## Harvesters all: Closing devices on reverses of archaic Ur sealings (2900–2700 BC)

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## **Abstract**

I intend to study the closing devices impressed into reverses of the archaic sealings excavated by the Leonard Woolley expedition (1922–1934) at the Sumerian city of Ur. I will focus on the question how these devices guaranteed safety of the contents of the sealed entities and objects. I will then compare my findings with data from similar functional contexts.

In contrast to characterizations of ancient Mesopotamians as uncivilized barbarians and bloodthirsty war-mongers, a more nuanced interpretation of the data suggests that a logic did indeed govern the application of violence and that a range of attitudes toward it, including the concern for personal safety, existed.<sup>1</sup>

The ancient Near Eastern idea of cosmos was one of a *creatio continua*, an order that must be constantly re-established. Disruptive elements were perceived as parts of the cosmos itself, and kings bore the charge of permanent re-integrating of such phenomena in the existing order. Creation constituted a part of the present time, and was not restricted to the mythical narratives taking up the origins and emergence of the present world. Thus, the necessity of waging war, and even killing, followed out of the suzerains' task of establishing and maintenance of the political order, and with it, peace and prosperity.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup>SooHoo, 2019: 7.

<sup>&</sup>lt;sup>2</sup>Pongratz-Leisten, 2007: 13–14.

In the Sumerian literature, violence ( $a_2$ -zig $_3$ -ga) is always illegitimate since it involves the unjust use of power or force.<sup>3</sup> Actions undertaken to establish or restore justice and order were, however, not considered violence by the ancient Mesopotamians. In fact, such behavior had a positive value since it is socially and culturally acceptable.

What counts as violence often depends on cultural assumptions about personhood and agency.<sup>4</sup> Human behaviour conforms to cultural norms and reflects the values of a society. By presenting an ordered, coherent narrative, myths normalize and render plausible, generating legitimacy for the violence it condones and advocates. Myth is true because it is discourse involving a story that interprets reality convincingly.<sup>5</sup>

In ancient Mesopotamia, all individuals were embedded in social networks and identity was determined by these relationships, which included both other humans and the divine. Cosmic order, personal well-being, and the flourishing of society were interconnected.<sup>6</sup> Personhood was conceptualized in terms of the social functions and roles an individual inhabited in relation to others.<sup>7</sup>

Every animal and human being that left the safety of the city or the military camp required divine protection because anyone could become prey to the forces of chaos and disorder. Danger, however, was not limited to that which was beyond the confines of the civilized world of the city and, by extension, of the military camp. There was suspicion towards foreigners, often distinguished by their different language, who were employed by the administrators of a city or district.<sup>8</sup>

What harmed the king would have affected his people and the space he inhabits, and vice versa. The army, for instance, was considered an extension of the royal person, and the domain of the king, symbolized by the city, had to be protected from the evil or impurity that threatens from all sides.<sup>9</sup>

As early as the turn of the 4<sup>th</sup> and 3<sup>rd</sup> millennium BC, war symbolism included ostentatious display of weaponry within monumental (public?) buildings. This is indicated by the array of arms paraded in the "Weapons Building" at Arslantepe VIA.<sup>10</sup> Herein perhaps belong also the preparation

<sup>&</sup>lt;sup>3</sup>SooHoo, 2019: 17.

<sup>&</sup>lt;sup>4</sup>SooHoo, 2019: 20.

<sup>&</sup>lt;sup>5</sup>SooHoo, 2019: 68.

<sup>&</sup>lt;sup>6</sup>SooHoo, 2019: 158.

<sup>&</sup>lt;sup>7</sup>SooHoo, 2019: 374.

<sup>&</sup>lt;sup>8</sup>SooHoo, 2019: 293.

<sup>&</sup>lt;sup>9</sup>SooHoo, 2019: 371.

<sup>&</sup>lt;sup>10</sup>Selover, 2015: 235–238; ibid.: 386–387.

of human skulls as trophies, suspected by the team of Augusta McMahon at the Middle Uruk site of Tell Brak-Majnuna.  $^{11}$ 

Now, to give voice to the inhabitants of ancient Mesopotamia, let us hear the description of what represented the complete absence of safety and security:

Deathly silence reigns in my sanctum,

Deathly silence reigns in my ceremonial room (aširtum)

Over my house, my estate and my fields deathly silence is spread out

My god has turned his face to some other place

My clan has been dispersed, my fold is broken

. . .

Speak and may, at your command, the angry god be pacified

The goddess, who turned away in anger, come back. 12

Of course, the legitimate components of the possession of Mesopotamian families included, with house, lock, stock and barrel, also their storage areas. These also enjoyed ritual protection including incantations against evil demons:

The evil eye has secretly entered and flies around

. . .

She passed by the door of the babies, and created rash among the babies

She passed by the door of the women in childbed and strangled their babies

She entered the storage room and broke the seal

She dispersed the secluded fire-place and turned the locked house into ruins.

She destroyed the išertum and the god of the house has gone.

Hit on the cheek, make her turn backward!

Fill her eyes with salt, full her mouth with ashes!

*May the god of the house return!* <sup>13</sup>

<sup>&</sup>lt;sup>11</sup>McMahon et al., 2011: 213-214, 216.

<sup>&</sup>lt;sup>12</sup>Tricoli, 2014: 825 Fig. 15.

<sup>&</sup>lt;sup>13</sup>Tricoli, 2014: 825 Fig. 15.

It comes to notice that in enemy attacks and pillages, closing devices as bolts and locks of prominent buildings fell prey to the invaders' brutality as its first victims. In the "Lamentation over the Destruction of Sumer and Ur", enemy warriors first ripped up bolts of the palace, and then those of the temple. 14

Finally, let us notice that for the inhabitants of ancient Mesopotamia, the signs of utter destitution and total loss of any means of livelihood meant lack of food, of clothing and – perhaps not too surprisingly, given the character of the local climate – of ointment.<sup>15</sup>

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But let us go a step farther. It seems logical to suppose that safety and security of ancient Mesopotamian populations depended first and foremost on their basic means of subsistence. Thus, this paper will focus on the storage treatment of the most precious possession of people of the Land of the two rivers, comestibles and specifically grain, probably a staple food of Sumerians, Babylonians, Assyrians and their neighbours. I shall include, as a case study, review of the closing devices on reverses of clay sealings excavated from the SIS 5–4 strata of archaic Ur. <sup>16</sup>

A feature to be noted is represented by the fact that the SIS strata of the ED-I period represent administrative discards located in a particular dumping area, possibly commonly used by several agencies. In contrast to this, later, presumably ED-IIIa or ED-IIIb managers of the Ur central precinct left their disused documentation on the spot where it had possibly fulfilled its informative function.<sup>17</sup>

The results of investigation of the sealing reverses excavated from the archaic SIS 5-4 strata of the city of Ur (c. 2900–2750 BC) are summarily presented in Table 1.

<sup>&</sup>lt;sup>14</sup>Dahl, 2009: 64, ll. 399ff., ll. 428ff.

<sup>&</sup>lt;sup>15</sup>Zaccagnini, 2020; on hunger in Mesopotamia see Richardson, 2016.

<sup>&</sup>lt;sup>16</sup>For more extensive coverage see Charvát, 2010; Charvát, 2017.

<sup>&</sup>lt;sup>17</sup>Benati, 2013, esp. p. 204 on seal Cat. 12.

Type of carrier	Number of items	%
Lock s. l.	55	18.15
Lock on roughly flattened surface	53	17.49
Lock with admixture of organic matter in clay	26	8.58
Lock on smooth surface	25	8.25
Lock on wall of organic matter	5	1.65
Lock on coarse surface	4	1.32
Locks total	168	55.44
Door	8	2.64
Bar	2	0.66
Wall of organic matter	1	0.33
Immobile structures total	11	3.63
Storage spaces total	179	59.07
Pot/jar	33	10.89
Bale	10	3.30
Container s. l.	10	3.30
Bag	8	2.64
Tablet/Test strip	8	2.64
Pot lid	7	2.31
Basket	4	1.32
Mobile objects total	80	26.40
Box	1	0.33
Envelope	1	0.33
Papyrus roll (Neo-Assyrian?)	1	0.33
[(30-12-761 = U14588 (8830)]		
Stamp seal	1	0.33
Other total	4	1.32
Unidentified	41	13.53
SIS 5-4 sealings (Penn Museum) total	304	100

**Table 1**. Types of carriers visible in sealings from the archaeological layers SIS 5–4 of archaic Ur (Early Dynastic I, 2900–2700 BC) from the collections of the Penn University Museum, Philadelphia (PA, USA).

In using the term "lock", I take the liberty of putting forward this equivalent of Roger Matthews's "door peg". 18

In a majority of cases, our material consists of locks (55.44 %), the two most numerous categories being represented by locks *sensu lato*, where the lock

<sup>&</sup>lt;sup>18</sup>Martin / Matthews, 1993: 36–38.

carrier cannot be identified precisely  $(18.15\,\%)$  and locks on uneven surfaces  $(17.49\,\%)$ . Of course, this lends itself to a variety of interpretations, the most likely ones moving in the area of firm (brick?) walls of various character. Locks on smooth surfaces, likely to represent true walls, amount to  $8.25\,\%$ , being closely followed by locks with organic admixture in the clay mass  $(8.58\,\%)$ . Locks on walls of organic materials (reeds, wickerwork, etc.), locks on coarse surfaces, door sealings and door-bar sealings constitute a distinct minority  $(6.6\,\%)$ .

All in all, sealings of immobile storage spaces of archaic Ur display a representation of 59.07 %.

The picture is rounded up by closing devices of mobile containers (26.40 % total) and of other devices (1.32 % total). The Abu Salabikh counts are similar.<sup>19</sup>

The ensuing evidence thus sets before our eyes economic practice leaning first and foremost on masonry, or at any rate, solid storage structures. Their builders provided some with robust closing facilities including locks with bars; alternatively, some were likely to have been situated not far from areas of common agricultural pursuits (organic admixtures, of course, only if it does not represent intentional tempering of e. g. clay bricks). The numbers of structures of lighter materials take a less prominent position, but such constructions were by no means totally absent from the Ur storage areas.

The lock on smooth surfaces and those on surfaces of organic materials may, according to observations by Roger Matthews, stem from palm fronds or even large reeds.<sup>20</sup>

As to surfaces from which the pegs protruded, Roger Matthews characterizes them as "level, yet fairly coarse, surfaces often with straw impressions, such as would be provided by a mud-brick wall, with or without mud plaster."<sup>21</sup> This seems pertinent to the Ur situation as well.

Traces of the "adhesion to a cylindrical object", observed in the Abu Salabikh sealings<sup>22</sup> raise the interesting question of how far such devices closed rectangular storage facilities, or rather rounded grain silos such as known from ethnographic parallels and from written documents (see *infra*).

With respect to the longevity of seal use in practical life, it might be interesting to observe that in Fourth-dynasty Egypt, officials received their

<sup>&</sup>lt;sup>19</sup>Martin / Matthews, 1993: 40.

<sup>&</sup>lt;sup>20</sup>Martin / Matthews, 1993: 36–37.

<sup>&</sup>lt;sup>21</sup>Martin / Matthews, 1993: 37; for a later archaeological correlate see Malamat, 1986.

<sup>&</sup>lt;sup>22</sup>Martin / Matthews, 1993: 37-38.

seals early in their careers and kept them in use for relatively long periods of time. In moments of change on the throne, former-king seals must not necessarily have been replaced by new matrices.<sup>23</sup> Let us also notice that counter-signing of sealings with butt ends of cylinder seals, well-known from archaic Ur, has been noticed in Fourth-dynasty Egypt, where this usage presumably carries a chronological value.<sup>24</sup>

New examination of the material of the archaic Ur sealing by Roger Matthews and Amy Richardson have pointed out the identity of clays that sealed storage rooms and pot closures. This indicates that goods stored in the rooms left them in jars sealed by the same seals as those which closed the storage (and did not come in in pots sealed elsewhere – they did not enter, but they left the storerooms with our sealings). After their consumption, both storeroom sealings and pot sealings came to be checked by the central commodity administration. Joachim Bretschneider and Greta Jans suggest a similar procedure at Tell Beydar. For Ur III times, a procedure of this kind has been noted by Christine Tsouparopoulou.

Later constructions within the central precinct of Ur<sup>28</sup> possibly consisted of structures tentatively identified as storage areas.<sup>29</sup> However, as we have seen, robust architectures represented only a part of the storage facilities at hand for the managers of archaic Ur.

It must nonetheless have come out of this investigation that the truly safe storage areas, presumably closed with bar, lock and key, or by means of other facilities of reliable protection, constituted a distinct minority at the Sumerian city of Ur. For a resolute invader who marched in to plunder and take booty, the Ur storeroom doors hardly offered serious obstacles. This, in turn, speaks eloquently about the high level of safety enjoyed by the reserves catered for by the managers of archaic Ur.

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How much safety did the Ur doorways afford for the keeping of provisions?<sup>30</sup> Ancient Mesopotamian doors usually consisted of wooden frames with panels of reed covered in bitumen. This type of door goes under the

<sup>&</sup>lt;sup>23</sup>Nolan, 2010: 316-320.

<sup>&</sup>lt;sup>24</sup>Nolan, 2010: 145.

<sup>&</sup>lt;sup>25</sup>Matthews / Richardson, 2019: 12–13.

<sup>&</sup>lt;sup>26</sup>Bretschneider / Jans, 2012: 17–18.

<sup>&</sup>lt;sup>27</sup>Tsouparopoulou, 2017: 616–626.

<sup>&</sup>lt;sup>28</sup>Benati, 2013.

<sup>&</sup>lt;sup>29</sup>Benati, 2013: 209 on Area 4.

 $<sup>^{30}</sup>$ In general, see Salonen, 1961, with Hirsch, 1962 and Saggs, 1962 for reviews.

name of  $g^{i\dot{s}}$  ig  $su\dot{h}_4$ . Doors could also have been built of palm fronds ( $ze_2$ -na), or small boards (mi- $ri_2$ -za). The latter presumably represented doors made entirely of wood, and thus relatively expensive.

The HI-( $\S e_3$ )  $la_2$  texts referred to doors with leather panels, produced by attaching the hides to the components of a wooden frame. Doors of this type, lighter than doors with wooden panels, might have carried higher prestige, or pleased the spectators´ eyes more than ordinary reed-panelled doors. The Ur-III Umma texts show that the technique involved particularly large and important doors. In several cases we learn that hides of various colours were used, apparently to enhance the aesthetic quality of the result. The leather hinges of such doors needed occasional lubrication with oil.  $^{31}$ 

However, the lexeme HI-(še<sub>3</sub>) la<sub>2</sub> could also mean bronze door panels, perhaps of more or less standardized size and weight.<sup>32</sup>

The expression  $\Bar{HI}$ -( $\S e_3$ )  $la_2$  occurs in connection with several other (wooden) objects: the bench ( $g^{i\S}hu$ -um) of a boat (2 texts), the wheel(?) of a chariot; and a bariga vessel.  $\Bar{A}$  bench may well have consisted of a strong frame with a leather seat attached to this frame, very similar to the construction of doors discussed above. Also, references to leather lids or leather wrappings around clay vessels turn up relatively often.  $^{33}$ 

In a late third-millennium incantation, the door bar is likened to Lama, a protective deity.<sup>34</sup>

The use of leather for the construction of doors in Ur-III Umma has attracted the attention of Marcel Sigrist.<sup>35</sup> The idea that hanging curtains of leather could have supplanted the doors (probably inspired by the Egyptian model of mats rolled around door lintels) seems interesting, but I know of no evidence to substantiate such an assumption. Even more enigmatic seems the proposal that doors consisted of two (pliable?) surfaces with wool filling in between.<sup>36</sup>

On the other hand, we may expect the use of leather for transport containers of various kind, as well as for pot closures, and such procedures will undoubtedly find reflection in archaeological materials.<sup>37</sup>

<sup>&</sup>lt;sup>31</sup>Figulla, 1953a: 91; Figulla, 1953b: 185.

<sup>&</sup>lt;sup>32</sup>See Veldhuis, 2004: § 4, p. 2.

<sup>&</sup>lt;sup>33</sup>Veldhuis, 2004: 3.

<sup>34</sup> Veldhuis, 2003: 1-2.

<sup>&</sup>lt;sup>35</sup>Sigrist, 1981: 184–185.

<sup>&</sup>lt;sup>36</sup>Sigrist, 1981: 185.

 $<sup>^{37}</sup>$ Sigrist, 1981: 185–187; ibid.: 189–190; on leather use see more recently Englund, 2003 with ref.

Door-securing devices of later periods as described by the ninth tablet of the  $\S{umma}$   $\bar{a}lu$  series have merited an examination by Erle Leichty. What this text describes seems to have referred to exactly our manner of "lock", the only difference being in the door-doorjamb link, constituted by then no more by a cord, but by a latch of hard material, fastened to the door and engaging with a trapping device on the doorjamb or wall. Such a closure then bore a seal of the officer in charge on clay. The omens describe situations observed after taking-off of this seal. The latch might have been stuck, or occurred in various irregular positions, not engaged with the wall device but only resting on it, it might have fallen out, or even a double sealing might have happened. The length of interval between the respective openings of the door may be assessed by an omen mentioning a swallow building its nest ina namzagi (= on, or in the latch).

Again, however, the above sketched evidence hardly offers a perspective of robust and firm closure of the respective entrances. Here also, unscrupulous aggression must easily have broken through these devices, and take hold of whatever stood and rested behind them. Obviously, the Mesopotamians resorted more frequently to the "lowered bolts and rings set in place" of the Prayer to the Gods of the Night, guaranteeing security in time of rest, during the Old Babylonian period.<sup>41</sup> This is also the period when the title of "lockmaster", *rab sikkāte*, makes its appearance in the texts.<sup>42</sup>

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How can we set the archaic-Ur storage practices into the stream of historical development? In the prehistoric age, grain-storage spaces were included within the fortified areas (Hacilar II), but could also have been located outside the area enclosed by fortifications.<sup>43</sup> The Early Bronze Age site of Demirci Höyük displays a regular circular layout of concentric and radiating house plots, with house walls leaning on one another, and the central open space, in which storage bins for every house were situated.<sup>44</sup> A similar disposition has been recorded in Halaf-period site of Güvercinkavası.<sup>45</sup>

Insofar as analyses of sealing clay have been performed, it transpired that for instance at the Halaf-culture site of Tell Sabi Abyad, they have borne out

<sup>&</sup>lt;sup>38</sup>Leichty, 1987.

<sup>&</sup>lt;sup>39</sup>Leichty, 1987: 195–196.

<sup>&</sup>lt;sup>40</sup>Leichty, 1987: 192.

<sup>&</sup>lt;sup>41</sup>Cooley, 2011.

<sup>&</sup>lt;sup>42</sup>Radner, 2010: 277.

<sup>&</sup>lt;sup>43</sup>Köşk Höyük in Anatolia, Selover, 2015: 305–306, 452.

<sup>44</sup>Selover, 2015: 437.

<sup>&</sup>lt;sup>45</sup>Selover, 2015: 444.

the local origin of clay used for this purpose. This shows the circumscription of sealing practices, and thus their possible non-economic character.<sup>46</sup>

The site of Arslantepe (VII and VI) represents the first instance of centrally administered storage spaces tied to socially prominent architecture, <sup>47</sup> with Late Uruk-period Hassek Höyük following. <sup>48</sup> The Arslantepe evidence shows that sealed goods first went to the storerooms, where they were periodically opened. Sealings from the containers were gathered in collections, presumably submitted to the central controlling agency, and then discarded. <sup>49</sup>

The archaic Ur sealings presumably underwent the same curriculum, much as early Dilmun seals. Another example of such practice comes from the third-millennium Syrian site of Tell Bdēri, where a collection of door sealings of the same seal came to light in a brick cist. Finally, the Nippur excavations of the University of Chicago team provided us with an abundant sample of texts and sealings pertinent to the Ur-III administration of the local Inanna temple, deposited in a brick-revetted and bitumen-lined pit within the temple precinct. It seems that in these cases the disused sealings went to particular discard spaces, perhaps to be recycled.

The significance of food provisions in relation to socially prominent institutions shines through the storage facilities in the "shrines" of the Anatolian site of Beycesultan. $^{53}$ 

The degree of complexity reached already in the 4<sup>th</sup> millennium finds a fitting illustration at the Syrian site of Hamoukar. The local sealings give evidence on the treatment of sealed commodities: impression-bearing jars went to the ground floor while seal-marked baskets found their way to the upper floor. Moreover, two seal-bearers equipped with stamp seals (A and B) closed the ground-floor doors, while in one instance the closure bear a (corroborative?) impression of a cylinder seal. Does this indicate a presence of higher authority at the site? On the other hand, Seal C, repeated 31 times, marked both jars and baskets, and might have belonged to a provider agency of goods coming to the Tripartite building from outside.<sup>54</sup>

<sup>&</sup>lt;sup>46</sup>Schneider / Duistermaat, 1998: 96–97.

<sup>&</sup>lt;sup>47</sup>Summary in Selover, 2015: 465–474.

<sup>&</sup>lt;sup>48</sup>Selover, 2015: 490.

<sup>&</sup>lt;sup>49</sup>Frangipane, 2016: 19–28.

<sup>&</sup>lt;sup>50</sup>Olijdam, 2015: 208–210.

<sup>&</sup>lt;sup>51</sup>Pfälzner, 2008: 173.

<sup>&</sup>lt;sup>52</sup>Zettler, 1991.

<sup>&</sup>lt;sup>53</sup>Selover, 2015: 426.

<sup>&</sup>lt;sup>54</sup>Reichel, 2002: 46–56.

The evidence gathered at the Uruk-period site of Tepe Sharafabad in Iran points, according to the interpretation of the excavator and his collaborators, to the conclusion that storage spaces were opened in mid- to late winter, perhaps to take out grain both as food and for sowing.<sup>55</sup>

Deliveries of grain to Jemdet Nasr-age public institutions took place three times a year, the overall quantity of it amounting to 78-79 BARIGA annually.  $^{56}$ 

Grain-storage facilities in later ancient Mesopotamia and the neighbouring regions have recently received a substantial elucidation by Tate Paulette,<sup>57</sup> with a welcome supplement by Eloisa Casadei.<sup>58</sup> A summation of data concerning the use of seals in the ancient Near East has seen the day lately.<sup>59</sup>

Written sources of the later third millennium shed light on the historical situation of archaic Ur practice. The Kiš-Ingharra evidence includes a find of a group of sealings on clay which turned up just below the "flood layer" in the sounding YW, and belongs thus to ED IIIa, likely to be dated to the time of the Fara texts. <sup>60</sup> These sealings, which had once probably closed doors, <sup>61</sup> refer to an "overseer of ga<sub>2</sub>-nun" and "scribe of ga<sub>2</sub>-nun". <sup>62</sup> This will make the ga<sub>2</sub>-nun a building (complex?) closed by a gate, door or doors. Krebernik and Lisman translate ga<sub>2</sub>-nun as "barn". <sup>63</sup>

The Zame hymns from Tell Abu Salabikh, of approximately the same date, point to the multiplicity of storage facilities within one single centre: "Zabalam, princely quay with the silos".<sup>64</sup> Another "house of heaven and earth" received from a king "linen cloaks" there.<sup>65</sup>

Rulers of Pre-Sargonic Lagaš built temples, furnished them with magazine buildings (?) and "heaped grain therein".  $^{66}$  The site URUxKÁR $^{(ki)}$  hosted a "noble storeroom (ganun-maḥ)", and this structure received "night offerings".  $^{67}$  Another storage edifice (gur<sub>7</sub>), a source of barley rations, belonged to the temple of a deity  $^{d}$ ig-alima, built by UruKAgina.  $^{68}$  The same role fell

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55Wright / Miller / Redding, 1981: 278, 281.
56Monaco, 2004: § 16.
57Paulette, 2015.
58Casadei, 2019.
59Tsouparopoulou / Casties, 2014: 46–52.
60Zaina, 2020: 103–104.
61Rohn, 2011: No. 4, p. 150.
62Westenholz, 2020: nos. 26–31, pp. 161–163.
63Krebernik / Lisman, 2020: l. 23/84, p. 60, comments p. 114.
64Guru<sub>7</sub>: Krebernik / Lisman, 2020: l. 58 p. 73, comments p. 101.
65Krebernik / Lisman, 2020: l. 58 p. 73, comments p. 145.
66Eannatum: Selz, 1995: 222.
67Selz, 1995: 136, 197.
68Selz, 1995: 146 No. 6.
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to (a magazine belonging to?) the shrine of a deity Ḥé-gír.<sup>69</sup> Ms. Barnamtarra, consort of the ruler Lugalanda, also disposed of her own ganun.<sup>70</sup> Other temples commanded gur<sub>7</sub> structures of great capacity,<sup>71</sup> so that a parallel with the giant silos of Fara may not be out of place, of course, only insofar as gur<sub>7</sub> denotes, beyond a hollow measure, a storage structure with capacity measured in such way.

The personnel of the ganun-ma\(\hat{n}\) obviously included a doorkeeper, as indicated by reference to a Mr. Ur-subur, an \(\hat{i}\)-du<sub>8</sub>-ganun-ma\(\hat{n}\) and a holder of a land allotment.\(^{72}\)

The question of permanence of such structures stands open: a month name itu-gur<sub>7</sub>-im-du<sub>8</sub>- $a^{73}$  has been translated by Josef Bauer as "Monat, in dem die Getreidemagazine aus Lehm gestampft werden".<sup>74</sup>

In Lagaš of the reign of Gudea (2141–2124), documents reveal both specialized-commodity storage and "general-purpose" magazines, presumably of large dimensions. The specialized facilities housed, for instance, arms and armaments, 75 or wool, 76 and had their own personnel. 77 The "general-purpose" facilities contained comestibles, wood and metal. 78

Insofar as we know today, at least some food-storage facilities represented part of well-protected, probably fortified, municipal centres.<sup>79</sup> An example of how such a municipal unit may have looked like is furnished by the layout of third-millennium Tell Beydar in Syria, where large storage spaces occupied the city's central quarters, while only modest facilities of this kind equipped the private houses.<sup>80</sup> This feature re-appeared – at least in interpretations of archaeological contexts – in earlier third-millennium agricultural settlements of Syria, as shown by the evidence gathered by Peter Pfälzner.<sup>81</sup>

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<sup>69</sup>Selz,1995: 141.
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<sup>&</sup>lt;sup>70</sup>Selz, 1995: 272.

 $<sup>^{71}</sup>$ Selz, 1995: 220 fn. 1049, at least 518,000 litres of grain.

<sup>&</sup>lt;sup>72</sup>Selz, 1995: 136 No. 5; an actual doorkeeper sealing from Ur: Charvát, 2016.

<sup>&</sup>lt;sup>73</sup>DP 296 iii 1.

<sup>74</sup>Selz, 1995: 141 fn. 577.

<sup>&</sup>lt;sup>75</sup>É-kišib-ba: Maiocchi / Visicato, 2020: No. 167 p. 140.

<sup>&</sup>lt;sup>76</sup>Ibid.: No. 332 p. 218; No. 455 p. 276; gá-udu-ur<sub>4</sub>: No. 450, p. 274.

 $<sup>^{77}</sup>$ Lú-dab $_5$ -ba gá-nun-šita-ka: ibid.: No. 593 p. 357.

<sup>&</sup>lt;sup>78</sup>Gá-nun: Maiocchi / Visicato, 2020: No. 573, pp. 345–347.

 $<sup>^{79}</sup>$ On city fortifications in early Mesopotamia see Zingarello, 2015.

<sup>&</sup>lt;sup>80</sup>Sallaberger/ Pruß, 2015: 118–119.

<sup>&</sup>lt;sup>81</sup>Pfälzner, 2002; Pfälzner, 2008, esp. p. 176.

However, excavations of third-millennium sites in northern Mesopotamia yielded a rather limited amount of safe evidence with respect to public and private storage facilities.<sup>82</sup>

A good example of such structures is the "Royal Storehouse of Urkesh" of the 23<sup>rd</sup> to 22<sup>nd</sup> century BC, excavated at Tell Mozan.<sup>83</sup> Its plan shows a twin layout of neighbouring courtyard houses along the N-S axis, accessed each by a large rectangular area in the north.<sup>84</sup> A series of sealings appeared in the lowermost occupation layer resting directly on the floor of the Sector-B "vault" of the building. 85 Some 600 impressions come from about 60 seals. 86 Most of these sealings once closed mobile containers, as jars, boxes and baskets; only three sealings secured doors. In one case, a sealing was placed against an animal horn, identified by Sándor Bökönyi as belonging to a gazelle.<sup>87</sup> Four to six seals bear the king's name and titles of the local king, and eight those of the queen.<sup>88</sup> This makes the storehouse a central collection point for mobile goods, delivered by the system receptors identified by cylinder-seal impressions. The binarity of the whole setup, and the strict symmetry of both architectural complexes, may well substantiate the authors' suggestion of economic appurtenances for the king's and queen's office respectively.89

In the early second millennium, the ganun of the Ningal temple of Ur left us ample textual documentation of procedures taking place within its walls.  $^{90}$  These cover a space of 100 years from the 19<sup>th</sup> year of Gungunum to the 19<sup>th</sup> year of Rim-Sin; hardly any documents date after Sumu-ilu. The materials stored there included dairy products such as butter, cheese (and milk), also dates and oil, and then, in smaller, irregular and additional quantities, white beans (gú babbar), lentils (ú-ezinu), coriander (še-lú), cassia (gazi), pine nuts (li), also honey (làl), and an unknown kind of grain. Barley is always drawn from the granary of the Nannar-temple (gur<sub>7</sub> <sup>d</sup>Nannar) here, and the gur<sub>7</sub> thus appears as a structure subsidiary to ganun, and designed to hoard grain.

<sup>&</sup>lt;sup>82</sup>Ur, 2004: 279–282; see also Richardson, 2016: 754.

<sup>83</sup> Buccellati / Kelly-Bucellati, 1995/1996.

<sup>&</sup>lt;sup>84</sup>Plan: Buccellati / Kelly-Bucellati, 1995/1996: 5 Fig. 3.

<sup>85</sup> Buccellati / Kelly-Bucellati, 1995/1996: 5.

<sup>&</sup>lt;sup>86</sup>Buccellati / Kelly-Bucellati, 1995/1996: 6.

<sup>&</sup>lt;sup>87</sup>Buccellati / Kelly-Bucellati, 1995/1996: 7, 28.

<sup>88</sup> Buccellati / Kelly-Bucellati, 1995/1996: 28.

<sup>89</sup> Buccellati / Kelly-Bucellati, 1995/1996: 29.

<sup>&</sup>lt;sup>90</sup>Figulla, 1953a; Figulla, 1953b.

<sup>&</sup>lt;sup>91</sup>Barley; Figulla, 1953a: 88.

In fact, the above investigation shows that permanent architectural structures, identified in the archaeological record as storage spaces, fell short of being the only exclusive depositories of foodstuffs. They definitely received supplements in the form of magazines of perishable materials, thus rendering arguments based on brick-storage facilities only incomplete.

Last but not least, let us notice that sealing of storage-facility doors could well have taken place without the use of cylinder seals. This was apparently the case of Ninevite-V phase of the site of Hamoukar, where the local authorities repeatedly sealed and re-sealed a brewery area (?) with simple clay blobs, bearing hand-incised signs including a pentagram. The deliveries to rooms thus employed did nevertheless arrive in jars sealed by cylinder seals. This arrangement reminds us of the situation at archaic Ur with its handwritten glosses on storage-closing devices, as well as on the ED-I sealings from Nippur. In this perspective, cylinder seals would have constituted signatures of the system's receptors delivering their products to the relevant centre which could easily do without seals, as it represented one and only central member of the whole setup, the role, and identity of which, remained without any doubt.

We thus receive valuable information as to the subordinate position of cylinder seals in the redistribution process: they are likely to play the role of markers of individual receptors of the redistribution network, while no seals were needed at its centre where simple hand-written glosses fully sufficed.

In conclusion, it remains only to re-iterate the statement that Roger Matthews submitted nearly three decades ago:

"Mesopotamian door sealing was never a matter of physical security — a burglar would have had no difficulty in breaking the sealing, cutting or unravelling the string and entering the room — but, rather, took its place within a system of guarantee and accountability objectified in the form of clay sealings which, by means of their obverse seal impressions, identified specific guaranteeing individuals or institutions. A door peg sealing, as any other sealing, was both a public asseveration of the security of the sealed room, or container, and at the same time, via its seal impression, an assertion of the identity of the person or organisation responsible for that security." <sup>96</sup>

<sup>92</sup>Grossman, 2014: 53-54.

<sup>93</sup>Grossman, 2013: 319-340.

<sup>94</sup>Charvát, 2017: 37-52.

<sup>95</sup> Zettler, 2007: 360-361.

<sup>&</sup>lt;sup>96</sup>Martin / Matthews, 1993: 36.

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