequently be kept in the client's possession.

In our herding contracts, the client is the party that owns the listed livestock, while the contractor is the party to which the animals are entrusted for management and care. One particular problem must be addressed, however, and that is the identities of the client and contractor. As laid out above, each Group 1 contract contains the names of three officials, the herdsman (*nāqidu*), the mayor (*ḫazannu*), and the "Kassite" (*kaššû*). However, the contract stipulations only discuss the responsibilities of the shepherd (*rē'û*) and the mayor, and even more curiously, each contract is sealed by Amīl-Marduk, the *šandabakku* of Nippur, rather than an expected herdsman or shepherd, the latter of whom is otherwise not named in the contract at all. How do these individuals fit together, who is the client, and who is the contractor?

I will begin by addressing the last question. Because our Group 1 contracts (as well as MUN 316), are sealed by Amīl-Marduk, the *šandabakku* of Nippur, we can make three initial assumptions: (1) Amīl-Marduk was either the contractor or authorizer, (2) the listed livestock did not belong to him,[83] and (3) the contracts were not kept in his archive.

[82] As discussed already in Section 3.2.1, all contracts are what Postgate (2013: 80) considers to be bilateral documents, documents that "have a dispository force intended to constitute evidence of a liability of one party vis-à-vis another" and which "would need to be drawn up in the presence of and with the agreement of both sides." Additionally, there tends to be a positive correlation between bilateral, more formal, and external documents (i.e., documents concerned with external transactions).

[83] Cf. Sassmannshausen 2001: 19. Sassmannshausen, citing a number of herding contracts, states that the *šandabakku* may also have been the owner of the livestock in addition to acting as their administrator.

Was Amīl-Marduk functioning as the contractor or a third-party authorizer? The Group 1 contracts do not expressly mention Amīl-Marduk in the contract stipulations.[84] Rather, the stipulations specify the responsibilities of and punishments for the shepherds and mayors. Of these two officials, only the mayor is named in the contracts' lists of officials, while the identity of the shepherd is not given. One potential way to resolve this issue of the mysterious shepherd is to equate him with the herdsman.[85] However, as I have argued in the previous chapter (see Section 2.2), the documentation takes care to distinguish between the two professions; while the shepherds seem to have been involved in the day-to-day care of the animals, the herdsmen acted instead as administrative intermediaries whose responsibilities were physically removed from the care of the livestock.

Hence, it may be possible to conceive of these contracts as those drawn up between a mysterious client and various mayors, each in charge of a number of shepherds, with the *šandabakku* acting as an authorizing official and sealing on behalf of officials who may not have been physically present.[86] This explanation does not, however, explain the presence of the herdsmen and "Kassite" officials on the herding contracts, who, like the *šandabakku* do not seem to bear any explicit responsibilities or punishments in the stipulations, nor does it explain why all of the herding contracts dating to the reign of Šagarakti-Šuriaš are invariably sealed by Amīl-Marduk. If he is acting only to formalize contracts on behalf of others, then one might expect to come across at least a few herding contracts sealed by the named mayors.[87]

---

[84] Note the broken text MUN 316, whose reverse may contain a reference to the *šandabakku.*
[85] Brinkman 2004: 290 equates the herdsmen with the shepherds in these contracts.
[86] See Postgate 2013: 421 for a discussion of this practice in the Middle Assyrian corpus.
[87] One might notice that all the herding contracts discussed in Section 3.2.1.2 were sealed by Amīl-Marduk, Bēlānu, or Ninurta-apla-iddina, all attested as governors of Nippur. However, note that this argument admittedly assumes that the herding contracts sealed by the governors and the mayors would have been stored in the same location, which may not have been the case.

Another possibility is to equate Amīl-Marduk with the contractor. In this scenario, Amīl-Marduk is indeed being entrusted with the management of various herds and flocks. However, as he cannot manage them all by himself for obvious reasons, he delegates the tasks to his subordinates and passes on the responsibilities of management—and any connected consequences for mismanagement—to these individuals. This interpretation would better explain the presence of Amīl-Marduk's seal on every herding contract dating to his tenure as *šandabakku*, as well as the list of three officials on the contracts, which imply that these contracts were drawn up between a client and a larger institution, which may be identified as the institution of the *šandabakku* and/or the provincial administration overseen by him.[88]

Having identified the contractor, we must now identify the client. As has been already noted, the contracts themselves are not particularly forthcoming on this matter, as the only named parties are the herdsmen, the mayors, the "Kassites," and Amīl-Marduk. One approach that may help come up with a list of possible clients is to explore the prosopography of the named officials and to determine what parties these officials typically interacted with, especially when interacting with livestock or their secondary products. Unfortunately, most of the names of the herdsmen, mayors, and "Kassites" listed in these herding contracts are broken,[89] and even those individuals whose names are preserved cannot be securely matched with individuals of the same names in other texts. However, there are two exceptions, both of whom are found in the

[88] This may also explain the presence of the *šandabakku* in the contract stipulations of the otherwise unique MUN 316.
[89] Among the Group 1 tablets, names are visible (in various stages of preservation) in BE 14 137, CBS 11107, MUN 329, MUN 330, and UM 29-13-642.

Group 1 contracts: Rabâ-ša-Gula, the herdsman of BE 14 137, and Rabâ-ša-Nergal, the herdsman of MUN 330.[90]

Both herdsmen are attested in MRWH 27, a seven-column *aklu*-table.[91] This table is dated to the tenth year of Šagarakti-Šuriaš and records numbers of sheep and goats received by various locations as "*aklu* of the house of the god."[92] The first five columns contain counts of sheep and goats, presumably designated for each of the locations, which include the Ekur, Parak-māri, and Bīt-Bēri. The sixth column contains line totals, and the seventh column, the names of the individuals responsible for delivering the animals.[93] That these individuals are delivering animals and not receiving them can be ascertained from the entries in column vii. While some

---

[90] Apart from the attestations noted below, Rabâ-ša-Nergal also appears in MUN 274: obv. 10. In this text, he is linked to nine rams labeled as the *aklu* of the house of […] during Year 10 of Šagarakti-Šuriaš. Sassmannshausen's (2001: 356) readings of the column headers (˹ZI$_3$.DA˺ for col. i and GU$_2$.GAL for col. ii) are incorrect. These should be amended to UDU.NITA$_2$ and MAŠ$_2$.GAL (collated). Another individual in this list, Mannu-kī-[…], is further attributed with at least 15 rams labeled as a *ṣibtu*-tax (MUN 274: obv. 11). Though it is impossible to be certain, I wonder if this individual may be identified with the herdsman Mannu-kī-Adad of the Group 1 herding contract MUN 329, which labels a flock as the MAŠ$_2$ (*ṣibtu*-tax) of Year 8.

[91] On the *aklu*-expenditures, see Murai 2018, esp. pp. 254-256 for a summary of his findings. In short, *aklu* appears to be a general term encompassing various types of expenditures of edibles (e.g., grain, livestock, beer, etc.) for various purposes, including temple offerings, banquets, provisions, etc.

[92] See Petschow 1974: 69-71 for an edition and discussion. MRWH 27: ue. 1-3 summarizes the tablet as follows: $^{(1)}$*ak-lu* E$_2$.DINGIR TA ^{iti}NE.NE.GAR $^{(2)}$*ša* MU.9.KAM *ša-ga-ra-ak-ti-šur-ia-aš* $^{(3)}$EN ^{iti}APIN.DU$_8$.A *ša* MU.10.KAM, "The *aklu* of the temple (lit. "house of the god") from Month V of Year 9 of Šagarakti-Šuriaš until Month VIII of Year 10." Murai (2018: 230) compares this tablet with BE 14 133, which he posits is a document recording what are "probably sheep […] dedicated for the temples of Ekur, Parak-māri (as an offering), and Bīt-bēri (as an offering) as *aklu*."

[93] The obverse and reverse of this tablet are taken up by a table of seven columns, with the following headers: MRWH 27: obv. col. i-vii: $^{(i)}$UDU.NITA$_2$ E$_2$.KUR | $^{(ii)}$UDU.NITA$_2$ BAR$_2$.DUMU^{ki} | $^{(iii)}$MAŠ$_2$ KI.MIN | $^{(iv)}$UDU.NITA$_2$ E$_2$.DANNA^{ki} | $^{(v)}$MAŠ$_2$ KI.MIN | $^{(vi)}$PAP | $^{(vii)}$MU.BI.IM, "Rams of the Ekur | Rams of Parak-māri | Bucks of 'ditto' | Rams of Bīt-bēri | Bucks of 'ditto' | Total | Name." All columns except col. vii contain tallies, while the right-most column lists names of the individuals who presumably delivered these animals for the temples specified in the column headers.

entries simply list a personal name, others label deliveries as the "*ṣibtu*-tax of PN," sometimes with a year or toponym specified.[94] Still other entries contain longer comments detailing both the provenance of the sheep and goats and an individual unambiguously delivering said animals; for instance, MRWH 27: col. vii, rev. 22-24 reads as follows: "Rams of the Sealand, the son of Ilī-izzizza gave."[95] Rabâ-ša-Nergal and Rabâ-ša-Gula are both attested in this seventh column as names, though without a listed profession. Rabâ-ša-Nergal delivers 30 rams of the Ekur and 45 rams of Bīt-bēri,[96] while Rabâ-ša-Gula delivers 11 goats of Parak-māri.[97]

Rabâ-ša-Gula also appears in BE 14 132, a four-column table dating to the seventh year of Šagarakti-Šuriaš that tallies up the receipt of livestock arrears consisting of both sheep and goats of the god and cattle of the god.[98] The first column of the table unusually designates the totals for each line,[99] whereas the second and third columns provide further breakdowns of the line totals, with the second column tallying up those livestock "confirmed for collection" (*ša ana esēri kunnu*) and the third column the (dead) livestock that is "sent before the god" (*ša ana maḫri* DINGIR *šapru*).[100] The fourth column then lists the names of the individuals delivering the livestock, but unlike the previously discussed *aklu*-table MRWH 27, this time the column header

---

[94] MRWH 27: col. vii, obv. 15-19, rev. 21, 27-29.
[95] MRWH 27: col. vii, 22-24: $^{(22)}$UDU.NITA$_2$.MEŠ $^{(23)}$*ša* A.AB.BA $^{(24)}$DUMU ^{m}DINGIR-GUB^{za} *id-din*. See also the following lines MRWH 27: 25-26 for another example of the same construction.
[96] MRWH 27: col. vii, obv. 10.
[97] MRWH 27: col. vii, obv. 14.
[98] BE 14 132: col. iv, obv. 29 and rev. 54.
[99] Typically, line totals are tallied up in columns to the right, after the more specific breakdowns.
[100] BE 14 132: col. ii-iii, obv. 4-6. These headers are explained more fully in BE 14 132: ue. 1-3: $^{(1)}$[AB$_2$.GUD.ḪI].˹A *u$_3$*˺ U$_8$.UDU.ḪI.A *ša i-na* MU.6.KAM$_2$ *ša-ga-ra-ak-ti-šur-ia$_4$-aš* $^{(2)}$[^{m}…-^{d}]AMAR.UTU ^{lu2}SAG LUGAL *u$_2$-kin-nu-ma i-na* MU.7.KAM$_2$ *ša* KA *ki-ni* $^{(3)}$[*a-na e-se-r*]*i* SUM^{nu} *u$_3$* RI.RI.GA NA.GAD.MEŠ *a-na* IGI DINGIR *iš-pu-ru*, "Cattle and sheep, which in Year 6 of Šagarakti-Šuriaš […]-Marduk, the *rēš šarri* confirmed, and in Year 7, were given for collection (*according to) a reliable word*. Furthermore, the herdsmen sent the cadavers before the god."

specifies that the listed individuals are "herdsmen of the god" (^{lu2}NA.GAD.MEŠ *ša* DINGIR).[101] Rabâ-ša-Gula is listed in this fourth column on both the obverse and reverse; the obverse notes that he has delivered 13 cattle (seven "for collection" and six to the gods), while the reverse attributes to him the delivery of 34 sheep "for collection."[102] In addition to Rabâ-ša-Gula, at least one other herdsman in BE 14 132 may be cross-listed in MRWH 27:[103] Mungudu, who delivered 148 total sheep in BE 14 132 (nine "for collection" and 139 to the god) and six rams in MRWH 27 to Parak-māri.[104] Given these attestations, one could surmise that other individuals listed in MRWH 27 are likewise "herdsmen of the god," including Rabâ-ša-Nergal.

Assuming that Rabâ-ša-Gula and Rabâ-ša-Nergal are, then, herdsmen of the god, one can propose that the Group 1 herding contracts are contracts drawn up between a client temple, possibly represented by the herdsmen, and Amīl-Marduk, who is acting as contractor. In this scenario, the named herdsmen on the contracts therefore do not fall under the jurisdiction of the *šandabakku*; rather, they are temple employees whose main responsibility may be to deliver any promised livestock and their secondary products to the client temple(s). Attestations of herdsmen from throughout the Nippur livestock dossier reveal that a number of different institutions employed herdsmen, not simply the *šandabakku*.[105]

Such an interpretation explains a few puzzling aspects about the herding contracts. First of all, it resolves the problem of the missing client party, which in this case would be represented

---

[101] BE 14 132: col. iv. These are likely specified to be herdsmen of the god because other herdsmen mentioned in interlinear comments throughout the tablet are herdsmen belonging to other institutions (e.g., BE 14 132: obv. 15, 18, 20-21).
[102] BE 14 132: obv. 8 and rev. 45.
[103] Hölscher (1996: 29) also tentatively reconstructs Amīl-Sîn (MRWH 27: 12) in BE 14 132: col. iv, rev. 42: ^{m}LU$_2$-^{d}[*Sîn*?].
[104] BE 14 132: rev. 37 (reading ^{m}*mu-un-g*[*u-du*]) and MRWH 27: obv. 13.
[105] Sassmannshausen (2001: 112) lists the following connected institutions: temples, *entu*-priestesses, the king, the *šakin māti*, and a "House of Malāḫu."

by these temple herdsmen. It also helps explain the curious lack of responsibilities attached to the herdsmen in the contract stipulations. If we are to understand the herdsmen to be temple employees and accept that these contracts were kept by a client temple, it would make sense for their responsibilities to go unstated in the herding contracts, because the contracts are concerned not with internal affairs between a temple and its dependents, but with external arrangements between a temple and the institution of the *šandabakku*. The stipulations that are present therefore logically concern those individuals that fall under the domain of the *šandabakku*—that is to say, the mayors and the shepherds—because it would otherwise make little sense for him to seal these documents if the mayors and shepherds belonged to different administrative spheres.

CHAPTER 4:
LIVESTOCK ACCOUNT TABLES

4.1. Introduction

In this chapter, I treat a group of large livestock account tables, describing their formal characteristics and contents before establishing their link to the herding contracts discussed in the previous chapter. Although these two text types are dated to the reigns of different kings and arguably serve different purposes vis-à-vis the involved institutions, the significant overlap in both content and terminology suggests that these texts were nevertheless products of the same institutional project. By synthesizing these texts, we can better identify the motivations underlying the creation of the livestock account tables and shed additional light upon the identity of the client party in the herding contracts.

4.2. Livestock account tables

Museum No.	**Publication No.**	**MSKH No.**	**Date (RN M/(D)/Y)**	**Livestock**
CBS 3294	BE 14 99	L.2.13.114	KT -/-/13(+)	Cattle, sheep, goats
EAH 195	BE 14 99a	L.2.13.64	KT -/-/11, after Day 28, Month VIII[1]	Cattle, sheep, goats
CBS 3293	BE 14 168	-	<KT> -/-/12(+)	Cattle, donkeys
CBS 3446	BE 15 199	-	<KG II?> -/-/17(+)	Cattle
CBS 2129	-	-	<KT> -/-/11(+), after Day 5, Month IX[2]	Sheep, goats
CBS 7267	-	-	<KG II/NM?>	Cattle

Table 4.1: List of known livestock account tables.[3]

[1] BE 14 99a: 32 mentions expenditures having been taken out up to Day 28 of Month VIII.
[2] CBS 2129: obv. 10' and likely 12' mention expenditures having been taken out up to Day 5 of Month IX.
[3] I provide full editions of all tables excepting CBS 7267 in the Appendix. CBS 7267 is a fragment that preserves only a few lines from the right-hand side of a livestock account table,

The livestock account tables currently number six in total (Table 4.1). Only two tables, BE 14 99a and BE 14 99, preserve a complete royal name—that of Kadašman-Turgu—in addition to year formulae.[4] However, prosopographic overlaps would suggest that two of the four remaining tables, BE 14 168 and CBS 2129, are also dated to the reign of Kadašman-Turgu, clustering around Years 11 and 12.[5] Of the remaining tablets, BE 15 199: 36 preserves only a reference to Year 17, but Hölscher (1996) dates the table to the reign of Kurigalzu II, likely on account of attestations of individuals who seem to have been active between the reigns of Burna-buriaš II and Kadašman-Turgu.[6] The last tablet, CBS 7267, is a small and damaged fragment of the right edge of a larger table and preserves only a few readable names, which may hint at a dating to the reign of the kings Kurigalzu II or Nazi-maruttaš.[7]

---

identifiable by the column headers listing herdsmen and mayors, as well as traces of interlinear comments. As I have not had the opportunity to collate the tablet in person, I have had to rely on the photograph supplied by CDLI, from which I can only read a handful of names (see n. 7). I have therefore chosen at this time not to provide an edition of the text in the Appendix.

[4] Of these two, only BE 14 99a: 1 preserves a formal date for the creation of the tablet. BE 14 99: 40, 42, and 46 mention transactions that took place in Year 13, while the mention of Kadašman-Turgu in l. 16 and 51 allow us to date the tablet to the reign of that king with reasonable certainty.

[5] BE 14 168 lists individuals that also appear in BE 14 99a—e.g., the son of Dajjānī-Šamaš (BE 14 99a: 18; BE 14 168: 42); Gubbuḫu (BE 14 99a: 38, BE 14 168: 48); Kilamdu (BE 14 99a: 3 and *passim*; BE 14 168: 41)—or appear in other documents securely dated to the reign of Kadašman-Turgu—e.g., Ḫumban-napir, Ibnûtu, Igāršu-ēmid, Irēmšu-Ninurta, Ittīša-aḫbut, Jāmu, Jā'ūtu, Kudurrānu, Lultamrūtu, Napšira-Amurru, to name only a few. Similarly, CBS 2129, though highly broken, preserves attestations of two further individuals, Irēmšu-Ninurta and Tarību, here identified as the son of Sîn-iddina (CBS 2129: obv. 7'-8'), both of whom appear in BE 14 168. This suggests that CBS 2129 should also be dated to the reign of Kadašman-Turgu.

[6] Note, however, that BE 15 199: 9 contains a reference to Ninurta-mutēr-gimilli, a mayor who also appears in BE 14 99a: 7. If these two are the same individual, and BE 15 199 is indeed dated to the reign of Kurigalzu II, then Ninurta-mutēr-gimilli would apparently have had a 42 year tenure as mayor. This is not an impossible scenario but seems abnormally long, and so we may wish to consider re-dating this tablet to a later king.

[7] The names mentioned include Sîn-rā'im-zēri (herdsman, obv. 2), two individuals named Ilī-iddina (a herdsman in obv. 3 and a mayor in rev. 6'); Apil-Sîn (mayor, obv. 3), Qīšat-Marduk (mayor, obv. 4), Ṣabru (obv. 8), Ina-Ekur-rabi (obv. 10 and rev. 5'), Tarībat-Sîn (mayor, rev. 1'), Aḫū'atu (mayor, rev. 3'), and Imbabbu (mayor, rev. 7'). Unfortunately, it is very difficult to

These tables are distinct in appearance and content. In terms of format and layout, all of the tables discussed herein are comprised of several rows and columns extending throughout the obverse and reverse of the tablets. Using the terminology developed by Robson (2004: 116) to describe tabular accounts, one can say that these tables are organized along two axes, a horizontal axis whose primary purpose is to display and sort quantitative data, and a vertical axis that communicates qualitative information, functioning mostly to attribute and group the quantities given in each row to particular entities. The tables discussed in this chapter likewise make use of both vertical and horizontal axes of calculations—by which I mean, arithmetic is carried out along both columns and rows—and feature multiple levels of calculations on both axes, with subtotals and grand totals appearing as a matter of course. To illustrate, see the visual schematic illustrating the organization of the table BE 14 99a (Fig. 4.1).

confidently match up these individuals with others in the documentation, and so my suggested dating is made only with reservation.

2	**B**	**C**	**H_2**	**H_1**	**fc**	**mc**	**TOTAL**	**GHEE**	**HERDSMEN**	**MAYOR**	**"KASSITES"**
3		10	2	3	2	2	19	10 silas	Sîn-uballiṭ	Erība-Ninurta	Kilamdu
4		8	2	1	2	2	15	10 silas	Šamaš-nūra-kullimanni	Usāt-Marduk	Kilamdu
5		18	4	4	4	4	34	20 silas	Sphere of responsibility of Ilī-aḫa-iddina		
6		131	34, incl. 1 *šulmānu*-gift	20	28	20	233	120 silas	Ninurta-āpil-idīja	Nusku-dābibī	Kilamdu
7		11		1	3	2	17	12½ silas	Šamaš-līssu	Ninurta-mutīr-gimilli	Kilamdu
8		142	34	21	31	22	250	132½ silas	Sphere of responsibility of Šamaš-nādin-aḫḫē		
9	4 two-year old males; 14 one-year old males, Gate of Counting, Year 11; 2 cows						20		Uznānu	Amurru-mūtaplī	
10-11	Incl. 3 that passed, incl. 1 claim, incl. 14 two-year old males, Gate of Counting, Year 11; incl. 2 cows—after 5 *ṣītu*-expenditures, as much as he took, were deducted										
12	10 five-year old males						10		For the delivery of the raw materials of the brewers and millers. Hand of Šamaš-nādin-aḫḫē		
13	14 five-year old males						14		For the delivery of the materials of the brewers and millers. Hand of Ilī-aḫa-iddina		
14							328	152½ silas	EREŠ.DINGIR.GAL		
15	1	25	6	10	6	3	51	22½ silas	Apil-Šamaš	Enlil-bēl-nišīšu	Kilamdu
16		36	8	14	10	7	75	42½ silas	Rabâ-ša-ili	Enlil-bēl-nišīšu	Kilamdu
17	1	61	14	24	16	10	126	65 silas	Sphere of responsibility of Enlil-bēl-nišīšu		
18	15 five-year old males; 4 four-year old males; 20 three-year old males; 9 two year-old males; 23 one-year old ma; 12 cows						83		*Bīru*-cattle, stable. Son of Dajjānī-Šamaš. Hand of Enlil-bēl-nišīšu		
19-20	Incl. 55 that passed; incl. 11 cows; incl. 14 one-year old males, Gate of Counting, Year 11; incl. two three-year-old males; and 1 cow that was claimed in Kār-bēl-mātāti—after 16 hides of dead animals, as much as he took, were deducted										
21	12 plow-oxen, incl. 4 that Enlil-mukīn-apli in Year 10 of Kadašman-Turgu						12		gave to Nūr-Šamaš, the *iššakku*-farmer. Hand of Enlil-bēl-nišīšu		
22							221		EREŠ.DINGIR.TUR		

Fig. 4.1a: A simplified schematic of the obverse of BE 14 99a, illustrating the table's organization. Row subtotals are indicated in light grey and grand totals in dark grey. Interlinear comments are preserved as completely as possible. Abbreviations: ***B*** *= bull (UTUA),* ***C*** *= fully-grown cow (AB_2.GAL),* ***H_2*** *= two-year old heifers (AB_2 MU.3),* ***H_1*** *= one-year old heifers (AB_2 MU.2),* ***fc*** *= heifer (i.e., female) calves,* ***mc*** *= bull (i.e., male) calves.*

23	**SHEEP (cols. i-iv)**	**Total**	**GOATS (cols. vi-ix)**	**Total**	**TOTAL**	**WOOL & GOAT HAIR (cols. xii-xiii)**	**HERDSMEN**	**MAYORS**	**"KASSITES"**
24	(TA) …	291	…	41	332	…	Son of Šēlebu	Ēmidu	Bānû
25	(TA) …	73	(TA) …	71	144	…	Zākiru, son of Erību	Erība-Ninurta	Bānû
26	(TA) …	113	(TA) …	83	196	…	Ibbaššâ-ša-ili	Usāt-Marduk	Bānû
27						…	Sphere of responsibility of Ilī-aḫa-iddina		
28	(TA) …	107	…	34	141	…	Son of Ṣupur-Adad	Nusku-dābibī	[(…)]
29	(TA) …	125	(TA) …	120	245	…	Erība-Nergal	Nusku-dābibī	[(…)]
30						…	Sphere of responsibility of Šamaš-nādin-aḫḫē		
31	28 *ṣabittu*-animals of Year 11—	28	27, incl. 11 that passed, incl. 16	27	55	…	Qīšat-Nergal	Amurru-mūtaplī	Ditto
32	after 68 *aklu* and *ṣītu*-expenditures, up to Day 28 of Month VIII, were deducted.		*ṣabittu*-animals of Year 11—after 6 *aklu* and *ṣītu*-expenditures, and three hides, as much as he took, were deducted.						
33	202 of the pastures of Year 10 and 11	202			202	…	Hand of Šamaš-nādin-aḫḫē and Ilī-aḫa-iddina		
34-35		939		376	1315	…	EREŠ.DINGIR.GAL		
36	(TA) …	95	…	171	266	…	Ugē'a	Kidinnû	Aḫa-iddin(a)-[GN]
37	…	30	…	25	55	…	Uzi-Marduk	Adad-bānî	Aḫa-iddin(a)-[GN]
38	(TA) …	99	…	38	137	…	Gubbuḫu	Adad-bānî	Aḫa-iddin(a)-[GN]
39	…	110	(TA) …	118	228	…	Šamaš-nāṣir in place of the son of Adad-šarru	EN-[…]	[(…)]
40	…	49	…	21	70	…	Mannu-ukâl-idassu	Aḫūnē'a	[(…)]
41	…	20	(TA) …	149	169	…	Šamaš-iqīša in place of Sîn-muštēšir	Enlil-[…]	[(…)]
42						…	Sphere of responsibility of Enlil-bēl-nišīšu		

Fig. 4.1b: A simplified schematic of the reverse of BE 14 99a, illustrating the table's organization. Row subtotals are indicated in light grey and grand totals in dark grey. Cols. i-iv (headers: rams, ewes, ram lambs, ewe lambs), vi-ix (headers: bucks, does, buck kids, doe kids), and xii-xiii (headers: wool, goat hair) have been compressed in the interest of space. Ellipses are used to indicate quantitative entries that I have omitted—again, to preserve space. On the cells marked (TA), see Section 4.2.1.1 below.

43	112, incl.	112	200, incl.	200	312	…	*Ludû*(?)-field, Gubbuḫu. Hand of Enlil-bēl-nišīšu		
44-45	92 that passed, incl. 20 *ṣabittu*-animals of Year 11—after 16 funerary offerings and 14 hides, as much as he took, were deducted.		180[!] that passed, incl. 20 *ṣabittu*-animals of Year 11—and 37 hides, as much as he took, were deducted						
46		515		722	1237	…	EREŠ.DINGIR.TUR		

Fig. 4.1b (cont.): A simplified schematic of the reverse of BE 14 99a, illustrating the table's organization.

As can be seen in this schematic, the horizontal axis on the obverse is mainly used to indicate cattle age-sex categories and the relevant secondary product (ghee, calculated at 2½ silas per listed calf), with the column headers detailing how to interpret the contents of the following cells. The reverse of the tablet is reminiscent of the obverse, with adjustments made to account for the different animal species. The cattle age-sex categories are replaced by the expected ovicaprid categories of rams, ewes, ram lambs, ewe lambs, followed by row subtotals of sheep, and then bucks, does, buck kids, doe kids, row subtotals of goats, and finally grand row totals of both sheep and goats. The secondary product column on the reverse is also understandably split into two and replaced by wool and goat hair, calculated at ½ mina of wool per sheep and ¼ mina of goat hair per goat.

The vertical axis is, meanwhile, concerned with grouping and assigning rows to entities named in the last three columns of the table. The column headers provide a default identification of the listed entities as the herdsmen, mayors, and "Kassite" officials, all of whom also appear in the herding contracts. It is not untypical, however, for entries in these columns to forego this list of three officials and to include interlinear comments instead (on which, see Section 4.2.1 below). These comments serve to identify other associated administrative entities, both people and places. For BE 14 99a, these include, amongst others, connected individuals (often, but not always, in the construction *qāt* PN, "hand of PN"), institutions (e.g., EREŠ.DINGIR.GAL or EREŠ.DINGIR.TUR), and/or spheres of responsibility (*pīḫat* PN, "PN's sphere of responsibility").[8]

These other entities can be used to group together multiple rows and their totals on the vertical axis to form smaller subsections, column subtotals, and column grand totals. This tendency

[8] See n. 19-24 for examples.

is especially evident in BE 14 99a, which, after splitting the animals by species, is divided into four large sections, each comprised of two to three further subsections:

(1) Obverse (cattle):

a. Cattle of the EREŠ.DINGIR.GAL and their byproducts (l. 2-13)

i.) Herds assigned to Ilī-aḫa-iddina's sphere of responsibility (l. 2-4)

ii.) Herds assigned to Šamaš-nādin-aḫḫē's sphere of responsibility (l. 5-7)

iii.) Miscellaneous cattle (l. 8-12)

b. Cattle of the EREŠ.DINGIR.TUR and their byproducts (l. 14-21)

i.) Herds assigned to Enlil-bēl-nišēšu's sphere of responsibility (l. 14-16)

ii.) Miscellaneous cattle (l. 17-20)

(2) Reverse (sheep and goats):

a. Sheep and goats of the EREŠ.DINGIR.GAL and their byproducts (l. 23-34)

i.) Flocks assigned to Ilī-aḫa-iddina's sphere of responsibility (l. 23-26)

ii.) Flocks assigned to Šamaš-nādin-aḫḫē's sphere of responsibility (l. 27-29)

iii.) Miscellaneous sheep and goats (l. 30-32)

b. Sheep and goats of the EREŠ.DINGIR.TUR and their byproducts (l. 35-45)

i.) Flocks assigned to Enlil-bēl-nišēšu's sphere of responsibility (l. 35-41)

ii.) Miscellaneous sheep and goats (l. 42-44)

It should be noted that BE 14 99a is a particularly well-structured example of these tables. However, the remaining tables, when sufficiently preserved,[9] nevertheless show similar

[9] Some tablets, such as CBS 2129 and CBS 7267, are too fragmentary to allow us to hazard a guess at the greater organizational structure of the table.

organizational principles along the horizontal and vertical axes, though the exact grouping of the rows into subsections is sometimes ambiguous on account of blank subtotal cells. The more egregious differences present in the other tables include: (a) the omission of the "Kassite" column in some tables (BE 15 199 and CBS 7267),[10] (b) the omission of a secondary products column (BE 15 199); (c) the absence or use of different secondary product quotas than those found in BE 14 99a and BE 14 168 (BE 14 99 and BE 15 199); and (d) the different placement of the interlinear comments relative to the overarching structure of each table. I will discuss this final point concerning the interlinear comments in more detail in the following section, but for now, and for the sake of comparison, I include below some schematics of BE 14 99, BE 14 168, and BE 15 199 (see Figs. 4.3-4.5) to illustrate some of the differences.[11]

[10] Both a section of the right edge and the last several column headers of BE 14 99 are broken off, so it is impossible to say whether or not any columns naming officials are actually present. Similarly, CBS 2129 is the left-corner fragment of a larger table, so the right-hand columns are not physically preserved.

[11] CBS 2129 and CBS 7267 are too fragmentary to provide useful schematics. See the Appendix for editions of these tables.

1	**CATTLE (AGE/SEX)**	**TOTAL**	**GHEE**	**HERDSMEN**	**MAYORS**	**“KASSITES”**
2	…	195	60 silas	[…]	[…]	[…]
3	…	287	190 silas	Lultamar-[…]	[…]	[…]
4	…	33	20 silas	Apil-Nergal	[…]	[…]
5	…	13	7.5 silas	Izkur-Šamaš, son of Appāju	[…]	[…]
6	…	3	2.5 silas	Amurru-aḫa-iddina, son of Kurû	[…]	[…]
7	…	24	15 silas	Amurru-nādin-aḫḫē, in place of Mušte[…]	[…]	[…]
8	…	27	15 silas	Rabâ-ša-Nergal	[…]	[…]
9	…	4	2.5 silas	Ittiša-aḫbut, in place of Kudurrānu	[…]	[…]
10	…	13	7.5 silas	Šūzubu	Ūṣân[…] / Ūṣi-an[…]	[…]
11	…	17	10 silas	Līširanni-Šamaš	Iqīš[…]	[…]
12	…	15	10 silas	Napšira-Amurru	Son of Erība-[…]	[…]
13	…	11	7.5 silas	Nusku-Dajjān	Iqīš[…]	[…]
14	…	24	15 silas	Jā'ūtu	Ubāru	[…]
15	…	15	7.5 silas	Amurru-šuma-līšir	Ubāru	Ḫunanu
16	… (EN) …	49	25 silas	Ṣabru, *šulmānu*-gifts from Year 6 until Year 9		
17-18	…	24	10 silas	Ibnûtu. Claims which many made, and the cattle of Ina-Ekur-balāṭu. The tablet of entries was collected in a clay basket.		
19	…	33	20 silas	Claims of the Sea-Land, Amurru-ibni		
20	[TOTAL]	787	425 silas	Cattle		
21	**CATTLE (AGE/SEX)**	**TOTAL**		**HERDSMEN**		
22	…	60		Stable, Ṣabru.		
23	Incl. 6 that passed, incl. 51 of the Gate of Counting, Year 11, incl. 3 claims of the son of Ina-Ekur-Balāṭu of the Sealand, which together with the cows were taken from the town Suri. Cows for Ibnûtu, for the districts … tablet of entries […]					
24	[…] 7 fully-grown cows, 1 heifer calf, and 1 bull calf, which were added to the front of the districts of the young cattle …, in the account tablet of Year 11, on top of the *calves* of the *šulmānu*-gift—after 100 *bīru*-cattle, including 30 of the Sea-Land, which [PN?…] in […]					
25	In the *p.*-ritual for the king, they were given—after 3 young cattle were added on top of the *contracted amount*, after 1 *aklu*-expenditure and 8 hides, as much as he took, were deducted.					

Figure 4.2: A simplified schematic of BE 14 168, illustrating the table’s organization. Row totals are indicated in grey. Ellipses are used to indicate content omitted to preserve space. The left-hand columns indicating animal age-sex categories have also been compressed to preserve space. For cattle, the categories are bulls, fully-grown cows, two-year old heifers, one-year old heifers, heifer calves, and bull calves for l. 1-20 and 26-52, then five-year old males, four-year old males, three-year old males, two-year old males, one-year old males, and cows for l. 21-22. For donkeys (l. 53-62), the categories are fully-grown jennies (female donkeys), two-year old jennies, one-year old jennies, female foals (wr. ^{munus}ANŠE MU.1), five-year old jacks (male donkeys), four-year old jacks, three-year old jacks, two-year old jacks, one-year old jacks, and male foals (wr. ANŠE MU.1).

26	…	7	5 silas	Pure cow(s). Nergal-aḫa-iddina, in place of the son of Zākiru	Lultamar-Nergal	Šumma-[…]
27	TOTAL			Sphere of responsibility of the mayors		
28	…	97	60 silas	Jāmu	Ḫumban-napir, hand of Lultamrūtu	GAL-[…]
29	…	45	17.5 silas	Nergal-abī, in place of Rīš-Apsû	Ḫumban-napir, hand of Lultamrūtu	Šagarakte
30	…	21	12.5 silas	Šūzub-Marduk, in place of Ninurta-aḫa-iddina	Ḫumban-napir, hand of Lultamrūtu	Šagarakte
31	…	42	15 silas	Amurru-nādin-šumi, in place of Bitija?	Ḫumban-napir, hand of Lultamrūtu	Bitātu?
32	…	60	25 silas	Nusku-īpiranni	Ḫumban-napir, hand of Lultamrūtu	Bitātu?
33	…	265	130 silas	Cattle		
34	1 two-year old male, a replacement, plow-ox of Ninurta-bāni […] which were written in the account tablet of Year 10. 1 one-year old cow of Tarību, ditto, which in the tablet ditto. Hand of Ḫumban-napir. In the "Gate of Counting of Year 12."					
35	3 fully-grown cows, which were written in the account tablet of Year 10, name of Qunnunu, were entrusted to Nusku-zākir-šumi. In Year 11, they did not pass. For collection, Jāmu, hand of Lultamrūtu, will take (them).					

Rev.

36	4 two-year old males, 13 one-year old males, 3? cows,	19		*bīru*-cattle, Išassi-pilḫāšu		
37	Incl. 10 that passed, incl. 3 cows, incl. 7 one-year old males, "Gate of Counting, Year 11"—after Irēmšu-Ninurta distributed 11 to the *šutāpu*-workers in Year 11, (and) 4 hides, as much as he took, were deducted.					
38	20 plow-oxen of the *ḫarbu*-plows of the *iššakku*-farmers	20		Hand of Irēmšu-Ninurta		
39	6 ditto of the *šutāpu*-workers	6		Hand of Irēmšu-Ninurta		
40	19 *bīru*-cattle in Year 11, incl. 13 from the hand of Bunna-Gula and 6 from the hand of Rabâ-ša-Nergal Irēmšu-Ninurta received and distributed to the *šutāpu*-workers.	19		Hand of Irēmšu-Ninurta		
41				Of the house of Ninurta-apla-iddina		

Figure 4.2 (cont.): A simplified schematic of BE 14 168, illustrating the table's organization.

42	…	43	25 silas	Nusku-mušallim	Nusku-aḫa-iddina, hand of Lultamrūtu	Kilamdu
43	…	16	10 silas	Son of Dajjānī-Šamaš	Nusku-aḫa-iddina	Kurušni
44	… (incl. 4 collections)	13	5 silas	Son of Lā-nibāš-ilu	Nusku-aḫa-iddina	Kurušni
45				Including 4 collections, which were written in the account tablet of Year 10? (under the) name of Nusku-aḫa-iddina. After 3 one-year old males of the […]		
46	6 one-year old males, 3 cows	9		*Bīru*-cattle. Ṣabru, in place of Nusku-mušallim, hand of Bunna-Gula		
47	Incl. 4 that passed, incl. 3 cows, incl. 2 of the "Gate of Counting, Year 11," after Irēmšu-Ninurta distributed 13 to the *šutāpu*-workers, and x hides, as much as he took, were deducted.					
48	TOTAL	81		Sphere of responsibility of Bunna-Gula		
49		34	20 silas	Gubbuḫu?	Rabâ-ša-Nergal	Rigim-[…]
50	[3] three-year old [males], 3 two-year old males, 1 one-year old male, 1 cow	8		[…], Gubbuḫu?	Rabâ-ša-Nergal	
51	[Incl. 6] that *passed*, incl. (1) cow, incl. (1) one-year old male of the "Gate of Counting, Year 11"—after Irēmšu-Ninurta distributed 6 to the *iššakku*-farmers in Year 10.					
52	TOTAL	42	20 silas	Sphere of responsibility of Rabâ-ša-Nergal		
53-54	**DONKEYS (AGE/SEX)**	**TOTAL**		**HERDSMAN**	**MAYOR**	**"KASSITE"**
55	…	96		Gula-ēriš	Igāršu-ēmid	Kuppû
56	[…] which was claimed in Year 1. The tablet of entries was collected in a clay basket. After 2 were given to Etel-pî-Sîn […]					
57	…	32		Hand of Ūṣânnûtu		
58	…	8		Hand of Širišti-Šuqamuna, Nergal-dipār-ilāni and […]		
59	… […] they were entrusted to the workers.	15		The itemized tablet was collected in the "House of sacks of the road."		
60				Of the house of Bēlānu		
61		49		Jā'ūtu		
62				Of the house of Ninurta-apla-iddina?		

Figure 4.2 (cont.): A simplified schematic of BE 14 168, illustrating the table's organization.

2	**CATTLE (AGE/SEX)**		**[TOTAL**	**GHEE …]**
3	…		…	[(…)]
4	…		…	
5	…		…	…
6			It/he did not pass.	
7			It/he did not pass.	
8	…		…	…
9	…		…	…
10	…		…	
11			It/he did not pass.	
12	…		…	
13	…		…	
14	…		…	…
15	…		…	
16	In Year 11 of Kad.-Tur., including his cattle, he is inspecting in Nippur.			
17	…		…	…
18	…		…	…
19	…		…	
20			It/he did not pass.	
21	TOTAL …		…	[(…)]
22	…		…	[(…)]
23	Incl. 3 fully-grown cows and 1 two-year old heifer of Ilīma-aḫi, incl. 1 fully-grown cow and 1 heifer calf of …			
24	…		…	[(…)]
25			It/he did not pass.	
26			It/he did not pass.	
27			It/he did not pass.	
28	6 fully-grown cows		6 cattle in lieu of […]	
29	…		…	[…]
30	…		…	[(…)]
31	Gimillu collected. The tablet of entries was collected in a clay basket.			
32	TOTAL		…	
33	**CATTLE (AGE/SEX)**		**[TOTAL**	**GHEE …]**
34	…		…	[(…)]

35-37	Incl. 19 that passed, incl. 4 cows, incl. 88 two-year old males, and one-year old males […] were added, and the account was made—after 4 were taken to Nippur, and Irēmšu-Ninurta received (them), after 4? […] And 50 hides, as much as he took, were deducted.			
38	…		…	[(…)]
39-40	Incl. 18 that passed, incl. 4 cows—after 40 *bīru*-cattle of the hand of Dilbat-līssu in Year 12 […] were taken, and Irēmšu-Ninurta received (them)—after 21 went missing and they collected (them) in Year 13, and to […]			
41	…		…	[(…)]
42	Incl. 24 that passed, incl. 8 cows—after 11 went missing in Year 13, and they collected them, and to the *districts* […]			
43	42 *bīru*-cattle, which were received from the hand of Dilbat-līssu in Year 12, and to Nippur […]			[(…)]
44	42 plow-oxen of the 6 *ḫarbu*-plows of town Tukulti-bēli			[(…)]
45	48 plow-oxen of the 9 *ḫarbu*-plows of the *iššakku*-farmers of the *new* regions of Kār-Nippur and […]			[(…)]
46	43 plow-oxen of the 7 *ḫarbu*-plows—after Gimillu received 5 in Year 13.			[(…)]

Figure 4.3: A simplified schematic of BE 14 99, illustrating the table's organization. Row totals are indicated in grey, with ellipses used to indicate numbers I have omitted to preserve space. The left-hand columns indicating animal age-sex categories have also been compressed to preserve space. For cattle, the categories are bulls, fully-grown cows, two-year old heifers, one-year old heifers, heifer calves, and bull calves for l. 2-32, and then three-year old males, two-year old males, one-year old males, and fully-grown cows for l. 33-49. For sheep (l. 50-67), the categories are rams, ewes, ram lambs, and female lambs.

47	6 plow-oxen for … hand of Gimillu, including 1 which Subarû from the hand of […]			[(…)]
48	and 1 one-year old cow … whose ear brand is (shaped like) a double-headed axe, from the hand of Sîn-aḫa-iddina […]			[(…)]
49	4 *bīru*-cattle, the remainder of the contracted amount. Hand of Ninurta-zākir-šumi. On Day 5 of Month XII […]			[(…)]
50	**SHEEP (AGE/SEX)**		**TOTAL**	**WOOL**
51	After Year 4 of Kad.-Tur.		It/he did not pass.	
52	After Year 4 of Kad.-Tur.		It/he did not pass.	
53	After Year 4 of Kad.-Tur.		It/he did not pass.	
54	After Year 4 of Kad.-Tur.		It/he did not pass.	
55	TOTAL		…	
56	…		…	…

57	…		…	…
58			It/he did not pass.	
59			It/he did not pass.	
60	…		…	…
61			It/he did not pass.	
62	…		…	…
63	…		…	…
64	…		…	
65	[…] flocks of the pasture of the town Tukultī-bēlī and the town […]			
67	[…] … 3 tablets of entries in the clay baskets […]		…	[(…)]
67	[TOTAL]		…	[…]

Figure 4.3 (cont.): A simplified schematic of BE 14 99, illustrating the table's organization.

1	**CATTLE (AGE/SEX)**	**TOTAL**	**HERDSMAN**	**MAYOR**
2	… (TA)	…	Son of Da’u	Tukultī-lū-dari, incl. 3 of the son of Arad-Ba’u
3	… (TA)	…	Son of Damqu	Marduk-nāṣir
4	… (TA)	…	Son of Ammar-Šamaš	Šumu-libši, incl. 1 of the son of Arad-Ba’u
5	… (TA)	…	Son of Adad-šamḫi-ilāni	Son of Sîn-nādin-apli
6	… (TA)	…	Pandija	Marduk-nāṣir
7	… (TA)	…	Šamaš-rēmanni	Ninurta-qarrād
8	… (TA)	…	Son of Aḫūni	Ibni-Šamaš
9	… (TA)	…	Son of Šubburu	Ninurta-mutēr-gimilli
10	… (TA)	…	Ēgu-ana-ili	
11	… (TA)	…	Aḫū’a-bani	
12	… (TA)	…	Erība-ilī	Tamdi-Saḫ
13	… (TA)	…	Akbaru	Enlil-ṭūru
14	Total …	…		
15	… (TA)	…	Son of Nūr-Amurru	[…]
16	… (EN)	…	Bēl-aḫḫēšu	Bur[…]
17	… (EN)	…	Son of Ea(?)-idī	Son of […]
18	…	…	Son of Ilū’a	[…]
19	…	…	[…]	[…]
20	…	…	[…]	[…]
21	… *šulmānu*	…	[…]	[…]
22	… *šulmānu*	…	[…]	[…]
23	*bīru*-cattle, the stable			
24	360	Ibašši-ilu		
25	359	Laḫḫabu		

Figure 4.4: A simplified schematic of BE 15 199, illustrating the table’s organization. Row subtotals are indicated in light grey, and grand totals in dark grey, with ellipses used to indicate numbers that I have omitted to preserve space. The left-hand columns indicating animal age-sex categories have also been compressed to preserve space. The categories are bulls, fully-grown cows, two-year old heifers, two-year old males, one-year old heifers, one-year old males, heifer calves, and bull calves for the obverse.

26-32	719	*Bīru*-cattle, the stable. Incl. 2 that the son of Eḫli claimed, incl. 140+˹x˺ of the Gate of Counting, incl. 185 of the Sealand, incl. […] from the Sealand and Dūr-Kurigalzu, he took and gave … incl. 21 that Amīl-Marduk received and […] Marduk-nāṣir will collect it—after 60 that the son of Lakit-zēla received and distributed to the merchants, after 31+˹x˺ […], after 30 that were given for the price of slaves, after 69 which were given for the new *ḫarbu*-plows of the *iššakku*-farmers, after 4 that for one […] after 13, slaughtered for the going up and coming down of the king, *after* 1 that was slaughtered for the rites of Ištar, and 29 hides were deducted. Hand of Marduk-nāṣir. 2 arrears, hides of the herdsmen—after 5, which were given in Year 14, were deducted. 1 *piqdu*, Tarībat-ili. 1 *piqdu*, Ḫuzālu—after 3, which *were collected* in Year 13, were deducted. Total: 4 for collection. Hand of […]
33-35	26	*Bīru*-cattle, which they took from the Sealand in Year 7. Hand of Marduk-nāṣir. The tablet of entries is received. He will collect it and to […] After 19 of Amīl-Marduk were added to the town Arad-bēlti, [after] 8 of Ninurta-muballiṭ in the writing board […], after 12 of Iddin-Nergal were added to its top, after 160 *gur* of barley for 20 *bīru*-cattle—per one male, 8 *gur* of barley—of Ibni-Amurru was given […]
36-37	25	*Bīru*-cattle of Dūr-Kurigalzu, which were given in Year 17 for seeding fields. After 24, which for seeding that of the town Arad-bēlti […] (which) in the tablet of the town Arad-bēlti were written, were deducted. Hand of Amīl-Marduk. The tablet of entries was received. He will collect it, and he will give it to Marduk-nāṣir.
38-39	30	*Bīru*-cattle, which they took from the Sealand. For the son of Kilamdašu, they were put under seal. They were given for seeding fields. The tablet of entries [… was received]. He will collect it, and he will give it to Marduk-nāṣir. 1 male, the son of Adad-šāgim, *as his replacement*, he will give. To Ninurta-iddina […]
40-41		*Bīru*-cattle, which they took from the Sealand in Year 15. After 536 *gur* of barley for 67 *bīru*-cattle—per one male, 8 *gur* of barley—of LAL_3-Ekur, they collected […] of Year 10, they added to Marduk-līssu, and 32 *bīru*-cattle that were given as gifts were deducted.
42-43	Old males, which were received from the *iššakku*-farmers, and entrusted for checking. 2, Marduk-nāṣir. 2, Ninurta-muballiṭ. 1 Amīl-Marduk. 1, Ḫanbu. 1, Šumu-libši. Total: 7 old males, entrusted for checking. … […]	
44-45	15	*Bīru*-cattle, which were received from the *iššakku*-farmers and mayors in Year 5 for seeding fields. The tablet of their entries, Aḫa-iddina-Marduk received. He will collect it, and he will give it.

Figure 4.4 (cont.): A simplified schematic of BE 15 199, illustrating the table's organization.

4.2.1. Interlinear comments

As I mentioned previously, these tables make frequent use of what Robson (2004: 116) describes as explanatory interpolations or interlinear notes/comments. I define these interlinear comments as all those lines that include information that otherwise falls outside the typical categories delineated by the column headers (i.e., the specified age-sex categories, secondary products, and the names of herdsmen, mayors, and (optional) "Kassite" officials). These comments may be extremely concise—e.g., short administrative notes contained within a single cell—or they may be lengthy, spilling into consecutive cells and extending through several rows.

The placement of these comments on the tables varies depending on each individual tablet's organizational principle, as can be seen in the preceding schematics. In general, however, there is a tendency for rows that contain dense interlinear comments to be set apart from typical entries and/or to cluster at the end of sections. For instance, BE 14 99 groups together simple numerical tabulations of cattle herds (most lacking interlinear notes),[12] and isolates them from tabulations that are attached to lengthy, dense interlinear comments that span multiple rows.[13] A similar practice of sectioning off the interlinear comments can be found in BE 15 199, whose obverse contains the typical numerical tabulations with few explanatory interpolations,[14] but whose reverse provides extremely detailed commentary on entries.[15] BE 14 168 admittedly exhibits less consistent patterns; on the obverse, the tablet shows a tendency to place these denser interlinear comments before rows containing grand total, but it should be noted that this principle is not always followed on the tablet's reverse.

[12] BE 14 99: obv. 2-32.
[13] See BE 14 99: rev. 33-49.
[14] BE 15 199: obv. 1-22.
[15] BE 15 199: rev. 23-45.

The motivation behind this may be partially rooted in practicality. After all, a table is simply easier to read if most of the denser, more complicated entries are grouped together and moved to the end of a section. Doing so reduces the "white noise" that might otherwise be produced by inserting too many explanatory interpolations into the middle of a table. However, such a structure may also be the byproduct of administrative, rather than strictly scribal, practices as well. Of particular interest is the organization of BE 14 99a. Intriguingly, the scribes of this table consistently pull rows with dense interlinear comments out of the *pīḫatu*-subsections and down into the rows immediately preceding the grand totals (corresponding to what I have labeled as subsections 1c, 2b, 3c, and 4b in my breakdown above, which deal with "miscellaneous herds and flocks" that are excluded from the *pīḫatu*'s). The administrative implications of this practice are unfortunately unclear given the general lack of additional attestations.[16]

Speaking now of the contents of these comments, one can observe that they are broadly concerned with three topics:

(1) Categorization of livestock: Some identify animals in terms that fall outside the age-sex categories specified in the column headers. This happens most often with cattle due to the fact that their age-sex categories are more specific and because these categories keep track of ages in years, while sheep and goat categories are rather general. Therefore, it is common for certain cattle categories to not show up in the column headers, thereby necessitating the use of interlinear comments in some rows for accurate bookkeeping. For example:

Text 4.1.) BE 14 99a: obv. 1, 8, 11-12 (cols. i-vi)

1	[UTUA	AB_2.GAL]	AB_2 MU.3	AB_2 MU.2	AB_2.GA	AMAR.GA
…						

[16] See Section 4.4.3 for further discussion.

8	4 GUD MU.3	14 GUD MU.2 KA_2 *mi-ni*		2 AB_2	
…					
11	10 GUD MU.6				
12	14 GUD MU.6				

Translation

1	**[Bull**	**Mature cow]**	**Two-year old heifer**	**One-year old heifer**	**Heifer calf**	**Bull calf**
…						
8	4 two-year old males		14 one-year old males, Gate of Counting		2 cows	
…						
11	10 five-year old males					
12	14 five-year old males					

Here, the column header only features two categories for male cattle, the bull and the bull calf. In order to record information about other male cattle, the age-sex information for herds containing other male cattle need to be inserted into the relevant cells. Other examples of this phenomenon can be found in BE 14 99a: 17 and 20; and BE 14 168: 35, 37, 38, 39, and *passim.* Further designations that show up frequently include the logograms $^{gud}NINDA_2$, which is used to refer to herds composed of cattle between one- and four-years old,[17] and $^{gud}ŠA_3$.GUD, "plow-oxen."[18]

(2) Identification of connected administrative entities: I mentioned some of these entities already in the previous section, as they are frequently used to group together rows on the vertical axis. These are often responsible individuals connected to the management of the livestock; they can be named as usual,[19] named in the construction *qāt* PN,[20] or mentioned in longer clauses that detail their connection to the animals or other

[17] E.g., BE 14 99a: 18.
[18] E.g., BE 14 99a: 21.
[19] E.g., BE 14 168: 16, 17, 19, and *passim.*
[20] Always written ŠU PN—e.g., BE 14 99a: 12, 13, 18, 21, and *passim*; and BE 14 168: 38-40, 46, and 57-58.

individuals listed in a row.[21] Other entities include larger institutions, such as the EREŠ.DINGIR.GAL or EREŠ.DINGIR.TUR,[22] estates (*bīt* PN, lit. "house of PN"),[23] and/or spheres of responsibility (*pīḫat* PN, "PN's sphere of responsibility").[24]

There also exists a specific subcategory of these administrative entities that conveys information concerning the location of the animals. These include the stable (*nakkamtu*),[25] the pasture (*qerbetu*),[26] and one possible reference to a *ludû*-field.[27] For more discussion of these entities, see Sections 4.4.2 and 4.4.3.

(3) Additions to and extractions from herds and flocks: Finally, it is common for these comments to account for deductions from and additions made to the herds or flocks listed

---

[21] E.g., BE 14 99a: 21: 12 ^{gud}ŠA$_3$.GUD EN 4 *ša* $^{m.d}$*en-lil$_2$-mu-kin*-IBILA *i-na* MU.10.KAM *ka-daš$_2$-man-tur$_2$-gu* | 12 | *a-na* ^{m}ZALAG$_2$-^{d}UTU ^{lu2}ENSI$_2$ *id-di-nu* ŠU $^{m.d}$*en-lil$_2$*-EN-UN.MEŠ-*šu$_2$*, "12 plow-oxen, including 4 of Enlil-mukīn-apli in Year 10 of Kadašman-Turgu | (total) 12 | To Nūr-Šamaš, the *iššakku*-farmer, they gave. Hand of Enlil-bēl-nišīšu." See also BE 14 99a: 39 and 41 for some examples of the construction PN$_1$ *ki-mu* PN$_2$, "PN$_1$, in lieu of PN$_2$."

[22] E.g., BE 14 99a: 14, 22, 34, and 46; and CBS 2129: rev. 9' (broken, reads [EREŠ.DING]IR.GAL).

[23] Always attested in the construction *ša* E$_2$ PN—e.g., BE 14 168: 41 (*ša* E$_2$ $^{m.d}$*nin-urta*-IBILA-SUM-*na*, "of the house of Ninurta-apla-iddina) and 60 (*ša* E$_2$ ^{m}*be-la-ni*, "of the house of Bēlānu). I translate the word *bītu* here very literally. As pointed out by Brinkman (2019: 142), the word can mean anything from "a private dwelling, a plot of land, an estate, a town or village, a region, or a province—as well as a nuclear family, an extended family, or a larger kin group (including those sometimes labelled clans or tribes)" While we can certainly rule out some of these possibilities, it is difficult to confidently say what the term means in this particular context. My guess is that it likely means something closer to "estate" in these tables—and is specifically referencing the estates of the previous *šandabakku*'s of Nippur, Ninurta-apla-iddina and Bēlānu—but this is mostly conjecture.

[24] BE 14 99a: 5, 8, 17, and *passim* and BE 14 168: 48 and 52. Note also the more general reference in BE 14 168: 27 to *pīḫat ḫazannāti*, "the sphere of responsibility of the mayors." See Section 4.4.3 for more discussion.

[25] E.g., BE 14 99a: 18 (col. ix): ^{gud}NINDA$_2$ *na-kam-tu$_4$* DUMU ^{m}DI.KUD-*ni*-^{d}UTU ŠU $^{m.d}$*en-lil$_2$*-EN-UN.MEŠ-*šu$_2$*, "*bīru*-cattle, the stable. Son of Dajjāni-Šamaš, hand of Enlil-bēl-nišīšu." See also BE 14 168: 22 and BE 15 199: 15 and 23 for additional attestations.

[26] BE 14 99a: 33 (col. i-x): 2 ME 2 *ša qer$_3$-be-ti* MU.10.KAM *u$_3$* MU.11.KAM, "202 of the pastures of Year 10 and 11." See also BE 14 99: 65.

[27] BE 14 99a: 43 (col. xiv): *lu-du*$^{!?}$ ^{m}*gub-bu-ḫu* ŠU $^{m.d}$*en-lil$_2$*-EN-UN.[MEŠ-*šu$_2$*], "*ludû*(?)-field, Gubbuḫu, hand of Enlil-bēl-nišīšu."

in each row. These deductions may come about on account of natural death, culling, and/or transfers of animals out of the flock or herd, whereas additions typically have their origins specified. Because these comments tend to make use of rather opaque administrative terms and glosses—especially the logograms TA and EN, and the verb *etēqu*—I will discuss these in more detail in the following Sections 4.2.1.1 and 4.2.1.2.

These three topics are by no means mutually exclusive, and the interlinear comments often broach more than one of these concerns simultaneously.[28]

4.2.1.1. Administrative glosses: EN and TA

In the interlinear comments, the scribes make common use of two logograms, EN and TA, with EN corresponding to the Akkadian preposition *adi*, "inclusive of,"[29] and TA likely standing in for the Akkadian conjunction *ištu* (likely *ultu* in the Middle Babylonian period), meaning "after."[30] Although these terms have already been discussed by Torczyner (1913: 37-39),[31] they bear mentioning here in more detail, as they are regularly used to gloss information concerning the origins and/or destinations of livestock extracted from the herds and flocks listed in these tables. Such information is particularly important for determining the inlays and outlays of the system at large, which itself can reveal much about the system's underlying aims and goals.

---

[28] It should also be noted that in a number of cases, the comments also make reference to the writing, deposition, and/or location of tabular lists (*ṭuppi šumāti*, lit. "list of entries"). These tablets likely broach the exact same concerns I mention above and contain further information about the livestock or involved officials. For examples, see BE 14 99: 31 and 66; BE 14 168: 34, 56, and 59; and BE 15 199: 33, 37, 38, and 44.

[29] CAD A/1 s.v. *adi* B.

[30] CAD I s.v. *ištu*.

[31] Torczyner's (1913) write-up is a response to Luckenbill's (1907: 306) early proposal that "adi should provisionally be translated 'in addition,' and TA = itti, 'together with.'"

In their most concise forms, these logograms appear independently[32] and are followed only by numbers. In many cases, however, they are qualified by clauses and appear together in the same comment. A typical interlinear comment featuring these glosses can be seen in the following example:

Text 4.2.) BE 14 99a: 18-20

18 15 GUD MU.6 4 GUD MU.5 20 GUD MU.4 9 GUD MU.3 23 GUD MU.2 12 AB_2
19 EN 55 *ša i-ti-qu* EN 11 AB_2 EN 14 GUD MU.2 KA_2 *mi-ni* MU.11.KAM EN 2 GUD MU.4 u_3 1 AB_2 *ša i-na* KAR-EN-KUR.KUR^{ki} *pu-uq-qu-ra*
20 TA 16 KUŠ RI.RI.GA *ma-la il-qa-a šu-lu-u_2*

Translation
(18) 15 five-year old males, 4 four-year old males, 20 three-year old males, 9 two-year old males, 23 one-year old males, 12 cows.

(19) Including 55 that *passed*, including 11 cows, including 14 one-year old males of the Gate of Counting, Year 11, including 2 three-year old males, and 1 cow that was claimed in Kār-bēl-mātāti.

(20) After 16 hides of dead animals, as much as he took, were deducted.

The column headings for BE 14 99a do not include categories for male cattle outside of stud bulls (UTUA), so the scribe evidently had to make do by specifying the age-sex categories and distributions for this male-majority cattle herd in l. 18, which is comprised of 83 heads of cattle. The following l. 19-20 then feature further information accounting for the 83 cattle *but also* cattle that have been deducted from the herd. L. 19, which begins with the preposition EN (*adi*), marks the beginning of the breakdown of the 83 cattle, though this time into categories that are not strictly related to their age and sex. That these animals are identical to those in the previous l. 18 can be ascertained by the line totals. Whenever one adds up all the numbers following the

[32] E.g., For independent occurrences of TA, see, for example, BE 14 99a: 24-26, 28-29, 36-37, 39-41 (cols. i and vi) and BE 15 199: 3-13 (col. ii). For independent occurrences of EN, see, for example, BE 14 168: 16 (col. iii) and 43-45.

sign EN in a particular entry, these totals are either equal to or less than the totals of the previous line; exceptions wherein the EN totals exceed the line totals can be attributed to simple scribal mistakes involving the omission or addition of a wedge. This relationship can be discerned from several entries in BE 14 99, BE 14 99a, BE 14 168, BE 15 199, and CBS 2129.[33] I provide a summary below to illustrate the breakdowns from these tables:

Line		**3.y.o. males**	**2.y.o. males**	**1.y.o males**	**Adult cows**	**1.y.o. heifers**	**Age-sex unspecified**	**Total**
34-35	Main	9	36	61	4	-		[110$^{?}$]
	EN		88		4	-	19 *ša ītiqū*	111
38-39	Main	14	14	-	4	-		32
	EN	-	-	-	4	-	28$^{!}$ *ša ītiqū*	32$^{!}$
41-42	Main	11	13	-	6	2		32
	EN	-	-	-	8		24 *ša ītiqū*	32

Table 4.2: EN glosses and figures (cattle) in BE 14 99.

Line		**5.y.o. males**	**4.y.o. males**	**3.y.o. males**	**2.y.o. males**	**1.y.o. males**	**Cows**	**Age-sex unspecified**	**Total**
9-11	Main	-	-	-	4	14	2		20
	EN	-	-	-	-	14	2	3 *ša ītiqū* 1 *tapqirtu*	20
18-19	Main	15	4	20	9	23	12		83
	EN	-	-	2	-	14	12	55 *ša ītiqū*	83

Table 4.3: EN glosses and figures (cattle) in BE 14 99a.

Line		**Rams**	**Bucks**	**Age-sex unspecified**	**Total**
31-32	Main	-	27		27
	EN	-	-	11 *ša ītiqū* 16 *ṣabittu*	27
43-44	Main	112	-		112
	EN	-	-	92 *ša ītiqū* 20 *ṣabittu*	112
43-44	Main	-	200		200
	EN	-	-	180$^{!}$ *ša ītiqū* 20 *ṣabittu*	200$^{!}$

Table 4.4: EN glosses and figures (sheep and goats) in BE 14 99a.

[33] CBS 7267 only clearly preserves the last two columns of the table, neither of which provide age-sex information.

Line		5.y.o males	3.y.o males	2.y.o males	1.y.o males	Cows	*Bīru*-cattle	Age-sex unspecified	Total
22-23	Main	[54]	-	6	-	-	-		60
	EN	-	-	-	-	-	-	6 *ša ītiqū* 51 *bāb mīni* 3 *tapqirtu*	60
36-37	Main	-	-	4	13	2?	-		19
	EN	-	-	-	7	2?	-	10 *ša ītiqū*	19?
40	Main	-	-	-	-	-	19		19
	EN	-	-	-	-	-	-	13 *ina qāt* PN_1 6 *ina qāt* PN_2	19
46-47	Main	-	-	-	6	3	-		9
	EN	-	-	-	-	3	-	4 *ša ītiqū* 2 *bāb mīni*	9

Table 4.5: EN glosses and figures (cattle) in BE 14 168.

Line		Rams	Goats	Age-sex unspecified	Total
o.3'-4'	Main	1002	-		1002
	EN	-	-	792 *ša ītiqū* 44 *ṣibtu* 166 *ṣabittu*	1002
o.3'-4'	Main	-	148		148
	EN	-	-	42 *ša ītiqū* 16 *ṣibtu* 91 *ṣabittu*	149
o.7'-8'	Main	-	70		70
	EN	-	-	20 *ša* PN_1 ⌜50⌝ *ša* PN_2 *imaḫ*[*ḫarū*]	70

Table 4.6: EN glosses and figures (sheep and goats) in CBS 2129.

From these examples and after accounting for scribal mistakes, it is clear that the total number of animals marked by EN in the interlinear comments generally matches the amounts given in the main rows. The animals in the EN breakdowns must therefore be the *same* animals as indicated in the previous lines, but simply separated into categories different from the standard age-sex classifications. In short, EN is used to mark further breakdowns and can therefore be translated as "including."[34]

[34] For further discussion of what some of these additional breakdowns may mean, see Section 4.2.1.2.

The second gloss, TA, is fortunately used in a less ambiguous manner. In several cases, the numbers glossed with TA are explicitly stated to be counting animals or hides that are deducted from the herd or flock. These deductions may take place on account of deaths—see, for instance, BE 14 99a: 20, wherein hides from dead animals, sometimes written KUŠ (RI.RI.GA), are explicitly deducted: TA 16 KUŠ RI.RI.GA *ma-la il-qa-a šu-lu-u₂*, "After 16 hides of dead animals, as much as he took, are deducted." They may also be deducted on account of other expenditures, as in BE 14 99a: 31-32: TA 6 *ak-lu u₃* ZIG.GA *u₃* 3 KUŠ *ma-la il-qa-a šu-lu-u₂*, "After 6 *aklu* and *ṣītu*-expenditures, and three hides, as much as he took, are deducted."[35]

Less obvious, however, are those cases in which TA is followed only by a number *n*. I contend that these attestations should also be interpreted as deductions, with the construction TA *n* being used as a concise shorthand for the more complete statement, TA *n* … (*mala ilqâ*) *šūlû*, "After *n*, (as much as he took), was deducted." These deductions may be on account of deaths or expenditures, as in the previous examples, but this is not always the case, as they can also refer to livestock being transferred out of a given flock or herd.

Evidence supporting this latter interpretation can be taken from BE 14 99a, which uses this shorthand in cols. i and vii of lines 24, 25, 26, 28, 29, 36, 37, 39, and 41. These exact numbers are listed in another tablet, BE 14 89, which is dated to the same year as BE 14 99a.[36] I provide a transliteration and translation of BE 14 89 below:

Text 4.2.) BE 14 89

ue.1 EREŠ.DINGIR.GAL EREŠ.DINGIR.TUR MU.11.KAM
2 *ka-daš-man-tur-gu*

[35] For more discussion on these *aklu*-expenditures, see Murai 2018. In summary, the *aklu* seems to be a general term encompassing various types of expenditures of edibles (e.g., grain, livestock, beer, etc.) for a variety of purposes, including temple offerings, banquets, provisions, etc.
[36] This observation was made already by Torczyner 1913: 38.

o.3	UDU.NITA$_2$	MAŠ$_2$	*sa-bit-tu$_4$*
4	6		DUMU ^{m}*še-le-bi*
5	5	5	DUMU ^{m}*e-ri-bi*
6	5	5	^{m}*ib-ba-aš$_2$-ša-a-ša*-DINGIR
7	5		DUMU ^{m}*su$_2$-pur*-^{d}IŠKUR
8	7	6	^{m}SU-^{d}U.GUR
9	PAP 28	16	EREŠ.DINGIR.GAL
10	5		^{m}*u$_2$-ge-e-a*
11			^{m}*u$_2$-zi*-^{d}AMAR.UTU
12	5		^{m}*gub-bu-ḫu*
13	10	10	$^{m.d}$UTU-URU$_3$
14			^{m}*man-nu-u$_2$-kal-i-da-as-su*
15		10	$^{m.d}$30-*muš-te-šir$_3$*
be.16	PAP 20	20	EREŠ.DINGIR.TUR

Translation

(1-2) EREŠ.DINGIR.GAL (and) EREŠ.DINGIR.TUR, Year 11 of Kadašman-Turgu.

(3)	Rams	Bucks	*ṣabittu*-animals
(4)	6		Son of Šēlebu
(5)	5	5	Son of Erību
(6)	5	5	Ibbaššâ-ša-ili
(7)	5		Son of Ṣupur-Adad
(8)	7	6	Erība-Nergal
(9)	Total: 28	16	EREŠ.DINGIR.GAL
(10)	5		Ugē‘a
(11)			Uzi-Marduk
(12)	5		Gubbuḫu
(13)	10	10	Šamaš-nāṣir
(14)			Mannu-ukâl-idassu
(15)		10	Sîn-Muštēšir
(16)	Total: 20	20	EREŠ.DINGIR.TUR

Not only are the numbers in BE 14 89 identical to those glossed with TA in BE 14 99a, the animals are attributed to the same herdsmen in both tablets, which are furthermore listed in the same order:

BE 14 99a	**Rams**	**Bucks**	**Herdsmen**
24	TA 6	---	Son of Šēlebu
25	TA 5	TA 5	Zākiru, son of Erību
26	[TA 5]	TA 5	Ibbaššâ-ša-ili
28	TA 5	---	Son of Ṣupur-Adad
29	TA 7	TA 6	Erība-Nergal

Table 4.7: Sheep and goats glossed with TA and connected herdsman in BE 14 99a.

36	[TA 5]	---	Ugē'a
37	---	---	Uzi-Marduk
38	TA 5	---	Gubbuḫu
39	TA 10	TA 10	Šamaš-nāṣir in place of the son of Adad-šarru
40	---	---	Mannu-ukāl-idassu
41	---	TA 10	Šamaš-iqīša in place of Sîn-muštēšir

Table 4.7 (cont.): Sheep and goats glossed with TA and connected herdsman in BE 14 99a.

That these animals are not simply being deducted on account of natural death or for expenditures like those mentioned previously can be ascertained by BE 14 99a: 31-32 and 44. These lines in BE 14 99a list flock breakdowns that include (EN) animals tagged as *ṣabittu*, which may tentatively be translated as "deposited."[37] These *ṣabittu* animals correspond exactly to those grand totals given in BE 14 89: obv. 9 and 16[38]:

BE 14 99a	***ṣabittu* (BE 14 99a)**	***ṣabittu* (BE 14 89)**	**BE 14 89**
L. 31-32	28 rams: Qīšat-Nergal | Amurru-mūtaplī | […], EDG	28 rams, EDG	L. 9
	16 bucks: Qīšat-Nergal | Amurru-mūtaplī | […], EDG	16 bucks, EDG	

Table 4.8: ṣabittu-animals totaled in BE 14 99a and BE 14 89. Abbreviations: EDG = EREŠ.DINGIR.GAL and EDT = EREŠ.DINGIR.TUR.

[37] Regarding the meaning of the word in Middle Babylonian contexts, van Soldt (1978: 229) observes, "In MB, *ṣabtu* occurs a number of times in connection with *ṭuppu*, meaning 'deposited.' The exact meaning of *ṣabittu* in MB in connection with sheep is obscure…" For other occurrences of the word, see also BE 14 159: 7 (broken; read as *za-iz-t*[*i-šu*] under CAD Z s.v. *za'iztu*), CBS 2129: obv. 4', and N 1922: 3. "Deposited" (CAD Ṣ s.v. *ṣabtu*, mng. 2), in fact, works here as a provisional translation given my observations that the sheep were taken and then "deposited" into another flock, though one of course has to wonder if it truly only refers to deposits of sheep absent any other meaning. Additionally, the exact meaning of *ṭuppu ṣabittu* has been debated over the years; for discussions of this phrase in Middle Assyrian contexts, see e.g., Postgate 1986: 18-21, Kwasman and Parpola 1991: 13 (note to Text 10, r. 18), Abraham 2001: 188, Cancik-Kirshbaum 2012: 29, and Postgate 2013: 66-67, and all the cited literature therein.

[38] This correspondence was not recognized by Torczyner (1913) due to his misreading of the word *ṣabittu* in both tablets. In BE 14 89, he reads *za-iz-tum* (Torczyner 1913: 38) and in BE 14 99a, he reads *za-kir(?)-ti* (Torczyner 1913: 35). As a result, his interpretation of what happened to the animals glossed with this shorthand TA in BE 14 89 differs widely from the one presented here. He (1913: 38) argues that these animals were deducted from the flocks for the personal use of the herdsmen, but as I argue above, the animals were not deducted for personal use but were transferred instead into another flock.

L. 43-45	20 rams: *ludû*(?)-field, Gubbuḫu, hand of Enlil-bēl-nišīšu, EDT	20 rams, EDT	L. 16
	20 bucks: *ludû*(?)-field, Gubbuḫu, hand of Enlil-bēl-nišīšu, EDT	20 bucks, EDT	

Table 4.8 (cont.): ṣabittu-animals totaled in BE 14 99a and BE 14 89.

Although BE 14 89 simply attributes these totals to the EREŠ.DINGIR priestesses, BE 14 99a provides additional information as to the destination of these sheep and goats. The 28 rams and 16 bucks listed in BE 14 99a: 31-32 are assigned to the herdsman Qīšat-Nergal, the mayor Amurru-mūtaplī, and an unnamed "Kassite" official, none of whom are named in BE 14 89. Similarly, the 20 rams and 20 bucks mentioned in BE 14 99a: 43-45 are attributed not only to the EREŠ.DINGIR.TUR as in BE 14 89, but also to a *ludû*(?)-field and assigned to Gubbuḫu under the hand of Enlil-bēl-nišīšu. The implication is clear; these rams and bucks are being deducted from the herds of the herdsmen listed in BE 14 89 and reassigned to other individuals and presumably locations.

In spite of this particular example, however, it should still be kept in mind that, in the absence of any explicit information about the destination of those animals glossed with TA, TA *n* by itself does not always mean that animals are being transferred. The gloss by itself only marks deductions but otherwise indicates nothing about the purpose of said deductions. Interpretation of the shorthand TA glosses and numbers in tables such as BE 15 199,[39] which lack internal and external confirmation behind the deduction of these animals, should therefore be approached with caution.

4.2.1.2. *etēqu*

[39] BE 15 199: 3-14 and *passim* (esp. col. ii), which marks deductions in cows. See n. 128 for some more conjecture on the deductions from this particular table.

Another term that shows up frequently in the interlinear comments of the livestock tables is a third person G-Preterite form of the verb *etēqu.* This verb most commonly appears in conjunction with logogram EN in the following construction: n_1 EN n_2 *ša i-ti-qu* …, "n_1 (animals), including n_2 (animals) that 'passed'…" In BE 14 99, however, it also appears in the construction *ul i-ti-iq* in lines that contain no animal tallies at all.[40]

The exact meaning of *etēqu* in these tables has been the matter of some confusion. The base verb means "to pass along/by" or "to pass through," though in other contexts the verb can carry more specialized meanings—e.g., "to march in review," "to elapse (said of time)," "to avoid," etc.[41] In the context of these tables, scholars have historically opted for a number of different, if ambiguous, translations. In his commentary on BE 14 99, Luckenbill (1907: 303) remarks that the phrase *ul ītiq* should be translated "he did not take out," stating that "[t]his means that the herdsman did not take out any cattle at that time."[42] On the other hand, Torczyner (1913: 39) argues that the verb "kann nur kaum etwas anderes bedeuten als 'er hat fortgeführt' (Subjekt: *ḫazannu*)." CAD T s.v. *tapqirtu* tentatively suggests the translation "transferred(?)," while most recently, Murai (2018: 262) has chosen to translate the verb as "to handle" though without any accompanying discussion. Finally, working off a separate dossier of worker rosters, Tenney (2017: 212, n. 18) suggests that *etēqu* in the Nippur administrative corpus may mean something akin to passing visual inspections, with the phrase *ul ītiqū* referring to those who "did

[40] BE 14 99: 6, 11, 20, 25 and *passim.*
[41] CAD E s.v. *etēqu*, mngs. 1-3.
[42] See also Luckenbill 1906: 304 and *passim* for further translations of EN n_1 *ša i-ti-qu* as "in addition, n_1, which he took out."

not pass through the usual inspection procedure." However, Tenney admits that this hypothesis is purely conjecture supported by rather broken and fragmentary texts.[43]

Based on calculations carried out in these interlinear comments, however, I propose that in these livestock tables, the verb should instead be understood to mean, "to pass into the next accounting period." Two pieces of evidence support this interpretation.

First, as has been argued already by Torczyner (1913: 39), the exclusive presence of the construction *ul ītiq* in BE 14 99 in rows that contain no animal counts implies that the remaining row counts of livestock should be implicitly understood to list animals that are *ša ītiqū*,[44] unless otherwise noted in the table. In other words, animals listed in these tables should be understood to, by default, have "passed."

Second, as I have discussed in the previous section, the logogram EN is used to introduce breakdowns of particular herds or flocks. These breakdowns are split into various subsections, each of which begins with an EN clause. When all of the numbers immediately following EN are summed up, they tend to equal the current row total. One such subsection, always listed first when it is present, tags a subgroup of livestock with the phrase *ša ītiqū.* Other subgroups include those that describe animals as being "of the Gate of Counting, Year *n*" (*bāb mīni* MU.*n*.KAM), "claims" (*tapqirtu*), *ṣabittu* (perhaps "deposited," see n. 37), or *ṣibtu* (perhaps referring to taxes

[43] The example Tenney (2017: 212, n. 18) directly cites comes from CBS 10681: 2'-7: (2')NAM.LU$_2$.U$_{18}$ ḪU US […] (3')*qin-ni* ^{m}GAL$_2$-*ši*-$^{d\ulcorner}$x⌝ […] (4')*i-na ni-iš re-e-ši* ⌜x⌝ […] (5')*ul i-ti-qu it-ti* ⌜x⌝ […] (6')*ša* BAD$_3$-*ku-ri-gal*-[*zu* …] (7')*im-ma-ru-šu-nu*-[*ti*]. To account for the appearance of *amāru* in this text, which is the usual word used for inspections, Tenney suggests that perhaps the workers are to be re-inspected in the future.

[44] "Ferner beweist der Umstand, daß neben der besonders in XIV 99 häufigen Angabe *ul i-ti-iḳ* (Z. 6, 11, 20, 25, 51, 58, 61) überhaupt keine Tiere verzeichnet sind, daß eigentlich zu jeder Zahl das Verbum *itîḳ* zu ergänzen ist" (Torczyner 1913: 39).

levied on animals, see CAD Ṣ s.v. *ṣibtu* C). See already Tables 4.2-4.6 for the co-occurrence of *ša ītiqū* beside these other descriptors.

Although we lack a firm understanding of many of these categories—especially that of the "Gate of Counting"[45]—it is nevertheless evident that all of these latter descriptors, as a rule, tag animals that are being *added into* the herds and flocks. I have already discussed the case with the *ṣabittu* animals above, wherein we have direct evidence that livestock were being transferred in from other flocks. *tapqirtu* is similarly clear. A *taprist* formation off the D-stem of *paqāru*, "to claim (property)," the term simply means "legal claim, contention," but it is almost certainly a stand-in for longer clauses that describe livestock—and specifically cattle—being claimed from other localities and included in the herds.[46]

The situation with *sibtu* is less clear, as the word is generally and somewhat ambiguously understood to be a tax on domestic animals. Curiously, this tax is not well-represented in the

---

[45] References to the *bāb mīni* are rare and limited to the livestock tables and one school text; see Sassmannshausen 2001: 180 n. 3121-3122 for a complete list of attestations. The gate is mentioned only in relation to cattle and is typically qualified by a year, usually Year 11 or 12. The purpose of this gate is unclear, but given its name, it presumably has a function related to the counting of animals. As some gates served as places of taxation (see Sassmannshausen 2001: 180) and given the inclusion of sheep and goats that had presumably been taken as *ṣibtu*-taxes into flocks listed in at least one livestock account table (CBS 2129: obv. 4'), might this gate also have served a tax-related function?

[46] E.g., BE 14 99a: 19: EN 55 *ša i-ti-qu* EN 11 AB_2 EN 14 GUD MU.2 KA_2 *mi-ni* MU.11.KAM EN 2 GUD MU.4 u_3 1 AB_2 *ša i-na* KAR-EN-KUR.KUR^{ki} *pu-uq-qu$_2$-ra*, "Incl. 55 that passed, incl. 11 cows, incl. 14 one-year old males (of) the Gate of Counting, Year 11, incl. 2 three-year old males and one cow that were claimed in the town Kār-bēl-mātāti." See also BE 14 168: 19, which describes 33 cattle as *tap-qi$_2$-ir-tu$_4$ ša* A.AB.BA $^{m.d}$KUR-*ib-ni*, "Claims of the Sealand, Amurru-ibni." On the Sealand as a supplier of cattle, see especially Kessler 1992. Note also the translation of *tapqirtu* in BE 14 99a: 11 under CAD T s.v. *tapqirtu* as "one that was claimed" with a reference to *puqqura* in l. 19.

Nippur documentation.[47] However, the text N 1922, though fragmentary, clearly lists and totals together *ṣibtu* and *ṣabittu* animals in connection with various herdsmen:

Text 4.3.) N 1922

ue.1 [U_8].UDU.ḪI.A EREŠ.DINGIR.MEŠ MU.13.KAM

o.2	[UDU.NI]TA$_2$	UDU.NITA$_2$	ŠU.NIGIN	MAŠ$_2$	MAŠ$_2$	ŠU.NIGIN	NA.GAD
3	MAŠ$_2$	*ṣa-bit-tu$_4$*		*ṣib-tu$_4$*	*ṣa-bit-tu$_4$*		
4	˹4˺	30	34	1		˹1˺	˹^{m}x x x˺

(Remainder mostly broken except for traces of the number 13 in col. ii on the reverse.)

Translation

(1) Flocks of the EREŠ.DINGIR-priestesses. Year 13.

2	Rams	Rams	Total	Bucks	Bucks	Total	Herdsman
3	*ṣibtu*	*ṣabittu*		*ṣibtu*	*ṣabittu*		
4	˹4˺	30	34	1		˹1˺	˹^{m}x x x˺

Given that we know the *ṣabittu* animals are transferred into the flocks, the fact that they are being summed together here with the *ṣibtu* animals suggests that the latter *ṣibtu*-animals are also being added. Presumably, these figures would then be inserted into the tables as interlinear comments, such as those in CBS 2129:

Text 4.4.) CBS 2129: obv. 3'-6' (col. i-iv)

o.3' 1002 EN 792 *ša i-ti-qu*
4' EN 44 *ṣi-ib-ti* EN 166 *ṣa-bit-ti*
5' NA.GAD.MEŠ MU.11.KAM *u$_3$* 88 KUŠ
6' *ma-la il-qa-a šu-lu-u$_2$*

Translation

[47] I have only come across the term in four other documents, not including N 1922 and CBS 2129. In BE 14 132: 51, it qualifies animals sent before the god and/or established for collection in the construction MAŠ$_2$ PN, listed in a column with the header ^{lu2}NA.GAD.MEŠ *ša* DINGIR. In MRWH 27: 15, 16, and *passim*, it appears in the construction MAŠ$_2$ PN, with the tablet's header stating that the table concerns the *aklu* E$_2$ DINGIR. In MUN 274: 11-12, it is qualified as an *aklu*-expenditure by the tablet header. Finally, in MUN 329, a Group 1 herding contract, the listed livestock are described as MAŠ$_2$ MU.8.KAM. Evidently, these animals could both be inlays into the system (as attested by CBS 2129, N 1922, and MUN 274), as well as outlays (as attested by the documents in which they are considered *aklu*-expenditures).

(3') 1002 (rams), incl. 762 that passed, (4') incl. 44 *ṣibtu*-animals, incl. 166 *ṣabittu*-animals, (5') of the herdsmen of Year 11. Furthermore, 88 hides, as much as he took, were deducted.

In summary, tallied animals that receive no other descriptors or qualifications should be considered, by default, to be *ša ītiqū,* "those that pass." For herds or flocks that grew on account of outside transfers, the scribes provide further breakdowns so as to accurately indicate which animals were carried over from the previous accounting period and which were added. The former animals are explicitly described as *ša ītiqū*, while the latter receive other descriptors that designate their origins and/or administrative categories.

The implications of these conclusions extend well beyond the philological. Although the specifics of certain terms might escape us, we nevertheless see that the scribes of these tables were expending considerable effort on keeping track of increases in herd or flock sizes that stem from reasons other than natural population growth from one accounting period to the next. Furthermore, deductions are also always recorded regardless of the reason behind the deductions. Hence, when these administrative glosses and the terminology of these interlinear comments are properly understood, they can be used to explore the origins and destinations of the listed animals, as well as the broader aims of the system (on which, see especially Section 4.4 and its subsections below).

4.3. Purpose and function of the tables

Now that we have established the formal characteristics of these tables and discussed the use of the common administrative terms featured therein, we should consider the motivation behind the tables' creation. In the secondary literature thus far, the tables' purpose and function has been shrouded in some mystery. In an early overview of these tables, Luckenbill (1907: 300-

311) broadly considers them to contain lists of temple herds and flocks, as well as the names of the responsible officials (some of whom he avers to have been connected with the king)[48] and the amounts of secondary products due.[49] Responding to Luckenbill's characterization of these tables as lists of temple property, however, Torczyner (1913: 7 and 37) argues that the listed flocks and herds are not temple possessions but rather lists of taxes in both animals and secondary products that were collected from "the temple" and subsequently delivered to Nippur by the listed officials. This argument is based on the quantities of secondary products in the tables, which Torczyner correctly observes are calculated off the number of animals listed in each row. That is, for rows of sheep and goats, these numbers amount to exactly ½ mina of wool per sheep; ¼ mina of goat hair per goat; and for cattle, 2½ silas of ghee per lactating cow, a figure approximated by the number of calves listed in each row.[50] Recognizing that these quantities cannot have been actual yields on account of their artificial nature, he concludes that they must be fixed amounts extracted from the listed livestock, which he takes as proof of their nature as taxes.

Since the publication of Torczyner's edition, many advances have been made in the field of Kassite studies. However, these tables have been largely ignored, and more recent remarks, such as those by Sassmannshausen (2001), have been confined to descriptive observations. He describes BE 14 99a, for instance, simply as a list of livestock belonging to the EREŠ.DINGIR

[48] Luckenbill (1907: 305) argues that the *kaššû* ("Kassite" officials) should be considered "representatives of the Cassite kings" because their names are Kassite. However, cf. Section 2.2.3.
[49] To whom? Luckenbill does not clarify.
[50] Torczyner 1913: 7.

priestesses, and notes that these livestock are cared for and/or managed by a three-tier hierarchy of herdsmen, mayors, and "Kassite" officials.[51] He does not discuss the other tables.

In this section, I wish to provide an alternate interpretation of these tables. I will argue that, rather than being a list of collected taxes or even a simple inventory of livestock belonging to the temple, these tables instead concern animals that were contracted out into the provincial administration overseen by the *šandabakku* of Nippur. In some cases, as in BE 14 99a and CBS 7267, we can say with reasonable certainty that the client parties in this contractual relationship were the EREŠ.DINGIR priestesses; in other cases, however, the identity of the clients are uncertain, often on account of tablet damage. My argument will hinge on the Group 1 herding contracts discussed in the previous chapter, which I broadly consider to be products of the same institutional project that generated the tables.

4.3.1. Connection between the contracts and tables

A potential connection between these tables and contracts has long been noted in the secondary literature. However, much of the scholarship was published over a century ago (see Luckenbill 1906 and Torczyner 1913), and is consequently based on outdated misreadings, assumptions, and/or models, as well as limited access to the texts. Meanwhile, more recent scholarship seems to be reluctant to explicitly discuss this link in much detail.[52] This reluctance presumably stems from the poor publication status of both text types, the lack of any direct prosopographical links as well as their dating. As I mentioned, these two groups of texts cluster

[51] E.g., Sassmannshausen 2001: 31.
[52] Sassmannshausen (2001: 112 and *passim*) merely categorizes these tables and contracts, as well as other livestock-related documentation, together as "Musterungen," but he does not provide any additional commentary on these texts aside from noting the cross-attestation of livestock and the hierarchy of three officials.

around the reigns of different kings. The bulk of the securely dateable tables are dated to the reign of Kadašman-Turgu while the contracts tend to be dated to Years 10 or 11 of Šagarakti-Šuriaš. This gap, however, is only around four decades, and it seems relatively safe to assume the existence of some degree of institutional and administrative continuity.

In my discussion of the Group 1 contracts in Chapter 3, I broke down their structure into the several components. In the first half of the contracts—usually located on the obverse, with lines occasionally creeping onto the reverse—one typically finds the following information:

- A livestock inventory, containing age-sex breakdowns for herds and flocks.
- Quantities of secondary products, calculated at ½ mina of wool per listed sheep, ¼ mina of goat hair per listed goat. The ghee ratios are, as I mention, more variable, ranging from 2.5 to 2.969 silas per lactating cow.
- The names and professions of three officials, the herdsman, the mayor, and the "Kassite" official.

The reverse, meanwhile, contains the following:

- Contract stipulations, listing obligations and penalties for the involved parties.
- A date, a seal identification, always the "Seal of Amīl-Marduk," sometimes with his title *šandabakku* of Nippur. The seal impression always appears on the tablet's left edge when that edge is preserved.

These components are particularly significant because, as it so happens, the types of information from the first three sections of the herding contracts are duplicated along the horizontal axes of BE 14 99a and BE 14 168.[53] For a visual illustration of this correspondence

[53] Of the remaining tablets, BE 14 99 does not preserve anything beyond col. viii; CBS 2129 (fragment) does not preserve anything beyond col. x; and CBS 7267 (fragment) only fully preserves the last two columns listing herdsmen and mayors, though traces of ghee amounts can

between the contracts and tables, see Fig. 4.5, which compares lines taken from BE 14 99a with those from the contract BE 14 137:

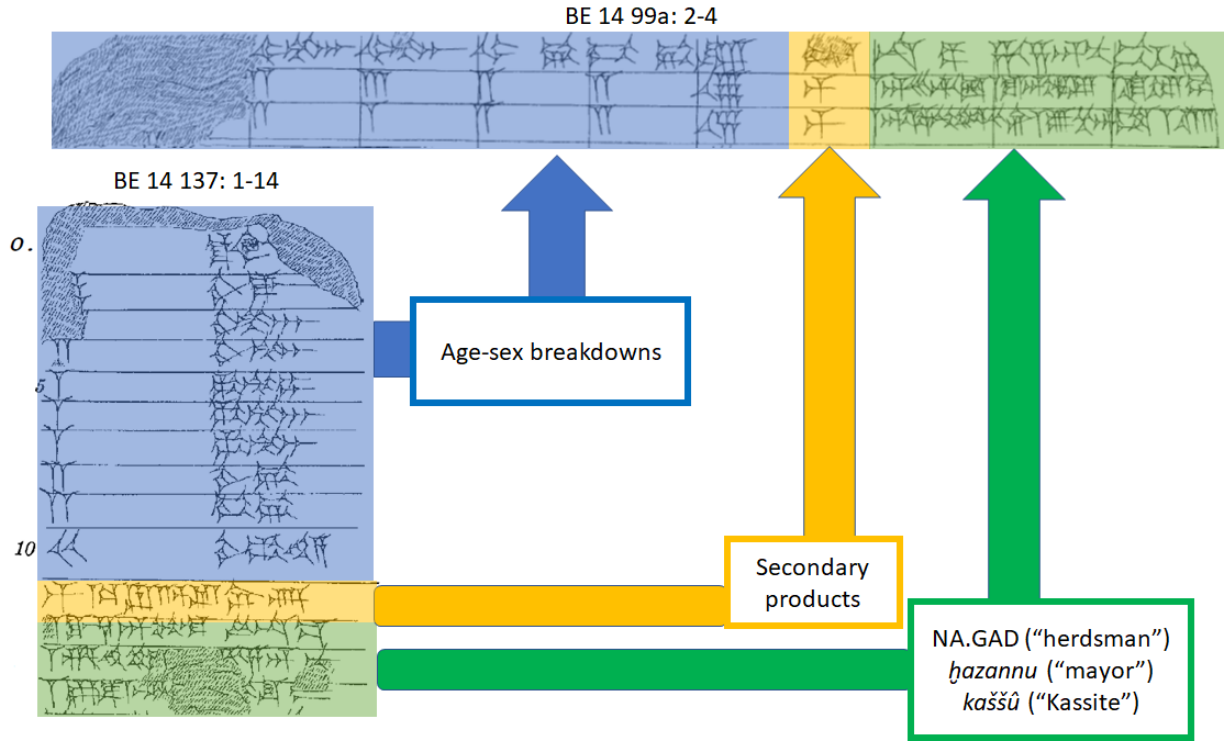

Figure 4.5: A comparison of BE 14 137: 1-14 and BE 14 99a: 2-4. Line copies of both tablets are by Clay (1906a: pl. 52-53 for BE 14 137 and pl. 59-60 for BE 14 99a). The line copy of BE 14 137 has been modified from the original line drawing to better illustrate the organization of lines on the physical tablet.

As can be seen, these two texts use the same standard age-sex terminology, feature quantities of secondary products, and even list the same three types of officials. Furthermore, it is significant that the quantities of wool and goat hair found in the contracts appear to be calculated using the same formulae as those found in BE 14 99a—i.e., a ½ mina of wool per sheep and a ¼ mina of goat hair per goat.[54]

be made out in the preceding column. BE 15 199, though it lists herdsmen and mayors, does not contain columns for secondary products or for the "Kassite" officials.

[54] It should be noted that ghee amounts vary between the contracts and the tables, with the tables BE 14 99a and BE 14 168 listing figures that are calculated at 2.5 silas per listed calf. The contracts, on the other hand, do not tend to exhibit consistent quotas (see already Section

Taken altogether, these similarities are too close to be simple coincidence, and I contend that most of the rows listed in these livestock account tables—specifically those that are qualified by information that falls exactly within the categories specified under the column headers—likely allude to contractual relationships such as those preserved in the Group 1 herding contracts. For those rows that do not hew exactly to the default categories set by the headers—or, in other words, those that are qualified by dense interlinear comments—my suspicion is that these list "atypically" managed herds and flocks. That is to say, they are still contracted livestock, but they are being handled in ways that are different from what might be set out in a usual herding contract—hence, the need to include extra information regarding their whereabouts, movements, and use, as well as the officials responsible for them.[55] In other words, the contracts are the rule, and these are the exceptions to that rule.

Assuming this is correct, then these tables do not simply list taxes collected from a temple as argued by Torczyner (1913), nor do they list a simple (or complete) list of the livestock holdings of a temple institution as suggested by Luckenbill (1907). Rather, these tables account for livestock that have been contracted out into the provincial system overseen by the

---

3.2.1.2), ranging from 2.5 silas to 2.969 silas per calf. The variation does not bother me too much, given that we know there can be some variation in the tables as well (e.g., BE 14 168: 26, lists 5 silas per calf), and the amounts listed in the contracts, in any case, still hover noticeably close to 2.5 silas. The main point of interest here is that there is clearly a division of secondary products (on which see Section 4.4.4 below), regardless how the shares are being calculated.

[55] Note, for instance, that many of the flocks and herds qualified with additional interlinear comments tend to be comprised only of male animals, a composition that clearly makes it impossible for them to meet the 50% population growth stipulation set by the contracts. This does not, of course, exclude the possibility that these animals were also contracted out—the flocks still appear to be responsible for producing the same quotas of wool and goat hair—but they may have been contracted out under different arrangements than the default arrangements assumed by the table. As I argue in Huang (forthcoming) and in Section 4.4.4, it seems to be the case that the contracts and the corresponding rows on the tables list breeding herds and flocks; the remaining flocks and herds are effectively destination store flocks, from which animals are occasionally pulled for meat or labor.

šandabakku of Nippur. Broadly speaking, then, the purpose of these tables is to keep track of what is still owed to the clients by which provincial officials, in the event that the clients decide to collect from their herds and flocks at some point in the unspecified future.

4.4. Discussion

Having established a possible purpose for these tables, we can now examine the particulars of the system in more detail. In the following pages, I explore, first, the potential identities of the clients in the herding contracts and tables, before discussing how this system may have functioned on the ground by addressing the topics of location and responsibility. I then conclude with a section on potential production aims for those herds and flocks contracted out into this management system.

4.4.1. Ownership

In the previous chapter, I argue based on prosopographical evidence that the Group 1 herding contracts record contractual arrangements drawn up between the provincial administration headed by the *šandabakku* of Nippur and an unnamed temple client represented by the herdsmen identified in each contract's list of officials. Although this temple client is not explicitly named in the contracts, one can turn to the livestock tables to identify one possible identity of these clients, and that is the temple institution of the EREŠ.DINGIR priestesses.

These priestesses are collectively known as the *ēntu*-priestesses in Assyriological literature,[56] with the word *ēntu* often being translated into English as "high priestess." In earlier

[56] The word *ēntu* is a feminine form of the Sumerian **en** (Akk. *ēnu*), often translated "high priest." In earlier periods, the priestess may actually be referred to as the **en** rather than the *ēntu*-priestess. Other logographic writings for *ēntu* include DAM DINGIR (lit. "wife of the god").

periods of Mesopotamian history, these priestesses were known to have been high-ranking women responsible for carrying out cultic activities for major deities in cities such as Ur, Uruk, and of course Nippur. During some periods and in some locations, the priestesses were royal princesses appointed to their office by the reigning ruler, a practice that was at least partially motivated by the desire of the king to consolidate royal power over the city's temples.[57]

In the Middle Babylonian Nippur corpus, there are evidently two EREŠ.DINGIR priestesses, the EREŠ.DINGIR.GAL and the EREŠ.DINGIR.TUR.[58] These priestesses' religious functions, as well as their names and associated deities, remain unattested in the published documentation. However, we do possess various texts that speak to their economic activities in both the agricultural and pastoral sectors.[59]

The two most pertinent documents for our current discussion are the two livestock tables, BE 14 99a and CBS 7267. The first table, BE 14 99a, contains an extensive list of herds and

---

Some older publications may read the EREŠ sign in the sequence EREŠ.DINGIR with the value NIN instead, resulting in the sequence NIN.DINGIR, but cf. Stol 2016: 566-567 and cited literature on the pronunciation of the NIN sign as EREŠ. The logograms EREŠ.DINGIR translate literally to "lady divine" or "lady (of the) god," though cf. Steinkeller 1999: 121, who states DINGIR must be interpreted adjectivally.

[57] Perhaps the most famous example of this practice occurred during the Old Akkadian period under the reign of Sargon, who appointed his daughter Enheduanna to the post of *ēntu*-priestess of Nanna, the moon god, in Ur. For a more detailed and comprehensive overview of the EREŠ.DINGIR priestesses in Mesopotamian history, see Stol 2016: 555ff., Sallaberger 2005: 627-628, and the cited literature.

[58] Because the Akkadian readings of these two priestesses remain uncertain, I refer to them only by their logographic spellings. For the reading of EREŠ.DINGIR.GAL as *ēntu* and EREŠ.DINGIR.TUR as *ugbabtu*, see CAD E s.v. *ēntu*, mng. a4' and CAD U/W s.v. *ugbabtu*, mng. a4', but cf. the discussions at the end of the sections, as well as the discussion in CAD E s.v. *ēnu*. It seems possible to me that the GAL and TUR signs are to be read adjectivally (lit. "the big *ēntu* priestess" and "the little *ēntu* priestess," though a more appropriate translation may be "the major *ēntu* priestess" and "the minor *ēntu* priestess"), but we admittedly have no phonetic attestations of the titles.

[59] The EREŠ.DINGIR priestesses are explicitly mentioned in the following documents: BE 14 104, BE 14 131, BE 14 136, MRWH 16, MRWH 17, MUN 69, MUN 70, MUN 120, MUN 284, MUN 320, CBS 12572, N 1922, UM 29-15-370+CBS 3816, and UM 29-15-434.

flocks that the header avers to belong to the EREŠ.DINGIR.GAL and EREŠ.DINGIR.TUR:[60]

(1)*mi-nu* AB$_2$.GUD.ḪI.A *u$_3$* U$_8$.UDU.ḪI.A EREŠ.DINGIR.MEŠ MU.11.KAM *ka-daš$_2$-man-˹tur$_7$˺-gu*, "Account, the cattle and flocks of the EREŠ.DINGIR-priestesses, Year 11 of Kadašman-Turgu." The EREŠ.DINGIR.GAL and EREŠ.DINGIR.TUR also appear throughout the table in the rows listing grand totals; the EREŠ.DINGIR.GAL is connected with 328 heads of cattle and 1,315 sheep and goats, and the EREŠ.DINGIR.TUR with 221 heads of cattle and 1,237 sheep and goats.[61] CBS 7267, though highly broken, is yet another table that lists cattle herds belonging to the EREŠ.DINGIR.GAL.[62] Due to the broken state of this tablet, we cannot say with certainty whether flocks of the EREŠ.DINGIR.GAL and/or livestock belonging to the EREŠ.DINGIR.TUR were also listed. However, given the layout of BE 14 99a, these two possibilities seem highly likely.

In short, the EREŠ.DINGIR priestesses seem to have owned sizeable flocks and herds of livestock that were managed by the provincial administration of Nippur. Though the *šandabakku* himself is not explicitly named in the tables, the frequent appearance of the mayors, as well as the *šandabakku*'s sealing on the herding contracts, implies that what these particular tables are

[60] See also the connected text BE 14 89 (Text 4.2). This, like BE 14 99a, mentions that the listed animals are associated with the EREŠ.DINGIR.GAL and EREŠ.DINGIR.TUR. N 1922 (Text 4.3) also mentions *ṣabittu* and *ṣibtu* animals attributed to the two priestesses; these two descriptors, as I have discussed in the previous sections, are often used in the tables' interlinear comments to indicate additions made to existing flocks, as in e.g., CBS 2129: obv. 3'-6' (Text 4.4).

[61] For the EREŠ.DINGIR.GAL rows, see BE 14 99a: 3-14 and 24-35. For the EREŠ.DINGIR.TUR rows, see BE 14 99a: 15-22 and 36-46.

[62] CBS 7267: rev. 9': [… EREŠ.DING]IR.GAL | AB$_2$.GUD.ḪI.A, "[… EREŠ.DING]IR.GAL | cattle."

recording are lists of herds and flocks contracted out by the EREŠ.DINGIR priestesses into the care of the *šandabakku* and his administration.[63]

Outside of these tables, various other texts in the Nippur corpus likewise allude to an arrangement made between the EREŠ.DINGIR priestesses and the *šandabakku*, some in connection with livestock. I treat and edit many of these documents in detail in the following chapter. However, I especially wish to draw attention to a hitherto unpublished worker roster, UM 29-15-370+CBS 3816, for which I provide a transliteration and partial translation below:[64]

Text 4.5.) UM 29-15-370+CBS 3816

ue. 1 […*r*]*i-iš* SIPAD AB$_2$.GUD.ḪI.A *u$_3$* SIPAD [U$_8$.UDU.ḪI.A]
2 [ER]EŠ.DINGIR.GAL *ša i-na* ^{iti}KIN.^{d}INANA *š*[*a* MU.x.KAM]
3 ^{d}*ša-ga-rak-ti-šur-ia-aš* ^{m}LU$_2$-^{d}AMAR.UTU GU$_2$.EN.[NA]
4 *re-e-ša iš-šu$_2$-u$_2$*

o.5	GURUŠ	GURUŠ.TUR	SIPAD AB$_2$.GUD.ḪI.A EREŠ.DINGIR.GAL MU.[x.KAM]	
6	1		^{m}GAL-*a-ša$_2$*-^{d}*nin-urta*	^{m}*a-b*[*i*$^{?}$-…]
7	1		$^{m.d}$*nin-urta*-SUM-ŠEŠ.ME	^{m}MIN
8	1		$^{m.d}$*bu-un-na-*^{d}*gu-la*	$^{m.d}$IŠKUR-˹*ra*˺-*im*-[…]
9		1	^{m}*ib-ni*-^{d}UTU	^{m}MIN
10	[1]		$^{m.d}$UTU-DU$_3$	^{m}EN-˹x˺-SUM-*na*
11	[1]		$^{m.d}$*nin-urta-mu-ter*-ŠU	^{m}MIN
12	[1]		^{m}*ḫu-un-nu-bu*	^{m}MIN
13		1	^{m}*iz-kur$_3$*-^{d}UTU	^{m}MIN
14		1	^{m}*ki-din*-^{d}UTU	^{m}MIN
15	1		$^{m.d}$*nin-urta-ga-mil*	^{m}MIN
16	1 US$_2$		$^{m.d}$UTU-ŠEŠ-SUM-*na*	^{m}MIN
17	1 US$_2$		^{m}*tu-kul-tu$_4$*	^{m}MIN
18		1 US$_2$	$^{m.d}$UTU-EN-DINGIR.MEŠ	^{m}MIN
19	[1]		^{m}*ri-mu-ut-*^{d}*gu-la*	^{m}MIN

[63] Given the broken state of CBS 2129 (Text 4.4), I cannot say with certainty that it also lists EREŠ.DINGIR livestock. However, I find the co-occurrence of the *ṣibtu* and *ṣabittu* animals rather intriguing, as these two terms otherwise only co-occur in N 1922 (Text 4.3), which totals up *ṣibtu* and *ṣabittu* animals that are attributed to the EREŠ.DINGIR institution in the header. This latter tablet is dated to Year 13, possibly the reign of Kadašman-Turgu, if we assume that this tablet was drawn up at the same time as the livestock account tables.
[64] I would like to thank Dr. Philip Jones at the Penn Museum for verifying the join for me.

20	[1]		^{m}*ki-din-*^{d}*en-lil*$_{2}$	^{m}MIN
21	[1]		^{m}MU-*lib*$_{2}$*-ši*	^{m}MIN
22-23	[12 EN 2 US$_{2}$]	4 EN 1 / US$_{2}$	ŠU.NIGIN$_{2}$ 16 SIPAD AB$_{2}$.GUD.ḪI.A EREŠ.DI[NGIR.GAL]	

r.24	GURUŠ	GURUŠ.TUR	SIPAD ˹U$_{8}$˺.[UDU.ḪI]I.A EREŠ.DIN[GIR.GAL MU.x.KAM]	
25	1		^{m}*tukul-˹ti˺-*[^{d}]IŠKUR	[…]
26	1		^{m}BA-*ša*$_{2}$-^{d}IŠKUR	^{m}MIN
27	1		^{m}*muš-te-šir-*^{d}IŠKUR	^{m}MIN
28	1		^{m}*ri-ḫi-it-*^{d}*gu-la*	^{m}MIN
29	1		^{m}BA-*ša*$_{2}$-^{d}U.GUR	^{m}*ḫa-˹ni˺-bu*
30		1	^{m}*iz-kur*$_{3}$-^{d}U.GUR	^{m}MIN
31	1		^{m}*ḫu-la-lu*$_{4}$	^{m}IR$_{3}$-UD.9.KAM
32	1		^{m}*ta-qi*$_{2}$*-ša*$_{2}$-[^{d}]*gu-la*	^{m}MIN
33	1		^{m}˹*il*$^{?}$ x˺-[(…)] x GA	^{m}MIN
34	[1 (…)]		$^{m.d}$[*ni*]*n-urta*-MU-MU	^{m}MIN
35	[1 (…)]		$^{m.d}$*nin-urta-na-ṣir*	^{m}MIN
36	[	]	^{m}*tukul*$^{?}$*-[t]i*$^{?}$*-*^{d}*gu-la*	^{m}MIN
37	[	]	^{m}*ki-din-*^{d}U.GUR	^{m}MIN
38	[	]	$^{m.d}$U.GUR-ŠEŠ-SUM-*na*	^{m}MIN
39	[	]	^{m}*iz-kur*$_{3}$-^{d}*dil-bat*	^{m}*na*-[…]
40	[	]	^{m}*su*$_{2}$*-uk-ku*	^{m}MIN
41	[	]	^{m}IR$_{3}$-^{d}*gu-la*	^{m}MIN
42	[	]	^{m}*man-di-i-da-a-a*	^{m}MIN
43	[	]	^{m}*e*$_{2}$*-a*-EN-DINGIR.MEŠ	^{m}MIN
44	[	]	^{m}DINGIR-*ia*	^{m}MIN
45	[	]	^{m}*a-šib-me-e-da-a-a-an*	^{m}MIN
46	[	]	$^{m.d}$*e*$_{2}$*-a*-BA-*ša*$_{2}$	^{m}MIN
47	[	]	^{m}˹*e*$_{2}$*-a*˺-URU$_{4}$*-iš*	^{m}MIN
48	[	]	[^{m}…]-x x-*i*	^{m}MIN
49	[	]	˹^{m}˺[…]-*in*$^{?}$	^{m}MIN
50	[	]	[^{m}…] ˹x˺	^{m}MIN
51	[	]	[^{m}…]	^{m}MIN
52	[	]	$^{m.d}$[…]-*ni*	^{m}*ṣu-pur-*˹^{d}˺[…]
53	[	]	$^{m.d}$˹x˺-[…]-MU	^{m}MIN
54	[	]	˹^{m}x˺-[…]-^{d}IŠKUR	^{m}MIN
55		1	^{m}˹*ri*˺*-gim-*^{d}IŠKUR	^{m}MIN
56	1		^{m}IR$_{3}$-^{d}*ku*$_{3}$*-bi*	^{m}MIN
57	1		^{m}*ri-gim-*^{d}IŠKUR	^{m}MIN
58	PAP 14[(+x)]	6[(+x)]	ŠU.NIGIN 33 SIPAD U$_{8}$.UDU.ḪI.A EREŠ.[DINGIR.GAL]	

<u>Partial translation:</u>

(1-3) […] the shepherds of the cattle and [flocks of the ER]EŠ.DINGIR.GAL, which in Month VI of Y[ear x] of Šagarakti-Šuriaš, Amīl-Marduk, the *šandabakku* inspected.

o.5	Adult, male	Adolescent, male	Shepherds of the cattle of the EREŠ.DINGIR.GAL, Year [x]	
6	1		Rabâ-ša-Ninurta	Abi$^{?}$-[…]
7	1		Ninurta-nādin-aḫḫē	Ditto
8	1		Bunna-Gula	Adad-rā'im-[…]
9		1	Ibni-Šamaš	Ditto

…

22-23	[12, incl. 2 dead]	4, incl. 1 dead	Total: 16 shepherds of the cattle of the EREŠ.DIN[GIR.GAL] priestess

…

r.24	Adult, male	Adolescent, male	Shepherds of the f[locks] of the EREŠ.DIN[GIR.GAL priestesses, Year x]	
25	1		Tukultī-Adad	[…]
26	1		Iqīša-Adad	Ditto

…

58	Total 14[(+x)]	6[(+x)]	Total: 33 shepherds of the flocks of the EREŠ.[DINGIR.GAL]

This tablet is dated to the reign of Šagarakti-Šuriaš and therefore contemporary with the herding contracts. We see in the header that this document is a roster produced after the *šandabakku* "inspected" the shepherds responsible for the care of the herds and flocks of the EREŠ.DINGIR priestesses.[65] It records the names of 49 shepherds, as well as their age-sex category (adult or adolescent male) and their current state of being (i.e., dead or alive).

Should Tenney (2011: 102) be correct in interpreting these rosters as lists of workers that belong to a provincial labor force overseen by the *šandabakku*, then it would seem that these shepherds were provincial servants who could be assigned and reassigned at will to different posts.[66] In other words, their appearance in these rosters, and the *šandabakku*'s involvement in

[65] See Tenney 2011: 15-20 for more discussion on inspection rosters. He notes that "[a]lmost all inspection texts can be identified by the appearance of a standard phrase based on the idiom *rēša + našû*…"

[66] Repeated again in Tenney 2017: 210, and see also Brinkman (2017: 18). Note also the existence of CBS 12572, which lists other professions that appear to have been assigned to the

their inspection, serves as further evidence that the shepherds responsible for the care of the priestesses' livestock fall within the *šandabakku*'s administrative sphere in contrast to that of the priestesses'. This is a point I argue in Chapter 3 based on the stipulations present in the herding contracts.[67] Given the existence and institutional links between the contracts and the tables, which connect the EREŠ.DINGIR priestesses to the *šandabakku* and the provincial administration via a contractual relationship, the shepherds listed in this roster were likely assigned to the priestesses in connection with the contractual arrangements detailed in the herding contracts. In other words, the provincial administration is seen here to be providing contractual labor for the EREŠ.DINGIR priestesses.

I do not, it should be noted, exclude the possibility that other clients could contract their livestock into this system. However, not all tables are as explicit as BE 14 99a and CBS 7267 in their identification of the owners, as is the situation with BE 15 199. In other cases, the ambiguity is due to tablet damage; many of these other tables tend to be less well-preserved, thereby making it difficult to identify other potential client institutions or individuals. For instance, the header of BE 14 99 may indicate a personal name, though we cannot confidently reconstruct it.[68] CBS 2129 preserves only a few rows from what appears to be the bottom left-

---

EREŠ.DINGIR institution. Tenney (2017: 212 and 2011: 94) furthermore emphasizes the variety of posts, institutions, and/or individuals to which the labor force could be assigned.

[67] Neither the tables nor the contracts provide the names of the shepherds; if one recalls, these shepherds are mentioned only by profession in the contract stipulations, suggesting that this specific identifying information is not pertinent to the clients at the time the contract is drawn up and will be handled by the contractors (i.e., the provincial administration) instead. As mentioned above, this is supported by the presence of the shepherds' identifying information in the inspection roster, which is almost certainly a document from the governor's archive.

[68] BE 14 99: 1: *mi-nu* AB$_2$.GUD.ḪI.A *u$_3$* U$_8$.UDU.ḪI.A *ša* ˹m?.d?˺*en*$^?$-*lil*$_2$$^?$˺-[…], "Account, cattle and flocks of *Enlil*-[…]" As I mention in my commentary to this text, all that is visible of this possible personal name is the personal name marker; the remainder is broken off, and so this reading relies on Clay's (1906) copy, which may have been made before the tablet's condition deteriorated.

hand corner of the tablet. The upper-edge of BE 14 168 is also missing, though it should be noted that a few rows in the table are tagged as being *ša bīt Ninurta-apla-iddina*, "of the estate of Ninurta-apla-iddina" and *ša bīt Bēlāni,* "of the estate of Bēlānu"—which I suspect refer to the previous *šandabakkū* of Nippur.[69] These are tantalizing references, but for lack of additional attestations, it is difficult to draw further conclusions.

4.4.2. Location

Setting aside the topic of ownership, we now turn to the question of location. In other words, where were the livestock?

Attestations of locations in the tables are mentioned largely in the interlinear comments that treat what I consider to be "atypically" managed herds and flocks, which must have been kept separately from the typically managed livestock.[70] For sheep and goats, these locations

---

[69] See BE 14 168: 41 and 62 for the "estate of Ninurta-apla-iddina" and 60 for "the estate of Bēlānu." For the suggested identification of these two characters with previous *šandabakkū* of Nippur, see n. 23. Of interest is the fact that some of the cattle encompassed by Ninurta-apla-iddina's estate were transferred from the hands of two mayors, Bunna-Gula (l. 47) and Rabâ-ša-Nergal (l. 51), into the hand of Irēmšu-Ninurta, who then distributed these cattle to agricultural workers as draft animals (l. 40) while still maintaining responsibility and control over them. Given that these cattle originated in other herds, and assuming that I am correct that these tables only account for contracted livestock, if Ninurta-apla-iddina's estate owns the animals, then why would they still be listed in the tables? Would it be possible that his estate is simply "borrowing" these animals for labor, and to interpret the *ša* here as something more akin to "concerning the estate of PN" rather than "belonging to the estate of PN"? Another possibility is that the estates of these previous governors were absorbed into the provincial administration after their deaths or their replacements. This practice of subsuming the estates of high officials into higher-order administrative structures has been documented during the Ur III period and Old Babylonian periods; see, for instance, the discussion by Stępień 2012, van Koppen 2002 and cited literature, especially Maekawa 1996 and 1997 and Heimpel 1997. Some of these estates were referred to by the names of their previous owners (*ša bīt* PN) even as their assets or properties were reassigned.

[70] In other words, when additional information is noted about the location of animals in these tables, one can reasonably say that this information has been recorded because the animals are not where they would otherwise be had they been managed more typically. As I will argue later in Section 4.4.4, the typical herds and flocks in both the tables and herding contracts are almost

include the pasture (*qerbetu*) and possibly a *ludû*-field.[71] The pasture is also mentioned explicitly in two Group 1 sheep and goat contracts, CBS 10738 and CBS 11107, after the names of the herdsman, which would imply that, generally speaking, the typical flocks were not pastured in *qerbetu* fields. Unfortunately, we have little information about where these *qerbetu* fields were actually located aside from one attestation in BE 14 99: 65, which refers to a *qerbetu* field in the vicinity of two towns, one of which is clearly identified as Tukultī-bēli and the other whose name is unfortunately broken.[72]

The location of the remaining flocks cannot be ascertained with any confidence. This could be a consequence of the typical flocks being taken out to winter pastures in the steppes or desert during the cold months. However, given that local mayors were responsible for counting them, possibly on a monthly basis if the herding contracts are to be believed, the flocks may not have been pastured too far away from where the mayors were based. This leaves open the possibility that the sheep and goats were being grazed on fallow fields in the general region of the mayors' towns.[73] However, this is only conjecture and cannot be proven at this time.[74]

As for the cattle, one would suppose that they must have been kept in the vicinity of the canals due to their high water requirements (see Section 2.4.2). However, as with the flocks, we

---

always breeding herds/flocks, while atypically managed herds and flocks appear to store animals until they are needed for meat and/or labor. The mode of operations outlined in the tables suggests that these two types of herds/flocks were pastured and grazed in different locations, perhaps to more efficiently meet demands for meat or labor by the client institution(s) and/or to account for and meet different needs in terms of resources (e.g., amount of pasture, water, etc.).

[71] See already n. 26-27.

[72] On the interpretation of *qerbetu* as pasture lands in southern Mesopotamia, see Woods 2007. Charpin 2009: 60, following Durand 1998: 191, describes the *qerbetu* as an overhanging alluvial terrace that does not directly adjoin the irrigation canals where the villages are located. In other words, the *qerbetu* is to be considered outside the immediate control of the administration.

[73] See already Section 2.4.3.

[74] There is a possibility that the construction *pīḫat* PN, frequently used in these tables, conveys geographical information as well, but cf. the discussion below in Section 4.4.3.

only find locations explicitly mentioned in connection with atypically managed herds, and especially the draft animals. Plow-oxen are known to have been assigned to plots in the neighborhood of Tukultī-bēli[75] and the regions around Kār-Nippur,[76] while other cattle were apparently extracted from herds and led away to Nippur.[77] Of particular note are attestations of stables (*nakkamtu*),[78] which appear to store cattle received from a variety of sources until they were redistributed for later use.[79] From the interlinear comments, we see that these stabled cattle could originate from places such as Kār-bēl-mātāti,[80] the Sealand,[81] Suri,[82] and Dūr-Kurigalzu,[83] and that they could be "withdrawn" for use in towns such as Arad-bēlti. The location of these stables is not attested but BE 15 199 lists 719 total *bīru*-cattle stabled under the responsibility of two individuals, Ibašši-ilu and Laḫḫabu.[84]

4.4.3. Responsibility

In conjunction with locational information, the tables additionally identify responsible individuals in connection with the livestock. The default relationships of responsibility are conveyed by the column headers, which feature the trio of officials found in the herding

[75] BE 14 99: 44.
[76] BE 14 99: 45.
[77] BE 14 99: 36.
[78] See already n. 25.
[79] This is especially clear in the case of BE 15 199: 23ff.
[80] BE 14 99a: 19.
[81] See already Kessler 1992 for the complete list of attestations.
[82] E.g., BE 14 168: 23.
[83] E.g., BE 15 199: 27.
[84] Ibašši-ilu manages 360 heads of cattle and Laḫḫabu, 359. There is, to my knowledge, no archaeological evidence for stables large enough to house 719 animals in the vicinity of Nippur, and so one must wonder if what we are seeing here is merely a reflection of an administrative reality. This is not to say that there were no stables, but the existence of one single centralized stable seems to me to be a stretch.

contracts, the herdsman, the mayor, and the "Kassite" official, all of which are administratively connected with a herd or flock, and almost certainly in connection to the duties mentioned in the herding contract stipulations. Slight variations on this usual list exist, which I list below:

1.) Omission of the "Kassite" official: In some rows, they are simply omitted, as in BE 14 168: 40, while in certain tables (BE 15 199, CBS 7267), the entire column is omitted. These omissions suggest that these officials were not significantly involved with the management of the animals, though their exact duties remain a mystery.

2.) Substitution of one herdsman for another: These substitutions are indicated in the tables with the phrase PN_1 *ki-mu* PN_2, "PN_1, in lieu of PN_2," as in BE 14 99a: 39 and 41. My supposition is that the connected herding contract may list PN_2 rather than PN_1, and that this is a way to account for one herdsman taking over the duties of another without necessarily going to the trouble of drafting another herding contract.[85]

3.) Individuals taking on the responsibility of a mayor but under the responsibility of another: This relationship is indicated by the construction PN_1 *qāt* PN_2, "PN_1, hand of PN_2" (e.g., BE 14 168: 28-32 and *passim*), which indicates that, while PN_1 may be

[85] We have no examples of herding contracts being re-drafted for the same individuals year after year. This could be because the older contracts were discarded from the archive once they were considered "out of date," but it is also possible that the formal contracts were not re-drafted on an annual basis despite what one might expect, and that any changes to the management were simply noted in the livestock account tables. Kozuh (2014: 37) makes a similar suggestion regarding the livestock inventory texts in the Eanna temple archive, which he considers to be the "administrative counterpart to an actual herding contract." He argues that these inventories "served to mark the basis on which the Eanna was able to calculate the modeled size of any particular herd…" and that "the herdsman would only have needed another inventory text drawn up if the basis of his herd was significantly altered." The annual natural development of a flock would have been "tracked … from year to year on wax-covered wooden ledgers." For a more detailed discussion, see Kozuh 2014: 34-46.

fulfilling the required responsibilities of the mayor (e.g., counting animals), the responsible individual is PN_2, who would hypothetically be liable for any losses should PN_1 not fulfill his duties.

Outside of this usual list of officials, the tables also tag responsibility in a number of other ways. This is often the case for flocks and herds that appear to be atypically managed and that are qualified with dense interlinear comments, which once more suggests that these livestock were managed under a different set of circumstances than those described in the herding contracts. Occasionally, and in conjunction with administrative terms either designating location (e.g., *nakkamtu*)[86] or descriptors of the animals (e.g., ^{gud}NINDA$_2$,[87] *tapqirtu*,[88] *šulmānātu*,[89] etc.), responsible individuals are mentioned only by name. In some cases, these individuals are said to be under the responsibility of another individual, the latter of whom appears in the construction *qāt* PN.[90] However, in others, only one individual is connected with the herds in the construction *qāt* PN.[91] Whether there is any inherent difference conveyed with regards to responsibilities between those tagged simply by name and those mentioned in the *qāt* PN constructions is uncertain.

Two of the tables, BE 14 99a and BE 14 168, additionally make frequent use of the construction *pīḫat* PN to group together several rows of livestock. Though it is clearly an administrative term, the exact meaning of the construction is ambiguous. Earlier scholarship has

---

[86] E.g., BE 14 168: 22: *na-kam-tu$_4$ ^{m}ṣa-ab-ru$_3$*, “The stable, Ṣabru.”
[87] E.g., BE 14 168: 36, ^{gud}NINDA$_2$ *^{m}i-ša-as-si-pil-ḫa-šu*, “*bīru*-cattle, Išassi-pilḫašu.”
[88] E.g., BE 14 168: 17: *^{m}ib-nu-tu$_4$ tap-qi$_2$-ir-tu$_4$ ša ma-du-t[u] u$_2$-pa-aq-qi$_2$-ru-ni*, "Ibnûtu, claims which many made."
[89] E.g., BE 14 168: 16: ^{m}*ṣa-ab-ru šul-ma-na-a-tu$_4$* TA MU.6.KAM EN MU.9.KAM, "Ṣabru, *šulmānu*-gifts, from Year 6 to Year 9."
[90] E.g., BE 14 99a: 18: ^{gud}NINDA$_2$ *na-kam-tu$_4$* DUMU ^{m}DI.KUD-*ni*-^{d}UTU ŠU $^{m.d}$*en-lil$_2$*-EN-UN.MEŠ-*šu$_2$*, “*Bīru*-cattle, the stable. Son of Dajjānī-Šamaš. Hand of Enlil-bēl-nišīšu.”
[91] E.g., BE 14 99a: 38 and *passim*: ŠU ^{m}ARḪUŠ-*šu*-$^{m.d}$*nin-urta*, “Hand of Irēmšu-Ninurta.”

tended to translate the construction as “district” or the like, implying the existence of a geographical component to the word (see Luckenbill 1906: 300; Torczyner 1913: 36 and *passim*; and Balkan 1954: 32). However, more recently, scholars have opted for less committed translations, such as Kessler (1992, “Verantwortungsbereich” (93) and “Amte- oder Zuständigkeitsbereich” (95)), Sassmannshausen (2001: 22, “Verantwortungsbereich”), CAD P (s.v. *pīḫatu*, mng. 2b2’, “responsibility for persons”), and Tenney (2011: 103, “indicate[s] a supervisor”). Though none are particularly explicit about the problems involved with defining the construction, these last translations hint at a valid point here, as there is indeed some question about whether *pīḫat* PN is necessarily a geographically-bounded area of responsibility in addition to an administrative one. It is, after all, entirely possible to simply have responsibility over, e.g., a group of workers or animals without holding responsibility over the land on which they are inhabiting.

My attempts to better define the construction have resulted in few definitive conclusions, however. Even trying to differentiate between *pīḫat* PN and the other commonly used marker of responsibility, *qāt* PN, has yielded little in the way of additional information. The terms are clearly not interchangeable; however, the rules governing their use are opaque. See, for instance, BE 14 52, a livestock inventory that lists a count of cattle, a corresponding amount of ghee, and then reads as follows: (15)ŠU ^{m}*gu-ub-bu-ḫi* (16)*pi-ḫat* ^{m}*nu-na-ak-te*, “Hand of Gubbuḫu, *pīḫatu* of Nunakte.” See also the livestock account table BE 14 168: 46, which specifies that a herd of cattle are *qāt Bunna-Gula*, and then in the subsequent line 48, totals them under the *pīḫat Bunna-Gula*. The implication here is that livestock listed under one individual’s *pīḫatu* can be, but does not necessarily have to be, in the hand of that same individual. But what does it mean when the

pīḫat PN construction is used absent the *qāt* PN construction?[92] Furthermore, to complicate matters even further, the livestock account table BE 14 99a consistently treats *qāt* PN and *pīḫat* PN as mutually exclusive constructions; the *qāt* PN construction is used *only* in rows that are *not* included within *pīḫatu'*s of individuals—e.g., *pīḫat* PN subsections encompass l. 3-8, 15-17, 24-30, 36-42, while *qāt* PN is attested only in l. 12, 13, 18, 21, 33, and 43. Do the different distributions of these constructions in the livestock account tables result from different scribal practices,[93] or do they indicate an actual and realizable administrative difference? One can speculate, but given the limited attestations, it is impossible to draw firm conclusions. I have therefore decided to translate this term very loosely and ambiguously as "sphere of responsibility," pending further evidence.

4.4.4. Production aims

Turning now to production aims, we are on firmer ground, as we can explore the goals of this system by analyzing the age-sex ratios and the secondary product quotas that are provided in

[92] E.g., IM 59372, published in Kessler 1992, wherein the only individual mentioned is in the construction *pīḫat* PN. Would this imply that the individual mentioned should be understood to also take responsibility for the listed animals, unless otherwise specified (as in BE 14 52)?

[93] To elaborate, it is possible that the scribe of BE 14 168 simply preferred to nest "atypical" herds under *pīḫat* PN units even when they belong outside of them instead of pulling the information out into a separate section, as the scribe of BE 14 99a did. The most convincing evidence of this is that all of BE 14 168: 2-26 is included under *pīḫat ḫazannāti*, "*pīḫatu* of the mayors." Absent any name identification, I assume that this simply means each of the rows with an associated mayor (l. 2-15) are assigned to the *pīḫatu* of that mayor. However, BE 14 168: 16-25, which list "atypical" herds of cattle qualified with dense interlinear comments, do not identify any individuals as mayors. Hence, these "atypical" herds may have been listed together with the typical herds for the sake of convenience but should be understood as not belonging to the *pīḫat ḫazannāti* by virtue of their contents. This practice is not dissimilar to the what we find in other texts wherein a tablet's header and conclusion may contain descriptors of a tablet's content that do not actually apply to all the entries. However, given that we only have two tables that preserve these constructions, this is only conjecture.

the tables for the listed herds and flocks. I then integrate what we can glean of the animals' use from the tables' interlinear comments to better contextualize the extracted figures.

Using the dataset provided by these tables, we can calculate age-sex ratios for a specific herd or flock. Age-sex ratios in particular are useful for detecting harvest patterns in livestock populations, which can then be compared with "mortality profiles"[94] or age-at-death frequency graphs, that are thought to reflect different livestock production strategies. The principle underlying these models is that livestock populations exploited for different goals will exhibit different mortality and population curves, and that by studying age-sex distributions, one can determine whether a herd or flock was optimized to produce one product or another.

These profiles were first explicitly and systematically discussed in detail by Payne (1973) in a study on sheep and goat mandibles from Aşvan Kale in Anatolia. In his article, Payne constructs three idealized kill-off patterns that are reflected in flocks managed respectively for meat, milk, or wool.[95] In meat flocks, Payne (1973: 281) notes that "most of the young males are killed when they reach the optimum point in weight-gain, only a few being kept for breeding." In other words, one may see close to equal numbers of male and female lambs but increasingly low ratios of rams to ewes.[96] Such a profile would indicate that male lambs are being culled or otherwise removed from a flock for fattening once they reach an optimal age.[97] Flocks

[94] These profiles may also be known as kill-off patterns or harvest profiles in other literature.
[95] See Payne 1973: 282-284, Fig. 1, Fig 2, and Fig. 3 for charts.
[96] See Payne 1973: 282, Fig. 1 (Model A). Payne's meat production model allows for a 1:1 male-female ratio for lambs through the first year. This theoretical ratio drops to around 2:3 by the second year and 1:6 by the third year of life.
[97] This optimal point can vary depending on whether the goal is to produce the most meat or the highest value meat, with the value being dependent on period, place, and culture.

specializing in milk production exhibit a similar curve, though surplus lambs (mostly male) are slaughtered earlier in life in order to maximize milk availability for human consumption.[98]

On the other hand, if wool production is the main goal, then "lamb production is limited to the replacement needs of the flock" and "males not needed for breeding are castrated, and run as a wether flock."[99] In this scenario, we would expect a population to contain roughly equal amounts of male and female ovicaprids throughout all stages of life. Specialized flocks composed entirely of castrated males may or may not be present.

Though Payne's study focuses specifically on mortality profiles for sheep and goat flocks, subsequent research has shown that these profiles can be generally applied to cattle herds as well, with some adjustments to account for the difference in species and use.[100] In milk-producing herds, for instance, male cattle tend to be slaughtered as infants quickly after birth to preserve more milk for human consumption, while in meat-producing herds, they are slaughtered as subadults as soon as they approach peak bodyweight. Meanwhile, for those herds raised specifically to provide traction, greater numbers of males (specifically, castrated) would survive into adulthood; they would be slaughtered when their age outstrips their utility.

4.4.4.1. Sheep and goats

[98] Payne 1973: 281 and 283, Fig. 2 (Model B). In the milk production model, male lambs are theoretically culled before they reach one year of age, in contrast to the more gradual kill-off in the meat model. Note that there has been extensive debate over the accuracy and applicability of the milk model in particular, with some scholars (e.g., McCormick 1992) arguing that the presence of offspring is mandatory for the let-down of milk in primitive livestock. However, cf. Halstead 1998 for a detailed response and discussion.
[99] Payne 1973: 281 and 285, Fig. 3 (Model C).
[100] See, for instance, Halstead 1998 and McCormick 1992 and cited literature for discussion on cattle mortality profiles.

When we apply this method of analysis to the flocks and herds listed in the tables, we arrive at the following picture:

Text	**Sheep**	**Lambs**	**Goats**	**Kids**	**Purpose**[101]
BE 14 99a: 24	1:17.3 (TA)	1:1	1:8.67	1:1	Wool, goat hair, *ṣabittu*-extractions
BE 14 99a: 25	1:9.2 (TA)	1:1	1:8.8 (TA)	1:1	Wool, goat hair, *ṣabittu*-extractions
BE 14 99a: 26	1:14.6 (TA)	1:1.05	1:3.9 (TA)	1:1	Wool, goat hair, *ṣabittu*-extractions
BE 14 99a: 28	1:13.6 (TA)	1:1	1:6.33	1:1	Wool, goat hair, *ṣabittu*-extractions
BE 14 99a: 29	1:7.8 (TA)	1:1.05	1:7.44 (TA)	1:1	Wool, goat hair, *ṣabittu*-extractions
BE 14 99a: 31	28:0 (TA)	---	27:0 (TA)	---	Wool, goat hair, *aklu*-expenditures, *ṣītu*-expenditures, hides, destination flock (*ṣabittu*)
BE 14 99a: 33	202:0	---	---	---	Wool
BE 14 99a: 36	1:11.8 (TA)	1:1.06	1:9.8	1:1.03	Wool, goat hair, *ṣabittu*-extractions
BE 14 99a: 37	1:10	1:1	1:3.5	1:1.33	Wool, goat hair
BE 14 99a: 38	1:12.6 (TA)	1:1.06	1:4.2	1:1	Wool, goat hair, *ṣabittu*-extractions
BE 14 99a: 39	1:7 (TA)	1:1	1:7.5 (TA)	1:1.06	Wool, goat hair, *ṣabittu*-extractions
BE 14 99a: 40	1:31	1:1.125	1:4	1:1	Wool, goat hair
BE 14 99a: 41	0:13	1:1.33	1:7.91 (TA)	1:1	Wool, goat hair
BE 14 99a: 43	112:0 (TA)	---	200:0	---	Wool, goat hair, funerary offerings (*kispu*), hides, destination flock (*ṣabittu*)

Table 4.9: Age-sex ratios (M:F) calculated from the sheep and goat flocks listed in the Group 1 herding contracts and livestock tables. Flocks containing many more males than females are highlighted in grey, and extractions noted in shorthand in the tablet are indicated by (TA).

[101] By "purpose," I mean explicit textual references to how the animals are being used. If columns indicate quotas of wool and/or goat hair, I list these out, and if the text indicates that extractions are being made in *ṣabittu*-animals (for transfer into another herd), then I also note this in this column. "Destination flocks" are those that include multiple breakdowns glossed by EN.

CBS 2129: o.3'-6'	1002:0	---	148:0 (TA)	---	[*Wool, goat hair*], hides, goats for the *pudû*-ritual in Babylon, destination flock (*ṣibtu*, *ṣabittu*)
CBS 2129: o.7'-8'	202:0	---	70:0	---	[*Wool, goat hair*], destination flock of animals to be extracted(?)
CBS 2129: o.9'-13'	646:0 (TA)	76:0	47:0 (TA)	---	[*Wool, goat hair*], *aklu*-expenditures, *ṣītu*-expenditures, hides, destination flock (from the responsibility of the mayors(?))
CBS 2129: r.1	1:6.85 (TA)	1:1.03	N/A	N/A	[*Wool, goat hair*], extractions
CBS 2129: r.2	1:10.13 (TA)	1:1	N/A	N/A	[*Wool, goat hair*], extractions
CBS 2129: r.3	1:7.64 (TA)	1:1	N/A	N/A	[*Wool, goat hair*], extractions
CBS 2129: r.4	1:12.25 (TA)	1:1	N/A	1:1	[*Wool, goat hair*], extractions
CBS 2129: r.5	1:7.53 (TA)	1:1.02	N/A	1:1	[*Wool, goat hair*], extractions
CBS 2129: r.6	1:3.4 (TA)	1:1.06	N/A	N/A	[*Wool, goat hair*], extractions
CBS 2129: r.7	1:3.1 (TA)	1:1.05	1:1.83 (TA)	N/A	[*Wool, goat hair*], extractions
BE 14 99: 56	1:5.25	1:3 (TA)	---	---	Wool, extractions
BE 14 99: 57	1:4.25	1:2.5	---	---	Wool
BE 14 99: 60	1:6	1:4 (TA)	---	---	Wool, extractions
BE 14 99: 62	1:8.4	1:7.5 (TA)	---	---	Wool, extractions
BE 14 99: 63	268:0	---	---	---	Wool
BE 14 99: 64	1:29.5	---	---	---	
BE 14 99: 66	N/A	---	---	---	

Table 4.9 (cont.): Age-sex ratios (M:F) calculated from the sheep and goat flocks listed in the Group 1 herding contracts and livestock tables.

A number of observations can be made. First, out of the 31 listed flocks, 23 flocks exhibit relatively low male-to-female adult ratios, especially when compared to the corresponding sex

ratio of the lambs and kids, which tends to hover around 1:1.[102] While the sex ratios of the offspring do not deviate much from the expected 1:1 ratio, the ratios of rams to ewes range from 1:3.1 to 1:31, with one flock containing no rams at all. For goats, the buck-doe ratios range from 1:3.5 to 1:9.8. The exceptions to this pattern are confined to three flocks listed in BE 14 99a, another three flocks on the obverse of CBS 2129, and one flock from BE 14 99, all highlighted above in grey. These flocks are composed only of rams and/or bucks, and in one case, 76 male lambs (CBS 2129: obv. 8').

These figures imply that in the vast majority of these flocks, male lambs and kids are being selectively culled or otherwise extracted from the flocks, either before or shortly after aging up into the adult age categories, UDU.NITA$_2$ for sheep and MAŠ$_2$.GAL for goats.[103] In fact, in 18 out of 22 flocks, extractions of rams and bucks are explicitly indicated by the presence of TA glosses in cells listing male ovicaprids. These notations and the resulting age-sex distributions strongly imply that these flocks are breeding flocks that are primarily being reared for meat production.

[102] The exceptions to this rule are those flocks listed in BE 14 99. The lamb age-sex ratio in this table averages out to one male lamb per 4.25 female lambs. Furthermore, the lambing rate stands at around 40.3%, falls short of the expected lambing rate of 50%. One possible explanation is that these flocks were counted after male lambs were deducted. Support can be explicitly taken from the shorthand deductions indicated in the cells of the male lamb column (BE 14 99: 56, 60, 62 (col. iii), which in other tables only occurs in the adult columns. Adjusting for these deductions brings us back up to a less extreme average ratio of 1:2.675 and a more comfortable average lambing rate of 47.75%.

[103] Although we cannot determine the exact age at which these offspring were removed, they were apparently separated after they were considered old enough to be plucked or combed (on which, see Section 2.3.1 on the life cycle of sheep and goats), as the wool and goat hair calculations always account for their numbers.

Turning now to the remaining seven flocks highlighted in grey,[104] Payne's (1973) model would strongly suggest that these are wether flocks raised for wool production. This hypothesis is particularly attractive for the flocks of BE 14 99a in light of the alleged connection between the EREŠ.DINGIR institution and textile production,[105] as well as the significant amounts of wool and goat hair that the institution seems to have handled.[106]

Unfortunately, direct evidence supporting this hypothesis is limited. Outside of the adult sex ratios, no other textual evidence suggests that these flocks were reared for specialized wool production, though the wool collected from these flocks must have been a prime product. For one thing, no effort is made to distinguish between different qualities of wool or goat hair in this table. This lack of diverse terminology is unusual for specialized wool-producing flocks;[107] since wethers produce better-quality wool, one might expect to see wool qualifications given in the text. But perhaps the interest lay less in wool quality and more in wool quantity. As is well-known, wethers produce not only higher-quality wool but greater amounts of it as well.[108]

---

[104] The astute reader will notice that I have accounted for only 30 out of 31 flocks. The age-sex distribution for the flock listed in BE 14 99: 66 is too broken to draw any meaningful conclusions.

[105] Brinkman 2004: 294 notes that "Ni. 943 lists more than thirty workers, female and male, the amounts of wool each was given, and the total number of textiles (*muḫtillû* and *naḫlaptu*) each produced—the latter summarized as *mandattu* ˹EREŠ.DINGIR.GAL˺ for the seventh and eighth years of Šagarakti-Šuriaš." Tenney 2011: 100 provides an additional summary of the tablet, describing it as "a detailed production summary that records amounts of wool given out as raw material (SIG$_2$.ḪI.A *mandattu*) to each of the 28 women working in the establishment of a high priestess (NIN.DINGIR.GAL) in the seventh and eighth years of Šagarakti-Šuriaš (1239-1238 B.C.) and the number and type of luxury garments produced by each worker."

[106] In addition to BE 14 99a, see also BE 14 136, MUN 120, MRWH 17, and CBS 10744 for texts connecting the EREŠ.DINGIR institution to the handling of wool and goat hair.

[107] See Steinkeller 1995 on the diverse qualifications used for wool and sheep during the Ur III period. Such diversity of vocabulary is not duplicated in the Middle Babylonian livestock texts.

[108] On sixteenth to seventeenth century flocks in Norfolk, England, Allison 1958: 105 writes that "a stone of wool was provided by 10-15 ewe- but only 7-10 wether fleeces" and that, furthermore, there is evidence that the price for wether-fleeces exceeded that of ewe-fleeces.

However, should these flocks be intended for specialized wool production, we might also expect to see increased wool quotas indicated so as to reflect a greater portion of the wool returning to the flock owners.[109] We do not.[110] The calculated wool and hair quotas per sheep and goat remain conspicuously constant across all flocks, whether they be breeding flocks or wether flocks—½ mina of wool per sheep and a ¼ mina of goat hair per goat.

These quotas raise an interesting conundrum, as they are unusually low compared to the delivery obligations found in other periods and places in the ancient Near East. Old Babylonian Larsa state contracts stipulate two minas of wool per sheep, while at Ur, the quota was apparently 1.67 minas of wool for each sheep contracted out by the Nanna-Ningal temple complex; meanwhile, the Neo-Babylonian Eanna contract YOS 6 155 asks for 1½ minas of wool per adult sheep and 5/6 minas of goat hair per adult goat.[111] Actual recorded yields of wool and goat hair generally align with these figures, so they are unlikely to be a strictly administrative fiction.[112]

---

[109] Killen 1964: 11-12 and Killen 1993: 209-210 notes that in the Knossos sheep records, wool quotas for Da-Dg wether flocks (1.6 lbs, figure extracted from Dk shearing records) exceeds that of those for Dl flocks (0.6 lbs). The discrepancy, he argues, is founded on the fact that the Dl flocks were not intended for specialized wool production but for stock breeding.

[110] As noted, the secondary product column in CBS 2129 is broken. The following discussion is here based on what is seen in BE 14 99a.

[111] For the Old Babylonian Larsa quota, see Kraus 1966: 29-31. The clause stipulating the wool quota is only explicitly given in YOS 5 208, col. i, 8. However, calculations of received and outstanding wool amounts confirm a consistent quota of 2 minas of wool per sheep, with the exception of two flocks, which are expected to produce a higher 2.4 minas of wool per sheep. Note also the lower quota (1⅔ minas) in YOS 5 105 (Cavigneaux and Clevenstine 2018: 53, n. 4). For the quota from Old Babylonian Ur, see Van De Mieroop 1993: 172 on YOS 5 104. For the quota from the Neo-Babylonian Eanna temple contract, see Kozuh 2014: 70-71 on YOS 6 155.

[112] Because contract stipulations only provide idealized expectations of flock productivity, we can turn to documents that record amounts actually collected from counted flocks. Ur III texts suggest yields ranging from a low 0.43 minas from one Umma flock to 2.24 minas at Lagaš (Waetzoldt 1972: 17-23 and Potts 1997: 92-93); Old Babylonian Larsa texts 1.9 minas per sheep (Kraus 1966: 30); Mari texts 2.5 minas per sheep (Durand 2009: 15); and Middle Assyrian texts around 1.2 minas per sheep and 0.75 minas of goat hair per goat (Jakob 2003: 372; see also IM 82979, edited in Ismail and Postgate 2008: 154-156).

Hence, if these numbers are to be understood as amounts owed to the EREŠ.DINGIR institution—a safe assumption given that the numbers are listed beside the EREŠ.DINGIR priestesses and because contracts should in theory reduce yield risk and variation for the owners[113]—then it would appear that the priestesses received only a small fraction of the wool and hair that their animals were otherwise producing. The remainder of the wool and hair would ostensibly go to the contractors.

Further support suggesting that these animals were not strictly reared for wool production comes from BE 14 99a and CBS 2129. According to the interlinear comments, two of the three "miscellaneous" flocks of BE 14 99a are the source of *aklu*-expenditures, *ṣītu*-expenditures, and/or funerary offerings (*kispu*)—or, in other words, meat.[114] The word *aklu* has been shown by Murai (2018) to be a general term for expenditures that encompasses a wide variety of (usually) edible commodities, including livestock.[115] According to Murai, these commodities could be consumed for a number of different purposes, including banquets, offerings, rations/fodder, rituals/ceremonies, and/or work assignments, and could be slated for use by the palace and/or the temple.[116] In many cases, such as this one, these *aklu*-expenditures co-occur with the better-known term *ṣītu*, which designates another form of expenditure,[117] though the exact difference between

[113] BE 14 99a, 33-34 and 45.
[114] On *aklu*-expenditures, see Murai 2018, and on the *aklu*-expenditure as a source for funerary offerings, see especially pp. 112-114. BE 14 99a: 30 supplied 68 rams and six goats as *aklu*- and *ṣītu*-expenditures, while BE 14 99a: 42 supplied 16 rams for *kispu*-offerings. BE 14 99a: 32 does not supply any animals for slaughter. As I have argued above, the extracted animals are not the same as the transferred animals; the latter seem to have been transferred into the flocks to replenish the stock of animals.
[115] A derivation from *akālu*, "to eat," is attractive and has indeed been mentioned before by scholars in the secondary literature. See, for instance, the discussion section of CAD A/I s.v. *aklu* B; Gurney 1983: 170-171; and Deheselle 1996: 220.
[116] Murai 2018: 256.
[117] CAD Ṣ s.v. *ṣītu*, mng. 4. On the co-occurrence of these words, see already CAD A/I s.v. *aklu* B, mng. a and the discussion.

these two terms is unknown. The *kispu*, on the other hand, is the least ambiguous of these words and is well-attested in various periods and places as a reference to funerary offerings, which strongly implies that these rams are being consumed.[118]

In the case of one flock (BE 14 99a: 30), a combined total of 74 rams and bucks were deducted, leaving behind only eleven bucks, which were then supplemented by 44 rams and bucks transferred in from other flocks as *ṣabittu*-animals.[119] Although it is normal for wether flocks to also supply meat, especially as the wethers age, an effective mortality rate of 87.5% seems excessive for a specialized wool flock.[120] This is admittedly the highest rate of extraction, but see also CBS 2129: obv. 8'-12', which lists a flock from which 260 *aklu*- and *ṣītu*-expenditures were extracted, on top of 40 natural deaths. Calculating backwards, over a quarter of the original flock seems to have been extracted for consumption here. Hence, even if these flocks were run as wool-producing wether flocks, they were certainly not exploited specifically for wool or goat hair in spite of the apparent age-sex ratios. Indeed, they more likely served a dual purpose as "store flocks," in which the males were aged, fattened, and likely sheared before heading for the kitchens.

Text No.		***ša ītiqū* (a)[121]**	**Extractions (b)**	**Deaths (c)**	**Previous year's total (d=a+b+c)**	**Natural mortality (c/d)**	**Total mortality ((b+c)/d)**
BE 14 99a: 31	Rams	0	68	0	68	0%	100%
	Bucks	11	6	3	20	15%	45%
	Both	11	74	3	88	3.41%	87.5%

Table 4.10: Mortality rates of male-only flocks in the livestock tables.

[118] CAD K s.v. *kispu*. For attestations of the *kispu*-offerings in the Middle Babylonian corpus, see Sassmannshausen 2001: 167.
[119] Possibly "deposited." See the discussion in Section 4.2.1.1 and especially n. 37.
[120] If one adjusts for the natural death of three goats, this falls to 84%, which is still unnaturally high.
[121] Not all animals listed in this table explicitly receive the qualification *ša ītiqu*—I mark these with the asterisk—but see my discussion in Section 4.2.1.2 on why we should interpret animals not otherwise tagged with any qualifier as having "passed" through into this accounting year.

BE 14 99a: 33	Rams	*202	0	0	---	0%	0%
BE 14 99a: 43	Rams	92	16	14	122	11.48%	24.6%
	Bucks	180!	0	37	217	17%	17%
	Both	272	16	51	339	15.04%	19.76%
CBS 2129: o.3'-6'	Rams	792	0	88	834	10.55%	10.55%
	Bucks	42	291	35	368	9.51%	88.59%
	Both	834	291	123	1202	10.23%	34.44%
CBS 2129: o.7-8'	Rams	*202	0	0	202	0%	0%
	Bucks	70	[(x)]	[(x)]	70(+x)	N/A	N/A
	Both	272	[(x)]	[(x)]	272(+x)	N/A	N/A
CBS 2129: o.9'-13'[122]	Rams	*552 (628)	260	40	852 (928)	4.69% (4.31%)	35.2% (33.32%)
	Bucks	*47	17	[(x)]	64(+x)	N/A	~26.56%
	Both	*599 (675)	277	40(+x)	916 (992)(+x)	~4.36% (~4.03%)	~34.61% (~31.96%)
BE 14 99: 63	Rams	*268	0	0	268!	0%	0%

Table 4.10 (cont.): Mortality rates of male-only flocks in the livestock tables.

4.4.4.2. Cattle

The same method of analysis can be applied to the cattle herds listed in the tables.

Extracting the numbers from the tables, we arrive at the following dataset:

Line	**Bulls**	**Cows**	**Ratio**	**Male cattle**	**Heifers[123]**	**Ratio**	**Male calves**	**Female calves**	**Ratio**	**Purpose, extractions, location**
3	0	10	0:10	0	5	0:5	2	2	1:1	Ghee
4	0	8	0:8	0	3	0:3	2	2	1:1	Ghee

Table 4.11: Age-sex ratios of cattle in BE 14 99a.

[122] CBS 2129: o.9' lists, in addition to a total of 646 rams, 76 male lambs. These may or may not have been present in the previous year, and so I provide two calculations here, one assuming the lambs were not present and the other assuming that they were, with the latter calculations noted in parentheses. It should be noted that the calculations made for this line are very rough; due to tablet damage, it is difficult to determine with confidence how many animals were deducted.

[123] In some breakdowns indicated by interlinear comments, female cattle are only described as AB_2 rather than AB_2.GAL or AB_2 MU.n. For the purposes of this table, I list them under heifers, as none of them are attested as providing milk for the ghee quotas. Additionally, when lines only describe cattle as *bīru*-cattle, which only specifies that they are young cattle between one and four years of age, I merge the cells, as their sex cannot be identified.

6	0	131	0:131	0	54	0:54	20	28	1:1.4	Ghee, destination herd for one *šulmānu*
7	0	11	0:11	0	1	0:1	2	3	1:1.5	Ghee
9-11	0	0	---	18	2	9:1	0	0	---	*ṣītu*, destination herd *(tapqirtu, bāb mīni*)
12	0	0	---	10	0	10:0	0	0	---	Transporting materials
13	0	0	---	14	0	14:0	0	0	---	Transporting materials
15	1	25	1:25	0	16	0:16	3	6	1:2	Ghee
16	0	36	0:36	0	22	0:22	7	10	1:1.43	Ghee
18-20	0	0	---	71	12	5.92:1	0	0	---	Stabled, destination herd (*bāb mīni*, claims)
21	0	0	---	12	0	12:0	0	0	---	Plowing, destination herd for cattle given by PN

Table 4.11 (cont.): Age-sex ratios of cattle in BE 14 99a.

Line	**Bulls**	**Cows**	**Ratio**	**Male cattle**	**Heifers**	**Ratio**	**Male calves**	**Female calves**	**Ratio**	**Purpose, extractions, location**
22-25	0	0	---	60	0	60:0	0	0	---	Stabled, destination herd (*bāb mīni, tapqirtu*, […]), extractions (*aklu, pudû*-ritual, […])
26	0	4	0:4	0	2	0:2	0	1	0:1	Ghee
28	0	57	0:57	0	16	0:16	15	9	1.67:1	Ghee
29	0	30	0:30	0	8	0:8	2	5	1:2.5	Ghee
30	0	14	0:14	0	0	---	2	3	1:1.5	Ghee
31	0	29	0:29	0	7	0:7	3	3	1:1	Ghee
32	0	36	0:36	0	14	0:14	4	6	1:1.5	Ghee
36-37	0	0	---	17	3[?]	5.67[?]:1	0	0	---	Destination herd (*bāb mīni*), distributed to *šutāpu*-workers (prob. for plowing)
38	0	0	---	20	0	20:0	0	0	---	Plowing for *iššakku*
39	0	0	---	6	0	6:0	0	0	---	Plowing for *šutāpu*
40	0	0	---	19 *bīru*-cattle		---	0	0	---	Destination herd (received from mayors), distributed to the *šutāpu*-workers (prob. for plowing)
42	0	22	0:22	0	11	0:11	5	5	1:1	Ghee

Table 4.12: Age-sex ratios of cattle in BE 14 168.[124]

[124] I discount herds listed in BE 14 168: 2-20 in the interest of preserving space, as the rows are highly damaged or broken.

43	0	9	0:9	0	3	0:3	2	2	1:1	Ghee
44-45	0	5	0:5	0	6	0:6	2	0	2:0	Ghee; destination herd (*esirtu*), extractions (broken)
46-47	0	0	---	6	3	2:1	0	0	---	Destination herd (*bāb mīni*), transferred to another herd (l. 40) and distributed to *šutāpu*-workers, hides
49	1	18	1:18	0	7	0:7	4	4	1:1	Ghee
50-51	0	0	---	7	1	7:1	0	0	---	Destination herd; distributed to *iššakku*-farmers in l. 40

Table 4.12 (cont.): Age-sex ratios of cattle in BE 14 168.

Line	**Bulls**	**Cows**	**Ratio**	**Male cattle**	**Heifers**	**Ratio**	**Male calves**	**Female calves**	**Ratio**	**Purpose, extractions, location**
3	1	111	1:111	0	42	0:42	26	30	1:1.15	---
4	1	52	1:52	0	27	0:27	6	16	1:2.67	---
5	0	27	0:27	0	9	0:9	2	2	1:1	Ghee
8	0	11	0:11	0	10	0:10	1	1	1:1	Ghee
9	0	6	0:6	0	3	0:3	2	1	2:1	Ghee
10	0	4	0:4	0	2	0:2	0	1	0:1	Ghee
12	0	21	0:21	0	20	0:20	3	6	1:2	---
13	0	6	0:6	0	6	0:6	1	3	1:3	---
14	0	4	0:4	0	3	0:3	0	1	0:1	Ghee
15-16	0	7	0:7	0	8	0:8	0	2	0:2	---
17	0	3	0:3	0	2	0:2	0	0	---	Ghee
18	0	25	0:25	0	30	0:30	3	6	1:2	Ghee
19	0	9	0:9	0	9	0:9	0	2	0:2	---
22-23	0	6	0:6	0	3	0:3	0	3	0:3	Destination herd(?)
24	0	4	0:4	0	2	0:2	0	0	---	---
28	0	6	0:6	0	0	---	0	0	---	---
29	0	16	0:16	0	11	0:11	2	2	1:1	---
30-31	0	5	0:5	0	37	0:37	15	14	1.07:1	---
34-37	0	4	0:4	106	0	106:0	0	0	---	Destination herd (broken)
38-40	0	4	0:4	28	0	28:0	0	0	---	Extractions (broken)
41-42	0	6	0:6	24	2	12:1	0	0	---	Extractions (broken)
43	0	0	---	42	0	42:0	0	0	---	---
44	0	0	---	42	0	42:0	0	0	---	Plowing
45	0	0	---	48	0	48:0	0	0	---	Plowing
46	0	0	---	43	0	43:0	0	0	---	Plowing, extractions

Table 4.13: Age-sex ratios of cattle in BE 14 99.

47-48	0	0	---	6	0	6:0	0	0	---	Plowing, *ḫadālu*,[125] destination herd (broken)
49	0	0	---	4		---	0	0	---	---

Table 4.13 (cont.): Age-sex ratios of cattle in BE 14 99.

Line	**Bulls**	**Cows**	**Ratio**	**Male cattle**	**Heifers**	**Ratio**	**Male calves**	**Female calves**	**Ratio**	**Purpose, extractions, location**
2	1	44	1:44	4	22	1:5.5	8	14	1:1.75	Destination herd (EN *n ša* PN), extractions in cows
3	3	128	1:42.7	4	69	1:17.3	27	32	1:1.19	Extractions in cows
4	3	104	1:34.7	3	40	1:13.3	25	23	1.09:1	Extractions in cows, destination herd (EN *n ša* PN)
5	1	107	1:107	4	44	1:11	17	38	1:2.24	Extractions in cows
6	1	56	1:56	0	24	0:24	17	11	1.55:1	Extractions in cows
7	1	40	1:40	2	16	1:8	8	10	1:1.25	Extractions in cows
8	2	101	1:50.5	5	43	1:8.6	25	22	1.14:1	Extractions in cows
9	0	55	0:55	0	41	0:41	10	15	1:1.5	Extractions in cows and heifer calves
10	2	47	1:23.5	2	20	1:10	9	11	1:1.22	Extractions in cows
11	4	50	1:12.5	2	23	1:11.5	4	15	1:3.75	Extractions in cows and bulls
12	2	52	1:26	1	26	1:26	11	15	1:1.36	Extractions in cows
13	0	34	0:34	1	19	1:19	8	9	1:1.13	Extractions in cows
15	0	42	0:42	31	20	1.55:1	11	9	1.22:1	Destination herd (1 *šulmānu* and 2 from the stables)
16	0	18	0:18	16	10	1.6:1	6	4	1.5:1	Destination herd (1 *šulmānu*)
17	0	24	0:24	10	9	1.11:1	6	5	1.2:1	Destination herd (1 *šulmānu*)
18	0	10	0:10	1	2	1:2	3	2	1.5:1	---
20	0	5	0:5	2	3	1:1.5	0	0	---	---
21	0	0	---	0	6	0:6	0	0	---	Destination herd (6 *šulmānu*)
22	0	0	---	0	6	0:6	0	0	---	Destination herd (6 *šulmānu*)

Table 4.14: Age-sex ratios of cattle in BE 15 199.

[125] This text is cited under CAD Ḫ s.v. *ḫadālu* B, "(mng. unkn.)," which tentatively groups it together with citations from a mathematical text and an Old Babylonian letter that deal with irrigation ditches, presumably on account of the fact that all of them deal with agriculture in one way or another. AHw, meanwhile, cites this text under *ḫadālu* I, "knüpfen" (to be equated with CAD Ḫ s.v. *ḫadālu* A, "to knot, net"), translating this line, "Pflugrinder […] zum Anbinden(?)." Unfortunately, this particular occurrence of the verb remains the only recorded Middle Babylonian attestation.

23-32	0	0	---	719	---	0	0	---	Stabled, destination herd (*bāb mīni*, claims, receipts from PNs, received from the Sealand and Dūr-Kurigalzu, […]), extractions (distribution to merchants, purchase price for slaves, plowing for *iššakku*-farmers, slaughtered for the *elē šarri* and *arād šarri* ceremony, ritual offerings for Ištar, hides)
33-35	0	0	---	26	---	0	0	---	Extractions (transferred to other herds, price conversion for barley)
36-37	0	0	---	25	---	0	0	---	Seeding fields
38-39	0	0	---	30	---	0	0	---	Seeding fields
40-41	0	0	---	N/A	---	0	0	---	Given as *rīmūtu* gifts, price conversion for barley
42-43	0	0	---	"old males"	---	0	0	---	Entrusted for inspection
44-45	0	0	---	15	---	0	0	---	Seeding fields

Table 4.14 (cont.): Age-sex ratios of cattle in BE 15 199.

Based on the figures we see above, and the attested uses listed for these animals, we can see that the overarching organization of the cattle herds is not dissimilar to what we have seen already with regards to the sheep and goat flocks, with the primary difference being that cattle are, in comparison to sheep and goats, less frequently targeted for slaughter.[126] Most herds listed in these tables are clearly breeding herds; these herds exhibit very low male to female ratios, both for

[126] References to slaughter are most explicit in BE 15 199: 30: TA 13 *pu-ul-lu-qu₂-tu e-li* LUGAL *u₃ a-ra-ad šar-ri* ˹TA?˺ 1 *ša a-na* SISKUR *iš₈-tar₂ pa-a*[*l-qu₂*], "After 13, slaughtered, (for the) going up and coming down of the king; after 1, which was slaughtered as an offering for Ištar." See also BE 14 168: 25 for references to cattle being given for the king for the *pudû*-ritual (on which, see my commentary to the line in the Appendix, as well as Yamada 2011 and cited literature). On the *elē šarri u arād šarri* ceremony and its possible connection with the New Year festival, see Biggs 1965: 96, n. 11 and Brinkman 1976: 411-414. Cf. however Brinkman's skepticism in n. 59 that this is a reference to the ceremony due to the unusual spelling in BE 15 199.

breeding and non-breeding adults,[127] and indeed, in three of the tables (BE 14 99, BE 14 99a, and BE 14 168), the default column headers do not include any categories for non-breeding adult males. The absence of non-breeding male cattle indicate that they were, *as a rule*, not to be kept in these herds. These males therefore must have been culled for meat and/or extracted from the herds for labor.[128] Judging by the fact that even the offspring do not often show the expected 1:1 sex ratio—out of a total of 47 herds that contain offspring, only nine show a straight 1:1 age-sex ratio for calves, with 27 containing more female than male calves—it seems possible that males

[127] There are many herds that list no bulls at all. My supposition is that the mature cows would already have been impregnated by a bull by the time these counts were made. It may also be possible that one stud bull was moved around and used to service several herds as necessary. Given that cattle tend to be more geographically constrained than the more mobile sheep and goat flocks due to high food and water requirements, it seems likely that many of these herds were kept within the same general vicinity of each other, which could facilitate breeding.

[128] One might note the curious case of BE 15 199, which not only includes male cattle in the headers and omits an expected ghee column but also explicitly lists several extractions of fully-grown breeding cows (AB_2.GAL) from the herds. Out of a total of nineteen herds listed on the obverse of the tablet, fully-grown cows were extracted from twelve of these herds, at rates ranging from 3.8% (BE 15 199: 8) to 19% (BE 15 199: 13), which I have calculated by dividing the extracted cows by the total number of fully-grown cows from the previous accounting cycle (i.e., extraction rate = extractions / (extractions + tallied cows)). The average rate of extraction is around 9.87%.

It is possible that these cows were being extracted as they became unviable for breeding due to their age. Though cows may live up to twenty years (Dahl and Hjort 1976: 38-39), ethnographic studies have suggested that once they turn ten, fertility rates tend to drop significantly (Dahl and Hjort 1976: 36-37). These figures would give the listed cows around six or seven effective breeding years, if I am correct in assuming that they are not bred until they turn three (Section 2.3.2). Because barren cows cannot supply calves or ghee, their primary source of value would shift to their ability to provide meat or labor. Additionally, leaving barren cows in a herd has the unfortunate side effect of lowering the overall growth rate of a herd, as one bull can only service around 50-60 cows (Dahl and Hjort 1976: 29); it would therefore be advantageous to remove infertile cows at a regular basis. (The absence of a similar practice for barren or aged ewes may be because ewes remain valuable for their wool.) Another possibility, of course, is related to the first, and has to do with the bull-to-cow ratio; perhaps there were too many cows in the herds for the bulls to adequately service, and so it was necessary to transfer some out to other herds if possible. However, there admittedly does not seem to be any consistent ratio amongst the listed herds from my calculations, and it seems more likely to me that there a combination of factors was involved.

were already being removed from the herds before they even reached one year of age. This picture stands in stark contrast with the lamb and kid offspring ratios, which hew closer to the 1:1 ratio. This certainly indicates that males were already being removed as calves, which might have been motivated out of some interest in preserving milk for human consumption.

However, it would seem that milk production was, though certainly one of their concerns, not an especially significant one. As with the wool and goat hair ratios discussed previously, the regular quota of 2½ sila of ghee per listed calf—a count that is clearly used to approximate how many lactating cows there might be in a herd—is rather low given the expected milk production for pre-modern cattle. As I state in Huang (forthcoming), although calculations for dairy products are more complicated given the rarity of dairy texts, Englund has suggested an annual average yield of 10.5 liters to 22.5 liters of ghee per cow,[129] with Ur III texts from Ur and Umma generally requiring the delivery of 5 liters, and texts from Lagash asking for 10 liters.[130] Assuming an annual average yield of around 15 liters, then the expected 2.5 silas of ghee would only amount to around 20% of the produced ghee, which is much too low of a quota for especially intensive dairy production. Hence, I suspect these herds were primarily managed for breeding, for aging up heifers until they were considered old enough to be used for breeding, and for supplying male cattle for use as labor and meat.

Turning now to those herds that contain more males than females, the tables often specify the use to which the animals are being put. Males are either called plow-oxen (^{gud}ŠA_3.GUD), or

[129] Englund (1995a: 377-380) assumes that ancient cattle would have produced around 700-800 liters of milk a year, with around 350 liters being consumed by the calf. The remainder (350-450 liters) could then be exploited by the shepherd. Since dairy milk is 87% water, 3-5% fat, and 8-9% other solids, 100 liters of milk would therefore result in around 3-5 liters of ghee. Assuming that 350-450 liters of milk are left for the shepherd, a cow could therefore produce anywhere from 10.5 liters to 22.5 liters of ghee, with each liter approximating one sila (Powell 1987: 503-504).
[130] Englund 1995a: 387.

they are explicitly stated to be attached to plows (*ḫarbu*), which indicates the importance of their labor in agricultural works.[131] Even when these herds contain female cattle, no indication is made that these were cows used for breeding; in most cases, they are labeled only as AB_2, while even those few instances where they are specifically called "fully-grown cows" (AB_2.GAL), no calves or ghee are listed as byproducts.[132] These herds are therefore almost certainly meant to be working herds.

We also find several attestations of cattle being kept in stables (*nakkamtu*) rather than in herds. As with the draft herds, these cattle were also evidently not being used to breed. In many cases, there are no indications given regarding their sex; rather, they are only called *bīru*-cattle (^{gud}NINDA$_2$), a label that specifies only that they are young cattle between one and four years of age. For these stabled animals, we find that they are actually distributed and used for various reasons. While some certainly stay in the stables, interlinear comments reveal that cattle could be taken out and put to a variety of uses. These include the typical use of cattle as draft animals for plowing and seeding fields (*ana erēši u turrî*),[133] but in some cases, we also find cattle being withdrawn for slaughter,[134] for purchasing slaves,[135] for transfer to other towns or cities,[136] and,

---

[131] See also Englund 1995b, Heimpel 1995, Stol 1995, van Driel 1995 for discussions on the use of cattle in the ancient Near East for agricultural labor in other periods and regions.
[132] See also n. 128 for more discussion on the extraction of fully-grown cows for meat or labor.
[133] See CAD E s.v. *erēšu* B, mng. 1a, and esp. mng 1a6' for Middle Babylonian attestations.
[134] See n. 126.
[135] BE 15 199: 29: TA 30 *ša a-na* ŠAM$_3$ *a-mi-lu-ti na-ad-nu*, "After 30 were given for the purchase price of slaves."
[136] E.g., BE 15 199: 34: TA 19 *ša* ^{m}LU$_2$-^{d}AMAR.UTU *a-na mu-uḫ ša* ^{uru}ARAD$_2$-GAŠAN^{ki} *ru-ud-du-u$_2$*, "After 19, which Amīl-Marduk added to the top of the town Arad-Bēlti, (were deducted)."

ostensibly, for purchasing barley.[137] These withdrawals are meticulously noted, especially in BE 15 199.

In summary, cattle seem to have been separated into multiple breeding herds, whose primary purpose was to produce young, though ghee was indeed a sought-after byproduct. Cattle, especially male cattle, would have been deducted from these breeding herds and transferred either into draft herds for working or into the stables, where they would presumably be stored and cared for until they were "assigned" for use, at which point, they would be withdrawn and the withdrawal recorded in the table.

4.5. Conclusions

To conclude, these livestock tables are secondary documents drawn up to provide records of existing contractual relationships that the *šandabakku* and his provincial administration were party to. The "default" relationship as recorded in the tables correspond with that found in the Group 1 herding contracts. These herds and flocks appear to be managed primary for breeding purposes.

Deviations from this norm are also represented in the tables, specifically in the rows that contain interlinear comments. These rows tend to eschew listing the expected three officials

[137] BE 15 199: 35 and 40. The total amount of barley listed is unfortunately broken, but what we are seeing here is a conversion rate listed between cattle and barley, wherein each male cattle is stated to be equivalent to around 2,400 liters of barley (*ša* 1 GUD 8;0.0.0 ŠE). A similar construction is used in the balanced account UM 29-15-434: 11'-12', wherein the "price" of one mina of wool is given as 60 liters of barley and the "price" of one mina of goat hair 30 liters of barley: $^{(11')}$*ša* 1 MA.NA SIG$_2$.ḪI.A 0;1.0.0 ŠE ^{giš}BAN$_2$.GAL $^{(12')}$*u$_3$ ša* 1 MA.NA SIG$_2$ UZ$_3$ 0;0.3.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$, "concerning 1 mina of wool, 0;1.0.0 silas of barley in the big *sūtu*, and concerning 1 mina of goat hair, 0;0.3.0 silas of barley in the big *sūtu*." In this latter document, there is a question about whether or not the listed barley, goat hair, and wool are actually being physically transferred.

mentioned in the contracts, opting instead for other constructions indicating responsibility; occasionally omit secondary product quotas (especially for cattle); and/or list male-only or male-majority herds or flocks that cannot abide by the 50% population growth requirement stipulated in the contracts. All this together suggests that these animals were being managed under different circumstances or conditions. Additional information provided by the interlinear comments detailing additions and/or extractions from the flocks and herds furthermore suggest that these rows list livestock that are being managed largely for meat and/or labor and that they were likely pastured or grazed separately from those contracted out under the usual arrangement.

The tables additionally allow us to posit an identity for the client party represented in the Group 1 herding contracts. Though the issue cannot be fully resolved in the absence of explicit evidence, I argue based on the tables that one possible client is the institution of the EREŠ.DINGIR priestesses. These priestesses contract out animals to the *šandabakku* and his provincial administration in two of the tables, BE 14 99a and CBS 7267. Additionally, the *šandabakku* appears to have assigned several shepherds to the priestesses' herds and flocks in the inspection roster UM 29-15-370+CBS 3816, which is contemporary with the herding contracts. The implications of this relationship, as well as other documents attesting to an association between the *šandabakku* and the EREŠ.DINGIR priestesses, will be discussed in the following chapter.

CHAPTER 5:
BALANCED ACCOUNTS OF THE EREŠ.DINGIR-PRIESTESSES

5.1. Introduction

In this chapter, I continue the previous chapter's exploration of the nature of the relationship between the *šandabakku* and the EREŠ.DINGIR priestesses by revisiting a group of documents that attest to their activities in the agricultural sector of the economy. In so doing, I provide additional context for the contractual relationship between the two parties that is evident in the previously discussed livestock documentation.

The documents in question are a group of bookkeeping texts (BE 14 136, MRWH 16, MRWH 17, MUN 120, and UM 29-15-434) that deal largely with agricultural taxes assessed upon the properties of the EREŠ.DINGIR priestesses. The chapter will begin with a detailed overview of the history of scholarship surrounding these tax records, especially the better-known and published accounts BE 14 136 and MRWH 17, before offering a reanalysis and reinterpretation of the tablets by incorporating additional evidence.

Though most of these texts have been published for decades now, their coverage has been extremely uneven in the secondary literature—this, in spite of the significant role they have played in shaping the current understanding of the temple-state relationship during the Kassite period. Although recent characterizations of the city administration assume it to be a highly-centralized entity that has reduced its temples to mere dependents, I show in this chapter that this overly simplistic characterization, which arose in part due to the complicated find circumstances of the tablets (see Chapter 1), was further compounded by a series of misreadings and misinterpretations of these documents. By reevaluating these texts and evidence, I argue that that the EREŠ.DINGIR priestesses, though they were certainly taxed, nevertheless maintained some

degree of economic independence vis-à-vis the provincial government. This economic autonomy appears to have benefited both parties.

Such a characterization parallels the relationship as evidenced by the livestock documentation. Though these latter documents are concerned with the pastoral, rather than agricultural, sector of the economy, they likewise attest to the legal separation of the EREŠ.DINGIR institution from that of the provincial administration. This point is evidenced explicitly by the existence of formal herding contracts, which, by their very nature, imply the existence of two independent parties.

It is in this light that we should interpret the institutional documents related to the EREŠ.DINGIR institution, the *šandabakku*, and his provincial administration. Although these texts have been traditionally understood to be documents related to the internal running of the *šandabakku*'s provincial administration, I propose that they are better approached as administrative and/or legal documentation that arose out of a need to audit and keep track of the holdings and/or property of an external temple household.

5.2. Previous literature: BE 14 136 and MRWH 17

First edited by Torczyner (1913: 58-60), BE 14 136 is a summary account listing the "outstanding balances of the scribes of the EREŠ.DINGIR priestesses, which Amīl-Marduk, the *šandabakku* of Nippur, established to the debit of the scribes in Month V of Year 9 of Šagarakti-

Text 5.1.) BE 14 136 (=CBS 6092)[1]

U.E.

1 *re-ḫa-a-nu ša* DUB.SAR.MEŠ *ša* EREŠ.DINGIR.MEŠ *ša* ^{m}LU$_2$-^{d}AMAR.UTU GU$_2$.EN.NA NIBR[U^{ki}]

2 *i-na* ^{iti}NE *ša* MU.9.KAM *ša-ga-ra-ak-ti-šur-ia-aš i-na* UGU DU[B*.SAR.MEŠ]

3 *u$_2$-kin-nu*

Obv.

4	ŠE ^{giš}BAN$_2$ 10 SILA$_3$	ŠE GIŠ.I$_3$	I$_3$.NUN	˹SIG$_2$˺.ḪI.A	SIG$_2$.UZ$_3$	*re-ḫa-a-*[*nu*]
5		^{giš}BAN$_2$ 10 SILA$_3$	^{giš}BAN$_2$ 10 SILA$_3$			*ša* DUB.SAR.MEŠ *ša* EREŠ.[DINGIR.MEŠ]
6						MU.BI.IM
7	1064;4.5.8	7;2.4.8		5 GU$_2$.UN	3 GU$_2$.UN	ŠU ^{m}EN-*a-na-˹ka˺-la*-SIG$_5$
8				41 MA	40 MA	DUMU ^{m}ARḪUŠ-*šu-^{d}nin-urta*
9	TA 426;2.5.0 ŠE.NUMUN *ša i-na* ŠU ^{m}EN-*ana-ka-la-*^{d}AMAR.UTU ^{m}BA^{ša2}-^{d}U.GUR *maḫ-ru šu-lu-u$_2$*					
10	9852;1.1.8	82;2.3.6	6;1.4.2½	51 GU$_2$.UN	6 GU$_2$.UN	ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
11				16⅓ MA	43 MA 15 GIN$_2$	
12		13;2.4.8	3;1.5.0	48 GUN$_2$	8 GUN$_2$	ŠU $^{m.d}$IŠKUR-LUGAL-DINGIR.MEŠ
13				49 MA	19 MA	
14				68 GUN$_2$	6 GUN$_2$	LAL$_2$.GAG SIPAD.ḪI.A
15				52 MA	5½ MA	
16	[PAP 1091]7;1.1.6	103;3.1.2	9;3.3.2½	174 GUN$_2$	24 GUN$_2$	EREŠ.DINGIR.GAL
17				28⅓ MA	47⅔ MA 5 GIN$_2$	

Rev.

18	[109]3;[3].˹5˺.2	2;0.4.8		2 GU$_2$.UN	3 GU$_2$.UN	ŠU ^{m}EN-*a-na-ka-la-*˹SIG$_5$˺
19				14½ MA	56 MA.NA	DUMU ^{m}ARḪUŠ-*šu-^{d}nin-*[*urta*]
20					15 GIN$_2$	
21	[514];˹4˺.4.6	50;4.5.7	0;3.0.1½	9 GU$_2$.UN	3 GU$_2$.UN	ŠU ^{m}*ḫu-za-li*
22		ŠU ^{m}*ḫu-za-li*		10⅔* MA 5 GIN$_2$	36 MA 15 GIN$_2$	
23		*u$_3$ ^{m}mar-tu-ki*				
24	˹457˺;3.0.4					ŠU ^{m}*mar-tu-ki*
25						
26	255;0.5.4		0;1.2.3			ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
27						
28				12 GU$_2$.UN	3 GU$_2$.UN	LAL$_2$.GAG SIPAD.ḪI.A
29				49½ MA	44 MA.NA 15 GIN$_2$	

[1] The first and only full edition of this table was published by Torczyner (1913: 58-60) as ATR 31.

30	PAP 2321;2.3.6	53;0.4.5	0;4.2.4½	24 GUN_2	11 GUN_2	EREŠ.DINGIR.T[UR]
31				14⅔* MA	16⅔* MA	
32				5 GIN_2	5 GIN_2	

(Bottom edge is uninscribed.)

Translation:

(1-3) Outstanding balances of the scribes of the EREŠ.DINGIR priestesses, which Amīl-Marduk, the *šandabakku* of Nippur, established to the debit of the scribes in Month V of Year 9 of Šagarakti-Šuriaš.

4	Barley, 10-sila *sūtu*	Sesame,	Ghee,	Wool	Goat hair	Outstanding balances
5		10-sila *sūtu*	10-sila *sūtu*			of the scribes of the EREŠ.DINGIR-priestesses
6						Name
7	1,064;4.5.8	7;2.4.8		5 talents	3 talents	Hand of Bēlu-ana-kala-damiq,
8				41 minas	40 minas	son of Irēmšu-Ninurta
9	After 426;2.5.0 of seed, which Iqīša-Nergal received from the hand of Bēl-ana-kala-Marduk, was deducted.					
10	9,852;1.1.8	82;2.3.6	6;1.4.2½	51 talents,	6 talents, 43	Hand of Iqīša-Nergal
11				16⅓ minas	minas, 15 shekels	
12		13;2.4.8	3;1.5.0	48 talents,	8 talents,	Hand of Adad-bēl-ilāni
13				49 minas	19 minas	
14				68 talents,	6 talents,	Arrears of the shepherds
15				52 minas	5.5 minas	
16	[Subtotal:	103;3.1.2	9;3.3.2½	174 talents,	24 talents, 47⅔	EREŠ.DINGIR.GAL
17	10,91]7;1.1.6			28⅓ minas	minas, 5 shekels	

18	[109]3;[3].˹5˺.2	2;0.4.8		2 talents,	3 talents,	Hand of Bēlu-ana-kala-damiq,
19				14½ minas	56 minas,	son of Irēmšu-Ninurta
20					15 shekels	
21	[514];˹4˺.4.6	50;4.5.7	0;3.0.1½	9 talents,	3 talents,	Hand of Ḫuzālu
22		Hand of Ḫuzālu		10⅔* minas,	36 minas,	
23		and Martuk(k)u		5 shekels	15 shekels	
24	˹457˺;3.0.4					Hand of Martuk(k)u
25						
26	255;0.5.4		0;1.2.3			Hand of Iqīša-Nergal
27						
28				12 talents,	3 talents,	Arrears of the shepherds

29				49½ shekels	44 minas, 15 shekels	
30	Subtotal: 2,321;2.3.6	53;0.4.5	0;4.2.4½	24 talents,	11 talents,	EREŠ.DINGIR.T[UR]
31				14⅔* minas,	16⅔* minas,	
32				5 shekels	5 shekels	

Šuriaš."[2] Due to the importance of the following text, I provide a full reedition of the table (see Text 5.1) for ease of discussion and reference.

As can be seen, six columns extend throughout the obverse and reverse of the tablet, with the first five column headers detailing the staples whose amounts are tabulated below in the following cells. The sixth column then lists the names of the scribes responsible for the amounts quantified in each row. Column totals are then provided in the last rows of the obverse and reverse and attributed to either the EREŠ.DINGIR.GAL (obverse) or the EREŠ.DINGIR.TUR (reverse).

According to Torczyner (1913: 59), the amounts of barley, sesame, ghee, wool and goat hair listed in the table represent claims made by the temple to the king; these staples originate in districts administered by the EREŠ.DINGIR.MEŠ,[3] whom Torczyner avers elsewhere in his manuscript to be administrators rather than priestesses.[4] In Torczyner's reconstruction, the scribes are overseen by the *šandabakku* of Nippur, whom he states is himself subservient to the king.[5] As such, these scribes essentially function as royal agents responsible for the disposal and use of the temple's property, which is ultimately under the king's control.[6]

---

[2] BE 14 136: 1-3. See Text 5.1.
[3] Torczyner 1913: 59: "Nach dieser Überschrift und Z. 4 enthält unsere Inschrift eine Aufnahme der Forderung des Tempels an den König in Getreide (Gerste, Sesam), Butter, Schaf- und Ziegenwolle, soweit dieselben aus den Verwaltungsbezirken des *NIN.AN.MEŠ* … stammten."
[4] See especially Torczyner 1913: 36 on Torczyner's reluctance to accept that the EREŠ.DINGIR are priestesses.
[5] Torczyner 1913: 8: "Unter der *GU.EN.NA*, der selbst wieder dem König verantworthlich ist, stehen die *dupšarrê*, die '(Tafel)schreiber,' welche das Vermögen des Tempels verwalten, s. zu. XIV 136." See also the following note.
[6] Torczyner 1913: 59: "Für den König haben die *dupšarrê* (*dupšarrûtu*) das Tempelgut übernommen. Die hier als solche bezeichneten Personen sehen wir auch sonst vielfach das Vermögen des Tempels verwalten und Ausgaben
aller Art daraus bestreiten."

This interpretation, however, hinges in large part on a significant misreading in the tablet's header. At the end of BE 14 136: 2, Torczyner (1913: 58) restores *i-na* UGU LU[GAL], resulting in the following mistranslation: "Rest der Schreiber von den EREŠ.DINGIR.MEŠ, den Amīl-Marduk, GU_2.EN.NA von Nippur zu Lasten des Königs nachwies." Torczyner's resulting reconstruction was additionally confused by his misunderstanding of the role of the EREŠ.DINGIR priestesses, whom he was skeptical to regard as priestesses attached to a temple, despite statements by Luckenbill and Radau to the contrary,[7] and further unverified assumptions concerning the relationship between the named parties—namely, the scribes, the EREŠ.DINGIR priestesses, the *šandabakku*, and the king.

Many of Torczyner's assumptions and conclusions were dismissed, overlooked, or simply ignored by subsequent scholars. However, his misreading of LU[GAL] in the account's header appears to have been adopted by Balkan,[8] though for very different purposes. In a Turkish article first published in 1943 and later translated into German and then English with slight modifications, [9] Balkan references the header of BE 14 136 as implicit proof of the *šandabakku*'s influence and power vis-à-vis the king. That is to say, the *šandabakku*'s apparent debiting of the king for "debts due to the central administration for lands of the king's daughters"—the EREŠ.DINGIR here are assumed by Balkan to be Kassite princesses—surely meant that the

[7] See already n. 4.
[8] Balkan 1986: 10 and CAD R s.v. *rēḫu*, mng. 2a. Though Balkan does not directly cite BE 14 136 or Torczyner at any point during his discussion, he is clearly referring to this text when he describes one tablet as "an account document [wherein] the **guenna** entered to the debit of the king debts due to the central administration for lands of the king's daughters." On the possibility of the EREŠ.DINGIR priestesses being the king's daughters, see Sassmannshausen 2001: 63, but cf. Brinkman 2004: 287 on why this conclusion is premature.
[9] Balkan 1943. The article was partially translated into German by Güterbock (1945-51: 130-131) and then into English by Foster and Gutas (1986), with additional comments and modifications made with Balkan's input. All page numbers and references quoted here are cited from the English translation.

šandabakku held a privileged status amongst the high officials. Though Balkan hedges his statements when it comes to the exact extent of the *šandabakku*'s powers, he nevertheless argues, based on this account alongside other texts,[10] that the Kassite period can effectively be characterized as a feudal period governed by a "*two-king administrative system*, in which along with the Kassite king of Babylon, *there was the governor of Nippur*, called the **guenna** … head of the Babylonian aristocrats, *in whose person there was manifested*, to a certain degree, *the personality of a second king*."[11]

It was only in 1973 that this tablet was briefly revisited by Petschow. While studying the Middle Babylonian documents of the Hilprecht Sammlung collection at Jena, Petschow came across two texts (now published as MRWH 16 and 17) that not only concern the accounts of the EREŠ.DINGIR priestesses but are also temporally and prosopographically linked to BE 14 136. One of these texts, MRWH 17 is of particular importance, as it allowed Petschow to draw significant conclusions concerning the bookkeeping procedures of and the relationship between the institutions of the *šandabakku* and the EREŠ.DINGIR priestesses. I reproduce the tablet in full below:

Text 5.2.) MRWH 17 (= HS 154)[12]

U.E.

.1 [NIG$_2$.KA$_9$ *š*]*a* EREŠ.DINGIR.TUR *ša i-na* ^{iti}NE.NE.GAR *ša* M[U.9.KAM]

[10] See Balkan 1986: 10-11 for Balkan's references to these other documents, though it should be noted that in no part of his article does he provide direct text citations. Cf. also Brinkman 1974: 406, n. 83 for further critique of Balkan's interpretations and evidence.

[11] Balkan 1986: 9-10 (all emphasis original). Balkan's characterization of Kassite society as feudal has been received ambivalently by contemporary scholars. Both von Soden (1994: 76) and Slanski (2000: 95 and 2003: 65 and *passim*) accept Balkan's descriptor, but cf. Sommerfeld 1995: 922-925 and Brinkman 1974: 408 and 2006: 36-37, n. 159.

[12] For the line drawing, see TuM NF 5, 23. Full editions and discussion are published in Petschow 1973 and reproduced with little variation in Petschow 1974: 54-62; I refer only to the latter edition in the commentary, as it is the most recent. Additional comments and emendations can be found in van Soldt 1978: 229 and Petschow 1977: 124, n. 7.

2 [*ša-ga-r*]*a-ak-ti-šur-ia-aš* ^{m}LU$_2$-^{d}AMAR.U[TU]
3 [GU$_2$].EN.NA NIBRU^{ki} *i-pu-šu*

Obv.

4	[ŠE ^{giš}BAN$_2$ 10 SILA$_3$]	MU.BI.IM
5	685;3.5.2	ŠE LIBIR.RA IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* M[U.6.KAM]
6		*ša-ga-ra-ak-ti-šur-ia-aš* LUGAL
7	108;3.1.4	*te-li-tu* EREŠ.DINGIR.TUR MU.8.KAM
8	68;0.3.0	ŠE.NUMUN *ša i-na* MU.8.KAM *i-na* ˹ŠU˺ ^{m}*mar-tu-ki*
9		^{m}*ḫu-za-lu$_4$ im-ḫu-ru*
10	PAP 862;2.3.6	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ ˹SAG NIG$_2$˺.GA *kun-nu*
11		EREŠ.DINGIR.TUR ˹ŠU˺ ^{m}ḫu-za-li
12	ŠE ^{giš}BAN$_2$ 10 SILA$_3$	˹*ša*˺ *i-na* ŠA$_3$ *na-ad-nu*
13	303;1.2.0	ŠE.NUMUN *is-*˹*ru ša i-na*˺ MU.7.KAM *i-na* ŠU ^{m}*ḫu-za-li*
14		^{m}BA^{ša2}-^{d}U.GUR *maḫ-ru a-na* SAG NIG$_2$.GA ^{m}BA^{ša2}-^{d}U.GUR *ru-ud-du*
15	44;1.3.0	ŠE.BA DUMU.MEŠ *qin-na-a-ti* 7 ITI.[MEŠ]
16		TA ^{iti}DU$_6$ *ša* MU.8.KAM EN ^{iti}BARA$_2$ *ša* MU.9.KAM EREŠ.DINGIR.TUR
17	PAP 347;2.5.0	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SUM^{nu} ŠU ^{m}*ḫu-za-li*
18		ZI-*ma*
19	514;4.4.6	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ *ri-ḫu* ŠU ^{m}*ḫu-za-li*
20	ŠE ^{giš}I$_3$ ^{giš}BAN$_2$ 10 SILA$_3$	MU.BI.IM
21	42;0.4.4	LIBIR.RA IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM ŠU ^{m}*ḫu-za-*[*l*]*i u$_3$ mar-tuk*
22	8;4.1.3	*te-li-tu* EREŠ.DINGIR.TUR MU.8.KAM
23	PAP 50;4.5.7	ŠE ^{giš}I$_3$ ^{giš}BAN$_2$ 10 SILA$_3$ SAG NIG$_2$.GA *kun-nu*
24		EREŠ.DINGIR.TUR ŠU ^{m}*ḫu-za-li*

Rev.

25	I$_3$.NUN	^{giš}BAN$_2$ 10 SILA$_3$ MU.BI.IM
26	0;2.4.6½	LIBIR.RA IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM
27	0;0.1.5	*i-mit-ti* AB$_2$.GAL.MEŠ *ša* MU.8.KAM
28	PAP 0;3.0.1½	I$_3$.NUN ^{giš}BAN$_2$ 10 SILA$_3$ SAG NIG$_2$.GA *kun-nu*
29		ŠU ^{m}*ḫu-za-li* EREŠ.DINGIR.TUR
30	9 GU$_2$.UN	SIG$_2$.ḪI.A IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM
31	10⅔ MA.NA 5 GIN$_2$	ŠU ^{m}*ḫu-za-li*
32	3 GU$_2$.UN 36 MA	SIG$_2$ UZ$_3$ IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM
33	15 GIN$_2$	ŠU ^{m}*ḫu-za-li*
34	PAP NIG$_2$.KA$_9$	EREŠ.DINGIR.TUR ŠU ^{m}*ḫu-za-li*
35	535;2.3.4	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ IB$_2$.TAK$_4$ NIG$_2$.KA$_9$
36		*ša* MU.6.KAM *ša i-na* UGU
37		^{m}*mar-tu-ki* DUMU $^{m.d}$UTU-URU$_4^{iš}$
38		*ku-un-nu*
39	ŠE ^{giš}BAN$_2$ 10 SILA$_3$	*ša i-na* ŠA$_3$ SUM^{nu}
40	68;0.3.0	ŠE.NUMUN *is-ru ša i-na* MU.8.KAM *i-na* ŠU ^{m}*mar-tuk*
41		^{m}*ḫu-za-lu$_4$ maḫ-ru a-na* SAG NIG$_2$.GA *ša* ^{m}*ḫu-za-li ru-ud-du*
42	[9];˹4˺.0.0	KI.MIN *ša i-na* ŠU ^{m}*mar-tu-ki* ^{m}BA^{ša2}-^{d}AMAR.UTU
43		*maḫ-ru a-na* SAG NIG$_2$.GA ^{m}BA^{ša2}-^{d}U.GUR *ru-ud-du*
44	[PAP 77;4.3.0]	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SUM^{nu} ŠU ^{m}*mar-tuk* ZI-*ma*
45	[457];˹3.0.4˺	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ *ri-ḫu* ŠU ^{m}*mar-tu-*˹*ki*˺

Translation

(1-3) Balanced account of the EREŠ.DINGIR.TUR, which Amīl-Marduk, the *šandabakku* of Nippur, made in Month V of Year 9 of Šagarakti-Šuriaš.

(4)	Barley, 10-sila *sūtu*	Name
(5-6)	685;3.5.2	Old barley. Remainder of the balanced account of Year 6 of Šagarakti-Šuriaš, the king.
(7)	108;3.1.4	*tēlītu*-revenue of the EREŠ.DINGIR.TUR, Year 8.
(8-9)	68;0.3.0	Seed, which Ḫuzālu received from the hand of Martuk(k)u in Year 8.
(10-11)	Subtotal: 862;2.3.6	Barley, 10-sila *sūtu*, the established debit. EREŠ.DINGIR.TUR. Hand of Ḫuzālu.
(12)	Barley, 10-sila *sūtu*	Which, therefrom, was given:
(13-14)	303;1.2.0	Collected seed, which Iqīša-Nergal received from the hand of Ḫuzālu in Year 7. It is added to the debit of Iqīša-Nergal.
(15-16)	44;1.3.0	Barley rations, *qinnu*-members, 7 months, from Month VII of Year 8 to Month I of Year 9. EREŠ.DINGIR.TUR.
(17-18)	Subtotal: 347;2.5.0	Barley, 10-sila *sūtu*, given out. Hand of Ḫuzālu. *It is withdrawn.*
(19)	514;4.4.6	Barley, 10-sila *sūtu*, the outstanding balance. Hand of Ḫuzālu.
(20)	Sesame, 10-sila *sūtu*	Name
(21)	42;0.4.4	Old (sesame). Remainder of the balanced account of Year 6. Hand of Ḫuzālu and Martuk(k)u.
(22)	8;4.1.2	*tēlītu*-revenue. EREŠ.DINGIR.TUR, Year 8.
(23-24)	Subtotal: 50;4.5.7	Sesame, 10-sila *sūtu*, the established debit. EREŠ.DINGIR.TUR. Hand of Ḫuzālu.
(25)	Ghee, 10-sila *sūtu*	Name
(26)	0;2.4.6½	Old (ghee). Remainder of the balanced account of Year 6.
(27)	0;0.1.5	*imittu* of the cows. Year 8.
(28-29)	Subtotal: 0;3.0.1½	Ghee, 10-sila *sūtu*, the established debit. Hand of Ḫuzālu. EREŠ.DINGIR.TUR.
(30-31)	9 talents, 10⅔ minas, 5 shekels	Wool, remainder of the balanced account of Year 6. "Hand of Ḫuzālu.
(32-33)	3 talents, 36 minas, 15 shekels	Goat hair, remainder of the balanced account of Year 6. Hand of Ḫuzālu.
(34)	Subtotal: Balanced account	EREŠ.DINGIR.TUR, hand of Ḫuzālu
(35-38)	535;2.3.4	Barley, 10-sila *sūtu*, remainder of the balanced account of Year 6, which was established to the debit of Martuk(k)u, the son of Šamaš-ē/īriš.
(39)	Barley, 10-sila *sūtu*	Which, therefrom, was given:
(40-41)	68;0.3.0	Collected seed, which Ḫuzālu received from the hand of Martuk(k)u in Year 8. It is added to the debit of Ḫuzālu.
(42-43)	[9];4.0.0	"Collected seed, which in Year 8" Iqīša-Marduk received from the hand of Martuk(k)u. It is added to the debit of

		Iqīša-Nergal.
(44)	[Subtotal: 77;4.3.0]	Barley, 10-sila *sūtu*, given out. Hand of Martuk(k)u. *It is withdrawn.*
(45)	[457];3.0.4	Barley, 10-sila *sūtu*, the outstanding balance. Hand of Martuk(k)u.

Self-identified as the "balanced account of the EREŠ.DINGIR.TUR, which Amīl-Marduk, the *šandabakku* of Nippur, made in Month V of Year 9 of Šagarakti-Šuriaš" (MRWH 17: 1-3), MRWH 17 is concerned with documenting the accumulation and use of state assets by two individuals,[13] Ḫuzālu and Martuk(k)u, both of whom are attested as scribes of the EREŠ.DINGIR.TUR in the previously discussed summary account. The contents of this tablet MRWH 17 are separated first by scribe—Ḫuzālu's entries are compiled in lines 4-34, while Martuk(k)u's are listed in lines 35-45—and, secondly, broken down by staple; Ḫuzālu deals in barley, sesame, ghee, wool, and goat hair, while Martuk(k)u is responsible only for barley.[14] The transactions for each category of staple are then further subdivided into the following three sections typical of Mesopotamian balanced accounts:[15]

[13] See Section 5.3 on why these assets should be regarded as belonging to the *šandabakku* and his central administration.

[14] In fact, Ḫuzālu and Martuk(k)u are jointly responsible for a portion of the sesame (MRWH 17: 21 and BE 14 136: col. ii, 21-23). However, the final balance is tabulated under Ḫuzālu's account in both MRWH 17 and BE 14 136.

[15] For a brief introduction to Mesopotamian balanced accounts, see especially the research done on Ur III balanced accounts by Snell (1982) and Englund (1990). The overall organization and terminology of these accounts survives well past the Ur III period and into other periods of Mesopotamian history with only slight variations (e.g., see Snell 1982: 48-52 and Jursa 2004: 156-157).

It should be noted that prior to the publication of Englund 1990, it was customary to read Ur III balanced accounts as income-expenditure statements (e.g., Curtis and Hallo 1959 and Snell 1982). This characterization, while not technically inaccurate, is unnecessarily ambiguous. The Ur III merchant accounts are drawn up from the perspective of the creditor—that is to say, the state—and not the merchant. The merchant's "income" in these accounts is therefore comprised solely of *state* assets that have been placed at his disposal; these assets are slated to be repaid and are therefore *debits*. In a similar vein, a merchant's "expenditures" are actually payments that the merchant has made back *to the state*; these "expenditures" are therefore *credited* to the merchant's account, reducing his overall debt.

1.) Debits: Typically written SAG NIG$_2$.GA (*rēš makkūri*, lit. "head of the property") and sometimes translated as "available assets"[16] or "capital,"[17] debits are assets belonging to one party that have been placed at the disposal of another (usually marked by the construction *ina muḫḫi* PN) with the expectation of future repayment, either in kind or otherwise. Debit entries state the amount owed and why.

2.) Credits: Sections containing credits are introduced by the formula *ša ina libbi nadnu*, "which therefrom was given..."[18] and concluded with the construction ZI-*ma*.[19] Credit entries indicate both the amounts repaid and the means of repayment.

3.) Remaining balance (= 1–2): The remaining balance is calculated by subtracting the total credits from the total debits. If the remainder is zero, then the account is considered settled. If the remainder is negative, meaning the amount repaid exceeds the amount owed, then a surplus is noted; this surplus may be carried over into the next account and credited to the

---

This distinction may seem trivial. However, characterizing balanced accounts as income-expenditure statements has resulted in some amount of philological confusion in the past, especially with regards to the interpretation of the resulting account balances qualified as **lal$_2$-ni** and **dirig**. For an overview of the debate, especially over the meaning of **lal$_2$-ni**—confirmed to mean "deficit" by Kraus (1966: 16) and Englund (1990: 25-35)—see especially Englund 1990: 27, n. 94. (Add to Englund's summary Curtis and Hallo 1959, wherein the two propose the translations "credit" for **lal$_2$-ni** (108, n. 29) and "overdraft" for **dirig** (109).) This confusion no doubt stemmed from the assumption that these accounts record income and expenses drafted from the perspective of the *merchants*—an assumption that can ultimately have far-reaching consequences on interpretations of the archival situation, the relationship between the parties, questions of ownership, and debt.

[16] E.g., CAD M/I s.v. *makkūru*, mng. c; CAD N/I s.v. *namkūru,* mng. a; and CAD R s.v. *rēšu*, mng. 5c.

[17] E.g., Snell 1982: 24-27 and *passim*; and Englund 1988: 126 and *passim*. See esp. n. 5 for Englund's explanation of why he finds the translation "capital" etymologically appropriate, modern baggage notwithstanding.

[18] E.g., MRWH 17: 12 and 39; MUN 120: col. iv, 11; and UM 29-15-434: col. i, 16. In Ur III documents, the Sumerian equivalent of this phrase is **ša$_3$-bi-ta … zi-ga-(am$_3$)**.

[19] See already the commentary to MRWH 17: 18 for more discussion on ZI-*ma*.

debtor.[20] If the remainder is positive, however—that is, the amount owed exceeds the amount repaid—then the resulting figure is recorded as a debit in the following account. As such, outstanding balances may be comprised of deficits accrued over several years instead of a single accounting period.[21] As all the remainders calculated in MRWH 17 are positive, both Ḫuzālu and Martuk(k)u ended the accounting period of Year 9 in the proverbial red.

These remainders, Petschow (1974: 58-59) noticed, were not only noted on this particular tablet, however.[22] As it turns out, the outstanding balances were also collected and carried over into the summary account BE 14 136: rev. 21-25 (see Fig. 5.1 for a schematic illustration of the relationship between the two tablets).[23] This overlap allowed Petschow to reconstruct the general bookkeeping procedure behind the production of these tablets:

First, the household of the EREŠ.DINGIR priestesses evidently had at its disposal some amount of capital, the source of which will be discussed later. This capital was divided up into

---

[20] Cf. Englund 1991: 264 on the possibility that surpluses may have been kept or used by the debtor. No surpluses are recorded in MRWH 17. However, MUN 120: col. v, 12-15 records credit entries for goat hair (total: 2 talents, 58 minas) that exceed the total debits (l. 9-10; total: 2 talents, 48 minas) by 10 minas. A following line (l. 19-20), though broken, provides further elaboration, indicating that the extra 10 minas of goat hair were actually not repaid but that something else equivalent to those 10 minas of goat hair was received instead: (19)[…] *ša ki-mu* 10 MA.NA SIG$_2$ UZ$_3$ *ša* ERIN$_2$.MEŠ *maḫ-ru* (20) *i-na* ŠA$_3$ *šu-lu-u$_2$*, "… which in lieu of 10 minas of goat hair, which the workers received, was deducted therefrom." The remainder of the column is badly broken with little hope of restoration, but given this substitution, it seems likely that no surplus is recorded for goat hair.

[21] As is the case with MRWH 17 and MUN 120. Outstanding balances of an account drawn up in Year n are listed as debits in the next account as IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.n.KAM, "Remainder of the balanced account of Year n" (e.g., MRWH 17: 5-6 and *passim*; MUN 120: col. i, 9 and *passim*). Needless to say, although these remainders are designated only by Year n, they may be comprised of additional remainders carried over from previous years, thereby rendering it difficult to ascertain how much time is actually covered by an account.

[22] So already Petschow 1973: 305-307.

[23] One might wonder why BE 14 136 does not include additional balances under Martuk(k)u's responsibility. The answer is simple: he does not independently deal with any commodity other than barley.

MRWH 17

ḪUZĀLU'S BARLEY DEBITS
ḪUZĀLU'S BARLEY CREDITS
ḪUZĀLU'S BARLEY BALANCE (A)
ḪUZĀLU'S SESAME DEBITS
ḪUZĀLU'S SESAME BALANCE (B)
ḪUZĀLU'S GHEE DEBITS
ḪUZĀLU'S GHEE BALANCE (C)
ḪUZĀLU'S WOOL AND GOAT HAIR DEBITS
ḪUZĀLU'S WOOL (D) AND GOAT HAIR (E) BALANCE
MARTUK(K)U'S BARLEY DEBITS
MARTUK(K)U'S BARLEY CREDITS
MARTUK(K)U'S BARLEY BALANCE (F)

BE 14 136

BARLEY	SESAME	GHEE	WOOL	GOAT HAIR	SCRIBES
(A)	(B)	(C)	(D)	(E)	ḪUZĀLU
(F)					MARTUK(K)U

Figure 5.1: Schematic showing the relationship between the entries found in MRWH 17 (left, obv. & rev.) and BE 14 136 (right, rev. only).

separate files, first by priestess, and then by managing scribe.[24] Over time, each scribe would make use of available capital and document withdrawals made from his individual pool of assets on separate tablets. These tablets would have been stored for record-keeping purposes and eventually compiled together into balanced accounts such as MRWH 17, each of which would have as its subject one or two scribes. Finally, these balanced accounts, once compiled, would have been used to draft larger summary accounts like BE 14 136, which would then serve as the basis for the calculations of balances moving forward. Though Petschow does not hazard a guess as to the exact circumstances of these texts' creation, it seems likely that these accounts were drawn up upon the occasion of an audit that took place every few years.[25]

MRWH 17 also allowed Petschow to propose an important emendation to the header: instead of accepting Torcyner's restoration of LUGAL, Petschow instead restores D[UB.SAR.MEŠ], citing MRWH 17 as proof that the *šandabakku* of Nippur was debiting not the king but rather the scribes of the EREŠ.DINGIR priestesses.[26] This emendation has since been confirmed by personal collation.

---

[24] Petschow 1974: 59.

[25] Perhaps every three years. The evidence for the timing of these audits is admittedly sparse, but they were certainly not annual. We do not possess another summary account like BE 14 136 to my knowledge, but given that MRWH 17 is dated to the same month and year as BE 14 136 (see already commentary to line 1 of Text 5.2), we can probably conclude that the balanced accounts were drawn up specifically to facilitate the creation of the summary account and can therefore time the audits to the dates cited in the balanced accounts. Consider the following evidence: First, MRWH 17, which is dated to Year 9, only attests to the existence of one other balanced account—that of Year 6. The same can be said for MUN 120. Therefore, we may conclude that it has been roughly three years since the last audit. Second, UM 29-15-434, though it is not clearly dated, nevertheless covers the period of time spanning from Year 9 of Šagarakti-Šuriaš to the accession year of Kaštiliašu IV, thereby resulting in another gap of around three years. For more discussion on the end of Šagarakti-Šuriaš's reign and the beginning of Kaštiliašu IV's, see already n. 72.

[26] Petschow 1973: 305, n. 19 and 1974: 58, n. 1.

In light of this emendation, however, Petschow furthermore draws a far-reaching conclusion about the relationship between the *šandabakku* and the temples of Nippur, stating, "HS 154 [= MRWH 17] erweist—zusammen mit BE XIV 136—, dass zu den Obliegenheiten des GU_2.EN.NA von Nippur als weltlicher Gewalt die massgebliche Verwaltung und/oder Überwachung der Tempelvermögen gehörte."[27]

Pestchow's characterization of the *šandabakku* as supervisor of temple assets can be traced back to an earlier source, an article published by Balkan in 1943,[28] wherein Balkan argues that the *šandabakku* oversaw the administration of the entire province of Nippur—and perhaps neighboring provinces as well—and was responsible for the cultivation, harvest, taxation, disposal, etc. of all royal lands and property. He characterizes this system as "an extremely centralized overlordship which in all its economic activities was governed by the guenna regime in Nippur."[29] This model, however, leaves relatively little room for economic independence and agency on the part of the temples, which Balkan reduces entirely to dependents of the state. If they appear in the documentation, it is only because the state is providing for them, not because there is any sort of "temple economy" at play.[30]

---

[27] Petschow 1974: 62 and, with little variation, Petschow 1973: 307.
[28] See already n. 9 for the history of publication (and translation) of this article.
[29] Balkan 1986: 10.
[30] Balkan 1986: 9-10: "May I remind the reader here that this very involved system has been portrayed until now by the simple and *entirely erroneous theory of a temple economy.* In fact, our studies have shown that the temple in this period was not the owner of landed property at all, but was provided with all its needs by the state" (emphasis Balkan's). See also Balkan (1986: 11)'s reconstruction of the central administration: "After the state taxes were calculated, the entire harvest was delivered to state granaries. These depots, whose number was very large, were known by such names as 'the storehouse' or 'the encampment.' All fief-holders and the people tied to them, all high officials, all temples without exception, and perhaps even the **guenna** drew all their provision needs from these depots against a receipt."

Although Balkan provides no definitive evidence for such a statement,[31] aspects of this reconstruction were adopted, whether explicitly or implicitly, by later scholars For instance, in a 1965 article on a Kassite letter, Biggs remarks that, while he does otherwise think the temple could hold its own property during the Kassite period, "[t]he temple's fiscal affairs and even the maintenance of offerings were [nevertheless] firmly under royal control, as was irrigation for the entire community, all probably administered by the GU_2.EN.NA."[32] This idea subsequently formed the basis of Petschow's conclusions,[33] and has since gained wider acceptance in the field. For instance, in his study on Kassite administration, Sassmannshausen (2001: 63) writes, "Die Urkunde [= BE 14 136] zeigt, dass zur Verwaltung der Besitztümer der EREŠ.DINGIR-Priesterinnen eine Anzahl von Schreibern eingesetzt war, und dass der 'Kanzler' [= *šandabakku*] anscheinend darüber Aufsicht führte." However, Brinkman (2017: 18-19) considers the question not yet settled, cautiously stating that "[t]he relationship of the governor to the religious institutions is as yet not clearly understood."

5.3. Reevaluating the evidence: MUN 120

Brinkman's caution has turned out to be well-warranted, as is made clear by the tablet MUN 120, published in 2001 by Sassmannshausen. The import of this particular document—and indeed, its very existence—has seemingly escaped the notice of most Middle Babylonian scholars thus far, and so I provide here a reedition of the tablet in question:

[31] As previously mentioned, Balkan does not provide direct text citations, making it difficult to determine which tablets he is referencing in his study.
[32] Biggs 1965: 95. Note the citation to Güterbock (1945-51)'s translation/summary of Balkan's article.
[33] See Petschow (1974: 62, n. 1)'s reference to Biggs 1965: 95.

Text 5.3.) MUN 120[34]

Obv.
col. i

1’	[	]	˹ŠE.BA SUM^{nu} E$_2$-*a-nu*˺ [KA$_2$-*a-nu*]
2’	[	]	˹*u$_3$*˺ DUMU.MEŠ *qin-na-a-t*[*i* MU.7.KAM]
3’	˹532˺;[x].˹4˺.0		KI.MIN MU.8.[KAM]
4’	PAP 980;4.0.0		ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SUM^{nu} *ša* 2 MU.M[EŠ]
5’			ZI-*ma*
6’	9,852;1.1.8		ŠE ^{giš}BAN$_2$ 10 SILA$_3$ *ri-ḫu*
7’			ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
8’	ŠE ^{giš}I$_3$ ^{giš}BAN$_2$ 10 SILA$_3$		MU.BI.IM
9’	˹66˺;3.0.6		ŠE ^{giš}I$_3$ LIBIR.RA IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM
10’	8;4.2.5		*te-li-tu* MU.7.KAM
11’	˹16˺;4.0.0		KI.MIN MU.8.KAM
12’	[PAP] 25;3.2.5		*te-li-tu* EREŠ.DINGIR.GAL *ša* 2 MU.MEŠ
13’	[ŠU].NIGIN$_2$ 92;1.3.1		ŠE ^{giš}I$_3$ SAG NIG$_2$.GA *ku-un-nu*
14’			ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
15’	2;1.5.5		*ša a-na* I$_3$.BA E$_2$ EREŠ.DINGIR.[TUR$^{?}$] ˹x˺
16’			*a-na* SAG NIG$_2$.GA *ša* EREŠ.DINGIR.˹TUR *ru*˺-*ud-du*

col. ii

1’	21[+(x) GUN	x GUN	KI.MIN MU.8.KAM]
2’	31[+(x) MA (x GIN$_2$)	x MA (x GIN$_2$)]	
3’	ŠU.NIGIN$_2$ 100 GUN	1[4 GUN	…]
4’	8⅓ MA	20˹½˺ [MA	…]
5’	SIG$_2$.HI.A	SIG$_2$ UZ$_3$	˹*ša i*˺-[*na* ŠA$_3$ SUM^{nu}]
6’	8 GUN	2 GUN	*man-da-at-tu$_4$* ˹*u$_3$*˺ [SIG$_2$.BA MU.7.KAM]
7’	37 MA	38 MA	
8’	8 GUN	2 GUN	KI.MIN [MU.8.KAM]
9’	5 MA 10 GIN$_2$	30 MA	
10’	32 GUN	2 GUN	ŠAM$_2$ 400;4.3.0 ŠE ^{giš}BAN$_2$ 10 [SILA$_3$]
11’	9⅚ MA	20 MA 15 GIN$_2$	*ša a-na* SAG NIG$_2$.GA ^{m}BA^{ša2}-^{r}d˺[U.GUR]
12’			*ru-ud-du-u$_2$*
13’	˹48˺ GUN	7 GUN	SUM^{nu} *ša* 2 MU.˹MEŠ˺ ŠU ^{m}BA^{ša2}-^{d}U.[GUR]
14’	52 MA	37 MA.NA	ZI-*ma*
15’		15 GIN$_2$	

Rev.
col. iii

1	51 GUN	˹6˺ GUN$_2$	*ri-ḫu* ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
2	16⅓ ˹MA˺	˹43˺ MA.NA	
3		15 GIN$_2$	
4	PAP		EREŠ.DINGIR.GAL
5	ŠE ^{giš}BAN$_2$ 10 SILA$_3$		MU.BI.IM

[34] The previous edition of this tablet was published by Sassmannshausen (2001: 297-299) as MUN 120. Although Sassmannshausen acknowledges that MUN 120 covers the same period of time as MRWH 17, he does not draw attention to the fact that some of the transactions attested in MRWH 17 co-occur in MUN 120. Similarly, he does not seem to recognize the direct link between MUN 120 and BE 14 136. Hence, some of his restorations are either wrong or incomplete.

6	277;1.1.9		*te-li-tu* MU.7.KAM *ša* […]
7			EREŠ.DINGIR.[TUR]
8	303;1.2.0		ŠE.NUMUN *is-ru ša i-*[*na* MU.7.KAM *i-na* ŠU ^{m}*ḫu-za-li*]
9			^{m}*i-qi$_2$-ša-*^{d}U.G[UR *maḫ-ru a-na* SAG NIG$_2$.GA ^{m}*i-qi$_2$-ša-*^{d}U.GUR *ru-ud-du*]
10	9;4.0.0		ŠE.NUMUN *is-ru ša* ˹*i*˺-[*na* MU.8.KAM *i-na* ŠU ^{m}*mar-tu-ki*]
11			DUMU $^{m.d}$UTU-URU$_4$ [^{m}*i-qi$_2$-ša-*^{d}U.GUR *maḫ-ru a-na* SAG NIG$_2$.GA ^{m}*i-qi$_2$-ša-*^{d}U.GUR *ru-ud-du*]
12	34;2.5.0		ŠAM$_2$ 2 [GUN 52⅔ MA SIG$_2$.ḪI.A]
13			ŠAM$_2$ 1[+(x) …]
14	PAP 624;4.2.9		ŠE ^{giš}BAN$_2$ [10 SILA$_3$ SAG NIG$_2$.GA *ku-un-nu(-um)*]
15			ŠU ^{m}˹*i*˺-[*qi$_2$-ša-*^{d}U.GUR]
16	ŠE ^{giš}BAN$_2$ 10 SILA$_3$		*ša* [*i-na* ŠA$_3$ SUM^{nu}]
17	186;1.4.0		ŠE […]
18			˹x˺ […]
19	183;1.5.5		K[I.MIN …]
20			*ša*/TA […]
21			*ša* […]
22			*a-n*[*a* …]
23	PAP 369;3.3.[5]		[ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SUM^{nu} *ša* 2 MU.MEŠ
24			ZI-*ma*]
25	[ŠU.NIGIN$_2$ 255;0.5.4		ŠE ^{giš}BAN$_2$ 10 SILA$_3$ *ri-ḫu*]
26	[		ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR]

(Remainder broken.)

col. iv

1	[ ]		IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ MU.6.KAM *ša$_2$-garak^{ak}-te-šur-ia$_4$-aš*
2	[ ] ˹1˺		*i-mit-ti* AB$_2$.GAL.MEŠ MU.7.KAM
3	[0;1.2.3] SILA$_3$		I$_3$.NUN ^{giš}BAN$_2$ 10 SILA$_3$ ŠU ^{m}BA^{ša}-^{d}U.GUR
4	[SIG$_2$.ḪI].˹A˺	SIG$_2$ UZ$_3$	MU.BI.IM
5	[x GU]N	1 GUN	*bu-qu-un* U$_8$.UDU.ḪI.A MU.7.KAM
6	[x M]A/[GI]N$_2$	18½ MA	
7	[x GU]N	1 GUN	KI.MIN MU.8.KAM
8	[x] MA/GIN$_2$	29½ MA	
9	[x]+3 GUN$_2$	2 GUN	SAG NIG$_2$.GA *ku-un-nu-um*
10	12½ MA	48 MA	
11	SIG$_2$.ḪI.A	SIG$_2$ UZ$_3$	*ša i-na* ŠA$_3$ SUM^{nu}
12	3 GUN	1 GUN	*man-da-at-tu$_4$ u$_3$* SIG$_2$.BA MU.7.KAM
13	5⅓ MA	26 MA	
14	3 GUN	1 GUN	KI.MIN MU.8.KAM
15	9⅓ MA	32 MA	
16	2 GUN		ŠAM$_2$ 34;2.5.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$
17	52⅔ MA		*ša a-na* SAG NIG$_2$.GA ^{m}*i-qi$_2$-ša$_2$-*^{d}U.GUR
18			*ru-ud-du-u$_2$*
19	[	] *ša ki-mu* 10 MA.NA SIG$_2$ UZ$_3$ *ša* ERIN$_2$.MEŠ *maḫ-ru*	
20			*i-na* ŠA$_3$ *šu-lu-u$_2$*
21	[	x G]UN	SUM^{nu} ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
22	[		] EREŠ.DINGIR.TUR
23	[		] ˹x SIG$_2$˺.ḪI.A
24	[		MU.BI].IM

(Remainder broken)

Translation

col. i

(1'-2')	[…]	Barley rations, given out. Inner palace, outer palace, and *qinnu*-members [… Year 7.]
(3')	˹532˺;[x].˹4˺.0	"Barley rations, given out. Inner palace, outer palace, and *qinnu*-members […]." Year 8.
(4'-5')	Subtotal: 980;4.0.0	Barley, 10-sila *sūtu*, given out over two years. *It is withdrawn.*
(6'-7')	9,852;1.1.8	Barley, 10-sila *sūtu*. Outstanding balance. Hand of Iqīša-Nergal.
(8')	Sesame, 10-sila *sūtu*	Name
(9')	66;3.0.6	Old sesame, remainder of the balanced account of Year 6.
(10')	8;4.2.5	*tēlītu*-revenue, Year 7.
(11')	16;4.0.0	"*tēlītu*-revenue," Year 8.
(12')	[Subtotal:] 25;3.2.5	*tēlītu*, EREŠ.DINGIR.GAL over two years.
(13'-14')	[To]tal: 92;1.3.1	Sesame, the established debit. Hand of Iqīša-Nergal.
(15'-16')	2;1.5.5	Which, as the oil rations of the EREŠ.DINGIR.TUR […] was added to the debit of the EREŠ.DINGIR.TUR.

col. ii

(1'-2')	21+[x] talents, 31+[x] minas	[…] […]	[Ditto, Year 8]
(3'-4')	Total: 100 talents, 8⅓ minas	1[4 talents,] 20½ minas	[…] […]
(5')	Wool	Goat hair	Which, [therefrom, was given]
(6'-7')	8 talents 37 minas	2 talents, 38 minas	*mandattu*-assignment and [wool rations, Year 7]
(8'-9')	8 talents, 5 minas, 10 shekels	2 talents 30 minas	"*mandattu*-assignment and wool rations," Year 8
(10'-12')	32 talents 9⅚ minas	2 talents 20 minas, 15 shekels	Price of 400;4.3.0 of barley, 10-sila [*sūtu*], which is added to the debit of Iqīša-Nergal.
(13'-15')	48 talents, 52 minas	7 talents, 37 minas, 15 shekels	Given out over two years. Hand of Iqīša-Nergal. *It is withdrawn*.

col. iii

(1-3)	51 talents, 16⅓ minas	6 talents, 43 minas, 15 shekels	Outstanding balance. Hand of Iqīša-Nergal.
(4)	Total		EREŠ.DINGIR.GAL
(5)	Barley, 10-sila *sūtu*		Name
(6-7)	277;1.1.9		*tēlītu*, Year 7, of […] EREŠ.DINGIR.TUR
(8-9)	303;1.2.0		Collected seed, which Iqīša-Ner[gal received] from the hand of Ḫuzālu in Year 7. [It is

			added to the debit of Iqīša-Nergal.]
(10-11)	9;4.0.0		Collected seed, which [Iqīša-Marduk received from the hand of Martuk(k)u], son of Šamaš-ē/īriš i[n Year 8. It is added to the debit of Iqīša-Nergal].
(12-13)	34;2.5.0		Price of 2 [talents, 52⅔ minas of wool.] Price of 1 […]
(14-15)	Total: 624;4.2.9		Barley, [10-sila *sūtu* …] Hand of I[qīša-Nergal].
(16)	Barley, 10-sila *sūtu*		Which, [therefrom, was given]
(17-18)	186;1.4.0		Barley […]
(19-22)	183;1.5.5		"Barley […]" which/from […]
(23)	Total: 369;3.3.[5]		[Barley, 10-sila *sūtu*. Given out over two years. *It is withdrawn.*]
(24-25)	[Total: 255;0.5.4]		[Barley, 10-sila *sūtu*. Outstanding balance.] [Hand of Iqīša-Nergal.]

col. iv

(1)	[…]		Remainder of the balanced account of Year 6 of Šagarakti-Šuriaš.
(2)	[…]		*imittu* of the cows. Year 7.
(3)	[0;1.2.3]		Ghee, 10-sila *sūtu*. Hand of Iqīša-Nergal.
(4)	[Woo]l	Goat hair	Name
(5-6)	[…] […]	1 talent, 18½ minas	Plucking of the flock, Year 7.
(7-8)	[…] […]	1 talent 29½ minas	"Plucking of the flock," Year 8.
(9-10)	[…]+3 talents 12½ minas	2 talents, 48 minas	The established debit.
(11)	Wool	Goat hair	Which, therefrom, was given:
(12-13)	3 talents, 5⅓ minas	1 talent, 26 minas	*mandattu*-assignment and wool rations, Year 7.
(14-15)	3 talents, 9⅓ minas	1 talent, 32 minas	"*mandattu*-assignment and wool rations," Year 8."
(16-18)	2 talents, 52⅔ minas		Price of 34;2.5.0 of barley, 10-sila *sūtu*, which is added to the debit of Iqīša-Nergal.
(19-20)	[…] which, in place of 10 minas of goat hair, which the workers received, was deducted therefrom.		
(21-23)	[…]	…] talents	Given out. Hand of Iqīša-Nergal […] EREŠ.DINGIR.TUR. […] wool.
(24)	[…]		[Nam]e

(Remainder broken.)

A brief examination of MUN 120 confirms that the document is yet another balanced account of one of the scribes of the EREŠ.DINGIR priestesses, Iqīša-Nergal, who is attested in BE 14 136 as managing available capital for both the EREŠ.DINGIR.GAL and

EREŠ.DINGIR.TUR.[35] Though the date of the account is lost in the break, the document was likely drawn up in Year 9 on the same occasion that produced BE 14 136 and MRWH 17. This assumption is supported by the fact that both MRWH 17 and BE 14 136 make references to amounts featured in MUN 120,[36] which provides a secure *terminus ante quem* of Month V, Year 9. Similarly, evidence that MUN 120 cannot have been drawn up prior to Year 8 can be extrapolated from the dates mentioned in the tablet, which range from Year 6 to Year 8.

This account is organized similarly to that of Ḫuzālu and Martuk(k)u (MRWH 17), with the major difference being that the entries in MUN 120 are separated first of all by priestess rather than scribe. The entries concerning the capital managed for the EREŠ.DINGIR.GAL are contained in cols. i through the beginning of col. iii. The remainder of cols. iii through iv list transactions associated with the capital managed for the EREŠ.DINGIR.TUR. Otherwise, the tablet is organized according to the same principles as established in MRWH 17, with transactions divided first by staples, and then broken down further into debits, credits, and remainders. Although the beginning of the first column, which contains the barley debit entries, is lost, the first few lines we can read clearly contain barley credit entries.

The information provided by MUN 120 is particularly important because it reveals what types of transactions are being debited and credited. This specificity allows us, first, to identify the source of the debits and to establish to whom the assets originally belong and, second, to confirm the identity of the assets' owner by exploring the recipients of the credited staples. When we extract the credit and debit entries from both MRWH 17 and MUN 120, we arrive at the following picture:

[35] BE 14 136: 10-11 and 26-27.
[36] See previous note and MRWH 17: 13-14 and 42-43.

DEBITS	MRWH 17	MUN 120
Previous years' balances	●	●
Tēlītu-revenues	●	●
Annual plucking		●
Imittu of the cows	●	●
Seed transfers	●	●
"Purchases/sales"	●	●

CREDITS	MRWH 17	MUN 120
Barley rations for *qinnu*-members	●	●
Barley rations for the inner and outer palace		●
Oil rations		●
Wool rations and *mandattu*-assignments		●
Seed transfers	●	●
"Purchases/sales"	●	●

Table 5.1: Debit and credit transactions recorded in MRWH 17 and MUN 120.

The following discussion will touch upon each of these transactions and attempt to trace their presence in the Nippur corpus when possible:

5.3.1. Barley and sesame: debits and credits

Aside from the remainders carried over from previous years and the periodic transfer of seed grain amongst scribes, the main source of the debited barley and sesame is identified as the *tēlītu* of the EREŠ.DINGIR priestesses, which is known to have been debited on an annual basis.[37] Often appearing in the Nippur administrative corpus as a descriptive qualifier of agricultural staples (including barley, sesame, emmer, cress, chickpeas, and lentils), the *tēlītu* in

[37] Texts referring to the *tēlītu* of the EREŠ.DINGIR priestesses are rare, but we have secure attestations of the *tēlītu* in the following texts, all stemming from the reign of Šagarakti-Šuriaš unless otherwise noted: MRWH 16, MRWH 17, MUN 120 (*tēlītu* for Years 7-8); MUN 69 (*tēlītu* for Year 10); MUN 70 (*tēlītu* for Year 11); and UM 29-15-434 (*tēlītu* for Year 9 of Šagarakti-Šuriaš through the accession year of Kaštiliaš IV). Ni. 617, referenced by Brinkman (2004: 294) is likely another *tēlītu* document for the EREŠ.DINGIR.TUR.

the Middle Babylonian period has been the subject of some debate in the secondary literature, having been translated variously over the years as "Ertrag," "Abgabe," "yield", "revenue," and sometimes even more specifically, "temple revenue."[38] This confusion has stemmed in large part from the absence of any systematic study on the *tēlītu*, which itself resulted from the lack of accessible data and the overwhelming terseness of the available documentation, which makes it difficult to ascertain the make-up of the *tēlītu*.[39]

Recently, however, this issue of interpretation has been resolved by the publication of a number of Kassite tablets kept in the Rosen Collection at Cornell University. Though the find circumstances of these tablets remain somewhat mysterious, the documents are believed to have originated in Dūr-Enlilē, a town frequently attested in the Nippur corpus.[40] A selection of these texts was edited in 2015 by van Soldt and published in CUSAS 30; the remainder is slated to be published by Devecchi in the upcoming years.

These newly published tablets from Dūr-Enlilē not only add to the number of published *tēlītu* documents, they also provide more explicit information as to the nature and composition of the *tēlītu*. In a forthcoming article that brings together the evidence from Dūr-Enlilē and Nippur, Devecchi argues that the *tēlītu* is not a harvest yield per se, but rather the sum total of annual tax revenues imposed by—and therefore due to—the central administration overseen by the *šandabakku* of Nippur.[41] Ledgers such as CUSAS 30 35 are particularly explicit in their

[38] See already Devecchi in press: n. 11.
[39] For a review of the scholarship on the Middle Babylonian *tēlītu*, see Devecchi in press, especially Section 2.
[40] On the provenience of these tablets, see already van Soldt 2015: 29-30. The location of Dūr-Enlilē cannot be verified, though it seems likely to me that the town was located in the vicinity of Nippur given the frequency at which it occurs in the Nippur corpus and the frequent attestations of deliveries made to/from Nippur in the Rosen Collection.
[41] Devecchi in press: Section 3.

breakdown, labeling totals that consist of *miksu*, *abullu*, ŠE *mākisi*, *zittu*, and *šibšu* taxes and imposts as the annual *tēlītu* of particular towns.[42]

The ramifications of this conclusion are significant for our understanding of the EREŠ.DINGIR balanced accounts. First of all, the source of most of the barley and sesame debits listed in MRWH 17, MUN 120, and UM-15-434—that is, the *tēlītu* revenues—must be regarded as taxes due to the central administration, a supposition that can be verified by the existence of three surviving tax records, MUN 69, 70, and Ni. 617.[43] These texts are dated to the reign of Šagarakti-Šuriaš and record *tēlītu* revenues assessed on several villages connected with the EREŠ.DINGIR priestesses. Consequently, these revenues are not temple property or temple assets, as has been explicitly argued by Petschow and Sassmannshausen.[44] Rather, as tax revenues, these staples are therefore *state* assets. Such a conclusion finds further support in the headers of both BE 14 136 and MRWH 17, which clearly state that Amīl-Marduk, the *šandabakku* and head of the central administration, is the one debiting and making accounts with the scribes of the priestesses. Petschow's assertion that the *šandabakku* was responsible for overseeing the temple's property therefore must be revisited, if not altogether rejected, because none of the listed staples are, in fact, temple property at all. They are simply unpaid taxes, which undoubtedly stem from villages under the control of the EREŠ.DINGIR household.[45]

---

[42] See Devecchi in press: n. 4, 42, and 43 for recent literature on the *šibšu* (Ellis 1976: 86-148, especially pp. 109-132; see also Boivin 2016b: 48-53), *miksu* (Ellis 1976: 148-160; see also Boivin 2016b: 54-56), *abullu* (Sassmannshausen 2001: 256 and Boivin 2016b: 57-58), ŠE *mākisi* (Sassmannshausen 2001: 35), and *zittu* imposts (Boivin 2016b: 50-53 and cited secondary literature) in Middle Babylonian texts.
[43] On this Istanbul text Ni. 617, see Brinkman 2004: 294.
[44] Petschow 1974: 62, reproduced with little variation from Petschow 1973: 307, and Sassmannshausen 2001: 63.
[45] See already MUN 69 and MUN 70, which list *tēlītu*-revenues due from several villages connected with the EREŠ.DINGIR.GAL. Brinkman (2004: 294) also identifies an additional document, Ni. 617, which lists villages connected with the EREŠ.DINGIR.TUR.

Such a reconstruction begs an important question, however—namely, why were the priestesses not paying their harvest taxes?

While one's first instinct might be to suggest that the priestesses perhaps could not afford to pay their taxes, such a conclusion is unlikely to be true. Field taxes in Mesopotamia were assessed after the harvest and calculated off the yield from a field;[46] hence, it is safe to assume that the *tēlītu*-revenues actually existed and were not simply estimates or assessments, as has been suggested by Ellis (1976: 127).[47] Following this line of reasoning, it would seem that the priestesses did indeed have the ability to pay their taxes; however, the *šandabakku* was evidently not interested in immediately collecting the revenue due the central administration, preferring instead to debit the taxes to the accounts of priestesses' scribes.

But how would the debt be repaid? In the balanced accounts discussed above, the scribes are credited primarily for paying barley rations to *qinnu*-members and members of the inner (*bītānu*) and outer palace (*bābānu*), as well as for providing oil rations for the household of the EREŠ.DINGIR.TUR. Unfortunately, none of these transactions are attested directly in the accessible surviving documentation. However, I maintain that each of these *types* of transactions can be traced in the Nippur corpus, especially amongst the ration rosters studied by Tenney (2011) over the past decade. As described by Tenney (2011: 23-31), these rosters are comprised

[46] Also referred to as the SAG NIG_2.GA, the *rēš makkūri*. Whether this amount is the field's total yield or simply its taxable yield is unclear.

[47] See already Devecchi in press: Section 2 in response to Ellis (1976: 127): "There is, however, no documentary evidence supporting the hypothesis that the central administration demanded estimates of the amounts due unless we assume that all the texts discussed above record the assessed, rather than the actual income of *tēlītu*. Thus, in my opinion there is no reason to assume that this 'tablet of the *tēlītu'* was written and sent by Nuska-karābī-išme to his lord before the fields were harvested and that it recorded 'the total expected amount' instead than 'the total actual amount' due by Pān-ṣēri and by the territory of Babylon."

of lists of laborers supervised by the *šandabakku* and the amounts of rations distributed to each of them.[48] These rosters include, amongst other things:

a.) Barley rations distributed to *qinnu*-members:[49] These ration disbursements are amply attested amongst the worker rosters, especially those described by Tenney (2011: 25) as rosters listing "barley or oil allotments as rations (ŠE.BA and I_3.BA) to persons and

[48] As noted by Tenney (2011: 23), these rosters also occasionally record other disbursements and expenditures, such as fodder given to animals and work assignments.

[49] Note that Tenney (2011: 8 and *passim*) has suggested that the term *qinnu*, which typically means "family," is a distinctive designation in the Kassite Nippur documentation for members of the large work force overseen by the *šandabakku* and has in fact used it as a diagnostic for his selection of sources on the labor force that is the subject of his book. As noted by Tenney (2011: 8), scholars "have pointed out the presence of other select vocabulary (*amīlūtu*, *aštapīru*, *munnabittu, piqdānu, qinnu, tenēštu,* etc." used to describe … a specific type of worker at Nippur." Tenney (2011: 119) states himself even more strongly later in his study: "However, the presence of sex-age or physical condition designations, words typically used to mark the servile population (*amīlūtu*, *qinnu*, etc.), and context are reliable ways to identify members of the servile population."

For a lengthier and more extensive discussion of the social category of *qinnu*, however, see Nielson 2010: 255-259. On the Middle Babylonian evidence, Nielson (2010: 255) remarks that "the term could be used to describe groups of people who had servile status" and further notes that "[a]spects of this usage appear in two early Neo-Babylonian legal tablets…" That the term likely has a wider semantic range can, however, be adduced from the fact that in other periods, members of a *qinnu* may be made up of individuals from a wide variety of social backgrounds (Nielson 2010: 256-257). All that being said, Tenney (2011) is certainly correct that many of the individuals in the worker rosters are grouped into *qinnu*-units, but the term may be less an indication of servile status and instead simply a useful label for the administration to categorize its workers. Another interesting observation made by Tenney (2011: 98) is that, though many *qinnu*-units are indeed composed of actual family members, on occasion members of one *qinnu* may be transferred to another *qinnu*. These transfers open up the possibility that not all those who are part of a *qinnu* are related by marriage or blood: "The designation *qinni* PN, literally 'family of PN,' was also used in some cases in the extended sense of '(work?) squad of PN' covering unrelated individuals, presumably residing together or at least drawing rations as a unit (with the PN here standing either for a supervisor external to the squad or for the most prominent member of the squad). The two types of *qinnu*-groups can be distinguished by the presence or absence of expressions of familial relationships (DUMU.A.NI, ŠEŠ.A.NI, etc.) linking all (not merely some) members of the group together."

families (for periods of six months or less?)”[50]—e.g., BE 14 138, MUN 103, and MUN 112).[51]

- Barley rations for the inner (*bītānu*) and outer palace (*bābānu*): The inner and outer palace appear quite infrequently in the corpus, but aside from attestations in these account documents, the outer palace shows up in barley ration rosters such as PBS 2/2 53 and BE 15 200.
- Oil rations: Both MUN 284 and BE 14 138 are worker rosters that lists individuals connected with the EREŠ.DINGIR.GAL and the oil rations allotted to each.

The occurrence of these types of allocations amongst the worker rosters and/or allocations made to workers that appear in the rosters suggests to me that the priestesses are repaying their debts by redistributing the state’s uncollected tax revenues as rations to those individuals employed by the *šandabakku’*s central administration. This redistribution of tax revenues might then be attested in the corpus in the form of simple receipts, such as the following text BE 15 26. This receipt explicitly mentions the receipt of 315,000 liters of barley destined for use as rations from the hands of two scribes of the EREŠ.DINGIR priestesses, Ḫuzālu and Martuk(k)u.

Text 5.4.) BE 15 26

1 1050;0.0.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$
2 *i-na* URU-*še-li-bi*^{ki}
3 *ša a-na* ŠE.BA NIBRU^{ki}
4 *u$_3$* BAD$_3$-*ku-ri-gal-zu*
5 *i-na* ŠU ^{m}*ḫu-za-lu$_4$*
6 *u$_3$* ^{m}*mar-tu-ki*

[50] The time period of six months is, as noted, uncertain. Tenney (2011: 25) remarks that “[o]nly one text [= MUN 103] mentions a disbursal period (6 months),” so the sample size is limited. The time period mentioned in MRWH 17: 15, on the other hand, is seven months.
[51] Outside of the worker rosters, the loan document BE 14 111 likewise explicitly attests to the receipt of 15,000 liters of barley, meant to be distributed to the families (*ana qinnāti*), from the hand of Enlil-ṣulūlī and Irēmšu-Ninurta, the latter of whom is most likely the father of Bēlu-ana-kala-damiq, one of the scribes of the EREŠ.DINGIR priestesses.

7 ^{m}*ḫa-na-a-a*
8 *u*$_3$ ^{m}ZALAG$_2$-^{d}AMAR.UTU
9 *im-ḫu-ru*
10 MU.10.KAM

Translation
(1) 315,000 liters of barley, (measured in the) 10-sila *sūtu*, (2)from/in Āl-Šēlebi, (3-4) which for the barley rations of Nippur and Dūr-Kurigalzu, (5-6)from the hands of Ḫuzālu and Martuk(k)u, (7-9) Ḫanāja and Nūr-Marduk received. Year 10.

Although BE 15 26 itself does not mention that the barley stems specifically from the *tēlītu* revenue, Devecchi (in press: Section 2) furthermore observes that there exists a subtype of *tēlītu* documents that records expenditures made directly out of the *tēlītu*. Regarding the types of recorded expenditures, she makes the following remarks:

> The purpose of the expenditures can be rations (ŠE.BA), foodstuffs (ŠUKU) for animals and temples, production supplies (ÉŠ.GÀR) for millers and brewers, seed (NUMUN), loans (UR$_5$.RA), fee for the rent of boats (Á ^{giš}MÁ), gifts (*rīmūtu*), rarely offerings for the cult of dead ancestors (*kispu*) and *aklu*-expenditures, and other items of still elusive nature such as *nikis karê*, *maššītu*, and *maššartu*. This wide range of expenditure items shows that *tēlītu* represented a fundamental source of income for the administration and was used to maintain different branches of the production system. (Devecchi in press: Section 2)[52]

Further, and more direct, evidence for the repayment of taxes via allocations to the *šandabakku*'s workers can, however, be found in the wool and goat hair dossier.

5.3.2. Wool and goat hair: debits and credits

The general procedure for the debiting and crediting of the animal fibers proceeds similarly to that procedure I have outlined above for the grain. Every year, the *šandabakku* debited certain scribes for amounts of wool and goat hair, labeled as the *buqūn* U$_8$.UDU.ḪI.A

[52] It is possible that debiting and redistributing *tēlītu*-revenues was the *modus operandi*. That being said, it is striking that the only surviving evidence of the *tēlītu* being explicitly debited is found in the accounts of the EREŠ.DINGIR household, though it could admittedly be simple coincidence.

MU.n.KAM, "the wool yield of the flocks of Year n."[53] Although scribes could receive credit by exchanging wool and/or goat hair for barley,[54] annual repayments were also booked in the form of wool rations and/or wool provided for textile production, known as the *mandattu*.[55] This last form of repayment is of most interest to us, because at least one of these *mandattu* payments can be directly traced in another tablet.

As noted above in Table 5.1, MUN 120 provides most of the available information concerning these wool and goat hair debits. In this balanced account, Iqīša-Nergal is debited for the wool yields of the flocks of Years 7 and 8 for both priestesses.[56] Subsequently, he is credited for supplying animal fiber for both the rations and *mandattu*-assignment of Years 7 and 8 of Šagarakti-Šuriaš.[57]

Although the account by itself tells us little else, the recipients of these *mandattu* payments are in fact identified in the unpublished tablet Ni. 943, currently stored in Istanbul. In his review of Sassmannshausen's book, Brinkman (2004: 294) describes the tablet as a list of

---

[53] Ḫuzālu is not debited in MRWH 17; his debits consist solely of remaining balances carried over from the previous account of Year 6, the source of which we cannot ascertain with the available information.

[54] MUN 120: col. ii, 10'-12' and col. iv, 16-18. See also UM 29-15-434: col. i, 9'-13'. These transactions are framed as purchases ($ŠAM_2$). However, given that one example of these "purchases" reappears as a debit entry in the barley section—MUN 120: col. iii, 12-13 is the equivalent debit entry for the credit transaction listed in MUN 120: col. iv, 16-18—characterizing the transaction as a purchase may be somewhat misleading. Iqīša-Nergal is essentially converting debited wool into debited barley, paying back two talents and 52⅔ minas of raw wool (plus some other unknown item specified in the break) to the central administration and receiving a debit of 10,370 liters of barley in exchange on the books. The underlying purpose behind this exchange is difficult to ascertain with certainty given the available evidence, however. It could be that the central administration suddenly found that it was in need of more wool on top of the amounts given as rations and *mandattu*, or perhaps Iqīša-Nergal preferred to have more barley on hand instead for whatever reason.

[55] CAD M/I s.v. *maddattu*, mng. 2.

[56] MUN 120: col. ii, 1'-2' (EREŠ.DINGIR.GAL; likely for Year 8, with Year 7 lost in the break), col. iv, 5-8 (EREŠ.DINGIR.TUR).

[57] MUN 120: col. ii, 6'-9' (EREŠ.DINGIR.GAL), col. iv, 12-15 (EREŠ.DINGIR.TUR).

"more than thirty workers, female and male, the amounts of wool each was given, and the total number of textiles (*muḫtillû* and *naḫlaptu*) each produced—the latter summarized as *mandattu* ˹EREŠ.DINGIR GAL˺ for the seventh and eighth years of Šagarakti-Šuriaš."[58] That this tablet records information included in the credit transactions listed in the account MUN 120 can be supported by the following evidence: 1.) In Ni. 943, the amounts of wool given for the *mandattu* of Years 7 and 8 accord well with the numbers attested in MUN 120,[59] and 2.) Iqīša-Nergal (spelled ^{m}BA$^{\check{s}a_2}$-^{d}U.GUR) appears on the reverse of the tablet.[60]

Perhaps of most concern to us is, however, the identity of the listed recipients, who are described in the concluding statement of Ni. 943 as "slave women of the palace, weavers and *kāṣiru*-weavers."[61] While this identification by itself is not particularly forthcoming, in a brief overview of the tablet, Tenney observes that many of the workers in the document are cross-listed in a number of large ration rosters (BE 15 188, BE 15 190, and BE 15 200),[62] which record

---

[58] Tenney (2011: 100, n. 50-51) provides a slightly different description of the tablet, characterizing it as "a detailed production summary that records amounts of wool given out as raw material (SIG$_2$.ḪI.A *mandattu*) to each of 28 women working in the establishment of a high priestess (NIN.DINGIR.GAL) in the seventh and eighth years of Šagarakti-Šuriaš (1239-1238 B.C.) and the number and type of luxury garments produced by each worker."

[59] The wool totals present in Ni. 943 are as follows: For Year 7, 4 talents and 3 minas ([x]+˹1˺ GU$_2$ 3 MA); for Year 8, 3 talents, 47 minas, and 10 shekels (3 GU$_2$ 47 MA 10 GIN$_2$); and for the grand total, 7 talents, 50 minas, and 10 shekels (7 GU$_2$ 50 MA 10 GIN$_2$). These figures do not include neither the goat hair, nor the wool rations. The latter must amount to 4 talents and 34 minas in Year 7 and 4 talents and 18 minas in Year 8, calculating from the amounts given in MUN 120. Information on Ni. 943 courtesy of Brinkman (personal communication, 4/8/2019).

[60] Brinkman (personal communication, 4/8/2019). The surrounding context is broken. Iqīša-Nergal's name is allegedly followed by what would appear to be a broken SAG sign. See also n. 74 for further discussion on what may follow the personal name.

[61] Brinkman (personal communication, 4/8/2019) kindly supplied me with the following transliteration of the tablet's concluding lines (Ni. 943: rev. 10-15): $^{(10)}$*man-da-at-ti* GEME$_2$ ˹E$_2$.GAL˺ $^{(11)}$UŠ.BAR.MEŠ *u$_3$ ka-ṣi-rum* $^{(12)}$MU.7.KAM *u$_3$* MU.8.KAM $^{(13)}$*ša-ga-ra-ak-te-šur-˹ia-aš˺* $^{(14)}$LUGAL.E $^{(15)}$NIN.DINGIR GAL.

[62] See Tenney 2011: 100, n. 50-51 for a list of some of the crosslisted individuals. Tenney further remarks that the women worked "in the establishment of a high priestess," but there is no

barley allocations disbursed to members of the *šandabakku*'s work force as rations.[63] In short, Iqīša-Nergal is being debited some amount of wool by the *šandabakku*, whom he then repays by supplying wool for textile production and wool rations to workers in the employ of the central administration.

The source of the debited animal fiber is, however, more difficult to ascertain. As discussed previously, the debited grain is helpfully labeled as the *tēlītu*-revenue of the EREŠ.DINGIR priestesses, which we can assume with reasonable certainty originates in the towns under the control of the priestesses.[64] However, the debited wool and goat hair is described with the more generic term *buqūnu*, "wool yield," which is furthermore attested infrequently in the published Nippur corpus.[65] Nevertheless, in light of the existence of the aforementioned herding contracts and livestock accounts—especially BE 14 99a, which lists the herds and flocks of the EREŠ.DINGIR priestesses—one is tempted to identify the source of the debited animal fiber as those flocks contracted out by the priestesses to the central administration.

As I have argued in the previous chapters, the EREŠ.DINGIR priestesses owned their own livestock. However, they contracted out at least some of their herds and flocks to the central administration overseen by the *šandabakku* of Nippur for care and management. The terms of their agreement are elaborated upon in a number of extant herding contracts, all dated to the reign of Šagarakti-Šuriaš. Though it is not explicitly stated, it is likely that the secondary

---

conclusive evidence on whether they are actually working in/for the priestesses' establishment or merely being supplied by the priestesses.

[63] See Tenney 2011: 25-26 for a brief overview of these rosters.

[64] MUN 69, MUN 70, and Ni. 617. On the last text, see Brinkman 2004: 294.

[65] To my knowledge, the term itself only appears in MUN 120, BE 14 128, and MUN 21, the last in a highly broken context.

products—that is, the wool, goat hair, and ghee harvested from the sheep, goats, and cows—were split between the two parties, as evidenced by the calculated amounts of secondary products that appear on the contracts' obverse. Around 25% of the entire yield of wool and goat hair would be collected by the priestesses, while the remaining 75% would be owed to the central administration. Given this split of the secondary products, it is conceivable that the debited animal fiber attested in MUN 120 constitutes the administration's 75% offtake from the priestesses' flocks.

Such a reconstruction has interesting implications for our understanding of how this system may have functioned on the ground. For one thing, although the flocks were contracted out to the central administration (most likely for the better part of a year), the priestesses must have been able to collect and obtain the entire wool and goat hair crop from the flock. In other words, the flocks would have somehow had to make their way back into the priestesses' sphere of influence at some point during the year; whether the administration's shepherds would bring the flocks in to specialized plucking sheds under the priestesses' control,[66] or whether individuals in the employ of the priestesses would travel to the flocks or sheds to collect the animal fiber is less clear.[67] The first possibility would imply that the bulk of the plucking labor fell to the priestesses' household, which suggests the motivation behind entering into a contractual

[66] To my knowledge, plucking sheds are not attested in the Nippur corpus, but MBTU 72 from Ur contains an explicit reference to the *bīt buqūni*, "house of plucking." Note that Ochsenschlager (2004: 209) similarly reports sheep being sheared indoors amongst the Marsh Arabs. Whatever the case, it seems to me that plucking likely took place outside of Nippur proper; the evidence is mostly circumstantial, but given the overall absence of plucking records—in contrast to texts attesting to the delivery or receipt of wool—in the Nippur corpus, it seems likely that plucking was an activity that happened off-site.

[67] In other words, the wool and goat hair would have been harvested by the central administration and then handed off to the priestesses for storage. However, I find such a possibility less likely given the additional transport that would have been involved in moving the animal fibers back and forth.

agreement with the central administration is not so much borne out of concern for manpower as a concern for, e.g., access to pasture.

There is admittedly one difficulty with this reconstruction, and that is, the numbers do not coincide as nicely as one would like. There are only two fully preserved debit entries for goat hair in MUN 120 and none for wool: In Year 7 of Šagarakti-Šuriaš, the amounts debited to Iqīša-Nergal for the EREŠ.DINGIR.TUR equal 1 talent and 18½ minas of goat hair, and in Year 8, 1 talent and 29½ minas. BE 14 99a: 45, on the other hand, records a total of 3 talents and ½ mina of goat hair for the flocks of the EREŠ.DINGIR.TUR, calculated off a total of 722 goats at a rate of ¼ mina of goat hair per goat. Assuming this amount is owed to the priestesses as I have argued, the remaining estimated 75% of the goat hair should be owed to the central administration, which should be around 9 talents and 1½ minas of goat hair, far greater than the debited amounts listed in MUN 120.

This difference is troubling, though it should be stressed that there are several unknowns—and therefore, possibilities—involved. It could be that the flocks listed in the contracts and the livestock accounts are unconnected to these balanced accounts, though one would admittedly be hard-pressed to find other alternate sources in the published corpus. Another possible explanation is that the documents are connected, but that the split of the secondary products is switched—that is to say, the central administration receives only 25% of the products while the priestesses keep 75%, a split that is historically more typical for Mesopotamian herding contracts. Furthermore, given that the texts are separated by a significant number of years, it is conceivable that the overall size of the priestesses' contracted flocks have changed—or even that Iqīša-Nergal simply manages a smaller fraction of the priestesses' larger holdings of animals. Finally, a third alternative must be mentioned, and that is it is possible that

some flocks were harvested while under the control of the *šandabakku*, while others were harvested while under the control of the EREŠ.DINGIR priestesses.[68]

Whatever the case, however, we can more or less reconstruct the general accounting procedure from the available evidence. The grain evidence allows us to confidently identify the source of the debits—that is, uncollected taxes—while documents dealing with the animal fiber allow us to identify the recipients of the credit—that is, the *šandabakku*'s work force.

5.3.3. The scribes, the *šandabakku*, and the priestesses

There is one thorny question that remains unaddressed, however, and it concerns the relationship between the central administration and those whom he is actually debiting: Do the scribes serve solely as agents of the *šandabakku*, or do they belong to the household of the EREŠ.DINGIR-priestesses, thereby making them external management from the point of view of the central administration? Torczyner, Balkan, Petschow, and Sassmannshausen all assume that the scribes were either appointed by and/or supervised by the *šandabakku* of Nippur,[69] in some cases outright characterizing them as either state or royal agents.[70] These scholars, however, present little evidence for their claims aside from citing BE 14 136 and the other connected documents, which, as we have seen, are less than explicit with regards to the nature of the connection between the *šandabakku* and the scribes. What, after all, does the act of debiting and/or balancing accounts necessarily imply about the relationship between the involved parties, specifically the extent of one party's control over another?

---

[68] As I mentioned in Section 4.4.4.1, it is possible that the sheep and goats were plucked and/or combed before being slaughtered.
[69] Torczyner 1913: 59; Balkan 1986: 10 (presumably the scribes are the mentioned "clerks"); Petschow 1974: 54-62; and Sassmannshausen 2001: 63.
[70] E.g., see already n. 6.

Much ink has been spilled on the topic in discussions over balanced accounts from other periods, with varying results. The debate over the Ur III merchant balanced accounts specifically comes to mind. Over the past several years, the discussion has in many ways been couched in terms of land tenure, state control and centralization, and the respective roles played by institutional ("public," state and/or temple) vs. non-institutional ("private," merchant) households.[71] The topic is no less difficult to address with regards to the Kassite material, especially in light of the lack of any firm provenience for the tablets. I provide, however, some additional food for thought and some potential avenues of inquiry below:

Overall, the scribes, when they can be definitively identified in other documents, are simply referred to as "scribes." However, a more explicit reference of one scribe's functions can be found in the unpublished balanced account UM 29-15-434:

Text 5.5.) UM 29-15-434

Obv. col. i		
1'	[…] ˹x x˺ […]	…]
2'	[… (x)]+49;4.5.4? SILA$_3$	˹x˺ […]
3'	233; 4.3.6 SILA$_3$	KI.MIN […]
4'	1,215;3?.5.7 SILA$_3$	KI.MIN […]
5'		*kaš-til-ia-a*[*š/šu* …]
6'	PAP? 3,571;3.3.0	*te-li-tu ša* [… x MU.MEŠ]

[71] For a list of major literature on the subject, see Steinkeller 2004: 97, n. 15 and add Garfinkle 2012 and Ouyang 2013: 148-151. As noted already by Steinkeller, the more recent literature on the subject has finally stepped away from rehashing the debate over whether these merchants belong to the public or private sector, but has come to focus more on the ways in which the merchants' entrepreneurial activities—which were not controlled by the state—nevertheless improved the efficiency of the state economy (see especially Garfinkle 2012).

I also wish to draw attention to the following statement on the merchant balanced accounts, which illustrates the complexities of the evidence and the importance of their context: "The balanced accounts of the merchants, which are usually viewed as public records, were prepared for the officials of the bureaus on whose behalf the merchants acted; however, these accounts were compilations of the commerce that the merchants usually engaged in beyond the direct view of the state" (Garfinkle 2012: 29, n. 2). Of course, the Middle Babylonian documents that are the subject of this chapter are undoubtedly institutional, and so the question here is less about the intersection of the institutional and non-institutional households and more about the economic interdependence (or independence) of two institutional households.

7’		TA MU.9.KAM *ša₂-gar-ak-t*[*i-šuriaš*]
8’		EN MU.SAG.NAM.LUGAL.LA *ka*[*š-tilaš(u)*]
9’	672;0.0.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$ ŠAM$_2$ 55 GU$_2$.UN 4 MA SIG$_2$.ḪI.[A]	
10’		*u₃* 1 GU$_2$.UN 51⅔ MA 5$^?$ GIN$_2^?$ SIG$_2$ U[Z$_3$]
11’		*ša* 1 MA.NA SIG$_2$.ḪI.A 0;1.0.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$
12’		*u₃ ša* 1 MA.NA SIG$_2$ UZ$_3$ 0;0.3.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$
13’		*ḫa-ri-iṣ*
14’	ŠU.NIGIN 14,098$^?$;4.0.8	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SAG NIG$_2$.GA *kun-nu*
15’		ŠU ^{m}BA^{ša2}-^{d}U.GUR GAR-*ni*
16’	ŠE ^{giš}BAN$_2$ 10 SILA$_3$	*ša i-na* ŠA$_3$ SUM^{nu}
17’	440;4.5.4$^?$ SILA$_3$	ŠE.BA SUM^{nu} E$_2$-*a-nu* KA$_2$-*a*-[*nu* …]
18’		*u₃* DUMU.MEŠ *qin-na-a*-[*ti*]
19’		MU.9.KAM *ša₂-gar-ak-ti-šur-i*[*a₄-aš*]
20’	[…x]+26;3.0.0	KI.MIN KI.MIN MU.[10.KAM]
21’	[…]	KI.MIN KI.MIN M[U.11.KAM]
22’	[…]	KI.MIN] ˹KI.MIN˺ M[U.12.KAM]

(Remainder broken.)

col. ii

1’	3;[x.x.x	…]
2’	2;1.3[+(x).x	…]
3’	PAP 16;3[+(x).x	…]

(Remainder broken. Rev. completely broken. All edges either broken or uninscribed.)

Translation:

col. i

(1’)	[…]	[…]
(2’)	[(x)]+49;4.5.4$^?$	[…]
(3’)	233; 4.3.6	Ditto […]
(4’-5’)	1,215;3$^?$.5.7	Ditto [… the accession year of] Kaštiliaš […]

(6’-8’)	Total: 3,571;3.3.0	*tēlītu*-revenue of [… of x years], from Year 9 of Šagarakti-Šuriaš to the accession year of Kaštiliaš.
(9’-13’)	672;0.0.0, barley, the 10-sila *sūtu*. The price of 55 talents, 4 minas of wool, and 1 talent, 51⅔ minas, and *5 shekels* of goat hair— per 1 mina of wool, 0;1.0.0 barley, 10-sila *sūtu*. and per 1 mina of goat hair, 0;0.3.0 barley, 10-sila *sūtu*— it is determined.	
(14’-15’)	Grand total: 14,098$^?$;4.0.8	Barley, 10-sila *sūtu*. The established debit. Hand of Iqīša-Nergal, the *šaknu*.

(16’)	Barley, 10-sila *sūtu*	Which, therefrom, was given:
(17’-19’)	440;4.5.4$^?$	Barley rations, given out: the inner and outer palace […] And the *qinnu*-members. Year 9 of Šagarakti-Šuriaš.
(20’)	[x]+26;3.0.0	“Barley rations, given out: the inner and outer palace […] And the *qinnu*-members.” Year [10 of Šagarakti-Šuriaš].
(21’)	[…]	“Barley rations, given out: the inner and outer palace […] And the *qinnu*-members.” Year [11 of Šagarakti-Šuriaš].
(22’)	[…]	Barley rations, given out: the inner and outer palace […] And the *qinnu*-members.”

Year [12 of Šagarakti-Šuriaš].

(Remainder broken or damaged. Traces of numbers are visible in col. ii.)

Though this tablet is broken and the EREŠ.DINGIR priestesses are not attested in the document, the content and layout of the tablet suggests that this text is another balanced account of the EREŠ.DINGIR priestesses, this time covering the period from Year 9 of Šagarakti-Šuriaš through the accession year of Kaštiliaš IV (= Year 13 of Šagarakti-Šuriaš).[72] Support for this identification comes from the barley amounts in the preserved columns, which are consistent with the *tēlītu*-revenues of the EREŠ.DINGIR.GAL from previous years,[73] as well as the name of the debited individual, who is explicitly identified as Iqīša-Nergal, the same scribe attested in BE 14 136, MRWH 16, MRWH 17, and MUN 120. Similarly, much of the account's content is similar to that of MRWH 17 and MUN 120: the debits are comprised of annual *tēlītu*-revenues and "purchases" of animal fiber, while the credits are composed of payments made in rations distributed to the *qinnu*-members and members of the inner and outer palace. Of particular interest, however, is the title given to Iqīša-Nergal in this account; he is identified not as a scribe but as a *šaknu* (col. i, 15': GAR-*ni*).[74]

---

[72] See Brinkman 1976: 22, n. 56 for more details on this equivalency: "The highest regnal year for Šagarakti-Šuriaš attested in the date of an economic text is his twelfth; but that he ruled thirteen official regnal years and died on one of the first two days of his thirteenth year may be inferred from the date in other economic texts."

[73] In comparison, the *tēlītu*-revenues of the EREŠ.DINGIR.GAL in barley for other years are as follows: 1,201; 1.2.9 (Year 7, see MRWH 16), 842; 2.3.8 (Year 8, see MRWH 16); and 934; 2.2.0 (Year 11, see MUN 70). Furthermore, the quantity of debited barley, over 14,000 gur, is on roughly the same order of magnitude as the amount of debited barley mentioned in BE 14 136, which exceeds 10,000 gur total and stands at around 9,800 gur for Iqīša-Nergal as the outstanding balance associated with the EREŠ.DINGIR.GAL.

[74] Brinkman (personal communication, 4/8/2019) states that Iqīša-Nergal is also attested in the unpublished tablet Ni. 943, which records the *mandattu* of the EREŠ.DINGIR.GAL. His name is reportedly followed by what appears to be a broken SAG sign. I am tempted to suggest the restoration *ša*[*k-ni/nu*] in keeping with the title associated with Iqīša-Nergal in UM 29-15-434.

The title *šaknu* possesses a rather wide semantic range.[75] Amongst the many levels and types of *šaknu*-officials attested in the Nippur corpus, the best-known is the *šakin māti*, often translated "governor" and spelled logographically as $^{(lu2)}$GAR KUR (GN), $^{(lu2)}$GAR GN, or sometimes even simply as $^{(lu2)}$GAR.[76] These *šakin māti* were responsible for the administration of the Kassite provinces,[77] with the singular exception of the province of Nippur, which was instead headed by the *šandabakku*.

Sassmannshausen (2001: 42-43) also, however, identities another type of *šaknu* in the Nippur corpus, which he translates as "Aufseher," or, in English, "overseer." These overseers appear to be distinct from the higher-level provincial officials mentioned above. They are attested in ration disbursal documents and appear at the head of extensive lists of workers (*awīlūtu*), which are comprised of various individuals, including palace servants, doorkeepers, millers, weavers, and their families, amongst others.[78] As noted by Sassmannshausen, however,

---

[75] See CAD Š/I s.v. *šaknu*, especially p. 191: "In all periods, *šaknu* could refer to officials on two distinct levels of the administrative hierarchy: provincial governors (appointed by the king), and officials subordinate to provincial governors and other high officials." See also Frame 1992: 222, n. 56, in reference to *šaknu* in the early Neo-Babylonian period: "Brinkman points out that […] there were different types of *šaknu*…" Brinkman (1968: 297) states that up until "the middle of the ninth century, the chief official of the province was normally the *šaknu*, or 'governor,' who held office by royal appointment and could be shifted from province to province at the king's will" but also points out the existence of individuals known as the *šakin* PN in tribal contexts unconnected with the provincial government during the mid-ninth century (referenced in Brinkman 1968: 198, n. 1208; 199-202, esp. n. 1221 and n. 1239; 244, n. 1567; and 265-266, n. 1712; however, cf. Paulus 2014: 670 for objections to reading *šaknu* in these examples). Brinkman (1976: 20, n. 51) also recognizes that *šaknu* may be translated more generically as "official" in some contexts.

[76] CAD Š/I s.v. *šaknu*, mng. 1a2' and 1b3'. On the abbreviation of *šakin māti* as ^{lu2}GAR (*šaknu*), see e.g., CAD Š/I s.v. *šaknu*: 191 and Sassmannshausen 2001: 23 and 43-44.

[77] Brinkman 1963: 235-236; Sassmannshausen 2001: 23-25; and Paulus 2014: 110, 251, and *passim*.

[78] BE 14 58 and BE 14 91a. See also BE 15 200 and PBS 2/2 53.

the exact function of these *šaknu* remains somewhat unclear, but they are evidently responsible in some capacity for supervising workers and disbursing rations.

Given their connection with rations, *mandattu*-assignments, and other payments to the *šandabakku*'s labor force, Iqīša-Nergal and the other attested scribes are likely to be identified as this second type of *šaknu*, the overseers. We have already discussed Iqīša-Nergal's involvement in the distribution of wool and goat hair as rations and *mandattu*-assignments to weavers and other women crosslisted in the large ration rosters, and so the topic does not warrant revisiting. A few of the other scribes, however, are attested in the context of similar activities; in the letter HS 110, Ḫuzālu and Martuk(k)u are involved in the distribution of wool to the daughters of a certain Bēlšunu, most likely for weaving.[79]

Text 5.6.) HS 110[80]

Obv.
1 *a-na* ^{m}*mar-tu-ki qi$_2$-bi$_2$-ma*
2 *um-ma* ^{m}LAL$_3$-UR$_2$-^{d}ALIM-*ma*
3 UD.28.KAM *ki-i la me-ke-e*
4 *a-ka-aš-ša-da-ak-ku*
5 *ta-kul-tu$_4$ ša* 10 *u$_4$-mi lu-u$_2$* ˹x˺-[(x)]
6 10 *u$_4$-mi i-na* URU-KA$_5$.A^{ki} *uš-šab*
7 ZID$_2$.DA *ba-nu-u$_2$* DUG.GAL.MEŠ
8 *ša ma-al-ti-ti u$_3$ kab-ri*
9 *lu-u$_2$ ma-a-du*
10 GIŠ.MEŠ *ḫa-aṣ-bu* GI.IZI.LA$_2$
11 MUN *u$_3$ me-re-eš-tu*
12 *ma-la i-ba-aš-šu-u$_2$ lu-u$_2$ ma-a-˹du˺*
13 *2 mu-ra-aṭ-ṭi-ba-a-tu*
14 *ša ma-˹al˺-ti-ti lu ru-uṭ-ṭu$_2$-ba*
15 *la te-me-ek-ki*
16 10 *u$_4$-mi uš-šab*

Rev.
17 *u$_3$* SIG$_2$.ḪI.A 2 GU$_2$.UN

[79] Bernhardt and Aro 1958/59: 568.
[80] For the previously published edition, see already Bernhardt and Aro 1958/59: 567-568, and for a hand copy, see Ibid.: Tf. 5-6.

18 *a-na* DUMU.MUNUS ^{m}*be-el-šu-nu ḫi-iṭ-ma*
19 *i-din* ^{m}*ḫu-za-lu*$_4$ *iq-ba-a*
20 *um-ma-a* 1 GUN$_2$ *eš-še-tu*$_4$
21 *u*$_3$ 1 GUN$_2$ *la-bi-ra-a-*[*tu*$_4$]
22 [*ḫ*]*i-iṭ-ma i-din-m*[*a*] ˹UD.20.KAM˺
23 *re-de-e-ma* ˹*at*$^{?}$˺*-lak*
24 UD.28.KAM *a-kaš-*˹*ša*˺*-da-ak-ku*
25 *la te-me-ek-ki*

Translation:

(1-2) To Martuk(k)u, thus speaks LAL-UR-Alim:

(3-4) On the 28th, I will reach you without fail. (5) May the banquet of 10 days be […] (6) I will stay 10 days in Āl-Šēlebi. (7-9) May good flour, large jugs of drink, and *kabru* be plentiful. (10-12) Cut wood, torch(es), salt, and supplies—as much as there are—may they be plentiful. (13-14) May two *murattibu*-vessels of drink be soaked. (15-16) Do not be negligent. I will stay 10 days.

(17-19) Furthermore, weight out and give two talents of wool to the daughters of Bēlšunu. Ḫuzālu spoke thus, (21-23) (saying), "Weigh out and give one talent of new (wool) and one talent of old (wool), and on the 20th, travel and come. (24-25) I will arrive (on the) 28th. Do not be negligent.

Additionally, these two scribes appear together again in the previously mentioned BE 15 26 (Text 5.4), wherein they are revealed to have handed over 315,000 liters of barley from/in the town Āl-Šēlebi to two individuals, Ḫanāja and Nūr-Marduk, as barley rations for workers of Nippur and Dūr-Kurigalzu.[81]

[81] Turning to the other scribes Adad-šar-ilāni and Bēlu-ana-kala-damiq, the evidence unfortunately turns scantier. Definitive attestations of these two individuals are more difficult to verify in the Nippur corpus. For example, during the reign of Šagarakti-Šuriaš, there are at least three individuals bearing the name Adad-šar-ilāni. Hölscher (1996: 19) identifies only the one scribe in BE 14 136, but Sassmannshausen (2001)'s publication of MUN 112, dated to the reign of Šagarakti-Šuriaš, reveals the existence of a leatherworker (*aškāpu*, MUN 112: col. iv, 5'-6'), a bowmaker (*sasinnu*, MUN 112: col. iv, 11'), and another Adad-šar-ilāni mentioned without a profession (MUN 112: col. iv, 8') but grouped under ^{lu2}NAGAR-SIG.MEŠ, apparently some type of carpenter (MUN 112: col iv, 21'). The same text also mentions a reedworker Iqīša-Nergal (*paqqaju*, MUN 112: col. iv, 9') and a Martuk(ku) (MUN 112: col. iv, 16'), also subsumed under ^{lu2}NAGAR-SIG.MEŠ; the carpenters Adad-šar-ilāni and Martuk(ku) may reappear in MUN 106, col. ii, 11-12 and MUN 107: 13 and 17', though the Martuk(k)u here is labeled as a cook (*nuḫatimmu*). Another Adad-šar-ilāni, this one an *ikkaru*, is attested in MUN

As previously mentioned, however, whether these attested activities and/or the title of *šaknu* necessarily mean that the scribes should be considered agents of the *šandabakku* and therefore part and parcel of the provincial administration remains frustratingly unclear. On the one hand, we find these overseers attached to the *šandabakku*'s labor force,[82] even receiving rations in some instances.[83] On the other hand, it is conceivable that these *šaknu* are merely appointed, and therefore the title should be considered not so much a designation for a provincial

---

317: 14, while an *iššakku* farmer named Ḫuzālu can be found in MUN 322: 8. The Iqīša-Nergal who appears in MUN 69: 17, a *tēlītu* document for two towns of the EREŠ.DINGIR.GAL, may be identical to our scribe, but verification is difficult.

It should, however, be noted that Bēlu-ana-kala-damiq's father, Irēmšu-Ninurta, is attested frequently in the Nippur corpus (see Ḫölscher 1996: 107 s.v. Irēmšu-Ninurta (Irēmšū'a), no. 1). Assuming that Bēlu-ana-kala-damiq's position is hereditary, one could hypothetically glean some information about his potential role in the administration by examining the activities of his father. And indeed, when one examines the documentation, Irēmšu-Ninurta, operating between Year 14 of Nazi-maruttaš through Year 1 of Kadašman-Enlil II, is attested most often in the context of distributing agro-pastoral stapes (barley, wheat, emmer, wool, ghee) from a variety of centers, including Karê-Aštabba-Ḫetuku, Kār-Ba'u, Nippur, Taḫlaš, Qaštu, and Dūr-Nusku, with amounts commonly ranging from around 300 liters of wheat to as much as 381,000 liters of barley. The listed purposes for the distribution of staples are varied; when they are explicitly stated, Irēmšu-Ninurta is attested providing work assignments for millers, brewers, and/or weavers; giving staples to others to redistribute themselves as rations to, e.g., *qinnu*-members, sometimes in the form of formal loans that include the presence of sealings, witnesses, and even copies of sealed tablets. His activities therefore appear to line up generally with the activities of the scribes and the types of credited expenditures listed in the EREŠ.DINGIR accounts.

However, this line of argument should be taken with a grain of salt. The connection is tentative and difficult to conclusively prove given the nature of our documentation, as it relies upon the assumption that a.) this particular Irēmšu-Ninurta is indeed the father of Bēlu-ana-kala-damiq (Hölscher 1996: 107), b.) that they held the same profession, and c.) that this profession was hereditary. As to these assumptions, we know that there is a connection between Irēmšu-Ninurta and the EREŠ.DINGIR priestesses; in BE 14 104, Irēmšu-Ninurta receives an amount of ghee of the EREŠ.DINGIR priestesses, brings it into the *house*(?) of sealings, and pours it into four jugs. Irēmšu-Ninurta is also attested in the livestock tables BE 14 99 and BE 14 168, both of which are at least typologically similar to BE 14 99a, the livestock account listing animals belonging to the EREŠ.DINGIR priestesses. Irēmšu-Ninurta is also attested beside the scribe Martuk(k)u, who witnesses a loan Irēmšu-Ninurta gave out in Year 10 of Kadašman-Turgu (CT 51 28). However, all of these are only suggestive, rather than proof, of the initial hypothesis.

[82] E.g., BE 14 58: 2; BE 15 200: col. iii, 42; PBS 2/2 53: col. iv, 41.

[83] E.g., BE 14 91a: 4.

"official" than a role assigned to some individual attached to a large household.[84] In the same way that a miller could function both within and without a particular household, it is possible for a *šaknu* to function across households and administrations, though whether or not we see them attested in one sphere or another may be a consequence of which archive(s) have been discovered in the course of excavations.

In the end, the situation cannot be easily resolved. Even if we are to consider the scribes to have been under the "control" of the *šandabakku*, one would nevertheless have to explain the explicit reference to them as the scribes of the EREŠ.DINGIR priestesses (DUB.SAR.MEŠ *ša* EREŠ.DINGIR.MEŠ) in the header of BE 14 136, a designation that naturally seems to imply that they belong to the household of the EREŠ.DINGIR priestesses. The further attestation of a priestess in the large roster CBS 7092+10654+13380B+N 4268 also raises some skepticism. Though the tablet is badly broken, an interlinear comment records that an EREŠ.DINGIR priestess, represented by some individual […]-Nergal (perhaps Iqīša-Nergal), is involved in the dispute over the ownership of a slave,[85] which may once again point to some degree of economic and legal separation between the EREŠ.DINGIR household (which may include their scribes) and the *šandabakku*. It should be kept in mind, however, that future evidence may drastically change the picture.

Additionally, and in spite of the previous discussion, I confess I wonder whether the identification of the scribe's primary employer is particularly relevant. Regardless of whether or

[84] Paulus (2014: 657) observes that while the *šaknu* are not often seen in the context of temples, they are nevertheless associated with large households, citing the examples in CAD Š/I s.v. *šaknu*, mng. 4a. Sassmannshausen (2001: 42-43) cites PBS 1/2 73 as evidence of the *šaknu*'s involvement in the supervision of servants.
[85] Brinkman, personal communication, 6/24/2019. Brinkman notes that the dispute was raised by the relative of the slave.

not the scribes are considered agents of the *šandabakku* or the priestesses, their control over the assets listed in the balanced accounts was evidently such that the *šandabakku* considered the staples not at his immediate disposal, nor under his direct control—hence, the existence of the balanced accounts, the regular creation of summary accounts, and even the consistent attribution of the balances to the priestesses. The last of these in particular betrays an interest in continuing to connect the balances with not simply the individual scribes, but the priestesses' households *specifically*, even going so far as to keep the households of the EREŠ.DINGIR.GAL and the EREŠ.DINGIR.TUR economically distinct and separate in the bookkeeping, which suggests to me that the storage or distribution of the staples was being outsourced to the priestesses.[86]

5.4. Discussion

The preceding review of the EREŠ.DINGIR accounts reveals that the popular characterization of the *šandabakku* needs to be revisited, if not altogether rejected. Contrary to Petschow's proposed reconstruction, the *šandabakku* in the previously discussed texts is not functioning as the manager, supervisor, or administrator of the temple's fiscal affairs. Rather, he is more accurately functioning as a creditor, settling accounts and debiting the scribes of the priestesses not because he is overseeing temple property per se, but because they are indebted to him. The assets documented in the tablets are state assets and list only what is owed to the central administration; they certainly do not list the priestesses' property even in part.

[86] See also the remarks by Jursa (2004: 182-183) on the possible connection between the presence of balanced accounts (and other texts meant to fulfill a policing function) and economic outsourcing: "I have pointed out above the fact that Neo-Babylonian institutional households tended to delegate to entrepreneurs, usually outsiders, the management of branches of their economy not amenable to permanent and direct control. A large part of the institutional bureaucracy was devoted to checking the performance of these men; we have already seen that most balanced accounts deal with such matters."

This separation of the priestesses' household from that of the provincial administration is likewise attested in the livestock documentation. Though the text types featured in the livestock dossier vary widely from those present in the grain dossier,[87] there is nevertheless a clear legal and economic line drawn between the priestesses' property and that of the *šandabakku*. From the extant herding contracts, it is evident the *šandabakku* and the provincial administration were not the owners of the listed livestock but merely the external contractors responsible for their care and management.[88] These contracts, and the resulting livestock account tables that compile lists of contracted livestock and connected officials, must have been drawn up to document and to keep track of outstanding liabilities that stem from these contractual relationships.

This reinterpretation of the relationship between these two parties has a number of significant repercussions on our understanding of the economy and administration of these two large institutions during the Kassite period:

First, the EREŠ.DINGIR priestesses, especially the EREŠ.DINGIR.GAL, were nominally in massive debt to the *šandabakku*. If one turns back to BE 14 136 to examine the amount of barley debited to the EREŠ.DINGIR.GAL, one would see that the *šandabakku* was evidently

---

[87] The use of different text types in the grain and livestock dossiers is curious. One could argue that there was no need to draw up formal contracts with regards to grain products both because there was an extant taxation system that could easily account for arrears, and because the provincial administration is acting as the so-called creditor in this sector of the economy. With regards to the livestock dossier, the situation is more complicated. For one thing, livestock are both valuable even in small numbers and highly mobile; by comparison, grain, wool, and ghee are not. Therefore, there may have been more consequences involved in not keeping track of the animals. Additionally, it should not be forgotten that the contractor (and the functional debtor) in the livestock dossier *is* the provincial administration, which certainly wielded a not insignificant amount of economic and political clout. If any situation would call for highly formal contracts, it would be one in which it would otherwise be difficult to go after the liable party.

[88] Note that actual livestock, for instance, are conspicuously absent in the balanced accounts. This omission may perhaps be further proof that the priestesses owned their own livestock, as I have argued, and owed only secondary products to the *šandabakku* as per the stipulations found in the herding contracts.

owed over 10,917 gur of barley measured by the 10-sila *sūtu*, which is roughly equivalent to over 3.275 million liters of barley. This amount is not insignificant even by modern day standards. If we were to ignore annual repayments credited to the priestesses' scribes, this figure would roughly equal around eleven years' worth of *tēlītu*-revenues for the EREŠ.DINGIR.GAL that were debited to the priestess' scribes instead of being directly paid to the central administration.[89] Given that Iqīša-Nergal is credited each year with paying back approximately half of the debited barley in the available documentation, it is conceivable that the scribes were being debited for close to two decades, if not longer.[90]

This *modus operandi* of debiting the scribes with tax revenues rather than simply collecting them raise some interesting implications about the economic behaviors and motivations of the involved parties, which brings me to my second point of interest: This reinterpretation of the accounts necessarily implies the existence of decentralized storage and circulation of staples for the Kassite provincial administration and the priestesses.[91] There is a historical tendency to picture Mesopotamian economies as being dominated by highly centralized, institutional storage facilities that functioned as a focal point for the redistribution of agricultural surpluses.[92] In recent years, however, this idea has come under fire. For instance, in a 2014 dissertation on grain storage in Mesopotamia, Paulette (2014: 190-191) has noted that this popular reconstruction is not borne out well by the archaeological evidence in either northern or

[89] The average *tēlitu*-revenue in barley for the EREŠ.DINGIR.GAL can be calculated off figures given in the texts MRWH 16 and MUN 70. The following are the available figures for each year: 1,201;1.2.9 (Year 7); 842;2.3.8 (Year 8); and 934;2.2.0 (Year 11).
[90] This estimate ignores, of course, transfers of debits amongst the scribes.
[91] See also n. 86 and the connected main text.
[92] See especially Paulette 2014: 13-30 for a critical overview of how Mesopotamian grain storage has been portrayed by scholars over the past several decades and the consequences of such portrayals on our reconstruction of the socioeconomic and political history of Mesopotamia.

southern Mesopotamia. He pushes for scholars to "consider the possibility that institutional storage systems were less centralized than is typically assumed" in light of the absence of concrete evidence and the logistical difficulties involved in the transportation of large amounts of grain, while drawing attention to a more nuanced characterization of the institutional economy "not as a single, hyper-centralized entity but, instead, as a multilevel, nested hierarchy of semi-autonomous 'households.'"[93] Meanwhile, focusing more on the possibility of administrative fictions in written documents from Umma during the Ur III period, Steinkeller (2004: 71) has argued that "[w]hile many … disbursements took place in Umma itself, where several mills and extensive storing facilities are known to have existed, the majority of them were made from the grain silos in the countryside."[94] A similar argument has been made for the Kassite period by Paulus (forthcoming), and though Devecchi does not go so far as to explicitly argue that tax revenues were locally stored, the survival of documents explicitly recording disbursals being made from the *tēlītu*-revenue of specific towns is suggestive of the existence of decentralized and local storage.[95]

Similarly, in our accounts, we find that the *šandabakku* did not collect his tax revenues from the priestesses directly. Instead, he apparently outsourced the storage and distribution of these debited staples to the priestesses and a number of their scribes,[96] while keeping a running

---

[93] For Paulette's entire conclusion and further comments, see especially Paulette 2014: 188-194.
[94] For more extensive discussion, see Steinkeller 2004: 71-74. Paulette (2014: 191) also cites and acknowledges Steinkeller's points.
[95] Paulus forthcoming and Devecchi in press. These texts correspond to the second group of *tēlītu* documents Devecchi discusses.
[96] Devecchi (in press) additionally draws our attention to MUN 140 and BE 15 5, two documents that each record the receipt of the *tēlītu* of a named town by other individuals. She suggests that these documents "do not record simple 'expenses,' but yet another phase of the administration of *tēlītu*, namely the identification of officials … to whom certain amounts of *tēlītu* were entrusted and who then would have been in charge of managing it." BE 15 5 is, in particular, witnessed and sealed, acts which Devecchi notes "lend an especially official and legally binding function to

tab of how much they still owed him, a tab that may very well have spanned over a decade.[97] The advantages of such an arrangement cannot be overstated. The central administration presumably saved itself massive costs in storage and transport, which would no doubt have required a great deal of time, effort, resources, and risk. As a brief illustration of just much labor might go into transporting grain, one can turn to BE 14 118,[98] which reveals that transporting the *tēlītu* of a single town—Dūr-Enlilē, in this case—required the mobilization of 2,120 wagons (or wagon trips). Factor in the actual laborers, oxen, rations, and time required in this endeavor, and one can conclude that it would have been much more cost-efficient to move the grain around as little as humanly possible. Should rations, for instance, need to be disbursed regularly in a particular town, economic efficiency would dictate that the bulk of the grain be stored "on-site" as it were (or as close to "on-site" as is possible), to be given out upon receipt of orders from the central administration rather than transported to some central storehouse and then carted back out to the town.[99]

BE 15 5." Given the highly formal nature of BE 15 5, one is tempted to suggest that this official may have been considered outside the normal authority of the central administration, rendering it necessary to draw up documentation that could serve as legal evidence should such proof be necessary. As for MUN 140, it is quite possible that the document was originally enclosed in a sealed envelope, which has now been lost. A similar text, BE 15 38, deals again with an amount of barley received by one Bānû, but if the envelope had not been discovered during excavations, the document would no doubt have been regarded as a typical informal receipt.

[97] Interesting comparisons can may made with Nbn 462, a Neo-Babylonian balanced account reporting the activities of tax farmers responsible for collecting tithes for a temple (see Jursa 1998: 31-33). See also n. 99 for more discussion.

[98] Another referring to the transportation of the *tēlītu*, this time from the town Ekallātu, is BE 15 91 (see already Devecchi in press).

[99] Noted already in a more general context by Paulette (2014: 190-191), who remarks that "[w]hile there certainly were central storehouses incorporated within, attached to, or associated with the physical seats of institutional power—that is, with the palace and temple complexes—it may not have made logistical sense to move the bulk of the grain harvest into these central storehouses. It is at least possible that the provision of a physical space for storing grain that belonged, ultimately, to the palace or temple was often considered the responsibility of subordinate social or administrative units (e.g. lower level 'households' of one sort of another)."

These very same conclusions no doubt also apply to the EREŠ.DINGIR-priestesses, who were almost certainly not storing over 3.2 million liters worth of barley in a single storehouse—if indeed they were even keeping the staples on hand at all, which brings me to my third point: Although the debited staples—barley, sesame, ghee, wool, and goat hair—are certainly more storable than others, they still cannot be stored indefinitely. Even in modern times, grain, ghee, and raw wool and goat hair are subject to spoiling and/or infestation by pests—the longer the length of storage, the greater the risk—making it extremely unlikely in ancient times that these staples were stored long-term, even in the case of unused debits.[100]

Such an observation has also been made for Old Kingdom Egypt by Strudwick (1985: 268), who notes that "[w]hile the existence of a granary can be documented in the residence and in private estates, the location of the principal state ones remains unknown. It is possible that there were local granaries responsible to the central office, as this would surely be the most efficient means of ensuring the collection and distribution of the grain." And even more recently in a general study on the ancient Egyptian economy, Muhs (2016: 39 and 194) comments that although "[v]ery little is known about the organization of the state granary … [o]ne would expect it to be a central office managing a dispersed network of central and local granaries, rather than a central group of granaries alone, in order to minimize the distance that grain was transported for collection and disbursement … Such dispersed storage systems were safer than centralized ones, because risks were distributed, and they minimized unnecessary transportation. Such a system existed already in the Old and New Kingdoms, one still existed in the Ptolemaic Period, and the Nitokris Adoption Stela discussed later suggests that some such system also existed in the Saite period."

A little closer to home, Jursa (2006) has reconstructed a similar system of decentralized storage and circulation of temple revenue for the Esagila in early Hellenistic Babylon: "Esangila's accounting system was clearly similar to that of the better-known 6th century temples Ebabbar and Eanna… Esangila could expend goods it never had received physically: the responsible income farmer had simply been credited with them, and he could therefore be ordered to pay them to the final recipients to whom this credit had been transferred" (146). Similar remarks can be found in Jursa 1998: 33.

[100] This is not to say that staples were never stored, as I clarify in the following paragraph of the main text—but I find it inconceivable that staples would have been stored in such amounts over such long periods of time as implied by, e.g., the lowball eleven year estimate I have calculated from the accounts. Even when speaking of modern Greek farmers, Halstead (1993) notes that "[w]here possible, farmers typically aimed for some degree of overproduction and stored enough grain for two years' subsistence," but that "[g]rain in long-term storage might well spoil before it was needed for human consumption…" The situation was likely not much better in the past.

To provide a more concrete example: As I discussed previously in the context of barley, each year's recorded credits tend to amount to only half a year's debits, with the remainder being carried over into the next accounting period. The result is such that by Month V, Year 9 of Šagarakti-Šuriaš, the total outstanding balance is equivalent to around eleven years of uncollected barley revenue. This figure does not, however, mean that all unused barley was simply being stored until the central administration ordered a "withdrawal." Rather, what likely happened was that only a fraction of the barley was stored for use during the following year to at least partially pay for the credited transactions ordered by the central administration. The letter HS 110 (Text 5.6) explicitly informs us that such a practice is attested for wool disbursements; this letter is addressed to our scribe Martuk(k)u, and in it, Ḫuzālu orders one mina of old wool (LIBIR) and one mina of new wool (GIBIL) to be given to the daughters of Bēlšunu.[101] As I stated, however, only a fraction of the unused debits would be kept in storage. The remainder would almost certainly have been disposed of by the scribes through reinvestment and/or consumption.[102]

[101] The distinction that is drawn between old and new staples suggests to me that there was some perceived difference in quality between the two, though this hypothesis cannot be definitively proven. The balanced accounts MRWH 17 and MUN 120 always label outstanding balances carried over from previous accounts as LIBIR.RA, "old," but whether such a designation is purely administrative or (also) qualitative is uncertain.

[102] One may draw a crude comparison with the practice of fractional reserve banking, in which banks (here, the temple) hold reserves that amount to only a fraction of their total deposits (here, "made by" the central administration through not collecting state taxes) while utilizing the rest on profit-making investments. See also the lengthy discussion by Jursa 2006 on the possibility of deposit banking in early Hellenistic Babylon, though it should be noted, of course, that the neither corpus contains direct evidence of investment of funds by the debtor. In the case of the Middle Babylonian corpus, the absence may be attributed to the fact that the central administration does not particularly care how the capital is used, so long as the requested amounts are in fact paid, and so any such documents relating to the private investment would likely not have been found amongst the *šandabakku*'s records.

Although the evidence for such an argument is admittedly indirect, it would make little sense for the scribes to simply accrue millions of liters worth of, for instance, barley that would inevitably spoil at some point in the future, especially given that their credits never appear to exceed their debits, with only one exception.[103] The result is an ever-increasing outstanding balance that would be carried over into the next account. Assuming that the scribes were aware that they would never be asked to pay back the entirety of their debits, it would logically be more profitable to simply put the unused staples to use rather than keeping them in storage.[104] For instance, excess grain could be fed to livestock and/or workers as fodder or rations, planted as seed, handed out as loans (both interest-bearing and otherwise), used to hire human and/or animal labor, and traded for less perishable goods, while goat hair and wool could be spun into textiles assuming adequate manpower, which could be more safely stored and/or traded. Such transactions are, though not directly attested for our scribes, more generally attested practices for other individuals in the Nippur corpus.

In short, so long as the scribes could continue to make the payments requested of them by the central administration, the administration presumably did not care how the scribes were disposing of the remainder of the state's assets, which could then be freed up for more productive use.

---

[103] The one exception is found in MUN 120: col. iv, 12-15, 19-20 with regards to the goat hair credited for *mandattu* and wool rations. See already the accompanying commentary for more details.

[104] See already Flannery 1969: 87 on agricultural surpluses: "Primitive peoples, in the prehistoric record and in the ethnographic present, seem to use three main methods for dealing with unpredictable surpluses. They can store them; they can convert them into craft items of imperishable, exotic raw materials, which can be used as media of exchange during lean years; or they can convert them into live storage, i.e. domestic animals… These second two alternatives amount to a kind of 'banking' of surpluses." These observations are expanded upon by Halstead (1993), who focuses on the use of livestock as indirect storage and draws upon further evidence from both ancient and present-day Greece.

CHAPTER 6:
CONCLUSION

In the preceding chapters, I examine the relationship between the provincial administration of Nippur and the city's temple households through a case study of the economic transactions between the *šandabakku* of Nippur and a pair of EREŠ.DINGIR priestesses. These activities are documented in a distinct and coherent dossier of legal and administrative texts most likely excavated from the governor's palace (Area WB). Based on this study, I argue that the traditional characterization of the *šandabakku* as the authority presiding over the temples' fiscal affairs must be reconsidered. Furthermore, I question the overarching extent of economic centralization as it pertains to the province of Nippur, in light of evidence of the decentralized management of agro-pastoral goods belonging to the province.

Literature on Kassite administration has consistently tended to paint the provincial government under the *šandabakku* as a highly centralized one that exerted significant political, economic, and religious control over the province at large, as well as the city's temples. To bolster this last claim, scholars have historically interpreted a number of bookkeeping texts related to the EREŠ.DINGIR priestesses as evidence of the *šandabakku*'s authority over the use and disposal of what they claim to be the properties of one of Nippur's most significant temple households. However, I argue that such a reconstruction is founded on uncritical assumptions, misreadings, and misinterpretations of these bookkeeping documents, all of which can ultimately be traced back to a feudal model of the Kassite state proposed by Balkan in the 1940s as a reaction to the traditional temple-state model proposed by earlier scholars. Although Balkan's reconstruction has not persisted without criticism over the years, one nevertheless continues to find echoes of it in current discussions on Kassite administration and economy.

Over the course of Chapters 3, 4, and 5, I re-edited and better contextualized the bookkeeping texts that are so influential to the current understanding of the *šandabakku*'s relationship with the temples. By synthesizing these texts with known herding contracts and livestock account tables, I argue that the EREŠ.DINGIR household functioned as a distinct and semi-autonomous economic entity rather than a mere arm of the provincial administration. Based on these latter two categories of texts, we can see that the EREŠ.DINGIR household contracted out their livestock to the central administration for care and management, required regular payments of predetermined quotas (in secondary products and offspring) from various mayors and shepherds under the authority of the *šandabakku*, and, furthermore, could also exact (typically financial) punishments for the nonperformance of duties as related in the contract stipulations. In return for their service, the *šandabakku* and his administration would likely have received a profitable share of the secondary products (and perhaps even offspring) produced by each flock or herd.

I suggest in Chapter 5 that these shares in wool, goat hair, and ghee may have been subsequently recorded in the aforementioned bookkeeping documents as debits, alongside more sizeable debits in grain taxes. By drawing upon research on accounts in other periods and regions, I argue that these documents are balanced accounts whose purpose is to calculate and record the size of debts ultimately owed to the provincial government. In other words, these texts do not record transactions involving temple properties as has been previously argued but rather the accrual of debits owed *to* the provincial administration and the credited transactions carried out by the EREŠ.DINGIR household to repay those debts. Hence, the listed agro-pastoral goods should be considered the property of the province rather than the temples. This has substantial

repercussions on the claim that the *šandabakku* was responsible for the management of the temples' property.

Such a claim should also be reconsidered in light of the fact that the documents show that the EREŠ.DINGIR household evidently, as a rule, did not fully repay the *šandabakku* on an annual basis. Though the priestesses are, on occasion, credited with grain, wool, and goat hair allotments made to the *šandabakku*'s labor force, these payments make up only a small fraction of the owed amounts, and in the end, the priestesses (and perhaps the *šandabakku*) seem to have allowed their debits to accrue over the years into substantial amounts; BE 14 136 reports that the EREŠ.DINGIR GAL evidently owed over 3.2 million liters of barley in unpaid back-taxes, equivalent to over a decade of barley revenue owed to the province. What this specifically implies about the relationship between the *šandabakku* and the EREŠ.DINGIR priestesses cannot be ascertained with confidence given the available documentation. However, I propose that this accrual of debts may be the result of a decentralized system of storing and redistributing agro-pastoral goods.

Over the course of this study, I also provide more clarity about the livestock management of institutional cattle, sheep, and goats during the Kassite period. Generally speaking, these practices seem to fall in line with those known from other periods and regions; contracting out herds and flocks for care by external parties in return for pre-arranged quotas in secondary products and offspring is well-attested throughout Mesopotamian history. However, the goals of each system can be quite different. For the herds and flocks discussed in these texts, it is clear based on a combination of age-sex data and qualifying interlinear commentary that many of the livestock dealt with in these texts belonged to breeding herds or flocks, whose primary purpose was to supply meat and/or labor in the future.

Nevertheless, this dissertation presents only an introductory foray into the Middle Babylonian livestock corpus. It consequently leaves open various avenues for future research, some of which I discuss below.

First, due to the uneven publication status of the Nippur corpus at large, the evidence presented here is largely incomplete. As I have noted throughout the dissertation, relevant but unpublished and/or unedited tablets are known to exist amongst the collections of Istanbul and the University of Pennsylvania Museum. However, untimely issues of access have prevented me from either collating these documents in person or from browsing the collection for other texts that may shed additional light upon the subject of this dissertation. Hence, one of the main priorities not only for this particular study but also for the field of Kassite studies at large remains gaining access to, cataloguing, and publishing the texts housed in these two major collections. Only then can the conclusions of this study be rigorously tested and verified.

Additionally, although a variety of texts were consulted during this study, the documents under direct consideration in this dissertation are largely limited to only those texts that I could reasonably connect with the household of the EREŠ.DINGIR priestesses at Nippur and excludes others whose connections are less certain. It would therefore be desirable to widen the net, so to speak, and to explore more broadly and systematically the documentation related to other large households within Nippur, temple or otherwise. Furthermore, in light of the recent and forthcoming publications of the administrative texts from the contemporary town of Dūr-Enlilē, it may be particularly productive to test hypotheses suggested in this dissertation on the material from Dūr-Enlilē, especially those related to policies governing provincial taxation of the agricultural and livestock holdings of other individuals and large households (including temple households) and livestock management practices more generally.

Moving in another direction, this study focused largely on cattle, sheep, and goats. However, we are also aware of the existence of several Kassite horse lists for several decades now. Horses, together with chariots, are known to have played a vital role in both the Late Bronze Age exchange network and in warfare. The primary treatment of the material is Balkan 1954, which provides editions of a number of horse lists. However, Balkan's discussion focuses largely on the Kassite vocabulary used in these lists, and his treatment of more administrative and economic matters is confined to half-page descriptive summaries. Thus, it may be worth considering in more detail how these horses fit into the broader political economy of the Kassite period and to compare how the management of equids differs from that of other livestock, including birds, for which the Nippur corpus also furnishes evidence that may be fruitful as a topic of future research.

Finally, it would also be interesting to follow the trail of the wool and goat hair more broadly in future studies and to delve deeper into the workings of the textile industry. This dissertation has brushed upon such considerations lightly in Chapter 5, but given the existence of numerous garment lists discovered both at Nippur and Dūr-Kurigalzu, and the fact that textiles are thought to be a major export of Babylonia during the Late Bronze Age, the topic warrants additional consideration in the future, especially given treatments of the topic for other periods and places.

APPENDIX: TEXT EDITIONS

This appendix contains editions of the major texts discussed in the preceding chapters. The texts are organized by text categories, which appear in the order in which they are introduced in the main dissertation. The first three major sections of the appendix are consequently comprised of herding contracts (Chapter 3, organized by subtype, on which, see below under Section A), livestock account tables (Chapter 4), and balanced accounts (Chapter 5).

A. HERDING CONTRACTS

The following texts are comprised of editions of the herding contracts categorized and discussed in Chapter 3 of the main dissertation. The texts have been organized by subtype below into the following subsections: Group 1 (uncategorized), Group 1a (subcategory), Group 1b (subcategory), and misc. contracts.

A.1. GROUP 1 CONTRACTS

Text Number	MUN 321
Museum Number	CBS 6616
MSKH Number	V.2.10.261
Date	ŠŠ VIII/-/[…]
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	Sassmannshausen 2001: 386
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P264124.jpg

Obv.

1	1	˹UTUA˺
2	55	A[B_2.GAL]
3	7	AB_2 MU.3
4	[(x+)]˹19˺	AB_2 [MU.2]
5	[x	GUD MU.5]
6	2	[GUD MU.4]
7		G[UD MU.3]
8	8	˹GUD MU˺.[2]
9	9	AB_2.[GA]

10 9 AMAR.[GA]
11 PAP 90[+x] ˹AB$_2$.GUD.[ḪI.A]
12 ˹4˺ (BAN$_2$) 9⅓ SILA$_3$ 2½˺ [(GIN$_2$) I$_3$.NUN]
13 [^{m}x] ˹x x x (x)˺ [NA.GAD]

Rev.
1’ ˹*i*˺-*nam-d*[*in i-na* 10-*ti* KUŠ DIRIG-*ma*]
2’ *ul*^{l} *i*[*m-ma-ḫar i-na* 1 ME 50 *il-da*]
3’ *u*$_2$-*še*-[*et-te-eq i-na* 1 ME 50 LAL$_2$.GAG-*ma*]
4’ *i-na* [1 ME 70 *is-si-ru-šu*]
5’ *ḫa-za*-[*an-nu a-na* ITI-*šu*$_{(2)}$]
6’ AB$_2$.GU[D.ḪI.A *i-man-nu (ḫa-za-an-nu) a-na* ITI-*šu*$_{(2)}$]
7’ *u*[*l in/im-da/ta-nu-ma* …]
8’ x […]
9’ ^{iti}[API]N.DU$_8$.[A MU.x.KAM]
10’ *ša-ga-rak-t*[*i-šuriaš*]
11’ LUGAL.[E]
12’ ^{na4}KIŠIB ^{m}LU$_2$-^{d}AMAR.UTU GU$_2$.EN.NA

Translation

(1)	1	bull
(2)	55	fully-grown cows
(3)	7	two-year old heifers
(4)	[(x+)]+19	[one]-year old heifers
(5)	[x]	[four-year old males]
(6)	2	[three-year old males]
(7)	0	[two-year old ma]les
(8)	8	[one]-year old males
(9)	9	heifer [calves]
(10)	9	male [calves]
(11)	Total: 90[+x]	cattle
(12)	*4 sūtu*, 9 silas,	and 22.5 shekels of ghee
(13)	…	[herdsman]

(Remainder broken.)

(r.0-4’) [He will give the sinews. Per ten], he will gi[ve a hide. (If) it exceeds a hide per ten], it will not [be accepted. Per 100], he will ex[ceed 50 offspring. (If) per 100, 50 are the arrears, (r.4-8’)then they will collect from him 70] per 100. The ma[yor will count] the cat[tle monthly. (If) the mayor do]es not [count them monthly, then…]

(r.9’-12’) [Mon]th VIII, [Year x] of Šagarakt[i-Šuriaš], the king. Seal of Amīl-Marduk, the *šandabakku*.

Commentary

o.2 Sassmannshausen (2001: 386) reads ˹AB$_2$˺ [MU].˹x˺, but cf. Section 3.2.1.1.1 for a discussion of the livestock categories in these contracts.

o.5 For the restoration of the cattle category in this line, see already my discussion in Section 2.3.2. AB$_2$ MU.1 rarely appears in the Nippur corpus, and so this line is almost certainly reserved for male cattle. On the restoration of the ages, see commentary to l. 6-8 below.

o.6-8 The inventory does not omit categories even with a null count (see l. 7), so the count in l. 8 likely begins with the usual GUD MU.2, with each preceding line up until l. 5 ascending by one year, as is typical for these contracts.

o.12 Sassmannshausen (2001: 386) reads ˹3-B?˺ 9˹⅓˺ SILA$_3$ 2½ […]. The first sign is damaged, though there may be a *winkelhaken*. If the ghee amount is as I have read it, then the calculations are a little bit off from the typical 2.5 silas per calf (see Section 3.2.1.1.2), reaching instead 2.743 silas per calf. On the possible restoration of GIN$_2$, see CBS 10623: obv. 3'.

o.13 Based on the typical format of these contracts, these lines should list the three officials (see Section 3.2.1.1.3). The next two lines (completely broken) should give the names of the mayor and "Kassite" officials.

r.1'-8' The top of the reverse is broken, but one can probably restore ^{uzu}SA *i-nam-din i-na* 10-*ti* KUŠ prior to rev. 1' from parallels. The first sign of rev. 2' is a clear UL written over another sign. Cf. Sassmannshausen (2001: 386), who reads AB$_2^!$.GUD.Ḫ[I.A …] for rev. 2', but this would require us to assume the scribe forgot to inscribe both of the following diagonals (see rev. 6' for a clear AB$_2$). The remainder of the restorations here are made according to the stipulations found in other Group 1 contracts and the remaining visible sign traces.

r.9' Sassmannshausen (2001: 386) misreads the month as Month V rather than Month VIII.

Text Number	-
Museum Number	CBS 10623
MSKH Number	-
Date	ŠŠ […]/-/11
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	-
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P265825.jpg

Obv.

1' [x] ˹AMAR.GA˺

2' [PAP x] AB$_2$.GUD.Ḫ̆I.A

3' […] ˹x˺ 5 GIN$_2$ I$_3$.NUN

4' […] ˹x x (x)˺ NA.GAD

5' […] ˹x x˺-DU$_3$ *ḫa-za-an-nu*

6' […]-˹x˺ *kaš-šu-u$_2$*

7' [^{uzu}SA] *i-nam-din*

(The remainder of the obverse is broken, and the reverse completely effaced and illegible. The seal impression is visible on the uninscribed bottom edge.)

Translation

(1')	[x]	male calves
(2')	[Total: x]	cattle
(3')	[…] and 5 shekels of ghee	
(4')	[…]	herdsman
(5')	[…]-bani(?)	mayor
(6')	[…]	"Kassite"
(7')	He will give [the sinews.]	

(Remainder broken.)

A.1.1. GROUP 1A

Text Number	-
Museum Number	CBS 10738
MSKH Number	-
Date	ŠŠ […]/-/11
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	-
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P265943.jpg

Obv.

1 [x] UDU.NITA$_2$
2 [x] U$_8$.GAL
3 ˹14˺[(+x)] SILA$_4$.NIM
4 [(x+)]˹24˺ ^{munus}SILA$_4$.[NIM]
5 PAP 1 ME ˹77 BABBAR.MEŠ˺
6 ˹x˺ MAŠ$_2$.GAL
7 ˹x˺ UZ$_3$
8 ˹x˺ MAŠ$_2$.TUR
9 ˹x˺ ^{munus}AŠ$_2$.GAR$_3$
10 PAP ˹x˺ UZ$_3$.MEŠ
11 ˹ŠU.NIGIN$_2$ x ME 74(+x)˺ [U$_8$.UDU.ḪI].A
12 ˹1 GUN$_2$ 28½ MA˺ SIG$_2$
13 [x] SIG$_2$ UZ$_3$
14 […]-*ut*$^?$ NA.G[AD] *qer*$_3$-*be-t*[*u*$_4$] MU.7
15 […] ˹*ḫa-za-an-nu*˺
16 […] ˹*kaš-šu-u*$_2$˺

Rev.

17 ˹KUŠ *gab-bi-šu u*$_2$*-ša-kal*˺
18 ˹^{uzu}SA *i-nam*˺*-din*
19 ˹*i-na* 10-*ti*˺ [KUŠ *i-nam*]-*din*
20 ˹*i-na*˺ [10-*ti* KUŠ DIRIG]-˹*ma ul*˺ [*im-ma*]-*ḫar*
21 ˹*i-na*˺ [1 ME 50 *il-da u*$_2$*-še*]-˹*te-eq*˺
22 ˹*i-na*˺ [1 ME 50 LAL$_2$.GAG]-˹*ma*˺
23 ˹*i-na* 1 ME 70 *is*˺-[*si-ru-šu*]
24 ˹*ḫa-za-an-nu a-na* ITI-*šu* U$_8$.UDU.ḪI.A *i-man-nu*
25 [*ḫa*]-˹*za-an-nu a-na* ITI-*šu ul in/im-da/ta-nu-(ma)*˺
26 [^{lu2}SIPAD *u*$_2$*-maš-ša*]-˹*ru-ma*˺
27 [LAL$_2$.GAG *ḫa-za-an*]-˹*na*˺ *is-si-ru-šu*
28 [^{iti}.x.x.(x)] MU.11.KAM
29 [*šagarakti-šu*]-*ri-ia*$_4$*-aš*
30 [^{na4}KIŠIB ^{m}LU$_2$-^{d}AMAR.UTU] GU$_2$.EN.NA

Translation

(1)	[x]	rams
(2)	[x]	ewes
(3)	14[(+x)]	male lambs
(4)	24[(+x)]	female la[mbs]
(5)	Total: 177	"whites"
(6)	x	bucks
(7)	x	does
(8)	x	male kids
(9)	x	female kids
(10)	Total: x	goats
(11)	Grand total: 174+[x] ovicaprids	
(12)	1 talent, 28.5 minas of wool	
(13)	x	goat hair
(14)	[…]-*ut*	[herdsman], the pasture, Year 7
(15)	[…]	[mayor]
(16)	[…]	["Kassite"]

(17) He will taw all the hides. (18) He will give the sinews. (19-20) Per ten, [he will] give [a hide. (If) it exceeds a hide] per ten, [it will not] be accepted. (21-23) Per [100, he will exce]ed [50 offspring]. (If) [per 100, 50 are the arrears], then [they will] col[lect from him] 70 per 100. (24-27) The mayor will count the ovicaprids monthly. (If) the [ma]yor does not count (them) monthly, they will [rele]ase [the shepherd] and they will collect [the arrears (of the shepherd) from the may]or.

(28-30) [Month x], Year 11 of [Šagarakti]-Šuriaš. [Seal of Amīl-Marduk], the *šandabakku*.

Commentary

14 For attestations of *qerbetu* in related documents, see BE 14 99: rev. 65; BE 14 99a: rev. 32; and CBS 11107: obv. 14. On the *qerbetu* as the pasture lands, see Ch. 4, n. 72.

17-27 The reverse of the tablet is heavily damaged and effaced as noted by the CDLI photograph. My restorations were made based on few visible sign traces I could confidently make out when collating the tablet in person, as well as parallels.

Text Number	-
Museum Number	CBS 11060
MSKH Number	-
Date	ŠŠ X/-/11
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	-
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P266234.jpg

Obv.

1 [x UDU.NITA$_2$]

2 [x U$_8$].˹GAL˺
3 [x SILA$_4$.NIM]
4 [x ^{munus}SILA$_4$.NI]M
5 [PAP] 18[(+x)] ˹BABBAR˺.[MEŠ]
6 [x+]˹21˺ M[AŠ$_2$.GAL]
7 [x] U[Z$_3$]
8 1[+x MAŠ$_2$.TUR]
9 [x ^{munus}AŠ$_2$.GAR$_3$]
10 [PAP] ˹17˺[+x] UZ$_3$
11 [ŠU.NIGIN$_2$ 35(+x) U$_8$.UDU.Ḫ]I.A
12 [x GUN$_2$ x MA SIG$_2$.Ḫ]I.A]
13 [x GUN$_2$ x MA SIG$_2$ U]Z$_3$
14 […] ˹NA.GAD˺
(Remainder broken.)

Rev.
1’ [*i-na* 10-*ti* KUŠ DIRIG]-*ma u*[*l im-ma-ḫar*]
2’ [*i-na* 1 ME 50] *il-da u$_2$-še-t[e-eq]*
3’ [*i-na* 1 ME] 50 *il-da* LAL$_2$.GAG-ma
4’ [*i-na*] ˹1˺ ME 70 KI.MIN *is-si-ru-ma*
5’ [*ḫa-z]a-an-nu a-na* ITI-*šu$_2$* U$_8$.UDU.Ḫ.I.A *i-man-nu*
6’ [KI.MIN] *a-na* ITI-*šu$_2$ ul im-ta-nu-ma*
7’ [^{lu2}]SIPAD *u$_2$-maš-ša-ru-ma*
8’ [LAL$_2$].GAG *ḫa-za-an-na*
9’ [*is*]-*si-ru*
10’ [^{iti}A]B.E$_3$ MU.11.KAM
11’ [*ša-g*]*a-ra-ak-ti-šu-ri-ia$_4$-aš*
12’ [^{na4}KIŠIB ^{m}L]U$_2$-^{d}AMAR.UTU GU$_2$.EN.NA NIBRU^{ki}

Translation

(1) [x rams]
(2) [x] ewes
(3) [x male lambs]
(4) [x female lam]bs
(5) [Total: x] “whites”
(6) [x+]21 bu[cks]
(7) [x do[es]
(8) 1[+x male kids]
(9) [x female kids]
(10) [Total:] 17[+x] goats
(11) [Grand total: 35+x ovicap]rids
(12) [x wool]
(13) [x goat ha]ir
(14) […] herdsman
(Remainder broken.)

(r.1') [(If) it exceeds a hide per ten], then it will not [be accepted.] (r.2'-4') [Per 100,] he will exce[ed 50] offspring. [(If) per 100], 50 offspring are the arrears, then they will collect from him 70 "offspring" [per 100]. (r.5'-9') [The ma]yor will count the ovicaprids monthly. (If) the ["mayor"] does not count (them) monthly, they will release the shepherd, and they will [c]ollect the [arr]ears (of the shepherd) from the mayor.

(28-30) [Month X], Year 11 of [Šag]arakti-Šuriaš. [Seal of A]mīl-Marduk, the *šandabakku* of Nippur.

Commentary

o.14 The following two lines should list the names of the mayor and the "Kassite."

r.1' The previous lines likely read [KUŠ *gab-bi-šu u₂-ša-kal* / ^{uzu}SA *i-nam-din* / *i-na* 10-*ti* KUŠ *i-nam-din*], "He will taw all the hides. He will give the sinews. Per ten, he will give a hide."

r.6' There is not enough space to fit in the typical *ḫa-za-an-nu*. From MUN 330: rev. 25, we know that KI.MIN can be substituted for *ḫazannu*, however.

Text Number	MUN 329
Museum Number	CBS 11104
MSKH Number	V.2.10.34
Date	ŠŠ X/-/11
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	Sassmannshausen 2001: 391-392
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P266267.jpg

Obv.

1	1 ŠU 4	UDU.NITA$_2$
2	1 ŠU 6	U$_8$.GAL
3	15	SILA$_4$.NIM
4	16	^{munus}SILA$_4$.NIM
5	PAP 1 ˹ME 1˺ ŠU 1	BABBAR.MEŠ
6	˹x+1˺	MAŠ$_2$.GAL
7	˹74˺+[(x)]	UZ$_3$
8	˹18˺	MAŠ$_2$.TUR
9	18	^{munus}AŠ$_2$.GAR$_3$
10	PAP 1 ME 1 ŠU 9	UZ$_3$.MEŠ
11	ŠU.NIGIN$_2$ ˹3 ME 30˺	U$_8$.UDU.ḪI.A
12	1 GUN$_2$ 20 ½ MA	SIG$_2$.ḪI.A
13	42 MA 15 GIN$_2$	SIG$_2$ UZ$_3$
14	MAŠ$_2$ MU.8.KAM	^{m}*man-nu-ki-*^{d}IŠKUR NA.GAD
15	^{m}IR$_3$-^{d}*ba-u₂*	*ḫa-za-an-nu*
16	^{m}*man-dar-ban*	*kaš-šu₂-u₂*

Rev.

17 KUŠ *gab-bi-šu₂ u₂-ša-kal*
18 ^{uzu}SA *i-nam-din*
19 *i-na* 10-*ti* KUŠ *i-nam-din*
20 *i-na* 10-*ti* KUŠ DIRI-*ma ul im-ma-ḫar*
21 *i-na* 1 ME 50 *il-da u₂-še-te-eq*
22 *i-na* 1 ME 50 KI.MIN LAL$_2$.GAG-*ma*
23 *i-na* 1 ME 70 KI.MIN *is-si-ru-šu₂*
24 ˹*ḫa*˺-*za*-˹*an-nu*˺ *a-na* I[TI-*šu*$_{(2)}$ U$_8$.UDU.ḪI].˹A˺ [*i*]-˹*man-nu*˺
25 [*ḫa*]-*za*-˹*an*˺-[*nu a-na* ITI-*šu*$_{(2)}$ *ul im-ta-nu-ma*]
26 [^{lu2}]˹SIPAD˺ [*u₂-ma-šar-ru-ma*]
27 LAL$_2$.GAG *ḫa-za-an-na [is-s]i-ru*
28 ^{iti}[AB].E$_3$ MU.11.KAM
29 *ša-ga-ra-ak-ti-šu-[ri-i]a-aš*
30 ^{na4}˹KIŠIB˺ ^{m}LU$_2$-^{d}AMAR.UTU GU$_2$.EN.NA

Translation

(1)	[x	rams]
(2)	[x]	ewes
(3)	[x	male lambs]
(4)	[x	female lam]bs
(5)	[Total: x]	"whites"
(6)	[x+]21	bu[cks]
(7)	[x	do[es]
(8)	1[+x	male kids]
(9)	[x	female kids]
(10)	[Total:] 17[+x] goats	
(11)	[Grand total: 35+x ovicapr]ids	
(12)	[x	wool]
(13)	[x	goat ha]ir
(14)	[…]	herdsman

(Remainder broken.)

(r.1') [(If) it exceeds a hide per ten], then it will not [be accepted.] (r.2'-4') [Per 100,] he will exce[ed 50] offspring. [(If) per 100], 50 offspring are the arrears, then they will collect from him 70 [per 100]. (r.5'-9') [The ma]yor will count the ovicaprids monthly. (If) the ["mayor"] does not count (them) monthly, they will release the shepherd, and they will [c]ollect the [arr]ears (of the shepherd) from the mayor.

(28-30) Month [X], Year 11 of Šagarakti-Šu[ri]aš. Seal of Amīl-Marduk, the *šandabakku*.

Commentary

6 Cf. Sassmannshausen 2001: 391, who does not restore a number in this line.

7 Sassmannshausen (2001: 391) restores 70[+x+]2 for the number, but his translation reads, "˹133˺ Ziegen." The last few signs of the number are stacked verticals, indicating a unit value of at least 4.

19-20 Cf. Sassmannshausen 2001: 391 for the misreading of 10-*ti-su* rather than 10-*ti* KUŠ (already Brinkman 2004: 291). For the possible reading of 10 TI KUŠ, see the discussion in Section 3.2.1.1.4.

21-23 Sassmannshausen (2001: 391) reads the numbers correctly but misunderstands the clause. See already Brinkman 2004: 391 and my discussion in Section 3.2.1.1.4.

21 Cf. Sassmannshausen (2001: 391) misreading of *šim-da* instead of *il-da*. See already Brinkman 2004: 291 for correction.

24 Cf. Sassmannshausen 2001: 391, which reads: ˹KI.MIN *a-na*˺ [KA$^{?}$ *ul im-ta-nu-ma*]. See Brinkman 2004: 302 for corrections (collated by Brinkman and also personally confirmed).

25-26 Brinkman (2004: 302) notes that "only a few unverifiable traces remain" of these lines. My collation suggested the noted readings, which accord well with parallels.

27 Sassmannshausen (2001: 391) inserts a possible ˹*ša*$^{?}$˺ between LAL$_2$.GAG and *ḫazanna*. My collation does not support this, as there does not appear to be enough space left on the tablet between the two signs. Additionally, Sassmannshausen's suggestion makes no grammatical sense and does not match any of the other parallels we possess.

28 Month IX could technically be restored here with the writing ^{iti}GAN.E$_3$ (on which, see Brinkman 1976: 399), but given that all of the other contracts are dated to Months VIII or X, I see no reason not to suggest a restoration of Month X here.

Text Number	MUN 330
Museum Number	CBS 11105
MSKH Number	V.2.10.186
Date	ŠŠ X/-/11
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	Sassmannshausen 2001: 392
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P266268.jpg

Obv.

1	1 ME 85	UDU.NITA$_2$
2	˹6 ME˺ 9	U$_8$.GAL
3	˹1˺ M[E] ˹40˺	SILA$_4$.NIM
4	1 ME ˹41˺	^{munus}SILA$_4$.NIM
5	PAP 1 LIM 75	BABBAR.MEŠ
6	1 ME 1	MAŠ$_2$.GAL
7	1 ME 94	UZ$_3$
8	˹44˺	MAŠ$_2$.TUR
9	˹45˺	^{munus}AŠ$_2$.GAR$_3$
10	PAP 3 ME 84	UZ$_3$
11	ŠU.˹NIGIN$_2$˺ 1 LIM 4 ME 59	U$_8$.UDU.ḪI.A
12	8 GUN$_2$ 57½ MA	SIG$_2$.ḪI.A

13	1 GUN$_2$ ˹36˺ MA	SIG$_2$ UZ$_3$
14	^{m}GAL^{a}-*ša$_2$*-^{d}U.GUR	NA.GAD
15	˹^{m}˺*be-li$_2$*-˹*ia*˺	*ḫa-za-an-nu*
16	[^{m}x]-˹x-x˺-*tu$_4$*	*kaš-šu-u$_2$*

Rev.

17 [KUŠ *gab-bi-šu*] ˹*u$_2$-ša*˺-*kal*
18 [^{uzu}SA] *i-nam-din*
19 *i-na* [10-*ti*] ˹KUŠ˺ *i-nam-din*
20 *i-na* 10-*ti* KUŠ DIRIG-*ma ul im-ma-ḫar*
21 *i-na* 1 ME 50 *il-da u$_2$-še-et-te-eq*
22 *i-na* 1 ME 50 KI.MIN LAL$_2$.GAG-*ma*
23 *i-na* 1 ME 70 KI.MIN *is-si-ru-šu*
24 ˹*ḫa*˺-*za-an-nu a-na* ITI-*šu$_2$* U$_8$.UDU.˹ḪI˺.A *i-man-nu*
25 KI.MIN *a-na* ˹ITI-*šu$_2$*˺ *ul im-*˹*da*˺-*nu-ma*
26 ˹SIPAD *u$_2$*˺-*maš-*<*ša*>-˹*ru-ma*˺ *ḫa-za-an-na is-si-ru*
27 ^{iti}AB.E$_3$ MU.11.KAM
28 *ša-ga-rak-ti-šu-ri-*˹*ia$_4$*˺-*aš* LUGAL
29 ^{na4}KIŠIB ^{m}LU$_2$-^{d}AMAR.˹UTU˺ GU$_2$.EN.NA

Translation

(1)	185	rams
(2)	609	ewes
(3)	140	male lambs
(4)	141	female lambs
(5)	Subtotal: 1,075 “whites”	
(6)	101	bucks
(7)	194	does
(8)	44	male kids
(9)	45	female kids
(10)	Subtotal: 384	goats
(11)	Grand total: 1,459 ovicaprids	
(12)	8 talents, 57.5 minas of wool	
(13)	1 talent, 36 minas of goat hair	
(14)	Rabâ-ša-Nergal, the herdsman	
(15)	Bēlīja, the mayor	
(16)	[…],the “Kassite”	

(17-18) He will taw [all the hides]. He will give the [sinews]. (19-20) Per [ten], he will give a hide. If it exceeds a hide per ten, it will not be accepted. (20-23) Per 100, he will exceed 50 offspring. If per 100, 50 offspring (are) the arrears, they will collect from him 70 offspring per 100. (24-26) The mayor will count the ovicaprids monthly. If the mayor does not count (them) monthly, they will release the shepherd, and they will collect (the arrears of the shepherd) from the mayor.

(27-29) Month X, Year 11 of Šagarakti-Šuriaš, the king. Seal of Amīl-Marduk, the *šandabakku*.

Commentary

13 Sassmannshausen (2001: 392)'s reading of [^{m}]˹x-*ta*$^{?}$-*te*$^{?}$˺-*tu*$_{4}$ may be correct judging by the visible traces, though the sign that he reads as a TE could also be a LI.

19-24 Cf. Sassmannshausen 2001: 392. See commentary to MUN 329, lines 19-24 for discussion.

25 Sassmannshausen (2001: 392) reads *im-ta-nu-ma*, but cf. Brinkman (2004: 302) for the reading *im-˹da˺-nu-ma* (collated by Brinkman and personally confirmed).

26 Sassmannshausen (2001: 392) reads ˹x-x-*bar*$^{?}$˺-*ru*-˹*ma*$^{?}$˺, but Brinkman (2004: 302) suggests, "Line 26: possibly ˹SIPA *u*$_{2}$-*maš*˺-<*ša*>-˹*ru-ma*˺." Brinkman is correct. For parallels, see BE 14 137: rev. 23; CBS 11060: rev. 10'; CBS 11107: rev. 25; and UM 29-15-691: rev. 22.

28 Sassmannshausen (2001: 392) reads *ša-ga-rak-ti-šu-ri-˹ia˺-aš*, but cf. Brinkman 1976: 306 on a possible reading of *ia*$_{4}$ instead of *ia* (collation by Maria Ellis). My collation agrees with Ellis's.

Text Number	-
Museum Number	CBS 11107
MSKH Number	-
Date	ŠŠ […]/-/12
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	-
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P266270.jpg

Obv.

1 26 UDU.NITA$_{2}$
2 47 U$_{8}$.GA[L]
3 11 SILA$_{4}$.NIM
4 11 ^{munus}SILA$_{4}$.NIM
5 PAP 95 BABBAR.MEŠ
6 MAŠ$_{2}$.GAL
7 UZ$_{3}$
8 [M]AŠ$_{2}$.TUR
9 ^{munus}AŠ$_{2}$.GAR$_{3}$
10 PAP UZ$_{3}$.MEŠ
11 ŠU.NIGIN$_{2}$ 95 U$_{8}$.UDU.ḪI.A
12 47½ MA SIG$_{2}$.ḪI.A
13 SIG$_{2}$ UZ$_{3}$
14 $^{m.d}$U.GUR-DU$_{3}$ NA.GAD *qer*$_{3}$-*be-tu*$_{4}$ MU.6
15 ^{m}*ku-du-ra-nu ḫa-za-an-nu*
16 [$^{m.d}$]˹*nin*˺-*urta*-ŠEŠ-SUM˹na˺ *kaš-šu-u*$_{2}$

Rev.

17 [KUŠ] ˹*gab-bi-šu u₂-ša-kal*˺
18 ^{uzu}˹SA˺ *i-*˹*nam-din i-na* 10-*ti* KUŠ˺ *[i-na]m-din*
19 *i-na* 10-*ti* ˹KUŠ DIRIG˺-*ma*
20 *ul* ˹*im-ma-ḫar i-na* 1˺ [ME 50] ˹*il-da*˺
21 ˹*u₂-še-et-te-eq i-na* 1 ME˺ [50] ˹LAL$_2$.GAG˺
22 *i-na* 1 ME ˹70 *is-si*˺-*ru-šu*
23 *ḫa-za-*˹*an-nu a-na* ITI-*šu*˺ [U$_8$.U]DU.ḪI.A
24 *i-man-nu a-*˹*na* ITI-*šu ul*˺ *im-da-nu-ma*
25 SIPAD *u₂-maš-*˹*ša*˺-*ru-ma*
26 LAL$_2$.[GAG] *ḫa-za-an-na [is]-si-ru*
27 ^{iti}˹AB˺.E$_3$ [MU.(x+)]1.KAM
28 *ša-ga-rak-ti-šu-ri-ia-aš*
29 LUGAL.˹E˺
30 ^{na4}KIŠIB ^{m}LU$_2$-^{d}AMAR.UTU
31 GU$_2$.EN.NA

Translation

(1) 26 rams
(2) 47 ewes
(3) 11 male lambs
(4) 11 female lambs
(5) Subtotal: 95 “whites”
(6) 0 bucks
(7) 0 does
(8) 0 male kids
(9) 0 female kids
(10) Subtotal: 0 goats
(11) Grand total: 95 ovicaprids
(12) 47.5 minas of wool
(13) 0 goat hair
(14) Nergal-bani, the herdsman, the pasture, Year 6
(15) Kudurrānu, the mayor
(16) Ninurta-aḫa-iddina, the “Kassite”

(17-18) He will taw all the [hides]. He will give the sinews. Per ten, he will [gi]ve a hide. (19-20) If it exceeds a hide per ten, it will not be accepted. (20-22) Per 1[00], he will exceed [50] offspring. If per 100, [50] are the arrears, they will collect from him 70 per 100. (23-26) The mayor will count the [ovica]prids monthly. If the mayor does not count (them) monthly, they will release the shepherd, and they will collect the arr[ears] (of the shepherd) from the mayor.

(27-31) Month X, Year (x)+1 of Šagarakti-Šuriaš, the king. Seal of Amīl-Marduk, the *šandabakku*.

Commentary

14 For attestations of *qerbetu* in related documents, see BE 14 99: rev. 65; BE 14 99a: rev. 32; and CBS 10738: obv. 14. On the *qerbetu* as the pasture lands, see Ch. 4, n. 72.

17-26 The reverse of the tablet is heavily damaged and effaced (see photograph). My restorations were made based on few visible sign traces I could confidently make out, as well as parallels.

18 The final two signs wrap around the tablet's right edge. DIN is written beneath the traces of the NAM sign.

21 The expected MA is omitted.

Text Number	BE 14 137
Museum Number	CBS 12910
MSKH Number	V.2.10.153
Date	ŠŠ VIII/10
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	Torczyner 1913: 61, no. 34 (partial)
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P267512.jpg

Obv.

1 [(x)] UTUA
2 ˹9˺ AB$_2$.GAL
3 [(x)] AB$_2$ MU.3
4 2 AB$_2$ MU.2
5 1 GUD MU.4
6 1 GUD MU.3
7 1 GUD MU.2
8 2 AB$_2$.GA
9 2 AMAR.GA
10 20 AB$_2$.GUD.ḪI.A
11 1 (BAN$_2$) 1 SILA$_3$ ⅚ 2½ GIN$_2$ I$_3$.NUN
12 ^{m}GAL-*ša$_2$*-^{d}*gu-la* ^{lu2}NA.GAD

Rev.

13 ^{m}*re-ḫi-tu-š[a ḫ]a-za-an-nu*
14 ^{m}*ip$^{?}$-šu-*˹x x˺[(x) *ka]š-šu-˹u$_2$˺*
15 ˹^{uzu}SA˺ *i-n[am]-din*
16 *i-na* 10-*ti* KUŠ *i-n[am]-din*
17 *i-na* 10-*ti* ˹KUŠ DIRIG˺-*ma ul ˹im˺-[maḫḫar]*
18 ˹*i-na*˺ 1 ME ˹50 *il*˺-*da ˹u$_2$-še-et-te-eq*˺
19 *i-na* 1 ME 50 LAL$_2$.GAG-[*m]a*
20 *i-na* 1 ME 70 *is-si-ru-šu*
21 *ḫa-za-an-nu a*-[*na* ITI]-*šu$_2$* AB$_2$.GUD.ḪI.A *i-man-nu*
22 *ḫa-za-an-nu a*-[*na* ITI]-*šu$_2$ ul in-˹da-nu˺-ma*
23 ^{lu2}SIPAD *u$_2$-maš-˹ša˺-ru-ma*
24 LAL$_2$.GAG *ḫa-za-an-na is-si-ru$_3$*
25 ^{iti}APIN.DU$_8$.AM$_3$ MU.10.KA[M]
26 ^{d}*ša$_2$-garak-ti-šur-˹ia$_4$-aš˺*

27 ^{na4}KIŠIB ^{m}LU$_2$-^{d}AMAR.[UTU]

Translation

(1)	[(x)]	bull
(2)	9	fully-grown cows
(3)	[(x)]	two-year old heifers
(4)	2	one-year old heifers
(5)	1	three-year old male
(6)	1	two-year old male
(7)	1	one-year old male
(8)	2	heifer calves
(9)	2	male calves
(10)	20	cattle
(11)	11.875 silas of ghee	
(12)	Rabâ-ša-Gula, the herdsman	
(13)	Riḫêtūša, the mayor	
(14)	[…], the “Kassite”	

(15-17) He will g[i]ve the sinews. Per ten, he will g[i]ve a hide. (If) it exceeds a hide per ten], it will not be ac[cepted.] (18-20) Per 100, he will exceed 50 off spring. (If) per 100, 50 are the arrears, then they will collect from him 70 per 100. (21-22) The mayor will count the cattle [mont]hly. (If) the mayor does not count (them) [mont]hly, (23-24) they will release the shepherd and collect the arrears (of the shepherd) from the mayor.

(25-27) Month VIII, Year 10 of Šagarakti-Šuriaš. Seal of Amīl-Mar[duk].

Commentary

25 For the spelling of Month VIII as ^{iti}APIN.DU$_8$.AM$_3$, see Brinkman 1976: 399.

A.1.2. GROUP 1B

Text Number	MUN 318
Museum Number	CBS 10772
MSKH Number	V.2.10.185
Date	ŠŠ X/-/11
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	Sassmannshausen 2001: 384
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P265974.jpg

Obv.
1' [x x MU.x+]1
2' [x] ˹GUD˺ [MU].˹5˺
3' [x] GUD M[U].˹4˺
4' [x] GUD MU.3
5' [x] GUD MU.2
6' [x] ˹AB$_2$.GA˺
7' [x] AMAR.˹GA˺
8' PAP 15 ˹AB$_2$.KUG.GA
9' ˹x˺ SILA$_3$ ˹3 x˺ [GIN$_2$ I$_3$.NUN]
10' [ ]˹x˺[ ]
(Remainder broken)

Rev.
1' *˹i˺-[na* 1 ME 5]0 *il-da u$_2$-˹še-et˺-[te-eq*]
2' *i-na* 1 ME 50 KI.MIN LAL$_2$.GAG-*ma*
3' *i-na* 1 ME 70 KI.MIN *˹is-si-ru-šu˺*
4' *ḫa-za-an-˹nu˺ i-na* ˹ITI˺*-šu* ˹AB$_2$.GUD.ḪI.A *i-man-nu˺*
5' *ḫa-za-an-nu* KI.MIN KI.MIN *u[l i]m-[da/ta]-˹nu˺-m[a]*
6' LAL$_2$.GAG ˹SIPAD˺ *ḫa-za-˹an-na˺ is-si-˹ru˺*
7' *u$_3$* ˹SIPAD˺ *ḫi-˹ṭa im˺-[m]i-[d]u*
8' [^{it}]^{i}.AB.E$_3$ MU.11.KAM
9' [$^{(d)}$*ša-g]a-ra-ak-ti-šu-˹ri˺-ia-aš*
10' [^{na4}KIŠI]B ^{m}LU$_2$-^{d}AMAR.UTU
11' [GU$_2$.EN.N]A ˹NIBRU^{ki}˺

Translation

(o.1')	[(x)	…]
(2')	[(x)]	four-year old males
(3')	[(x)]	three-year old males
(4')	[(x)]	two-year old males
(5')	[(x)]	one-year old males
(6')	[(x)]	heifer calves

(7')	[(x)]	male calves
(8')	Total: 15	*pure cows*
(9')	[…] of [ghee]	
(10')	[…]	

(Remainder of obverse broken.)

(r.1') P[er 100], he will exce[ed 5]0 off spring. (r.2'-3') (If) per 100, 50 "offspring" are the arrears, then they will collect from him 70 "offspring" per 100. (r.4'-5') The mayor will count the cattle [mont]hly. (If) the mayor does not count "the cattle monthly," (r.6'-7') they will collect the arrears of the shepherd from the mayor. Furthermore, they will lean punishment upon the shepherd.

(r.8'-11') [Mo]nth X, Year 11 of [Šag]arakti-Šuriaš. [Se]al of Amīl-Marrduk, the [*šandabakk*]*u* of Nippur.

Commentary

o.1'-3' The obverse of the tablet is badly damaged. Sassmannshausen (2001: 384) reads [AB$_2$ M]U.1 / ˹GUD˺ [MU].6 / and GUD M[U].˹5˺ in the second column of these lines, but given the clear GUD MU.3 in o.4' and the lack of parallel inventories wherein age categories are skipped, it seems likely to me that the previous lines simply go up by one year, especially since the visible traces do not contradict this possibility.

o.6' Sassmannshausen (2001: 384) reads ˹GUD MU.1˺. However, cf. Section 2.2.2, for a discussion of age categories. Furthermore, the traces do not exclude the expected AB$_2$.GA.

o.8' Expected AB$_2$.GUD.ḪI.A instead of AB$_2$.KUG.GA.

o.10' This line should contain the name of the NA.GAD, and the following lines the names of the *ḫazannu* and *kaššû*.

r.1' Sassmannshausen (2001: 384) reads *šim-da* for *il-da*, but cf. Brinkman 2004: 291 and commentary on these lines for the other tablets. The preceding broken lines likely include stipulations concerning the delivery of the sinews and hides.

r.4' Sassmannshuasen (2001: 384) reads *ḫa-za-an-˹na˺ i-na* ˹iti˺ŠU ˹AB$_2$.GUD.ḪI.A *i-na* x˺, but cf. Brinkman 2004: 301, whose readings I follow here, with one exception. Brinkman (2004: 301) reads *ḫa-za-an-˹x˺*, but the sign NU is both expected and likely in light of the visible wedges on the photograph. Sassmannshausen's line copy does not illustrate a diagonal wedge bisecting the horizontal, which is apparent in the photograph.

r.5' Sassmannshausen (2001: 384) reads *ḫa-za-an-nu* KI.MIN KI.MIN ˹x˺ [G]UD$^?$ m[a$^?$], but cf. Brinkman 2004: 301 and parallels.

r.6' Sassmannshausen (2001: 384) reads the final verb as *is-si-ir*$^{!}$, but cf. Brinkman 2004: 301. The RU is clearly visible on the tablet's right edge (collated).

Text Number	-
Museum Number	UM 29-13-642
MSKH Number	-
Date	ŠŠ […]/-/11
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	-

Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P255568.jpg

Obv.

1’ 7 AB$_2$.GA
2’ ˹7?˺ AMAR.GA
3’ PAP 1 ŠU 6 AB$_2$.GUD.ḪI.A
4’ 3 (BAN$_2$) 7½ SILA$_3$ I$_3$.NUN
5’ ^{m}*dil-bat*-ŠEŠ-SUM^{na} NA.GAD
6’ ^{m}x x x ˹*ḫa-za*˺-*[an]-nu*
7’ ^{m}*si*-x-*tu*$_4$ ˹*kaš-šu*˺-*u*

Rev.

1 ^{uzu}SA *i-nam-din*
2 *i-na* 10-*ti* KUŠ *i-nam-din*
3 *i-na* 10-*ti* KUŠ DIRIG-*ma ul im-maḫ-ḫar*
4 *i-na* 1 ME 50 *il-da u*$_2$*-še-et-te-eq*
5 *i-na* 1 ME 50 KI.MIN LAL$_2$.GAG-*ma*
6 *i-na* 1 ME 70 KI.MIN *is-si-ru-šu*
7 *ḫa-za-an-nu i-na* ITI-*šu* AB$_2$.GUD.ḪI.A *i-man-nu*
8 *ḫa-za-an-nu i-na* KI.MIN *ul in-da-nu-ma*
9 LAL$_2$.GAG SIPAD *ḫa-za-an-na is-si-ru*
10 ˹*u*$_3$˺ SIPAD *ḫi-ṭa im-mi-du*
11 [^{iti}x.x.(x) MU].11.KAM
12 [*šagarakti-šu*]-˹*ri*˺-*ia-aš*
13 [^{na4}KIŠIB ^{m}LU$_2$-^{d}AMAR.UTU.]
14 [GU$_2$.EN.NA NIBRU^{ki}]

Translation

(o.1’) 7 heifer calves
(2’) 7 male calves
(3’) Total: 66 cattle
(4’) 37.5 silas of ghee
(5’) Dilbat-aḫa-iddina, the herdsman
(6’) […], the mayor
(7’) […], the “Kassite”

(r.1) He will give the sinews. (r.2-3)Per ten, he will give a hide. (If) it exceeds a hide per ten, it will not be accepted. (r.4-6) Per 100, he will exceed 50 offspring. (If) per 100, 50 “offspring” are the arrears, then they will collect from him 70 “offspring” per 100. (r.7-10) The mayor will count the cattle monthly. (If) he does not count the “cattle” monthly, they will collect the arrears of the shepherd from the mayor. Furthermore, they will lean punishment upon the shepherd.

(r.11-14) [Month x, Y]ear 11 of [Šagarakti-Šu]riaš. [Seal of Amīl-Marduk, *šandabakku* of Nippur.]

Commentary

o.8' Assuming this contract is using the formula for the calculation of ghee that shows up in the livestock account table BE 14 99a (i.e., 2.5 silas per calf), then the ghee calculation here is off by one calf. 37.5 silas should be the total associated with 15 calves, not the 14 as listed. It is possible that o.2' reads 8 rather than 7, though it seems unlikely. Another possibility is simply that one additional cow had given birth but the calf died, thereby resulting in 15 lactating cows rather than 14. It may also be that the contract does not utilize the same calculations as that of BE 14 99a.

r.10 The first sign may also be a LU_2, but the break in the tablet appears to follow the line of a top horizontal.

Text Number	MUN 319
Museum Number	UM 29-15-112
MSKH Number	V.2.10.191
Date	ŠŠ X/-/11
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	Sassmannshausen 2001: 385
Discussion	Section 3.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P255957.jpg

Obv.

1	1	UTUA
2	46	AB_2.GAL
3	8	AB_2 MU.3
4	8	AB_2. MU.2
5	2	GUD MU.5
6		GUD MU.4
7	[(x+)]˹6˺	GUD MU.3
8	[x]	GUD MU.2
9	[x]	AB_2.GA
10	[x]	AMAR.GA
11	[ ] ˹x x˺	

(Remainder broken.)

Rev.

1' [LAL_2.GAG SIPAD *ḫa-za-an-n]a is-si-ru*
2' ˹(u_3) SIPAD *ḫi-ṭa im˺-mi-du*
3' ^{iti}AB.E_3 MU.11.KAM
4' *ša-ga-ra-ak-ti-šu-ri-ia-aš*
5' ^{na4}KIŠIB $^{m}LU_2$-^{d}AMAR.UTU
6' GU_2.EN.NA NIBRU^{ki}

Translation

(1)	1	bull
(2)	46	fully-grown cows

(3)	8	two-year old heifers
(4)	8	one-year old heifers
(5)	2	four-year old males
(6)	0	three-year old males
(7)	[(x+)]6	two-year old male
(8)	[x]	one-year old males
(9)	[x]	heifer calves
(10)	[x]	male calves
(11)	[…]	

(Remainder of obverse broken.)

(r.1') They will collect [the arrears of the shepherd from the mayor]. (r.2') (Furthermore), they will lean punishment upon the shepherd.

(r.3'-6') Month X, Year 11 of Šagarakti-Šuriaš. Seal of Amīl-Marduk, the *šandabakku* of Nippur.

Commentary

4 Sassmannshausen (2001: 385) mistakenly reads AB_2 MU.1 rather than AB_2 MU.2 (collated).

7 Sassmannshausen (2001: 385) reads [x+]3 for the count. There are two rows of wedges visible, however, meaning that the total number of two-year-old males is equal to or exceeds four. Given the location of the visible wedge of the second row, it seems likely that the count is six rather than four.

11 This line should contain the total, with the following lines giving the amount of ghee and the names of three officials.

r.1' Sassmannshausen (2001: 385) reads *is-si-ir*$^{!}$, but cf. Brinkman 2004: 301.

r.2' Sassmannshausen (2001: 385) reads SIPAD$^{!}$. There are not enough traces of the sign on the tablet to conclude whether or not it is miswritten. Possible there is an additional U_3 preceding the sign; it seems unlikely to be a LU_2 given the orientation of the wedges.

r.7' Sassmannshausen (2001: 385) reads [GU_2.EN.N]A ˹NIBRU^{ki}˺. All of the signs on this line are clear, visible, and undamaged (collated).

Text Number	MUN 316
Museum Number	UM 29-15-312
MSKH Number	V.2.10.152
Date	ŠŠ VIII/25/10
Sealing	Matthews 1992: No. 149 (Amīl-Marduk)
Previous Edition(s)	Sassmannshausen 2001: 381
Discussion	Section 3.2.1.2.1
Photograph	https://cdli.ucla.edu/dl/photo/P256134.jpg

Obv.

1		UTUA
2	16	AB_2.GAL
3		AB_2 MU.3
4		AB_2 MU.2
5	3	GUD MU.4
6	2	GUD MU.3
7	1	GUD MU.[2]
8	4	AB_2.[GA]
9	˹4˺	AMAR.[GA]
10	˹PAP˺ 30	LAL_2.[GAG]

(Remainder broken.)

Rev.

1’	˹GU_2.EN.NA NIBRU˺^{k}[^{i} …]
2’	[G]UD *i-te-es-ra* […]
3’	MU LI $SISKUR_2$ KAL *i*-[
4’	*a-na* SIPAD$^{?!}$ *a-na* $E_2^{?}$ [
5’	*u_2-ka-an-nu*
6’	^{iti}APIN.DU_8.A UD.25[+(x).KAM]
7’	MU.10.KAM *ša-ga-rak-te*-[*šuriaš*]
8’	LUGAL.˹E˺
9’	^{na4}KIŠIB $^{m}LU_2$-^{d}AMAR.˹UTU˺
10’	GU_2.EN.NA NIBRU^{ki}

Translation

(o.1)	0	bulls
(2)	16	fully-grown cows
(3)	0	two-year old heifers
(4)	0	one-year old heifer
(5)	3	three-year old male
(6)	2	two-year old male
(7)	1	one-year old male
(8)	4	heifer calves

(9) 4 male calves
(10) Total: 30 arrears
(Remainder of obverse is broken.)

(r.1') The *šandabakku* of Nippur […] (r.2') He has collected the male cattle […] (r.3') … the offering ... (r.4') For/to the *shepherd*, to the house of […] (r.5') he will establish.

(r.6'-10') Month VIII, Day 25[(+x)], Year 10 of Šagarakti-Šuriaš, the king. Seal of Amīl-Marduk, the *šandabakku* of Nippur.

Commentary

7 Sassmannshausen (2001: 381) does not restore the age. GUD MU.[2] can be restored based on the typical descending order of the age categories and the rarity of GUD MU.1 as a category (on which, see Section 2.2.2).

r.4' I suggest SIPAD here based on the appearance of the shepherd in the other herding contracts. If the reading of SIPAD is correct, then the sign would appear to be missing a final vertical wedge. Sassmannshausen (2001: 381) reads IS-BAR rather than SIPAD[!], but he does not provide a translation or interpretation.

r.5' The verb is unambiguous here, though its meaning in this context escapes me. Might it be connected to the use of *kunnu* in the text BE 14 132: ue. 2?

Text Number	-
Museum Number	UM 29-15-691
MSKH Number	-
Date	- I/10[(+x)]
Sealing	Matthews 1992: No. 61 (Bēlānu)
Previous Edition(s)	Murai 2018: 311-312
Discussion	Section 3.2.1.2.2
Photograph	https://cdli.ucla.edu/dl/photo/P256408.jpg

Obv.

1	1	UTUA
2	37	AB_2.GAL
3	8	AB_2 MU.3
4	9	AB_2 MU.2
5	16	AB_2.GA
6	8	AMAR.GA
7	PAP 79	$^{m.d}$*en-* ˹*lil*$_2$$^?$˺-[(x)]
8		ŠU ^{m}x-*un*-˹x˺-[(x)]
9		^{m}*ši-in*-[*di*$^?$-…]
10	˹4$^?$ (BAN_2) 1 $SILA_3$ 15˺ [GIN_2] ˹I_3.NUN˺	

Rev.

11	[(x)] ˹x˺ […]
12	*i-n*[*a* …]

13 *i-na* ˹x˺ […] ˹U$_2$˺ […]
14 [*i*]-*n*[*a* …]
15 [x x] ˹x˺ […]
16 [(…)]
17 ˹*i*˺-[*na* …]
18 *i-*˹*na*˺ […]
19 *i-na* ˹1˺ […]
20 *ḫa-za-*˹*an-nu a-na* ITI˺-[*šu*] ˹AB$_2$˺.[GUD.ḪI.A *i-man-nu*]
21 *a-na* ˹ITI-*šu ul*˺ *im*-[*ta-nu-ma*]
22 ^{lu2}˹SIPAD˺ *u$_2$-ma-*˹*ša-ru-ma*˺
23 LAL$_2$.˹GAG *ḫa*˺*-za-an-na* [(*is-si-ru*)]
24 ^{lu2}SIPAD *ḫi-i-ṭa i-*˹*mi-du*˺
25 *ša ḫa-za-an-ni* AB$_2$.GUD.ḪI.A-˹*šu*˺
25 U$_8$.UDU.ḪI.A-*šu ṣe-ḫi-ir-šu*
26 *ṣe-ḫe-er-ta-šu a-na* ^{m}*be-la-ni*
27 *i-ḫa-ra-ṣu ul ut-ta-*˹*ar*˺

U.E.
28 ˹^{iti}BARA$_2$˺.ZAG.GAR MU.10[(+x).KAM]

Translation

(o.1)	1	bull
(2)	37	fully-grown cows
(3)	7	two-year old heifers
(4)	9	one-year old heifers
(5)	16	heifer calves
(6)	9	male calves
(7)	Total: 79	Enlil(?)-[(…)]
(8)		Responsibility of […]
(9)		Šindi(?)-[…]
(10)	*4 sūtu*, 1 sila, and 15 [shekels] of ghee	

(11-19) […] (20) The mayor will count the cattle monthly. (21-23) (If) he does not count (them) monthly, they will release the shepherd, and (they will collect) the arrears (of the shepherd) from the mayor. (24) They will lean punishment upon the shepherd. (25-26) Of the mayor, his cattle, his ovicaprids, (26-27) his young males, and his young females, they will deduct for Bēlānu. It will not be returned.

Commentary

7-10 One of these lines may wrap around the right edge, ending on the reverse of the tablet. (See comments to l. 23.)

7 Murai (2018: 311) reads $^{m.d}$en-x-[ ]. To the immediate right of the fourth sign is a blank space, though it may be possible that a broken sign lies in the following break.

8 Murai (2018: 312) reads ^{m}*at-kal*-x-[…]. AD is possible, though the two initial horizontals of the sign would appear to be very lightly inscribed. The second sign ends in four

stacked verticals, more suggestive of the UN rather than the KAL sign, in which case the previous AD may need to be re-read.

10 Murai (2018: 312) accidentally omits this line. It is very broken and bisected by a large crack, but the outlines of the I_3.NUN at the end of the line are visible. The partial parallel of Ni. 421 also provides an amount of ghee in l. 8, though it immediately follows the total number of animals, which is provided in Ni. 421: obv. 7 (Brinkman, personal communication, 11/15/2019).

11-16 Brinkman (personal communication, 11/15/2019) suggests that l. 14 may read ˹UZU SA *i-nam*$^{?}$*-din*˺ based on collation in 2014 but notes that this should be rechecked. I could not make out these signs when I collated the tablet in the summer of 2018.

17-19 One could suggest the following restoration based on parallels from the Group 1 tablets: ˹*i*˺-[*na* 1 ME 50 *il-da* u_2*-še-te-eq*] / *i*-˹*na*˺ [1 ME 50 KI.MIN LAL_2.GAG-*ma*] / *i-na* ˹1˺ [ME 70 KI.MIN *i-si-ru-šu*$_{(2)}$]. Brinkman (personal communication, 11/15/2019) notes, however, that the parallel lines of Ni. 421: rev. 18-20 do not feature the same stipulations, instead stating, (18) AB_2.GUD.ḪI.A *i-na* 1 ME 70 u_2*-še-te-eq* (19) *i-na* 1 ME 70 ˹*ul ul*˺*-te-ti-iq-ma* (20) ˹*i*˺*-na* 1 ME 70 *is-si-ru-šu*.

19-27 Murai (2018: 312) was unable to read most of these lines.

20 Brinkman (personal communication, 11/15/2019) read *ina* ITI-$šu_2$ in 2014 but notes that the traces were very faint; he further states he could not make out the rest of the line. In my edition, I restore *imannu* at the end of the line, but physical examination of the tablet reveals that there may not be enough space for a final verb here. I wonder if the *i-man-nu* might be the upside-down signs that interrupt l. 23, assuming the scribe turned the tablet as he ran out of space.

20-22 Ni. 421 does not contain parallel lines for these clauses (Brinkman, personal communication, 11/15/2019).

22 Brinkman (personal communication, 11/15/2019) could not make out the verb at the end of the line.

23-24 *is-si-ru-šu* is expected at the end of the line based on parallels; however, the remainder of the line is interrupted by text crawling from the obverse and/or right edge onto the reverse (see commentary to l. 7-10 and l. 20). There does not seem to be enough space to fit the remaining signs of *is-si-ru-šu*.

These lines apparently parallel Ni. 421: rev. 21-22. Line 21 apparently preserves the verb *is-si-ru* (missing in this text), while line 22 reads instead u_3 SIPAD *ḫi-ṭa im-mi-du* (Brinkman, personal communication, 11/15/2019).

26 The final ŠU, though messily written, can be confirmed by a clear -*šu* in Ni. 421 (Brinkman, personal communication, 11/15/2019). The Bēlānu mentioned in this text is probably to be identified as the seal's owner (on which, see Matthews and Brinkman 1990 and my discussion in the main text).

27 Ni. 421 reportedly inserts *i-*˹*le*˺*-qu-nim* before *a-na* ^{m}*be-la-ni* (Brinkman, personal communication, 11/15/2019).

28 The reading of the final verb *ut-ta-ar*, damaged and distorted on this tablet, is confirmed by Ni. 421, which contains the same verb (Brinkman, personal communication, 11/15/2019). It should be noted that the construction *ana* PN + *ḫarāṣu* is unattested in the dictionaries.

Text Number	-
Museum Number	CBS 8872
MSKH Number	-
Date	- XI/˹12?˺
Sealing	Matthews 1992: No. 61 (Bēlānu)
Previous Edition(s)	Murai 2018: 289
Discussion	Section 3.2.1.2.3
Photograph	https://cdli.ucla.edu/dl/photo/P216542.jpg

Obv.
0’ [x UDU.NITA$_2$]
1’ 1 ME [(+x) U$_8$.GAL]
2’ 29 [SILA$_4$.NIM]
3’ 30 [^{munus}SILA$_4$.NIM]
4’ PAP 250 U$_8$.UDU.ḪI.A
5’ 2 GUN$_2$ 4 MA.NA SIG$_2$
6’ ^{m}SUM-^{d}30
7’ ^{m}UD-*šu$_2$*-ZALAG$_2$-*ir*
8’ ^{iti}ZIZ$_2$.AM$_3$.

B.E.
9’ ˹MU.x.KAM˺

Rev.
10’ [KUŠ *ga*]*b-bi-šu* ˹*u$_2$*˺-[*ša*]-*kal*
11’ [^{uz}]^{u}SA ^{uzu}I$_3$.˹UDU *i-nam-din*˺
12’ ˹x x x˺
13’ [x] *i-nam-din* ˹*ša* x x˺
14’ ˹x x x˺ AŠ$_2$$^{?}$ TI$^{?}$ [*i*]-*nam-din*
15’ [*i-na* 1 ME 50 *il-da u$_2$-še*]-˹*te-eq*˺
16’ *i-na* 1 ME [50 LAL$_2$].˹GAG˺-[*ma*]
17’ *i-na* 1 ME [70 *is-si-ru*]-*šu*
18’ U$_8$.UDU.ḪI.A ˹*ḫa-za-an-nu a-na* ITI˺-*šu$_2$*
19’ *i-ma-an-<<na>>-nu ḫa-za-an-na*$^{sic!}$ *a-na* // ˹ITI-*šu$_2$*˺
20’ *ul im-da-nu* SIPAD [*umaššaru*]
21’ LAL$_2$.[GAG *ḫazanna*]
22’ *is*-[*si-ru*]

<u>Translation</u>

(o.0’) [… rams]
(1’) 100[(+x) ewes]
(2’) 29 [male lambs]
(3’) 30 [female lambs]
(4’) Total: 250 sheep
(5’) 2 talents, 4 minas of wool

(6') *Iddin*-Sîn
(7') Aṣûšu-namir
(8'-9') Month XI, Year [x]

(r.10'-11') He will taw all the hides. He will give tendons (and) sheep fat. […] (13'-14') … he will give … he will give. (15'-17') Per 100, he will exceed fifty offspring. (If) per 100, 50 (offspring) are the arrears, they will collect from him 70 per 100. (18'-20') The mayor will count the ovicaprids monthly. (If) he does not count (them) monthly, they will [release] the shepherd. (21'-22') They will collect the arrears (of the shepherd) from the mayor.

Commentary

o.1' Cf. Murai 2018: 289, who reads 2 in this line. The last vertical of the supposed 2 is, however, bisected by a horizontal, hence 1 ME (collated).
o.4' Cf. Murai 2018: 289, who misreads ŠA in place of U_8.
o.5' Cf. Murai 2018: 289, who reads 4 minas instead of 5 minas, which would give us 124 minas of wool rather than the 125 minas of wool expected from 250 sheep at the typical Middle Babylonian ratio of ½ mina of wool per sheep. The number of minas is broken, but a trace of the top-left of another vertical wedge in the second row is visible beside the break.
be.9' Murai (2018: 289) reads MU.˹14˺.KAM. I cannot make out the numeral.
r.19' *a-na* ITI-*šu₂* is squeezed into the end of the following line.
r.20' The UL is missing an expected vertical. Murai (2018: 289) reads, at the end of the line, ˹*u₂*˺-[*ma*]-˹*ša-ru*˺, though I was not able to make these out in the break.

Text Number	BE 14 48
Museum Number	CBS 3002
MSKH Number	U.2.24.56
Date	NM II/(ers.)/5
Sealing	Matthews 1992: No. 20
Previous Edition(s)	Torcyzner 1913: 57-58
Discussion	Section 3.2.1.2.4
Photograph	https://cdli.ucla.edu/dl/photo/P259375.jpg (rev. not shown)

Obv.

1	47	UDU.NITA$_2$
2	28	U_8.GAL
3	7	SILA$_4$.NIM
4	7	^{munus}SILA$_4$.NIM
5	PAP 89	BABBAR.ḪI.A.MEŠ
6	34	MAŠ$_2$.GAL
7	31	UZ$_3$
8	7	MAŠ$_2$.TUR
9	8	^{munus}AŠ$_2$.GAR$_3$
10	PAP 80	UZ$_3$.ḪI.A
11	˹ŠU.NIGIN˺ 169 U_8.UDU.ḪI.A	

B.E.

12 1⅓? MA? 9? GIN_2 SIG_2.ḪI.A 1 UDU.$NITA_2$

13 1 GIN_2

Rev.

14 44½ MA.NA SIG_2.ḪI.A

15 20 MA.NA SIG_2.UZ_3

16 PAP ŠU ^{m}GAL-*a-ša*$_2$-^{d}*nin-urta*

17 KUŠ *ga-ab-bi-šu u*$_2$*-ša-ak-ka-al*

18 ^{uzu}SA ^{uzu}I_3.UDU 2 KUŠ $MAŠ_2$ SIG_5

19 1 TUG_2 SIG_5 *i-nam-di-in*

20 ITI.GUD.SI.SA_2 <<UD>> (erasure: 2[(+x)]) <<[KA]M>>

21 MU.5.KAM

22 *na-zi-mu-ru-ut-ta-aš*

Translation

(o.1)	47	rams
(2)	28	ewes
(3)	7	male lambs
(4)	7	female lambs
(5)	Total	89 “whites”
(6)	34	bucks
(7)	31	does
(8)	7	male kids
(9)	8	female kids
(10)	Total	80 goats

(11) Grand total: 169 ovicaprids

(12-13) *1⅓ minas, 9* shekels of wool, *1 ram, 1 shekels*

(14) 44½ minas of wool

(15) 20 minas of goat hair

(16) Total Responsibility of Rabâ-ša-Ninurta

(17-19) He will taw all the hides. He will give the tendons, sheep fat, two good goat hides, (and) one good garment.

(20-22) Month II, Year 5 of Nazi-maruttaš

Commentary

2 Torczyner (1913: 57) misread this number as 27.

12-13 Collation reveals that the MA may have been written over an underlying GIN_2. The exact meaning of these lines escapes me. It seems that they might be converting the total number of sheep (rams, ewes, and lambs) to shekels at a rate of one shekel per sheep, which is too small an amount to be the amount of wool gathered from a sheep. By this ratio, the number comes out to be 1/30th the amount of wool expected from the sheep. Torczyner (1913: 7) thinks this amount goes to the mayor but does not provide any

evidence for this idea. For other attestations of the UDU.NITA$_2$ 1 GIN$_2$, see also BE 15 11, CT 51 17, and CT 51 35.

20 The scribe seems to have written the day formula first, then went back and erased the day but left the preceding UD and the following KAM intact.

B. LIVESTOCK ACCOUNT TABLES

Text Number	BE 14 99a
Museum Number	EAH 195 / YPM BC 002840
MSKH Number	L.2.13.64
Date	KT -/-/11
Sealing	-
Previous Edition(s)	Torczyner 1913: 34-43, no. 21
Discussion	Chapter 4
Photograph	Provided by K. Wagensonner at Yale.

U.E.

1 *mi-nu* AB$_2$.GUD.ḪI.A *u$_3$* U$_8$.UDU.ḪI.A EREŠ.DINGIR.MEŠ MU.11.KAM *ka-daš$_2$-man-˹tur$_7$˺-gu*

Obv.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.
2	[UTUA	AB$_2$.GAL]	AB$_2$ MU.3	AB$_2$ MU.2	AB$_2$.GA	AMAR.GA	ŠU.NIGIN	˹I$_3$.NUN˺	NA.GAD	*ḫa-za-an-nu*	*kaš-šu$_2$-˹u$_2$˺*
3		[10]	2	3	2	2	19	0;0.1.0	$^{m.d}$30-TI-*iṭ*	^{m}SU-^{d}*nin-urta*	^{m}*ki-lam-d[u]*
4		˹8˺	2	1	2	2	15	0;0.1.0	$^{m.d}$UTU-ZALAG$_2$-*kul-li-man-ni*	^{m}*u$_2$-sat-*^{d}AMAR.UTU	^{m}KI.MIN
5	PAP	18	4	4	4	4	34	0;0.2.0	*pi-ḫat* ^{m}DINGIR-ŠEŠ-SUM-*na*		
6		131	34 EN 1 SILIM^{l}-*ma-nu*	20	28	20	233*	0;2.0.0	$^{m.d}$*nin-urta-a-pil*-A$_2$-*ia*	$^{m.d}$NUSKA-*da-bi-bi*	^{m}KI.MIN
7		11		1	3	2	17	0;0.1.2½	$^{m.d}$UTU-*li$_2$-su*	^{m}*nin-urta-mu-ter*-ŠU	^{m}KI.MIN*
8	PAP	142	34	21	31	22	250	0;2.1.2½	*pi-ḫat* $^{m.d}$UTU-SUM-ŠEŠ.MEŠ		
9	4 GUD MU.3		14 GUD MU.2 KA$_2$ *mi-ni*		2 AB$_2$		20		^{m}*uz-na-nu*	$^{m.d}$KUR-*mu-tap-li*	
10	EN 3 *˹ša˺ i-ti-qu*										
11	EN 1 *tap-qir-ti* EN 14 GUD MU.2 KA$_2$ *mi-ni* MU.11.KAM EN 2 AB$_2$ *u$_3$* 5 ZIG.GA *ma-la il-qa-a šu-lu-u$_2$*										
12	10 GUD MU.6						10 *a-na za-bal* EŠ$_2$.GAR$_3$ *ša* ^{lu2}LUNGA$_2$ *u$_3$* KA.ZID$_2$.DA ŠU $^{m.d}$UTU-SUM-ŠEŠ.MEŠ				
13	14 GUD MU.6						14 *a-na* KI.MIN		ŠU ^{m}DINGIR-ŠEŠ-SUM-na		

14	PAP						328	0;2.3.2½	EREŠ.DINGIR.GAL		
15	1	25	6	10	6	3	51	0;0.2.2½	^{m}IBILA-^{d}UTU	$^{m.d}$*en-lil$_2$*-EN-UN.MEŠ-*šu$_2$**	^{m}*ki-lam-du*
16		36	8	14	10	7*	75	0;0.4.2½	^{m}GAL-*a-ša$_2$*-DINGIR	^{m}KI.MIN	^{m}KI.MIN
17	PAP 1	61	14	24	16	10	126	0;1.0.5	*pi-ḫat* $^{m.d}$*en-lil$_2$*-EN-UN.MEŠ-*šu$_2$*		
18	15 GUD MU.6 4 GUD MU.5 20 GUD MU.4 9 GUD MU.3 23 GUD MU.2 12 AB$_2$						83		^{gud}NINDA$_2$ *na-kam-tu$_4$* DUMU ^{m}DI.KUD-*ni*-^{d}UTU ŠU $^{m.d}$*en-lil$_2$*-EN-UN.MEŠ-*šu$_2$*		
19	EN 55 *ša i-ti-qu* EN 11 AB$_2$ EN 14 GUD MU.2 KA$_2$ *mi-ni* MU.11.KAM EN 2 GUD MU.4 *u$_3$* 1 AB$_2$ *ša i-na* KAR-EN-KUR.KUR^{ki} *pu-uq-qu$_2$-ra*										
20	TA 16 KUŠ RI.RI.GA *ma-la il-qa-a šu-lu-u$_2$*										
21	12 ^{gud}ŠA$_3$.GUD EN 4 *ša* $^{m.d}$*en-lil$_2$-mu-kin*-IBILA *i-na* MU.10.KAM *ka-daš$_2$-man-tur$_7$-gu*						12	*a-na* ^{m}ZALAG$_2$-^{d}UTU ^{lu2}ENSI$_2$ *id-di-nu* ŠU $^{m.d}$*en-lil$_2$*-EN-UN.MEŠ-*šu$_2$*			
22	PAP*						221		EREŠ.DINGIR.TUR*		

Rev.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.	xii.	xiii.	xiv.	xv.	xvi.
23	˹UDU.NITA$_2$˺	˹U$_8$˺.[GAL]	[SIL]A$_4$.NIM	^{munus}SILA$_4$.NIM	ŠU.NIGIN	MAŠ$_2$	UZ$_3$	MAŠ$_2$.TUR	^{munus}AŠ$_2$.GAR$_3$	ŠU.NIGIN	ŠU.NIGIN	˹SIG$_2$˺.ḪI.[A]	˹SIG$_2$ UZ$_3$˺	˹NA˺.GAD	*ḫa-za-an-nu*	*kaš-šu-u$_2$*
24	TA 6 10	˹173˺	54	54	291	3	26	6	6	41	332	2 GUN$_2$ 25½	10 MA$^{!}$ 15	DUMU ^{m}*še-le-bi*	^{m}*e-mi-du*	$^{m.lu2}$*ba-nu-u$_2$*
25	˹TA 5˺ 5	46	11	11	73	5 TA 5	44	11	11	71	144	36½	17⅔ MA 5*	^{m}*za-ki-ru$_3$* DUMU ^{m}*e-ri-bi*	^{m}SU-$^{m.d}$*ni[n]-urta*	^{m}KI.MIN
26	[TA 5] 5	73	17	18	113	10 TA 5	39	17	17	83*	196	56½	20⅔ MA 5	^{m}GAL$_2$-*ši-a-ša$_2$*-DINGIR	^{m}*u$_2$-sat*-^{d}AMAR.UTU	^{m}KI.MIN
27	PAP													*pi-ḫat* ^{m}DINGIR-ŠEŠ-SUM-*na*		
28	TA ˹5˺ 5	68	17	17	107	3	19	6	6	34	141	53½	8½ MA	DUMU ^{m}UMBIN-^{d}IŠKUR	$^{m.d}$NUSKA-*da-bi-[bi]*	[(…)]
29	TA ˹7˺ 10	78	18	19	125	10 TA 6	74	18	18	120	245	1 GUN$_2$ 2½	30 MA	^{m}*eri-ba*-^{d}U.GUR	^{m}KI.MIN	[(…)]
30	PAP													*pi-ḫat* $^{m.d}$UTU-SUM-ŠEŠ.MEŠ		
31	28 *sa-bit-ti* MU.11.KAM TA 68 *ak-lu*				28	27 EN 11 *ša i-ti-qu*				27	55	14 MA	6⅔ MA 5	^{m}NIG$_2$.BA-^{d}U.GUR	$^{m.d}$KUR-mu-tap-li	^{m}K[I.MIN]
32	*u$_3$* ZIG.GA EN UD.28.KAM *ša* ^{iti}APIN *šu-lu-u$_2$*					EN 16 *ṣa-bit-ti* MU.11.KAM TA 6 *ak-lu u$_3$* ZIG.GA *u$_3$* 3 KUŠ *ma-la il-qa-a šu-lu-u$_2$*										
33	202 *ša qer$_3$-be$_2$-e-ti* MU.10.KAM *u$_3$* MU.11.KAM				202						202	1 GUN$_2$ 41 MA		ŠU $^{m.d}$UTU-SUM-ŠEŠ.MEŠ *u$_3$* ^{m}DINGIR-ŠEŠ-SUM-*na*		

34 35	PAP					939					376	1315	7 GUN$_2$ 49½ MA	1 GUN$_2$ 34 MA	EREŠ.DINGIR.GAL		
36	[TA 5]	5	59	15	16	95	10	98*	31	32	171	266	47½	42⅔ MA 5	^{m}*u$_2$-ge-e-a*	^{m}*ki-di-nu-u$_2$*	^{m}ŠEŠ-SU[M- …]
37		2	20	4	4	30	4	14	3	4	25	55	15 MA	6 MA 15	^{m}*u$_2$-zi-*^{d}AMAR.UTU	$^{m.d}$IŠKUR-*ba-ni*	^{m}KI.MIN
38	TA ˹5˺	5*	63	15	16	99	5	21	6	6	38	137	49½	9½ MA	^{m}*gub-bu-ḫu*	^{m}KI.MIN	^{m}K[I.MIN]
39	TA 10	10	70	15	15	110	10 TA 10	75	16	17	118	228	55 MA	29½	$^{m.d}$UTU-URU$_3$ *ki-mu* DUMU $^{m.d}$IŠKUR-LUGAL	^{m}EN-˹x˺-[…]	[(…)]
40		1	31	8	9	49	3	12	3	3	21	70	24½	5 MA 15	^{m}*man-nu-u$_2$-kal*-A$_2$-*su*	^{m}ŠEŠ-*ne$_2$-e-a*	^{m}[…]
41			13	3	4	20	12 TA 10	95	21	21	149	169	10 MA	37 MA 15	$^{m.d}$UTU-BA-*ša$_2$ ki-mu* $^{m.d}$30-*muš-te-šir*	$^{m.d}$*en-[lil$_2$-*…]	[(…)]
42	PAP														*pi-ḫat* $^{m.d}$*en-lil$_2$*-EN-UN.MEŠ-*šu$_2$*		
43 44 45	˹112˺	EN 92 *ša i-ti-qu* [E]N 20* *ṣa-bit-ti* MU.11.KAM TA 16 *ki-is-pu* *u$_3$* 14 KUŠ *ma-la il-qa-a šu-lu-u$_2$*				112	200 EN 180$^{!}$ *ša i-ti-qu* EN 20 *ṣa-bit-ti* MU.11.KAM *u$_3$* 37 KUŠ *ma-la il-qa-a šu-lu-u$_2$*				200	312	56 MA	50 MA	*lu-du$^{!?}$* ^{m}*gub-bu-ḫu* ŠU $^{m.d}$*en-lil$_2$*-EN-UN.[MEŠ-*šu$_2$*]		
46	[PAP]					515					722	1237	4 GUN$_2$ 17½ MA	3 GUN$_2$ ½ MA	EREŠ.DINGIR.TUR		

Translation

(1) Account of the cattle and ovicaprids of the EREŠ.DINGIR-priestesses, Year 11 of Kadašman-Turgu.

2	**Bull**	**Fully-grown cow**	**Two-year old heifer**	**One-year old heifer**	**Heifer calf**	**Bull calf**	**Total**	**Ghee**	**Herdsman**	**Mayor**	**"Kassite"**
3		[10]	2	3	2	2	19	10 silas	Sîn-muballiṭ	Erība-Ninurta	Kilamdu
4		˹8˺	2	1	2	2	15	10 silas	Šamaš-nūra-kullimanni	Usāt-Marduk	Ditto
5	Total	18	4	4	4	4	34	20 silas	District of Ilī-aḫa-iddina		
6		131	34, incl. 1 *šulmānu*-gift	20	28	20	233	120 silas	Ninurta-āpil-idīja	Nusku-dābibī	Ditto
7		11		1	3	2	17	12½ silas	Šamaš-līssu	Ninurta-mutēr-gimilli	Ditto
8	Total	142	34	21	31	22	250	132½ silas	District of Šamaš-nādin-aḫḫē		
9	4 two-year old males		14 one-year old males, "Gate of Counting"		2 cows		20		Uznānu	Amurru-mūtaplī	
10	Incl. 3 that passed										
11	Incl. 1 claim, incl. 14 two-year old males, Gate of Counting, Year 11; incl. 2 cows—after 5 *ṣītu*-expenditures, as much as he took, were deducted.										
12	10 five-year old males						10 for the delivering of raw materials of the brewers and millers, hand of Šamaš-nādin-aḫḫē.				
13	14 five-year old males						14 for ditto		Hand of Ilī-aḫa-iddina		
14	Total						328	152½ silas	EREŠ.DINGIR.GAL		
15	1	25	6	10	6	3	51	22½ silas	Apil-Šamaš	Enlil-bēl-nišīšu	Kilamdu
16		36	8	14	10	7	75	42½ silas	Rabâ-ša-ili	Ditto	Ditto
17	Total 1	61	14	24	16	10	126	65 silas	District of Enlil-bēl-nišīšu		
18	15 five-year old males; 4 four-year old males; 20 three-year old males; 9 two-year old males; 23 one-year old males; 12 cows.						83		*Bīru*-cattle, the stable. Son of Dajjānī-Šamaš. Hand of Enlil-bēl-nišīšu		
19	Incl. 55 that passed; incl. 11 cows; incl. 14 one-year old males, Gate of Counting, Year 11; incl. two three-year-old males; and 1 cow that was claimed in Kār-bēl-mātāti										
20	After 16 hides of dead animals, as much as he took, were deducted.										
21	12 plow oxen, incl. 4 that Enlil-mukīn-apli in Year 10 of Kadašman-Turgu						12	gave to Nūr-Šamaš, the landowner. Hand of Enlil-bēl-nišīšu.			
22	Total						221		EREŠ.DINGIR.TUR		

Rev.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.	xii.	xiii.	xiv.	xv.	xvi.
23	**Ram**	**E[we]**	**[R]am lamb**	**Ewe lamb**	**Total**	**Buck**	**Doe**	**Buck kid**	**Doe kid**	**Total**	**Total**	**Wool**	**Goat hair**	**Herdsman**	**Mayor**	**"Kassite"**
24	After 10 6	173	54	54	291	3	26	6	6	41	332	145½ minas	10¼ minas	Son of Šēlebu	Ēmidu	Bānû
25	After 5 5	46	11	11	73	5, after 5	44	11	11	71	144	36½ minas	17¾ minas	Zākiru, son of Erība	Erība-Ninurta	Ditto
26	[After 5] 5	73	17	18	113	10, after 5	39	17	17	83*	196	56½ minas	20¾ minas	Ibbaššâ-ša-ili	Usāt-Marduk	Ditto
27	Total													District of Ilī-aḫa-iddina		
28	After 5 5	68	17	17	107	3	19	6	6	34	141	53½ minas	8½ minas	Son of Ṣupur-Adad	Nusku-dābibī	[(…)]
29	After 7 10	78	18	19	125	10, after 6	74	18	18	120	245	62½ minas	30 minas	Erība-Nergal	Ditto	[(…)]
30	Total													District of Šamaš-nādin-aḫḫē		
31	28 *ṣabittu*-animals of Year 11—after 68 *aklu*				28	27, incl. 11 that *passed,*				27	55	14 minas	6.75 minas	Qīšat-Nergal	Amurru-mūtaplī	Di[tto]
32	and *ṣītu*-expenditures, up to Day 28 of Month VIII, were deducted					incl. 16 *ṣabittu*-animals of Year 11—after 6 *aklu* and *ṣītu*-expenditures, and three hides, as much as he took, were deducted										
33	202 of the pastures of Year 10 and Year 11				202						202	101 minas		Hand of Šamaš-nādin-aḫḫē and Ilī-aḫa-iddina		
34	Total				939					376	1315	469½ minas	94 minas	EREŠ.DINGIR.GAL		
35																
36	[After 5] 5	59	15	16	95	10	98*	31	32	171	266	47½ minas	42¾ minas	Ugē'a	Kidinnû	Aḫa-iddin(a)-[GN]
37	2	20	4	4	30	4	14	3	4	25	55	15 minas	6¼ minas	Uzi-Marduk	Adad-bānî	Ditto
38	After 5 5*	63	15	16	99	5	21	6	6	38	137	49½ minas	9½ minas	Gubbuḫu	Ditto	Di[tto]
39	After 10 10	70	15	15	110	10, after 10	75	16	17	118	228	55 minas	29½ minas	Šamaš-nāṣir in place of the son of Adad-šarru	EN-x-[…	]
40	1	31	8	9	49	3	12	3	3	21	70	24.5 minas	5.25 minas	Mannu-ukâl-idassu	Aḫūnē'a	[…]
41		13	3	4	20	12, after 10	95	21	21	149	169	10 minas	37¼ minas	Šamaš-iqīša in place of Sîn-muštēšir	Enlil-[…	]
42	Total													District of Enlil-bēl-nišīšu		

43	112	Incl. 92 that *passed*				112	200, incl. 180[!] that *passed*				200	312	56 minas	50 minas	*Ludû(?)*-field, Gubbuḫu, hand of Enlil-bēl-ni[šīšu]		
44		incl. 20[*] *ṣabittu*-animals of Year 11—after 16 funerary offerings					incl. 20 *ṣabittu*-animals of Year 11—										
45		and 14 hides, as much as he took, were deducted					and 37 hides, as much as he took, were deducted										
46	Total					515					722	1237	257½ minas	180 ½ minas	EREŠ.DINGIR.TUR		

Commentary:

1 Column headers i and ii can be restored from other tablets providing cattle counts, such as BE 14 52, BE 14 137, BE 15 199, MUN 316, and MUN 319, among others. Torczyner 1913: 34 and 37 reads *bi-šu-u₂* in col. xii, but cf. Sassmanshausen 2001: 137ff., Brinkman 2004: 297, and Shelley 2017: 204. As already noted by Brinkman (2004: 297), *kaššû* here is to be understood as the title of an official, rather than as an ethnic label.

4 Col. ii: 8 is not fully visible; number restored from column total in l. 5.

6 Col. vii: Clay inserts an extra horizontal between the 2 and the ME (collated by photograph).

7 Col. xi: In his copy, Clay omits ^{m}KI.MIN, which crawls onto the right edge of the tablet.

9 Col. iv: Torczyner (1913: 39-40) argues for the reading KA$_2$ *ṣil-li$_2$* rather than KA$_2$ *mi-ni*, but cf. Sassmanshausen 2001: 180, n. 3123. References to the *bāb mīni* are rare and limited to the livestock tables and one school text; see Sassmannshausen 2001: 180 n. 3121-3122 for a complete list of attestations. The gate is mentioned only in relation to cattle and is typically qualified by a year, usually Year 11 or 12. The purpose of this gate is unclear, but given its name, it presumably has a function related to the counting of animals. As some gates served as places of taxation (see Sassmannshausen 2001: 180) and given the inclusion of sheep and goats that had presumably been taken as *ṣibtu*-taxes into flocks listed in at least one livestock account table (CBS 2129: obv. 4'), might this gate also have served a tax-related function?

10 On the meaning of *etēqu* in these contexts, which I argue to mean something akin to "to pass (into the next accounting period)," see the discussion in Section 4.2.1.2.

11 Col. i-ii: *tapqirtu* is a noun of the *taprist*-form derived from the D-stem of *paqāru*, "to claim (property)." The D-stem of *paqāru* also appears in the stative form later in the tablet in l. 19, wherein one cow is described as having been claimed in the city Kār-bēl-mātāti. Are these animals being claimed from the EREŠ.DINGIR-priestesses, or are they being claimed by them? The fact that they are still included in the totals and are not being deducted seems to me to suggest the latter.

15 Col. x: Clay's copy omits the *-šu₂* at the end of Enlil-bēl-nišīšu's name (collated by photograph).

16 Col. vi: Clay copies 8, but the number is 7 (collated by photograph).

18 Col. ix-x: Clay mistakenly inserts a TAB sign between the TU$_4$ and following DUMU in his copy.

19-20 For an explanation of the EN…TA… terminology, see Section 4.2.1.1.

21 The clause here should be read as a running clause interrupted by the total in col. vii. This scribal practice also occurs in l. 31 (see commentary).

22 Clay omits both PAP and the EREŠ.DINGIR.TUR in his copy.

24-29 Col. i and vi: For a more detailed explanation of the gloss TA, see Section 4.2.1.1. The TA glosses I have listed in col. i actually appear on the tablet's left edge rather than the reverse of the tablet.

25 Col. i: [TA] ˹5˺ is restored from BE 14 89: 5. See Section 4.2.1.1 for further discussion.

25 Col. xiii: Clay omits the 5 (GIN_2), which is situated beneath the MA sign (collated by photograph).

26 Col. i: [TA 5] in col. i is restored from BE 14 89: 6. See Section 4.2.1.1 for further discussion.

Col. x: Clay copies 93. Tablet shows 83, as expected (collated by photograph).

28 Col. i: Clay copies TA 4, plus damage. The photograph shows four clear wedges and the head of the fifth, to TA ˹5˺ (collated). See also BE 14 89: 7.

29 Col. i: Clay copies two stacks of visible wedges, though the photograph shows three stacks (collated by photograph). A reading of TA ˹7˺ is likely from the photograph and BE 14 89: 8.

31 Col. ii and *passim* throughout the tablet: Luckenbill (1906: 306) reads *za-bit-ti* and proposes the translation "increase," though without an argument. Torczyner (1913: 35 and 43) disagrees and reads *za-kir(?)-ti* here and *za-iz-ti* in BE 14 89: 3 (Torczyner 1913: 38; accepted by CAD Z s.v. *za'iztu*). For discussion on why the two words must be the same, see Section 4.2.1.1. As for the reading *ṣa-bit-ti*, see van Soldt 1978: 229 and his comments on TuM NF 5, no. 62. Given the consistent writing of the second sign with a small inscribed vertical wedge in the most texts—as opposed to the one occurrence of it in BE 14 89 without the inscribed vertical—it seems reasonable to assume that the scribe of BE 14 89 simply omitted the interior wedge, which otherwise distinguishes the E_2 sign from the GIŠ sign. Regarding the meaning of the word, van Soldt observes, "In MB, *ṣabtu* occurs a number of times in connection with *ṭuppu*, meaning 'deposited.' The exact meaning of *ṣabittu* in MB in connection with sheep is obscure…" For other occurrences of the word, see also BE 14 159: 7 (broken; read as *za-iz-t*[*i-šu*] under CAD Z s.v. *za'iztu*), CBS 2129: obv. 4', and N 1922: 3. See Section 4.2.1.1 for more detailed discussion.

Col. v: Note that transliteration of this line does not accurately reflect the order of the signs on the tablet. Reading this line straight across, one reads, $^{(i)}$28 $^{(ii)}$*ṣa-bit-ti* $^{(iii)}$MU.11.KAM $^{(iv)}$TA 68 $^{(v)}$28 *ak-lu* $^{(vi)}$27 $^{(vii)}$EN 11 *ša* $^{(viii)}$*i-ti-qu.* The numeral 28 that is written in col. v is, however, a tally of the total count of rams in the row—i.e., 28, as indicated in col. i—and 68 is clearly meant to be a count of the *aklu*-expenditures (see e.g., l. 32 and *passim*). In order to produce a sensible transliteration and translation, I have relocated *ak-lu* to the left of the total. For more discussion on the *aklu*-expenditure, see Murai 2018.

36 Col. i: [TA 5] is restored from BE 14 89: 10.

Col. viii: Clay copies 88 rather than 98 (collated by photograph).

38 Col. i: TA ˹5˺ is restored from BE 14 89: 12. For the main cell number, Clay accidentally copies 6 rather than 5 (collated by photograph).

43 Col. viii: Clay accurately copies EN 80 *ša i-ti-qu*. I maintain that the scribe mistakenly omitted 1 ME immediately preceding the numeral 80 for reasons outlined in Sections 4.2.1.1 and 4.2.1.2.

Col. xiv: The first two signs in this column are clearly written. Torczyner (1913: 35 and 43) reads LU.UŠ (corresponding to UDU.NITA, "ram"), but the typical spelling for ram during this period is UDU.NITA$_2$; furthermore, the row contains not only rams but bucks as well, so one would expect the collective U$_8$.UDU.ḪI.A to be used in this case. Another possibility, which I only tentatively suggest, is to read the second sign as a miswritten DU, with the interior *winkelhaken* accidentally written over the bottom horizontal rather than the top horizontal as expected. This would give us the word *lu-du*, an administrative term for a type of field in the Middle Babylonian period (see CAD L s.v. *ludû*; for further discussion, see Paulus 2014). Note, however, that I make this suggestion with reservations, as other attestations of the word consistently duplicate the final vowel in the spelling (*lu-du-u$_2$, lu-de-e, lu-da-a*), and the term is otherwise unattested in the Nippur administrative corpus, to my knowledge.

44 Col. ii: Clay copies EN 21 *ṣa-bit-ti* rather than EN 20 *ṣa-bit-ti* (collated by photograph). See also BE 14 89: 16.

46 Col. iii: Clay copies a *winkelhaken*. This likely to be tablet damage rather than a wedge.

Text Number	BE 14 168[1]
Museum Number	CBS 3293
MSKH Number	---
Date	KT -/-/12
Sealing	---
Previous Edition(s)	Luckenbill 1907: 306-309 (partial); Torczyner 1913: 44-49
Discussion	Chapter 4
Photograph	https://cdli.ucla.edu/search/archival_view.php?ObjectID=P259667

Obv.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.
1	[UTUA	AB$_2$.GAL	AB$_2$ MU.3	AB$_2$ MU.2	AB$_2$.GA	AMAR.GA	ŠU.NIGIN	I$_3$.NUN	NA.GAD	*ḫa-za-an-nu*	*kaš-šu$_{(2)}$-u$_2$*]
2	[…]	[…]	[…]	[…]	[…]	[…]	19]5	0;1.0.0	$^{m\ulcorner d\urcorner}$[…]	[…]	[…]
3	[…]	[…]	[…]	[…]	[…]	[…]	287	0;3.1.0	^{m}*lul-˹ta-mar˺-*.[…]	[…]	[…]
4	[…]	[…]	[…]	[…]	[…]	[…]	33	0;0.2.0	^{m}IBILA-^{d}U.GUR	^{m}[…]	[…]
5	[…]	[…]	[…]	[…]	[…]	[…]	13	0;0.0.7½	^{m}*iz-kur$_3$*-^{d}UTU DUMU ^{m}*ap-pa-a-a-e*	^{m}[…]	[…]
6	[…]	[…]	[…]	[…]	[…]	[…]	3	0;0.0.2½	$^{m.d}$KUR-ŠEŠ-SUM-*na* DUMU ^{m}*ku-ri-i*	^{m}[…]	[…]
7	[…]	[…]	[…]	[…]	[…]	[x]+1	24	0;0.1.5	$^{m.d}$KUR-SUM-ŠEŠ.MEŠ ˹*ki-mu*˺ ^{m}*muš-te-*[...]	[...]	[…]
8	[…]	[…]	[…]	[…]	[…]	[x]+2	27	0;0.1.5	^{m}GAL-*a-ša$_2$*-^{d}U.GUR	^{m}*i*[*n*$^{?}$-…]	[…]
9	[…]	[…]	[…]	[…]	[…]	1	4	0;0.0.2½	^{m}KI-*ša-aḫ-bu-ut ki-mu* ^{m}*ku-du-˹ra-ni˺*	˹^{m}GAL$^{?}$˺-[…]	[…]

[1] This tablet was on display when I visited the Penn Museum in Summer 2018, with only the obverse visible. I was unfortunately not permitted to take out the tablet for collation, and so it should be kept in mind that the following edition is based on a combination of photographs from the CDLI website and what legible photographs I could take of the tablet's obverse through the glass. Given the numerous mistakes present in Clay's (1906) copies of these larger tabular texts, this tablet certainly warrants a more thorough re-collation.

10	[…]	[…]	[…]	[…]	2]	1	13	0;0.0.7½	^{m}*šu-zu-bu*	^{m}*u$_2$-ṣa-an-*[....]	[…]
11	[…]	[…]	[…]	[…]	˹3˺	1	17	0;0.1.0	^{m}*li-ši-ra-ni-*^{d}UTU	^{m}*i-q*[*i$_2$-*…]	[…]
12	[…]	[…]	[…]	[…]	2	2	15	0;0.1.0	^{m}*nap-ši-ra-*^{d}KUR	DUMU ^{m}*eri-ba-*[…]	[…]
13	[…]	[…]	[…]	2	2	1	11	0;0.0.7½	$^{m.d}$NUSKA-DI.KUD	^{m}*i-qi$_2$-*[…]	[…]
14	[…]	[…]	˹2˺	2	5	1	24	0;0.1.5	^{m}*ia-u$_2$-tu$_4$*	^{m}*u-bar-˹ru$_3$˺*	$^{m.d}$˹x-x˺-[…]
15	[…]	[…]	3	1	2	1	15	0;0.0.7½	^{md}KUR-MU-*li-ši-ir*	^{m}KI.MIN	^{m}*ḫu-na-nu*
16	[…] […] *ša pa-*	] 5 *-an pi-ḫa-ti ša* ^{gud}NINDA$_2$		6	5 EN 1 KI.MIN	5 EN 1	49	0;0.2.5	^{m}*ṣa-ab-ru šul-ma-na-a-tu$_4$* TA MU.6.KAM EN MU.9.KAM		
17	[…]	-˹x˺-*tu* 10 EN 5 *šul-ma-ni*		2	3	1	24	0;0.1.0	^{m}*ib-nu-tu$_4$ tap-qi$_2$-ir-tu$_4$ ša ma-du-t[u] u$_2$-pa-aq-qi$_2$-ru-ni*		
18	[…]	-^{d}*nin-urta i-maḫ-ḫa-ru*							*u$_3$* AB$_2$.GUD.ḪI.A ˹*ša*˺ ^{m}*i-na*-E$_2$.KUR-TI DUB MU.MEŠ *i-na* GI.GUR.IM.MA *ka-˹am-sa˺-at*		
19	[…]	˹x+2˺	5	4	4	4	33	0;0.2.0	*tap-qi$_2$-ir-tu$_4$ ša* A.AB.BA $^{m.d}$KUR-*ib-ni*		
20	[PAP 119]	298?	128	72	96	74	787	1;2.0.5	AB$_2$.GUD.ḪI.A		
21	[GUD MU.6]	GUD MU.5	GUD MU.4	GUD MU.3	GUD MU.2	AB$_2$	ŠU.NIGIN		NA.GAD		
22	[54]			6			60		*na-kam-tu$_4$* ^{m}*ṣa-ab-ru*		
23	[EN] 6 *ša i-ti-qu* EN 51 KA$_2$ *mi-ni* MU.11.KAM EN 3 *tap-˹qir˺-tu$_4$ ša* DUMU ^{m}*i-na*-E$_2$.KUR-TI.LA *ša* A.AB.BA *ša it-ti* AB$_2$.MEŠ TA ^{uru}*su-ri le-qu-nim* AB$_2$.MEŠ *a-na* ^{m}*ib-nu-ti a-na pi-ḫa-t*[*i* (x) DU]B *šu-ma-a-ti* […]										
24	[…(x+)]7 AB$_2$.GAL 1 AB$_2$.GA *u$_3$* 1 AMAR.GA *ša i-na pa-an pi-ḫa-ti ša* ^{gud}NINDA$_2$ x *i-na* NIG$_2$.KA$_9$ *ša* MU.11*.KAM *a-na mu-uḫ mu-ri-šu$_2$ ša ˹šul˺-ma-na-ti ru-ud-du-u$_2$* TA 100 ^{gud}NINDA$_2$ EN 30 *ša* A.AB.BA *ša* ^{m}[x x x (x)]-˹*in*?˺ *i-na* ˹x˺ […]										
25	*i-na pu-di a-na* LUGAL SUM-*nu* TA 3 ^{gud}NINDA$_2$ *a-na mu-uḫ rik-si ru-ud-du-u$_2$* TA 1 *ak-lu$_4$* u$_3$ 8 KUŠ *ma-la il^{l}-qa-a šu-lu-u$_2$*										
26		4	1	1	1		7	0;0.0.5	AB$_2$ KUG.GA $^{m.d}$U.GUR-ŠEŠ-SUM-*na ki-mu* DUMU ^{m}*za-˹ki˺-ri*	^{m}*lul-˹ta˺-mar-*^{d}U.GUR	^{m}*šum-ma-*[…]
27	PAP								*pi-ḫat ḫa-za-an-na-a-ti*		
28		57	10	6	9	15	97	0;1.0.0	^{m}*ia-mu*	^{m}*ḫu-um-ba-na-pir* ŠU ^{m}*lul-tam-ru-ti*	^{m}GAL-˹*ša$_2$*?˺-[…]
29		30	7	1	5	2	45	0;0.1.7½	$^{m.d}$U.GUR-*a-bi ki-mu* ^{m}*ri-iš-*˹ABZU˺	^{m}KI.MIN ŠU ^{m}KI.MIN	^{m}*ša-ga-rak-te*
30		14	2		3	2	21	0;0.1.2½	^{m}KAR-*ub-*^{d}AMAR.UTU *ki-mu* $^{m.d}$˹*nin*˺-*urta*-ŠEŠ-SUM-*na*	<^{m}KI.MIN> ŠU ^{m}KI.MIN	^{m}KI.MIN

31		29	5	2	3	3	42	0;0.1.5	$^{m.d}$KUR-MU-MU *ki-mu* ^{m}BI-⌜*ti*$^{?}$⌝-*ia*	^{m}KI.MIN ŠU ^{m}KI.MIN	^{m}BI-*t*[*a*$^{?}$]-*a-tu*$_{4}$
32		36	12	2	6	4	60	0;0.2.5	$^{m.d}$NUSKA-*i-pir-an-ni*	^{m}KI.MIN ŠU ^{m}KI.MIN	^{m}KI.MIN
33	PAP	166	36	11	26	26	265	0;2.1.0	AB$_{2}$.GUD.ḪI.A		
34			1 GUD MU.3 *ta-rib*$^{?}$*-ti* ^{gud}ŠA$_{3}$.GUD *ša* $^{m.d}$*nin-urta*-DU$_{3}$ ⌜x *ša*⌝ *i-na* DUB NIG$_{2}$.KA$_{9}$ *ša* MU.10.KAM *šaṭ-ru* 1 AB$_{2}$ MU.2 *ša* ^{m}*ta-ri-bi* KI.MIN *ša i-na* DUB KI.MIN ŠU ^{m}*ḫu-um-ba-na-pir i-na* KA$_{2}$ *mi-ni ša* MU.12.KAM								
35		3 AB$_{2}$.GAL *ša i-na* DUB NIG$_{2}$.KA$_{9}$ *ša* MU.10.KAM MU ^{m}*qu-un-nu-ni šaṭ-ru a-na* $^{m.d}$NUSKA-MU-MU *pa-aq-da i-na* MU.11.KAM *ul i-ti-qa a-na e-se-ri* ^{m}*ia-mu* ŠU ^{m}*lul-tam-ru-ti i-le-eq-qa-a*								

Rev.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.
36	4 GUD MU.3	13 GUD MU.⌜2 3?⌝ AB$_{2}$					19		^{gud}NINDA$_{2}$ ^{m}*i-ša-as-si-pil-ḫa-šu*		
37	EN 10 *ša i-ti-qu* EN 3$^{?}$ AB$_{2}$ EN 7 GUD MU.2 KA$_{2}$ *mi-ni* MU.11.KAM TA 11 *a-na šu-ta-pi-e i-na* MU.11.KAM ^{m}ARḪUŠ-*šu-*^{d}*nin-urta u*$_{2}$*-za-i-zu u*$_{3}$ 4 KUŠ *ma-la il-qa-a šu-lu-u*$_{2}$										
38	20 ^{gud}ŠA$_{3}$.GUD *ša* 5 *ḫar-bi ša* ENSI$_{2}$.MEŠ						20		ŠU ^{m}ARḪUŠ-*šu-*$^{m.d}$*nin-urta*		
39	6 KI.MIN	*ša šu-ta-pi-e*					6		ŠU ^{m}KI.MIN		
40	19 ^{gud}NINDA$_{2}$ *i-na* MU.11 EN 13 *i-na* ŠU ^{m}*bu-un-na-*^{d}*gu-la u*$_{3}$ 6 *i-na* ŠU ^{m}GAL-*a-ša*$_{2}$-^{d}U.GUR ^{m}ARḪUŠ-*šu*$_{2}$-^{d}*nin-urta im-ḫur-ma a-na šu-ta-pi-e u*$_{2}$*-za-i-zu*						19		ŠU ^{m}KI.MIN		
41									*ša* E$_{2}$ $^{m.d}$*nin-urta*-IBILA-SUM-*na*		
42		22	5	6	5	5	43	0;0.2.5	$^{m.d}$NUSKA-*mu-šal-lim*	$^{m.d}$NUSKA-ŠEŠ-SUM-*na* ŠU ^{m}*lul-tam-ru-ti*	^{m}*ki-lam-du*
43		9	2	1	2	2	16	0;0.1.0	DUMU ^{m}DI.KUD-*ni-*^{d}UTU	^{m}KI.MIN	^{m}*ku-ru-uš-ni*
44		5 EN 1 *e-si-ir-ti*	3 EN 1 KI.MIN	3 EN 2 KI.MIN		2	13	[0;0.0.5]	DUMU ^{m}*la-ni-ba-aš*$_{2}$-DINGIR	^{m}KI.MIN	^{m}KI.MIN
45							EN 4 *e-si-ir-ti ša i-na* ⌜DUB⌝ NIG$_{2}$.⌜KA$_{9}$⌝ *ša* ⌜MU.10$^{?}$.KAM⌝ MU $^{m.d}$NUSKA-ŠEŠ-SUM-*na šaṭ-ru* TA 3$^{?}$ GUD MU.2 *ša e-si-*[*ir*$^{?}$*-ti*$^{?}$ …]				
46	⌜6⌝ GUD MU.2	3 AB$_{2}$					9		⌜^{gud}⌝[NINDA$_{2}$] ^{m}*ṣa-ab-ru ki-mu* $^{m.d}$NUSKA-*mu-šal-lim* ŠU ^{m}*bu-un-na-*^{d}*[gu-la]*		
47	EN 4 *ša i-ti-qu* EN 3 AB$_{2}$ EN 2 KA$_{2}$ *mi-ni* MU.11.KAM TA 13 *a-*⌜*na šu-ta-pi*⌝*-e* ^{m}ARḪUŠ-*šu*$_{2}$-^{d}*nin-urta u*$_{2}$*-za-*⌜*i-zu u*$_{3}$ x KUŠ *ma-la il*⌝*-qa-a šu-lu-u*$_{2}$										
48	[(PAP)]						81	0;0.4.0	*pi-[ḫat]* ⌜^{m}*bu*⌝*-[un-na]-gu-la*		
49	[1]	18	5	2	4	4	34	0;0.2.0	⌜^{m}gu$^{?}$-ub$^{?}$⌝-bu-ḫu	^{m}GA[L]-*ša*$_{2}$-^{d}U.GUR	^{m}*ri-gim-*^{d}[…]
50	[3 GUD] MU.4	3 GUD MU.3	1 GUD MU.2	1 AB$_{2}$			8		⌜x x⌝ ⌜^{m}⌝ KI.MIN	^{m}KI.MIN	

51	[EN 6] *ša i-ti-qu* EN AB$_2$ EN GUD MU.2 KA$_2$ *mi-ni* MU.11.KAM TA 6 *a-⌜na⌝* ENSI$_2^{!}$.MEŠ *i-na* MU.11.KAM ^{m}ARḪUŠ-*šu-^{d}nin-urta ⌜u$_2$-za-i-zu⌝*														
52	[(PAP)]										42	0;0.2.0	*pi-ḫat* GAL-*a-<ša$_2$>-^{d}*U.GUR		
53	[^{munus}ANŠE]. ⌜GAL⌝	^{munus} AN ŠE MU. 3	^{munus} AN ŠE MU. 2	^{munus} AN ŠE MU. 1	AN ŠE MU. 6	ANŠE MU.5	AN ŠE MU. 4	AN ŠE MU. 3	AN ŠE MU. 2	ANŠE MU.1	ŠU$^{!}$.NIGIN		NA.GAD	*ḫa-za-an-nu*	*kaš-šu-[u$_2$]*
54															
55	[43]	8	6	10				3	13	13	96		$^{m.d}$*gu-la*-URU$_4$-*iš*	^{m}*i-gar-šu*-UŠ	^{m*}*ku-up-pu*
56	[…]	[x] ⌜*ša⌝ i-na* MU.11.KAM *pu-uq-⌜qu⌝-ra* DUB *šu-ma-ti i-na* GI.GUR.IM.MA *kam-sa-at* TA 2 *a-na* ^{m}*e-tel*-KA-^{d}30 x x x SUM-*nu*													
57	[…]	[…]									32		ŠU ^{m}*u$_2$-ṣa-an-nu-ti*		
58	[…]	[…]									8		ŠU ^{m}*ši-ri-iš-ti-^{d}šu-qa-mu-na* $^{m.d}$U.GUR-*di-par*-DINGIR.MEŠ *u$_3$* $^{m⌜}$x x x⌝		
59	[…]	[…]	⌜x	x x-x x x⌝ *a-na ṣu$_2$-ḫa-re-e pu-uq-qu-du*							15		DUB *šu-ma-a-ti i-na* ⌜E$_2$⌝ *u$_2$-de-e ša* KASKAL *kam-sa-at*		
60	[…]	[…]	[…]	[…]									*ša* E$_2$ ^{m}*be-la-ni*		
61	[…]	[…]	[…]	[…]	[…]	[…]		3	⌜2?⌝	6	49		^{m}*ia-u$_2$-tu$_4$*		
62	[…]	[…]	[…]	[…]	[…]	[…]	[…]				[…]	[…]	*ša?* E$_2$?] ⌜$^{m.d}$*nin-urta*-IBILA?-SUM?-*na?*⌝		

Translation

Obv.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.
1	**[Bull**	**Fully-grown cow**	**Two-year old heifer**	**One-year old heifer**	**Heifer calf**	**Bull calf**	**Total**	**Ghee**	**Herdsman**	**Mayor**	**"Kassite"]**
2	[…]	[…]	[…]	[…]	[…]	[…]	[19]5	60 silas	[…]	[…]	[…]
3	[…]	[…]	[…]	[…]	[…]	[…]	287	190 silas	Lultamar-[…]	[…]	[…]
4	[…]	[…]	[…]	[…]	[…]	[…]	33	20 silas	Apil-Nergal	[…]	[…]
5	[…]	[…]	[…]	[…]	[…]	[…]	13	7.5 silas	Izkur-Šamaš, son of Appāju	[…]	[…]
6	[…]	[…]	[…]	[…]	[…]	[…]	3	2.5 silas	Amurru-aḫa-iddina, son of Kurû	[…]	[…]
7	[…]	[…]	[…]	[…]	[…]	[x]+1	24	15 silas	Amurru-nādin-aḫḫē, in place of Muštē[…]	[…]	[…]
8	[…]	[…]	[…]	[…]	[…]	[x]+2	27	15 silas	Rabâ-ša-Nergal	In?[...]	[…]

9	[…]	[…]	[…]	[…]	[…]	1	4	2.5 silas	Ittiša-aḫbut, in place of Kudurrānu	Rabâ?-[…]	[…]
10	[…]	[…]	[…]	[…]	[2]	1	13	7.5 silas	Šūzubu	Ūṣân[…] / Ūṣi-an[…]	[…]
11	[…]	[…]	[…]	[…]	˹3˺	1	17	10 silas	Līširanni-Šamaš	Iqīš[…]	[…]
12	[…]	[…]	[…]	[…]	2	2	15	10 silas	Napšira-Amurru	Son of Erība-[…]	[…]
13	[…]	[…]	[…]	2	2	1	11	7.5 silas	Nusku-Dajjān	Iqīš[…]	[…]
14	[…]	[…]	˹2˺	2	5	1	24	15 silas	Jā'ūtu	Ubāru	[…]
15	[…]	[…]	3	1	2	1	15	7.5 silas	Amurru-šuma-līšir	Ditto	Ḫunanu
16	[…] […] *of the*	[…] 5 *front* of the district *of/which* the *bīru* cattle		6	5 incl. ditto	5 incl. 1	49	25 silas	Ṣabru, *šulmānu*-gifts from Year 6 until Year 9		
17 18	[…] [(which …]	10, incl. 5 *šulmānu*-gifts, […]-Ninurta will receive.		2	3	1	24	10 silas	Ibnûtu. Claims which many made, and the cattle of Ina-Ekur-balāṭu. The tablet of entries was collected in a clay basket.		
19	[…]	˹x+2˺	5	4	4	4	33	20 silas	Claims of the Sea-Land, Amurru-ibni		
20	[Total 119]	298?	128	72	96	74	787	425 silas	Cattle		
21	**Five-year old males**	**Four-year old males**	**Three-year old males**	**Two-year old males**	**One-year old males**	**Cows**	**Total**		**Herdsman**		
22	[54]			6			60		Stable, Ṣabru		
23	[Incl.] 6 that passed, including 51 of the Gate of Counting, Year 11, incl. 3 claims of the son of Ina-Ekur-balāṭu of the Sea-Land, which together with the cows were taken from the city Suri. Cows for Ibnûtu for the districts… Tablet of entries […]										
24	[…] 7 fully-grown cows, 1 heifer calf, and 1 bull calf, which were added to the front of the districts of the young cattle …, in the account tablet of Year 11, on top of the *foals* of the *šulmānu*-gift—after 100 *bīru*-cattle, including 30 of the Sea-Land, which [PN?…] in […]										
25	In the *p.*-ritual for the king, they were given—after 3 young cattle were added on top of the contracted amount, after 1 *aklu*-expenditure and 8 hides, as much as he took, were deducted.										
26		4	1	1	1		7	5 silas	Pure cow(s). Nergal-aḫa-iddina, in place of the son of Zākiru	Lultamar-Nergal	Šumma-[…]
27	Total								Sphere of responsibility of the mayors		
28		57	10	6	9	15	97	60 silas	Jāmu	Ḫumban-napir, hand of Lultamrūtu	Rabâ-ša?-[…]
29		30	7	1	5	2	45	17.5 silas	Nergal-abī, in place of Rīš-Apsû	Ditto, hand of ditto.	Šagarakte

30		14	2		3	2	21	12.5 silas	Šūzub-Marduk, in place of Ninurta-aḫa-iddina	<Ditto>, hand of ditto	Ditto
31		29	5	2	3	3	42	15 silas	Amurru-nādin-šumi, in place of Bitija?	Ditto, hand of ditto	Bitātu?
32		36	12	2	6	4	60	25 silas	Nusku-īpiranni	Ditto, hand of ditto	Ditto
33	Total	166	36	11	26	26	265	130 silas	Cattle		
34			1 two-year old male, a replacement, plow-ox of Ninurta-bāni […] which were written in the account tablet of Year 10. 1 one-year old cow of Tarību, ditto, which in the tablet ditto. Hand of Ḫumban-napir. In the "Gate of Counting of Year 12."								
35		3 fully-grown cows, which were written in the account tablet of Year 10, (under the) name of Qunnunu. They are entrusted to Nusku-zākir-šumi. In Year 11, they did not pass. For collection, Jāmu, hand of Lultamrūtu, will take (them).									

Rev.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.
36	4 two-year old males	13 one-year old males, 3? cows,					19		*Bīru*-cattle, Išassi-pilḫāšu		
37	Incl. 10 that passed, incl. 3 cows, incl. 7 one-year old males, "Gate of Counting, Year 11"—after Irēmšu-Ninurta distributed 11 to the *šutāpu*-workers in Year 11, (and) 4 hides, as much as he took, were deducted.										
38	20 plow-oxen of the 5 *ḫarbu*-plows of the landowners						20		Hand of Irēmšu-Ninurta		
39	6 ditto	of the *šutāpu*-workers					6		Hand of ditto.		
40	19 *bīru*-cattle in Year 11, incl. 13 from the hand of Bunna-Gula and 6 from the hand of Rabâ-ša-Nergal Irēmšu-Ninurta received and distributed to the *šutāpu*-workers.						19		Hand of ditto.		
41									Of the house of Ninurta-apla-iddina		
42		22	5	6	5	5	43	25 silas	Nusku-mušallim	Nusku-aḫa-iddina, hand of Lultamrūtu	Kilamdu
43		9	2	1	2	2	16	10 silas	Son of Dajjānī-Šamaš	Ditto	Kurušni
44		5 incl. 1 collection	3 incl. 1 ditto	3 incl. 2 ditto		2	13	[5 silas]	Son of Lā-nibāš-ilu	Ditto	Ditto
45							Including 4 collections, which were written in the account tablet of Year 10? (under the) name of Nusku-aḫa-iddina. After 3 one-year old males of the […]				
46	6 one-year old males	3 cows					9		*Bīru*-cattle. Ṣabru, in lieu of Nusku-mušallim, hand of Bunna-Gula		
47	Incl. 4 that passed, incl. 3 cows, incl. 2 of the "Gate of Counting, Year 11," after Irēmšu-Ninurta distributed 13 to the *šutāpu*-workers, and x hides, as much as he took, were deducted.										
48	Total						81	40 silas	District of Bunna-Gula		
49	[1]	18	5	2	4	4	34	20 silas	Gubbuḫu?	Rabâ-ša-Nergal	Rigim-[…]

50	[3] three-year old [males]	3 two-year old males		1 one-year old male		1 cow					8		[…], ditto	Ditto	
51	[Incl. 6] that *passed*, incl. (1) cow, incl. (1) one-year old male of the "Gate of Counting, Year 11"—after Irēmšu-Ninurta distributed 6 to the landowners in Year 10.														
52	[(Total)]										42	20 silas	District of Rabâ-ša-Nergal		
53-54	**Fully-grown jenny**	**2yo. jenny**	**1yo. jenny**	**Jenny foal**	**5yo. Jack**	**4yo. Jack**	**3yo. Jack**	**2yo. Jack**	**1yo. jack**	**Jack foal**	**Total**		**Herdsman**	**Mayor**	**"Kassite"**
55	[43]	8	6	10				3	13	13	96		Gula-ēriš	Igāršu-ēmid	Kuppû
56	[…]	[…] which was claimed in Year 1. The tablet of entries was collected in a clay basket. After 2 were given to Etel-pî-Sîn […]													
57	[…]	[…]									32		Hand of Ūṣânnûtu		
58	[…]	[…]									8		Hand of Širišti-Šuqamuna, Nergal-dipār-ilāni and […]		
59	[…]	[…]	[…]	[…] they were entrusted to the servants.							15		The tablet of entries was collected in the "House of sacks of the road."		
60	[…]	[…]	[…]	[…]									Of the house of Bēlānu		
61	[…]	[…]	[…]	[…]	[…]	[…]		3	˹2?˺	6	49		Jā'ūtu		
62	[…]	[…]	[…]	[…]	[…]	[…]	[…]				[…]	[…]	[Of the house of] Ninurta-apla-iddina?		

Commentary

1 Column headers restored from BE 14 99a: 2.

2 Only the 5 is visible, but [19]5 may be calculated from the sum given in l. 20.

3 Col. ix: Hölscher (1996: 134) suggests a restoration here of ^{m}*lul-˹ta-mar˺*-[^{d}U.GUR], but this cannot be verified.

9 Col. ix: Hölscher (1996: 144) tentatively suggests ^{m}*muš-te*-[*ši-ri?*].

10 Col. v: See already Torczyner 1913: 44. [2] is restored from the ghee amount given in col. viii, which implies that three calves must have been listed in the row.

Col. x: Hölscher (1996: 232) suggests reading the name Ūṣânnûtu here.

14 Col. iii: Clay (1906) indicates only one wedge here, and so Torczyner (1913: 44) reads 1. However, the photograph seems to show the tails of two vertical wedges. This should be more carefully collated in the future.

17 Col. ii: Torczyner (1913: 44) reads [*na*]-*kam-tu* for the word at the beginning of the column. This seems likely to me but the traces are very damaged on the tablet.

20 Col. i-ii: Clay (1906) copies the number in col. ii as a clear 298; however, from the photograph, it seems possible that it may read 299 instead. This should be carefully collated. The result will, of course, impact the restoration of the number in the preceding column.

Col. iii: Clay (1906) copies 148 (two vertical wedges, followed by 28). Torczyner (1913: 44) evidently recognized this to be a strange writing, as one would expect 1 ME 48 instead, and tentatively reads 128(?). Collation by photograph supports Torczyner's suspicions. Clay omitted a small horizontal after the second vertical; the correct reading is 1 ME 28.

24 On the attestation of *mūru* in the Middle Babylonian corpus with a suggested meaning of "(donkey) foal," see CAD M/2 s.v. *mūru*, mng. 1a.

25 The signs B/PU DI are very clear. Torczyner (1913: 44) suggests reading *giṭ-ṭi* for *giṭṭu*, a one-column tablet, but this term is not attested in Middle Babylonian, a suggestion followed by Sassmannshausen (2001: . CAD B s.v. *būdu* B cites several attestations of the word *būdu* (or *pūdu*), "mng. uncertain," in relation to sheep and goats in Old Babylonian and Mari sources, with translations suggesting it may be a ceremony or ritual. The discussion, on the other hand, states that *būdu/pūdu* "may designate some type of foodstuff … and the delivery of it as a tax or for a festival." Yamada (2011)—following Landsberger 1960: 22, Sasson 2001: 417, Durand 2008: 193— suggests a derivation from *padûm*, normalizes the word as *pudûm* (after Jacquet 2011: 57-59), and argues based on Old Babylonian attestations of the word, largely from the Mari corpus, that it "may mean either the offerings made or the rite performed in front of a deity with an appeal for the divine favour of releasing a person from misfortune or sin, which may have been caused by divine anger." I cannot speak to the specifics of the ritual based on the texts from the Middle Babylonian Nippur corpus, but given that livestock are evidently being deducted in two tablets for the purpose of the *pudû*—one of which involves the deduction of 291 bucks for the *pudû* in Babylon (CBS 2129: obv. 5')—I find it likely that we are indeed dealing with some type of ritual that involves the sacrifice of animals. For other attestations of the word in the Kassite Nippur corpus, see already CBS 2129: obv. 5' and MUN 302: col. iii, 12.

26 Col. viii: Interestingly, the one lactating cow in this line is apparently expected to produce 5 silas of ghee rather than the typical 2.5 silas. Is this a mistake, or might this be connected to the fact that the cow is described as an AB_2 KUG.GA (Akk. *littu elletu*), a "pure cow"?

31 Col. ix and xi (and *passim*): As Hölscher (1996: 53) notes, these names may possibly read Kaštija and Kaštātu, instead of Bitija and Bitātu.

33 Col. i: Clay (1906) omits the PAP, which is visible at the junction of the tablet's left edge and obverse.

34 Col. iii-iv: The sign Clay (1906) copies between the TA and TI signs does not resemble the one I saw through the glass display, which show a sign much more similar to KAL. I tentatively suggest the reading *tarībti*, with reservations, as CAD T s.v. *tarībtu* notes that the word only otherwise appears in personal names, though note the occurrence of *ta-rib-ta-šu* in BE 15 199: 39. Replacement ox in the Middle Babylonian Ur corpus seem to be called GUD *pillati* instead; see Gurney's (1983) commentary on MBTU 3, 16 and 43.

Col. xi: On the *bāb mīni*, see already commentary to BE 14 99a: 9. This is the only attestation of a Gate of Counting, Year 12.

35 Assuming that the later *paqdā* and *ītiqā* are third feminine plural forms with the cows as the subject, the lapse into the third common + a subordinate *-u* marker for *šaṭru* is interesting if the cows are still to be understood as the subject. It is possible that Qunnunu's name here is the subject instead, but cf. l. 34 where the same construction is used without MU PN.

36-37 The row total recorded is 19, but, if the constituent numbers are correct, the sum should be 20. The copy's following line also indicates that the row total should be 20 rather than 19, but both rows should be carefully collated, especially in light of the frequent copyist errors that appear in these tables. For instance, one notices that Clay (1906) consistently writes the 3 AB_2 in these lines not as the expected three verticals but one vertical and two stacked verticals. Might there only be two cows instead of three?

37 See CAD Š/III s.v. *šutāpu*, mng. c, "agricultural worker," for additional attestations. These workers are often attested in connection with plowing activities in the Middle Babylonian corpus. It should also be noted that the verb *uza''iz* in this text is consistently spelled *u_2-za-i-zu*, even when the subject is clearly singular and the verb should not be taking a subordinate *-u*.

38 Col. vii: The row total 20 is visible on the photograph but is omitted in the copy.

Col. ix: Torcynzer (1913: 45) reads, for the personal name, ^{m}*Irîm-šu-*^{ilu}NIN.IB. Note that Clay (1906) accurately indicates an additional personal name marker inserted before the deity name, however.

39 Col. vii: The row total 6 is visible on the photograph but is omitted in the copy.

40 Col. vii: The verb *u_2-za-i-zu* is written after the subtotal 19 on the photograph but is omitted in the copy.

45 Col. ix: Torczyner (1913: 45) reads TA 3, following Clay (1906)'s copy, which shows a vertical followed by a stack of two verticals. On the photograph, I only see two verticals. Furthermore, as I mentioned in my comment to l. 36-37, this would be a strange way to write 3. Possibly to be read 2 instead.

50 Col. ix: Might one read ^{gud}NINDA$_2$ for the traces at the beginning of the line?

55 Col. xv: Clay (1906) omits Kuppû's personal name marker.

56 Half of this line is omitted in Clay's (1906) line copy. The remainder of the line can be seen but not easily read on the photograph.

62 Col. ix-x: The traces here appear to match those in l. 41, cols. ix-x.

Text Number	---
Museum Number	CBS 2129
MSKH Number	---
Date	<KT> ca. 11
Sealing	---
Previous Edition(s)	Murai 2018: 261-262
Discussion	Chapter 4
Photograph	https://cdli.ucla.edu/search/archival_view.php?ObjectID=P259212

Obv.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.
1’	[x]	[x+]	˹2 ME?˺	[x+]	˹x+˺	˹x˺+	[x+]˹20˺	161	166	˹1110˺	[…]
2’		˹82˺	40	˹46˺	1	3	+1?			[(+x)]	[…]
3’	1002 EN 792 *ša i-ti-qu*				1002	148	EN 42 *ša i-ti-qu*			14[8]	
4’	EN 44 *ṣi-ib-ti* EN 166 *ṣa-bit-ti*					EN 16 ˹*ṣi*˺*-ib-ti* EN 91 *ṣa-bit-ti* N[A.GAD.MEŠ MU.11?.KAM]					
5’	NA.GAD.MEŠ MU.11.KAM u_3 88 KUŠ					TA 291 *a-na pu-di i-na* KA_2.DINGIR.R[A^{ki} SUM?-*nu?* (…)]					
6’	*ma-la il-qa-a šu-lu-*u_2					u_3 35 KUŠ *ma-la il-qa-a šu-*[*lu-*u_2]					
7’	202				˹202˺	70 EN	20 *ša* ^{m}ARḪUŠ-*šu*$_2$-^{d}*nin-urta*			70	[…]
8’						˹EN 50 *ša*˺ ^{m}*ta-ri-bi* DUMU $^{m.d}$30-SUM^{na} *i-maḫ-*[*ḫa-ru* (…)]					
9’	646		76 SIG_2 *ul en-du*		[722]	47 T]A 17 *ak-lu* u_3 ZIG.GA				47	[…]
10’	EN 94 *ša i-na* ŠU *ḫa-za-an-na-ti* ˹x˺ […]				[…]	[…)]	E]N UD.5.KAM *ša* ^{iti}GAN.E_3 *šu-lu-*u_2				[…]
11’	*a-na* ˹UGU˺-*šu*$_2$ *ru-ud-du-*u_2 DUB MU.MEŠ *i-na* G[I.GUR.IM.MA *kam-sa-a*]*t?*										
12’	TA 260 *ak-lu* u_3 ZIG.GA EN ˹UD˺.[5?.KAM *ša* ^{iti}GAN].˹E_3˺										
13’	u_3 40 KUŠ *ma-la il-qa-a šu-lu-*[u_2]										

Rev.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	xi.
1	TA ˹x˺	20	137	29	30	˹216˺	[x+]˹5˺	˹1˺[(+x)]	[…]	[…]	[…]
2	TA 30	23	233	56	56	˹368˺	[…]	10[(+x)]	[…]	[…]	[…]
3	TA 30	28	214	49	49	˹340˺	[…]	12	4	˹4?˺	[…]
4	TA 30	24	294	68	68	˹454˺	[…]	74	15	15	[…]
5	TA 30	28	211	47	48	˹344˺	[…]	15	3	3	˹10˺[(+x)]
6	TA 30	25	85	15	16	˹141˺	[x+]1				

7	TA 33	30	93	17	18	˹158˺	6 TA 7	11	3	[…]	[…]
8-9	PAP	178	1267	281	285	˹2021˺	40	252	57	[…]	[…]
10		[EN (x+)]˹93 *ša i-ti-qu*˺ […]				[…] ˹x˺	137 EN 106 *ša i-t*[*i-qu*…]			[…]	[…]
11		[…]	[…]	[…]	[…]	[…]	˹EN 31 *ṣa*?˺-[*bit*?-*ti*?…]			[…]	[…]

(Remainder broken.)

<u>Translation</u>

Obv.

1’	[x]	[x+]	˹2 ME?˺	[x+]	˹x+˺	˹x˺+	[x+]˹20˺	161	166	˹1110˺	[…]
2’		˹82˺	40	˹46˺	1	3	+1?			[(+x)]	[…]
3’	1002, incl. 792 that passed				1002	148	incl. 42 that passed, incl. 16			14[8]	
4’	incl. 44 *ṣibtu*, incl. 166 *ṣabittu*-animals					*ṣibtu*, incl. 91 *ṣabittu*-animals of the he[rdsmen of Year 11(?)—					
5’	of the herdsmen of Year 11—and 88 hides					after 291 for the *pudûm* in Babylon [*were given*]					
6’	as much as he took, were deducted.					and 35 hides, as much as he took, were dedu[cted].					
7’	202				˹202˺	70, incl.	20 that Irēmšu-Ninurta,			70	[…]
8’						incl. 50(?) that Tarību, son of Sîn-iddina recei[ved (…)]					
9’	646		76, wool not imposed		[722]	47 af]ter 17 *aklu* and *ṣītu*-expenditures				47	[…]
10’	Incl. 94 that from the hand of the mayors [				…]	[(…)]	un]til Day 5 of Month IX were deducted				[…]
11’	were added to its head. The tablet of entries [*was collected*] in a cl[ay basket].										
12’	After 260 *aklu* and *ṣītu*-expenditures, until Day [5(?) of Month I]X										
13’	and 40 hides, as much as he took, were deducted										

Rev.

1	After …	20	137	29	30	˹216˺	[x+]˹5˺	˹1˺[(+x)]	[…]	[…]	[…]
2	After 30	23	233	56	56	˹368˺	[…]	10[(+x)]	[…]	[…]	[…]
3	After 30	28	214	49	49	˹340˺	[…]	12	4	˹4?˺	[…]
4	After 30	24	294	68	68	˹454˺	[…]	74	15	15	[…]
5	After 30	28	211	47	48	˹344˺	[…]	15	3	3	˹10˺[(+x)]
6	After 30	25	85	15	16	˹141˺	[x+]1				

7	After 33	30	93	17	18	˹158˺	6, after 7	11	3	[…]	[…]
8	Total	178	1267	281	285	˹2021˺	40	252	57	[…]	[…]
9											
10		[Incl. (x+)]93 that passed […]				[…] ˹x˺	137, incl. 106 that pa[ssed (…)]			[…]	[…]
11		[…]	[…]	[…]	[…]	[…]	incl. 31 *ṣabittu*-animals? [(…)]			[…]	[…]

Commentary

o.1'-2' Based on the distribution of the numbers throughout the rows, we can conclude that the tablet is listing flocks of sheep and goats. We can therefore restore the headers as follows for the existing columns: UDU.NITA$_2$, U$_8$.GAL, SILA$_4$.NIM, ^{munus}SILA$_4$.NIM, ŠU.NIGIN$_{(2)}$, MAŠ$_2$, UZ$_3$, MAŠ$_2$.TUR, ^{munus}AŠ$_2$.GAR$_3$, ŠU.NIGIN$_{(2)}$, ŠU.NIGIN$_{(2)}$, SIG$_2$,ḪI.A, SIG$_2$ UZ$_3$, NA.GAD, *ḫa-za-an-nu*, and *kaš-šu$_{(2)}$-u$_2$* (optional).

Col. i: Murai (2018: 261) reads a 2, but this is not visible on collation.

Col. iv: Murai (2018: 261) reads 44 rather than 46. The heads of three wedges are visible for the bottom stack, however.

Col. v: Murai (2018: 261) reads 2, which is not strictly incorrect. There is only one wedge clearly visible wedge in l. 2'; the tail of another wedge is visible in the cell in the previous line, though this is, strictly speaking, probably not a DIŠ sign.

Col. vi: Murai (2018: 216) reads 20; however, the only visible wedge in the first line is a vertical wedge and possible traces of the left corner of a *winkelhaken*, giving us either a 1, a 60, or a ˹70˺.

Col. x: Murai (2018: 216) reads 1 LIM 1 ME 40. For the 40, I only see traces of one *winkelhaken*.

o.4' For further co-occurrences of *ṣibtu* with *ṣabittu*, see N 1922, which curiously enough also connects the *ṣibtu* and the *ṣabittu* to the institution of the EREŠ.DINGIR-priestesses.

Col. x: The restoration of NA.GAD.MEŠ MU.11.KAM is proposed based on the parallel construction in l. 4'-5' in cols. i-v.

o.5' Col. vi- x: Murai (2018: 216) mistakenly reads GURUŠ 2 ME 91 *a-ši$^{!}$-bu$^{!}$* x *i-na* KA$_2$.DINGIR.R[A…], which I find unlikely. On the *pudû*-ritual, see already my comments on BE 14 168: 25. These are bucks being extracted from the herd for use in the ritual. A possible final verb for this clause may be *nadnū,* "they were given," judging by the verb in BE 14 168: 25.

o.8' Col. vi: Murai (2018: 216) suggests ˹*i-na* ŠU˺ at the beginning of the line, which is not impossible from the traces. Given the count of 70 animals, however, and how we know the EN glosses are used in these tablets (on which, see Section 4.2.1.1), I find it likely that this line is accounting for the remaining 50 bucks indicated in the row total and unaccounted for by the previous line.

o.9' The verb here is derived from *emēdu*, with m > n before a dental. The notation here likely indicates that wool has not been collected from the listed lambs, lit. "the wool is not imposed." For similar constructions (though admittedly from other periods), see CAD E s.v. *emēdu*, mng. 2b. Though the right-hand side of the table is broken off, these tables typically include a column listing wool amounts. As mentioned in Chapter 4, these amounts (as well as those in the contracts) are typically

calculated at ½ minas of wool per listed sheep, including the lambs, and so this additional notation may indicate that an atypical situation has occurred where the wool was not harvested from the lambs.

Col. v: The total is restored via calculation.

o.10’ Col. v: Possibly some form of *maḫāru* or *leqû* is to be restored in the break here, indicating that the animals are being taken/received from the hands of the mayors and added to the current flock count.

Col. ix: For more attestations of the writing ^{iti}GAN.E$_3$ for Month IX, see Brinkman 1976: 399.

o.11’ GI.GUR.IM.MA *kam-sa-at* is restored from parallel expressions in BE 14 168: 18 and 56.

o.12’ The date formula is restored from that found in the previous l. 10’. This phrase TA n$_1$ *ak-lu u$_3$* ZI.GA EN UD.n$_2$.KAM *ša* MN *šu-lu-u$_2$* is also attested in BE 14 99a: 31-32.

r.1-8 Col. i: Note that these signs are actually written on the tablet’s left edge. Because they are connected to the following cells, I include them here as an additional column.

Col. vi: These are grand totals of sheep. In spite of Murai’s (2018: 262) hesitancy to restore numbers here, all of the totals can be confidently reconstructed by summing up the tallies in cols. ii-v.

r.1 Murai (2018: 262) reads TA ˹30˺. The number here is damaged and cannot be confidently read.

Text Number	BE 14 99
Museum Number	CBS 3294
MSKH Number	L.2.13.114, L.4.2.2
Date	KT -/-/13(+)
Sealing	-
Previous Edition(s)	Torczyner 1913: 49-53 (no. 24)
Discussion	Chapter 4
Photograph	http://cdli.ucla.edu/search/archival_view.php?ObjectID=P259668

Transliteration

U.E.

1 *mi-nu* AB$_2$.GUD.ḪI.A *u$_3$* U$_8$.UDU.ḪI.A *ša* $^{m?}$[…]

Obv.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.
2	[UTU]A	AB$_2$.GAL	AB$_2$ MU.3	AB$_2$ ˹MU˺.[2]	AB$_2$.G[A]	[AMAR.GA]	[ŠU.NIGIN]	[I$_3$.NUN]	[(…)]
3	[1]	111	17	25	30	˹26˺	210	[(…)]	[(…)]
4	[1]	52	13	14	16	6	102		˹x˺ [(…)]
5		27	6	3	2	2	40	0;0.5.2½	[(…)]
6							*ul i-ti-iq*		[(…)]
7							KI.MIN		[(…)]
8		11	5	˹5˺	1	1	23	0;0.3.0	[(…)]
9		6	1	2	1	2	12	0;0.1.5	˹x˺ [(…)]
10		4	1	1	1		7	0;0.1.0*	[(…)]
11							*ul i-ti-iq*		[(…)]
12		21	10	10	6	3	50		˹x˺ [(…)]
13		6	3	3	3	1	16		˹x˺ [(…)]
14		4	2	1	1		8	0;0.1.0	[(…)]
15		7	3	5	2		17		[(…)]
16		*i-na* MU.11.KAM ^{d}*ka-daš$_2$-man-tur$_2$-gu a-di* AB$_2$.GUD.ḪI.A-*šu$_2$ i-na* ^{uru}NIBRU^{ki} *it-ta-an-ma-ar* [(…)]							
17		3	1	1			5	0;0.0.5	[(…)]

18		25	25	5	6	3	64	0;0.4.0	[(…)]
19		9	2	7	2		20		[(…)]
20							*ul i-ti-iq*		[(…)]
21	[PAP] 2	286	89	82	71	44	574	[(…)]	[(…)]
22		6	2	1	3		12	[(…)]	[(…)]
23		EN 3 AB$_2$.GAL *u$_3$* 1 AB$_2$ MU.3 *ša* ^{m}DINGIR-*ma-a-ḫi* EN 1 AB$_2$.GAL *u$_3$* 1 AB$_2$.GA *ša* ^{m}*a-m*[*i*$^{?}$-…]							
24		4	1	1			6	[(…)]	[(…)]
25							*ul i-ti-iq*		[(…)]
26							KI.MIN		[(…)]
27							KI.MIN		[(…)]
28		6 AB$_2$.GAL					6 AB$_2$.GUD.ḪI.A *ki-mu* ˹x˺ […]		
29		16	5	6	2	2	31	˹x˺ […]	[(…)]
30		5	4	33	14	15	71	[(…)]	[(…)]
31		^{m}*gi-mi[l-l]u$_4$ i-si-ra ṭup-pi šu-ma-a-ti i-na* GI.GUR.IM.MA *kam-sa-at* [(…)]						[(…)]	[(…)]
32	PAP	37	12	41	19	17	126	˹x˺ [(…)]	[(…)]

Rev.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.
33	GUD MU.4	GUD MU.3	GUD MU.2	AB$_2$.GAL			[ŠU.NIGIN]	[(…)]	[(…)]
34	9	36	61	4 TA 1 *ki-mu* 1 EN ˹LI$^{?}$˺ […]			[110$^{?}$/111$^{?}$]	[(…)]	[(…)]
35	EN 19 *ša i-ti-qu* EN 4 AB$_2$ EN 88 GUD MU.3 *u$_3$* GUD MU.2 ˹x x˺ [(…)]					[(…)]	[(…)]	[(…)]	[(…)]
36	*ru-ud-du-ma* NIG$_2$.KA$_9$ *ep-šu* TA 4 *a-na* ^{uru}NIBRU^{ki} *le-qu-ma* ^{m}ARḪUŠ-*šu$_2$*-^{d}*nin-urta maḫ-ru* TA ˹4$^{?}$˺[(+x …)]								[(…)]
37	*u$_3$* 50 KUŠ *ma-la il-qa-a šu-lu-u$_2$*								
38	14 GUD MU.4	14 GUD MU.3	4 AB$_2$.GAL				32	[(…)]	[(…)]
39	EN 18 *ša i-ti-qu* EN 4 AB$_2$ TA 40 ^{gud}NINDA$_2$.MEŠ *ša* ŠU $^{m.d}$*dil-bat-li$_2$-su i-na* MU.12.KAM ˹x˺ […]							[(…)]	[(…)]
40	*le-qu-ma* ^{m}ARḪUŠ-*šu$_2$*-^{d}*nin-urta maḫ-ru* TA 21 LAL$_2$-*ma i-na* MU.13.KAM *is-ru-ma a-na* ˹x˺ […]							[(…)]	[(…)]
41	11 GUD MU.4	13 GUD MU.3	6 AB$_2$.GAL 2 AB$_2$ MU.2				32	[(…)]	[(…)]
42	EN 24 *ša i-ti-qu* EN 8 AB$_2$ TA 11 i-na MU.13.KAM LAL$_2$-*ma is-ru-ma a-na pi-ḫa-t*[*i*$^{?}$ …]							[(…)]	[(…)]

43	42 ^{gud}NINDA$_2$.MEŠ *ša i-na* ŠU ^{md}*dil-bat-li$_2$-su i-na* MU.12.KAM *maḫ-ru-ma a-na* ^{uru}NIBRU^{ki} […]						[(...)]	[(…)]
44	42 ^{gud}ŠA$_3$.GUD *ša* 6 *ḫar-bi ša* ^{uru}*tukul-ti-be-li$_2^{ki}$*						[(…)]	[(…)]
45	48 ^{gud}ŠA$_3$.GUD *ša* 9 *ḫar-bi ša* ENSI$_2$.MEŠ *ša li-mi-ti eš-še-ti ša kar-*^{uru}NIBRU^{ki} *u$_3$* NI […]						[(…)]	[(…)]
46	43 ^{gud}ŠA$_3$.GUD *ša* 7 *ḫar-bi* TA 5 ^{m}*gi-mil-lu$_4$ i-na* MU.13.KAM *maḫ-ru$_3$*						[(…)]	[(…)]
47	6 ^{gud}ŠA$_3$.GUD *a-na ḫa-da-li* ŠU ^{m}*gi-mil-li* EN 1 *ša* ^{m}*su-ba-ru-u$_2$ i-na* ŠU $^{m.d}$⌜x⌝-[…]						[(…)]	[(…)]
48	*u$_3$* 1 AB$_2$ MU.2 *ta-ḫu-u$_2$ ša ši-ma-at uz-ni pa-al-ṭu i-na* ŠU $^{m.d}$30-ŠEŠ-SUM^{na} ⌜x NA⌝ […]						[(…)]	[(…)]
49	4 ^{gud}NINDA$_2$.MEŠ IB$_2$.TAK$_4$ *ri-ik-si* ŠU $^{m.d}$*nin-urta*-MU-MU *i-na* UD.5.KAM *ša* ^{iti}ŠE […]						[(…)]	[(…)]
50	UDU.NITA$_2$	U$_8$.GAL	SILA$_4$.NIM	^{munus} SILA$_4$.NIM	ŠU.NIGIN	SIG$_2$ UDU.NITA$_2$ 1 GIN$_2$ MU.12.K[AM (…)]		
51			TA MU.4.KAM ^{d}*ka-daš$_2$-man-tur$_7$-gu ul i-ti-iq*					
52			TA KI.MIN		KI.MIN			
53			TA KI.MIN		KI.MIN			
54			TA KI.MIN		KI.MIN			
55	PAP							
56	4	21	2 TA 3	6	23	1 MA.NA 8 GIN$_2$		
57	4	17	2	5	26	½ MA.NA 4 GIN$_2$		
58					*ul i-ti-iq*			
59					KI.MIN			
60	⌜4⌝	24	2 TA 2	8	38	1½ MA 3 GIN$_2$		
61					*ul i-ti-iq*			
62	[5]	42	2 TA 3	15	64	1 MA 7 GIN$_2$		
63	⌜268⌝				268	5 MA		
64	[4]	118			122			
65	[…] ⌜x RI?⌝ NA? U$_8$.UDU.ḪI.A *ša qer$_3$-be-ti ša* ^{uru}*tukul-ti-be-li$_2^{ki}$ u$_3$* ⌜^{uru}⌝x x x KAM? x x⌝ [(…)]							
66	[…] ⌜x x⌝ 3 *ṭup-pi šu-ma-ti i-na* GI.GUR.IM.MA.MEŠ				196 [(…)]	[(…)]		
67	[PAP]				740+[x]	[(…)]		

Translation

U.E.

1 Account, cattle and flocks of […]

Obv.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.
2	[Bul]l	Fully-grown cow	Two-year old heifer	[One]-year old heifer	Heifer calf	[Bull calf]	[Total]	[Ghee]	[(…)]
3	[1]	111	17	25	30	˹26˺	210	[(…)]	[(…)]
4	[1]	52	13	14	16	6	102		˹x˺ [(…)]
5		27	6	3	2	2	40	0;0.5.2½	[(…)]
6							*It* did not pass.		[(…)]
7							Ditto		[(…)]
8		11	5	˹5˺	1	1	23	0;0.3.0	[(…)]
9		6	1	2	1	2	12	0;0.1.5	˹x˺ [(…)]
10		4	1	1	1		7	0;0.1.0*	[(…)]
11							*It* did not pass.		[(…)]
12		21	10	10	6	3	50		˹x˺ [(…)]
13		6	3	3	3	1	16		˹x˺ [(…)]
14		4	2	1	1		8	0;0.1.0	[(…)]
15		7	3	5	2		17		[(…)]
16		In Year 11 of Kadašman-Turgu, incl. his cattle, he is inspecting in Nippur [(…)]							
17		3	1	1			5	0;0.0.5	[(…)]
18		25	25	5	6	3	64	0;0.4.0	[(…)]
19		9	2	7	2		20		[(…)]
20							*ul i-ti-iq*		[(…)]
21	[Total] 2	286	89	82	71	44	574	[(…)]	[(…)]
22		6	2	1	3		12	[(…)]	[(…)]
23		Incl. 3 fully-grown cows and 1 two-year old heifer of Ilīma-aḫi, incl. 1 fully-grown cow and 1 heifer calf of […]							
24		4	1	1			6	[(…)]	[(…)]
25							*It* did not pass.		[(…)]

26							Ditto		[(…)]
27							Ditto		[(…)]
28		6 fully-grown cows					6 cattle in lieu of […]		
29		16	5	6	2	2	31	˹x˺ […]	[(…)]
30		5	4	33	14	15	71	[(…)]	[(…)]
31		Gimillu collected. The tablet of entries was collected in a clay basket.						[(…)]	[(…)]
32	Total	37	12	41	19	17	126	˹x˺ [(…)]	[(…)]

Rev.

	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.
33	Three-year old male	Two-year old male	One-year old male	Fully-grown cow			[Total]	[(…)]	[(…)]
34	9	36	61	4, after 1 in lieu of …			[110?/111?]	[(…)]	[(…)]
35	Incl. 19 that passed, incl. 4 cows, incl. 88 two-year old males, and one-year old males […]					[(…)]	[(…)]	[(…)]	[(…)]
36	were added, and the account was made—after 4 were taken to Nippur, and Irēmšu-Ninurta received (them), after 4? […]								[(…)]
37	And 50 hides, as much as he took, were deducted.								
38	14 three-year old males	14 two-year old males	4 fully-grown cows				32	[(…)]	[(…)]
39	Incl. 18 that passed, incl. 4 cows—after 40 *bīru*-cattle of the hand of Dilbat-līssu in Year 12 …							[(…)]	[(…)]
40	were taken, and Irēmšu-Ninurta received (them)—after 21 went missing and they collected (them) in Year 13, and to …							[(…)]	[(…)]
41	11 three-year old males	13 two-year old males	6 fully-grown cows, 2 one-year old heifers				32	[(…)]	[(…)]
42	Incl. 24 that passed, incl. 8 cows—after 11 went missing in Year 13, and they collected them, and to the districts…							[(…)]	[(…)]
43	42 *bīru*-cattle, which were received from the hand of Dilbat-līssu in Year 12, and to Nippur […]							[(...)]	[(…)]
44	42 plow-oxen of the 6 *ḫarbu*-plows of Tukulti-bēli							[(…)]	[(…)]
45	48 plow-oxen of the 9 *ḫarbu*-plows of the landowners of the *new regions* of Kār-Nippur and […]							[(…)]	[(…)]

46	43 plow-oxen of the 7 *ḫarbu*-plows—after Gimillu received 5 in Year 13.				[(…)]	[(…)]
47	6 plow-oxen for … hand of Gimillu, including 1 which Subarû from the hand of […]				[(…)]	[(…)]
48	and 1 one-year old cow … whose ear brand is (shaped like) a double-headed axe, from the hand of Sîn-aḫa-iddina […]				[(…)]	[(…)]
49	4 *bīru*-cattle, the remainder of the contracted amount. Hand of Ninurta-zākir-šumi. On Day 5 of Month XII […]				[(…)]	[(…)]
50	Rams	Ewes	Ram lambs	Ewe lambs	Total	Wool, one-shekel ram, Year 1[2…]
51			After Year 4 of Kadašman-Turgu. *It* did not pass.			
52			After ditto.		Ditto	
53			After ditto.		Ditto	
54			After ditto.		Ditto	
55	Total					
56	4	21	2, after 3	6	23	1 mina, 8 shekels
57	4	17	2	5	26	½ mina, 4 shekels
58					*It* did not pass.	
59					Ditto	
60	˹4˺	24	2 TA 2	8	38	1½ minas, 3 shekels
61					*It* did not pass.	
62	[5]	42	2 TA 3	15	64	1 mina, 7 shekels
63	˹268˺				268	5 minas
64	[4]	118			122	
65	[…] flocks of the pasture of the town Tukultī-bēlī and the town …					
66	[…] … 3 tablets of entries in the clay baskets …				196 [(…)]	[(…)]
67	[Total]				740+[x]	[(…)]

Commentary

1 Clay (1906) copies what appears to be ˹$^{m.d}$*en*$^{?}$-*lil*$_2$$^{?}$˺-[…] at the end of the line. Only the very top of the personal name marker is visible on the tablet from my collation of the tablet in the summer of 2018, however, though it is possible that the tablet was damaged after he made his copy.

2 Cols. vi through viii are restored from the headers of other livestock tables that record the breakdown of cattle herds (e.g., BE 14 99a: 2, BE 15 199: 1). The restoration of col. ix is more difficult, however. Based on the headers in the other tables, we expect a column of names following the ghee column, which would allow the reader to identify individuals responsible for the cattle contained in each row entry—and indeed, the minor traces remaining in the column's entries do not, for the most part, exclude the possibility of listed names. However, note the traces in lines 11-12. L. 11 clearly shows two horizontal wedges, while l. 12 preserves the beginning of one horizontal wedge; neither of these correspond with the expected beginnings of personal names. However, we know from other examples that a column of names may contain entries other than names (e.g., BE 14 168: 57-60). Hence, should col. ix indeed contain a list of names, we may wish to restore NA.GAD (as in BE 14 99a, BE 14 168, and BE 15 199) or MU.BI.IM (as in MRWH 27) for the column header. Nevertheless, it cannot be excluded that this column also contains lists of amounts of ghee like the previous column, as the traces do seem to be match what we might expect for capacity measures. If this is indeed the case, then the headers of both this column and the previous one may need to be revisited.

6 On the meaning of *etēqu* in these contexts, which I argue to mean something akin to "to pass (into the next accounting period)," see the discussion in Section 4.2.1.2. The subject of the verb here is uncertain.

10 Col. viii: Clay (1906) omits a clearly visible 1 (BAN$_2$) (collated).

43-49 Clay (1906) omits the horizontal line dividers for many of these lines.

47 This text is cited under CAD Ḫ s.v. *ḫadālu* B, "(mng. unkn.)," which tentatively groups it together with citations from a mathematical text and an Old Babylonian letter that deal with irrigation ditches, presumably on account of the fact that all of them deal with agriculture in one way or another. AHw, meanwhile, cites this text under *ḫadālu* I, "knüpfen" (to be equated with CAD Ḫ s.v. *ḫadālu* A, "to knot, net"), translating this line, "Pflugrinder […] zum Anbinden(?)." Unfortunately, this particular occurrence of the verb remains the only recorded Middle Babylonian attestation.

48 *ta-ḫu-u*$_2$ is written very clearly, and this line is cited under CAD T s.v. *taḫû*, "adj.(?); (mng. unkn., qualifying livestock, meat, and wool)." This could possibly be read as *taḫḫu,* "substitute, replacement" (CAD T s.v. *taḫḫu*), but note the lack of Middle Babylonian attestations listed, the usual spelling of *taḫḫu* as *taḫ-ḫu* in other texts, and the fact that it is typically used to qualify people rather than livestock.

Text Number	BE 15 199
Museum Number	CBS 3446
MSKH Number	-
Date	-
Sealing	-
Previous Edition(s)	Torczyner 1913: 52-53 (no. 25)
Discussion	Chapter 4
Photograph	https://cdli.ucla.edu/search/archival_view.php?ObjectID=P259820

Transliteration

	i	ii	iii	iv	v	vi	vi	viii	ix	x	xi
1	UTUA	AB$_2$.GAL	AB$_2$ MU.3	GUD MU.3	AB$_2$ MU.2	GUD MU.2	AB$_2$.GA	˹AMAR˺.GA	ŠU.NIGIN$_2$	NA.GAD	*ḫa-za-an-nu*
2	1	44 TA 2 *ša* ^{m}*ab-da-da$^{?}$-ni*	10		12	4	14	8	93	DUMU ^{m}*da-ʿi-i*	^{m}*tu-kul-ti-lu-da-ri* EN 3 *ša* DUMU ^{m}IR$_3$-^{d}*ba-u$_2$*
3	3	128 TA 16	33		35	4	32	˹28˺	263*	DUMU ^{m}*dam-qi$_2$*	$^{m.d}$AMAR.UTU-URU$_3$
4	3	104 TA 5	21		19	3	23	˹25˺	198	DUMU ^{m}*am-mar-*^{d}UTU	^{m}MU-*lib$_2$-ši* EN 1 KI.MIN
5	1	107 TA 13	18		26	4	38	17	211	DUMU $^{m.d}$IŠKUR-*šam-ḫi-*DINGIR.MEŠ	DUMU $^{m.d}$30-SUM-˹IBILA˺
6	1	56 TA 10	˹9˺		15		11	17	109	^{m}*pa-an-di-ia*	$^{m.d}$AMAR.UTU-URU$_3$
7	1	40 TA 5	7		9	2	10	8	77	$^{m.d}$UTU-*re-man-ni*	$^{m.d}$*nin-urta-qar-rad*
8	2	101 TA 4	17		26	5	22	25	198	DUMU ^{m}*a-ḫu-ni*	^{m}*ib-ni-*^{d}UTU
9		55 TA 9	19		22		15	10 TA 3 ˹x x x *ti*˺	121	DUMU ^{m}*šu-ub-bu-ri*	$^{m.d}$*nin-urta-mu-ter*-ŠU
10	2	47 ˹TA 4˺	9		11	2	11	9	91	^{m}*e-gu-a-na-*DINGIR	
11	4 TA 4	50 TA 3	12		11	2	15	4	98	^{m}*a-ḫu-u$_2$-a-ba-ni*	

12	2	52 TA 4	14		12	1	15	11	107	^{m}*eri-ba-*DINGIR	^{m} ˹*tam*˺*-di-saḫ*
13		34 TA 8	10		9	1	9	8	˹71˺	^{m} ˹*ak*˺*-ba-rum*	$^{m.d}$*en-lil*$_2$*-ṭu*$_2$*-ru*$_3$
14	PAP	818							1637		
15		42	10 EN 1 *šul*$_3$*-ma-ni*	22 EN 2 *ša na-kam-ti* SUM^{nu}	10*	9	9	11	113	DUMU ^{m}ZALAG-^{d}˹MAR˺.TU	$^{m.d}$˹x x˺-[…]
16		18	7 EN 1	13	3	3	4	6	54	^{m}EN-˹ŠEŠ.MEŠ˺-šu	^{m}*bur*$^{?}$-[ ]
17		24	4 EN 1	4	5	6	6	5	54	DUMU $^{m.d}$˹*e*$_2$$^{?}$*-a-i*˺*-de*	DUMU ^{m}˹x˺ [ ]
18		10			2	1	3	2	18	DUMU ^{m}*i-lu-u*$_2$*-a*	[(…)]
19	PAP	94							239	[(…)]	[(…)]
20		5			3	2			10	[(…)]	[(…)]
21			6 *šul*$_3$*-ma-nu*						6	[(…)]	[(…)]
22			6 KI.MIN						6	[(…)]	[(…)]

Rev.

23	$^{[gu]d}$NINDA$_2$ *na-kam-tu*$_4$	
24	360	^{m}GAL$_2$*-ši*-DINGIR
25	359	^{m}*laḫ-ḫa-bu*
26	ŠU.NIGIN$_2$ 719	^{gud}NINDA$_2$ *na-kam-tu* EN 2 *ša* DUMU ^{m}*eḫ-li u*$_2$*-pa*^{l}*-aq-qi*$_2$*-ra* EN 140+˹x˺ *ša* KA$_2$ *mi-ni* EN 185 *ša* A.AB.BA ˹EN˺ […]
27		TA A.AB.BA *u*$_3$ ˹BAD$_3$˺*-ku-ri-gal-zu il-qa*$_2$*-am-ma id-di-na-*˹x x˺ EN 21 *ša* ^{m}LU$_2$-^{d}AMAR.UTU *im-ḫu-ru-*˹*ma*$^{?}$˺ *a-na* ˹*ša*$^{?}$˺ […]
28		$^{m.d}$AMAR.UTU-URU$_3$ *is-si-ir-šu* TA 60 *ša* DUMU ^{m}*la-ki-it-ze-e-la* ˹*im-ḫu*˺*-ru-u*$_2$*-ma a-na* ^{lu2}DAM.GAR$_3$.MEŠ *u*$_2$*-za-'i-*˹*i*˺*-zu* TA ˹31+x˺ […]
29		TA 30 *ša a-na* ŠAM$_3$ *a-mi-lu-ti na-ad-nu* TA 69 *ša* ENSI$_2$.˹MEŠ *ḫar*˺*-bi* GIBIL.MEŠ *na-ad-nu* TA 4 ˹*ša a*˺*-na* 1*-en u*$_2$*-za-*˹x˺-[…]
30		TA 13 *pu-ul-lu-qu*$_2$*-tu e-le* LUGAL *u*$_3$ *a-ra-ad šar-ri* ˹TA$^{?}$˺ 1 *ša a-na* SISKUR *iš*$_8$*-tar*$_2$ *pa-a[l-qu*$_2$*]*

31		*u₃* 29 KUŠ *šu-lu-u₂* ŠU $^{m.d}$AMAR.UTU-URU$_3$ 2 LAL$_2$.GAG KUŠ *ša* NA.GAD.MEŠ TA 5 ˹*ša i*˺-*na* MU.14.KAM *n*[*a*]-*ad-nu šu-lu-*˹*u₂*˺
32		1 *pi-iq-du* ^{m}*ta-ri-bat*-DINGIR 1 *pi-iq-du* ^{m}*ḫu-za-lu₄* TA 3 *ša i-*˹*na*˺ MU.12.KAM *is*$^{?}$-˹*ru*$^{?}$ *šu*˺-*lu-u₂* ˹ŠU.˺NIGIN$_2$ 4 *a-na e-se-ri* ŠU ^{m}[…]
33	26	^{gud}NINDA$_2$ *ša i-na* MU.7.KAM TA A.AB.BA *il-qu₂-ni* ŠU $^{m.d}$AMAR.UTU-˹URU$_3$ DUB˺ *šu-ma-ti m[a-ḫ]i-ir* ˹*is*˺-*si-ra-am-ma a-na mu-uḫ* ˹x˺ […]
34		TA 19 *ša* ^{m}LU$_2$-^{d}AMAR.UTU *a-na mu-uḫ ša* ^{uru}IR$_3$-GAŠAN^{ki} *ru-ud-du-u₂* [TA] 8 *ša* $^{m.d}$*nin-urta-mu-bal-liṭ i-na* ^{giš}LI.U$_5$.UM ˹x˺ […]
35		TA 12 *ša* ^{m}SUM-^{d}U.GUR *a-na mu-uḫ-*<*ḫi*>*-šu ru-ud-du-u₂* ˹TA˺ *ša* 20 ^{gud}˹NINDA$_2$˺ 160;0.0.0 ŠE *ša* 1 GUD 8;0.0.0 ŠE *ša* ^{m}*ib-ni-*^{d}KUR SUM-*nu a-na* ˹x˺ […]
36	25	^{gud}NINDA$_2$ *ša* BAD$_3$-*ku-ri-gal-zu ša i-na* MU.17.KAM *a-na e-re-ši u₃* ˹*tu*˺-*ur-ri na-ad-nu* TA 24 *ša a-na er-re-ši ša* ^{uru}˹IR$_3$˺-GAŠAN^{ki} […]
37		*i-na* DUB *ša* ^{uru}IR$_3$-GAŠAN^{ki} *ša-aṭ-ru šu-lu-u₂* ŠU ^{m}LU$_2$-^{d}AMAR.UTU DUB *šu-ma-ti ma-ḫi-ir is-si-ra-am-ma a-na* $^{m.d}$AMAR.UTU-˹URU$_3$ *i-nam-din*^{in}˺
38	30	^{gud}NINDA$_2$ ša TA A.AB.BA *il-qu₂-ni a-na* DUMU ^{m}*ki-lam-da-šu ka-an-gu a-na e-re-ši* ˹*u₃*˺ *tu-*˹*ur*˺-*ri na-ad-nu* DUB *šu-ma-*˹*ti* x x˺ […]
39		*is-si-ra-am-ma a-na* $^{m.d}$AMAR.UTU-URU$_3$ *i-nam-din*^{in} 1 GUD DUMU $^{m.d}$IŠKUR-*ša-gim* ˹*ta-rib*˺-*ta-šu i-nam-din*^{in} *a-na* $^{m.d}$*nin-urta-*˹SUM^{na}˺ […]
40		^{gud}NINDA$_2$ *ša i-na* MU.15.KAM TA A.AB.BA *il-qu₂-ni* TA *ša* 67 ^{gud}NINDA$_2$ 536;0.0.0 ŠE ša 1;0.0.0 GUD 8;0.0.0 ŠE *ša* ^{m}LAL$_3$$^{!}$-*e₂-kur i-si-r*[*u* …]
41	*ša* MU.10.<KAM> *a-na* $^{m.d}$AMAR.UTU-*li₂-su ru-ud-du u₃* 32 ^{gud}NINDA$_2$ *ša a-na ri-mu-ti na-*˹*ad*˺-*nu šu-lu-u₂*	
42	GUD.ḪI.A ŠU.GI *ša i-na* ŠU ^{lu2}ENSI$_2$.MEŠ *maḫ-ru-u₂-ma a-na la-ta-ki pa-aq-du* 2 $^{m.d}$AMAR.UTU-URU$_3$ ˹2˺ $^{m.d}$*nin-urta-mu-bal-li₂-iṭ*	
43		1 ^{m}LU$_2$-^{d}AMAR.UTU 1 ^{m}*ḫa-an-bu* 1 ^{m}MU-*lib₂-ši* ŠU.˹NIGIN$_2$˺ 7 GUD.ḪI.A ŠU.GI *a-na la-ta-ki pa-aq-du u₂*-x-*ba-ru* […]
44	15	^{gud}NINDA$_2$ *ša a-na* ENSI$_2$.MEŠ *u₃ ḫa-za-na-ti i-na* MU.5.KAM.MA *a-na e-re-ši u₃* [*tu/tur*]-*ri*˺ *maḫ-ru₃* DUB *šu-ma-ti-šu-nu* ^{m}ŠEŠ-SUM-na-^{d}AMAR.UTU ˹*ma-ḫi-ir*˺
45		*is-si-ra-am-ma i-nam-din*

Translation

Obv.

1	Bull	Fully-grown cow	Two-year old heifer	Two-year old male	One-year old heifer	One-year old male	Heifer calf	Bull calf	Total	Herdsman	Mayor
2	1	44, after 2 of Abdadānu	10		12	4	14	8	93	Son of Da'u	Tukultī-lū-dari, incl. 3 of the son of Arad-Ba'u
3	3	128, after 16	33		35	4	32	˹28˺	263	Son of Damqu	Marduk-nāṣir
4	3	104, after 5	21		19	3	23	˹25˺	198	Son of Ammar-Šamaš	Šumu-libši, incl. 1 ditto
5	1	107, after 13	18		26	4	38	17	211	Son of Adad-šamḫi-ilāni	Son of Sîn-nādin-apli
6	1	56, after 10	˹9˺		15		11	17	109	Pandija	Marduk-nāṣir
7	1	40, after 5	7		9	2	10	8	77	Šamaš-rēmanni	Ninurta-qarrād
8	2	101, after 4	17		26	5	22	25	198	Son of Aḫūni	Ibni-Šamaš
9		55, after 9	19		22		15	10 TA 3 …	121	Son of Šubburu	Ninurta-mutēr-gimilli
10	2	47, after 4	9		11	2	11	9	91	Ēgu-ana-ili	
11	4 TA 4	50, after 3	12		11	2	15	4	98	Aḫū'a-bani	
12	2	52, after 4	14		12	1	15	11	107	Erība-ilī	Tamdi-Saḫ
13		34, after 8	10		9	1	9	8	˹71˺	Akbaru	Enlil-ṭūru
14	PAP	818							1637		
15		42	10, incl. 1 *šulmānu*-gift	22, incl. 2 of the stable that were given	10	9	9	11	113	Son of Nūr-Amurru	[…]
16		18	7, incl. 1	13	3	3	4	6	54	Bēl-aḫḫēšu	Bur[…]
17		24	4, incl. 1	4	5	6	6	5	54	Son of Ea(?)-idī	Son of […]
18		10			2	1	3	2	18	Son of Ilū'a	[(…)]

19	PAP	94							239	[(…)]	[(…)]
20		5			3	2			10	[(…)]	[(…)]
21			6 *šulmānu*-gifts						6	[(…)]	[(…)]
22			6 ditto						6	[(…)]	[(…)]

Rev.

23	*bīru*-cattle, the stable	
24	360	Ibašši-ilu
25	359	Laḫḫabu
26	Total: 719	*Bīru*-cattle, the stable. Incl. 2 that the son of Eḫli claimed, incl. 140+˹x˺ of the Gate of Counting, incl. 185 of the Sealand, incl. […]
27		from the Sealand and Dūr-Kurigalzu, he took and gave … incl. 21 that Amīl-Marduk received and […]
28		Marduk-nāṣir will collect it—after 60 that the son of Lakit-zēla received and distributed to the merchants, after 31+˹x˺ […]
29		after 30 that were given for the price of slaves, after 69 which were given for the new *ḫarbu*-plows of the *iššakku*-farmers, after 4 that for one […]
30		after 13, slaughtered for the going up and coming down of the king, *after* 1 that was slaughtered for the rites of Ištar,
31		and 29 hides were deducted. Hand of Marduk-nāṣir. 2 arrears, hides of the herdsmen—after 5, which were given in Year 14, were deducted.
32		1 *piqdu*, Tarībat-ili. 1 *piqdu*, Ḫuzālu—after 3, which *were collected* in Year 13, were deducted. Total: 4 for collection. Hand of […]
33	26	*Bīru*-cattle, which they took from the Sealand in Year 7. Hand of Marduk-nāṣir. The tablet of entries is received. He will collect it and to […]
34		After 19 of Amīl-Marduk were added to the town Arad-bēlti, [after] 8 of Ninurta-muballiṭ in the writing board […]
35		after 12 of Iddin-Nergal were added to its top, after 160 *gur* of barley for 20 *bīru*-cattle—per one male, 8 *gur* of barley—of Ibni-Amurru was given […]
36	25	*Bīru*-cattle of Dūr-Kurigalzu, which were given in Year 17 for seeding fields. After 24, which for seeding that of the town Arad-bēlti […]

37		(which) in the tablet of the town Arad-bēlti were written, were deducted. Hand of Amīl-Marduk. The tablet of entries was received. He will collect it, and he will give it to Marduk-nāṣir.
38	30	*Bīru*-cattle, which they took from the Sealand. For the son of Kilamdašu, they were put under seal. They were given for seeding fields. The tablet of entries [… was received].
39		He will collect it, and he will give it to Marduk-nāṣir. 1 male, the son of Adad-šāgim, *as his replacement*, he will give. To Ninurta-iddina […]
40		*Bīru*-cattle, which they took from the Sealand in Year 15. After 536 *gur* of barley for 67 *bīru*-cattle—per one male, 8 *gur* of barley—of LAL$_3$-Ekur, they collected […]
41	of Year 10, they added to Marduk-līssu, and 32 *bīru*-cattle that were given as gifts were deducted.	
42	Old males, which were received from the *iššakku*-farmers, and entrusted for checking. 2, Marduk-nāṣir. 2, Ninurta-muballiṭ.	
43		1 Amīl-Marduk. 1, Ḫanbu. 1, Šumu-libši. Total: 7 old males, entrusted for checking. … […]
44	15	*Bīru*-cattle, which were received from the *iššakku*-farmers and mayors in Year 5 for seeding fields. The tablet of their entries, Aḫa-iddina-Marduk received.
45		He will collect it, and he will give it.

Commentary

2 Col. ii: Clay (1906) omits all signs after 44.

3 Col v: Clay (1906) copies 36 rather than 35.
Col. ix: Clay (1906) copies 261, but the photograph shows 263.

9 Col. viii: Clay (1906) omits the signs after TA 3.

15 Col v: Clay (1906) omits the number in this cell.

30 CAD P s.v. *pulluqu* reads *ša* 1 *ša ana niqê Ištar palqu* at the end of the line. The *ša* is possible given what seem to be three visible horizontals at the left edge of the sign, but note the presence of what appears to be a small but clear inscribed interior vertical prior to the winkelhakens, which is expected for TA but not for ŠA.

32 The meaning of *piqdu* is uncertain. For attestations, see CAD P s.v. *piqdu*, which ambiguously states that the word is "an administrative term."

35 *ša* 20 ^{gud}NINDA$_2$ 160;0.0.0 ŠE *ša* 1 GUD 8;0.0.0 ŠE is a construction used to indicate equivalent prices. For similar constructions, see also l. 40 and UM 29-15-434: obv. 11'-12'. In the latter text, the construction is used to indicate the price of barley in wool and goat hair.

36 For the phrase *ana erēši u turrî*, see CAD E s.v. *erēšu* B, mng. 1a, and esp. mng 1a6' for Middle Babylonian attestations.

39 On *tarībtu*, see commentary to BE 14 168: 34.

C. BALANCED ACCOUNTS OF THE EREŠ.DINGIR PRIESTESSES

Text Number	BE 14 136
Museum Number	CBS 6092
MSKH Number	V.2.10.134
Date	ŠŠ V/-/9
Sealing	-
Previous Edition(s)	Torczyner 1913: 58-60, No. 31
Discussion	Chapter 5
Photograph	https://cdli.ucla.edu/dl/photo/P263870.jpg

Transliteration

U.E.

1 *re-ḫa-a-nu ša* DUB.SAR.MEŠ *ša* EREŠ.DINGIR.MEŠ *ša* ^{m}LU$_2$-^{d}AMAR.UTU GU$_2$.EN.NA NIBR[U^{ki}]

2 *i-na* ^{iti}NE *ša* MU.9.KAM *ša-ga-ra-ak-ti-šur-ia-aš i-na* UGU DU[B*.SAR.MEŠ]

3 *u$_2$-kin-nu*

Obv.

4	ŠE ^{giš}BAN$_2$ 10 SILA$_3$	ŠE GIŠ.I$_3$	I$_3$.NUN	˹SIG$_2$˺.ḪI.A	SIG$_2$.UZ$_3$	*re-ḫa-a-*[*nu*]
5		^{giš}BAN$_2$ 10 SILA$_3$	^{giš}BAN$_2$ 10 SILA$_3$			*ša* DUB.SAR.MEŠ *ša* EREŠ.[DINGIR.MEŠ]
6						MU.BI.IM
7	1064;4.5.8	7;2.4.8		5 GU$_2$.UN	3 GU$_2$.UN	ŠU ^{m}EN-*a-na-*˹*ka*˺*-la*-SIG$_5$
8				41 MA	40 MA	DUMU ^{m}ARḪUŠ-*šu-^{d}nin-urta*
9	TA 426;2.5.0 ŠE.NUMUN *ša i-na* ŠU ^{m}EN-*ana-ka-la*-^{d}AMAR.UTU ^{m}BA^{ša2}-^{d}U.GUR *maḫ-ru šu-lu-u$_2$*					
10	9852;1.1.8	82;2.3.6	6;1.4.2½	51 GU$_2$.UN	6 GU$_2$.UN	ŠU ^{m}*i-qi$_2$-ša*-^{d}U.GUR
11				16⅓ MA	43 MA 15 GIN$_2$	
12		13;2.4.8	3;1.5.0	48 GUN$_2$	8 GUN$_2$	ŠU $^{m.d}$IŠKUR-LUGAL-DINGIR.MEŠ
13				49 MA	19 MA	
14				68 GUN$_2$	6 GUN$_2$	LAL$_2$.GAG SIPAD.ḪI.A

15				52 MA	5½ MA	
16	[PAP 1091]7;1.1.6	103;3.1.2	9;3.3.2½	174 GUN_2	24 GUN_2	EREŠ.DINGIR.GAL
17				28⅓ MA	47⅔ MA 5 GIN_2	

Rev.

18	[109]3;[3].˹5˺.2	2;0.4.8		2 GU_2.UN 14½ MA	3 GU_2.UN 56 MA.NA 15 GIN_2	ŠU ^{m}EN-*a-na-ka-la-*˹SIG_5˺ DUMU ^{m}ARḪUŠ-*šu-*^{d}*nin-*[*urta*]
19						
20						
21	[514];˹4˺.4.6	50;4.5.7 ŠU ^{m}*ḫu-za-li*	0;3.0.1½	9 GU_2.UN 10⅔* MA 5 GIN_2	3 GU_2.UN 36 MA 15 GIN_2	ŠU ^{m}*ḫu-za-li*
22						
23		u_3 ^{m}*mar-tu-ki*				
24	˹457˺;3.0.4					ŠU ^{m}*mar-tu-ki*
25						
26	255;0.5.4		0;1.2.3			ŠU ^{m}*i-qi*$_2$*-ša-*^{d}U.GUR
27						
28				12 GU_2.UN 49½ MA	3 GU_2.UN 44 MA.NA 15 GIN_2	LAL_2.GAG SIPAD.ḪI.A
29						
30	PAP 2321;2.3.6	53;0.4.5	0;4.2.4½	24 GUN_2 14⅔* MA 5 GIN_2	11 GUN_2 16⅔* MA 5 GIN_2	EREŠ.DINGIR.T[UR]
31						
32						

(Bottom edge is uninscribed.)

Translation:

(1-3) Outstanding balances of the scribes of the EREŠ.DINGIR priestesses, which Amīl-Marduk, the *šandabakku* of Nippur, established to the debit of the scribes in Month V of Year 9 of Šagarakti-Šuriaš.

4	Barley, 10-sila *sūtu*	Sesame,	Ghee,	Wool	Goat hair	Outstanding balances
5		10-sila *sūtu*	10-sila *sūtu*			of the scribes of the EREŠ.DINGIR-priestesses
6						Name
7	1,064;4.5.8	7;2.4.8		5 talents	3 talents	Hand of Bēlu-ana-kala-damiq,
8				41 minas	40 minas	son of Irēmšu-Ninurta
9	After 426;2.5.0 of seed, which Iqīša-Nergal received from the hand of Bēl-ana-kala-Marduk, was deducted.					
10	9,852;1.1.8	82;2.3.6	6;1.4.2½	51 talents,	6 talents, 43	Hand of Iqīša-Nergal
11				16⅓ minas	minas, 15 shekels	
12		13;2.4.8	3;1.5.0	48 talents,	8 talents,	Hand of Adad-bēl-ilāni
13				49 minas	19 minas	
14				68 talents,	6 talents,	Arrears of the shepherds
15				52 minas	5.5 minas	
16	[Subtotal:	103;3.1.2	9;3.3.2½	174 talents,	24 talents, 47⅔	EREŠ.DINGIR.GAL
17	10,91]7;1.1.6			28⅓ minas	minas, 5 shekels	

18	[109]3;[3].˹5˺.2	2;0.4.8		2 talents,	3 talents,	Hand of Bēlu-ana-kala-damiq,
19				14½ minas	56 minas,	son of Irēmšu-Ninurta
20					15 shekels	
21	[514];˹4˺.4.6	50;4.5.7	0;3.0.1½	9 talents,	3 talents,	Hand of Ḫuzālu
22		Hand of Ḫuzālu		10⅔* minas,	36 minas,	
23		and Martuk(k)u		5 shekels	15 shekels	
24	˹457˺;3.0.4					Hand of Martuk(k)u
25						
26	255;0.5.4		0;1.2.3			Hand of Iqīša-Nergal
27						

28 29				12 talents, 49½ shekels	3 talents, 44 minas, 15 shekels	Arrears of the shepherds
30 31 32	Subtotal: 2,321;2.3.6	53;0.4.5	0;4.2.4½	24 talents, 14⅔* minas, 5 shekels	11 talents, 16⅔* minas, 5 shekels	EREŠ.DINGIR.T[UR]

Commentary:

2 At the end of the line, Torczyner (1913:58) reads *ina muḫḫi šarrim*, "to the debit of the king." This reading was adopted by Balkan (1986: 10),[2] the CAD R s.v. *rēḫu*, mng. 2a, and Robson (2008: 156ff.) but cf. Petschow 1974: 58, n. 1 on restoring DU[B.SAR.MEŠ] instead of LU[GAL] (reproduced with little variation from Petschow 1973: 305, n. 19). Sassmannshausen (2001: 19, n. 249 and *passim*) follows Petschow's restoration, though with some caution (e.g., Sassmannshausen 2001: 49, n. 746, wherein he reads *i-na* UGU D[UB.SAR.MEŠ?]). My collation of the line supports Petschow's reading; a small inscribed vertical between the second set of stacked horizontals is clearly visible upon close inspection of the tablet, favoring a reading of DU[B] over LU[GAL]. See also MRWH 17: 35-38 for explicit confirmation that the scribes are being debited.

9 The personal names are clearly written in the tablet. However, it is possible that scribe miswrote Bēl-ana-kala-Marduk for the expected Bēlu-ana-kala-damiq.

21 Col. i: [514];˹4˺.4.6 can be restored from the corresponding entry MRWH 17: 19.

22 Cf. Torczyner (1913: 59), who reads 10⅚ on account of Clay miscopying 10⅔ as 10⅚ (collated). See also the amount listed in the corresponding entry MRWH 17: 31.

24 Col. i: ˹457˺;3.0.4 can be fully restored from MRWH 17: 45, which itself must be restored by taking MRWH 17: 35 (= 535;2.3.4) and subtracting MRWH 17: 44 (= [77;4.3.0]). This latter amount can be restored by adding MRWH 17: 40 (= 68;0.3.0) to MRWH 17: 42, which contains the amount recorded in MUN 120: col. iii, 10 (= 9;4.0.0).

31 Cf. Torczyner (1913: 59), who reads 14⅚ on account of Clay miscopying 14⅔ as 14⅚ (collated). Clay also miscopies 16⅔ as 16⅚ (collated), though Torczyner (1913: 59-60) emends the sign to 16⅔ via calculations.

[2] Though Balkan does not directly cite BE 14 136 at any point during his discussion, he is clearly referring to this text when he describes one tablet as "an account document [wherein] the **guenna** entered to the debit of the king debts due to the central administration for lands of the king's daughters."

Text Number	MRWH 17
Museum Number	HS 154
MSKH Number	V.2.10.252
Date	ŠŠ V/-/9
Sealing	-
Previous Edition(s)	Petschow 1973 and Petschow 1974: 54-62
Discussion	Chapter 5
Photograph	https://hilprecht.mpiwg-berlin.mpg.de/object3d/29981

Transliteration

U.E.

1 [NIG$_2$.KA$_9$ *š*]*a* EREŠ.DINGIR.TUR *ša i-na* ^{iti}NE.NE.GAR *ša* M[U.9.KAM]
2 [*ša-ga-r*]*a-ak-ti-šur-ia-aš* ^{m}LU$_2$-^{d}AMAR.U[TU]
3 [GU$_2$].EN.NA NIBRU^{ki} *i-pu-šu*

Obv.

4 [ŠE ^{giš}BAN$_2$ 10 SILA$_3$] MU.BI.IM
5 685;3.5.2 ŠE LIBIR.RA IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* M[U.6.KAM]
6 *ša-ga-ra-ak-ti-šur-ia-aš* LUGAL
7 108;3.1.4 *te-li-tu* EREŠ.DINGIR.TUR MU.8.KAM
8 68;0.3.0 ŠE.NUMUN *ša i-na* MU.8.KAM *i-na* ˹ŠU˺ ^{m}*mar-tu-ki*
9 ^{m}*ḫu-za-lu$_4$ im-ḫu-ru*
10 PAP 862;2.3.6 ŠE ^{giš}BAN$_2$ 10 SILA$_3$ ˹SAG NIG$_2$˺.GA *kun-nu*
11 EREŠ.DINGIR.TUR ˹ŠU˺ ^{m}ḫu-za-li
12 ŠE ^{giš}BAN$_2$ 10 SILA$_3$ ˹*ša*˺ *i-na* ŠA$_3$ *na-ad-nu*
13 303;1.2.0 ŠE.NUMUN *is-˹ru ša i-na˺* MU.7.KAM *i-na* ŠU ^{m}*ḫu-za-li*
14 ^{m}BA^{ša2}-^{d}U.GUR *maḫ-ru a-na* SAG NIG$_2$.GA ^{m}BA^{ša2}-^{d}U.GUR *ru-ud-du*
15 44;1.3.0 ŠE.BA DUMU.MEŠ *qin-na-a-ti* 7 ITI.[MEŠ]
16 TA ^{iti}DU$_6$ *ša* MU.8.KAM EN ^{iti}BARA$_2$ *ša* MU.9.KAM EREŠ.DINGIR.TUR
17 PAP 347;2.5.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SUM^{nu} ŠU ^{m}*ḫu-za-li*
18 ZI-*ma*
19 514;4.4.6 ŠE ^{giš}BAN$_2$ 10 SILA$_3$ *ri-ḫu* ŠU ^{m}*ḫu-za-li*
20 ŠE ^{giš}I$_3$ ^{giš}BAN$_2$ 10 SILA$_3$ MU.BI.IM
21 42;0.4.4 LIBIR.RA IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM ŠU ^{m}*ḫu-za-*[*l*]*i u$_3$ mar-tuk*
22 8;4.1.3 *te-li-tu* EREŠ.DINGIR.TUR MU.8.KAM
23 PAP 50;4.5.7 ŠE ^{giš}I$_3$ ^{giš}BAN$_2$ 10 SILA$_3$ SAG NIG$_2$.GA *kun-nu*
24 EREŠ.DINGIR.TUR ŠU ^{m}*ḫu-za-li*

Rev.

25 I$_3$.NUN ^{giš}BAN$_2$ 10 SILA$_3$ MU.BI.IM
26 0;2.4.6½ LIBIR.RA IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM
27 0;0.1.5 *i-mit-ti* AB$_2$.GAL.MEŠ *ša* MU.8.KAM
28 PAP 0;3.0.1½ I$_3$.NUN ^{giš}BAN$_2$ 10 SILA$_3$ SAG NIG$_2$.GA *kun-nu*
29 ŠU ^{m}*ḫu-za-li* EREŠ.DINGIR.TUR
30 9 GU$_2$.UN SIG$_2$.ḪI.A IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM
31 10⅔ MA.NA 5 GIN$_2$ ŠU ^{m}*ḫu-za-li*
32 3 GU$_2$.UN 36 MA SIG$_2$ UZ$_3$ IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša* MU.6.KAM
33 15 GIN$_2$ ŠU ^{m}*ḫu-za-li*
34 PAP NIG$_2$.KA$_9$ EREŠ.DINGIR.TUR ŠU ^{m}*ḫu-za-li*

35	535;2.3.4	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ IB$_2$.TAK$_4$ NIG$_2$.KA$_9$
36		*ša* MU.6.KAM *ša i-na* UGU
37		^{m}*mar-tu-ki* DUMU $^{m.d}$UTU-URU$_4^{iš}$
38		*ku-un-nu*
39	ŠE ^{giš}BAN$_2$ 10 SILA$_3$	*ša i-na* ŠA$_3$ SUM^{nu}
40	68;0.3.0	ŠE.NUMUN *is-ru ša i-na* MU.8.KAM *i-na* ŠU ^{m}*mar-tuk*
41		^{m}*ḫu-za-lu$_4$ maḫ-ru a-na* SAG NIG$_2$.GA *ša* ^{m}*ḫu-za-li ru-ud-du*
42	[9];˹4˺.0.0	KI.MIN *ša i-na* ŠU ^{m}*mar-tu-ki* ^{m}BA^{ša2}-^{d}AMAR.UTU
43		*maḫ-ru a-na* SAG NIG$_2$.GA ^{m}BA^{ša2}-^{d}U.GUR *ru-ud-du*
44	[PAP 77;4.3.0]	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SUM^{nu} ŠU ^{m}*mar-tuk* ZI-*ma*
45	[457];˹3.0.4˺	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ *ri-ḫu* ŠU ^{m}*mar-tu-*˹*ki*˺

Translation

(1-3) Balanced account of the EREŠ.DINGIR.TUR, which Amīl-Marduk, the *šandabakku* of Nippur, made in Month V of Year 9 of Šagarakti-Šuriaš.

(4)	Barley, 10-sila *sūtu*	Name
(5-6)	685;3.5.2	Old barley. Remainder of the balanced account of Year 6 of Šagarakti-Šuriaš, the king.
(7)	108;3.1.4	*tēlītu*-revenue of the EREŠ.DINGIR.TUR, Year 8.
(8-9)	68;0.3.0	Seed, which Ḫuzālu received from the hand of Martuk(k)u in Year 8.
(10-11)	Subtotal: 862;2.3.6	Barley, 10-sila *sūtu*, the established debit. EREŠ.DINGIR.TUR. Hand of Ḫuzālu.
(12)	Barley, 10-sila *sūtu*	Which, therefrom, was given:
(13-14)	303;1.2.0	Collected seed, which Iqīša-Nergal received from the hand of Ḫuzālu in Year 7. It is added to the debit of Iqīša-Nergal.
(15-16)	44;1.3.0	Barley rations, *qinnu*-members, 7 months, from Month VII of Year 8 to Month I of Year 9. EREŠ.DINGIR.TUR.
(17-18)	Subtotal: 347;2.5.0	Barley, 10-sila *sūtu*, given out. Hand of Ḫuzālu. *It is withdrawn.*
(19)	514;4.4.6	Barley, 10-sila *sūtu*, the outstanding balance. Hand of Ḫuzālu.

(20)	Sesame, 10-sila *sūtu*	Name
(21)	42;0.4.4	Old (sesame). Remainder of the balanced account of Year 6. Hand of Ḫuzālu and Martuk(k)u.
(22)	8;4.1.2	*tēlītu*-revenue. EREŠ.DINGIR.TUR, Year 8.
(23-24)	Subtotal: 50;4.5.7	Sesame, 10-sila *sūtu*, the established debit. EREŠ.DINGIR.TUR. Hand of Ḫuzālu.
(25)	Ghee, 10-sila *sūtu*	Name
(26)	0;2.4.6½	Old (ghee). Remainder of the balanced account of Year 6.
(27)	0;0.1.5	*imittu* of the cows. Year 8.
(28-29)	Subtotal: 0;3.0.1½	Ghee, 10-sila *sūtu*, the established debit. Hand of Ḫuzālu. EREŠ.DINGIR.TUR.

(30-31)	9 talents, 10⅔ minas, 5 shekels	Wool, remainder of the balanced account of Year 6. "Hand of Ḫuzālu.
(32-33)	3 talents, 36 minas, 15 shekels	Goat hair, remainder of the balanced account of Year 6. Hand of Ḫuzālu.
(34)	Subtotal: Balanced account	EREŠ.DINGIR.TUR, hand of Ḫuzālu
(35-38)	535;2.3.4	Barley, 10-sila *sūtu*, remainder of the balanced account of Year 6, which was established to the debit of Martuk(k)u, the son of Šamaš-ē/īriš.
(39)	Barley, 10-sila *sūtu*	Which, therefrom, was given:
(40-41)	68;0.3.0	Collected seed, which Ḫuzālu received from the hand of Martuk(k)u in Year 8. It is added to the debit of Ḫuzālu.
(42-43)	[9];4.0.0	"Collected seed, which in Year 8" Iqīša-Marduk received from the hand of Martuk(k)u. It is added to the debit of Iqīša-Nergal.
(44)	[Subtotal: 77;4.3.0]	Barley, 10-sila *sūtu,* given out. Hand of Martuk(k)u. *It is withdrawn.*
(45)	[457];3.0.4	Barley, 10-sila *sūtu*, the outstanding balance. Hand of Martuk(k)u.

Commentary:

1 Petschow 1974: 60 tentatively proposes restoring M[U.9(?).KAM]; cf. also Brinkman (1976: 301), who avoids assigning any specific year date. I see no reason to doubt Petschow's suggestion, however. The tablet cannot have been drawn up prior to Year 9 given the occurrence of Year 9 in l. 16. Furthermore, it cannot have been composed after Year 9 either; BE 14 136, which references MRWH 17 for figures (see already BE 14 136: 21-25 and comments), provides a *terminus ante quem* of Month V, Year 9 of Šagarakti-Šuriaš. A restoration of M[U.9.KAM] would date this tablet to the same month and year as BE 14 136.

5 Cf. Petschow (1974: 60), who restores only M[U(?).x x]. However, all other remainders in this tablet are invariably carried over from the balanced account of Year 6 (see l. 5-6, 21, 26, 30-31, 32-33, and 35-38), hence my restoration of [MU.6.KAM].

7 See also MRWH 16: col. i, 10-11.

8-9 See also MRWH 17: 40-41.

13-14 See also MUN 120: col. iii, 8-9.

14 Petschow (1974: 60) misreads *ru-ud-du* as KUG.BABBAR GUB but emends his own reading in Petschow 1977: 124, n. 7. See also l. 41 and 43.

15-16 The period recorded must start at the beginning of Month VII and extend to the end of Month I to add up to the recorded seven months. For more discussion on the social category of *qinnu*, see CAD Q s.v. *qinnu* A to start and then n. 53 plus the cited literature. As for DUMU.MEŠ, though it more typically means "sons" or "children," in other administrative documents stemming from Kassite Nippur (e.g., MUN 111), it has an extended semantic range and likely means something more akin to "members (of a group)," not all of whom must be related, or "employee (of someone)" (see also CAD M/I s.v. *māru*, mng. 4).

18 Petschow (1974: 60) reads ZI.BA, but cf. van Soldt 1978: 229, who emends the transliteration to ZI-*ma* and proposes the reading *nasḫat-ma*(?). Although I have not had the opportunity to collate this tablet, the balanced account of Iqīša-Nergal (MUN 120) confirms van Soldt's reading of MA over BA. van Soldt's interpretation of this verb is possible; he avers means something akin to "to keep (someone) away (from a claim)" (more literally, "to pull away the hand"; see CAD N/2 s.v. *nasāḫu*, mng. 9 s.v. *qātu*, 2' in addition to his referenced literature). However, in the examples cited by van Soldt and the CAD, the *creditor's* hand is the object of the verb (i.e., the creditor no longer has any claim on the object(s) under dispute)—but in these accounts, there are, first of all, no legal claims actually made, and the creditor is after all the *šandabakku* Amīl-Marduk, and not the scribes, who instead serve the role of the debtors (BE 14 136: 1); it is Amīl-Marduk that we would expect to see relinquishing his claim over the staples that the scribes are credited with having repaid. A more natural possibility to me is that this ZI.MA or ZI-*ma* is connected to the Ur III terminology for designating credits—that is, **zi-ga-am$_3$**, "it is withdrawn" (see n. 23) I am admittedly at a loss to explain the final MA, however, though I note that van Soldt likewise does not provide any explanation for its presence. Interpreting it as an emphatic particle is possible, though unsatisfying. I wonder if it may be an enclitic -*ma* used to mark a nominal sentence (i.e., Handed-out barley, (measured in the) 10-sila *sūtu*, responsibility of PN—it is withdrawn), but given the succinct and occasionally ungrammatical nature of these documents, I also find this explanation to be unsatisfying. Whatever the case, it may be noteworthy that the construction only ever appears in grand total credit entries that immediately precede those lines listing outstanding balances (MRWH 17: 18 and 44; MUN 120: col. i, 5'; col. ii, 14'; and likely col. iii, 23).

22 See also MRWH 16: col. ii, 10-11.

27 The exact meaning of *imittu* in this context is obscure, though given its appearance as a debit in this document, it must be some sort of tax or fee imposed upon Ḫuzālu by the *šandabakku*. For another Middle Babylonian occurrence of the word, see MUN 120: col. iv, 2. See also CAD I/J s.v. *imittu* F for a potential Old Babylonian attestation (VAS 13 35) of the word in connection with livestock. It is tempting to connect the occurrence in our text with the *imittu* attested in the Neo-Babylonian period (CAD I/J s.v. *imittu* B), though as noted by the CAD, the Neo-Babylonian *imittu* is apparently attested only in connection with gardens or fields and therefore assessed in fruit or crops, not livestock. The CAD is hesitant to connect *imittu* F to the verb *emēdu*. However, in light of the Middle Babylonian attestations of the word, wherein the *imittu* is clearly an imposed tax, impost, or fee measured in ghee and due to the central administration, I see little reason to doubt the connection, especially seeing as how *emēdu* is often attested in connection with the imposition of taxes (see CAD E s.v. *emēdu*, mng. 2b). As I argue in Section 5.3, most of these debits are, functionally speaking, taxes imposed by the central administration on the EREŠ.DINGIR household.

40-41 See also MRWH 17: 8-9.

41 For *ru-ud-du* instead of KUG.BABBAR GUB (Petschow 1974: 61), see already the commentary to l. 14.

42-43 See also MUN 120: col. iii, 10-11. As noted by Petschow (1974: 61), the appearance of Iqīša-Marduk in l. 42 rather Iqīša-Nergal may be a scribal mistake; it is possible, however, that Iqīša-Marduk is in the employ of Iqīša-Nergal, but for lack of further evidence, either option is possible.

43 For *ru-ud-du* instead of KUG.BABBAR GUB (Petschow 1974: 61), see already the commentary to l. 14.

44 For ZI-*ma* instead of ZI.BA (Petschow 1974: 61), see already the commentary to line 18.

Text Number	MUN 120
Museum Number	CBS 10744
MSKH Number	-
Date	ŠŠ V/-/9
Sealing	-
Previous Edition(s)	Sassmannshausen 2001: 297-299
Discussion	Chapter 5
Photograph	https://cdli.ucla.edu/dl/photo/P265949.jpg

Transliteration

Obv.
col. i

1’	[	]	˹ŠE.BA SUM^{nu} E$_2$-*a-nu*˺ [KA$_2$-*a-nu*]
2’	[	]	˹*u$_3$*˺ DUMU.MEŠ *qin-na-a-t*[*i* MU.7.KAM]
3’	˹532˺;[x].˹4˺.0		KI.MIN MU.8.[KAM]
4’	PAP 980;4.0.0		ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SUM^{nu} *ša* 2 MU.M[EŠ]
5’			ZI-*ma*
6’	9,852;1.1.8		ŠE ^{giš}BAN$_2$ 10 SILA$_3$ *ri-ḫu*
7’			ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
8’	ŠE ^{giš}I$_3$ ^{giš}BAN$_2$ 10 SILA$_3$		MU.BI.IM
9’	˹66˺;3.0.6		ŠE ^{giš}I$_3$ LIBIR.RA IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ *ša*
			MU.6.KAM
10’	8;4.2.5		*te-li-tu* MU.7.KAM
11’	˹16˺;4.0.0		KI.MIN MU.8.KAM
12’	[PAP] 25;3.2.5		*te-li-tu* EREŠ.DINGIR.GAL *ša* 2 MU.MEŠ
13’	[ŠU].NIGIN$_2$ 92;1.3.1		ŠE ^{giš}I$_3$ SAG NIG$_2$.GA *ku-un-nu*
14’			ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
15’	2;1.5.5		*ša a-na* I$_3$.BA E$_2$ EREŠ.DINGIR.[TUR$^{?}$] ˹x˺
16’			*a-na* SAG NIG$_2$.GA *ša* EREŠ.DINGIR.˹TUR *ru*˺-*ud-du*

col. ii

1’	21[+(x) GUN	x GUN	KI.MIN MU.8.KAM]
2’	31[+(x) MA (x GIN$_2$)	x MA (x GIN$_2$)]	
3’	ŠU.NIGIN$_2$ 100 GUN	1[4 GUN	…]
4’	8⅓ MA	20˹½˺ [MA	…]
5’	SIG$_2$.ḪI.A	SIG$_2$ UZ$_3$	˹*ša i*˺-[*na* ŠA$_3$ SUM^{nu}]
6’	8 GUN	2 GUN	*man-da-at-tu$_4$* ˹*u$_3$*˺ [SIG$_2$.BA MU.7.KAM]
7’	37 MA	38 MA	
8’	8 GUN	2 GUN	KI.MIN [MU.8.KAM]
9’	5 MA 10 GIN$_2$	30 MA	
10’	32 GUN	2 GUN	ŠAM$_2$ 400;4.3.0 ŠE ^{giš}BAN$_2$ 10 [SILA$_3$]
11’	9⅚ MA	20 MA 15 GIN$_2$	*ša a-na* SAG NIG$_2$.GA ^{m}BA^{ša2}-$^{˹d˺}$[U.GUR]
12’			*ru-ud-du-u$_2$*
13’	˹48˺ GUN	7 GUN	SUM^{nu} *ša* 2 MU.˹MEŠ˺ ŠU ^{m}BA^{ša2}-^{d}U.[GUR]
14’	52 MA	37 MA.NA	ZI-*ma*
15’		15 GIN$_2$	

Rev.
col. iii

1	51 GUN	˹6˺ GUN$_2$	*ri-ḫu* ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
2	16⅓ ˹MA˺	˹43˺ MA.NA	
3		15 GIN$_2$	

4	PAP		EREŠ.DINGIR.GAL
5	ŠE ^{giš}BAN$_2$ 10 SILA$_3$		MU.BI.IM
6	277;1.1.9		*te-li-tu* MU.7.KAM *ša* […]
7			EREŠ.DINGIR.[TUR]
8	303;1.2.0		ŠE.NUMUN *is-ru ša i-*[*na* MU.7.KAM *i-na* ŠU ^{m}*ḫu-za-li*]
9			^{m}*i-qi$_2$-ša-*^{d}U.G[UR *maḫ-ru a-na* SAG NIG$_2$.GA ^{m}*i-qi$_2$-ša-*^{d}U.GUR *ru-ud-du*]
10	9;4.0.0		ŠE.NUMUN *is-ru ša* ˹*i*˺-[*na* MU.8.KAM *i-na* ŠU ^{m}*mar-tu-ki*]
11			DUMU $^{m.d}$UTU-URU$_4$ [^{m}*i-qi$_2$-ša-*^{d}U.GUR *maḫ-ru a-na* SAG NIG$_2$.GA ^{m}*i-qi$_2$-ša-*^{d}U.GUR *ru-ud-du*]
12	34;2.5.0		ŠAM$_2$ 2 [GUN 52⅔ MA SIG$_2$.ḪI.A]
13			ŠAM$_2$ 1[+(x) …]
14	PAP 624;4.2.9		ŠE ^{giš}BAN$_2$ [10 SILA$_3$ SAG NIG$_2$.GA *ku-un-nu(-um)*]
15			ŠU ^{m}˹*i*˺-[*qi$_2$-ša-*^{d}U.GUR]
16	ŠE ^{giš}BAN$_2$ 10 SILA$_3$		*ša* [*i-na* ŠA$_3$ SUM^{nu}]
17	186;1.4.0		ŠE […]
18			˹x˺ […]
19	183;1.5.5		K[I.MIN …]
20			*ša*/TA […]
21			*ša* […]
22			*a-n*[*a* …]
23	PAP 369;3.3.[5]		[ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SUM^{nu} *ša* 2 MU.MEŠ
24			ZI-*ma*]
25	[ŠU.NIGIN$_2$ 255;0.5.4		ŠE ^{giš}BAN$_2$ 10 SILA$_3$ *ri-ḫu*]
26	[		ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR]

(Remainder broken.)

col. iv

1	[ ]		IB$_2$.TAK$_4$ NIG$_2$.KA$_9$ MU.6.KAM *ša$_2$-garak^{ak}-te-šur-ia$_4$-aš*
2	[ ] ˹1˺		*i-mit-ti* AB$_2$.GAL.MEŠ MU.7.KAM
3	[0;1.2.3] SILA$_3$		I$_3$.NUN ^{giš}BAN$_2$ 10 SILA$_3$ ŠU ^{m}BA^{ša}-^{d}U.GUR
4	[SIG$_2$.HI].˹A˺	SIG$_2$ UZ$_3$	MU.BI.IM
5	[x GU]N	1 GUN	*bu-qu-un* U$_8$.UDU.ḪI.A MU.7.KAM
6	[x M]A/[GI]N$_2$	18½ MA	
7	[x GU]N	1 GUN	KI.MIN MU.8.KAM
8	[x] MA/GIN$_2$	29½ MA	
9	[x]+3 GUN$_2$	2 GUN	SAG NIG$_2$.GA *ku-un-nu-um*
10	12½ MA	48 MA	
11	SIG$_2$.ḪI.A	SIG$_2$ UZ$_3$	*ša i-na* ŠA$_3$ SUM^{nu}
12	3 GUN	1 GUN	*man-da-at-tu$_4$ u$_3$* SIG$_2$.BA MU.7.KAM
13	5⅓ MA	26 MA	
14	3 GUN	1 GUN	KI.MIN MU.8.KAM
15	9⅓ MA	32 MA	
16	2 GUN		ŠAM$_2$ 34;2.5.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$
17	52⅔ MA		*ša a-na* SAG NIG$_2$.GA ^{m}*i-qi$_2$-ša$_2$-*^{d}U.GUR
18			*ru-ud-du-u$_2$*
19	[	] *ša ki-mu* 10 MA.NA SIG$_2$ UZ$_3$ *ša* ERIN$_2$.MEŠ *maḫ-ru*	
20			*i-na* ŠA$_3$ *šu-lu-u$_2$*
21	[	x G]UN	SUM^{nu} ŠU ^{m}*i-qi$_2$-ša-*^{d}U.GUR
22	[		] EREŠ.DINGIR.TUR
23	[		] ˹x SIG$_2$˺.ḪI.A

24	[	MU.BI].IM

(Remainder broken)

Translation

col. i

(1'-2')	[…]	Barley rations, given out. Inner palace, outer palace, and *qinnu*-members [… Year 7.]
(3')	˹532˺;[x].˹4˺.0	"Barley rations, given out. Inner palace, outer palace, and *qinnu*-members […]." Year 8.
(4'-5')	Subtotal: 980;4.0.0	Barley, 10-sila *sūtu*, given out over two years. *It is withdrawn.*
(6'-7')	9,852;1.1.8	Barley, 10-sila *sūtu*. Outstanding balance. Hand of Iqīša-Nergal.
(8')	Sesame, 10-sila *sūtu*	Name
(9')	66;3.0.6	Old sesame, remainder of the balanced account of Year 6.
(10')	8;4.2.5	*tēlītu*-revenue, Year 7.
(11')	16;4.0.0	"*tēlītu*-revenue," Year 8.
(12')	[Subtotal:] 25;3.2.5	*tēlītu*, EREŠ.DINGIR.GAL over two years.
(13'-14')	[To]tal: 92;1.3.1	Sesame, the established debit. Hand of Iqīša-Nergal.
(15'-16')	2;1.5.5	Which, as the oil rations of the EREŠ.DINGIR.TUR […] was added to the debit of the EREŠ.DINGIR.TUR.

col. ii

(1'-2')	21+[x] talents, 31+[x] minas	[…] […]	[Ditto, Year 8]
(3'-4')	Total: 100 talents, 8⅓ minas	1[4 talents,] 20½ minas	[…] […]
(5')	Wool	Goat hair	Which, [therefrom, was given]
(6'-7')	8 talents 37 minas	2 talents, 38 minas	*mandattu*-assignment and [wool rations, Year 7]
(8'-9')	8 talents, 5 minas, 10 shekels	2 talents 30 minas	"*mandattu*-assignment and wool rations," Year 8
(10'-12')	32 talents 9⅚ minas	2 talents 20 minas, 15 shekels	Price of 400;4.3.0 of barley, 10-sila [*sūtu*], which is added to the debit of Iqīša-Nergal.
(13'-15')	48 talents, 52 minas	7 talents, 37 minas, 15 shekels	Given out over two years. Hand of Iqīša-Nergal. *It is withdrawn*.

col. iii

(1-3)	51 talents, 16⅓ minas	6 talents, 43 minas, 15 shekels	Outstanding balance. Hand of Iqīša-Nergal.
(4)	Total		EREŠ.DINGIR.GAL
(5)	Barley, 10-sila *sūtu*		Name
(6-7)	277;1.1.9		*tēlītu*, Year 7, of […] EREŠ.DINGIR.TUR

(8-9)	303;1.2.0		Collected seed, which Iqīša-Ner[gal received] from the hand of Ḫuzālu in Year 7. [It is added to the debit of Iqīša-Nergal.]
(10-11)	9;4.0.0		Collected seed, which [Iqīša-Marduk received from the hand of Martuk(k)u], son of Šamaš-ē/īriš i[n Year 8. It is added to the debit of Iqīša-Nergal].
(12-13)	34;2.5.0		Price of 2 [talents, 52⅔ minas of wool.] Price of 1 […]
(14-15)	Total: 624;4.2.9		Barley, [10-sila *sūtu* …] Hand of I[qīša-Nergal].
(16)	Barley, 10-sila *sūtu*		Which, [therefrom, was given]
(17-18)	186;1.4.0		Barley […]
(19-22)	183;1.5.5		"Barley […]" which/from […]
(23)	Total: 369;3.3.[5]		[Barley, 10-sila *sūtu*. Given out over two years. *It is withdrawn.*]
(24-25)	[Total: 255;0.5.4]		[Barley, 10-sila *sūtu*. Outstanding balance.] [Hand of Iqīša-Nergal.]

col. iv

(1)	[…]		Remainder of the balanced account of Year 6 of Šagarakti-Šuriaš.
(2)	[…]		*imittu* of the cows. Year 7.
(3)	[0;1.2.3]		Ghee, 10-sila *sūtu*. Hand of Iqīša-Nergal.
(4)	[Woo]l	Goat hair	Name
(5-6)	[…] […]	1 talent, 18½ minas	Plucking of the flock, Year 7.
(7-8)	[…] […]	1 talent 29½ minas	"Plucking of the flock," Year 8.
(9-10)	[…]+3 talents 12½ minas	2 talents, 48 minas	The established debit.
(11)	Wool	Goat hair	Which, therefrom, was given:
(12-13)	3 talents, 5⅓ minas	1 talent, 26 minas	*mandattu*-assignment and wool rations, Year 7.
(14-15)	3 talents, 9⅓ minas	1 talent, 32 minas	"*mandattu*-assignment and wool rations," Year 8."
(16-18)	2 talents, 52⅔ minas		Price of 34;2.5.0 of barley, 10-sila *sūtu*, which is added to the debit of Iqīša-Nergal.
(19-20)	[…] which, in place of 10 minas of goat hair, which the workers received, was deducted therefrom.		
(21-23)	[…]	…] talents	Given out. Hand of Iqīša-Nergal […] EREŠ.DINGIR.TUR. […] wool.
(24)	[…]		[Nam]e

(Remainder broken.)

Commentary

i.1' The first visible entries in this column are credit entries for barley. The break at the top of the column should therefore contain debit entries for barley, including

tēlītu-revenues, seed transfers, and probably a "purchase" of some amount of wool and goat hair (see commentary to col. ii, 10'-12'). [KA_2-*a-nu*] is restored by comparison with UM 29-15-434: col. i, 17'.

i.2' Restoration of Year 7 is extrapolated from the note in col. i, 4' that the distributed barley was given out over two years and from Year 8 in col. i, 3'.

i.5' For more discussion of ZI-*ma*, see commentary to MRWH 17: 18.

i.6' The one's place (i.e., the number 2) in 9 LIM 8 ME 52 is curiously inscribed upside-down.

i.8' This amount matches the amount recorded in BE 14 136: col. i, 10-11.

ii.0 The final outstanding balance for sesame should be 82;2.3.6 according to the corresponding entry in BE 14 136: col. ii, 10-11, so there are certainly a few credit entries missing at the beginning of col. ii in the break. Debit (and possibly credit) entries for ghee should similarly be present, as we know that Iqīša-Nergal held an outstanding balance of 6;1.4.2½ in ghee measured by the 10-sila *sūtu* (BE 14 136: col. iii, 10-11). The debit section for wool and goat hair is partially preserved in col. ii, 1'-4', but I surmise that at least one other entry for the wool yield of the flocks of Year 7 (likely written *bu-qu-un* U_8.UDU.ḪI.A MU.7.KAM) is missing in the break by comparison with col. iv, 5-6.

ii.1' Sassmannshausen (2001: 297) reads 22[+x?-GUR/GUN]. The measurement is certainly GUN and not GUR, however, because this section belongs to the debit section for wool and goat hair, which is measured in talents. By comparison with the debit entry in col. iv, 7-8, it seems likely that this debit entry lists the wool yield of the flocks of Year 8, rendered KI.MIN MU.8.KAM.

ii.3'-4' Sassmannshausen (2001: 297) restores 11[+x? MA] and 21[+x? GIN_2] for the amount of goat hair. These restorations are incorrect. The correct figure can be calculated by adding the total credits in col. ii, 13-14 (7 talents, 37 minas, 15 shekels) to the outstanding balance given in col. iii, 1-3 (6 talents, 43 minas, 15 shekels), which will result in a debited total of 14 talents, 20 minas, and 30 shekels. This figure can be converted to 14 talents and 20½ minas, an amount that is perfectly consistent the visible sign traces.

ii.5' Sassmannshausen (2001: 297) proposes no restoration other than ˹x x x x˺ […], but *ša i-na* $ŠA_3$ SUM^{nu} seems likely from a parallel entry in col. iv, 7.

ii.6',8' Years restored from col. iv, 5 and 7. Sassmannshausen does not restore MU.8.KAM in the break of col. ii, 8'. However, seeing as how the entries are justified (e.g., see col. iv, 7), the signs are probably not absent but simply lost in the break.

ii.10'-12' A corresponding debit entry for barley probably exists in the break at the beginning of col. i.

ii.14' For more discussion of ZI-*ma*, see commentary to MRWH 17: 18.

iii.1-3 These amounts match the amounts recorded in cols. 4-5 of BE 14 136: obv. 10-11.

iii.7 Sassmannshausen (2001: 297) tentatively suggests restoring EREŠ.DINGIR G[AL$^?$], though the section concerning the EREŠ.DINGIR.GAL presumably concludes with col. iii, 4. The *tēlītu*-revenues listed in this line must be those of the EREŠ.DINGIR.TUR instead. Direct support can also be extracted from the

tēlītu-revenue of Year 7 reported for the EREŠ.DINGIR.TUR in MRWH 16: 7-8, which corresponds directly to the amount reported in this line.

iii.8-9 Restoration from parallel entry MRWH 17: 13-14.

iii.10-11 Restoration from parallel entry MRWH 17: 42-43. The KI.MIN in l. 42 clearly stands for the following phrase: ŠE.NUMUN *is-ru ša i-na* MU.8.KAM (MRWH 17: rev. 40), hence my inclusion and restoration of the year MU.8.KAM (cf. Sassmannshausen 2001: 298). Note also in l. 11 that the first personal name restored in the break may be Iqīša-Marduk (see MRWH 17: 42) rather than Iqīša-Nergal, but it is possible that the Iqīša-Marduk's appearance in MRWH 17 is a scribal mistake (see already Petschow 1974: 61). Regardless, the second name can be confidently restored as Iqīša-Nergal, not DUMU $^{m.d}$UTU-URU$_4$ as suggested by Sassmannshausen (2001: 298); after all, the son of Šamaš-ē/īriš is Martuk(k)u (MRWH 17: 37), who is not the recipient of the seed grain but the one giving the seed grain to Iqīša-Nergal.

iii.12 Sassmannshausen (2001: 298) reads 2-G (for GUR), but the measurement is clearly in talents (GUN). My restoration is taken from col. iv, 16-18.

iii.13 This entry likely corresponds to col. iv, 19-20; the amounts and object are unfortunately lost in the break in both lines.

iii.14 Sassmannshauen (2001: 298) restores [10 SILA$_3$ SUM^{nu}] in the break. However, this section of the tablet does not belong to the credit section of the account—the credit section actually begins in col. iii, l. 16—but, rather, reports the sum total of the debits (in barley), which are typically labeled SAG NIG$_2$.GA *ku-un-nu(-um)* (e.g., col. i, 13 and col. iv, 6; see also MRWH 17: 10, 23, and 28).

iii.16 Sassmannshausen (2001: 298) proposes no restoration, but *ša i-na* SUM^{nu} seems likely from a parallel entry in col. iv, 7. This line marks the beginning of the credit section for barley.

iii.23-26 Reconstruction from col. i of BE 14 136: rev. 26-27; figures restored through calculation.

iii.23 For the figure, Sassmannshausen (2001: 298) reads PAP 3 ME 1 ŠU 9-G 3-N ˹3-B˺ Š[E …]. Because this entry should give us the total grain disbursed from Iqīša-Nergal's account, the entry should be the sum of l. 17 and 19, which results in an extra 5 silas. The sign traces at the end of the tablet do not appear to match up nicely with 5 SILA$_3$, however, and I surmise that Sassmannshausen's reading of Š[E …] is likely correct. The 5 SILA$_3$ may have been bumped down into the next line (which is, of course, broken) for space issues; a similar phenomenon can be seen in col. i, 6'-7'.

iii.27+ We must be missing the debit, credit, and balance sections for sesame in the break, seeing as how col. iv picks up with the debit section for ghee.

iv.3 Sassmannshausen (2001: 298) reads […] PAP 1. However, the visible sign is clearly a SILA$_3$. I restore the amount of ghee from BE 14 136: col. iii, 26-27.

iv.10 Sassmannshausen (2001: 298) reads 12½ GIN$_2$ for the wool hair; the GIN$_2$ is likely a MA, however. Fractions of shekels rarely appear in the Nippur corpus.

iv.19-20 See already commentary to col. iii, 13 and n. 24.

Text Number	-
Museum Number	UM 29-15-434
MSKH Number	O.2.7.52
Date	Kaš IV -/-/4
Sealing	-
Previous Edition(s)	-
Discussion	Chapter 5
Photograph	https://cdli.ucla.edu/dl/photo/P256231.jpg

Transliteration

Obv.
col. i

1’	[…] ˹x x˺ […]	…]
2’	[…(x)]+49;4.5.4? SILA$_3$	˹x˺ […]
3’	233; 4.3.6 SILA$_3$	KI.MIN […]
4’	1,215;3?.5.7 SILA$_3$	KI.MIN […]
5’		*kaš-til-ia-a*[*š/šu* …]
6’	PAP? 3,571;3.3.0	*te-li-tu ša* […x MU.MEŠ]
7’		TA MU.9.KAM *ša$_2$-gar-ak-t*[*i-šuriaš*]
8’		EN MU.SAG.NAM.LUGAL.LA *ka*[*š-tilaš(u)*]
9’	672;0.0.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$ ŠAM$_2$ 55 GU$_2$.UN 4 MA SIG$_2$.ḪI.[A]	
10’		*u$_3$* 1 GU$_2$.UN 51⅔ MA 5? GIN$_2$? SIG$_2$ U[Z$_3$]
11’		*ša* 1 MA.NA SIG$_2$.ḪI.A 0;1.0.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$
12’		*u$_3$ ša* 1 MA.NA SIG$_2$ UZ$_3$ 0;0.3.0 ŠE ^{giš}BAN$_2$ 10 SILA$_3$
13’		*ḫa-ri-iṣ*
14’	ŠU.NIGIN 14,098?;4.0.8	ŠE ^{giš}BAN$_2$ 10 SILA$_3$ SAG NIG$_2$.GA *kun-nu*
15’		ŠU ^{m}BA^{ša2}-^{d}U.GUR GAR-*ni*
16’	ŠE ^{giš}BAN$_2$ 10 SILA$_3$	*ša i-na* ŠA$_3$ SUM^{nu}
17’	440;4.5.4? SILA$_3$	ŠE.BA SUM^{nu} E$_2$-*a-nu* KA$_2$-*a*-[*nu* …]
18’		*u$_3$* DUMU.MEŠ *qin-na-a*-[*ti*]
19’		MU.9.KAM *ša$_2$-gar-ak-ti-šur-i*[*a$_4$-aš*]
20’	[…x]+26;3.0.0	KI.MIN KI.MIN MU.[10.KAM]
21’	[…]	KI.MIN KI.MIN M[U.11.KAM]
22’	[…˹KI.MIN˺ M[U.12.KAM]	

(Remainder broken.)

col. ii

1’	3;[x.x.x	…]
2’	2;1.3[+(x).x	…]
3’	PAP 16;3[+(x).x	…]

(Remainder broken. Rev. completely broken. All edges either broken or uninscribed.)

Translation:

col. i

(1’)	[…]	[…]
(2’)	[(x)]+49;4.5.4?	[…]
(3’)	233; 4.3.6	Ditto […]
(4’-5’)	1,215;3?.5.7	Ditto […the accession year of] Kaštiliaš […]

(6'-8')	Total: 3,571;3.3.0	*tēlītu*-revenue of [… of x years], from Year 9 of Šagarakti-Šuriaš to the accession year of Kaštiliaš.
(9'-13')	672;0.0.0, barley, the 10-sila *sūtu*.	The price of 55 talents, 4 minas of wool, and 1 talent, 51⅔ minas, and *5 shekels* of goat hair— per 1 mina of wool, 0;1.0.0 barley, 10-sila *sūtu*. and per 1 mina of goat hair, 0;0.3.0 barley, 10-sila *sūtu*— it is determined.
(14'-15')	Grand total: 14,098?;4.0.8	Barley, 10-sila *sūtu*. The established debit. Hand of Iqīša-Nergal, the *šaknu*.

(16')	Barley, 10-sila *sūtu*	Which, therefrom, was given:
(17'-19')	440;4.5.4?	Barley rations, given out: the inner and outer palace […] And the *qinnu*-members. Year 9 of Šagarakti-Šuriaš.
(20')	[x]+26;3.0.0	"Barley rations, given out: the inner and outer palace […] And the *qinnu*-members." Year [10 of Šagarakti-Šuriaš].
(21')	[…]	"Barley rations, given out: the inner and outer palace […] And the *qinnu*-members." Year [11 of Šagarakti-Šuriaš].
(22')	[…]	Barley rations, given out: the inner and outer palace […] And the *qinnu*-members." Year [12 of Šagarakti-Šuriaš].

(Remainder broken or damaged. Traces of numbers are visible in col. ii.)

Commentary:

(1'-4') These debit entries, according to l. 6', must record *tēlītu*-revenues.

(11'-12') These clauses specify the purchase price in barley for one mina of wool and one mina of goat hair. Note that when one crunches these numbers, it turns out the conversion is not quite exact, though it is very close to the recorded figure; at the given rate, 672;0.0.0 barley is equivalent to 55 talents, 4 minas of wool and 1 talent, 52 minas of goat hair rather than the stated 1 talent, 51⅔ minas, 5 shekels of goat hair, a small difference of ¼ mina of goat hair. For another attestation of this type of clause, see the livestock account BE 15 199: 40, where it is used to specify the purchase price in barley for one ox.

(13') For this meaning of *ḫarāṣu*, see CAD Ḫ s.v. *ḫarāṣu*, mng. 2. See also CAD Ḫ s.v. *ḫarīṣu* for comparison.

WORKS CITED

Abraham, K. 2001. “The Middle Assyrian Period.” In *Security for Debt in Ancient Near Eastern Law*, ed. by R. Westbrook, R. and R. Jasnow, 161-221. Leiden: Brill.

Abrahami, P. 2014. “Wool in the Nuzi Texts.” In *Wool Economy in the Ancient Near East and the Aegean: From the Beginnings of Sheep Husbandry to Institutional Textile Industry* (*Ancient Textiles* 17), ed. by C. Breniquet and C. Michel, 283-09. Oxford: Oxbow Books.

Algaze, G. 2008. *Ancient Mesopotamia at the Dawn of Civilization: The Evolution of an Urban Landscape.* Chicago: University of Chicago Press.

Alizadeh, A. 2019. “Nippur Expedition.” *The Oriental Institute 2018-2019 Annual Report:* 93-97.

Allison, K. J. 1958. “Flock Management in the Sixteenth and Seventeenth Centuries.” *The Economic History Review, New Series* 11/1: 98-112.

Arkhipov, I. 2019. “Who kept records in the palace of Mari, and why?” In *Der Palast im antiken und islamischen Orient. 9. Internationales Colloquium der Deutschen Orient-Gesellschaft. 30. März - 1 April 2016, Frankfurt am Main*, ed. by D. Wicke, 35-42. Wiesbaden: Harrassowitz.

Armstrong, J. A. 1989. “The Archaeology of Nippur from the Decline of the Kassite Kingdom Until the Rise of the Neo-Babylonian Empire.” PhD diss., University of Chicago.

Berteaux, D. and T. Micol. 1992. “Population studies and reproduction of the feral cattle (Bos taurus) of Amsterdam Island, Indian Ocean.” *Journal of Zoology* 228/2: 265-276.

Balkan, K. 1986. *Studies in Babylonian Feudalism of the Kassite* (Monographs on the Ancient Near East v.2, fasc. 3). Translated by B. Foster and D. Gutas. Malibu, California: Undena Publications.

———. 1943. “Babilde Feodalizm Araştırmaları: Kas'lar Devrinde Babil.” *Fak. Derg.* 2/1: 45-55.

Bernhardt, I. and J. Aro. 1958-1959. "Mittelbabylonische Briefe in der Hilprecht-Sammlung." *WZJ* 8: 565-574.

Bernhardt, I. 1976. *Sozialökonomische Texte und Rechtsurkunden aus Nippur zur Kassitenzeit* (TMH NF 5). Berlin: Akademie-Verlag.

Biggs, R.D. 1965. “A Letter from Kassite Nippur.” *JCS* 19/4: 95-102.

Boivin, O. 2018. *The First Dynasty of the Sealand in Mesopotamia* (SANER 20). Berlin/Boston: de Gruyter.

———. 2016a. "Accounting for Livestock: Principles of Palatial Administration in Sealand I Babylonia." *Iraq* 78: 3-23.

———. 2016b. “Agricultural Economy and Taxation in the Sealand I Kingdom.” *JCS* 68: 45-65.

von Bolla-Kotek, S. 1969. *Untersuchungen zur Tiermiete und Viehpacht im Alterum* (Münchener Beiträge zur Papyrusforschung und Antiken Rechtsgeschichte 30). München: C. H. Beck’sche Verlagsbuchhandlung.

Borger, R. 2010. *Mesopotamisches Zeichenlexikon* (AOAT 305). Münster: Ugarit-Verlag.

Boyer, G. 1955. “La place des textes d'Ugarit dans l'histoire de l'ancien droit oriental.” *In Le Palais royal d'Ugarit: Textes accadiens et hourrites des Archives Est, Oest, et Centrales* (Mission de Ras Shamra 6/1), ed. by C. Schaeffer, 281-308. Paris: Imprimerie Nationale.

Bregstein, L. B. and T. J. Schneider. 1992. “Nippur bibliography.” In *Nippur at the Centennial: Papers Read at the 35th Rencontre Assyriologique Internationale, Philadelphia, 1988,* ed. by M. deJong Ellis, 337-365. Philadelphia: The University Museum.

Brinkman, J. A. 2019. Review of *Die babylonischen Kudurru-Inschriften von der kassitischen bis zur frühneubabylonischen Zeit: Untersucht unter besonderer Berücksichtigung gesellschafts- und rechtshistorischer Fragestellungen*, by S. Paulus. *JNES* 78/1: 141-144.

———. 2017. “Babylonia under the Kassites: Some Aspects for Consideration.” In *Karduniaš. Babylonia under the Kassites* (UAVA 11/1), ed. by A. Bartelmus and K. Sternitzke, 1-44. Boston: de Gruyter.

———. 2006. “Babylonian Royal Land Grants, Memorials of Financial Interest, and Invocation of the Divine.” Review of *The Babylonian Entitlement* narûs (kudurrus): *A Study in Their Form and Function*, by K. E. Slanski. *JESHO* 49/1: 1-47.

———. 2004. "Administration and Society in Kassite Babylonia." Review of *Beiträge zur Verwaltung und Gesellschaft Babyloniens in der Kassitenzeit*, by L. Sassmannshausen. *JAOS* 124/2: 283-304.

———. 1976. *Materials and Studies for Kassite History, Vol. I: A Catalogue of Cuneiform Sources Pertaining to Specific Monarchs of the Kassite Dynasty.* Chicago: The Oriental Institute of the University of Chicago.

———. 1974. “The Monarchy in the Time of the Kassite Dynasty.” *RAI* 19: 395-408.

———. 1968. *A Political History of Post-Kassite Babylonia* (ANOR 43). Rome: Pontificium Institutum Biblicum.

———. 1963. “Provincial Administration in Babylonia under the Second Dynasty of Isin.” *JESHO* 6: 233-242.

Cancik-Kirschbaum, E. 2012. “Middle Assyrian Administrative Documents and Diplomatics: Preliminary Remarks Towards an Analysis of Scribal Norms and Habits.” In *Palaeography And Scribal Practices in Syro-Palestine and Anatolia in the Late Bronze Age* (PIHANS 1199), ed. by E. Devecchi, 19-21. Leiden: Nederlands Historisch-Archaeologisch Instituut in het Nabije Oosten.

Cavigneaux, A. and E. Clevenstine. 2018. “MAH 15887: Animal Husbandry and Animal Paleography.” *AoF* 45/1: 50-59.

Charpin, D. 2015. “Chroniques Bibliographiques 17. Six Nouveaux Recueils de Documents Paléo-Babyloniens.” *RA* 109: 143-196.

———. 2009. "Un itinéraire paléobabylonien le long du Habur." In *Entre les fleuves – I. Untersuchungen zur historischen GeographieO bermesopotamiens im 2. Jahrtausend* (BBVO 20), ed. by N. Ziegler and E. Cancik-Kirschbaum, 59-74. Gladbeck: PeWe Verlag.

Chemineau, P., B. Malpaux, J. A. Delgadillo, Y. Guérin, J. P. Ravault, J. Thimonier, and J. Pelletier. 1992. “Control of sheep and goat reproduction: use of light and melatonin.” *Animal Reproduction Science 30*: 157-184.

Clay, A. T. 1912. *Documents from the Temple Archives of Nippur Dated in the Reigns of Cassite Rulers* (PBS 2/2). Philadelphia: The University Museum.

———. 1906a. *Documents from the Temple Archives of Nippur Dated in the Reigns of Cassite Rulers* (BE 14). Philadelphia: The University Museum.

———. 1906b. *Documents from the Temple Archives of Nippur Dated in the Reigns of Cassite Rulers* (BE 15). Philadelphia: The University Museum.

Curtis, J. B. and W. W. Hallo. 1959. “Money and Merchants in Ur III.” *Hebrew Union College Annual* 30: 103-139.

Dahl, G. and A. Hjort. 1983. *Having Herds: Pastoral Herd Growth and Household Economy.* Stockholm: Department of Anthropology, Stockholm Univesrity.

Deheselle, D. 1996. “La distribution *aklu* à Nippur à l’époque kassite: approche préliminaire.” In *Tablettes et images aus pays de Sumer et d’Akkad: Mélanges offert à Monsieur H. Limet*, ed by O. Tunca and D. Deheselle, 215-222. Liege: Association pour la Promotion de l'Histoire et de l'Archeologie Orientale.

Deimel, A. 1931. *Sumerische Tempelwirtschaft zur Zeit Urukaginas und seiner Vorgänger* (ANOR 2). Rome: Pontificio Instituto Biblico.

Devecchi, E. Forthcoming. “Managing the Harvest in Kassite Babylonia: The Evidence on *tēlītu*.” In *Babylonia under the Sealand and Kassite Dynasties*, ed. by S. Paulus and T. Clayden. Boston-Berlin: de Gruyter.

van Driel, G. 1995. "Cattle in the Neo-Babylonian Period." *BSA* 8: 215-240.

———. 1993. "Neo-Babylonian Sheep and Goats." *BSA* 7: 219-258.

van Driel, G. and K. R. Nemet-Nejat. 1994. “Bookkeeping Practices for an Institutional Herd at Eanna.” *JCS* 46: 47-58.

Durand, J.-M. 2009. *La nomenclature des habits et des textiles dans les textes de Mari* (ARM 30). Paris: CNRS Éditions.

———. 2008. “La religion amorrite en Syrie à l’époque des archives de Mari.” In *Mythologie et religion des sémites occidentaux.: Volume 1. Ébla, Mari* (Orientalia Lovaniensia Analecta 162), 161-704. Leuven: Peeters.

———. 1998. *Les documents épistolaires du palais de Mari. Tome II* (LAPO 17).

Ebeling, E. 1971. “Feudalismus.” In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie. Band 3. Fabel-Gyges* (RLA 3), 54-55. Berlin: de Gruyer.

Englund, R. K. 1995a. “Regulating Dairy Productivity in the Ur III period.” *OrNS* 64/4: 377-429.

———. 1995b. "Late Uruk Period Cattle and Dairy Products: Evidence from Proto-Cuneiform Sources." *BSA* 8: 33-48.

———. 1990. *Organisation und Verwaltung der Ur III-Fischerei.* Berlin: Dietrich Reimer Verlag.

Ellis, M. de J. 1976. *Agriculture and State in Ancient Mesopotamia: An Introduction to Problems of Land Tenure* (OPBF 1). Philadelphia: The University Museum.

Falkenstein, A. 1974. *The Sumerian Temple City* (Sources and Monographs, Monographs in History: Ancient Near East 1/1). Translated by M. de J. Ellis. Los Angeles: Undena Publications.

———. 1954. “La Cité-Temple Sumérienne.” *Cahiers de l’Histoire Mondiale* 1: 784-814.

Finkelstein, J. J. 1968. “An Old Babylonian Herding Contract and Genesis 31:38 f.” *JAOS* 88/1: 30-36.

Fisher, C. S. 1907. *Excavations at Nippur: plans, details and photographs of the buildings, with numerous objects found in them during the excavations of 1889, 1890, 1893-1896, 1899-1900.* Berlin: K. Curtius.

Flannery, K. V. 1969. "Origins and ecological effects of early domestication in Iran and the Near East." In *The Domestication and Exploitation of Plants and Animals*, ed. by P. J. Ucko and G. W. Dimbleby, 73-100. London: Gerald Duckworth & Co.

Foster, B. 1981. "A New Look at the Sumerian Temple State." *JESHO* 24/3: 225-241.

Frame, G. 1992. *Babylonia 689-627 B.C.: A Political History* (PIHANS 69). Leiden: Nederlands Historisch-Archaeologisch Instituut in het Nabije Oosten.

Garfinkle, S. J. 2012. *Entrepreneurs and Enterprise in Early Mesopotamia* (CUSAS 22). Bethesda, Maryland: CDL Press.

———. 2005. "Public versus Private in the Ancient Near East." In *A Companion to the Ancient Near East*, ed. by D. C. Snell, 384-396. Malden, MA: Blackwell Publishing.

Geere, H. V. 1904. *By Nile and Euphrates: a record of discovery and adventure.* Edinburgh: T. and T. Clark.

Gibson, M. 1993. "Nippur, Sacred City of Enlil, Supreme God of Sumer and Akkad." *Al-Rafidan Journal of Western Asiatic Studies 14:* 1-18.

Gibson, M., J. A. Franke, M. Civil, M. L. Bates, J. Boessneck, K. W. Butzer, T. A. Rathbun, and E. F. Mallin. 1978. *Excavations at Nippur: Twelfth Season* (OIC 23). Chicago: Oriental Institute of the University of Chicago.

Gibson, M, M. Civil, H. Johnson, and S. A. Kaufman. 1975. *Excavations at Nippur: Eleventh Season* (OIC 22). Chicago: University of Chicago Press.

Goetze, A. 1964. "State and Society of the Hittites." In *Neuere Hethiterforschung*, ed. by G. Walser, 23-33. Wiesbaden: Franz Steiner Verlag GMBH.

Gómez-Brunet, A., J. Santiago-Moreno, A. Toledano-Diaz, and A. López-Sebastián. 2012. "Reproductive Seasonality and its Control in Spanish Sheep and Goats." *Tropical and Subtropical Agroecosystems* 15/1: S47-S70.

Gurney, O. R. 1983. *The Middle Babylonian Legal and Economic Texts from Ur.* London: British School of Archaeology in Iraq.

Güterbock, H. G. 1945-51. "Türkische Beiträge zum Studium des Alten Orients." *AfO* 15: 128-135.

Hall, S. J. G. 1989. “Chillingham cattle: social and maintenance behaviour in an ungulate that breeds all year round.” *Animal Behavior 38/2:* 215-225.

Hallo, W. W. 1972. “The House of Ur-Meme.” *JNES* 31/2: 87-95.

Halstead, P. 1998. “Mortality models and milking: problems of uniformitarianism, optimality and equifinality reconsidered.” *Anthropozoologica* 27: 3-20.

———. 1993. “Banking on livestock: indirect storage in Greek agriculture.” *BSA* 7: 63-75.

Hansen, P. J. 1985. “Seasonal modulation of puberty and the postpartum anestrus in cattle: a review.” *Livestock Production Science 12:* 309-327.

Heimpel, W. 1997. “Disposition of Households of Officials in Ur III and Mari.” *ASJ* 19: 63-82.

———. 1995. “Plow Animal Inspection Records from Ur III Girsu and Umma.” *BSA* 8: 71-171.

———. 1993. "Zu den Bezeichnungen von Schafen und Ziegen in den Drehem- und Ummatexten." *BSA* 7: 115-160.

Hilprecht, H. V. 1903. *Explorations in the Bible Lands during the 19th Century*. Philadelphia: A. J. Holsman.

Hölscher, M. 1996. *Die Personennamen der kassitenzeitlichen Texte aus Nippur* (Imgula 1). Münster: Rhema-Verlag.

Hruška, B. 1995. *Sumerian Agriculture: New Findings*. Berlin: Max-Planck-Institut für Wissenschaftgeschichte.

———. 1990. “Das landwirtschaftliche Jahr im alten Sumer: Versuch einer zeitlichen Rekonstruktion. *BSA* 5: 105-114.

Huang, A. Forthcoming. “Much cattle, much care: Middle Babylonian herding contracts from Nippur.” In *Kassite Administration: Texts, Seals and Sealing Practices* (Studies in Ancient Near Eastern Records), ed. by E. Devecchi and S. Paulus. Berlin: De Gruyter.

Ismail, B. K. and J. N. Postgate. 2008. “A Middle Assyrian Flock-Master’s Archive from Tell Ali.” *Iraq* 70: 147-178.

Jacquet, A. 2011. *Florilegium marianum XII: Documents relatifs aux dépenses pour le culte* (Mémoires de N.A.B.U. 13). Paris: Société pour l'Étude du Proche-Orient Ancien.

Jakob, S. 2003. *Mittelassyrische Verwaltung und Sozialstruktur: Untersuchungen* (CM 29). Leiden: Brill.

Jursa, M. 2006. “Agricultural Management, Tax Farming and Banking: Aspects of Entrepreneurial Activity in Babylonia in the Late Achaemenid and Hellenistic Periods.” In *La transition entre l’empire achéménide et les royaumes hellénistiques (vers 350-300 av. J.-C.), Actes du colloque au Collège de France (22-23 novembre 2004)*, ed. by P. Briant and F. Joannès, 137-222. Paris: De Boccard.

———. 2004. “Accounting in Neo-Babylonian Institutional Archives: Structure, Usage, and Implications” In *Creating economic order: Record-keeping, standardization, and the development of accounting in the ancient Near East*, ed. by M. Hudson and C. Wunsch (International Scholars Conference on Ancient Near Eastern Economies 4), 145-198. Bethesda: CDL.

———. 1998. *Der Tempelzehnt in Babylonien vom siebenten zum Dritten Jahrundert v. Chr.* (AOAT 254). Munster: Ugarit-Verlag.

Kessler, K. 1992. “Rinder aus dem Meerland: Eine kassitische Urkunde vom Teil Kirbāsi.” *ZA* 82/1: 92-97.

Killen, J. T. 1993. “Records of sheep and goats at Mycenaean Knossos and Pylos.” *BSA* 7: 209-218.

———. 1964. “The Wool Industry of Crete in the Late Bronze Age.” *The Annual of the British School at Athens* 59: 1–15.

van Koppen, F. 2002. “Seized by Royal Order: The Households of Sammêtar and Other Magnates at Mari (Texts nos. 27-49).” In *Florilegium Marianum VI: Recueil d'études à la mémoire d'André Parrot* (Mémoires de N.A.B.U. 7), ed. by D. Charpin and J.-M. Durand, 289-372. Paris: Société pour l'Étude du Proche-Orient Ancien.

Koschaker, P. 1928. *Neue Keilschriftliche Rechtsurkunden aus der el-Amarna Zeit*. Leipzig: S. Hirzel.

Kozuh, M. 2014. *The Sacrificial Economy: Assessors, Contractors, and Thieves in the Management of Sacrificial Sheep at the Eanna Temple of Uruk (ca. 625-520 B.C.)* (EANEC 2). Winona Lake: Eisenbrauns.

———. 2010. “Lamb, Mutton, and Goat in the Babylonian Temple Economy.” *JESHO* 53/4: 531-578.

Kraus, F. R. 1966. *Staatliche Viehhaltung im altbabylonischen Lande Larsa.* Amsterdam: North-Holland Publishing Company.

Kuklick, B. 1996. *Puritans in Babylon: The Ancient Near East and American Intellectual Life, 1800-1930.* Princeton: Princeton University Press.

Kwasman, T. and S. Parpola. 1991. *Legal Transactions of the Royal Court of Nineveh, Part I: Tiglath-Pileser III through Esarhaddon* (SAA 6). Helsinki: Helsinki University Press.

Landsberger, B. 1960. *The Fauna of Ancient Mesopotamia: Tablet XIII* (MSL 8/1). Roma: Pontificium Institutum Biblicum.

Levavi, Y. 2017. "Four Middle-Babylonian Legal Documents Concerning Prison." *RA* 111: 87-108.

Lincoln, G. A. Lincoln, C. E., and A. S. McNeilly. 1990. "Seasonal cycles in the blood plasma concentration of FSH, inhibin and testosterone, and testicular size in rams of wild, feral and domesticated breeds of sheep." *Journal of Reproduction and Fertility 88*: 623-633.

Maekawa, K. 1997. "Confiscation of Private Properties in the Ur III Period: A Study of é-dul-la and níg-GA (2). Supplement 1." *ASJ* 19: 273-291.

———. 1996. "Confiscation of Private Properties in the Ur III Period: A Study of é-dul-la and níg-GA." *ASJ* 18: 103-168.

Manning, S. W., C. B. Griggs, B. Lorentzen, G. Barjamovic, C. Bronk Ramsey, B. Kromer, and E. M. Wild. 2016. "Integrated Tree-Ring-Radiocarbon High-Resolution Timeframe to Resolve Earlier Second Millennium BCE Mesopotamian Chronology." *PLoS ONE* 11(7): e0157144. https://doi.org/10.1371/journal.pone.0157144

Manning, S. M., G. Barjamovic., and B. Lorentzen. 2017. "The Course of 14C Dating Does Not Run Smooth: Tree-Rings, Radiocarbon, and Potential Impacts of a Calibration Curve Wiggle on Dating Mesopotamian Chronology." *Journal of Ancient Egyptian Interconnections* 13: 70–81.

Matthews, D. M. 1992. *The Kassite Glyptic of Nippur* (OBO 116). Freiburg: Universitätsverlag / Vandenhoeck & Ruprecht.

Matthews, D. M. and J. A. Brinkman. 1990. "A Grandson of Kurigalzu." *NABU* 1990/3: 83-84.

McCormick, F. 1992. "Early faunal evidence for dairying." *Oxford Journal of Archaeology* 11/2: 201-210.

McCown, D. E., R. C. Haines, R. D. Biggs, and E. F. Carter. 1978. *Nippur II: The North Temple and Sounding E* (OIP 97). Chicago: Oriental Institute of the University of Chicago.

Morrison, M. A. 1981. "Evidence for Herdsmen and Animal Husbandry in the Nuzi Documents." In *Studies on the Civilization and Culture of Nuzi and the Hurrians: In Honor of Ernest R. Lacheman*, ed. by M. A. Morrison and D. I. Owen, 257-296. Winona Lake: Eisenbrauns.

Muhs, B. 2016. *The Ancient Egyptian Economy, 3000-30 BCE.* New York: Cambridge University Press.

Murai, N. 2018. "Studies in the *aklu* Documents of the Middle Babylonian Period." PhD diss., Leiden University.

Myer, C. F. 1992. "Joseph Andrew Meyer, Jr.: architect at Niffer." In *Nippur at the Centennial: Papers Read at the 35th Rencontre Assyriologique Internationale, Philadelphia, 1988,* ed. by M. deJong Ellis, 137-150. Philadelphia: The University Museum.

Naval Intelligence Division. 2014. *Iraq and the Persian Gulf.* London: Routledge.

Nielsen, J. P. 2010. *Sons and Descendants: A Social History Kin Groups and Family Names in the Early Neo-Babylonian Period, 747-626 BC* (CHANE 43). Leiden: Brill.

Ochsenschlager, E. L. 2004. *Iraq's Marsh Arabs in the Garden of Eden.* Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.

———. 1993. "Sheep: Ethnoarchaeology at al-Hiba." *BSA* 7: 33-42.

Ouyang, X. 2013. *Monetary Role of Silver and its Administration in Mesopotamia during the Ur III Period (c. 2112-2004 BCE): A Case Study of the Umma Province* (BPOA 11). Madrid: Consejo Superior de Investigaciones Científicas.

Paulette, T. 2014. "Grain storage and the moral economy in Mesopotamia (3000-2000 BC)." PhD diss., University of Chicago.

Paulus, S. 2017. In *Karduniaš. Babylonia under the Kassites* (UAVA 11/1), ed. by A. Bartelmus and K. Sternitzke, 229-244. Boston: de Gruyter.

———. 2014a. *Die babylonischen Kudurru-Inschriften von der kassitischen bis zur frühneubabylonischen Zeit: Untersucht unter besonderer Berücksichtigung gesellschafts- und rechtshistorischer Fragestellungen* (AOAT 51). Münster: Ugarit-Verlag.

———. 2014b. "Babylonien in der Hälfte des 2. Jts. V. Chr. – (K)ein Imperium? Ein Überblick über Geschichte und Struktur des mittelbabylonischen Reiches (ca. 1500–1000 B.C.)." In *Imperien und Reiche in der Weltgeschichte: Epochenübergreifende und globalhistorische Vergleiche. Teil 1: Imperien* des *Altertums, mittelalterliche* und *frühneuzeitliche Imperien,* ed. by M. Gehler and R. Rollinger, 65-100. Wiesbaden: Harrassowitz Verlag.

———. 2013. "The Limits of Middle Babylonian Archives." In *Archives and Archival Documents,* ed. by M. Faraguna, 87-103. Trieste: Edizioni Università di Trieste.

Payne, S. 1973. "Kill-Off Patterns in Sheep and Goats: The Mandibles from Aşvan Kale." *Anatolian Studies* 23: 281-303.

Pedersén, O. 1998. *Archives and Libraries in the Ancient Near East, 1500-300 B.C.* Bethesda: CDL Press.

Peiser, F. E. 1905. *Urkunden aus der Zeit der dritten babylonischen Dynastie.* Berlin: Wolf Peiser Verlag.

Peters, J. P. 1897-1904. *Nippur or Explorations and Adventures on the Euphrates*. 2 vols. New York: G. P. Putnam's Sons.

Petschow, H. P. H. 1983. "Die Sklavenkaufverträge des *šandabakku* Enlil-kidinnī von Nippur (I) (Mit Exkursen zu Goldals Wertmesser und Preisen)." *Orientalia*, NOVA SERIES 52/1: 143-155.

———. 1977. Review of *Sozialökonomische Texte und Rechtsurkunden aus Nippur zur Kassitenzeit*, by I. Bernhardt. *ZA* 67: 122-129.

———. 1974. *Mittelbabylonische Rechts- und Wirtschaftsurkunden der Hilprecht-Sammlung Jena mit Beiträgen zum mittelbabylonischen Recht.* Berlin: Akademie-Verlag.

———. 1973. "Zur mittelbabylonischen 'Buchhaltungstechnik' und zur Tempelwirtschaft der NIN.DINGIR-Priesterinnen." In *Symbolae Biblicae et Mesopotamicae Francisco Mario Theodoro de Liagre Böhl dedicatae*, ed. by M. A. Beek, A. A. Kampman, C. Nijland, and J. Ryckmans, 299-307. Leiden: Brill.

Postgate, J. N. 2013. *Bronze Age Bureaucracy: Writing and the Practice of Government in Assyria.* Cambridge: Cambridge University Press.

———. 2012. "Assyrian Percentages? Calculating the Birth-Rate at Dur-Katlimmu." In *Leggo! Studies Presented to Frederick Mario Fales on the Occasion of His 65th Birthday*, ed. by G. B. Lanfranchi, D. M. Bonacossi, C. Pappi, and S. Ponchia, 677-685. Wiesbaden: Harrassowitz Verlag.

———. 1992. *Early Mesopotamia: Society and Economy at the Dawn of History.* London: Routledge.

———. 1986. "Middle Assyrian tablets: the instruments of bureaucracy." *AfO* 13/1: 10-39.

Postgate, J. N. and S. Payne. 1975. "Some Old Babylonian Shepherds and their Flocks." *JSS* 20: 1-21.

Potts, D. T. 1997. *Mesopotamian Civilization: The Material Foundations.* Ithaca: Cornell University Press.

Pruzsinszky, R. 2009. *Mesopotamian Chronology of the 2nd Millennium B.C.: An Introduction to the Textual Evidence and Related Chronological Issues* (CCEM 22). Wien: Verlag der Österreichischen Akademie der Wissenschaften.

Radau, H. 1908. *Letters to Cassite Kings from the Temple Archives of Nippur* (BE 17/1). Philadelphia: Department of Archaeology of the University of Pennsylvania.

Richardson, S. 2010. *Texts from the Late Old Babylonian Period* (JCSSS 2). Boston: American Schools of Oriental Research.

Robson, E. 2004. "Accounting for Change: The Development of Tabular Book-keeping in Early Mesopotamia." In *Creating economic order: Record-keeping, standardization, and the development of accounting in the ancient Near East,* ed. by M. Hudson and C. Wunsch (International Scholars Conference on Ancient Near Eastern Economies 4), 107-144. Bethesda: CDL.

Röllig, W. 2008. *Land- und Viehwirtschaft am unteren Ḫābūr in mittelassyrischer Zeit* (BATSH 9). Wiesbaden: Harrassowitz Verlag.

Rosa, H. J. D. and M. J. Bryant. 2003. "Seasonality of reproduction in sheep." *Small Ruminant Research 48*: 155-171.

Russell, K. 1988. *After Eden: The behavioral ecology of early food production in the Near East and North Africa.* London: British Archaeological Reports, International Series 391.

Ryder, M. L. 1993. "Sheep and Goat Husbandry, with Particular Reference to Textile, Fibre, and Milk Production." *BSA 7*: 9-32.

———. 1983. *Sheep and Man.* London: Gerald Duckworth & Co. Ltd.

Sallaberger, W. 2013. "The Management of Royal Treasure. Palace Archives and Palatial Economy in the Ancient Near East." In *Experiencing Power, Generating Authority. Cosmos, Politics, and the Ideology of Kingship in Ancient Egypt and Mesopotamia,* ed. by J.A. Hill, P. Jones, and A. J. Morales, 219-255. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.

———. 1993. *Der kultische Kalender der Ur III-Zeit* (UAVA 7/2). Berlin: de Gruyer.

Sallaberger, W. and F. H. Vulliet. 2005. "Priester. A. I. Mesopotamien." In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie. Band 10. 7./8. Lieferung: Pflazenkunde-Priesterverkleidung* (RLA 10/7-8), 617-640. Berlin: de Gruyer.

Sallaberger, W. and A. Pruß. 2015. "Home and Work in Early Bronze Age Mesopotamia: 'Ration Lists' and 'Private Houses' at Tell Beydar/Nabada." In *Labor in the Ancient World,* ed. by P. Steinkeller and M. Hudson, 69-136. Dresden: Islet.

Sassmannshausen, L. 2001. *Beiträge zur Verwaltung und Gesellschaft Babyloniens in der Kassitenzeit* (Baghdader Forschungen 21). Mainz am Rhein: Verlag Philipp von Zabern.

———. 1999. “Bauern in der Kassitenzeit.” In *Landwirtschaft im alten Orient*, ed. by H. Klengel and J. Renger, 155-161. Berlin: Dietrich Reimer Verlag.

Sasson, J. M. 2001. “Ancestors Divine?” In *Veenhof Anniversary Volume: Studies Presented to Klaas R. Veenhof on the Occasion of His Sixty-Fifth Birthday* (PIHANS 89), ed. by W. H. van Soldt, J. G. Dercksen, N. J. C. Kouwenberg, and T. J. H. Krispjin, 413-428. Leiden: Nederlands Historisch-Archaeologisch Instituut in het Nabije Oosten.

Schloen, D. 2001. *The House of the Father as Fact and Symbol: Patrimonialism in Ugarit and the Ancient Near East* (Studies in the Archaeology and History of the Levant). Winona Lake: Eisenbrauns.

Schneider, A. 1920. *Die Anfänge der Kulturwirtschaft: Die sumerische Tempelstadt.* Essen: G. D. Baedeker Verlagshandlung.

Shelley, N. 2017. "*Kaššû:* Cultural Labels and Identity in Ancient Mesopotamia.“ In *Karduniaš. Babylonia under the Kassites* (UAVA 11/1), ed. by A. Bartelmus and K. Sternitzke, 196-208. Boston: de Gruyter.

———. 2016. “The Concept of Ethnicity in Early Antiquity: Ethno-symbolic Identities in Ancient Greek, Biblical Hebrew, and Middle Babylonian Texts.” PhD diss., Columbia University.

Slanski, K. E. 2003. *The Babylonian Entitlement* narûs (kudurrus): *A Study in Their Form and Function* (ASOR Books 9). Boston: American Schools of Oriental Research.

———. 2000. “Classification, Historiography and Monumental Authority: The Babylonian Entitlement *narû*s (*kudurrus*).” *JCS* 52: 95-114.

Snell, D. C. 1982. *Ledgers and Prices: Early Mesopotamian Merchant Accounts* (Yale Near Eastern Researches 8). New Haven: Yale University Press.

von Soden, W. 1994. *The Ancient Orient: An Introduction to the Study of the Ancient Near East.* Translated by D. G. Schley. Grand Rapids: Eerdmans.

van Soldt, W. 2015. *Middle Babylonian Texts in the Cornell University Collections: I, The Later Kings* (CUSAS 30). Bethesda: CDL Press.

———. 1978. Review of *Sozialökonomische Texte und Rechtsurkunden aus Nippur zur Kassitenzeit*, by I. Bernhardt. *BIOR* 35: 228-230.

Sommerfeld, W. 1995. “The Kassites of Ancient Mesopotamia: Origins, Politics, and Culture.” In *Civilizations of the Ancient Near East, Vol. 1*, ed. by J. M. Sasson, J. Baines, G. Beckman, and K. S. Rubinson, 917-930. New York: Charles Scribner's Sons.

Steinkeller, P. 2004. "The function of written documentation in the administrative praxis of early Babylonia." In *Creating economic order: Record-keeping, standardization, and the development of accounting in the ancient Near East,* ed. by M. Hudson and C. Wunsch (International Scholars Conference on Ancient Near Eastern Economies 4), 65-88. Bethesda: CDL.

———. 1999. “On Rulers, Priests, and Sacred Marriage.” In *Priests and Officials in the Ancient Near East: Papers of the Second Colloquium on the ancient Near East - The City and Its Life Held at the Middle Eastern Culture Center in Japan (Mitaka, Tokyo), March 22-24, 1996,* ed. by K. Watanabe, 103-138. Heidelberg: Universitätsverlag C. Winter.

———. 1995. "Sheep and Goat Terminology in Ur III Sources from Drehem." *BSA* 8: 49-70.

Stępień, M. 2012. “The Economic Status of Governors in Ur III Times: An Example of the Governor of Umma.” *JCS* 64: 17-30.

Stol, M. 2016. *Women in the Ancient Near East.* Translated by H. Richardson and M. Richardson. Boston and Berlin: de Gruyer.

———. 1995. "Old Babylonian Cattle." *BSA* 8: 173-213.

Stolper, M. W. 1985. *Entrepreneurs and Empire: The Murašû Archive, the Murašû Firm, and Persian Rule in Babylonia* (PIHANS 54). Leiden: Nederlands Historisch-Archaeologisch Instituut in het Nabije Oosten.

Strudwick, N. 1985. *The Administration of Egypt in the Old Kingdom.* London: KPI.

Tenney, J. 2011. *Life at the Bottom of Babylonian Society: Servile Laborers at Nippur in the 14th and 13th Centuries BC* (CHANE 51). Leiden: Brill.

Torczyner, H. 1913. *Altbabylonische Tempelrechnungen* (ATR). Vienna: A. Hölder.

Van De Mieroop, M. 1993. “Sheep and Goat Herding According to the Old Babylonian Texts from Ur.” *BSA* 7: 161-182.

Veenhof, K. R. 2005. *Letters in the Louvre* (AbB 14). Leiden: Brill.

Waetzoldt, H. 1972. *Untersuchungen zur neusumerischen Textilindustrie.* Roma: Instituto per l’Oriente.

Walker, C. B. F. 1972. *Cuneiform Texts from Babylonian Tablets in the British Museum, Part 51: Miscellaneous Texts* (CT 51). London: Trustees of the British Museum.

Westbrook, Raymond and Claus Wilcke. 1974/1977. “The Liability of an Innocent Purchaser of Stolen Goods in Early Mesopotamian Law.” *AfO* 25: 111-121.

Westenholz, A. 1992. “The Early Excavators of Nippur.” In *Nippur at the Centennial: Papers Read at the 35th Rencontre Assyriologique Internationale, Philadelphia, 1988,* ed. by M. deJong Ellis, 291-296. Philadelphia: The University Museum.

Woods, C. 2007. “The Paleography and Values of the Sign KIB.” In *Studies Presented to Robert D. Biggs, June 4, 2004* (AS 27), ed. by M. T. Roth, W. Farber, M. W. Stolper, and P. von Bechtolsheim, 325–341. Chicago: The Oriental Institute of the University of Chicago.

Yamada, S. 2011. “A ‘*pudûm*’ rotation list from Tell Taban and the cultural milieu of Ṭabatum in the post-Hammurabi period.” *RA* 105: 137-156.

Zettler, R. L., J. A. Armstrong, J. Boessneck, J. A. Brinkman, G. Falkner, M. Gibson, M. Kokabi, A. McMahon, J. C. Sanders, and P. M. Sanders. 1993. *Nippur III: Kassite Buildings in Area WC-1* (OIP 111). Chicago: Oriental Institute of the University of Chicago.

Zettler, R. L. 1992a. “Excavations at Nippur, The University of Pennsylvania, and the University’s Museum.” In *Nippur at the Centennial: Papers Read at the 35th Rencontre Assyriologique Internationale, Philadelphia, 1988,* ed. by M. deJong Ellis, 325-336. Philadelphia: The University Museum.

———. 1992b. *The Ur III Temple of Inanna at Nippur: The Operation and Organization of Urban Religious Institutions in Mesopotamia in the Late Third Millennium B.C.* (BBVO 11). Berlin: Dietrich Reimer Verlag.