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Notes on the Megiddo Glass Figurine in the Istanbul Archaeology Museums

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In this paper I revisit a glass female figurine discovered during the Tell el-Mutesellim (Megiddo) excavations at the beginning of the 20th century and exhibited in the Istanbul Archaeology Museums collection since 1904. A detailed analysis and interpretation of the artefact are presented in light of recent research on glass of the second millennium BCE in the Near East.

Keywords Megiddo, Tell el-Mutesellim, Glass, Female figurines, Middle Bronze, Late Bronze, Istanbul Archaeology Museums

Glass female figurines are a very distinctive type of artefact of the second millennium BCE. They are depicted as nude and are thus also defined as 'nude female plaques' (Barag 1970: 188; 1985: 45–46). Even though there is no archaeological evidence to associate such iconographies with a particular deity (Moorey 2003: 34; Benzel 2013: 262), these plaques or amulets are generally linked to Astarte or Ishtar (Barag 1970, 1985; Moorey 2005; Benzel 2013 with references). The glass female figurine presented in this study was recovered at Tell el-Mutesellim, namely Megiddo, which was continuously occupied from ca. 7000–500 BCE (Watzinger 1929; Loud 1948; Finkelstein, Ussishkin and Halpern 2000 with references).

The glass female figurine was uncovered in 1904 during the excavations under the direction of Gottlieb Schumacher. In the early 1900s, the Levant was under Ottoman rule; thus, according to permits and regulations of the time, the artefact was brought to the Imperial Museum (*Müze-i Hümayun*), today known as the Istanbul Archaeology Museums.

The Megiddo glass female figurine was recorded with inventory number 2279. It was first published in the Tell el-Mutesellim monograph (Schumacher 1908: 63, 64 Fig. 79a). The artefact was later subjected to major Near Eastern glass research by Kühne (1969) and Barag (1970; 1985), however no photograph of the object was published. Currently, the letter 'm' has been added to the inventory number (2279m), standing for 'metal collection'; the glass was erroneously defined as faience. It is on display in the Syria-Palestine collection, in Showcase 7, Table 4, along with several Levantine and Egyptian beads and amulets.

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The Megiddo glass female figurine

Previous work and archaeological context

In his final publication, Schumacher recorded the archaeological context of the glass female figurine as the Third Stratum (*Schicht* III) of the *Nordburg*, in the pits of what he noted as Square 23, located near infant Burial f (Schumacher 1908: 56, Fig. 61a). He documented the figurine as being made of light green glassy material and depicting a woman (*ibid.*: 64). This figurine was found along with part of the head of a reddish clay figurine, which Schumacher defined as 'typical of the local, fired terracotta figurines of the Third Stratum' (*ibid*.: 64, Fig. 79b).

Commenting on Schumacher's excavations, Niemann and Lehmann (2006: 690) noted that 'while small finds were presented at the end of each chapter, the classification is overly general and often unreliable…'. Schumacher opened a 10-m-wide trench crossing the mound from south to north, where contexts titled *Nordburg* and *Mittelburg*, and *Grabkammer* I and *Grabkammer* II, were uncovered (Schumacher 1908: Tafel II). However, he did not publish a detailed chronology of the strata, and the archaeological data was not well-controlled (Harrison 2004: 1). A more comprehensive study of the Megiddo strata was attempted by Watzinger (1929: 24–25), who dated the *Nordburg* to the second half of the Middle Bronze Age, ca. 1600 BCE. The Oriental Institute team assigned the *Nordburg* to their Stratum XII, which was dated to the Middle Bronze Age (1750–1700 BCE; Loud 1948: Fig. 415; Kempinski 1989: 46, Plan 3). Ussishkin (1992: 670) and Nigro (1994) also supported the dating of the *Nordburg* to the Middle Bronze Age.

In order to better understand the chronology of Schumacher's sequence, the current Megiddo excavation team opened a new area (M) in close proximity to the *Nordburg* (Finkelstein, Ussishkin and Deutsch 2006: 66, Fig. 5.1). The renewed excavations showed that at least this part of the *Nordburg* was built in Level M-6, dating to the LB II, equal to Strata (VIII–) VII of the University of Chicago excavations (Finkelstein, Ussishkin and Deutsch 2006: 76, 80, Table 5.1).

Supported by the latest archaeological evidence produced by Tel Aviv University's Megiddo team, I suggest that Schumacher's glass female figurine be dated to the LB II, ca. 1350–1200 BCE, rather than to the MB II, ca. 1750–1550 BCE. The comparative material from ancient Near Eastern sites—discussed below—supports this dating.

Reexamination of the object in the Istanbul Archaeology Museums

Representations of female figurines or plaques in various media, especially those of clay depicting a variety of iconographies, were common in the ancient Near East, especially during the late third and early second millennia BCE (Graff 2014: 371–372). However, glass counterparts of the female figurines are comparatively rare, iconographically less diverse and commonly found in different levels and contexts of the second millennium BCE (Barag 1970: 188). Barag (1985: 45) proposed that glass female figurines date from the late 16th to 13th centuries BCE. Kühne (1969: 307, 309), however, dated glass figurines from the 18th to the early 16th centuries BCE, insisting, based on comparisons between terracotta figurines as well as iconographies of females in Old Babylonian glyptic, on their Old Babylonian origins.

Glass female figurines of the second millennium BCE are depicted as nude and standing on a small square podium, holding their breasts. Their bellies are generally distinctively shaped, and they wear a necklace. Their headgear is decorated with parallel lines and their hair cascades down both sides of the face. The backsides of the figurines are flat. Some have a perforation at the shoulder, arm/elbow (for instance at Megiddo and Lachish), or at the hip (Beth Shean), indicating their use as pendants. The iconography of the breasts, the positioning of the hands and the prominence of the sexual organs has provoked suggestions that similar objects made out of clay were also used as fertility talismans (Graff 2014: 385). However, it may be premature to assign an exact meaning or use to these artefacts. Researchers suggested that they may also be ritual-related, amuletic, vehicles of magic, or simply representations of living or dead individuals (Ucko 1968; Voigt 1983). Thus, a study of their archaeological contexts might serve as a tool to assign a function/meaning to similar artefacts (Negbi 1976; McGovern 1985).

The colour of the glass used in the female figurines was recorded as dark blue in all examples (Barag 1970: 188), though the Megiddo figurine and three of its parallels recovered at Hama, Tell Ashara/Terqa, and Tell Atchana/Alalakh were made of greenish and olive green glass. The symbolism embodied in the colour of the glass is discussed elsewhere (Dardeniz forthcoming).

An important problem with depictions of these artefacts in older publications is that the artefacts are illustrated in drawings or crude photographs, thus requiring the necessity to work with the originals (especially important in the field of iconographic studies) in order to avoid misinterpretations (Cornelius 2004: 28; 2007: 239). Taking this into account, the artefact was reinvestigated and photographed in September 2017.[1]

The glass figurine is 4.7 cm tall and between 1.8–2.1 cm wide. It is 1.3 cm thick and weighs 12.05 g. A perforation, which is ca. 1.5 cm above the knee-level of the figurine, is visible in the lateral parts of the artefact. Due to weathering, the surface of the glass is white, though a red-coloured pigment is still visible on some parts. It was broken into three fragments. The first breakage line is under the neck. The second is above the belly, crossing the perforations and thereby indicating a crack caused by the holes (Fig. 1).

The figurine features large, slanty oval eyes and distinct eyebrows. The nose is proportional to the small face, the mouth is only slightly visible and the ears can be seen. She wears a headband and banded headgear and her hair is in the Hathor style, with the locks falling just above the shoulders, suggesting Egyptian origins/influence (Pilz 1924: 162–163; Pritchard 1943: 40). Cornelius defined this style as Hathor-short (2007: 240–241). Parts of the surface of the headband and the headgear appear to be reddish. There are fragments of red pigment (rather than paint) found in the porous parts of the head. A similar red pigment is visible around the perforations (Fig. 2). However, it is impossible to determine with the naked eye or even a magnifying glass whether the pigments are genuine to the artefact or a result of later contamination of the surface. Because Schumacher (1908: 64) documents the discovery of the female figurine alongside the head of a reddish

[1] This was conducted according to the rules and regulations set by the Turkish Ministry of Culture and Tourism, and with the permission of the Istanbul Archaeology Museums.



FIGURE 1 The Megiddo glass female figurine in the Istanbul Archaeology Museums (inventory number 2279m) (a) front view; (b) lateral view; (c) back view. All views show the cracks in the artefact. The perforation is at the arm level. The lateral view (b) partially shows the cold-working traces at the upper leg.

object, the presence of this red colour may be explained as contamination caused by the accompanying clay figurine; alternative explanations might include intentional use of a red/reddish pigment or later contamination caused by poor museum conditions. The drawing of definitive conclusions necessitates that further research be conducted through archaeometric methods.

The figurine is depicted as wearing a necklace that surrounds the neck with nine horizontal lines. The right and left arms grasp the right and left breasts respectively, though the right breast is slightly broken. The figurine also features a distinct and rounded belly, with a visible, slightly protruding navel. The lower legs, including the knees and feet, are missing. The frontal parts of the upper legs, especially the left leg, are heavily destroyed. A comparison with the first published image of the figurine (Schumacher 1908: 64, Fig. 79a) reveals that this damage may have occurred after 1908. The layers of the slightly fresh break in the upper leg expose a tinge of an olive green colour, which may have been the original colour of the figurine. Schumacher's definition of the figurine's tint as light green (1908: 64) suggests that the colour must have been clearer when the object was unearthed.

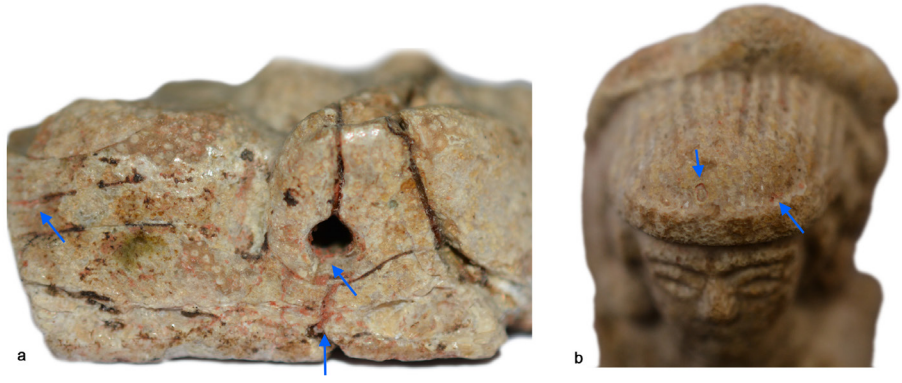


FIGURE 2 Red pigmentation detected at and around the (a) perforation and (b) headgear of the glass figurine. The arrows point towards the red colouring. (Photo not to scale to express the details).

Production technology

The glass figurine was produced with a mould, as already noted by the excavator (Schumacher 1908: 64). It was likely cast in an open, one-piece mould by pouring hot and viscous glass into a clay or silica-rich stone mould. These types of figurines generally feature a flat backside, which is also the case in the Megiddo item.

Even so, it also contains traces of cold-working. In the moulded glass figurines, the excess material poured into the mould leaves traces, like a frame. In the Megiddo glass figurine, this frame has been intentionally trimmed. The traces at the sides, especially the tool marks at the sides of the upper leg, indicate a cautious removal of the mould's remains (Fig. 3). This feature or practice of trimming the sides of the artefact after removal from the mould now seems unique to Megiddo and Lachish (Tufnell 1958: 85, Pl. 27: 2). The published images from Beth Shean (Rowe 1940: 93, Pl. LXVIIIA: 7) also demonstrate the lack of moulding remains, however the details of the sides of the figurine, where trimming marks might have been, are not clearly visible.

Removal of casting remains of a glass artefact must have required additional efforts and knowledge of working with the material. First and foremost, such reshaping/trimming must have been completed after the moulded glass had cooled and been removed from the mould. Thus, the reshaping must have been carried out with cold-working techniques, where carving cold-worked glass necessitates specialized skills and cutting methods (Duckworth 2012: 319).

In the second millennium BCE, glass was a product of creativity and innovation (Oppenheim 1966, 1970; Peltenburg 1971, 1987). Like other vitreous materials—namely frit and faience—making artefacts out of glass required a broad knowledge of technology and application in incorporated fields (Barag 1985: 29), which must have necessitated close collaboration with and integration among the crafts. The earliest glass vessels were cold-worked. Among a group of vessels dated to the reign of Thutmose III, a cast and drilled kohl pot (rather than hot-worked glass), was identified (BM object number



FIGURE 3 Marks of cold-working and careful trimming of the mould remains around the figurine. The traces of trimming are clearly visible on the upper leg, framed within the blue box. (Photo not to scale to express the details).

EA24391; Nicholson 2012: 20, Table 1). The well-known lotus chalice found in Wadi Qirud was also cast and cold-worked (Metropolitan Museum of Art number 23.9). The similarities between types of glass and stone vessels suggest that there was a relationship between glassworking and stoneworking (Duckworth 2012: 319). In Egypt, for example, glass was known as 'stone of the kind that flows'. The distinction in language between genuine lapis lazuli from the mountain and lapis lazuli from the kiln appears in the first millennium BCE. The identification of glass as an imitation of stone rather than a new synthesized material indicates that people perceived glass as a type of stone (Beretta 2009: 3–4). The classification of glass as a type of stone is also evidenced in second millennium BCE Anatolia (Dardeniz forthcoming). The Megiddo glass figurine adds a new line of evidence supporting the connection between glassworkers and stoneworkers. The careful removal of the excess glass around the figurine, most probably to emphasize its features, must have been practiced by skilled stoneworkers.

Similar vitreous figurines at Megiddo

The University of Chicago's excavations at Megiddo also yielded fragments of female nude figurines: An upper torso of a blue faience figurine (Field no: a1110; Provenience: T.2138; Stratum XII, MB I), a head of a faience figurine (Field no: d100; Provenience: 5029; Stratum IX, LB I, ca. 1550–1400 BCE), and a complete blue faience figurine with black decoration (Field no: a65; Provenience: T.2009; Stratum IX) (Loud 1948: 5, Pl. 241: 2, 4, 5). They indicate a long-term, site-wise existence of vitreous female figurines.

Discussion

Glass female figurines have been found in a wide range of geographical areas, including northwestern Syria (Tell Atchana/Alalakh, Tell Mardikh/Ebla, Hama), Mesopotamia (Nuzi, Tell el-Rimah, Tell Ashara/Terqa), central Anatolia (Boğazköy/ Hattuša), western

Anatolia (Panaztepe), the Levant (Beth Shean, Lachish), Cyprus (Kouklia, Milia), Egypt (Assiut) and Greece (Mycenae, Kakovatos-Tholos A) (Barag 1970: Appendix II; 1985: 45). Their archaeological contexts include temples, burials and secondary contexts. In addition to examples discovered in archaeological excavations, there are a few examples in museum collections with unclear archaeological contexts. For example, the Toledo Museum of Art contains one complete dark blue-coloured glass figurine (1923. 195) in extraordinary condition, along with two upper halves of glass figurines (1923. 214, 1923. 218). The Victoria and Albert Museum (C. 68-1936) and the Corning Museum of Glass have similar artefacts in their collections (Kühne 1969 with references cited).

The closest parallel to the Megiddo glass figurine was found at Lachish (Tell el-Duweir; Tufnell 1958: Locus 4004, field no. 5825; Pl. 27: 2; Oxford Ashmolean Museum no. 1955.501). It was discovered in a burial (Tomb 4004; Tufnell 1958: 83, 281, Pl. 7: 3), along with spacer beads (Tufnell 1958: 83, 281, Pl. 27:3, 28: 23, 27). The headgear and positioning of the hands, as well as the eyebrows and oval shape of the eyes, present distinct similarities to the Megiddo figurine, including the existence of the perforation at the shoulder level. The Lachish item, which was recorded by Olga Tufnell as an Astarte figurine, was dated to the LB I, ca. 1450 BCE, based on the analyses of the spacer beads found in association with it (Tuffnell 1958: 83–84). Kühne (1969: 306) described the Megiddo and Lachish glass figurines as identical, while Barag (1970: 188) claimed that the figurines might have been cast in the same or nearly-identical moulds. The current study provides further evidence for the similar nature of the Lachish and Megiddo figurines by revealing traces of cold-working techniques unique to these two artefacts, indicating common or interacting craftsmanship.

At Beth Shean, a glass female figurine similar to those from Lachish and Megiddo and dated to the 14th century BCE (Kenyon 1960: 218) was found in a temple context and documented as an Ashtoreth figurine (Rowe 1940: 93, Pl. LXVIIIA: 7). It was broken at knee-level, with the right side of the face missing. Even though the artefact is in poor condition, the hands holding the breasts, the rounded belly and the one rounded eye are still distinct.

The upper half of a glass figurine was recovered at Hama Level H, out of context (Ingholt 1940: 105, Pl. 32: 3). However, the hairstyle, the positioning of the hands and the emphasis on the belly is visibly different from those of Megiddo and its comparatives. The Hama figurine was described as greenish in colour.

The earliest example of a glass female figurine (defined as the ‘naked votaress’ or the ‘Astarte figurine’ by Leonard C. Woolley – 1955: 247) was recovered at Level VI of Tell Atchana/Alalakh (AT/48/4) and dated in recent studies (Yener 2010) to approximately 1600–1500 BCE. It was found at the western corner of the Level VI temple (Woolley 1955: 246–249, Pl. LVIb). Even though this item was recorded as blue glass, based on a fresh break close to the head, recent research shows that the figurine is actually opaque olive-green in colour (Dardeniz 2016). Confusion concerning the colour of the figurine may be due to its blue-coloured twin (AT/39/106), which was recovered from Level V (according to Yener 2010, ca. 1500–1450 BCE) and identified, along with silver and bronze artefacts (Woolley 1955: 220), as a burial gift from a grave (ATG/39/44). Some scholars

mistakenly referred to the latter object as a Level VI artefact, which most probably caused this discrepancy. A third glass female figurine from Alalakh (AT/39/66), also blue in colour, was recovered from Level II (probably Level III) in a grave context (Grave 39/23). Woolley erroneously defined the artefact as glass paste; thus, it escaped the attention of most glass scholars (Woolley 1955: 222). It is dated to ca. 1400–1300 BCE (Yener 2013).

At Nuzi, two glass female figurines from temple context Stratum II (ca. 1500–1350 BCE) and one green human head made of green glass were documented (Starr 1939: Pl. 120: RR; Barag 1970: 140).

At Tell el-Rimah, two nude female figurines were recovered. One is defined as a miniature glass pendant in high relief (TR. 88). It was found on a floor of Phase II and dated to the mid-14th century BCE, in association with an assemblage covering several frit, shell and bone beads, seals and pendants (Oates 1965: 73). Identified as the goddess Ishtar, David Oates argued that this figurine and its associated assemblage must have been offerings to a nearby shrine, possibly stored or even offered for sale in the room in which the items were recovered (Oates 1965: 73). The second glass figurine or pendant (TR. 255) was found in Level Ib and dated to the first half of the 13th century BCE (Oates 1965: 74; Barag 1970: Fig. 26).

The head fragment of a glass female figurine (TQ 15.298, Deir- Zor Museum no: 39) was recovered at Tell Ashara/Terqa. The surface is iridescent, white and gray in colour, but the core appears to be pale green. The hairstyle of the figurine is identified as Hathor (Matoïan 2007, Fig. 9). Approximately half of the face is damaged. The surviving half of the face reveals an oval eye. The headdress is not very significant. The figurine was found in *Chantier* E, Locus 44, which broadly dates to the second millennium BCE (Matoïan 2007).

Even though Boğazköy, the capital of the Hittite Empire, was not rich in terms of glass, an upper part of a blue/dark blue glass female figurine dated to the 14th/13th century BCE was recovered at the site (Bittel 1958; Boehmer 1972: 180; Tafel LXV, no. 1861). The distinguishing features of a necklace and hands holding the breasts were just visible. Bittel defines the hair of the figurine as Hathor-style and noted the face as empty, resembling the sphinxes recovered at the site (Bittel 1958: 25). Unfortunately, the poor condition of the artefact does not allow for further examination.

In Mycenae, Grave Circle A, Shaft I and Kakovatos, Tholos A, yielded fragments of glass female figurines (National Museum Nos 2511 and 5683 respectively), dated to approximately the first half of the 15th century BCE (Müller 1909; Barag 1970: 190–191). The glass figurines found in Greece, together with their associated goods, including star-disc pendants and spacer beads, displayed striking similarities to the glass assemblages of Nuzi (Barag 1970: 191). There is evidence of Mesopotamian glass in Greece (Walton *et al.* 2009; Henderson, Evans and Nikita 2010); however, a direct linkage between the glass industries of Nuzi and Mycenae has thus far not been established.

Recent excavations at the western Anatolian site of Panaztepe also yielded the upper half of a glass (?) female plaque. Defined as a relief bead, the representation of the naked female features a different iconography than the aforementioned counterparts. The hands are positioned above the breasts, and the face is more triangular in shape, featuring small eyes and a dominant nose. It was found in a Late Bronze Age (ca. 1400–1300

BCE) tholos tomb (Çınardalı-Karaaslan 2012: 135, Fig. 16). In Panaztepe, spacer beads, rosette-shaped pendants and the glass female relief were found in association, thereby pointing to an intriguing connection to Greece, Nuzi and Lachish (where only spacer beads were found). Panaztepe was an important port city for Late Bronze Age trade routes (idem: 137) and thus may have served as an ideal destination for goods from Mesopotamia to Mycenae. The existence of similar goods in burial contexts also signifies a shared socio-cultural interaction between Greece and western Anatolia, extending as far as Mesopotamia.

Conclusions

Previous research has dated the archaeological context of the *Nordburg*, where the Megiddo glass figurine was recovered, to the 18th century BCE (Loud 1948: Fig. 415; Kempinski 1989: 46, plan 3; Ussishkin 1992: 670; Nigro 1994). However, comparisons demonstrate that the artefact cannot be dated to earlier than the 16th century BCE. Based on new research regarding the chronology of the *Nordburg* (Finkelstein, Ussishkin and Deutsch 2006: 76, 80, Table. 5.1), as well as knowledge of developments in the glass industry, I propose the 14th century BCE to be the *terminus post quem* for the Megiddo item.

Most of the glass female figurines discovered in the ancient Near East were found either in temple or burial contexts, both of which imply a religious connotation. Still, as Winter (1983) suggested, it would be misleading to connect the female figurines to any one or syncretic deity without carefully considering all possible cultural and regional affiliations. The fact that the Megiddo figurine was made of glass also carries meaning, as such figurines/pendants from different materials provided different social and/or religious connotations (Benzel 2013: 260). In the second millennium BCE, glass was considered a luxury commodity. Setting aside discussions of exactly how, when and where glass was produced during this time, the techniques used to manufacture glass female figurines, including the trimming of the sides and making perforations, are quite complex and require special technical knowledge.

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