SCARAB-STAMPED IMPRESSIONS AND WEAVING AT MIDDLE BRONZE AGE TELL DOTHAN

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ABSTRACT

The excavations at Tell Dothan in Palestine, which took place during the middle of the past century, uncovered important remains from the Middle Bronze Age. This article presents previously unpublished artifacts from the courtyard of the "patrician's house" at Tell Dothan. The most significant artifacts from this assemblage are a scarab-stamped jar handle and two scarab-stamped loom weights. In addition to making these objects available for the first time, this article also considers how scarab-stamped loom weights may have functioned at the site.

he Second Intermediate Period was a time of recurrent and complex interactions between Palestine and Egypt. In addition to the Canaanite influences on the material culture in the Egyptian Delta, Palestine was steadily influenced by Egyptian practices. One window into the complex interactions between Palestine and Egypt is the study of scarabs and scarab sealing in Canaan during the Middle Bronze Age (= MBA),¹ which have been investigated for chronological, typological and historical reasons.² The present study presents three scarabimpressions discovered in Palestine during the excavations of Tell Dothan. It focuses on two of these impressions found on loom weights and offers a case-study of how the Egyptian cultural practice of using scarab stamp-seals may have been adopted and adapted at Tell Dothan in the craft of weaving.

Tell Dothan is located in a relatively small valley that connects the Sharon Plain and Samaria with the Jezreel Valley.³ Joseph P. Free excavated the site on behalf of Wheaton College for twelve years, from 1953 to 1964. The MBA remains at the site were primarily reached in Area A/D, where the principal architectural feature was a well-constructed "patrician's house." The "patrician's house" was initially built during the MBA II and at least three phases can be ascertained before it went out of use during the MBA III/LBA Ia (phases 7-5). The primary modification to the "patrician's house" was between phase 7 and 6. In phase 6 a sizable courtyard area was excavated. It was enclosed by wall 461 that ran northeast-southwest and the perpendicular wall 478 that ran northwest-southeast (fig 1).⁵ The courtyard from phase 6 of the 'patrician's house,' then, continued to be in use during the final phase of the building (i.e. phase 5). Three previously unpublished scarab-impressed artifacts were recorded as coming from the final phase of this building: one

scarab-stamped jar handle and two scarab-stamped loom weights. These three impressions are presented below alongside previously published materials and suggestions are offered for the function of the scarab-stamped loom weights at Tell Dothan.

SCARAB-STAMPED ARTIFACTS FROM THE "PATRICIAN'S HOUSE" AT TELL DOTHAN

An unpublished jar handle (registration no. DTO 2564) was recently located in the Joseph P. Free collection, which is housed in the Wheaton College Archaeology Museum. This stamped jar handle is documented in the field notes from the 1962 season at Tell Dothan and is recorded as having come from the courtyard of the "patrician's house." On the basis of the records in the field notes and the style of the impression on the jar handle it is likely to be dated to the MBA III, Tell Dothan's phase 5. The field journals from the 1962 season record the discovery of two scarabstamped jar handles and a scarab on the same day at the same elevations in the final phases of the MBA.⁶ That the context for these artifacts documented in the field notes was correct is buttressed by the fact that one of these jar handles as well as a scarab from the same context have been published by Othmar Keel,7 who has independently dated these two artifacts to the MBA III on stylistic grounds.

As for the style of the recently located scarab impressed jar handle from the Joseph P. Free collection, it is that of the MBA III. The impression (fig. 2, no. 1) preserves "pseudo-hieroglyphs" that are characteristic of the Second Intermediate Period (MBA). The scarab-stamp impression consists of two interlocking spirals on either side of a central shrine and can be correlated with Tufnell's design class 2B.8 In the middle of the shrine is a single

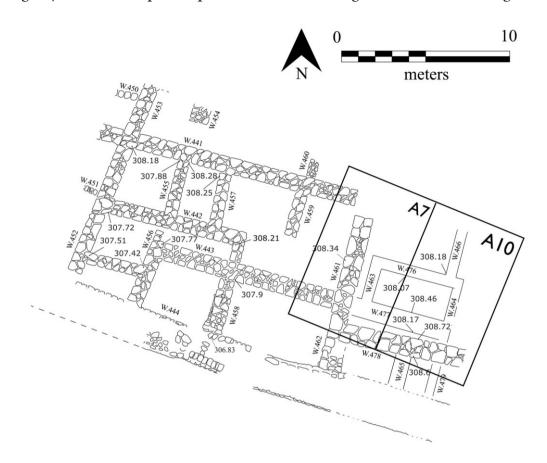


Figure 1: Tell Dothan "patrician's house." Area A/D (adapted from Master et al. 2005, 51

column of glyphs, which can be read from top to bottom: f, mn, hf, and n.

In addition to the stamped jar handle, two previously unpublished scarab-stamped loom weights have also been located in the Free Collection of artifacts from Tell Dothan. 10 Like several other examples of scarab-stamped loom weights from the southern Levant during this period, the two weights from Tell Dothan were impressed at the very top of the weight and were fired in antiquity.11 The field notes record that both of these weights were recovered from the courtyard of the "patrician's house." The square supervisor of square A7 observed that the two stamped loom weights found in this square were recovered "in the same vicinity" as each other on two consecutive days (May 19 and 20, 1962), just two and three days after the stamped jar handles mentioned above.¹² The field notes that document the excavation of these two scarab-stamped loom weights within a matter of days from each other further record consistent elevations for these artifacts (at 350-70 cm).

The first scarab-stamped loom weight from Tell Dothan (registration no. DTO 2601D) was only partially recovered, its lower two-thirds being lost. On the uppermost fragment of the weight, however, a legible impression is preserved. Stylistically, the impression is horizontally arranged, being framed by two Snb.

signs (fig 2, no.2; fig. 3, no.1). Between the two fnħ-signs the traces of two equally proportioned ħ-signs can be read. This impression is essentially that of Tufnell's category 3B, in which hieroglyphic signs or symbols are symmetrically grouped around a central cluster of glyphs or symbols.¹³ The style of this impression seems to be purely aesthetic with the glyphs, then, being so-called "pseudo-hieroglyphs," which are well attested in Palestine during the late MBA.¹⁴ Thus the dating of this scarab-stamped loom weights from Tell Dothan's phase 5 is congruent with the style of the impression on the weight.

The impression on the second loom weight from Tell Dothan (registration no. DTO 2587) is known from early Palestinian seals and sealing, although it is recorded as having come from the debris of the later MBA materials (i.e. phase 5).¹⁵ The sealing, itself, is vertically oriented and can be correlated with Tufnell's category 3E5 in which the impression is divided into two "panels," in part by a shrine. The shrine dominates the center, lower portion of the impression and the glyphs within it can be read from top to bottom: r, r, f. In the upper half of the impression, above the shrine, is a cartouche that also contains traces of Egyptian hieroglyphs. The only legible glyph is the nb-sign, which appears at the very top of the cartouche (fig 2, no. 3; fig 3, no. 2). At the same time, it is likely that the symbols in the cartouche were "pseudo-

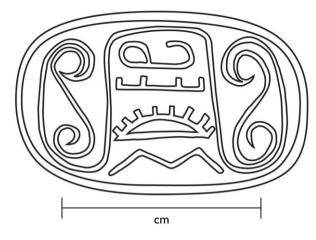


Figure 2-1: Jar handle

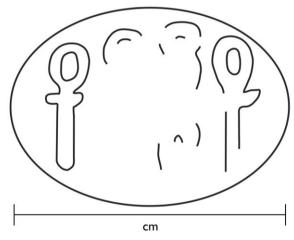


Figure 2-2: Loom weight

hieroglyphs" just as those in the shrine. Lastly, mirrored on either side of both the shrine and the cartouche are three symmetrically arranged glyphs: šn nfr šn.

TEXTILE PRODUCTION AND THE SCARAB-STAMPED LOOM WEIGHTS FROM TELL DOTHAN

The three previously unpublished scarab-stamped artifacts from Tell Dothan (a jar handle and two loom weights) enlarge the growing MBA corpus of scarab-stamped impressions from the southern Levant. At the same time, additional artifacts pertaining to textile production were excavated from phase 5 of the courtyard of Tell Dothan's "patrician's house." These artifacts include a collection of ten unmarked loom weights as well as three spindle whorls. ¹⁶ Collectively this assemblage of artifacts from phase 5 of the courtyard may provide a context for the ongoing consideration of scarab-stamped loom weights in the southern Levant. ¹⁷

Caches of unmarked loom weights from Megiddo, Gezer and Jericho best support the use of the vertical warp-weighted loom in the Levant during the MBA.¹⁸ The remains of ten previously

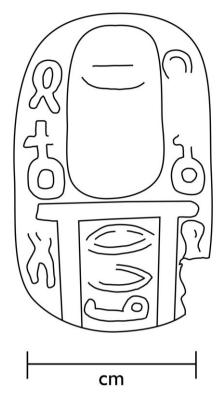


Figure 2-3: Loom weight

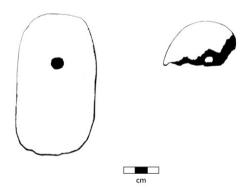


Figure 3: Loom weights (profile)

unpublished conical loom weights from the courtyard of the "patrician's house" at Tell Dothan, all of which were unmarked, further support this evidence for the use of the vertical warp-weighted loom during this period. The conical, unmarked loom weights from Tell Dothan were identified in the object registry compiled at the end of the 1962 season by Free. Each was indicated has having come from a MBA context in squares A7 and A10, which is where the courtyard of the "patrician's house" was excavated. The quantity of loom weights recovered may be indicative of a single loom during the MBA, as it is consistent with two similarly sized collections of loom weights from Jericho during this period. Furthermore, implements associated with textile production, such as the loom weights recovered from the

courtyard, are consistent with ethnographic data from the region that shows that spinning and weaving were often done in courtyards, since this locale afforded the lighting necessary for these crafts.²⁰ And in addition to the marked and unmarked loom weights, textile production is attested in the courtyard of the "patrician's house" at Tell Dothan by three spindle whorls that were found during the 1962 season.²¹ Two of these spindle whorls were dome-shaped and one was truncated bi-conical (fig 4).²² Each of these spindles was relatively small and hence was likely to be used for spinning finer threads.²³

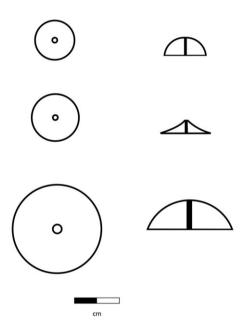


Figure 4: Spindle whorls from the "patrician's house", Tell Dothan

The assemblage of textile-related artifacts from the final phase of the courtyard of the "patrician's house" at Tell Dothanthat is, the unmarked loom weights and spindle whorls- may help to constrain the interpretation of the scarab-stamped loom weights from this context. Scarab-stamped loom weights have been recovered from several sites in the southern Levant as early as the late MB I, but primarily from the MB II-III. $^{24}\,$ Yet the function of scarab-stamped loom weights has been difficult to demonstrate.²⁵ One reason for the uncertainty regarding these artifacts is that no such practice is known from Egypt and hence may be an adaptation of sealing for Canaanite practices. Another inhibiting factor in the discussion of scarab-stamped loom weights is that many of them, such as those from Tell Nami, Gezer, and Megiddo, have been recovered in isolation or in unclear or undocumented contexts.²⁶ For example, Marcus and Artzy published a lone exemplar from Tell Nami that had been

recovered in a secondary archaeological context.²⁷ At Gezer, McAlister's excavations recorded eight scarab-stamped loom weights. Yet the final report failed to note the find spots of these artifacts, making it impossible to discern if these scarab-stamped loom weights constituted a meaningful and coherent assemblage.²⁸ At Megiddo scarab-stamped loom weights were recovered in the 'patrician's house,' yet each of them was found in a different room of the building.²⁹

A contribution of the stamped loom weights from the "patrician's house" at Tell Dothan is that these examples were recovered in the same room as a larger assemblage of unmarked weights and spindle whorls. Scarab stamp seals were often devices associated with personal identification or ownership.³⁰ Thus during the MBA in the southern Levant they are found, for example, among personal effects in MBA tombs at Jericho, Megiddo, and Tell el-Far'ah North.³¹ In keeping with the use of scarabs as a symbol of ownership and assuming these stamped loom weights were used on a loom, the sealings may have been a means to identify ownership of (a set of) weights. In this case, it should be noted that women were those primarily responsible for textile production in the ancient Near East and one might speculate that the sealings were used by women weavers as a means of indicating ownership.³²

It is also possible that these scarab-stamped loom weights were used on a vertical warp-weighted loom not only as markers of ownership, but as a means to organize weaving within the household.³³ The two scarab-stamped jar handles and a scarab, which also were recorded as coming from phase 5 of the courtyard in Tell Dothan's 'patrician's house,' might support the conclusion that the stamped loom weights represent some form of household organizational system.³⁴ The absence of extant textual documentation certainly makes it difficult to discern a precise administrative function for the scarab-stamped loom weights within the household weaving practices at Tell Dothan's "patrician's house." That said, if these scarab-stamped loom weights were used on a vertical warp-weighted loom it would seem unlikely that they were a part of an administrative practice for securing or for restricting access.³⁵ Thus an alternate motivation for stamping loom weights may have been the need to certify them. Sealing for the purpose of certification operated with the understanding that seals were personal devices, but it also assumed that certain individuals could confirm objects with respect to any number of qualities, such as their purpose, authenticity, or accuracy.

The use of seals to certify or verify objects is well known from Syro-Mesopotamia. Throughout the Bronze Age, Syro-Mesopotamian practices included sealing in order to certify objects. This was the practice employed during the Ur III period, when higher-level functionaries could seal administrative texts in order to authorize the disbursements recorded on a tablet.³⁶ Likewise, during the Old Assyrian period a seal could serve to certify legal decisions regarding economic contracts and dealings.³⁷

The cultural influences of Syro-Mesopotamia upon the southern Levant during the MBA have been widely noted. Furthermore, a memorandum-like Old Babylonian letter recovered from Tel Hazor has even indicated a specific connection between the textile markets of Syro-Mesopotamia and the world of the southern Levant.³⁸ Given the Syro-Mesopotamian influences on the southern Levant during the MBA and the documented movement of textiles across these regions, one might hypothesize that the scarab-stamped loom weights from Tell Dothan were impressed with the intent of organizing textile production. For example, it may be that the scarab-stamped loom weights provided a standardized, or certified, weight and thickness for other loom weights used on a particular loom in a given household. A relatively consistent size, shape and weight among loom weights on a single loom were required to produce an even weave.³⁹ And it should be added that the weights from Tell Dothan - both stamped and unmarked- show a consistent typology, a fact that is congruent with above proposal for stamping loom weights (fig 5).40

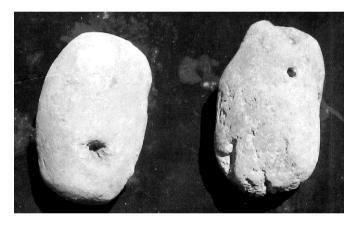


Figure 5: Unmarked loom weights from Tell Dothan

The rich MBA cuneiform archives of Syro-Mesopotamia illustrate practical circumstances that might have led to the need to organize the weaving processes by stamping loom weights.⁴¹ In the Old Assyrian archives, for example, the supervising of textile production could be motivated by a need to meet the demands of markets. Merchants could direct the textile production process in response to market concerns. Aware of the procedures for spinning and weaving, merchants could give detailed instructions regarding how the weaving process should be performed. In one particular letter, an Assyrian merchant named Puzur-Assur wrote about the demands for certain textiles in Anatolia and gave specific instructions about the process for producing such textiles. He wrote to a female family member, Wagartum and delineated the specific steps she should take - from the amount of wool to be used, to the thickness of the spun-threads and weave, to the processes for the finishing of the textile. He wrote:

As for the fine textile that you sent me, make (more) like that one and send (them) to me along with Assur-idi! Then, I will send you 1/2 mina of silver. As it concerns that textile, let them comb' one side (of it). They should not pick (excess wool) off of it; its weave should be tight. By comparison with the previous textile that you sent to me, process a mina of wool extra for each (textile), but let them be thin! Let them gently comb' the other side. (Only) if there is thread sticking out, should they pick (excess wool from) it like a *kutānum*-garment.⁴²

This missive reveals Puzur-Assur's concern about the processes of textile production. He gave very specific instructions to Waqartum, insisting that thin-threads were to be spun and he commented on the nature of the weave and the finishing of the garment. The process of weaving as well as finishing the textile was closely monitored by the merchant, who had significant influence in the operations of the 'family firm' in Assur since he was a unique source of information about the markets in Anatolia.⁴³

Another motivation for supervising textile production can be noted in the archives at ancient Mari. There, the king, Zimri-Lim, concerned himself with various aspects of the textile production process. In one missive, he complained that a special, prestige garment had not been completed quickly enough by his fabric workers and weavers. Thus he wrote to one of his officials to hasten its completion, giving specific instructions about the quality of the spun-threads, the type and quality of the weave, and the way in which the hem and appliqué were to be affixed.

Give strict orders to the fabric workers and weavers. Weave that garment like a Tuttubean garment. (That is,) carefully select the thread and tie (it)! Make the inside of the garment like thin-(hammered) silver. Have a Yamhadean hem put on that garment and like a garment (woven with) red-(gold), let *sirpum* be incorporated. It will hopefully not be when that garment is woven and the thread is installed and the ornament strung that the ornament will be (too) heavy, causing the garment to sag (at the bottom).⁴⁴

In this letter, just as was the case in Puzur-Assur's letter to Waqartum, Zimri-Lim was attentive to the many steps in the process of textile production. While the letter of Puzur-Assur evinces oversight of textile production for economic reasons, the missive of Zimri-Lim reveals the political interests that led to the oversight of weaving and textile production. Yet in the cases of both Puzur-Assur and Zimri-Lim the reasons for overseeing the process illustrate possible motivations for the organization of weaving in the southern Levant through the use of scarab-stamped loom weights.

CONCLUSION

This article presents three previously unpublished scarabstamp artifacts from the MBA that add to the collection of scarabstamped impressions known from the southern Levant. Additionally, the consultation of the field notes and journals from the excavations during the 1962 season at Tell Dothan have helped to identify an assemblage of artifacts pertaining to spinning and weaving from the courtyard of a "patrician's house." In particular, the three spindle whorls, ten unmarked loom weights as well as two scarab-stamped loom weights contribute to the ongoing efforts to better understand how scarab-stamped loom weights may have functioned in the process of weaving. Based upon the assemblage of artifacts from Tell Dothan, the use of the scarab-stamp at Tell Dothan may have been the result of complex cultural interaction not only with Egypt, but also with the broader world of the ancient Near East. On the one hand, it is possible that the loom weights at Tell Dothan were simply stamped for the purposes of denoting ownership. On the other hand, however, I have suggested that while the scarab-stamp was used at Tell Dothan to mark loom weights, the rationale for sealing in Syro-Mesopotamia as well as the textual sources from this region provide alternate possibilities for thinking about textile production in Tell Dothan's "patrician's house." Ultimately, it is my hope that future excavations will help to further clarify administrative systems of scarab-impressions in the southern Levant during the MBA, especially as they relate to weaving and textile production.

NOTES

- The periodization (MB I [2000-1800]; MB II [1800-1650]; MB III [1650-1550]) follows David Ilan, "The Dawn of Internationalism— The Middle Bronze Age," in T. Levy (ed.), *The Archaeology of Society in the Holy Land* (London: Leicester University Press, 1994), 297-318.
- E.g. Olga Tufnell, Studies on Scarab Seals: Scarab Seals and their Contribution to History in the Early Second Millennium B.C., vol. 2/1 (Warminster: Aris & Phillips Ltd., 1984); Daphna Ben-Tor, Scarabs, Chronology, and Interconnections: Egypt and Palestine in the Second Intermediate Period. Orbis Biblicus et Orientalis 27. (Göttingen: Vandenhoeck & Ruprecht, 2007); Daphna Ben-Tor, "Can Scarabs Argue for the Origins of the Hyksos?" Journal of Ancient Egyptian Interconnections 1:1 (2009): 1-7.
- On the historical geography of Tell Dothan, see John Monson, "Regional Settlement: Dothan in the Northern Arena," in Daniel M. Master, et. al. (eds.), *Dothan I: Remains from the Tell* (Winona Lake: Eisenbrauns, 2005), 7–14.
- For an overview of 'patrician's houses' from the southern Levant during this period, see Eliezer Oren, "Palaces and Patrician Houses in the Middle and Late Bronze Ages," in. R. Reich and A. Kempinski, The Architecture of Ancient Israel from the Prehistoric to the Persian Periods (Jerusalem: Biblical Archaeology Society, 1992), 105– 120.
- These modifications were made on roughly the same orientation as the previous walls of phase 7. According to the original field notes, all of the old baulks were removed and the locations of these two squares were shifted during the 1962 seasons when Areas A and D were combined. See Daniel M. Master, et. al. *Dothan I: Remains from the Tell* [Eisenbrauns: Winona Lake, 2005], 49 and fig 7.2, which indicates the squares layout during the seasons prior to 1962. The shifting of these squares, however, is clearly noted in the field journals of

- several supervisors from the 1962 season. This observation is important, because it has allowed me to more precisely locate the contexts for artifacts excavated during this season. That said, the reconstruction of the area by Master, et. al., 49, 51, which was primarily architectural, continues to be accurate and is not affected by this recent observation.
- For the limitations to Free's methods and especially his use of elevations, see the discussion by Daniel M. Master, "Methodology: Re-Excavating After 50 Years," in Daniel M. Master, et. al. *Dothan I: Remains from the Tell* (Winona Lake: Eisenbraus, 2005), 22.
- See Othmar Keel, Corpus oder Stempelsiget-Amulette aus Palästina/Israet. Orbis Biblicus et Orientalis 29, 31 (Göttingen: Vandenhoeck & Ruprecht, 2010), 502 n. 27 and 498 n. 18 respectively.
- Olga Tufnell 1984. More recently, see Ben-Tor 2007, plate 75 2B esp. no. 36. It should be added that Ben-Tor elsewhere observes that this style is "...far more popular on Canaanite scarabs of the late Palestinian series." (Ben-Tor 2007, 124).
- 9 See Keel 2010, 54 no. 26; 70 no 62.
- Unfortunately, none of the impressions from the courtyard– those on the two stamped jar handles or the two stamped loom weights correspond with the scarab seal found in the same context; moreover, each scarabstamped impression from Tell Dothan is different.
- It is the case that many of the stamped loom weights are impressed at the top as illustrated by examples from Gezer (R.A.S. McAllister, *The Excavations of Gezer, 1902-1905 and 1907-1909*, vols. 1-3 [London: John Murray, 1912], vol. 2, 329-30; vol. 3, plate CCIIIb no. 16) and Taannak (Glenda Friend, *The Loom Weights. Tell Taannek 1963-1968*, vol. 3, fascicule 2. [Birzeit University, 1998], 33-34), but others are stamped on the side of the weight as is the case with several from Megiddo (Gordon Loud, *Megiddo II Seasons of 1935-39*. Oriental Institute Publications 62 [Chicago: Oriental

- Institute Press, 1948], plates 164, 169).
- This is the description from the field notes of the square supervisor Donna Bayless. The stamped jar handles were recovered on May 17, 1962 and the stamped loom weights on May 19 and 20 of the same year.
- ¹³ Tufnell 1984, 118.
- ¹⁴ Ben-Tor 2007, 126.
- See Ben-Tor 2007, 135 and plate 58. It is possible that stratigraphic contamination was not observed and, therefore, was not recorded by Free.
- Further supporting the conclusion that they belong to the same context as the stamped loom weights and, therefore, constitute a meaningful assemblage, it should be noted that the supervisors of these two squares (A7 and A10) recorded the recovery of "several" more unmarked loom weights two days after the discovery of the two scarab-stamped loom weights. (This is recorded in the journal of Denny Peterson for May 22, 1962).
- Ezra Marcus and Michal Artzy have reviewed several hypotheses concerning the rationale for stamping loom weights ("A Loom Weight from Tel Nami with a Scarab Seal Impression," *Israel Exploration Journal* 45 [1995]: 135–149).
- Additionally, loom weights have been recovered at numerous MBA sites in the northern and southern Levant. For a catalogue, see Luca Peyronel, Gli Strumenti di tessitura dall'Età del Bronzo all'epoca Persiana. Materiali e Studi Archaeologici di Ebla IV (Roma: università degli studi di Roma <<La Sapienza>>, 2004), 199-206. That these pierced conical and conoid artifacts are in fact loom weights is confirmed by the fact that several of these from the MBA at Jericho showed evidence of rope rubbing (Margaret Wheeler, "Loomweights and Spindle Whorls," in K. Kenyon and T. Holland (eds.), Excavations at Jericho IV [London: British School of Archaeology in Jerusalem, 1982], 623-5).
- ¹⁹ Wheeler 1982, 624-5 (reg. 697 and reg. 354).
- Saud Amiry and Vera Tamari, The Palestinian Village Home (London: British Museum Press, 1989), 46. Textile production in domestic contexts also seems to have been performed on the upper stories of houses at Jericho (Irit Ziffer, At that Time the Canaanites were in the Land: Daily Life in Canaan in the Middle Bronze Age 2, 2006-1550 B.C.E. [Tel Aviv: Erez Israel Museum, 1990], 52).
- These are currently housed in the Wheaton College Archaeological Museum.
- These artifacts are less clearly documented in the field journals, except that they are all said to have come from the 1962 season and were recovered in the area of the courtyard excavated in squares A7and A10 at the same elevation as the loom weights (350 cm).
- Eva Andersson Strand, "The Basics of Textile Tools and Textile Technology: From Fiber to Fabric," in C. Michel, and M.-L. Nosch (eds.), Textile Terminologies in the Ancient Near East and Mediterranean From the

- *Third to the First Millennia B.C.* (Oxford and Oakville: Oxbow Books, 2010), 12-14.
- For example, the weight from Tel Nami is likely to be situated in the late MB I (Ben-Tor 2007, 118). The majority of scarab-stamped loom weights, however, date to the MB II-III (Othmar Keel, Corpus oder Stempelsigei-Amulette aus Palästina/Israei. Orbis Biblicus et Orientalis 10 [Göttingen: Vandenhoeck & Ruprecht, 1995], 127). Stamped or marked loom weights are also widely known in world archaeology from the material culture of the Vikings, to Medieval Europe, to the Greco-Roman periods in the Mediterranean basin and Bronze Ages of the Near East. The explanations discussed above are strictly related to the assemblage at Tell Dothan. It is certainly possible that alternate explanations might be behind data sets from different sites, periods, or regions.
- ²⁵ See Marcus and Artzy 1995, 135–149.
- Other examples are catalogued in Keel 1995, 127; Marcus and Artzy, 146-7.
- ²⁷ Marcus and Artzy 1995, 135.
- ²⁸ McAllister 1912 vol. 2, 329-30.
- ²⁹ Loud 1948, plate 164, 169; cf. Loud 1948, figs. 378-80.
- ³⁰ See the overview in Keel 1995, 268-74.
- See D. Kirkbride, "Scarabs," in K.M. Kenyon (ed.), Excavations at Jericho, volume 2: The Tombs Excavated in 1955-58. (London: British Schools of Archaeology in Jerusalem, 1965), 580-655; P.L.O Guy, Megiddo Tombs. Oriental Institute Publications 33 (Chicago: Oriental Institute, 1939); P. Ameit, et. al. (eds.), Tel el Far'ah. Histoire, glyptique et céramologie. Orbis Biblicus et Orientalis 14. (Freiburg: Switzerland, 1996).
- Regarding women's role in textile production during this period, one might note that Zimri-Lim, the last king of Mari, had significant numbers of female weavers in his service, many of whom were taken captive during his military campaigns and then used in the production of textiles for the palace (see Nele Ziegler "Le Harem du Vaincu," Revue d'assyriologie et archéologie orientale 93:1 [1999]: 1-26, esp. 10, 19). For a general treatment of women weavers from the Old Assyrian evidence, see Cécile Michel "Femmes et production à Aššur au début du IIe millénaire av. J.-C.," Techniques and Cultures 46-47 (2005): 281-297. For the role of women in weaving generally in the Bronze and Iron Ages, see Susan Ackerman, "Asherah, the West Semitic Goddess of Spinning and Weaving?," Journal of Near Eastern Studies (2008): 1-29.
- The function in view would fall under what Keel has called "Rechtliche Funktion" (Keel 1995, 268-74).
- A similar hypothesis, namely that some kind of administrative system is behind the practice of sealing loom weights, has been offered for stamped loom weights from Early or Middle Minoan Crete by Ingo Pini, "The Hieroglyphic Deposit and the Temple Repositories at Knossos," in T.G. Palaima (ed.), Aegean Seals, Sealings and Administration (Liège, 1990), 37.

- Pini rejects, then, the idea that sealings were used as talisman or for non-administrative purposes in Early and Middle Minoan Crete.
- This was the case in the exceptional instances from Tel Ashkelon during the earliest phase of the MBA. These sealings seem to have secured various containers (Ben-Tor 2007, 118). For a helpful discussion of the various types of things that were secured by sealing, see Keel 1995, 115-28.
- Piotr Steinkeller, "Seal Practice in the Ur III Period," in M. Gibson and R. Biggs (eds.), Seals and Sealing in the Ancient Near East. Bibliotheca Mesopotamia 6 (Malibu: Udena Publications, 1977), 42.
- Mogens T. Larsen, The Old Assyrian City-State and its Colonies. Copenhagen Studies in Assyriology 4 (Copenhagen: Akademisk Forlag, 1976), 175-79. Compare the practice during this same period in Egypt, where sealed clay 'pellets' were folded, pressed together and then sealed over a string in order to authenticate letters (Smith 1990, 201). For an overview of sealing in Egypt during the Old Kingdom through the Second Intermediate Period, see Williams 1977. For a more specific treatment of the late Middle Kingdom, see Stuart T. Smith, "Administration at the Egyptian Middle Kingdom Frontier: Sealings from Uronarti and Askut," in T.G. Palaima (ed.), Aegean Seals, Sealings and Administration (Liège, 1990), 197-220. For a survey, generally, of the function of seals, see Keel 1995, 266-77. In Syro-Mesopotamia during the third millennium and first half of the second millennium see, for example, Richard Zettler "The Sargonic Royal Seal: A Consideration of Sealing in Mesopotamia," in M. Gibson and R. Biggs (eds.), Seals and Sealing in the Ancient Near East. Bibliotheca Mesopotamia 6 (Malibu: Udena Publications, 1977), 33-40; Mogens Larsen, "Seal Use in the Old Assyrian Period," in M. Gibson and R. Biggs (eds.), Seals and Sealing in the Ancient Near East. Bibliotheca Mesopotamia 6 (Malibu: Udena Publications, 1977), 89-106.
- The letter from Tel Hazor requested that a large number of textiles— over 3000 finished and unfinished textiles— be sent to Mari, along the central Euphrates River. Wayne Hurwitz and Nathan Wasserman, "An Old Babylonian Letter from Hazor with Mention of Mari and Ekallātum," *Israel Exploration Journal* 50 (2004): 169-174.
- ³⁹ Linda Mårtensson, Marie-Loius Nosch and Eva Andersson Strand, "The Shape of Things: Understanding a Loom Weight," Oxford Journal of Archaeology 28 (2009), 380.
- Unfortunately, while the unmarked loom weights were recorded in the original field notes and partially photographed during the 1962 season, their present whereabouts are unknown. They are not housed in the Wheaton College Archaeology Museum nor are they in the Covenant Seminary Museum, which is home to a small number of artifacts from Free's excavations. Fig. 5

- is a photo of some of those recorded in the field journals from the 1962 season. Marcus and Artzy 1995, 148 have also noted the typological similarity between stamped and unmarked loom weights during the MBA.
- For example, the archives from Kanesh (Kültepe), which most extensively document the MB I, record the remarkable financial yield of 'Akkadian textiles,' which were acquired in southern Mesopotamia and sold in Anatolia (see Klaas Veenhof Aspects of Old Assyria Trade and its Terminology [Leiden: Brill, 1972], 79-214; Veenhof 2008, 83-84; Cécile Michel and Klaas R. Veenhof, "The Textiles Traded by the Assyrians in Anatolia," in C. Michel, and M.-L. Nosch [eds.], Textile Terminologies in the Ancient Near East and Mediterranean From the Third to the First Millennia B.C. [Oxford and Oakville: Oxbow Books, 2010], 210-71.). Likewise, the MB II tablet collection from ancient Mari provides insights into the political dimensions of textile trade and production (Jean-Marie Durand, Les documents épistolaires du palais de Mari. Littératures anciennes du Proche Orient 16. [Paris: Les Éditions du Cerf, 1997], 268-84).
- 6) Şú-ba-tám qá-at-na-am 7) ša tù-še-bi-li-ni 8) ša ki-ma šu-wa-ti ep-ši-ma 9) iŝ-tí a-šur-i-dí še-bi-li-ma 10) 1/2 ma-na KÙ.BABBAR lu-še-bi-lá-ki-/im 11) ša Şú-ba-tim pá-na-am 12) iŝ-té-na-ma li-im-šu-du 13) la i-qá-tù-pu-šu 14) šu-tù-šu lu ma-da-at 15) i-şé-er pá-ni-im 16) Şú-ba-tim ša tù-še-bi-li-/ni 17) ša-áp-tám 1 ma-na TA 18) ra-di-i-ma lu qá-at-nu 19) pá-na-am ša-ni-a-am! 20) i-li-la li-im-šu-du 21) šu-ma ša-ar-tám i-ta-ás-ú 22) ki-ma ku-ta-nim li-iq-tù-/pu-šu (a recent edition and commentary may be found in Michel and Veenhof 2010, 250-52).
- Concerning the social dynamics of the 'family firm' in the Old Assyrian trade, see Mogens Larsen, "Individual and Family in Old Assyrian Society," *Journal of Cuneiform Studies* 59 (2007): 93-106; Regarding Puzur-Assur, specifically, see Lubor Matouš, "Der Streit um den Nachlass des Puzur-Assur," *Archiv Orientální* 37 (1969): 156-80.
 - 38) ù a-na LÚTÚG ù MIUŠ.BAR dan-na-tim šu-ku-un-ma 39) [T]ÚG šu-ú ki-ma TÚG tu-ut-tu-bè-e-em šu-ta-a-am 40) ù bi-it-tam dam-qi-iš lu-ú na-si-iq 41) ù lu-<-ú> ka-ṣi-ir {x} ù ki-ma re-uq-qi-[i]m ša KÙ.BABBAR 42) li-ib-bi TÚG ša-a-tu lu-ú i-ba-aŝ-ši 43) TÚG šu-ú su-ni ya-am-ha-[d]i-i iŝ-ša-ak-ka-an 44) ù k[i]-ma TÚG hu-úŝ-še-e-em ṣi-ir-pu-um 45) in-na-ad-"di-i ù as-su-ur-ri 46) a-na TÚG ša-a-" tu' [ša]-" te'-e-em 47) ù bi-it-tam uŝ-ta-ba-at-tu-ma 48) ù i-na zu-na-tim ša-ka-ki-im 49) zu-na-tum i-ka-ab-bi-ta-ma 50) ù TÚG uŝ-ta-ar-ra-ad (editio princeps in Oliver Rouault, "L'approvision-nement et la circulation de la laine à Mari d'après une nouvelle lettre du roi à Mukannišum," Iraq 39 (1977): 150-53; for collations, see also Jean-Marie Durand, Matériaux pour le Dictionnaire de Babylonien de Paris-

Tome 1, La nomenclature des habits et des textiles dans les textes de Mari. (Paris: Les Éditions du Cerf, 2009), 30; cf. Durand 1997, 273-6.