

# The Administration of Storage in Early Babylonia

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This article examines the epigraphic sources from the late third millennium BC from the city of Ur in southern Mesopotamia in order to reconstruct the organization of the city's centrally controlled storehouse e<sub>2</sub>-kišib<sub>3</sub>-ba, and to analyze the in- and outflow of products and commodities in this facility. It is argued that a better understanding of the administrative context of this institution as it is reflected in the textual documentation can help us reconstruct in more concrete terms the overall structure of the higher levels of the so-called household economy of the third millennium Sumerian city-states.

**Keywords:** e<sub>2</sub>-kišib<sub>3</sub>-ba, storage, household, Sumer, Ur

## I. Introduction

The organization of cities in southern Mesopotamia during the third and early second millennium can be characterized by a significant degree of systemic cohesion (e.g. Oppenheim 1948, viii; Stone 2002, 83), and Walter Sallaberger (2014, 105) recently characterized the economy of ancient southern Babylonia as inherently “stable, despite political changes and turmoils. Thus the Ur III state mainly represented a new overlying structure, which despite its general influence left the base intact.” In particular, the establishment and endorsement of large institutions with specialized purposes are significant for the entire period (see Maekawa 1999). These large socio-economic units—typically, and somewhat inappropriately,<sup>1</sup> referred to by Assyriologists as public or urban households—would often consist of several smaller economic units, which in turn can be divided into two types. The first type was primarily involved in the organization of various forms of production, while the second type was concerned with the collection, storage and distribution of agricultural and animal products, manufactured products and raw materials. Examples of the first category include units responsible for the organization of agricultural fields, orchards, forests, metal workshops, tanneries, textile mills, etc. (see Gelb 1979, 8), while the second type is best represented by granaries and storehouses. Some large “households,” or state institutions, such as major temples, could include a number of smaller specialized units, and could therefore be involved both in the production and collection as well as the storage and distribution of products.

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<sup>1</sup> The understanding of “household” amongst Assyriologists goes far beyond the traditional meaning of a family or extended family living together, and extends in meaning to cover any socio-economic unit regardless of size and complexity.

## II. The e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur and Southern Mesopotamia

Judging from the number of attestations in the administrative Ur III texts from the city of Ur, the e<sub>2</sub>-kišib<sub>3</sub>-ba, which literally means “house of the seal,” was one of the city’s most important institutions. Approximately one hundred and fifty texts from Ur refer to this institution.<sup>2</sup> This number of references is roughly comparable to the number of references to the city’s main temple, dedicated to the moon god Nanna (e<sub>2</sub>-<sup>d</sup>Nanna), and is nearly twice as large as the number of texts referring to the palace in the city (e<sub>2</sub>-gal). While such a relatively high frequency of references to this institution certainly must be attributed to circumstances surrounding the recovery of the tablets from the city, there can be no doubt that the “house of the seal” was an important institution in Ur.

We have in total about 4,500 published Ur III tablets from Ur, which means that a little over 3% of all texts from the city mention the e<sub>2</sub>-kišib<sub>3</sub>-ba in some context. This number of attestations is almost twice as high as in the texts from Puzriš-Dagan, where approximately 1.7% of the published texts make reference to the e<sub>2</sub>-kišib<sub>3</sub>-ba, which in turn is comparable to the proportion of texts that mentions the e<sub>2</sub>-kišib<sub>3</sub>-ba in the more recently published material from ancient GARšana (see Owen and Mayr 2007). In other Ur III cities (i.e. Girsu, Umma and Nippur) the e<sub>2</sub>-kišib<sub>3</sub>-ba appears somewhat less frequently, with less than 1% of the total number of published texts mentioning the e<sub>2</sub>-kišib<sub>3</sub>-ba. However, just as a particular institution can be over-represented in the material recovered from a site, it can also be under-represented, and we have no real reason to assume that the e<sub>2</sub>-kišib<sub>3</sub>-ba in other Ur III cities should have been any less important than it was in the capital. Nevertheless, the salient point is that the e<sub>2</sub>-kišib<sub>3</sub>-ba is represented in all Ur III cities that have produced any significant numbers of texts. Based on this, we can, with some level of confidence, conclude that every city in the Ur III had a centrally controlled storehouse. Worthy of note here is that the e<sub>2</sub>-kišib<sub>3</sub>-ba is also attested in Old Akkadian texts from Girsu (*CT* 50 158; *CUSAS* 26 207; *DPA* 24; *STTI* 174) and Adab (*Adab* 646, 938, 1121), as well as in early Old Babylonian texts from Isin (e.g. *BIN* 10 1, 2, 3, 5, 6, 8, 11, 13, etc.). The e<sub>2</sub>-kišib<sub>3</sub>-ba was clearly not an institution that was specific to the Ur III state.

Ur III texts are generally dated by year and month, and sometimes also by day, and 126 of the preserved references to the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur have preserved year names. The references are distributed over a period of roughly half a century, from the second half of Šulgi’s reign to the middle of Ibbi-Suen’s reign. While texts concerning the e<sub>2</sub>-kišib<sub>3</sub>-ba can be attributed to the reigns of both Amar-Suen and Šu-Suen, it is worthy to point out that approximately three quarters of all references to the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur come from two separate groups of texts: the first one is a four-year period, from Šulgi 42 (i.e., his 42<sup>nd</sup> year) to Šulgi 46, a period that has produced a total of 16 tablets mentioning the e<sub>2</sub>-kišib<sub>3</sub>-ba. The second very clear concentration of data comes from an eight-year period from Ibbi-Suen 1 to Ibbi-Suen 8. This second concentration has produced a total of 77 tablets concerned with the e<sub>2</sub>-kišib<sub>3</sub>-ba. The chronological distribution of attestations of the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur differs from the overall distribution of tablets from the city in one respect (see Widell 2003, 91–101): the large later “archive”<sup>3</sup> with texts from Ibbi-Suen 15, 16 and 17 dealing

<sup>2</sup> Not including storehouses referred to as e<sub>2</sub>-kišib<sub>3</sub>-ba attached to other institutions in the city, such as the e<sub>2</sub>-kišib<sub>3</sub>-ba<sup>d</sup>Nanna.

<sup>3</sup> The use of the term “archive” here is an obvious simplification of what really constitutes a chronologically defined accumulation of tablets concerned with a (more or less) common theme or topic. For a true appreciation of the complexity of an actual archive in ancient Mesopotamia, see Tanret 2008.

with precious materials, such as silver, gold and ivory, and the manufacturing of luxury items from these materials, does not contain any clear references to the  $e_2$ -kišib<sub>3</sub>-ba. Since the texts dated to these three years represent approximately one fifth of all dated texts from Ur, the complete absence of texts mentioning the  $e_2$ -kišib<sub>3</sub>-ba from this group is of some significance, and it is possible that the lack of references to the  $e_2$ -kišib<sub>3</sub>-ba in this group of texts should be understood as a sign of a dissolved or reduced function of the  $e_2$ -kišib<sub>3</sub>-ba during the second half of Ibbi-Suen's reign. Such a reduced or entirely vanished role of the  $e_2$ -kišib<sub>3</sub>-ba would have coincided with the city's rapidly contracting economy, and the Ur III state's successive interruptions and disappearance of administrative structures (see Cripps, forthcoming). If this theory has any merit, it should be noted that the available evidence does not allow for the secure identification of any alternative institution in the city, which could have assumed (or partly assumed) the function of the  $e_2$ -kišib<sub>3</sub>-ba.

### III. The $e_2$ -kišib<sub>3</sub>-ba in Ur during Šulgi's Reign

The texts referring to the  $e_2$ -kišib<sub>3</sub>-ba from the reign of Šulgi were primarily found during the fourth or fifth seasons of excavations. One text from Šulgi 44/vi (*UET* 3 314) was found during the seventh season, which suggests that, in all likelihood, it would have been excavated from the royal cemetery. This text, a receipt by *I-bi<sub>2</sub>-<sup>d</sup>Suen* from  $e_2$ -kišib<sub>3</sub>-ba of a product that probably should be understood as borax<sup>7</sup> ( $su_3$ -he<sub>2</sub>),<sup>4</sup> should be separated from the larger group of texts dealing with the  $e_2$ -kišib<sub>3</sub>-ba from Šulgi's reign. Instead, it seems likely that this text should be associated with the recently published fragment *Nisaba* 5/1 225 from Šulgi 25/iv, recording how lead from the smiths (*a-gar<sub>5</sub> simug-simug-ne*) was delivered from the  $e_2$ -kišib<sub>3</sub>-ba of the šabra administrators to the Nanna temple.

The find spots of individual tablets were rarely recorded in the excavation reports of Ur. However, we know that almost all texts excavated during the fourth and fifth seasons came from the so-called S.M. range, which was located in the sacred precinct of the city south-east of the temple of the goddess Ningal (Woolley and Mallowan 1976, 79–81), and it seems therefore likely that the texts referencing the  $e_2$ -kišib<sub>3</sub>-ba from these two seasons should be attributed to this area. Among the earlier texts from Šulgi's reign, we have deliveries by the  $e_2$ -kišib<sub>3</sub>-ba of wool, received (*šu ba-ti*) by *En-ša<sub>3</sub>-ga-mu* (Šulgi 39/i) and *E<sub>2</sub>-e-ki-ag<sub>2</sub>* (Šulgi 39/i and 44/i). Sesame oil (*i<sub>3</sub>-giš*)<sup>5</sup> was brought to the  $e_2$ -kišib<sub>3</sub>-ba ( $e_2$ -kišib<sub>3</sub>-ba-še<sub>3</sub>) as the *mu-ku<sub>x</sub>* (DU) deliveries of *Nig<sub>2</sub>-<sup>d</sup>Nin-gal* in two texts from Šulgi 38, and in Šulgi 39, *Nig<sub>2</sub>-<sup>d</sup>Nin-gal* is attested receiving (*šu ba-ti*) wool from the institution.

The aforementioned concentration of tablets dating from the period Šulgi 42 to Šulgi 46 is interesting. With the exception of one tablet (*UET* 3 837 from Šulgi 42/ix), which seems to be a disbursement of bitumen (*esir<sub>2</sub>*) to the  $e_2$ -kišib<sub>3</sub>-ba, all these texts record deliveries made by the  $e_2$ -kišib<sub>3</sub>-ba to different officials. The recipients of the deliveries were <sup>d</sup>*Utu-bar-ra* and *Lu<sub>2</sub>-me-lam<sub>2</sub>*, who received different types of hides, *Ku-li* and *Lu<sub>2</sub>-<sup>d</sup>Nanna*, who received dates, *Lu<sub>2</sub>-<sup>d</sup>Sukkal-an-*

<sup>4</sup> See discussion Englund 1990, 28–29, n. 99 with additional references.

<sup>5</sup> This article follows the conventional translation of *i<sub>3</sub>-giš* as “sesame oil.” However, as recently pointed out by Eric Cripps (forthcoming), there is no archaeobotanical evidence for the sesame plant in early Mesopotamia, and it is not entirely certain that *i<sub>3</sub>-giš* should be understood as sesame oil in the Ur III period, although it is clear that it denoted some kind of plant oil.

na, who received dates and sesame oil, ARAD<sub>2</sub>-<sup>d</sup>Nanna, who received reed, Uš-mu, who received (an) unknown product(s) in the fragment *UET* 9 1188, and the already mentioned *I-bi<sub>2</sub>-<sup>d</sup>Suen*, who received borax<sup>7</sup> (su<sub>3</sub>-he<sub>2</sub>). On one occasion (*UET* 3 1535 from Šulgi 44/i), the product, in this case different types of wool and yarn, was received under the supervision of the official E<sub>2</sub>-e-ki-ag<sub>2</sub> by a group of foremen of the female weavers (ugula uš-bar-ra-ke<sub>4</sub>-ne). One of Lu<sub>2</sub>-<sup>d</sup>Sukkal-an-na's two receipts is particularly interesting (*UET* 3 1130 from Šulgi 45/xii), indicating that the e<sub>2</sub>-kišib<sub>3</sub>-ba may have played a role outside the city of Ur. In this text, Lu<sub>2</sub>-<sup>d</sup>Sukkal-an-na received sesame oil from the e<sub>2</sub>-kišib<sub>3</sub>-ba, which was loaded onto ships (ma<sub>2</sub>-a ba-a-gar) destined for Nippur. With the exception of this particular shipment, the final destinations or purposes of the various products withdrawn from the e<sub>2</sub>-kišib<sub>3</sub>-ba remain unknown.

#### IV. The e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur during Amar-Suen's and Šu-Suen's Reigns

Only a handful of texts mention the e<sub>2</sub>-kišib<sub>3</sub>-ba during the nine-year reign of Amar-Suen. The texts were found during the third, fourth and fifth seasons of excavations, suggesting that they should be regarded as individual attestations of the e<sub>2</sub>-kišib<sub>3</sub>-ba without relation to each other, something that is further indicated by the fact that there is no clear pattern to the structures, contents or prosopographies of these texts.

One text is referred to as an account (nig<sub>2</sub>-ka<sub>9</sub>) of the e<sub>2</sub>-kišib<sub>3</sub>-ba, and concerns wages for low-level workers (guruš geš-gid<sub>2</sub>-da) calculated in silver (*UET* 3 1403 from Amar-Suen 2).<sup>6</sup> Another account from Amar-Suen 3 (*UET* 3 1399) records how large quantities of different rushes and palm tree fibers (<sup>u</sup>2 nin<sub>9</sub>, mangaga, peš-murgu<sub>2</sub>) are brought out of the e<sub>2</sub>-kišib<sub>3</sub>-ba, while large storage jars with oil (<sup>du</sup>g kur.KU.DU<sub>3</sub> i<sub>3</sub>) are being deposited in the institution (see further below). In *UET* 3 943 from Amar-Suen 3/viii, the e<sub>2</sub>-kišib<sub>3</sub>-ba receives as a mu-ku<sub>x</sub> (DU) delivery as much as 220 liters of crystallized potassium carbonate (or pearl ash) (naga-si-e<sub>3</sub>),<sup>7</sup> for the tanning of leather from the šabra administrator(s). Reed is received by the e<sub>2</sub>-kišib<sub>3</sub>-ba in one text from Amar-Suen 8 (*UET* 3 860), while *UET* 3 1443 from Amar-Suen 1/xii lists an unknown number of dependent workers belonging to the šar<sub>2</sub>-ra-ab-du official of the e<sub>2</sub>-kišib<sub>3</sub>-ba ([...] guruš šar<sub>2</sub>-ra-ab-du e<sub>2</sub>-kišib<sub>3</sub>-me). The meaning of the profession or function of the šar<sub>2</sub>-ra-ab-du remains unclear. As Kazuya Maekawa (1998, 78–79) has demonstrated from his Girsu “staff lists,” the šar<sub>2</sub>-ra-ab-du appears to have referred to a higher level administrator (an “elder” [ab-ba]), who in all likelihood should be associated with institutional agricultural production and management.

The few texts dated to Šu-Suen's reign dealing with the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur are equally variable and inconsistent. These texts were found during the first and third seasons of excavations. One text from Šu-Suen 1/viii (*UET* 9 369) describes how Gu<sub>3</sub>-zi-de<sub>2</sub>-a receives copper from e<sub>2</sub>-kišib<sub>3</sub>-ba for some kind of metal object (su-su gir<sub>2</sub><sup>?</sup>). A new terminology for texts listing products received by the institution is introduced from the second half of Šu-Suen's reign: e<sub>2</sub>-kišib<sub>3</sub>-ba-ka ba-an-ku<sub>x</sub> (*KWU* 636) “in(to) e<sub>2</sub>-kišib<sub>3</sub>-ba, it has been brought in.”<sup>8</sup> Examples of products entering the e<sub>2</sub>-

<sup>6</sup> For an in-depth discussion of Ur III worker compensations calculated in silver equivalences, see now Englund 2012.

<sup>7</sup> See discussion in Butz 1984, 282–283.

<sup>8</sup> Note that the expression e<sub>2</sub>-kišib<sub>3</sub>-ba-še<sub>3</sub> ba-an-ku<sub>x</sub> (*KWU* 636) “to the e<sub>2</sub>-kišib<sub>3</sub>-ba, it is brought” is attested in texts from Puzriš-Dagan already from Šulgi 37/v (*BIN* 5 113), and in GARšana from Ibbi-Suen 2/xii (*CUSAS* 3 1031), while ba-an-ku<sub>x</sub> with the sign *KWU* 147 is attested for the e<sub>2</sub>-kišib<sub>3</sub>-ba in Girsu from Šulgi 39 (*TUT* 130), and in Umma from

kišib<sub>3</sub>-ba during Šu-Suen's reign include spices, which were brought in by the merchant Lu<sub>2</sub>-giri<sub>17</sub>-zal (*UET* 3 1112 from Šu-Suen 7/v), and linen earmarked for the (statues of the) gods <sup>d</sup>En-lil<sub>2</sub> and <sup>d</sup>Nin-lil<sub>2</sub>, which was brought into the institution by the fuller Lu<sub>2</sub>-<sup>d</sup>Nin-in-si (*UET* 3 1558 from Šu-Suen 6/vi). Examples of products delivered by the e<sub>2</sub>-kišib<sub>3</sub>-ba, to the scribe ARAD<sub>2</sub>-<sup>d</sup>Nanna, include wine, sesame oil, fish, wood, spices and reed (*UET* 3 944 from Šu-Suen 8/vi).

### V. The e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur during Ibbi-Suen's Reign

The majority of the tablets dated to the reign of Ibbi-Suen referring to the e<sub>2</sub>-kišib<sub>3</sub>-ba originally belonged to the “earlier archive” in the reign of this king (Widell 2003, 98–99), which mainly concerned garments, but also oil- or other fat products, grain products, spices, livestock and fruits (mainly dates). The four-year period from Ibbi-Suen 5 to Ibbi-Suen 8 has produced approximately 950 tablets from Ur, of which 42 concern the e<sub>2</sub>-kišib<sub>3</sub>-ba. Eight of these tablets (19%) record how different types of textiles were brought out of the e<sub>2</sub>-kišib<sub>3</sub>-ba. This would be consistent with the proportion of the texts dealing with various types of textiles from all the texts from the city dated to these four years. The available references to the e<sub>2</sub>-kišib<sub>3</sub>-ba do not suggest that the institution should be connected to the storage of barley or other grain products, or to livestock and animal husbandry.

A handful of texts with references to the e<sub>2</sub>-kišib<sub>3</sub>-ba do not come from this earlier accumulation of texts in Ibbi-Suen's reign. For example, the fragmentary multi-columned tablet *UET* 3 702 from the twelfth month of Ibbi-Suen 12, which also happens to be our last dated reference to the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur, lists large quantities of copper, bronze, gold and silver from various institutions, including the e<sub>2</sub>-kišib<sub>3</sub>-ba, which were received by the šabra administrator Ur-<sup>d</sup>Da-mu. While this shows that the e<sub>2</sub>-kišib<sub>3</sub>-ba was also supplying metals for the metal industry in Ur, it should be noted that its contribution of 42 mina of bronze (ca. 21 kg) was rather modest compared to what the other institutions in the text contributed. The late date, the content and the personal names featuring in the text, suggest that it should be considered an early text belonging to the “later archive” in Ibbi-Suen's reign, which primarily concerned the metal industry in the city. Another similar text is *UET* 3 383 from Ibbi-Suen 7/xii/1, in which the e<sub>2</sub>-kišib<sub>3</sub>-ba delivers old copper tools to the smiths to be repaired or remade into new objects. Further evidence that the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur played an important role in the trade of raw metals during Ibbi-Suen can be seen in two texts recording metal from merchants brought into the e<sub>2</sub>-kišib<sub>3</sub>-ba. The text *UET* 3 405 from Ibbi-Suen 8/x only concerns smaller amounts of tin (AN.NA) and borax<sup>7</sup> (su<sub>3</sub>-he<sub>2</sub>), while *UET* 3 749 (with a broken date formula) shows that larger amounts of copper (about 223 kg) could be stored in the e<sub>2</sub>-kišib<sub>3</sub>-ba. The fact that the institution obviously did store and supply the craftsmen and workshops with metal or old metal objects until at least the beginning of Ibbi-Suen 13 makes the complete absence of references to the institution in the large “later archive” dated to Ibbi-Suen 15–17 noteworthy, and might suggest a highly reduced, or perhaps completely vanished, role of the e<sub>2</sub>-kišib<sub>3</sub>-ba in the city after Ibbi-Suen 13.

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<sup>7</sup>Sulgi 47 (*UTI* 6 3735; *CDLJ* 2012/1 3.10).

## VI. Scale and Physical Location of the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur

A few texts provide further information on the function and importance of the e<sub>2</sub>-kišib<sub>3</sub>-ba during Ibbi-Suen's reign. In *UET* 3 887 from Ibbi-Suen 6/xii, the official Ga-ti-e delivers 300 empty (su<sub>3</sub>)<sup>duš</sup>kur.KU.DU<sub>3</sub> jars to the e<sub>2</sub>-kišib<sub>3</sub>-ba, and in *UET* 3 890, dated to the same year, he delivers another 354 empty<sup>duš</sup>kur.KU.DU<sub>3</sub> jars to the institution. In *MVN* 3 311 from Ibbi-Suen 8/iii/5, he receives "for the fourth time" (a-ra<sub>2</sub> 4-kam) 11<sup>duš</sup>kur.KU.DU<sub>3</sub> jars from the e<sub>2</sub>-kišib<sub>3</sub>-ba on behalf of the official<sup>d</sup>Šul-gi-uru-mu, this time filled with sesame oil.<sup>9</sup> The KUR-KU-du<sub>3</sub> jars were large, with capacities ranging from 3 ban<sub>2</sub> (= 30 liters) to over 2 gur (= 600 liters) (Waetzoldt 1971, 16-17). The average capacity of the jars with sesame oil withdrawn from the e<sub>2</sub>-kišib<sub>3</sub>-ba in *MVN* 3 311 was approximately 207 liters, and if we assume that the 654 empty jars deposited in the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ibbi-Suen 6 were of similar size, the e<sub>2</sub>-kišib<sub>3</sub>-ba would be able to store some 125 metric tons of sesame oil in Ibbi-Suen 6.<sup>10</sup> Incidentally, the modern standard steel drum has a nominal volume capacity of 208 liters (55 US gallons), and has exterior dimensions of roughly 86 centimeters in height and 61 centimeters in diameter. Assuming they are not stacked on top of each other, approximately 250 square meters would be required to accommodate 654 steel drums, and the space would have to be even greater for ancient ceramic jars of the same volume capacity. To accommodate such impressive quantities, it is clear that the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur must have been a very large building or, as Piotr Steinkeller has tentatively suggested for the city of Umma (2007, 192), a larger complex of separate warehouses. These references to very large numbers of empty jars being deposited in the e<sub>2</sub>-kišib<sub>3</sub>-ba are important, since they show that the e<sub>2</sub>-kišib<sub>3</sub>-ba should be understood as a physical entity in the city of Ur, rather than as a purely administrative unit, where products "stored" in the e<sub>2</sub>-kišib<sub>3</sub>-ba would remain in local storage facilities in and around the city, and exist in the e<sub>2</sub>-kišib<sub>3</sub>-ba only as administrative entries on tablets in the institution's archive. Note, however, that the understanding of the e<sub>2</sub>-kišib<sub>3</sub>-ba as a physical storage that was probably located somewhere in the center of the city does not necessarily mean that the archive of the e<sub>2</sub>-kišib<sub>3</sub>-ba was attached to it. As pointed out by Steinkeller (2004), the administration of a Mesopotamian household, and the associated archive, could (and in all likelihood often was) entirely separated from the household's physical activities.

It has not been possible to securely identify any building in the city as the e<sub>2</sub>-kišib<sub>3</sub>-ba. One possibility is the large e<sub>2</sub>-nun-mah complex, with its 2.7 meters thick external walls, located immediately south-east of the Great Courtyard of Nanna, and north-east of the e<sub>2</sub>-dub-la<sub>2</sub>-mah, which has produced the majority of the texts with references to the e<sub>2</sub>-kišib<sub>3</sub>-ba.<sup>11</sup> This building, which measured 57 × 57 meters, goes back to the Ur III period, and was probably first constructed by Ur-Nammu. According to Leonard Woolley (1974, 45-46), an independent five-room unit in the

<sup>9</sup> According to Hartmut Waetzoldt (1971, 16–17),<sup>duš</sup>kur.KU.DU<sub>3</sub> jar was primarily used to store oil, but could also be used for beer, sausages, grain, earth and honey.

<sup>10</sup> Assuming that 1 liter sesame oil equals 0.922 kg.

<sup>11</sup> Note, however, that the foundations of the various Ur III buildings within the temenos wall of the city continued to be in use long after the tablets originally stored in them had become obsolete as administrative tools, and the Ur III tablets have therefore largely been excavated from secondary contexts, such as ancient refuse dumps or buildings where they served merely as filling under the floors (Charpin 1986, 153). Room 8 of the e<sub>2</sub>-dub-la<sub>2</sub>-mah (sometimes called the "Registrar's Office") cannot be considered to be the original location for the large number of Ur III tablets excavated there (Jacobsen 1953, 125–126).

middle of the complex, measuring  $22.8 \times 16.8$  meters, served as a sanctuary dedicated to the joint worship of the city's patron deity Nanna and his consort Ningal, both of whom can be associated with the  $e_2$ -kišib<sub>3</sub>-ba in the textual record (see below). The sanctuary was encircled by a fairly wide passageway, which in turn was surrounded by a series of elongated magazine-like rooms, which could well have served as storage rooms (Woolley 1974, 46). Excluding the central sanctuary, any passageways that clearly were intended for foot traffic, and all internal walls, the Ur III  $e_2$ -nunmah would have provided approximately 1,000 square meters of floor space available for storage purposes.

### VII. Transactions Involving the $e_2$ -kišib<sub>3</sub>-ba in Ur

There are approximately four times as many records listing commodities being withdrawn from the  $e_2$ -kišib<sub>3</sub>-ba as references to commodities being brought into the institution. This imbalance is not surprising, and is the result of how and where records of transactions were archived in ancient Mesopotamia, and how and where archaeologists have focused their excavations in more modern times. When a commodity was distributed from the  $e_2$ -kišib<sub>3</sub>-ba, the record of the transaction would be kept in the archive of the  $e_2$ -kišib<sub>3</sub>-ba, but when a commodity entered the  $e_2$ -kišib<sub>3</sub>-ba from somewhere else, the record of the transaction would be kept with the party that provided the commodity (see Steinkeller 2003, 37–38). For this reason, most of the transactions recording products entering the  $e_2$ -kišib<sub>3</sub>-ba have not been recovered, since many of the institutions or offices responsible for such deliveries probably would have been located on the outskirts or outside the city of Ur (see Steinkeller 2007, 190–192; Widell 2010). Of course, it is worthy to note here that the administrative office and its associated tablet archive by no means had to be physically attached to the institution it administrated, and an institution located on the outskirts of a city could very well have been centrally administrated (see Steinkeller 2004). Thus, it is perhaps not surprising that the relatively modest number of recovered texts that do record products entering the  $e_2$ -kišib<sub>3</sub>-ba have been found all over the city. They mainly concern products related to food and food production, such as fish and fruits, although some texts also list deliveries of metals and textiles. The quantities of these deliveries to the  $e_2$ -kišib<sub>3</sub>-ba are typically modest.

### VIII. Officials Associated with the $e_2$ -kišib<sub>3</sub>-ba

It is not possible to connect any higher official to the  $e_2$ -kišib<sub>3</sub>-ba the way we can link, for example, the Umma official Arad<sub>2</sub>-mu to that city's centrally controlled granary (e.g. Johnson 2017). The reason for this is that the different texts mentioning the  $e_2$ -kišib<sub>3</sub>-ba in Ur almost always refer to the institution simply by its name, without revealing the name of the official representing the institution in the transactions.

On the other hand, several officials are recorded by name in connection to withdrawals from the  $e_2$ -kišib<sub>3</sub>-ba (and in some cases also deliveries to the institution), of which ten are attested more than twice.

The first six officials in the table that were active during the reign of Šulgi may all have represented one single institution, for which they received various products from the  $e_2$ -kišib<sub>3</sub>-ba,

**Table 1: Officials in the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur**

| Name  | Active Period               | Spheres of Interests   |
|---|-----------------------------|--|
| Nig <sub>2</sub> - <sup>d</sup> Nin-gal     | Šulgi 38–39                 | sesame oil, wool   |
| E <sub>2</sub> -e-ki-ag <sub>2</sub>        | Šulgi 39 and 44             | wool   |
| Ku-li                                       | Šulgi 42–43                 | dates  |
| Lu <sub>2</sub> -me-lam <sub>2</sub>        | Šulgi 42–43                 | hides  |
| <sup>d</sup> Utu-bar-ra                     | Šulgi 42–43<br>(mainly 43)  | hides, brick moulds, goat hair                                       |
| Lu <sub>2</sub> - <sup>d</sup> Sukkal-an-na | Šulgi 43–45                 | dates, sesame oil  |
| Ur- <sup>d</sup> Šul-gi-ra                  | Ibbi-Suen 5–7<br>(mainly 6) | textiles, linen  |
| Ur- <sup>d</sup> Šul-pa-e <sub>3</sub>      | Ibbi-Suen 6                 | fish   |
| Ga-ti-e                                     | Ibbi-Suen 6–8<br>(mainly 6) | sesame oil, empty jars, dates, figs, fruit, wine, honey, butter lard |
| <i>Puzur<sub>4</sub>-E<sub>2</sub>-a</i>    | Ibbi-Suen 6–8               | beer/bread, wool, peas, gazi herb/plant                              |

or from which they delivered products to the e<sub>2</sub>-kišib<sub>3</sub>-ba.<sup>12</sup> Although no institution is specifically mentioned in the texts, one possibility could be that they represented the important temple of the goddess Ningal, which in Ur was called gi<sub>6</sub>-par<sub>4</sub>-ku<sub>3</sub> “The pure gi<sub>6</sub>-par<sub>4</sub> (house),” and was located immediately north-west of the S.M. range in the city (George 1993, 93), where the tablets with these officials most likely were excavated. In addition to the find context of the texts, this affiliation might be further suggested by the fact that Ku-li’s father Gi<sub>6</sub>-par<sub>4</sub>-ki-du<sub>10</sub> was a prominent cultic official (sagi) in the gi<sub>6</sub>-par<sub>4</sub>-ku<sub>3</sub> at the time (see seal impression on the tablet *UET* 3 1083 and envelope *UET* 9 1310), and offices are well known to have been hereditary in the Ur III period (see Dahl 2007; Widell 2009). It is plausible that the personal name Gi<sub>6</sub>-par<sub>4</sub>-ki-du<sub>10</sub>, which literally translates “the gi<sub>6</sub>-par<sub>4</sub> (house) is a good place,” was an adopted professional name for this high-level official in the gi<sub>6</sub>-par<sub>4</sub>-ku<sub>3</sub>.<sup>13</sup> In this light, it is interesting to note the official Nig<sub>2</sub>-<sup>d</sup>Nin-gal (literally “commodity of the goddess Ningal”), who is attested in two texts from Šulgi 38 to have brought mu-ku<sub>x</sub> (DU) deliveries of sesame oil to the e<sub>2</sub>-kišib<sub>3</sub>-ba, and also to have received wool from the institution in the year Šulgi 39.

While the fish-receiving Ur-<sup>d</sup>Šul-pa-e<sub>3</sub> or the all-round receiver *Puzur<sub>4</sub>-E<sub>2</sub>-a* remain obscure, a few words can be said about the officials Ga-ti-e and Ur-<sup>d</sup>Šul-gi-ra. While these two officials obviously co-operated with the e<sub>2</sub>-kišib<sub>3</sub>-ba, they should not be understood as working for this institution, as they both frequently appear in more or less identical transactions involving other offices in Ur.

<sup>12</sup> In the case of Nig<sub>2</sub>-<sup>d</sup>Nin-gal, who is attested to have brought products both in and out of the e<sub>2</sub>-kišib<sub>3</sub>-ba.

<sup>13</sup> For the practice of Ur III officials adopting new names seen as more befitting of their status/function within the administration, see Andersson 2012, 56–57 with additional literature.



## IX. Ga-ti-e and Ur-<sup>d</sup>Šul-gi-ra

The official Ga-ti-e, who never reveals his official title in the texts, is attested in texts from Ibbi-Suen 6–8. While his dealings with the e<sub>2</sub>-kišib<sub>3</sub>-ba mainly seem to have taken place in Ibbi-Suen 6, the majority of the attestations to this official in general come from Ibbi-Suen 7 and 8. Most of what Ga-ti-e received from the e<sub>2</sub>-kišib<sub>3</sub>-ba was earmarked as regular contributions (sa<sub>2</sub>-du<sub>11</sub>) for the god <sup>d</sup>Nanna (e.g. *UET* 3 149, 164, 209, 410, 1089; *SAT* 3 2015, 2016). Since he also receives contributions for Nanna from other offices, it is possible that he should be connected to the Nanna temple in Ur. However, the products received by Ga-ti-e from the e<sub>2</sub>-kišib<sub>3</sub>-ba were also frequently intended as regular contributions (sa<sub>2</sub>-du<sub>11</sub>) for “other” (didli) deities or the “minor deities” (dingir-tur-tur-ne), and a more likely interpretation would be to view Ga-ti-e as an official that was not tied to any specific institution, whose job was to oversee transfers of various types of food products between the different production- and storage facilities in the city (see Widell 2004a). This flexible role of Ga-ti-e within the administrative system is supported by the textual evidence. In the majority of the texts, Ga-ti-e is attested withdrawing products from the e<sub>2</sub>-kišib<sub>3</sub>-ba, but in *UET* 3 1099 from Ibbi-Suen 7/viii, he is instead delivering dates to the institution. Moreover, in a few texts, such as *SAT* 3 2027 from Ibbi-Suen 8, or *UET* 3 1099 from Ibbi-Suen 7/viii, Ga-ti-e is the recipient of food products that enters (ku<sub>x</sub>-ra [*KWU* 636] or ba-an-ku<sub>x</sub> [*KWU* 636]) the e<sub>2</sub>-kišib<sub>3</sub>-ba. The function of Ga-ti-e within the administrative system of Ur would separate him from the various scribes withdrawing grain from the city’s granary, who seem to have been acting only on behalf of their respective institutions (see Widell 2004b).

The official Ur-<sup>d</sup>Šul-gi-ra, who may have been a scribe (see Waetzoldt 1972, 107 n. 230), is attested from Ibbi-Suen 4 until Ibbi-Suen 7 withdrawing various textiles and products connected to the textile industry from the e<sub>2</sub>-kišib<sub>3</sub>-ba (e<sub>2</sub>-kišib<sub>3</sub>-ba-ta šu ba-an-ti). It is not possible to connect Ur-<sup>d</sup>Šul-gi-ra to any specific institution, and it seems likely that he played a similar role as Ga-ti-e, organizing the transports of goods between the different institutions both inside and outside the city.<sup>14</sup>

## X. Summary and Final Remarks

The available evidence from Ur indicates that the e<sub>2</sub>-kišib<sub>3</sub>-ba, next to the palace and the temple of the city’s patron deity Nanna, was one of the more important administrative institutions in the city. Alongside the city’s centrally controlled granary (gur<sub>7</sub>) used for the storage of barley, the e<sub>2</sub>-kišib<sub>3</sub>-ba represented with little doubt the city’s most prominent “public household” dedicated to the storage and distribution of agricultural and animal products, manufactured products and raw materials. In this capacity, the e<sub>2</sub>-kišib<sub>3</sub>-ba supported and interacted with most public institutions involved in the city’s production, such as dairy farms, metal workshops or textile mills. Numerous references to the e<sub>2</sub>-kišib<sub>3</sub>-ba from other cities in the Ur III state indicate that similar institutions existed in all major cities in the late third millennium. Moreover, an institution referred to as e<sub>2</sub>-

<sup>14</sup> Waetzoldt’s (1972, 107) suggestion that Ur-<sup>d</sup>Šul-gi-ra worked in the e<sub>2</sub>-kišib<sub>3</sub>-ba-ga<sub>2</sub>-nun-mah cannot be confirmed with certainty. The assumption was based on Ur-<sup>d</sup>Šul-gi-ra’s frequent dealings with the scribe Ur-<sup>d</sup>Nin-mug, who sometimes acted as the responsible official (giri<sub>3</sub>) in transactions where the e<sub>2</sub>-kišib<sub>3</sub>-ba-ga<sub>2</sub>-nun-mah receives goods, and therefore may have worked in this institution. For the possibility of Ur-<sup>d</sup>Šul-gi-ra working outside the city of Ur (e.g. in the e<sub>2</sub>-<sup>d</sup>Sara<sub>2</sub> and the Šu-na-mu-gi<sub>4</sub>, see Waetzoldt 1972, 107).

kišib<sub>3</sub>-ba is attested in texts dated to both the Old Akkadian and Old Babylonian periods, and it seems likely that the institution of the e<sub>2</sub>-kišib<sub>3</sub>-ba was a regular and important feature in all major Babylonian cities in southern Mesopotamia.

Most of the Ur III records describing the activities of the e<sub>2</sub>-kišib<sub>3</sub>-ba in the city of Ur come from two different groups of texts. The first group can be dated to the end of Šulgi's reign. These texts show that the e<sub>2</sub>-kišib<sub>3</sub>-ba was supplying wool, hides and fruit, possibly to the temple of the goddess Ningal. Since two of the texts record how sesame oil was delivered to the e<sub>2</sub>-kišib<sub>3</sub>-ba, we also know that the institution stored oil during this period of time. A later group of texts recording transactions involving the e<sub>2</sub>-kišib<sub>3</sub>-ba can be dated to the earlier part of the Ibbi-Suen's reign. Most of these texts were part of the earlier group of texts from the king's first eight years in power (peaking between Ibbi-Suen 5 and 8). These texts primarily concern textiles, grain, oil and fruits. These products, with the exception of grain, which we know was kept in the city's granaries, become the main goods stored in the e<sub>2</sub>-kišib<sub>3</sub>-ba. However, a few additional texts show that the e<sub>2</sub>-kišib<sub>3</sub>-ba also functioned as a supplier of metal to the craftsmen in Ibbi-Suen's reign. These few texts can all be dated to before Ibbi-Suen 14, but they clearly belonged in the later group of tablets in Ibbi-Suen's reign, which primarily covered the years Ibbi-Suen 15, 16 and 17. Since our last reference to the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur is dated to Ibbi-Suen 13, one might speculate that the institution's activity for some reason came to an early end shortly after Ibbi-Suen 13.

The administration of the e<sub>2</sub>-kišib<sub>3</sub>-ba was almost certainly located in the center of Ur, which was also the focus of the excavations of the city, and the majority of the recovered texts that mention the e<sub>2</sub>-kišib<sub>3</sub>-ba were part of a central archive belonging to the institution. Other institutions dealing with the e<sub>2</sub>-kišib<sub>3</sub>-ba would in many cases have been located on the outskirts of the city or in the surrounding countryside, and texts from the archives of these institutions have only been recovered in limited numbers. The administrative practice in ancient Mesopotamia of keeping records of withdrawals of products from an institution (but not of products entering it), most likely results in the recovered texts presenting a somewhat lopsided representation of the activities of the e<sub>2</sub>-kišib<sub>3</sub>-ba. Large amounts of products are received from the e<sub>2</sub>-kišib<sub>3</sub>-ba by various officials representing other institutions in the city, but very little appears to be coming in. This imbalance has also resulted in situation where it remains difficult to associate any higher official with the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur. In ancient Mesopotamia, individual officials typically receive (šu ba-ti or šu ba-an-ti) products on behalf of their respective institutions, while the supply of products from an institution seldom requires a named official. In other words, the texts coming from the archive of the e<sub>2</sub>-kišib<sub>3</sub>-ba offer valuable data on the officials working in various other institutions in the city, but do not provide nearly as much information on the e<sub>2</sub>-kišib<sub>3</sub>-ba's own officials. In addition to this, some of the officials regularly withdrawing products from the e<sub>2</sub>-kišib<sub>3</sub>-ba (i.e. Ga-ti-e and Ur-<sup>d</sup>Šul-gi-ra) appear to have operated as more independent distributors/transporters of goods between the various institutions both inside and outside the city. The documents with these officials demonstrate that the e<sub>2</sub>-kišib<sub>3</sub>-ba in Ur supplied the city's temples with goods, and that food and drink from the e<sub>2</sub>-kišib<sub>3</sub>-ba was frequently provided for the sa<sub>2</sub>-du<sub>11</sub> contribution to city's patron deity Nanna as well as other less prominent deities in the city.

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