# Clay Sealings from the Temple Mount and Their Use in the Temple and Royal Treasuries

Zachi Dvira and Gabriel Barkay Temple Mount Sifting Project, Bar-Ilan University, Israel

# Abstract

In the course of sifting earth removed from the Temple Mount in Jerusalem, dozens of clay sealings from the First Temple period were recovered. Among them was a sealing bearing the name of the priestly family of Immer. In-depth study of the writing on the sealing, as well as the fabric imprint on its reverse, indicated with a high probability that this sealing was used in the Temple treasury. The article reviews the function and use of sealings in the administration of ancient Near Eastern treasuries and the significance of sealings with a textile imprint on their reverse. The study revealed similar patterns in the finds near the "Royal Building" exposed in the Ophel excavations, and we therefore suggest identifying it with Judah's royal treasury.

**KEYWORDS:** Clay sealings, Jerusalem, Temple Mount, Iron Age, treasuries, Temple, priestly families, royal compound

# 1. Introduction

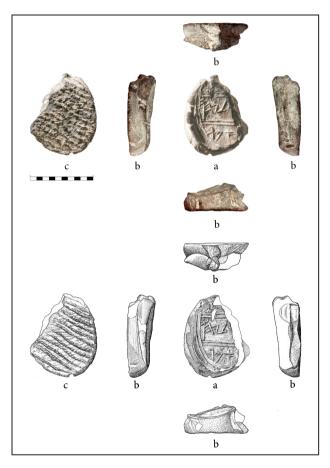
In 2005, an Iron Age IIC clay sealing bearing the name Immer in the ancient Hebrew script was found in sifted soil deriving from Jerusalem's Temple Mount (Fig. 1).<sup>1</sup> The name Immer, which is known as the name of a priestly family whose

Zachi Dvira and Gabriel Barkay, 2021. Clay Sealings from the Temple Mount and Their Use in the Temple and Royal Treasuries. Jerusalem Journal of Archaeology 2: 41–75. ISSN: 2788-8819; https://doi.org/10.52486/01.00002.3; https://jjar.huji.ac.il



<sup>1</sup> For previous publications that mention this sealing, see Barkay and Zweig 2006: 219; Barkay and Dvira (Zweig) 2016: 51–52; Keel 2017: no. 521.

members served in the First Temple, suggests that the sealing is evidence of administrative activity that took place in the First Temple's treasury. The reverse of the sealing bears an imprint of a textile fabric, similar to reverse imprints on other Iron Age IIC clay sealings found in relatively large numbers in sifted soil from the Temple Mount. In this article we will discuss the significance of this sealing, the names that appear on it, and the significance of sealings with a fabric imprint on their reverse.



**Fig. 1.** Clay sealing bearing the inscription "...*lyhw* son of "*mr*": a) face; b) sides; c) reverse (photographed by Zachi Dvira; drawn by Razia Richman).

The sifted earth originates from a large-scale removal of earth from an area north of the underground structure of "Solomon's Stables," near the Temple Mount's southeastern corner, in November 1999. This operation was conducted without archaeological supervision, and the heaps of soil (about 400 truckloads) were later removed from the compound and dumped in the nearby Kidron Valley.

Since no systematic archaeological excavation has ever been carried out on the Temple Mount itself, in 2004 we established the Temple Mount Sifting Project with the aim of saving as many archaeological artifacts as possible from this soil and conducting archaeological research in order to shed more light on the history of the Temple Mount, a site significant to billions of people throughout the world.

The sifting was carried out by volunteers from Israel and all over the world. Up to 2017 it was conducted in the Zurim Valley National Park, while starting from June 2019 it is being continued at the HaMasu'ot Lookout on Mount Scopus.

The sifting has yielded hundreds of thousands of finds covering the entire time span of Jerusalem's history. Approximately 5% of the finds are dated to the Iron Age II, and among these are six stone and bone seals and 31 clay sealings.

The sealing presented here was found using a wet sifting technique that was developed at the beginning of the project.<sup>2</sup> The earth is first dry sifted and then sifted over mesh nets while being hosed down by a stream of water. The advantages of this sifting method, which retrieves 100% of the finds, have led to its adoption by other excavation projects.<sup>3</sup> This has resulted in a significant increase in the quantity of small finds, yielding, in particular, hundreds of clay sealings and seals from Jerusalem as well as other sites.

#### 2. The Context

Although the sealing was not found in its primary context, it is still of great archaeological and historical value, since we do know its site of origin. Sealings are typically found in secondary deposits such as fills and aggregates of refuse.<sup>4</sup> They are usually studied in the general context of the site in which they were found and receive special attention.<sup>5</sup>

Sifting earth from the Temple Mount provides only limited information on the ancient architecture of the site. The artifacts found, however, can provide a

<sup>2</sup> The sealing (project item no. 3739) was found on September 27, 2005 by a staff member, Uri Seri-Levi.

<sup>3</sup> For a general report on the success of this technique, see Shanks 2011; 2013. Other excavation expeditions that have adopted the technique are the City of David (Reich, Shukron, and Lernau 2007; Reich 2011; 2012; Mazar 2015b), the Ophel (Mazar 2015a: xvii–xx), and the Western Wall Plaza (Ornan et al. 2008). Other expeditions delivered soil from their excavation to the Temple Mount Sifting Project facility while it was situated in the Zurim Valley National Park in order to utilize the staff's expertise in identifying small objects; examples are the Ophel (Mazar 2011: 130), the City of David drainage channel (Shukron 2012: \*13–\*17), and even sites beyond Jerusalem such as Lachish and Azeka (Lipschits, Gadot, and Oeming 2017).

<sup>4</sup> E.g., the large assemblage of 9th-century BCE sealings found while sifting soil from a fill in a rock-cut pool under an 8th-century BCE structure in the City of David (Reich, Shukron, and Lernau 2007: 156).

<sup>5</sup> E.g., the recent discovery of the sealing of שרער, "the Governor of the City" (Ornan, Weksler-Bdolah, and Sass 2017).

great deal of data on the varies administrative activities that took place on the Temple Mount, particularly since they comprise a large statistical sample that can be compared with data from other sites in Jerusalem.<sup>6</sup>

The soil removed from the Temple Mount originates from its southeastern part, which we understand to contain an accumulation of debris from construction works carried out on the Temple Mount from Medieval times until the present.<sup>7</sup> We have no evidence that a significant amount of soil was ever imported into the site after the time of King Herod's expansion and enclosure of the Temple precinct within massive walls in the 1st century BCE. We can therefore reasonably propose that the finds dating from the Herodian period and later are associated with activities that took place at the site, although there is less certainty about finds from earlier periods. Our current premise is that some of the sifting project's First Temple period finds could have been imported during the Second Temple period, prior to or during Herod's renovation, within soil brought from the eastern slopes of the Mount in the adjacent Kidron Valley.<sup>8</sup> These slopes were covered with refuse containing remains deriving from activities that took place in the Mount above.<sup>9</sup> In other words, refuse from the Temple Mount was dumped beyond its boundary wall into the Kidron Valley below during the First Temple period, and many generations later was returned to the Temple Mount. At this time earth was taken from the valley to be used as fill to expand the Temple's inner precinct to the east, which was finally incorporated within the inner sanctuary ( $\delta \epsilon \dot{\nu} \tau \epsilon \rho o \nu i \epsilon \rho \dot{\sigma} \nu$ ) during the Herodian expansion.<sup>10</sup>

This line of reasoning, together with other evidence presented in this paper, brings us to conclude that the impressed sealing discussed here was associated with activity that took place in the Temple and the surrounding area during the First Temple period.

<sup>6</sup> Approximately half a million indicative finds in approximately 120 different categories have been retrieved over the years in the Temple Mount Sifting Project. For more detailed accounts of the methodology used in the project, see Barkay and Dvira (Zweig) 2012: 53–38; 2016: 49.

<sup>7</sup> The exposure of the archways in the northern facade of the substructure of "Solomon's Stables" in the excavation carried out in 1999 by the Waqf revealed that the structure was originally above ground level. There is further evidence that the surface level of the Temple Mount's southeastern area has been gradually elevated by dumping from the Late Islamic period until today (Barkay and Dvira (Zweig) 2012: 55–56; 2016: 46). St Laurent and Awwad suggested that an arcade along the eastern esplanade wall connected this structure with the Golden Gate (both were built as part of the same architectural plan) during the Early Islamic period (St Laurent and Awwad 2013: 21–24).

<sup>8</sup> This was also recently proposed by Geva and De Groot (2017: 35–38).

<sup>9</sup> The Temple Mount Sifting Project was fortunate to be able to conduct a study of an Iron Age II refuse pit that was discovered on these slopes (Dvira, Zigdon, and Shilov 2011).

<sup>10</sup> Jos., War 5.5.1-2 § 185-193.

## 3. Description of the Sealing

The artifact is a sizable fragment of a clay sealing  $(11 \times 13 \text{ mm})$  that was broken in antiquity, approximately two-thirds of it being preserved. It is gray in color and seems to have been burnt and fired after it was detached from the object that it sealed. The clay was made from *terra rossa* soil, as is typical of clay sealings found in Jerusalem.<sup>11</sup>

The sealing is composed of a single layer of clay that sealed the knot of a cord. A finger impression can be observed on its side, probably made while setting the lump of clay in place. The sealing broke along the fragile diagonal line where the cord passed through it. The impression of a 1 mm cord can clearly be seen in the fractured face of the sealing, and additional impressions of excess cord appear on its left side. Such fractures, near the center of the object, are typical of sealings broken intentionally (while opening the tie), as opposed to sealings that are intact or were broken as the result of a conflagration.

This sealing method, in which an object was secured by attaching a small lump of clay to the knot of the cord that secured the item, is congruent with the first and simplest sealing-securing method defined by Gurwin in her study of the technology and function of Judahite sealings (Gurwin 2010: 57–58).<sup>12</sup>

Although this sealing is dated to the late Iron Age IIC (see below), cords were common in sealings of earlier phases of the Iron Age IIB as well and were probably used for sealing valuable goods in packages of textile, leather, wood, or some other material (Gurwin 2010: 58–89).

On the reverse of the artifact can be seen an imprint of a rough woven textile consisting of 12 parallel diagonal lines of thread, which was probably woven using the warp-face technique.<sup>13</sup> Since the reverse of the object is flat, it is not clear if it was attached to a textile bag or sachet, or to cloth covering the lid of a clay or stone vessel or some other type of container.<sup>14</sup>

The upper and right parts of the sealing are missing. The impression on the sealing was well executed with a seal embedded in a bezel or ring, probably made of metal, which left a deep groove around the impression. The seal was bordered by a double frame that surrounded an engraved vertical elliptical surface. The seal's surface was divided into three registers separated by double horizontal dividing lines.

<sup>11</sup> We would like to thank Yuval Goren, who conducted a petrographic analysis of the sealing and gave us the results of his examination.

<sup>12</sup> This technique is also depicted in Egyptian painted scenes (Newberry 1908: 22-23).

<sup>13</sup> We would like to thank Naama Sukenik, who examined the sealing and gave us her remarks on the fabric imprints on our clay sealings. For more details on this, see below.

<sup>14</sup> For further discussion, see below.

The poorly preserved upper register probably contained a figurative design of some kind, perhaps of an animal. The middle and lower registers are inscribed with the names of the seal's owner and his father, written in the ancient Hebrew script. The right sides of both registers of the inscription are missing. The sealing reads:

[ל...] ליהו / [בו] אמר [belonging to ...]*lyhw /* [son of] *mr* 

The letters are tiny and of good calligraphic quality, written by a professional and experienced hand. Based on parallels, we can date the writing style to the end of the First Temple period, the 7th or the beginning of the 6th century BCE.

The remaining letters of the middle register (*lyhw*) comprise the suffix of the owner's name and are written closely together. On the right edge are the remains of an additional letter. It comprises a short vertical stroke connected on its lower edge to a small horizontal stroke stretching to the right, leaving only one possible reconstruction, the letter *sade* (Fig. 2)

We suggest reconstructing the inscribed name as follows:

[לה]צׂליהו / [בן] אמר [belonging to *h*]*ș́lyhw /* [son of] *mr* 



Fig. 2. Graphic reconstruction of the inscription on the sealing (drawn by Razia Richman).

#### 4. Paleographic Discussion

Seven ancient Hebrew characters are preserved in the sealing. The characters are typical of seals and seal impressions from the Kingdom of Judah in the 7th–6th century BCE (Avigad and Sass 1997: 43–45; Mendel-Geberovich 2021). They are in a formal semi-cursive script with esthetically shaped letters.

The *aleph*'s head is composed of two parallel strokes, of which the upper line extends farther to the left than the vertical leg. The letter *he* leans to the left and consists of three parallel lines, without showing the tendency to convergence seen in other seals and seal impressions from this period. The letters *lamed*, *yod*, *he*, and *waw*, in the middle register, are close to each other and even touch each other as in a ligature. This phenomenon is common in seals and seal impressions from Judah. The letter *yod* has two slightly arched parallel lines that differ from the straight lines of the adjacent *he*. The *mem* is designed with a head composed of a straight horizontal stroke crossed by two short, slanted strokes. Its leg is slanted and is missing the bottom part, which usually bends towards the left. The *lamed* has a curved base, with its right edge bending upward. The *waw* and *resh* each have a long leg that descends and touches the separation lines or border lines of the seal.

The overall paleographic attributes of the writing are similar to those appearing on clay sealings found in Jerusalem in the excavations of Y. Shiloh (Shiloh 1986) and E. Mazar (Mazar 2015b: 299–362; Mazar and Livyatan Ben-Arieh 2018), as well as in the Giv'ati excavations (Mendel-Gebrovitz et al. 2019). The sealings found in those excavations include names of known biblical administrative figures. Most of those sealings are stratigraphically dated to the days of the destruction of the Kingdom of Judah by the Babylonians in 586 BCE. Although the letters of the 8th century BCE are fairly similar in shape to those of the 7th–6th century BCE, there are certain diagnostic letters that help date our inscription to the latter period, such as the developed *aleph* and *mem* (Mendel-Gebrovitz 2021: 131–132). Hence, a paleographic dating to the second half of the 7th–beginning of the 6th century seems plausible.

## 5. The Patronymic

We suggest that the inscription should be completed with the word bn (son of). There is space inside the elliptical area for two additional letters in the bottom register, and the presence of the particle bn on many other seals found in Judah demonstrates that this is the most likely option for this seal. Although we cannot positively rule out other options, such as (h mr) that appears on seal impressions on

jar handles found at Lachish and at Kh. Qeila (Avigad and Sass 1997: 260–261, nos. 705, 706) or אלאמר ('*l'mr*) that appears on a seal found at Megiddo (Avigad and Sass 1997: 427, no. 1124), the large space before the letter *aleph* reduces the likeliness of these options, since the inscription is written in a ligature style and we would have expected to see a part of the letter preceding the *aleph*.

The word Immer means "lamb" in Aramaic, and it seems that this was its meaning in biblical Hebrew as well. It is rare on West-Semitic seals of the Iron Age.  $^{15}$ 

The name אמר ('mr) in the sealing is spelt in the shortened form without matres lectionis (vowels), as in the Masoretic text. 'mr could have been a theophoric hypocoristic name deriving from אמר ('mryhw). The names Immer and Amaryahu are frequent among priests and priestly families in the Bible, appearing eight times in reference to various individuals in the First Temple and Post-Exilic periods. These include the grandfather of the high priest Zadok (in the days of King David) and the high priest in the days of Jehoshaphat, and is the name of the 16th course in the priestly mishmarot (the sacerdotal courses) (1 Chr 24:14).<sup>16</sup>

The owner of the seal impressed on our sealing could possibly be a nonpriestly figure, but the frequent appearance of this name in priestly circles and the origin of the sealing on the Temple Mount make it more plausible to associate the impressed seal's owner with a priest who served in the Temple. In addition, since the sealing is burnt and is dated to the second half of the 7th–beginning of the 6th century, one can fairly assume that the burnt condition of the sealing was a result of the conflagration during the destruction of the Temple in 586 BCE. Therefore, this sealing may well be associated with the Immer family mentioned in the book of Jeremiah:

"Now Pashhur the son of Immer the priest, who was also chief governor (*paqid nagid*) in the house of the LORD, heard that Jeremiah prophesied these things" (Jer 20:1 KJV).

Pashhur was a high-ranking official serving in the administration of the Temple in Jerusalem, who was a key figure in a series of dramatic events described in detail in the book of Jeremiah (Jer 20:2). It is reasonable to assume that Pashhur son of Immer had a chamber or office near the Temple due to his particular duties as the Temple's chief administrator.

<sup>15</sup> It occurs on only two unprovenanced inscriptions: an Ammonite seal with the inscription לעלא בת אמר ("belonging to 'Alà daughter of 'mr") (Avigad and Sass 1997: 327, no. 873) and a Hebrew sealing לעבדיהו ("to bdyhw son of 'mr") (Deutsch 2003: 276, no. 289). The name 'mryhw, however, is more common, appearing on other unprovenanced sealings (Avigad and Sass 1997: 449; Deutsch 2003: 384; 2011: nos. 433, 434, 605, 675); it also appears in inscriptions (Ahituv and Eshel 2012: no. 3.6) and in an incised inscription on a jar handle from Gibeon (Pritchard 1959: 3, 8).

<sup>16</sup> For more details about the seven biblical individuals named Amaryah or Amaryahu, see Löwenstamm 1950.

The possibility of associating our sealing with a known family of priests is not unreasonable, due to the high frequency of such seals and sealings found in excavations in the area of the royal compound of ancient Jerusalem.<sup>17</sup> The excavations at the summit of the City of David and the area above it (the Ophel) have yielded many sealings bearing names of key biblical figures from the administrative circles of the late days of the Kingdom of Judah.<sup>18</sup> These finds strengthen the association of further sealings bearing biblical names with known high officials of the time. Moreover, shortly after the sealing under discussion was found, a sealing bearing the name לגדליהו בן פשחור (lgdlyhw bn pšhwr) was found in the excavation of the summit of the City of David (Mazar 2015b: 307-308). Gedaliah son of Pashhur is mentioned in the Bible as one of the ministers of King Zedekiah who persecuted Jeremiah (Jer 38:1–6). A sealing bearing the name of an additional minister in this list, יהוכל בן שלמיהו כן שלמיהו (lyhwkl bn šlmyhw bn šby), was found in this excavation in proximity to the former sealing (Mazar 2015b: 311). Another possible sibling of Pashhur son of Immer could be 'Abadyahu son of Immer, whose name appears on an unprovenanced clay sealing (see note 15 above). The letters on the 'Abadyahu sealing are similar in design to those on the sealing of [Hi]șilyahu son of Immer.<sup>19</sup>

#### 6. The Name of the Owner of the Seal

As mentioned above, the letter on the right edge in the sealing's middle register is only partially preserved and we reconstruct it as a *sade*, thus reading the name as *hşlyhw* (הַצָּלְיָהוּ). Other possibilities, however, are *`slyhw* (הְצָלְיָהוּ) or *bşlyhw* (הְצָלְיָהוּ).<sup>20</sup> The former is known from other sources; the latter might be a variation of *bşl'l* (בַּצַלְיָהוֹ), but we are not aware of any appearance of it in biblical or epigraphic sources.

<sup>17</sup> The identification of names appearing in epigraphic sources with known biblical figures is a matter of discussion in archaeological and biblical studies. In accordance with the methodology proposed by Mykytiuk (2004) for this issue, the suggested identification presented here is primarily based on the general context in which the sealings was discovered (the Temple surroundings), the paleographic dating, and additional attributes of the sealing that fit administrative practices in ancient Near Eastern treasuries (see below).

<sup>18</sup> Hezekiah son of 'Aḥaz King of Judah (Mazar 2015b: 254); Netanmelek servant of the king (Mendel-Geberovich 2019); Gemariahu son of Shaphan and 'Azariahu son of Hilkiahu (Shiloh 1986: 29); and possibly others.

<sup>19</sup> The priestly family of Immer continued to exist until the final days of the Second Temple period. An ossuary dating from the end of the 1st century BCE–1st century CE bears an inscription mentioning "Miriam daughter of Yeshuah son of Keifah the priests from Maaziya of the house of Imri" (Zissu and Goren 2011; Rollston 2012).

<sup>20</sup> See Avigad and Saas 1997: 78-79.

'slyhw (אצליהו') son of Meshulam is mentioned twice in the Bible as the father of Shaphan, King Josiah's scribe (2 Kgs 22:3, 2 Chr 34:8).<sup>21</sup> The name 'slyhw bn mšlm was also inscribed on a seal of unknown provenance (Avigad 1987: 237). The meaning of the name Hisilyahu ("yhw saved") is obvious in Hebrew. This name does not appear in biblical sources but is very common in inscriptions from Judah.

Our preferred reconstruction, Hişilyahu (הְּצָליהוּ), is well known from epigraphic evidence. It appears in the form of *lnhm hşlyhw* on three official seal impressions on LMLK-type jar handles.<sup>22</sup> The name *hşlyhw* son of *gmryhw* (בן גמריהו הדליהו) appears in letter no. 1 of the Lachish ostraca (Lemaire 2004: 2099). The name *hşl'l* (הדלאל) appears in an inscription from Tell Siran as the king of the Ammonites (Cross 1973: 15) and in an ostracon from Tell el-Mazar (Yassine and Teixidor 1986: 49). The name *hşlyhw* also appears on an ostracon from Horvat Uza that mentions *mky* son of *hşlyhw* from Makkedah (Beit-Arieh 2007: 139–143), as well on other unprovenanced finds in private collections (Ahituv 2012: 179; Deutsch and Heltzer 1995113:1997; 79:; Avigad and Sass 1997: nos. 140, 141, 142, 485, 581).<sup>23</sup>

It seems that the name Hişilyahu was a common name in Iron Age II Judah, and so it is impossible to associate any of the above-mentioned appearances of the name with the bearer of the name inscribed on the sealing.

## 7. Nagid, Paqid and the Temple Treasury

As mentioned above, Pashhur son of Immer the priest, who bears the same patronymic as that appearing on our sealing, had the titles *paqid* (בניד) and *nagid* (נגיד) (Jer 20:1).<sup>24</sup>

*Nagid* appears 44 times in the Bible and also in several non-Hebrew Semitic inscriptions (Hasel 1998). It was a title of nobility with the general meaning of high or exalted, given to people appointed to various positions. In many of the frequent occurrences in the Bible it is mentioned in the context of leading people

<sup>21</sup> The name 'גאנל', which appears in the list of the Benjamite genealogy (1 Chr 9:43–44) and also as a place in the vicinity of Jerusalem (Zech 14:5), could be a hypocoristic variation of '*slyhw* (אצליהו').

<sup>22</sup> From Gibeon (Pritchard 1959: 28, no. 2), Jerusalem (Mazar 1972: 88; Nadelman 1989: 131), and Lachish (Barkay and Vaughn 2004: 2163).

<sup>23</sup> See discussions of the meaning of the name and its appearances (Deutsch 2003: 392–393) and other variations of Hisilyahu (Deutsch 2011: nos. 444, 691, 711, 751a–b).

<sup>24</sup> The combination of *paqid* and *nagid* also appears in an Aramaic inscription from Sefire in Syria dated to the 8th century BCE. There we find the phrase או מן חד נגדי או מן חד נגדי, "either one of the *ngdi* or one of the *pqdi*" (Fitzmyer 1967: 110–111).

of the nation of Israel (e.g. 1 Sam 9:16, 1 Kgs 1:34, 14:7). In some instances (e.g. 1 Chr 13:1, 9:20), it refers to a person supervising a group of people. It should be differentiated from *melek* (king), whose primary context was political, whereas *nagid* had a religious connotation (Hasel 1998: 193; Murray 1998: 304–305). Eilat explained the variety of roles associated with this title, denoting a position subordinate to that of the supreme entity, whether God or the king, who bestowed it; the title has the same meaning as the Akkadian term *šaknu*, meaning appointed (Eilat 1998: 83–85). Kim and Human propose that *nagid* referred to a divinely sanctioned leader (Kim and Human 2008: 1475–1497) who, unlike the king (*melek*) who was superior to his people, was appointed to protect and take care of the people of God and the Temple. They suggest that after the centralization of cultic activities at the Temple as a result of Josiah's religious reform, it began to indicate any religious or political leader who served a king. Hence, after Josiah's reform the title *nagid* came to indicate an administrative role rather than general leadership.

The second most frequent usage of the title (eight occurrences) is in the context of responsibilities in or over the Temple and its treasuries.<sup>25</sup> For instance, some early Levite families are described as being responsible for the Temple or Tabernacle treasuries (1 Chr 9:26–27, 26:20–28). Among them, Shvuel son of Gershom son of Moses had the title of *nagid* (1 Chr 26:24), as did Pinchas son of Elazar (probably a priest), supervisor of the Levite gate-keepers who controlled the keys of the treasuries of the Tabernacle (1 Chr 9:20). Another Levite *nagid* was Konaniyahu, who is described as the supervisor of the tributes, tithes, and offerings given to the Temple (2 Chr 31:12–13).<sup>26</sup> There are also examples of a *nagid* who oversaw the *oşarot* (treasuries) that were not in the Temple (1 Chr 26:24, 2 Chr 11:11).

The title *nagid* also appears as *nagid beit haElohim* ("*nagid* of the house of God"), as in the case of the high priest Azaryah son of Helkiyah (1 Chr 9:11, 2 Chr 31:13). In the time of King Josiah and onward it appears that there were several people bearing the title *negid beit HaElohim*, meaning that this title was not reserved for the high priest (2 Chr 35:8, Neh 11:11). This title also appears as *negid habayt* (2 Chr 28:7).

The early use of the term *nagid* as a leader who leads and protects his people, occasionally described as a shepherd who leads and protects his flock, resembles the word  $n\bar{o}q\bar{e}d$  (2 Kgs 3:4, Amos 1:1), which corresponds with the Akkadian  $n\bar{a}qidu$  meaning "herdsman" (Reiner 1980: 333–335). Jeffers convincingly demonstrated that the  $n\bar{a}qidu$  were in control of the  $r\bar{e}u$ , the herdsmen who

<sup>25 1</sup> Chr 9:11, 20, 26:24, 2 Chr 28:7, 31:12–13, 35:8, Neh 11:11.

<sup>26</sup> His assistants are described as *pkidim* (see discussion below).

herded the flocks in practice (Jeffers 1996: 111–114). In Ugaritic texts it appears that the *nqdm* were a category of religious personnel responsible for the temple flocks and may also have been engaged in sacrificial activity. In other Ugaritic texts they have an explicitly economic and administrative character; they could qualify for land grants and pay their taxes, and one text describes the receiving of weapons by a group of *nqdm*.<sup>27</sup> It should be noted that although there is a similarity between the roots *ngd/nqd*, the alternation of *g* and *q* has been shown to be methodologically wrong (Hasel 1998: 191–192).

The biblical term *oṣar* originates from the verb *oṣr* (to store, to gather together). *oṣar* is a storehouse/treasury and the title *nagid al a oṣarot* (נגיד על האוצרות) refers to the overseer of the treasuries in which various products were stored (1 Chr 26:24). As will be shown below, the *oṣarot* kept in the Temple consisted not only of precious metals or precious stones but also of agricultural products. Although the term does not appear explicitly in such a use, the flocks could quite possibly be considered as belonging to the Temple treasury (Neh 10:35–40). Thus, people bearing the title *nagid* in the Jerusalem Temple were perhaps in charge of the flock kept in the Temple for sacrificial purposes (2 Chr 35:8).

The title *nagid* is also known from a single Iron Age II sealing that reads לאחיא הנגד (l'hy' hngd) (Deutsch 2003: 63–64). This sealing too has a woven fabric imprint on its reverse.

The title *paqid* appears in many biblical sources and seems to have a meaning similar to *nagid*. It usually refers to group leaders (Neh 11:9.22), military commanders (2 Kgs 25:19, Jer 52:25), other leadership positions (Ps 31:6, Judg 9:28), or as a verb for appointing a governor (Jer 40:5). It is most interesting, however, that this title is used to describe the assistants of Konanyahu the Levite, a *nagid* who supervised the tributes to the Temple (and perhaps the Temple treasury as well) in the days of King Hezekiah and of Azaryahu the high priest, who also held the title *nagid* (2 Chr 31:12–13).

A seal of unknown origin kept today at the Hecht Museum in Haifa and dated to the Persian period has the legend *lpqd yhd* (Bordreuil 1986: 305–307). This seal most probably belonged to the high-ranking official of the Persian province of Judah (יהד).

The Akkadian title paqdu (OB:  $paq\bar{a}du$ ) usually refers to a deputy, bailiff, or overseer of an estate or organization, and in some cases also bears the meaning of an official in charge of a temple (Roth 2005: 135–137).

<sup>27</sup> Glück also suggested that the *nagid* developed from *noqed* and finds support for this in the description of Mesha King of Moab, who bears the title *noqed* (2 Kgs 3:4), and in 2 Sam 5:2, which describes the role of the *nagid* as a shepherd of the people (Glück 1963). He claimed that when the use of *noqed* to describe a shepherd became less popular, the word *rw*<sup>6</sup> took its place.

The biblical sources mentioned above seem to fit well with the common translation of *paqid/nagid* as chief officer or chief administrator. Such a title is suitable for a person who was the overseer of the treasury of the Temple.

# 8. Sealings and Administration of Treasuries in the Ancient Near East

First of all, the use of the term "treasury" as a translation into English of the biblical word 'ôṣār (אוצר) needs to be clarified. The Hebrew word in fact refers to a storage place containing a variety of commodities, and should not be understood as a treasury containing only valuable items.<sup>28</sup> The word derives from the root 'sr (אצר), meaning collecting for storage or hoarding, and hence an 'ôsār should be understood as a storage place. The Temple had its 'ôsār, as did the house of the king and high-ranking officials. This was probably also the case among domestic governors outside of the capital city Jerusalem. The 'ôṣār stored, among other items, agricultural commodities such as grain, oil, and wine (e.g., 1 Chr 27:27–28, 2 Chr 11:11). The Temple treasury is referred to as 'ôṣār or *beit ha `ôṣār* and seems to be the place where tithes and tributes were stored.<sup>29</sup> Here we use the English term "treasury" rather than "storage house," since these facilities functioned as "banks" that controlled the gathering and distribution of the portable assets of the institutions to which they belonged.<sup>30</sup> In addition to the archaeological evidence that will be presented below, the biblical sources also seem to indicate that sealings were used for securing goods in the treasury (e.g. Deut 32:34).<sup>31</sup>

We can gain a better understanding of the role and the practices of the Temple treasury from sealings from other treasuries in the ancient Near East. Evidence of the use of sealings appears as early as in the Pre-Pottery Neolithic B period (8th–7th millennium BCE) (Frangipane 2016; Freikman and

<sup>28</sup> Although there are examples mentioning valuable metals such as gold and silver stored in the Temple treasury: 1 Kgs 7:51, 15:18, 2 Kgs 12:19, 14:14, 16:8, 18:15. Herzog suggested that אנצרות should be differentiated from אוצרות on the basis of 2 Chr 32:27–28 (Herzog 1992: 228–230). According to these verses, the former refers to regular storehouses and the latter to treasuries holding weapons, silver, gold, precious stones, etc. Although in isolation these verses suggest such an interpretation, it seems more likely, following other occurrences of the term אוצרות אוצרות are parallel terms for storehouses, and the author used both terms for a literary purpose to create a synonymous parallelism. See also Jaruzelska 1998: 144–145.

<sup>29</sup> The extended version of this term, *beit (ha) 'ôṣār*-גית (ה)אוצר, is a later form that appears only in the Persian period (e.g., Mal 3:10, Neh 10:39, Dan 1:2). On this, see Hurvitz 1993.

<sup>30</sup> See the discussion of the royal treasury in Jerusalem below.

<sup>31</sup> See also Jaruzelska 1998: 144–145.

Garfinkel 2017).<sup>32</sup> These sealings usually do not bear a seal impression and are impressed by a finger, a mat, a basket, or some other commonly used object. Sealings of receptacles are widely known from as early as the 6th millennium BCE. Sealings in the context of temple institutions are known from as early as the 5th millennium BCE (Frangipane 2016: 13). The recently published 150 clay sealings from Tel Tsaf indicate that as early as the 6th millennium BCE clay sealings were used for administrating storage in the Levant (Freikman, Ben-Shlomo, and Garfinkel 2021).<sup>33</sup> Large assemblages of sealings bearing stamp seal impressions are known from the 4th millennium BCE (Freikman and Garfinkel 2017: 18). In these assemblages, sealings of packages or containers are regularly found in the context of administration of goods stored in storerooms (Newberry 1908: 12–22; Ferioli and Fiandra 1990). They are found in association with four major types of depositories: rooms, baskets/boxes, sacks, and jars (Magness-Gardiner 1987: 128). An elaborate administrative system using sealings is evident in Mesopotamia and Egypt from the end of the 4th millennium BCE (Frangipane 2016: 16). By the 2nd millennium BCE this system had spread to other regions, such as the Levant and Crete (Magness-Gardiner 1987: 43-48; Weingarten 1990a).

Ferioli and Fiandra, who studied the use of clay sealings from the 5th to the 1st millennium BCE in Egypt and the Aegean, reached the conclusion that the administration of storerooms made use of clay sealings in the distribution of goods (agricultural produce, raw materials, or manufactured articles) supplied for personal consumption and wages, or in the processing of goods. They claim that there is very little evidence for clay sealings being used in transportation systems. While such cases do indeed exist, the vast majority of archaeological evidence of sealings relates to bookkeeping systems that controlled the distribution of goods from storerooms (Ferioli and Fiandra 1990: 223–224; Frangipane 2016: 17–19). Magness-Gardiner added that clay sealings were used in a bookkeeping system for registering incoming items as well (Magness-Gardiner 1987: 230–231).<sup>34</sup>

Once removed from the objects, the clay sealings were kept until the end of the administration period. After the necessary controls and final bookkeeping, they were discarded in such a way that they could not be reused. This is why they are usually found in the deposits of such storerooms (Ferioli and Fiandra

<sup>32</sup> At Sha'ar Hagolan (Pottery Neolithic period) they were found together with clay tokens (Freikman and Garfinkel 2017: 5).

<sup>33</sup> Clay tokens were found together with the sealings. For additional information see media reports such as 7,000-Year-Old Seal Impression Marks Prehistoric Site as Early Trade Hub in the *Times of Israel*: https://www.timesofisrael.com/7000-year-old-seal-impression-marks-prehistoric-site-as-early-trade-hub (accessed 10 June 2021).

<sup>34</sup> This kind of bookkeeping system may have existed as early as the Neolithic period (Freikman and Garfinkel 2017: 20).

1990: 226). Some rare examples in the archaeological record reflect the interim between the opening of the sealings and their discarding; in these instances the sealings were kept in containers such as a jar or a juglet for archival purposes (Aharoni 1975: 19–22; Ferioli and Fiandra 1990: 230; Smith 1998: 220).<sup>35</sup>

In Akkadian the storerooms of treasuries were generically termed  $b\bar{t}t$  kunukki (Magness-Gardiner 1987: 130–140), meaning "House of the Sealings." In some instances, the seal of the king himself, his servants, or members of his family were used to seal such storerooms. These rooms stored diverse contents, although most of the goods were valuable raw materials such as metals and agricultural commodities such as grain, oil, wine, and honey.

Much information was retrieved by Zettler for his study of the archives and sealings assemblages from the 21st century BCE temple of Inanna at Nippur (Zettler 1987). The study demonstrated that the management of the temple's property and livestock, or the capital generated, was highly centralized in the hands of a single official with the Sumerian title *ugula*  $\acute{e}$  ( $\check{s}abra$ ) <sup>*d*</sup>*Inanna*. This person, who can be described as the chief administrator, was the "public face" of the temple (Zettler 1987: 200).<sup>36</sup> He was responsible for receiving the commodities or goods into the temple and for concluding contracts of purchase or sale and other legal procedures.

Excavation of the temple yielded 149 sealings originating from two contexts: a rectangular bin used for storing clay in the chancery courtyard and a refuse pit in the eastern courtyard. As demonstrated by these findspots, all the sealings had been broken and were discarded at a distance from the items they had sealed. The sealings were used to seal doorknobs, jars, bags, boxes, and other objects. Many of the sealings found in the temple belonged to its chief administrator or a close relative of his. The texts in the archives indicate that the post of chief administrator was heritable, and many members of his close family were associated with that institution (Zettler 1987: 210).<sup>37</sup>

In Egypt sealing technology first appeared during the days of the Old Kingdom, around 3600 BCE, and continued through the Pharaonic and post-Pharaonic periods in the Nile Valley (Wegner 2018: 229). It was a fundamental tool of the administration and was used for both official and private purposes to secure and

<sup>35</sup> This practice is also known from the early stages of the use of sealings (5th–4th millennium BCE). At Arslantepe a large assemblage of sealings was found in the corner of a storroom, apparently gathered there intentionally (Frangipane 2016: 13, 19, 22).

<sup>36</sup> This was a common position in different cultures and periods of the ancient Near East. In the 2nd millennium BCE, the term for this role in Alalah was *lū rá-gab* (Magness-Gardiner 1987: 164). In the Old Babylonian period, the Akkadian term was *šangu* (Ellis 1986).

<sup>37</sup> This phenomenon is also evident in the Minoan and Aegean cultures at Phaistos and Karahöyük (Weingarten 1990a: 66, 76).

authenticate rooms, containers, and correspondence (Smith 2018: 302). Large assemblages of sealings have been found in contexts of storerooms (treasuries), both domestic and royal, and both sacred (i.e. in temples) and secular.

The word for treasury in ancient Egyptian was pr-hd, literally meaning "white house," and the state treasury was pr-wy-hd (Papazian 2013: 71-72).<sup>38</sup> The primary duties of the treasury included the supply of funerary equipment, such as fine linen and oil. Certain tomb scenes illustrate the donation of *htm.t*, "sealed objects," to the deceased (Papazian 2013: 73). Different roles in treasury administration bore titles such as *imy-r3 pr-hd*, "overseer of the treasury," *hrysd3w.t pr-hd*, "seal-bearer of the treasury," and *imy-r3šnw.t nb.t n.t ny-sw.t*, "overseer of all the granaries of the king" (Newberry 1908: 38–39; Strudwick 1985: 276; Papazian 2013: 73). The title *htmty-bity*, "royal seal-bearer," or *mr htm*, "Keeper of the Royal Seal," may have belonged to the leading treasury official or to the personal representative of the king in matters of treasury administration (Newberry 1908: 17-18; Papazian 2013: 74; Wegner 2018: 231). From the 12th Dynasty onward, administration became more centralized and the treasury department was presided over by a single "Keeper of the Royal Seal," who was one of the most important and powerful personages in the realm, as shown by the biblical description of Joseph's appointment by his entrusting with Pharaoh's seal (Newberry 1908: 33–38). The title *htmty-ntr*, "divine sealer," was probably a title reserved for administrators of temple treasuries (Wegner 2018: 231).

A large sealing assemblage significant to our discussion comes from the fort at Uronarti (*Hsf-Ywnw*) on Egypt's southern border with the Kingdom of Kush in Nubia. Over 4000 clay sealings dating from the 13th Dynasty were found in floor debris in the fort (Reisner 1955). Many of them had been used to seal doors and various containers. Half of them were described as "official" seals of the King of Egypt or of administrative offices in Thebes and in the Nubian forts. It has been suggested that some of these sealings were of temple endowments, and many of them were defined as "funnel" sealings attached to wooden pegs.<sup>39</sup>

<sup>38</sup> There was also another type of treasury named *pr-dšr* ("red house"), which was in use up to the 3rd Dynasty, but its function is not yet understood.

<sup>39</sup> The "funnel" sealings had a flat back with an imprint of striated wood and a hole with a flaring top that rises from the center of the flat back. Reisner suggested that these sealings were attached to a wooden plate that sealed the neck of a sack, and the sack was drawn through the hole in the wooden plate and tied close to the plate. The sealings' clay was applied to the top of the plate around the tied neck of the sack and impressed two or more times with the seal (Reisner 1955: 27–28). This exact type of sealing was also found in Shechem of the Middle–Late Bronze Age and in massive quantities (about 6000) in Phaistos, as well as other sites in the Aegean Bronze Age (Wiencke 1976; Weingarten 1990b). They were understood to be sealings attached to wooden pegs that projected from the sides of boxes or doors. These comparable finds indicate that sealing techniques were very similar in distant cultures. This phenomenon was already noticed by Newberry (1908: 7–8) at the beginning of research on seals and sealings in Egypt.

Some of the Uronarti sealings bear the stamp "storehouse of the fortress of *Hsf-Ywnw*," while others have the stamp of the "treasury" of the fortress. Many of the treasury sealings were described as package sealings and had the imprint of a textile or a basket on their reverse, as well as the stamp of the treasury.<sup>40</sup>

Additional information comes from the important Treasury of Persepolis, which was eventually destroyed and burned in 330 BCE by Alexander the Great (Schimdt 1953; 1957; Cahill 1985). Most of the items in the treasury date from the reign of Artaxerxes I (5th century BCE), while others date from the neo-Assyrian or neo-Babylonian period. The treasury functioned as a storeroom for prestigious objects, mainly gifts given to the king. Unlike the other treasuries mentioned above, this treasury did not act as a center of redistribution. However, records from clay tablets found in the treasury indicate that some payments of silver were made by the chief administrator of the treasury to workmen and officials in Persepolis and its surrounding area. These payments were exceptional, and the main purpose of the treasury was not economic use but simply safekeeping, perhaps as a monument to the power of the king and his relationship to his subjects, as suggested by Cahill (1985: 388).

Altogether 16 cylinder seals and 21 stamp seals and signet rings were discovered in the treasury, in addition to 198 clay sealings and 548 fragments of clay sealings (Schmidt 1953: 4; Cahill 1985: 381–382). In addition, an archive of 656 cuneiform tablets were found in Room 33, which yielded the largest number of clay sealings (72) (Schmidt 1953: 174; 1957: 6). These sealings may have been a cluster of used sealings that were kept for archival purposes, as described above. Another cluster of ten sealings was found in Room 11 together with charred textiles (Schmidt 1953: 173; 1957: 137). These sealings differed from the other sealings in the treasury in having a plano-convex or biconvex cross-section and in each sealing bearing only one seal impression. Six of them were impressed by a single seal inscribed with its owner's name (Datam[es]) in Aramaic script (Schmidt 1957: Pl. 7:PT3 384, PT3 363). Other sealings bore the name of Xerxes. Unfortunately, the excavation report supplies little documentation regarding the reverse of the clay sealings, but does mention the variety of general shapes in different areas of the treasury (Schmidt 1957: 6).

To conclude, temple and state treasuries in the ancient Near East were managed by an elaborate administrative system that made use of clay sealings for securing and controlling the storage and distribution of goods. These included

<sup>40</sup> Other sealings, which were apparently not attached to any object, consisted of a conoid (or oval conoid) lump of mud with a single impression stamped on the upper surface and finger impressions on their sides. Some of these sealings had incised markings, and it has been suggested these were package receipts of some kind.

different commodities in various types of containers, such as agricultural supplies in jars, valuable metals in sacks, boxes, and baskets, and rooms sealed by a door lock. The characteristics of this elaborate system were similar among distant treasuries in the ancient Near East and the Aegean world, and over different periods. Some temple treasuries were managed by a specific priest with the involvement of additional members of his family, and this post was heritable.

# 9. Sealings with Fabric Imprints on their Reverse and Their Use in Hoards and Treasuries

Among the artifacts recovered in the Temple Mount Sifting Project, 31 clay sealings have been dated, according to their style and clay attributes, to the Iron Age II. On seven of them (22%), a woven fabric imprint was identified on their reverse (henceforth: FIR sealing) (Fig. 3). An even higher proportion (40%) of FIR sealings was found near the "Royal Building" uncovered in the Ophel Excavations directed by Eilat Mazar (see below). This is a relatively high proportion, since FIR sealings are not generally common; in excavations in Jerusalem other than the Temple Mount and the Ophel, they comprise around 7% of all clay sealings.<sup>41</sup>

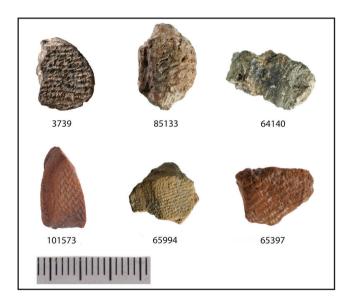


Fig. 3. Clay sealings from the Temple Mount with fabric imprints on their reverse (photographed by Zachi Dvira and Tal Rogovsky).

<sup>41</sup> For example, out of the 168 sealings from Jerusalem studied by Gurwin, only 12 possibly had fabric impressions on their reverse (Gurwin 2010: 89–96).

The FIR sealings are usually understood to have been attached to a textile sack or bag, and less often to a cloth securing a jar mouth (Stein 1997: 108–110). In this section we will discuss both possibilities and the various ways in which they may have been used in storerooms and treasuries.

The association of FIR sealings with textile bags is difficult to validate with archaeological evidence, since fabric items, being made of organic materials, are rarely preserved. Moreover, contemporary scholars' descriptions of the contents of these sealed sacks are often vague, and the association of FIRs with sacks or bags is not based on direct archaeological evidence. That said, some supportive archaeological evidence that may validate these assumptions comes from several sites in Israel and Mesopotamia where FIR sealings were found in private hoards or public treasuries. There is Egyptian iconographic evidence on this issue, and some biblical sources relate to this practice as well.

At Tel Dor, four FIR sealings were located near a silver hoard found in a jug covered by a bowl (Stern 2001). The hoard included 17 bundles of silver pieces packaged in linen bags secured with clay sealings. It was found in a fill dated to the Iron Age I–II transition and was interpreted as a possible "foundation hoard"— a symbolic tribute laid at the foundation of a building (Eshel 2014: 19–20). The seal impressions on the four clay sealings were identical and consisted of spiral motifs, typical of Middle Bronze Age scarab seals.<sup>42</sup>

In an 11th-century BCE context at Tel Kison (Tell Keisan), a hoard comprising seven bundles of silver and bronze pieces was found inside a Bichrome jug with four FIR sealings (Keel 1980: 282; 1995: 117; Nodet 1980: 325, Pl. 132). These sealings and the metal bundles were found together with remnants of linen fabric. Brandl suggested dating the hoard and its sealings two centuries later, to the 9th–8th century BCE, based on motifs appearing on them and the disturbed stratigraphic context (Brandl 2012: 377–396).

Remnants of woven fabric have also been found preserved on corroded silver discovered in Iron Age hoards from various sites. In a study of 34 silver hoards found in Israel, 13 were found to show evidence of being packed in woven fabric (Eshel 2014: 30–31, Table 2.2).<sup>43</sup> Almost all were dated to Iron Age IB/IIA. Only two of these cases (those discussed above) were found with clay sealings, and Eshel described them as being the exception rather than the rule (Eshel et al. 2018: 212). However, if we consider that in the humid climate that exists in such sites that are discussed by Eshel, clay sealings are rarely preserved unless they were accidentally fired or baked, the sealings from the Tel Kison and Tel

<sup>42</sup> The use of scarabs from earlier periods in later times is a well-known phenomenon (Keel 1995: 262–263; Stern 2001: 23).

<sup>43</sup> See also an earlier study on this subject (Kletter 2003: 139–152).

Dor hoards could be considered the rule rather than the exception. Hoards are usually hidden and are not exposed to conflagration, and hence the sealings are unlikely to be preserved with them.

There is also some evidence for the existence of textile sacks or bags together with clay sealings in two ancient Near Eastern treasuries. The first is the treasury of Persepolis mentioned above. In one of the rooms, a cluster of ten clay sealings was found together with charred textiles (see above). The second is from the Old Babylonian E-Babbar Temple at Larsa, where three hoards of rare metals and other goods were found together with clay sealings (Arnaud, Calvet, and Huot 1979). One was stored in a jar that contained metal scraps (gold, silver, and copper), jewelry, a cylinder seal, 18 clay sealings, a cuneiform tablet, and other goods. The two other hoards were found in pits. One of them contained five clay sealings and five cuneiform tablets (Bjorkman 1993: 2, Table 1). It was presumed by the excavators that the metal hoard found within the jar was sealed in textile bags (Arnaud, Calvet, and Huot 1979: 6, 13). Unfortunately, the imprint on the reverse of the sealings is not clear in the published photographs, and so there is no way to validate this interpretation.

These hoards were interpreted by their excavators as having belonged to a goldsmith, but Bjorkman claimed that there is no firm evidence for this assumption and that the hoard could very well have been owned by a temple priest, a merchant, a craftsman, or anyone else (Bjorkman 1993: 8–10). The sealings and the archive indicate that the activity that took place in the area (mainly consisting of tributes to the temple) was administrated by priests. Bjorkman suggested that the title kù.lá that appeared on some the sealings was that of an official in charge of paying or weighing the silver.

Biblical sources testify that silver intended to be used as a means of exchange was in the shape of cut silver pieces or fragments (¬בצע כסך) and stored in a bound state described as "ברור כסך" (Gen 42:35, 2 Kgs 12:9–10, Hag 1:6, Prov 7:20). The *seror* was stored within a small textile bag (¬¬) (Thompson 2003: 79). The bag was bound with thread and fastened with a clay sealing whose purpose was to identify the owner and ensure that unauthorized people did not open the bag. A hint at the size of such bags comes from another precious substance (myrrh), which was also held in a *seror* and was placed between the breasts of the beloved (Song 1:13). According to this source, the *seror* might have been the small textile bag itself or a cluster of myrrh fragments bound together. The word *seror* as an object for holding hacksilber also appears in one of the recently deciphered Arad ostraca (Mendel-Geberovich et al. 2017).

In the book of Zachariah there is a description of silver pieces given to the  $y\bar{o}s\bar{e}r$  (יוצר) in order to be cast in the Temple (Zech 11:13). Torrey suggested that the

Jerusalem Temple, in both the Pre-Exilic and Post-Exilic periods, incorporated a foundry where precious metals used to redeem tithes were collected, melted down, and recast in standardized measures to be used as means of payment (Torrey 1936: 247). Because the term  $y \bar{o} s \bar{c} r$  usually described a potter, he concluded that its use here was the result of some error. It is interesting that the Syriac version of Zachariah renders not יוצר but אוצר ("treasury").<sup>44</sup> If Torrey is correct, we should conclude that the precious metals were stored as ingots in the Temple treasury. If so, in what kind of bags or other containers could such ingots be stored?

The storage of silver in sealed bags or jars is also known from Old Babylonian texts (Földi 2014: 101–102). The sealed silver was described as *kaspum kankum*, as opposed to "loose" silver, which was described as *kaspum pirum*. In Assyrian texts the term *riksum şahrum* refers to a bundle of valuables in a small bag or pouch, whose opening was tied up with a rope whose knot was presumably covered by a sealing (Veenhof 2014: 398). Sealed bags containing silver appear in Late Babylonian contracts as *kaspu raksu kanku*, which is the equivalent of the biblical *seror kesef*. The silver was cut into pieces (hacksilber) from ingots, probably in an established system of weights (Moorey 1994: 237).

After reviewing the evidence for the existence of FIR sealings securing fabric sacks, we are left with the question of whether this is the only type of storage to which FIR sealings attest. An examination of the FIR sealings found in the Temple Mount Sifting Project seems to indicate that this is not the case. In the majority of FIR sealings in this assemblage, the reverse has a curved or irregular shape, an impression that may very well be of the neck of a sack or bag (the common location for the tie which secured it) to which the sealing was attached.<sup>45</sup> However, this kind of impression can also be associated with the mouth of a jar covered by cloth, where the tie was situated at the neck or close to the rim.

The Immer sealing and two other Temple Mount FIR sealings had a reverse imprint that is flat (Fig. 3: 101573, 65994). Unfortunately, few of the publications of clay sealings in excavation reports include photographs or drawings of the

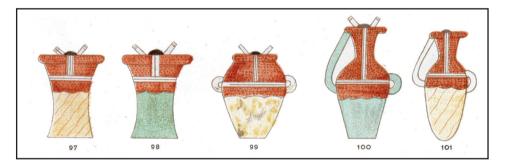
<sup>44</sup> This suggestion could be supported by the description of the collection of silver for the Temple's renovation during the reigns of Joash and Josiah. In Joash's renovations, the text describes a treasury chest containing counted and "bundled" silver (דצורו וימנו את הכסך) that was managed by the priests (2 Kgs 12:11). The word ויצורו וימנו את הכסר), which derives from the root *swr*, could very well be translated as "cast" and then punctuated as a from"; see 1 Kgs 7:15). Thus, the silver was cast and then stored in the chest. In Josiah's renovation, silver was donated by the people to the Temple and was given to the pig. (a plural passive present verbal form, *huf'al*, of the verb *pqd*), who cast it (2 Kgs 22:9). The casting was the bundling together of the silver pieces.

<sup>45</sup> Although photographs or drawings of the reverses of clay sealings have rarely been published in the past, this rule can easily be discerned in some recent publications in which the reverse is documented (e.g. Gurwin 2010: 71–77; Mazar and Livyatan Ben-Arie 2018). It is sometimes even possible to differentiate between sealings that secured the sack on the inside from those that secured it on the outside (Frangipane 2016: 28, Fig. B).

reverse, and so it is difficult to deduce how rare such FIR sealings are. However, in two extensive corpora of sealings published by Deutsch, which do supply a description and image of the reverse, only two sealings seem to have such a flat reverse fabric imprint (Deutsch 2003, no. 120; 2011: 518).

One possibility is that these sealings were stamped while the sack and the knot in the string were lying on a table or some other flat surface. A more likely possibility is that the sealings were attached to a cloth covering a stiff lid closing the mouth of a jar or other container.

Jars, stone vessels, or other containers could be secured with a covering made of textile, leather, or even gold foil. In addition, the sealing could have been attached to a tie at the top of the stretched cloth or on the side of the vessel.<sup>46</sup> The former possibility is more likely where the fabric imprint is flat. In this case the container would have been closed with a solid lid and then covered by a leather or textile cloth stretched closely over the jar mouth, above the lid. A thread was fastened around the jar's neck or body, with the knot and sealing placed at the top of the stretched cloth.



**Fig. 4.** Tomb no. 2 at Beni Hasan: illustration of five jars covered by a cloth and secured with a sealing on top of the covered mouth of the jar (after Griffith 1893: Pl. 4).

Such a sealing technique is known from ancient Egyptian illustrations (Newberry 1908: 16–17). For example, tomb no. 2 at Beni Hasan (20th century BCE) depicts five jars with their mouth covered by a cloth and secured by a string around their everted neck or through short handles (Fig. 4). The string is then threaded upwards from both sides of the vessel towards the top and tied in a knot in the center above the lid. The knot is depicted by a dark semicircular shape, which probably represents a sealing (Griffith 1893: 97–101). Another good example comes from the Sun Temple of Nyuserre Ini (5th Dynasty) near Abusir,

<sup>46</sup> For examples of securing jar and stone vessels near the rim or over the opening, see Brandl 2018: 405, 407, 413–420.

#### Clay Sealings from the Temple Mount

which illustrates a man covering up a jar of honey and fastening a string around the jar (Edel and Wenig 1974: 21). Above him appears the legend <u>htm bit</u> — "sealing honey" (Fig. 5). In addition, there are some intact vessels that were found secured by a similar method, although the sealings were attached below the rim and the mouth was covered by gold foil rather than a cloth.<sup>47</sup>



**Fig. 5.** The Sun Temple of Nyuserre Ini (5th Dynasty) near Abusir: illustration of sealing a honey jar with the legend "sealing honey" (after Newberry 1908, Fig. 8).

The metal hoards mentioned above that were found with FIR sealings were always associated with a pottery vessel (a jug or jar). It seems that it was insufficient to store the metal bundles within a sack, and the sacks had to be stored within a solid container. The containers were closed by a solid lid and then covered by a skin or textile cloth that was secured by a string and a clay sealing.

Another interesting phenomenon observed in the Temple Mount FIR sealings is the high proportion (three out of seven) of imprints that seem to be made by a textile woven in the warp-face technique (Fig. 3: 3739, 64140, and 85133), unlike the balanced tabby technique that is the common weaving technique seen in the majority of FIR sealings.<sup>48</sup>

To conclude, FIR sealings were commonly used when storing valuable items in hidden hoards or treasuries. The sealing assemblage from the Temple Mount

<sup>47</sup> In the tomb of King Khasekhemui (2nd Dynasty) at Abydos, six marble vases and one of carnelian were found covered with a thick gold foil fitted around the rim and secured with clay sealings (Petrie 2013: 27). Additional examples of such secured vessels can be seen in an old catalog of the Cairo Museum (von Bissing 1907: 101–102 Pl. A:18501–18504).

<sup>48</sup> See the explanation of these techniques in the following notes.

contains a relatively high proportion of FIR sealings. It is likely that the sealing of the son of Immer and two other sealings from the Temple Mount did not seal a textile sack but rather the textile cover of a jar or other kind of container closed with a lid. In the case of the other clay sealings from the Temple Mount, we can suggest with a high degree of certainty that they sealed textile bags (*seror*) containing valuable commodities, possibly hoards of silver, that were under the supervision of (or were owned by) the persons whose names appear on the sealings. These bags may have been stored in sealed jars in a similar fashion to other commodities stored and sealed in jars.

#### 10. The Royal Treasury

A recent report on the Ophel excavations directed by E. Mazar south of the Temple Mount surprisingly presented 14 FIR sealings out of a total of 34 sealings found, comprising approximately 40% of the assemblage (Mazar and Livyatan Ben-Arie 2018). This is a relatively very high proportion of FIR sealings. Study of the contexts in which they were found may significantly contribute to a better understanding of the function and use of these sealings.

Most of the FIR sealings in the Ophel excavations report were identified as having been attached to fabrics woven in the balanced tabby technique, a plain weave typically used for linen textiles (Sukenik and Shamir 2018).<sup>49</sup> The warpface technique, which is seen on the reverse of the "son of Immer" sealing as well as two additional FIR sealings from the Temple Mount, was observed on only one sealing (B16).<sup>50</sup>

The Ophel sealings were not found in their primary context and were distributed over two patches among several slanting layers of refuse dumps at the foot of the outer southeastern wall of the "Royal Building" (Mazar and Lang 2018).<sup>51</sup> The patronymic *bs* appears in seven cases.; The sealings were found in loci 09-421b and 09-95, which yielded pottery dated to the Iron Age IIB, animal bones, the sealing of Hezekiah King of Judah, jar handles with LMLK seal impressions, an ostracon with the inscription [*br*]*kyhw*, a jar handle with a seal impression reading *mnhm ybnh*, fragments of clay figurines, and an ivory "calendar" plaque (Mazar and Lang 2018: 209–216, Table II.2.4).

<sup>49</sup> In this weaving method, each warp thread alternately passes over and under subsequent weft threads and vice versa, and the count of warp threads per square centimeter is the same or almost the same as that for the weft.

<sup>50</sup> In this weaving technique the warp threads cover the weft threads, which are consequently less visible in the impressions.

<sup>51</sup> For a preliminary report on the building and its plan, see Mazar 1989: 29-48, Plan 7.

On the basis of the numerous pithoi found in the "Royal Building," one of which has the chiseled inscription .... לשר האו...]) ("to the minister of the O..."), Mazar interpreted the building as a royal bakery (Mazar 1989: 44–45; Nadelman 1989: 128–129).<sup>52</sup> The inscription on the latter pithos was reconstructed as לשר האו[פרס] ("to the minister (or chief) of the bakers"). The pithos was dated to the Babylonian destruction of 586 BCE, although the building probably served as a storage facility during earlier phases as well.

However, because of the large proportion of FIR sealings among the sealings found in the refuse of the "Royal Building," we believe the building should be identified as a royal treasury structure rather than a bakery.<sup>53</sup> This suggestion is based on the following considerations:

- 1) As discussed above, sealings were generally used for administrative purposes, primarily in storerooms (treasuries) and particularly in the case of FIR sealings.
- 2) The building consisted of typical narrow storerooms, which does not seem to be an architectural plan appropriate to a bakery.<sup>54</sup> No ovens or other bakers' installations were discovered in the structure, while the abundance of pithoi uncovered there fits well with the notion of a storage facility.<sup>55</sup>
- 3) As mentioned above, the word אוצר (treasury) may refer not only to a storeroom of precious commodities but also to the storage of agricultural commodities such as grain, oil, wine, and perhaps even honey. These were probably stored in the pithoi that were found in the building.<sup>56</sup>
- 4) The existence of many sealings bearing the same patronymic, the Egyptian name *bs*, is evocative of the above-mentioned practice of chief treasury administrators in the ancient Near East involving close family members in their

<sup>52</sup> On one of the other pithoi a palm tree motif was incised on the shoulder. This was interpreted as a pithos that contained date honey (Mazar 1989: 40).

<sup>53</sup> The common biblical term for a royal treasury was אוצרות המלך or אוצרות בית המלך (e.g., 1 Kgs 14:26, 15:18, 2 Kgs 14:14, 16:8, 20:15, 24:13, Jer 20:5, 2 Chr 12:9, 32:27, 36:18).

<sup>54</sup> As mentioned above, Herzog differentiates between storehouses for storing agricultural produce and treasuries for storing precious metals. He associates the former with large, long pillared buildings, while the latter are characterized by long rooms in contexts of palaces (Herzog 1992: 223–229). Thus, according to Herzog the pithoi rooms in the "Royal Building" would be treasury rooms. We do not follow Herzog's definitions; despite the absence of a large pillared space, the abundance of pithoi in the large rooms of this building supports its interpretation as a storage facility for agricultural produce.

<sup>55</sup> Only 5% of the pottery shards from Locus 09-421B (in which most of the FIR sealings were found) came from storage jars (Mazar and Morgan 2018). Since this locus was part of the refuse dump of the "Royal Building," it raises the question of whether only part of the building was used for storage, or perhaps this low percentage represents a chamber that contained large storage jars but rather small containers such as small jars and packages such as bags and sacks made of organic material that was not preserved. In any case, it should be taken into account that pottery shards from refuse deposits tend to contain a higher percentage of tableware and other easily portable vessels, while storage jars, which are less portable and tend to break less often, are usually less frequent in such deposits (see Dvira, Zagdon and Shilov 2011: 8182).

<sup>56</sup> It is evident from 2nd-millennium BCE Syrian texts that sealed jars usually contained liquid, either wine or oil. In some cases these were subject to the direct control of the king (Magness-Gardiner 1987: 144).

duties.<sup>57</sup> The same practice is evident from the Immer family's involvement in the Temple treasury.

- 5) The reason for the appearance of an Egyptian name as the patronymic in the sealings of the "Royal Building" was not addressed in Mazar's report.<sup>58</sup> Identifying him as the chief administrator of the royal treasury throws light on this phenomenon, since the Kingdom of Judah adopted Egyptian arithmetic and administrative practices and probably also hired Egyptian officials for fiscal administrative duties that required complex mathematics. It is apparently not a coincidence that Pashhur son of Immer, the chief administrator of the Temple, also had an Egyptian name.<sup>59</sup>
- 6) The inscription "לשר האון ישר "mentioned above was read on a poorly preserved pithos. It was completed and read as לשר האוןפים ("to the Minister (or Chief) of the Bakers") but it could very well be read as שר האוןצרות ("Minister (or Chief) of the Treasuries"). This plausible reading had been already suggested by Mazar and Nadelman, but was less favored by them (Mazar 1989: 45; Nadelman 1989: 129).
- 7) Locus 09-421b, in which most of the FIR sealings were found, also contained an ivory plaque interpreted as a device for counting months, or some other counting device that was used in an administrative office (Naeh 2015: 594).

To conclude, the attributes of the "Royal Building" in the Ophel seem to fit a storage structure better than a bakery. The location of this building and the finds in its proximity, including the sealing of King Hezekiah, make it plausible that this was the royal treasury or a section of it. The commodities in this treasury probably originated from taxes in kind sent to the king's palace in Jerusalem.<sup>60</sup> Evidence for this and a detailed discussion of the fiscal sealings used in such a taxation system were recently published by Barkay.<sup>61</sup> Until recently these sealings were known only from the antiquities market, but in recent years four such fiscal

<sup>57</sup> The Egyptian name *bs*, that of the Egyptian deity Bes, was also used as a personal name (Ranke 1935: 98; Lüddeckens et al. 1983: 146). Some scholars explain the name as referring to a personification of the prematurely born child or fetus who protects mother and child, and used as a personal names for prematurely born children (Meeks 1992; Te Velde 1999). The name also appears in the Persian period in the Levite personal name *bēsāy* (Ezra 2:49, Neh 7:52).

<sup>58</sup> This phenomenon pertains only to the patriarch of the lineage. Only Hebrew names appear in the sealings of his descendants, and none of them are theophoric. On other FIR sealings that do not contain the name Bes, Judahite theophoric names do appear (Mazar and Livyatan Ben-Arie 2018: 249–252, Table II.3.1).

<sup>59</sup> The Egyptian theophoric component Hur appears on another Ophel sealing that does not mention Bes (sealing B11). The sealing was read by the excavators as *l'hhr* (Mazar and Livyatan Ben-Arie 2018: 249– 252, Table II.3.1).

<sup>60</sup> Unfortunately, we were unable to find any discussion of the administration of treasuries or the titles of their administrators in the literature concerning the state administration during the First Temple period (e.g. Fox 2000; Jeruzelska 1998).

<sup>61</sup> These sealings usually mention a regnal year, a city in Judah, and the particle *lmlk* ("to the king") (Barkay 2015).

sealings have been found in controlled excavations in Jerusalem, two of them in the proximity of the Ophel and the Temple Mount.<sup>62</sup>

Further research is required in order to characterize attributes differentiating royal and temple treasuries. Both are central storage facilities of goods and commodities sent from an extended region, but it is likely that the function and some of the administrative practices differed between them.

#### Summary

The sealing found in the Temple Mount Sifting Project is one of an accumulating series of seals and seal impressions unearthed in Jerusalem. The clay sealing published here appears to be connected to a priestly family of the 7th or early 6th century BCE, the time of the prophet Jeremiah, and to the events mentioned in his book. It is a unique artifact that can be associated with the final days of Solomon's Temple. It provides a significant addition to the available information on the administrative activities that took place at the end of the First Temple period in the Temple and in its treasury.

Since the sealing originates from the Temple Mount and is dated to the late days of the First Temple, it seems plausible that the name Immer mentioned on the sealing is connected to the priestly family of that name. The owner of the seal may have been a sibling of Pashhur son of Immer, mentioned in Jer 20:1 as *paqid nagid* in the House of the Lord. The above discussion of the terms *paqid* and *nagid* demonstrate that these titles may be related to administrative roles in the Temple's treasury.

We have shown that clay sealings with a woven fabric imprint on their reverse are common in assemblages of sealings from treasuries. The clay sealings recovered in the sifting of the soil Temple Mount had a relative high percentage of FIR sealings (22%). An even higher percentage (40%) of FIR sealings was found in the royal compound exposed in the Ophel excavations south of the Temple Mount. We suggest that the "Royal Building" exposed at that site should be identified as the royal treasury of Judah.

The administration of treasuries in the ancient Near East included the receipt and distribution of goods (especially agricultural produce) that were secured and monitored with the use of clay sealings, which additionally functioned as

<sup>62</sup> One of these came from sifting soil from a refuse pit on the eastern slopes of the Temple Mount (Dvira, Zigdon, and Shilov 2011: 84; Barkay 2015). The second was found in the drainage system under Robinson's Arch by Eli Shukrun and will be published by Shukrun and Barkay. Two others were found in the City of David (Reich 2012; Barkay and Deutsch 2017).

an accounting instrument. The administration system and style of the sealings seem to be very similar across a large geographical and chronological range. The administration was directed by a chief administrator with the help of his siblings and other relatives. This seems to be equally the case for the Temple and royal treasuries of the Kingdom of Judah.

The clay sealings from the Temple Mount, which have a textile imprint on a curved reverse, were probably affixed to a coarse textile bag that contained hacksilber or other precious metals. Sealings with a flat reverse and a textile imprint, like the Immer sealing, most likely secured jars containing agricultural produce whose opening was covered by a cloth.

The Immer sealing is the first ancient Hebrew inscription dating from the First Temple period and originating from the Temple Mount ever discovered in the framework of an archaeological project.<sup>63</sup> Since it is currently impossible to excavate on the Temple Mount, this artifact is at present the only inscription from within the Temple Mount that can shed light on activities that took place in Jerusalem's cultic and administrative center during the First Temple period.

## Acknowledgments

This study was supported by the generous grant of the Rust Family Foundation, provided via the Israel Archaeology Foundation. The Temple Mount Sifting Project received initial funding from the Heritage Foundation of Abraham and Frieda Wiener and was funded over the years via the Israel Exploration Society, the Ir David Foundation, and the Israel Archaeology Foundation. We are grateful to the Goldhirsh-Yellin foundation, David Sterling, the Harvey & Gloria Kaylie Foundation, the Community of the Hampton Synagogue, Edward Baumstein, Steven Michael Delamater, and many other benefactors who supported our research work in 2017, which helped bring this article to publication. We thank all of them.

We would also like to thank Baruch Brandl, who kindly read a draft of this article and offered valuable advice, Hava Elboim for proofreading the text, Razia Richman for her precise drawings and beautiful reconstruction, Yuval Goren for conducting petrographic analysis of the sealing, and Naama Sukenik for examining the FIR clay sealings from the Temple Mount.

<sup>63</sup> Another Hebrew inscription was reported to have come from the Temple Mount. In 1903 George Barton published a square box-shaped bronze weight. Two of its facets bear the inscription פים/לוכרי/הו.יאר (*pym/to zkryhw y'r*). This weight was apparently discovered within the topsoil on the Temple Mount. It has been dated to the 10th–9th century BCE by the shape of its characters (Barkay 2006).

#### References

- Aharoni, Y. 1975. *Lachish V (Tell ed-Duweir): The Sanctuary and the Residency*. Tel Aviv University Institute of Archaeology Monograph Series 4. Tel Aviv: Gateway.
- Aḥituv, S., and Eshel, E. 2012. The Inscriptions. Pp. 73–142 in Kuntillet 'Ajrud (Horvat Teman), an Iron Age II Religious Site on the Judah-Sinai Border, ed. Z. Meshel. Jerusalem: Israel Exploration Society.
- Arnaud, D., Calvet, Y., and Huot, J.-L. 1979. Ilšu-Ibnišu, orfèvre de l'E. Babbar de Larsa. La Jarre L. 76.77 et son contenu. *Syria* 56: 1–64.
- Avigad, N. 1987. On the Identification of Persons Mentioned in Hebrew Epigraphic Sources. Pp. 235–237 in *Eretz-Israel: Archaeological, Historical and Geographical Studies*, Vol. 19: *Michael Avi-Yonah Memorial Volume*, ed. D. Barag, A. Negev, and G. Foerster. Jerusalem: Israel Exploration Society (Hebrew).
- Avigad, N., and Sass, B. 1997. *Corpus of West Semitic Stamp Seals*. Jerusalem: Israel Academy of Sciences and Humanities.
- Barkay, G. 2006. An Ancient Hebrew Weight from the Temple Mount. *New Studies on Jerusalem* 12: 29–32, 9\* (Hebrew).
- Barkay, G. 2015. Evidence of the Taxation System of the Judean Kingdom A Fiscal Bulla from the Slopes of the Temple Mount and the Phenomenon of Fiscal Bullae.
  Pp. 17–50 in *Recording New Epigraphic Evidence: Essays in Honor of Robert Deutsch*, ed. M. Lubetski and E. Lubetski. Jerusalem: Leshon Limudim.
- Barkay, G., and Deutsch, R. 2017. Another Fiscal Bulla from the City of David. *New Studies on Jerusalem* 22: 115–121, 11\* (Hebrew).
- Barkay, G., and Dvira (Zweig), Z. 2012. The Temple Mount Sifting Project: Preliminary Report 3. *City of David: Studies of Ancient Jerusalem* 7: 47–96 (Hebrew).
- Barkay, G., and Dvira (Zweig), Z. 2016. Relics in Rubble: The Temple Mount Sifting Project. *Biblical Archaeology Review* 42 (Nov/Dec 2016): 44–64.
- Barkay, G., and Vaughn, A. G. 2004. Section C: The Royal and Official Seal Impressions from Lachish. Pp. 2148–2173 in *The Renewed Archaeological Excavations at Lachish* (1973–1994), Vol. 4, ed. D. Ussishkin. Tel Aviv: Emery and Claire Yass.
- Barkay, G., and Zweig, Z. 2006. Temple Mount Sifting Project: Preliminary Report. *New Studies on Jerusalem* 11: 213–238 (Hebrew).
- Barkay, G., and Zweig, Z. 2007. New Data in the Sifting Project of Soil from the Temple Mount: Second Preliminary Report. *City of David: Studies of Ancient Jerusalem* 2: 27–68 (Hebrew).
- Beit-Arieh, I. 2007. Epigraphic Finds. Pp. 122–187 in *Horvat 'Uza and Horvat Radum: Two Fortresses in the Biblical Negev*, ed. I. Beit-Arieh, B. C. Cresson, M. Fischer, L. Freud, and O. Tal. Tel Aviv: Emery and Claire Yass.
- Bissing, F. W. von 1907. *Steingefaesse: Einleitung und Indices*. Catalogue général des antiquités égyptiennes du Musée du Caire: Nos. 18065–18793. Wien: Holzhausen.
- Bjorkman, J. K. 1993. The Larsa Goldsmith's Hoards New Interpretations. *Journal of Near Eastern Studies* 52 (1): 1–23.

- Bordreuil, P. 1986. Charges et fonctions en Syrie-Palestine d'après quelques sceaux ouest-sémitiques du second et du premier millénaire. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 130 (2): 290–307.
- Brandl, B. 2012. Scarabs, Scaraboids, Other Stamp Seals, and Seal Impressions. Pp. 377–396 in *Excavations at the City of David 1978–1985 Directed by Yigal Shiloh*, Vol. 7B: *The Finds*, ed. A. De Groot and H. Bernick-Greenberg. Qedem 54. Jerusalem: Hebrew University, Institute of Archaeology.
- Brandl, B. 2018. Morphology and Function of the Sealings from the Moat Deposit. Pp. 383– 425 in Ashkelon 6: The Middle Bronze Age Ramparts and Gates of the North Slope and Later Fortifications, ed. L. E. Stager, D. Schloen, and R. J. Voss. Harvard Semitic Museum.
- Cahill, N. 1985. The Treasury at Persepolis: Gift-Giving at the City of the Persians. *American Journal of Archaeology* 89 (3): 373–389.
- Cross, F. M. 1973. Notes on the Ammonite Inscription from Tell Sīrān. Bulletin of the American Schools of Oriental Research 212: 12–15.
- Deutsch, R. 2003. *Biblical Period Hebrew Bullae: The Josef Chaim Kaufman Collection*. Tel Aviv: Archaeological Center.
- Deutsch, R. 2011. Biblical Period Epigraphy: The Josef Chaim Kaufman Collection: Seals, Bullae, Handles. Tel Aviv–Jaffa: Archaeological Center.
- Deutsch, R., and Heltzer, M. 1995. *New Epigraphic Evidence from the Biblical Period*. Tel Aviv–Jaffa: Archaeological Center.
- Deutsch, R., and Heltzer, M. 1997. *Windows to the Past*. Tel Aviv–Jaffa: Archaeological Center.
- Dvira, Z., Zagdon, G., and Shilov, L. 2011. Secondary Refuse Aggregates from the First and Second Temple Periods on the Eastern Slope of the Temple Mount. *New Studies on Jerusalem* 11: 63–106, \*49–\*51 (Hebrew).
- Edel, E., and Wenig, S. 1974. *Die Jahreszeiten Reliefs aus dem Sonnenheiligtum des Königs Ne-user-re. Staatliche Museen.* Berlin: Akademie-Verlag.
- Eilat, M. 1998. Samuel and the Foundation of Kingship in Ancient Israel. Jerusalem: Magnes (Hebrew).
- Ellis, M. D. 1986. The Archive of the Old Babylonian Kititum Temple and Other Texts from Ishchali. *Journal of the American Oriental Society* 106 (4): 757–786.
- Eshel, T. 2014. Four Iron Age Silver Hoards from Northern Israel Comparative Study. M.A. dissertation, Haifa University (Hebrew).
- Eshel, T., Yahalom-Mack, N., Shalev, S., Tirosh, O., Erel, Y., and Gilboa, A. 2018. Four Iron Age Silver Hoards from Southern Phoenicia: From Bundles to Hacksilber. Bulletin of the American Schools of Oriental Research 379: 197–228. DOI: 10.5615/ bullamerschoorie.379.0197.
- Ferioli, P., and Fiandra, E. 1990. The Use of Clay Sealings in Administrative Functions from the Fifth to First Millennium BC in the Orient, Nubia, Egypt, and the Aegean: Similarities and Differences. Pp. 221–232 in Aegean Seals, Sealings and Administration. Proceedings of the NEH-Dickson Conference of the Program in Aegean Scripts and

Prehistory of the Department of Classics University of Texas at Austin, ed. T. G. Palaima. Aegaeum 5. Liège: Université de Liège.

- Fitzmyer, J. A. 1967. *The Aramaic Inscriptions of Sefire*. Biblica et Orientalia 19. Rome: Pontifical Biblical Institute.
- Földi, Z. 2014. On Old Babylonian Palastgeschäft in Larsa. The Meaning of Sūtum and the 'Circulation' of Silver in State/Private Business. Pp. 79–117 in Studies in Economic and Social History of the Ancient Near East in Memory of Péter Vargyas, ed. Z. Csabai. Ancient Near Eastern and Mediterranean Studies 2. Budapest: L'Harmattan.
- Fox, N. S. 2000. *In the Service of the King: Officialdom in Ancient Israel and Judah*. Hebrew Union College Monographs 23. Cincinnati, OH: Hebrew Union College.
- Frangipane, M. 2016. The Origins of Administrative Practices and their Developments in Greater Mesopotamia. The Evidence from Arslantepe. *Archeo-Nil* 26: 9–32.
- Freikman, M., Ben-Shlomo, D., and Garfinkel, Y. 2021. A Stamped Sealing from Middle Chalcolithic Tel Tsaf: Implications for the Rise of Administrative Practices in the Levant. *Levant* 53 (1): 1–12. *DOI:* 10.1080/00758914.2021.1923906.
- Freikman, M., and Garfinkel, Y. 2017. Sealings Before Cities: New Evidence on the Beginnings of Administration in the Ancient Near East. *Levant* 49 (1): 1–22. DOI: 10.1080/00758914.2017.1323290.
- Geva, H., and De Groot, A. 2017. The City of David is Not on the Temple Mount After All. *Israel Exploration Journal* 67 (1): 32–49.
- Glück, J. J. 1963. Nagid-Shepherd. Vetus Testamentum 13 (2): 144–150.
- Griffith, F. L. 1893. Beni Hasan: Part III. London: Egypt Exploration Fund.
- Gurwin, S. 2010. Technology and Function of Judahite Bullae from the Time of the First Temple. M.A. dissertation, Tel Aviv University (Hebrew).
- Hasel, G. F. 1998. נְגֵיד Nāgid. Theological Dictionary of the Old Testament IX: 187–202.
- Herzog, Z. 1992 Administrative Structures in Iron Age. Pp. 223–230 in *The Architecture* of *Ancient Israel*, ed. A. Kempinski and R. Reich. Jerusalem.
- Hurvitz, A. 1993. 'דית-(ה) אוצר' The History of a Biblical Administrative-Economic Term. Pp. 78–82 in *Eretz-Israel: Archaeological, Historical and Geographical Studies,* Vol. 24: *Avraham Malamat Volume,* ed. S. Aḥituv and B. Levine. Jerusalem: Israel Exploration Society (Hebrew).
- Jaruzelska, I. 1998. Amos and the Officialdom in the Kingdom of Israel: The Socio-economic Position of the Officials in the Light of the Biblical, the Epigraphic and Archaeological Evidence. Poznanska Drukarnia Naukowa 25. Poznan: Poznanska Drukarnia Naukowa.
- Jeffers, A. 1996. *Magic and Divination in Ancient Palestine and Syria*. Studies in the History of the Ancient Near East 8. Leiden: Brill.
- Keel, O. 1980. La glyptique. Pp. 257–295 in *Tell Keisan* (1971–1976): Une cité phénicienne en Galilée, ed. J. Briend and J.-B. Humbert. Göttingen: Vandenhoeck & Ruprecht.
- Keel, O. 1995. Corpus der Stempelsiegel-Amulette aus Palästina-Israel: von den Anfängen bis zur Perserzeit: Einleitung. Orbis Biblicus et Orientalis, Series Archaeologica 10. Goettingen: Saint-Paul.

- Keel, O. 2017. Corpus der Stempelsiegel-Amulette aus Palästina/Israel: von den Anfängen bis zur Perserzeit. Katalog Band V: Von Tell el-'Idham bis Tel Kitan. Orbis Biblicus et Orientalis, Series Archaeologica 35. Göttingen: Vandenhoeck & Ruprecht.
- Kim, J. B., and Human, D. J. 2008. Nagid: A Re-examination in the Light of the Royal Ideology in the Ancient Near East. *Harvard Theological Studies* 64 (3): 1475–1497.
- Kletter, R. 2003. Iron Age Hoards of Precious Metals in Palestine an 'Underground Economy'?. *Levant* 35 (1): 139–152. *DOI:* 10.1179/lev.2003.35.1.139.
- Lemaire, A. 2004. Hebrew Inscriptions Section A: Ostraca and Incised Inscriptions. Pp. 2099–2132 in *The Renewed Archaeological Excavations at Lachish (1973–1994)*, Vol. 4, ed. D. Ussishkin. Tel Aviv: Emery and Claire Yass.
- Lipschits, O., Gadot, Y., and Oeming, M. 2017. Four Seasons of Excavations at Tel Azekah: The Expected and (Especially) Unexpected Results. Pp. 1–25 in *The Shephelah During the Iron Age: Recent Archaeological Studies*, ed. A. Maeir and O. Lipschits. Winona Lake, IN: Eisenbrauns.
- Löwenstamm, S. E. 1950. Amariyahu. *Encylopedia Biblica* Vol. 1: 449. Jerusalem: Bialik Institute (Hebrew).
- Lüddeckens, E., Thissen, H.-J., Brunsch, W., Vittmann, G., and Zauzich, K. T. 1983. *Demotisches Namenbuch*. Wiesbaden: L. Reichert.
- Magness-Gardiner, B. 1987. Seals and Sealing in the Administration of the State: A Functional Analysis of Seals in Second Millennium B.C. Syria. Ph.D. dissertation, University of Arizona.
- Mazar, B. 1972. Excavations near the Temple Mount. *Qadmoniot* 5 (19–20): 74–90 (Hebrew).
- Mazar, E. 1989. *Excavations in the South of the Temple Mount*. Qedem 29. Jerusalem: Hebrew University, Institute of Archaeology.
- Mazar, E. 2011. *Discovering the Solomonic Wall in Jerusalem: A Remarkable Archaeological Adventure*. Jerusalem: Shoham.
- Mazar, E. 2015a. *The Ophel Excavations: To the South of the Temple Mount 2009–2013: Final Reports,* Vol. 1. Jerusalem: Shoham.
- Mazar, E. 2015b. *The Summit of the City of David: Excavations* 2005–2008: *Final Reports,* Vol. 1: *Area G.* Jerusalem: Shoham.
- Mazar, E., and Lang, T. 2018. Area A2009: Architecture and Stratigraphy. Pp. 187–224 in *The Ophel Excavations to the South of the Temple Mount 2009–2013. Final Reports,* Vol. 2, ed. E. Mazar. Jerusalem: Shoham.
- Mazar, E., and Livyatan Ben-Arie, R. 2018. Hebrew Seal Impressions (Bullae) from the Ophel, Area A2009. Pp. 247–279 in *The Ophel Excavations to the South of the Temple Mount 2009–2013: Final Reports,* Vol. 2, ed. E. Mazar. Jerusalem: Shoham.
- Mazar, E., and Morgan, J. R. 2018. The Pottery from the Ophel, L09-421B (Area A2009). Pp. 225–241 in *The Ophel Excavations to the South of the Temple Mount 2009–2013: Final Reports*, Vol. 2, ed. E. Mazar. Jerusalem: Shoham.
- Meeks, D. 1992. Le nom du dieu Bès et ses implications mythologiques. Pp. 423–436 in Intellectual Heritage of Ancient Egypt Studies Presented to László Kákosy

*by Friends and Colleagues on the Occasion of his 60th Birthday,* ed. U. Luft. Studia Aegyptiaca 14. Budapest: La Chaire d'Egyptologie.

- Mendel-Geberovich, A. 2021. An Updating of the Corpus of Judaean Glyptic Finds, a Palaeographic Examination of Several Methodological Considerations. *Eretz-Israel* 34 (*Ada Yardeni Memorial Volume*): 123–136, \*197 (Hebrew).
- Mendel-Geberovich, A., Shalev, Y., Bocher, E., Shalom, N., and Gadot, Y. 2019. A Newly Discovered Personal Seal and Bulla from the Excavations of the Giv'ati Parking Lot, Jerusalem. *Israel Exploration Journal* 69: 154–174.
- Mendel-Geberovich, A., Shaus, A., Faigenbaum-Golovin, S., Sober, B., Cordonsky, M., Piasetzky, E., and Finkelstein, I. 2017. A Brand New Old Inscription: Arad Ostracon 16 Rediscovered via Multispectral Imaging. *Bulletin of the American Schools of Oriental Research* 378: 113–125. DOI: 10.5615/bullamerschoorie. 378.0113.
- Mykytiuk, L. J. 2004. Persons in Northwest Semitic Inscriptions of 1200–539 BCE. Academia Biblica 12. Atlanta, Georgia.
- Moorey, P. R. S. 1994. Ancient Mesopotamian Materials and Industries. Oxford: Clarendon.
- Murray, D. F. 1998. *Divine Prerogative and Royal Pretension: Pragmatics, Poetics and Polemics in a Narrative Sequence about David (2 Samuel 5.17–7.29).* Journal for the Study of the Old Testament Supplement Series 264. Sheffield: Sheffield Academic.
- Nadelman, Y. 1989. Hebrew Inscriptions, Seal Impressions, and Markings of the Iron Age II. Pp. 128–141 in *Excavations in the South of the Temple Mount*, ed. E. Mazar. Qedem 29. Jerusalem: Hebrew University, Institute of Archaeology.
- Naeh, L. 2015. Worked Ivory and Bone Objects from the Ophel. Pp. 581–616 in *The Ophel Excavations: to the South of the Temple Mount 2009–2013: Final Reports,* Vol. 1, ed. E. Mazar. Jerusalem: Shoham.
- Newberry, P. E. 1908. *Scarabs: An Introduction to the Study of Egyptian Seals and Signet Rings*. London: Archibald Constable.
- Nodet, E. 1980. Objets en métal. Pp. 323–326 in *Tell Keisan: (1971–1976): Une cité phénicienne en Galilée*, ed. J. Briend and J. B. Humbert. Göttingen: Vandenhoeck & Ruprecht.
- Ornan, T., Weksler-Bdolah, S., Greenhut, Z., Sass, B., and Goren, Y. 2008. Four Hebrew Seals, One Depicting an Assyrian-Like Archer, from the Western Wall Plaza Excavations, Jerusalem. '*Atiqot* 60: 115–129.
- Ornan, T., Weksler-Bdolah, S., and Sass, B. 2017. A "Governor of the City" Seal Impression from the Western Wall Plaza Excavations in Jerusalem. *Qadmoniot* 154: 100–103 (Hebrew).
- Papazian, H. 2013. The Central Administration of the Resources in the Old Kingdom: Departments, Treasuries, Granaries and Work Centers. Pp. 41–83 in Ancient Egyptian Administration, ed. J. C. M. García. Leiden: Brill.
- Petrie, W. M. F. 2013. *The Royal Tombs of the Earliest Dynasties*. New Edition. Cambridge, UK: Cambridge University.
- Pritchard, J. B. 1959. *Hebrew Inscriptions and Stamps from Gibeon*. Pennsylvania: University Museum: University of Pennsylvania.

- Ranke, H. 1935. *Die Ägyptischer Personennamen.* Glückstadt: Verlag J. J. Augustin in Glückstadt.
- Reich, R. 2011. *Excavating the City of David: Where Jerusalem's History Began*. Jerusalem: Yad Itzhak Ben-Zvi.
- Reich, R. 2012. A Fiscal Bulla from the City of David, Jerusalem. *Israel Exploration Journal* 62 (2): 200–205.
- Reich, R., Shukron, E., and Lernau, O. 2007. Recent Discoveries in the City of David, Jerusalem. Israel Exploration Journal 57 (2): 153–169.
- Reiner, E. 1980. nāqidu, *The Assyrian Dictionary of the Oriental Institute of the University of Chicago* 11: 333–335.
- Reisner, G. A. 1955. Clay Sealings of Dynasty XIII from Uronary Fort. Kush 3: 26–69.
- Rollston, C. A. 2012. Epigraphic Notes on the Ossuary of Mariam, Daughter of Yeshua: Limning the Broad Tableau. *Israel Exploration Journal* 62 (2): 233–243.
- Roth, M. T. 2005. Paqdu, *The Assyrian Dictionary of the Oriental Institute of the University of Chicago* 12: 135–137.
- Schmidt, E. F. 1953. Persepolis I: Structures, Reliefs, Inscriptions. Chicago, Ill.: Chicago University Press.
- Schmidt, E. F. 1957. *Persepolis II: Contents of the Treasury and Other Discoveries*. Chicago, Ill.: Chicago University Press.
- Shanks, H. 2011. Jerusalem Roundup. *Biblical Archaeology Review* 37 (2): 35–43.
- Shanks, H. 2013. Wet-sift the Megiddo Dumps! Wet-sifting is Invaluable for Recovering Small Finds. *Biblical Archaeology Review* 39 (2): 53–59.
- Shiloh, Y. 1986. A Group of Hebrew Bullae from the City of David. *Israel Exploration Journal* 36: 16–38.
- Shukron, E. 2012. Did Herod Build the Foundations of the Western Wall. *City of David Studies of Ancient Jerusalem* 7: \*13–\*27.
- Smith, S. T. 1998. The Transmission of an Administrative Sealing System from Lower Nubia to Kerma. Cahiers de Recherches de l'Institut de Papyrologie et Égyptologie de Lille 19: 219–230.
- Smith, S. T. 2018. Middle and New Kingdom Sealing Practice in Egypt and Nubia: A Comparison. Pp. 302–324 in Seals and Sealing in the Ancient World: Case Studies from the Near East, Egypt, the Aegean, and South Asia, ed. G. Jamison, M. Ameri, S. J. Scott, and S. K. Costello. New York: Cambridge University.
- St Laurent, B., and Awwad, I. 2013. The Marwani Musalla in Jerusalem: New Findings. Jerusalem Quarterly 54: 7–30.
- Stein, D. 1997. Siegelverwendung in Wirtschaft und Verwaltung. Pp. 104–123 in Mit Sieben Siegeln Versehen, ed. E. Klengel-Brandt. Mainz am Rhein: von Zabern.
- Stern, E. 2001. The Silver Hoard from Tel Dor. Pp. 19–26 in Hacksilber to Coinage: New Insights into the Monetary History of the Near East and Greece, ed. M. S. Balmuth. Numismatic Studies 24. New York: American Numismatic Society.

- Strudwick, N. 1985. *The Administration of Egypt in the Old Kingdom: The Highest Offices and Their Holders*. Abingdon: Routledge.
- Sukenik, N., and Shamir, O. 2018. Fabric Imprints on the Reverse of Bullae from the Ophel, Area A2009. Pp. 281–288 in *The Ophel Excavations to the South of the Temple Mount 2009–2013: Final Reports*, Vol. 2, ed. E. Mazar. Jerusalem: Shoham.
- Te Velde, H. 1999. BES. P. 173 in *Dictionary of Deities and Demons in the Bible*, ed. K. Van der Toorn, B. Becking, and P. W. Van Der Horst. Grand Rapids, MI: Brill.
- Thompson, C. M. 2003. Sealed Silver in Iron Age Cisjordan and the 'Invention' of Coinage. Oxford Journal of Archaeology 22 (1): 67–107.
- Torrey, C. C. 1936. The Foundry of the Second Temple at Jerusalem. *Journal of Biblical Literature* 55 (4): 247.
- Veenhof, K. R. 2014. Silver in Old Assyrian Trade. Shapes, Qualities and Purification. Pp. 393–422 in Studies in Economic and Social History of the Ancient Near East in Memory of Péter Vargyas, ed. Z. Csabai. Ancient Near Eastern and Mediterranean Studies 2. Budapest: L'Harmattan.
- Wegner, J. 2018. The Evolution of Ancient Egyptian Seals and Sealing Systems. Pp. 229–257 in Seals and Sealing in the Ancient World: Case Studies from the Near East, Egypt, the Aegean, and South Asia, ed. G. Jamison, M. Ameri, S. J. Scott, and S. K. Costello. New York,: Cambridge University.
- Weingarten, J. 1990a. The Sealing Structures of Karahöyük and Some Administrative Links with Phaistos and Crete (With an Appendix on the Sealings from Uronarti Fort). Oriens Antiquus 29 (1–2): 63–95.
- Weingarten, J. 1990b. Three Upheavals in Minoan Sealing Administration: Evidence for Radical Change. Pp. 105–120 in Aegean Seals, Sealings and Administration. Proceedings of the NEH-Dickson Conference of the Program in Aegean Scripts and Prehistory of the Department of Classics University of Texas at Austin, ed. T. G. Palaima. Aegaeum 5. Liège: Université de Liège, Histoire de l'art et archéologie de la Grèce antique.
- Wiencke, M. H. 1976. Clay Sealings from Shechem, the Sudan, and the Aegean. *Journal* of Near Eastern Studies 35 (2): 127–130.
- Yassine, K., and Teixidor, J. 1986. Ammonite and Aramaic Inscriptions from Tell El-Mazār in Jordan. Bulletin of the American Schools of Oriental Research 264: 45–50.
- Zettler, R. L. 1987. Sealings as Artifacts of Institutional Administration in Ancient Mesopotamia. *Journal of Cuneiform Studies* 39 (2): 197–240.
- Zissu, B., and Goren, Y. 2011. The Ossuary of Miriam Daughter of Yeshua' Son of Caiaphas, Priests of Ma'aziah from Beth 'Imri. *Israel Exploration Journal* 61 (2): 74–95.