

1 Metal Finds: Weapons, Tools, Jewelry, and Figurative Artifacts

Noé D. Michael with a contribution by Katri Saarelainen

This is the official preprint of the respective chapter, appearing in: S. Münger (ed.), *Kinneret II,2 – The Early Iron Age. Report on Finds and Findings from Tell el-‘Orēme/Tēl Kinrōt, Excavations 1994–2008*, Abhandlungen des Deutschen Palästina-Vereins, Wiesbaden: Harrassowitz, authorized by the editor.

1.1 Introduction

This chapter presents 49 metal artifacts from Tel Kinrot. All objects come either from Early Iron Age Strata, or else were found on the surface of the Tell. The finds are arranged according to following categories as weapons, tools, jewelry and figurative artifacts. Most of the finds were made of copper alloys, predominantly bronze (n=33). Additionally, some artifacts were made of iron (n=13), and lead (n=1). Two objects had different materials combined: a gold sheeted forearm of a figurine made of bronze, and a bone handle of a bimetallic knife, where both iron and bronze were used. The iron artifacts are in an especially bad state of preservation due to the oxidization process they underwent.

All objects were measured and weighed. Only the actual preserved measurements and weights are given in the tables, but for few objects estimations for reconstructed measures are suggested in the discussion.

Representative items of each type are illustrated in the drawings or photographs, with a special focus on more complete pieces. The majority of the finds could be classified, but some fragments could not be identified because they are poorly preserved or only small fragments survived. Additionally, the deterioration of some of the artifacts has prevented their thorough reexamination. Items with uncertain classification are marked with a question mark (?) in superscript in the tables to distinguish them from items that are more complete and can be more securely identified.

Most of the metal finds presented here come from Stratum V, the main settlement phase of the Early Iron Age city; only very few were retrieved from its founding phase, i.e. Stratum VI, or from the squatter habitation of Stratum IV. Surface finds were included when an Early Iron Age date could not be ruled out for them, but few items dating to later periods are also listed. The artifacts from Tel Kinrot were compared to other finds from various Iron Age sites in the Southern Levant and while some representative parallels are listed, this list is not meant to be exhaustive. The parallels were predominantly drawn from major Northern sites in Israel and Jordan.

Table 1.1: Stratigraphic distribution of metal finds

Stratum VI	11 th c. BCE	3 artifacts	6.1%
Stratum V (incl. post V)	11 th /early 10 th c. BCE	30 artifacts	61.2%
Stratum IV	Early 10 th c. BCE	4 artifacts	8.2%
Surface, uncertain stratigraphic attribution	-	12 artifacts	24.5%

1.2 A Note on the Typology of Weapons and Tools

Before describing the weapons and tools found at Tel Kinrot, some definitions of different object types need to be discussed, because it is not always easy to differentiate between similar weapons or tools. For example,

there are no generally accepted definitions that help to differentiate between dagger, sword and knife or between spearhead, javelin head and arrowhead. Normally, length, weight and form of the object are used to define the type (Emery 1999: 22–23; Yahalom-Mack 2009a: 566; Aja 2011: 503; Paz 2016: 1157).

Having said that, in this chapter the classifications of the majority of spearheads, javelin heads, and arrowheads will follow the definitions of Emery (1999). Thus, points that are shorter than 9 cm are categorized as arrowheads, points between 7 and 12 cm are categorized as javelin heads or light spear points, and larger points are considered to be spearheads (Emery 1999: 22–23; Aja 2011: 507). These parameters are, however, more a rule of thumb, since the categorization of an object gives only one possible option, whereas in practice e.g. a small javelin head can also be categorized as large arrowhead and in most cases, there is no accurate way to verify what the exact usage of the object was. The same item could be used at the same time, or at different times, for different purposes.

Like the points, the blades also have no clear parameters that help to differentiate between knives, daggers and swords. Short single-edged blades are generally considered knives. Emery classifies blades according to the following criteria: Blades larger than 20 cm are swords, blades between 12 and 25 cm with two sharpened edges are daggers, and blades smaller than 12 cm with single edged blade are knives (Emery 1999: 67). Daggers are weapons usually used for hand-to-hand combat and knives in general are considered as tools, which could be used for domestic, agricultural or industrial purposes (Paz 2016: 1157). However, Petrie (1917: 22) has argued that no distinction can be made between tools and weapons; a knife could be used for domestic, agricultural or industrial purposes as well as for any other purpose.

Keeping in mind the artificial nature of these divisions, fourteen items were classified as weapons (Table 1.2) and twenty-one items as tools of various kinds (Table 1.3), although some of the finds cannot be identified with certainty.

To differentiate between types of tools, the following definitions were used: Objects classified as chisels are narrow rods, with a square cross section and a flat tapering end. As some of the items are fragmentary and cannot be reconstructed with certainty, the definition is based on the relative thickness of the fragments (as compared to nails or some other finer tools), square cross section, and the presence of a possible engraving, striking or cutting edge. Within the Iron Age assemblage, some of these narrow iron rods, which are here tentatively classified as chisels, are similar in many ways to – and might also be classified as – nails (with heads not preserved), spikes, or even as borers (cf., e.g., Aja 2011: 510, Cat. Nos. 48, 51, 59, or 73, Ashkelon, 7th c. BCE).

Items listed as pins with a square cross section are relatively thin simple pins, which have no eye or loop, but one or both ends taper to a narrow point. To an extent, these items resemble chisels and perhaps could have been used as awls or some other kind of engraving tools.

Needles are thin pins with a round cross section and a narrow eye at one end – a clear indication of their function. The eyes were made by piercing the pin, or by folding a part of the metal on one end to form a loop. The loops/eyes are narrow, and made in a way that they would not stop the needle from passing through fabric or leather while used for sewing. The lower end tapers to a sharp point.

Loop-headed pins can be similar to needles. The lower end tapers to a narrow, sharp point, but instead of a narrow eye, they have a bent or folded loop at one end. The cross section can be square and the pin more robust, or alternately round and thin, much like needles. However, the large rolled loops would probably not have been suitable for sewing or threading.

Items classified as pins with a round cross section are all thin long pieces of metal without an eye or a loop. The examples presented here are all broken, some at both ends, and none have a preserved eye or a loop. Thus hypothetically they could also be fragments belonging to needles, loop-headed pins or some other types of objects.

Finally, five fragments included in the tools table (Table 1.3) were not classified due to their poor state of preservation; most of these fragments (Nos. 31–35) are probably parts of pins, needles, nails or awls of some kind, but could also have broken off from weapons or other types of objects.

1.3 Weapons and Tools

Out of the fourteen items classified as weapons, five were made of bronze (Nos. 1, 6, 9–11) and eight of iron (Nos. 2–5, 7–8, 12–13), while one had both materials combined (No. 14); from the twenty-one items classified as tools, seventeen were made of copper alloy – mainly bronze (Nos. 15–16, 20–25, 27–35), and four of iron (Nos. 17–19, 26).

1.3.1 Javelin Heads and Arrowheads

Six points were recorded at Tel Kinrot. They are all shorter than 110 mm and lighter than 20 gr. (Nos. 1–6). Two of them were made of bronze and four of iron. Four of them were surface finds (Nos. 1, 3–4, 6), therefore they may date to earlier or later periods than the Iron Age I. One of the points comes from Stratum V (No. 2) and one from Stratum IV (No. 5).

According to the parameters listed above, two larger points fit the definition of javelin heads (Nos. 1–2).¹ A javelin is similar to a large arrow, but was thrown by hand and served as a medium-range weapon (Yadin 1963: 10). No. 1 is a surface find: a complete, well-preserved bronze point. It is slightly bent in the middle, but if straightened, it would measure approximately 109 mm in length. The blade is large and wide with a lozenge shape. According to Emery, a point with such a shape was probably used to “penetrate unprotected flesh” (Emery 1999: 27). Similar in shape is, e.g., a point from Megiddo, Stratum V (Lamon and Shipton 1939: Pl. 81:18).

No. 2 was discovered in Stratum V; it is made of iron and most likely it is also a javelin head. The point is oval in section and has a width of 14 mm. It is broken at the end, making its original length impossible to determine; however, the head was likely about 90–100 mm long. A comparable iron point was found at Hazor, in Stratum VIa. However, Ben-Tor classified it as an arrowhead (Ben-Tor 2012: 537, 539, Fig. 10.7:5). Another similar bronze object, also classified as an arrowhead, was found at Megiddo and comes from an unclear stratigraphic context (Blockman and Sass 2013: 889, Fig. 15.8:406).

Four of the points (Nos. 3–6) can clearly be categorized as arrowheads. Three of them (Nos. 3–5) are made of iron and are lanceolate (No. 3) and ob lanceolate (Nos. 4–5) in shape. All three are of similar size, measuring between ca. 70–80 mm in length, ca. 17–18 mm in width and ca. 2–4 mm in thickness. They weigh between 8–12 gr.²

Ob lanceolate arrowheads were usually made of iron or bronze (Aja 2011: 512). This type of arrowhead dates around the 10th–6th c. BCE (Emery 1999: 38). Similar arrowheads have been found all over the Southern Levant within Late Bronze and Iron Age contexts (Emery 1999: Pls. 60–63; e.g., Megiddo, Stratum V, Lamon and Shipton 1939: Pls. 80:54, 81:13; Dan, Stratum VA, Ilan 2019: Fig. 11.5:11; Aphek, Stratum X12, Yahalom-Mack and Shalev 2009: Table 13.1:1–2, Fig. 13.1:1–2). Lanceolate arrowheads – predominant, for example, in the Iron Age II assemblages at Beersheba or Lachish (Gottlieb 2004; Gottlieb 2016) and found also at Tel Kinrot Stratum II (cf. e.g., Fritz 1990: 125, Pl. 113:1, 3) – are similarly widespread in the archaeological record of the Southern Levant and the “leaf-shaped forms served for a long time as the universal weapon of both hunter and warrior” (Gottlieb 2004: 1916).

Additionally, a three-bladed arrowhead (No. 6) was found on the surface of the Tell. It is made of bronze, like the vast majority of this type (Emery 1999: 41). Three-bladed arrowheads were found at different sites in the Southern Levant, where they are usually dated from the end of 8th to the 6th c. BCE (Emery 1999: Pls. 64–66; see also examples from Tell el-‘Umeiri, from a Byzantine context (Platt 1991: 251, Figs. 10.25–

¹ A javelin head was previously published from Stratum II (Fritz 1990: 167, Pl. 113:4), and a spear head from Stratum IV (Fritz 1990: 167, Pl. 113:18).

² Three iron arrowheads from early Iron Age Strata VI and IV were previously published by Fritz (1990: 125, 166, Pl. 113:2, 9, 13).

10.26, 560), and surface find from Tell Keisan, (Nodet 1980: 323, Pl. 98:14). Similar arrowheads, when found in Persian period contexts, are sometimes referred to as Scythian (Aja 2011: 513).

1.3.2 Daggers and Knives

Seven blades (Nos. 7–13) were retrieved from the Iron Age Strata. They all come from the main Early Iron Age horizon.³ Based on their form and length, two of the blades (Nos. 7–8) can be categorized as daggers. They were both made of iron and have two sharpened edges. No. 7 is well preserved; No. 8 was found broken into two pieces. Parallels can be cited, for example, from Megiddo, Strata VII, VI and VIA (Loud 1948: Pl. 181: 48–49, 54, 62; Sass and Cinamon 2006: 388, Fig. 18.25:573). Fragment No. 9 may have originally been the tip of a bronze dagger.

Four of the blades (Nos. 10–13) are classified as knives; all of them are only partially preserved. Nos. 10–11 were made of bronze and have a hollow back. No. 10 has preserved two of the rivets, which were used to attach the blade to the hilt. A comparable knife made of copper alloy and dating to Iron Age I was found at Tel Dothan (Sawicky 2005: 167, Fig. 14.18). Additionally, similar knives, though made of iron, were found, e.g., at Hazor, Strata VII and VI (Yadin, Aharoni and Amiran 1961: Pl. 217:1–2). Nos. 12–13 were made of iron and have a straight back. Comparable bronze and iron knives were found for example at Megiddo, Stratum VI (Loud 1948: Pl. 181: 55, 58–59).

Additionally, a bone handle of a bimetallic knife (No. 14) was found from Area N, Stratum V. The handle was found with parts of the iron blade still visibly embedded in it. Typically these knives have iron blades, bronze rivets and handles made out of ivory or bone (Sherratt 1994: 68), but often only the handles are preserved (Yahalom-Mack 2009b: 130–131 with parallels). Most blades had a tang, which was riveted to a handle (cf. e.g. Mazar 1985: 6–7, Fig. 2 Photo 3). Corroded remains of one bronze pin or a rivet, used to attach the blade to the hilt, can still be seen adhering to the bone. The blade was further stabilized with a metal band encircling the handle, of which some remains are still visible on the sides (similar, e.g., to a knife from Beth-Shean, Level VI, cf. Yahalom-Mack 2009a: 569–570, Fig./Photo 10.4.) Only c. 63 mm of the handle is preserved, but Emery (1999: 69) has suggested that the typical handle for a blade would have been c. 10 cm long, in order to fit the hand of an average sized man. A complete ivory handle of a bimetallic knife, found at Tell Qasile in Stratum XII, is of similar size (L 13 cm ; W 2 cm; Th 1.6 cm; see Mazar 1985: 6–8, Fig. 2, Photo 3, with further parallels). According to Yahalom-Mack (2009b: 130) bimetallic knives appear in Cis-Jordan in Strata dating from 12th to 10th century. While they have been found in Israel and the Aegean, the majority come from Cyprus, where they are prominent as early as in the 12th c. BCE (Sherratt 1994: 60). The early bimetallic knives were probably imported from Cyprus to Israel, where they were later on imitated (Yahalom-Mack 2009b: 130).

Table 1.2: Weapons

No.	Object	Material	Reg. No.	Locus	Elevation	Square	Area	Stratum	L	W/D.	Th	Wt	Preservation	References
1	Javelin Head	bronze	9455/60	6172	-61.81	CD13	R	Sur.	91/109	19	3	14	Co, Crd	Figure 1.1:1
2	Javelin Head	iron	8595/60	5131	-54.19	BS2	K	V	80	14	7	12	Fr, Br, Crd	Figure 1.1:2
3	Arrow-head	iron	9088/60	6020	-61.47	CF2	M	Sur.	78	18	4	12	Co, Crd	Figure 1.1:3
4	Arrow-head	iron	8054/60	5022	-50.10	BO09	K	IV	80	17	2	8	Co, Crd	Figure 1.1:4

³ A dagger and several iron knives were previously found in Strata I–II; one knife fragment was also assigned to Stratum V (Fritz 1990: 125, 166–167, Pl. 113:12, 15, Pl. 114:1–7, Pl. 115:1).

No.	Object	Material	Reg. No.	Locus	Elevation	Square	Area	Stratum	L	W/D.	Th	Wt	Preservation	References
5	Arrow-head	iron	5803/60	2901	—	—	P	Sur.	72	17	3	10	Co, Crd	Figure 1.1:5
6	Arrow-head	bronze	6174/60	3044	-51.37	BR23	H	Sur.	42	12	6	4	Co, Crd	Figure 1.1:6
7	Dagger	iron	9047/60	6011	-59.82	CD2	M	V	204	31	7	66	Co, Br, Crd	Figure 1.1:7
8	Dagger	iron	8516/60	5100	-54.21	BR2	K	V	162	27	6	52	Fr, Br, Crd	Figure 1.1:8
9	Dagger?	bronze	8599/60	5124	-54.74	BT2	K	V	58	26	5	12	Fr, Crd	Figure 1.1:9
10 ⁴	Knife	bronze	7720/60	5284.1	-53.11	BQ1	K	Iron?	130	21	5	36	Fr, Crd	Figure 1.2:10
11	Knife	bronze	12826/1	1721	-60.08	CB14	S	V	64	15.2	5.8	7	Fr, Crd	Figure 1.2:11
12	Knife	iron	14432/1	1849	-59.06	CB15	S	V	86	16	6	11	Fr, Crd	Figure 1.2:12
13	Knife	iron	11567/1	6476	-61.86	CC12	R ₁	V	93	20.3	6.8	19	Fr, Crd	Figure 1.2:13
14	Knife handle	bronze/iron/bone	6670/40	3599	-56.58	BS11	N	V	63	22	15	18	Fr, Br, Crd	Figure 1.2:14

Abr.: Sur. = surface; Br – broken; Co – complete; Crd – corroded; Fr – fragment; L/ W/ D/Th: in mm; Wt. in gr.⁵

1.3.3 Chisels

Three objects were classified as chisels (Nos. 15–17), but as they are all relatively small, perhaps they could have also functioned as some kind of engraving tools. The chisels appear to be square in cross section and are all rather short, between 37 and 60 mm in length. Nos. 15–16 were found at Area R, Strata VI–V, both appear complete and are made of bronze. Similar tools are common during the Iron Age and parallels can be cited, e.g., from Hazor (Yadin et al. 1961: Pl. 221:14, unclear stratigraphic context), Megiddo, Strata V–I (Lamon and Shipton 1939: Pl. 83:5–15), Beth-Shean, Level VI (James 1966: Fig. 104:3), Dan, Stratum V (Ilan 2019: Fig. 11.3:4, classified as “awl”), or Beersheba, Stratum IIB (Paz 2016: 1170, Fig. 23.8:3, with further parallels) to list a few. Similar chisels were also found at Megiddo as early as in Strata XIII–X (Loud 1948: Pl. 184: 4–7), but also in the Late Bronze and Iron Age I Strata VII and VIA–B (Loud 1948: Pl. 184: 19–21; Sass and Cinamon 2006: 389, Fig. 18.25:579–581; Blockman and Sass 2013: 883 Nos. 341–343, Fig. 15.6:341–343; see also Blockman and Sass 2013: 883, Fig. 15.6:344–346, unclear stratigraphic context). No. 17 was a surface find. It is made of iron and smaller than the other items listed here, perhaps it could also have been part of a nail or some kind of pin (cf. e.g., nails dated to the Iron Age IIB from Beersheba, Stratum II, Paz 2016: Fig. 23.8:15–16, 19, 22).

Three additional fragments (Nos. 18–20) may have belonged to chisels or other similar tools. All the fragments have a square cross section, but not enough of them is preserved to classify them with certainty. Fragments Nos. 18–19 are both made of iron and heavily corroded; they are broken on both ends but appear to taper slightly. No. 20 might be complete, but it is very corroded and lacks a well-defined cutting or striking edge. A very similar object in size and shape found at Aphek from a mixed context, was classified as a tang broken off from a weapon, perhaps a dagger or spearhead (Yahalom-Mack and Shalev 2009: Table 13.1:24, Fig. 13.3:1).

⁴ This item was previously published in Fritz and Münger 2002: 19, Abb. 10:2.

⁵ Note on the preservation: The abbreviation Br. (broken) is used in cases where almost complete objects are missing small pieces, or the objects or fragments themselves are broken into several pieces. Abbreviation Fr. is used in cases where only fragments of the objects are preserved.

1.3.4 Pins with square cross section

Two bronze pins with a square cross section (Nos. 21–22) were uncovered from Stratum V. It is not entirely clear how much of the items is preserved. The ends are perhaps damaged, but both taper to a narrow point. Their length (between ca. 57–63 mm) is comparable to the complete chisels listed above but they are much thinner and pointy at both ends.⁶ At Megiddo, similar bronze objects found from Stratum XIII were called borers (Loud 1948: Pl. 188: 1, 3). However, more recently a similar fragment from Stratum VIA at Megiddo was classified as a needle (Sass and Cinamon 2006: Fig. 18.26:591). Perhaps these pins could have also functioned as awls to punch holes in different materials (as opposed to needles), or some other type of engraving tools. At Aphek similar objects from Iron Age I contexts were also tentatively identified as drills or awls (Yahalom-Mack and Shalev 2009: 431, Table 13.2:45–46, Fig. 13.9:1–2, Stratum X9). It is possible that No. 21 could also been related to textile production. At Busayra a similar square-sectioned iron pin was found attached to a spindle whorl (Sedman 2002: Pl. 10.235, topsoil), while at Tel Kinrot, a fragment of a spindle whorl (No. 87 in chapter “Spindle Whorls and Other Textile Tools” by Grütter) was also found in the same locus as No. 21.

1.3.5 Needles

Three needles Nos. 23–25 were all attributed to Stratum V. No. 23 is made of copper alloy, while Nos. 24–25 are made of bronze. According to Ben-Tor (Ben-Tor 2012: 534), bronze was the most commonly used material for needles throughout the Iron Age. This is also further supported by the few finds from Tel Kinrot. Nevertheless, needles made from other materials (such as bone) were used at Tel Kinrot as well (see No. 122 in chapter “Spindle Whorls and Other Textile Tools” by Grütter). The needles are all complete or nearly complete, but No. 24 is bent in the middle. They measure between ca. 59 and 126.5 mm in length, and have a diameter of 3–5 mm. It has been suggested that the larger needles might have been used for sewing harder or coarser materials such as leather, tents, fishing nets, and sacks, while the smaller needles were perhaps more suitable for textiles (Yahalom-Mack and Shalev 2009: 431). Nos. 23–24 have an eye formed by bending or looping the metal at one end. The eye of No. 25 is slightly broken, but it appears to be pierced or drilled through the metal. In Iron Age I contexts, similar bronze needles were found for instance at Megiddo, Stratum VIA (Sass and Cinamon 2006: Fig. 18.26:588 [fragment of a needle with a folded eye, see also Fig. 18.26:589, unstratified]; Sass and Cinamon 2006: Fig. 18.26:589, see also Fig. 18.26:587, unstratified; Blockman and Sass 2013: 885, Table 2.14:357–358; Bidmead 2013: Fig. 23.5:5–6 [needles with perhaps pierced eyes]) or Beth-Shean, Levels VII and VI (Yahalom-Mack 2009a: 574 Fig./Photo 10.9). Other examples were found at Dan, Strata Y and V (Ilan 2019: 11.3:8, 11.3:11), Tel Qiri (Ben-Tor 1987: 239, Fig. 56: 13, surface find), and at Aphek, Stratum X9 (Yahalom-Mack and Shalev 2009: 431, Table 13.2: 35–37, Fig. 13.8:1–3 [folded eyes]).

1.3.6 Loop-headed pins

Two complete pins with a rounded loop at one end (Nos. 26–27) were found in Area K from Strata V and IV. No. 26 is made of iron and has a square cross section measuring ca. 10×2 mm. The tip is rounded and narrow but the pin widens towards the loop. The loop is made from the wide flat end, where the metal is folded over. No. 27 is made of bronze and has a rounded section. It is very light and less robust than No. 26 – measuring ca. 5×2 mm in cross section. The loop is round and slightly flattened. They are of similar length (ca. 76–79 mm), but the exact function of these artifacts is unclear, perhaps they were used for different purposes. At Megiddo, similar bronze objects found from Stratum V were categorized as loop-headed pins (Lamon and Shipton 1939: Pl. 84: 12–13). Comparable objects were, however, also found at Hazor,

⁶ Roughly comparable objects, classified as “Stäbchen” were previously found at Tel Kinrot Stratum VI and III (Fritz 1990: 165, Pl. 113:19–20).

Strata VIII–VII and V, where they were defined as “rods” (Ben-Tor 2012: 534–535, Fig. 10.4:5–6; see also Yadin, Aharoni and Amiran 1960: Pl. 78:18). Also note a bronze pin fragment from 7th century BCE Ashkelon, which was tentatively classified as a needle with a “roll-topped shaft” (Aja 2011: 514, 542, Cat. No. 107, Fig. 19.15); although it was noted that the large eye would have probably prevented its use in sewing. Other suggestions for their use include garment pins (Platt and Ray Jr. 2009: 194–195).

1.3.7 Pins with round cross section

Three objects listed as pins with round cross section (Nos. 28–30) are all only partly preserved, although they appear nearly complete. They are all thin long pieces of metal and closely resemble the needles listed above. On average they are ca. 80–125 mm long, with a diameter of 2.5–5 mm. Nos. 28–29 are made of bronze, while No. 30 is of copper alloy. No. 28 was a surface find. It is broken on both ends and while there might have been an eye at one end, the pin is too poorly preserved to securely classify it as a needle. No. 29 is attributed to Stratum VI. It could perhaps have a small loop at one end, but it is covered in encrustation and very corroded. Nodet (1980: 324, Pl. 100:16) identified a similar object found at Tell Keisan from a later Iron Age II context of Stratum 4, as a spatula, possibly imported from Cyprus. No. 30 resembles a needle as it tapers to a sharp point at one end, but it is bent and broken into three pieces.

1.3.8 Fragments and unidentified objects

Nos. 31–34 are all fragments of bronze objects with a preserved length of ca. 30 mm or less. Most of them appear to be small pieces of rods or pins with a round cross section, some very corroded or broken into several pieces. They might originally have been part of nails, needles, pins or other items. No. 35 is an

irregular piece of bronze. It is tapering with an oval section on one end and a round on the other; one end is flattened. It looks like bent out of shape, but it is not entirely clear if the object is complete or broken.⁷

Table 1.3: Tools

No.	Object	Material	Reg. No.	Locus	Elevation	Square	Area	Stratum	L	W/D	Th	Wt	Preservation	References
15	Chisel	bronze	9556/60	6169	-63.90	CE12	R	VI	60	6	6	8	Co	Figure 1.2:15
16	Chisel	bronze	9544/60	6185	-60.20	CB12	R	V	52	4	4	6	Co	Figure 1.2:16
17	Chisel ⁷	iron	11869/1	6610	-59.27	CB11	R ₂	Sur.	37	4.1	3.7	1.57	Fr, Crd	Figure 1.2:17
18	Square fragment	iron	5378/60	2148	-21.24	AK36	G	IV	73	20	14	46	Fr, Crd	Figure 1.2:18
19	Square fragment	iron	9368/60	6132	-60.94	CC12	R	V	58	9	8	22	Fr, Crd	Figure 1.2:19
20	Square fragment	bronze	7287/60	4095	-61.36	CD10	J	V	43	5	5	4	Fr, Crd	Figure 1.2:20
21	Square pin	bronze	10369/1	4256	-57.55	BU9	U	V	63.4	3.9	-	2	Fr	Figure 1.2:21
22	Square pin	bronze	11149/2	9941	-61.18 ^[3x]	CC14/CD14	R	V	56.5	5	-	3	Fr	Figure 1.2:22
23	Needle	Cu alloy	10429/1	4275	-56.68	BU9	U	V or post-V?	126.5	3	1+	4	Co	Figure 1.3:23
24 ⁸	Needle	bronze	7706/60	5278	-51.43	BT3	K	V	110	5	-	6	Co, Crd	Figure 1.3:24
25	Needle	bronze	9120/60	6030	-60.77	CD2	M	V	59	4	1+	2	Br, Crd	Figure 1.3:25
26	Loop-headed pin	iron	7674/60	5259	-51.25	BQ5	K	V	79	10	2+	8	Co, Crd	Figure 1.3:26
27	Loop-headed pin	bronze	7670/60	5266	-50.99	BT5	K	IV	76	5	2	2	Co, Crd	Figure 1.3:27
28	Round pin	bronze	9706/60	6254	-63.40	CF13	R	Sur.	124.5	3	-	7	Co ⁷	Figure 1.3:28
29	Round pin	bronze	8229/60	5070	-52.30	BP2	K	VI	113	5	3+	4	Co, Crd	Figure 1.3:29
30	Round pin	Cu alloy	12163/1	5451	-48.50	BL3	W	V	78	2.4	-	1.45	Co ⁷ Br	Figure 1.3:30
31	Fragment	bronze	7613/60	5256	-50.52	BR3	K	Iron I ⁷	31	4	4	2	Fr, Crd	Figure 1.3:31
32	Fragment	bronze	14212/1	1749	-59.86	BU14	S	V	27	4.3	1.9	-	Fr	Figure 1.3:32
33	Fragment	bronze	4103/60	1233	-22.21	AK23	E	IV	13	7	6	1	Fr, Crd	Figure 1.3:33
34	Fragment	bronze	12852/1	1739	-59.40	BU13	S	V	20	4.6	-	2	Fr, Br	Figure 1.3:34
35	Fragment ⁷	bronze	7433/60	4126	-62.51	CD12	J	V	27	6	3	6	Fr ⁷	Figure 1.3:35

Abr.: Sur. = surface; Br – broken; Co – complete; Crd – corroded; Fr – fragment; L/ W/ D/Th: in mm; Wt. in gr.

⁷ One unidentified copper object (Reg. No. 6989/60; Locus 3719; Square CA14; Area S; Stratum V) was tentatively classified as a needle at the time of retrieval, but it is now lost and could not be located from the IAA storages at Beth-Shemesh or Har Hozvim and thus was not re-examined for this publication.

⁸ This item was previously published in Fritz and Münger 2002: 19, Abb. 10:3.

1.4 Scale weight

A carinated dome-shaped scale weight (No. 36) was found within the main Early Iron Age horizon in Area K. The weight has a flat round base; the sides are symmetrical and straight; the dome at the top is not fully rounded. It is made of lead and weighs ca. 91.054 gr. The surface is corroded and covered with encrustation. The weight correlates with the Egyptian weight system of the time, the *dbn-qdt* standard, which was subsequently used over many periods of time. One *dbn* had a weight of about 91–95 gr., which could be subdivided into 10 *qdt*, each of about 9.1–9.5 gr. (Petrie 1926: 13–15; Cour-Marty 1990: 23; Kletter 1994: 37; Kletter 1998: 119, Fig. 24). The *qdt* corresponds and is easily converted to the most common weight systems found in the Levant during the Bronze and Iron Ages, which were typically based on a shekel weighing circa 9.1–9.4 gr. (Cour-Marty 1990: 23; Birney and Levine 2011: 477). During the later Iron Age in Judah the shekel standard was ca. 11.3 gr. (Kletter 1998: 76, Fig. 10; see also Kletter 1994: 35, 37), thus 8 Judean shekels would roughly equal one *dbn*.

Although dome-shaped weights were common throughout the Near East mainly in the first millennium BCE, it has been suggested that the carinated form is particularly traceable to Egypt (e.g., Petrie 1883: 420 note 1; Petrie 1926: 5; Cour-Marty 1990: 25–26, Fig. 4; Kletter 1998: 60), where the shape is especially popular and many of these weights have a corresponding weight of one *qdt* (Cour-Marty 1990: 25; Birney and Levine 2011: 474–475). According to Cour-Marty, the earliest datable specimens come from the Egyptian 19th Dynasty (Cour-Marty 1990: 25, Fig. 26). Thus, the shape of the weight found in Area K might further suggest the possibility that it was imported from Egypt. Yet, this form is also commonly attested at Ugarit from the Late Bronze Age to the Persian period (Birney and Levine 2011: 475). Furthermore, Kletter has suggested that the carinated weights found from Ḥorbat Rosh Zayit (Phase IIa, 9th c. BCE) were perhaps local Phoenician weights, which were adjusted to the Egyptian system (1 *dbn* would equal 12 Phoenician Shekels of ca. 7.6 gr.; Kletter 1994: 35–37; Kletter 1998: 60) – thus the Egyptian connection remains tentative at best.

As for the material, most of the Egyptian dome-shaped weights were made of volcanic stone, but other stone types and bronze were occasionally used as well. There are also few recorded weights of this type, which were made of lead (Petrie 1926: Pl. XLV:5057; Cour-Marty 1990: 25, Fig. 13). Similarly in the Southern Levant, stone was the favored material for these weights, although sometimes bronze was used (Birney and Levine 2011: 475). The present author is not aware of any comparable weights made of lead from Israel or neighboring regions dating to the Iron Age. Lead weights were, however, reportedly found at Area S of Hazor from Late Bronze Age context (Zuckerman 2013: 96–97, Fig. 49). It was only during much later periods that lead became a very popular material for weights (R. Kletter, *pers. comm.*; for lead used as filling in bases of weights, cf., e.g., the later weight assemblages from Ashkelon or Tel Rehov, see Birney and Levine 2011: 479–480, Cat. No. 19; Kletter 2020: Cat. Nos. 5 and 10).

From the Early Iron Age horizon at Tel Kinrot, there are further examples of weights carved from stone (see Chapter Valkama and Pakkala 2024: Nos. 1–3, 6–7, 9–11, 13–14).

Table 1.4: Scale weight

No.	Object	Material	Reg. No.	Locus	Elevation	Square	Area	Stratum	H	W/D	Th	Wt	Preservation	References
36 ⁹	Weight	lead	8890/60	5280	-50.99	BO4	K	V	20	28	-	91.054	Co, Crd	Figure 1.3:36

Abr.: Sur. = surface; Br – broken; Co – complete; Crd – corroded; Fr – fragment; H/ L/ W/ D/Th: in mm; Wt. in gr.

⁹ This item was previously published in Fritz and Münger 2002: 19 n. 51, Abb. 10:4.

1.5 Sheets

Out of the five metal sheets discovered at Tel Kinrot, three (Photo 1.1) were found together in Locus 2050 in Area G. The sheets are thin and flat, and have a trapezoid shape, measuring circa 90 to 93 mm in length and about 50 to 65 mm in width. Their thickness varies between 1–2 mm. An additional item (No. 40) was found nearby in Locus 2052. It is slightly smaller, but resembles the other four in shape. No. 41 is of similar size and shape as No. 37. The sheets were all made of bronze or copper alloy.

The closest comparison (especially for Nos. 37–39 and 41) comes from Dan, where a metal sheet with approximately the same dimensions was found – wrapped in linen – in a pit assigned to Stratum VI (Ben-Dov and Gorsky 2009 with further references to parallels).

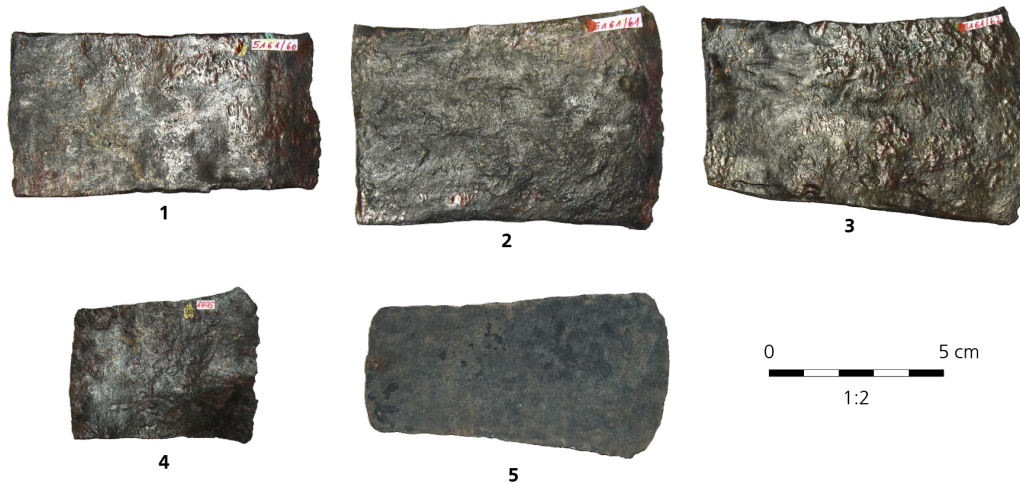


Photo 1.1: Metal sheets

Such sheets have previously been interpreted as razor blades or scrapers, but Ilan (2019: 511) argues that they would not be efficient in shaving and suggests the sheets were used for cutting hair. The form of the curved blade seems to suggest they were meant for cutting or scraping something. Late Bronze and Iron Age examples have been found in settlement layers such as Beth-Shean, Stratum VII (Bonn, Moyer and Notis 1993: 204–205, Fig. 149.6), Hazor, Stratum V (Yadin et al. 1961: Pl. 221:16), Dan, Stratum VI (Ben-Dov and Gorsky 2009: 80, Fig. 1; Ilan 2019: 511, Fig. 11.2), Megiddo, Stratum VIA (Sass and Cinamon 2006: 417, Fig. 18.44:905; Yahalom-Mack and Shalev 2006: 543), Madaba, Early Iron Age tomb (Harding and Isserlin 1953: 32, Pl. 5:188), Timnah (Tel Batash), Strata IV and II (Mazar and Panitz-Cohen 2001: 223–224, Pl. 12:9, Photo 153, Pl. 70:2), Aphek, Stratum X8 (Yahalom-Mack and Shalev 2009: 430, Fig. 13.6:1 see also Fig. 13.6:2 for a somewhat similarly shaped object, also dated to the 10th c. BCE). Two similar metal sheets were also found at Khirbet Qeiyafa and Tel Rehov (A. Rabinovitch and N. Yahalom-Mack, *pers. comm.*), albeit they are smaller than the ones from Tel Kinrot.

Table 1.5: Sheets

No.	Ob- ject	Matе- rial	Reg. No.	Lo- cus	Eleva- tion	Square	Area	Strat- um	L	W/ D	Th	Wt	Preser- vation	References
37	Sheet	bronze	5161/60	2050	-21.73	AK34	G	V	90	49	1– 2	22	Co	Figure 1.4:37; Photo 1.1:1
38 ¹⁰	Sheet	bronze	5161/61	2050	-21.73	AK34	G	V	90	63	1– 2	44	Co	Figure 1.4:38; Photo 1.1:2

¹⁰ This item was previously published in Fritz and Münger 2002: 19, Abb 10:1.

No.	Object	Material	Reg. No.	Locus	Elevation	Square	Area	Stratum	L	W/D	Th	Wt	Preservation	References
39	Sheet	bronze	5161/62	2050	-21.73	AK34	G	V	93	65	1–2	40	Co	Figure 1.4:39; Photo 1.1:3
40	Sheet	bronze	5099/60	2052	-21.90	AK34	G	VI	59	50	1–2	10	Co	Figure 1.4:40; Photo 1.1:4
41	Sheet	Cu alloy	10529/1	4277	-57.75	BU9	U	V	87.5	49.2	1.7	28	Co	Figure 1.4:41; Photo 1.1:5

Abr.: Sur. = surface; Br – broken; Co – complete; Crd – corroded; Fr – fragment; L/ W/ D/Th: in mm; Wt. in gr.

1.6 Jewelry

1.6.1 Fibulae

Five of the metal finds were identified as fibulae (Nos. 42–46).¹¹ Three of them (Nos. 42, 45–46) are surface finds and two (Nos. 43–44) come from Stratum V. All the fibulae are made of bronze. They can be divided into two main types: fibulae made of single piece of metal and composite or two-piece fibulae made of two separate parts, the bow and the pin (Pedde 2000: 99–320; Pedde 2001: 485). Nos. 42–44 are thin in section and probably hammered and drawn out; Nos. 45–46 are cast, probably using the lost-wax technique.

No. 42 is an undecorated single-piece bow fibula (Pedde 2000: 112–116, type A3). This type is dated from the beginning of the 12th c. BCE – when it appears for the first time on Cyprus in Late Cypriote III contexts – until the Iron Age IIB, with items found in the Southern Levant in as late contexts as Jebel Amman, Tomb C, Lachish, Tomb 1002, or Megiddo, Stratum III (Pedde 2000: Cat. Nos. 84, 89–90). However, on the mainland the type begins to appear during the Iron Age IB or somewhat later, and can be found in settlement layers like Megiddo, Stratum VIA (Pedde 2000: Cat. No. 75) and in Tell el-Far'ah (N), Stratum VIIb (Pedde 2000: Cat. Nos. 77–79; see also Birmingham 1963: 94).

No. 43 is an undecorated two-piece bow fibula with a pin that is wrapped around the end of the bow (Pedde 2000: 166–171; type B8). This type, which has its origins in the Urartian and Caucasian region, is only very rarely found in the Southern Levant. One example comes from Megiddo, Stratum II (Pedde 2000: Cat. No. 307). No. 44 is a semi-circular bow, which seems to have belonged to a two-piece fibula without decoration.

Nos. 45–46 belong to a group of triangular two-piece fibulas with decoration. Both have a hand at the end of the bow, which held the pin closed. Both were surface finds. These fibulas were distributed all over the Near East during the end of the 7th century and the first half of the 6th century BCE (Pedde 2001: 492, for parallels see Pedde 2000: 253–262).

From fibula No. 45 only the bow is preserved. It has five, distinct segments. In the center is a v-shaped element that is decorated with cross-hatching, followed by a disk and a longish block element on both sides. The hand-shaped clasp has a cross-shaped incision on the back. The fibula belongs to Pedde's group B3, which has the widest distribution in the Near East (Pedde 2000: 139–148; Pedde 2001: 490, Fig. 7). This type is dated to the end of the Iron Age II (Pedde 2000: 140). An exact parallel comes from an unclear context at Tell en-Naşbeh (McCown 1947: 281; Pedde 2000: Cat. No. 184).

No. 46 is a triangular fibula with a softly accentuated apex; the needle is missing. To each side of the angular point, there are three flat bi-conical beads – two smaller ones flanking a slightly larger one. A cylinder-shaped element leads to the catch-plate in the form of a hand with a pronounced thumb, while the other end of the bow terminates in a cone-shaped element. This fibula belongs to Pedde's Group D1.2, a type,

¹¹ Four different types of bronze fibulae (Stratum IV, II, Hellenistic and one surface find) were previously published from Tel Kinrot (Fritz 1990: 124, Pl. 117:1–4).

which is mainly attested in Assyria but also appears in the Southern Levant, Babylonia and Luristan. The group is dated to the 7th and 6th c. BCE (Pedde 2000: 253–262; Pedde 2001: 492). Comparable items come from Deve Hüyük, Byblos and Isin (Pedde 2000: Cat. Nos. 781, 794, 808, 820).

Table 1.6: Fibulae

No.	Object	Material	Reg. No.	Locus	Elevation	Square	Area	Stratum	W	Th	Wt	Preservation	Fig.
42	Fibula	bronze	9024/60	6000	-60.39	CE2	M	Sur.	64	6	14	Co, Crd	Figure 1.5:42
43	Fibula	bronze	7294/60	4095	-61.60	CD10	J	V	54	3.5	4	Co, Crd	Figure 1.5:43
44	Fibula	bronze	7404/60	4126	-62.26	CD12	J	V	50	3	2	Fr, Crd	Figure 1.5:44
45	Fibula	bronze	6767/60	3652	-54.71	BS9	N	Sur.	28	5	4	Fr	Figure 1.5:45
46	Fibula	bronze	11825/1	6610	-59.14	CB11	R ₂	Sur.	36.9	11	13	Fr, Crd	Figure 1.5:46

Abr.: Sur. = surface; Br – broken; Co – complete; Crd – corroded; Fr – fragment; L/ W/ D/Th: in mm; Wt. in gr.

1.6.2 Ring

A rather crude iron ring with an opening (No. 47) was found from Stratum V. It has a diameter of ca. 100 mm and a thickness of ca. 12 mm. A similar ring was found on the surface at Hazor and identified by Ben-Tor as part of a harness (Ben-Tor 2012: Fig. 10.5:8; 537). In contrast, a comparable iron ring found in Stratum X at Tel Qasile was identified as a bracelet (Mazar 1985: 8, Fig. 2:2, Photo 4 with further parallels); another almost identical iron ring from Megiddo, Stratum VA was equally classified as a bracelet (Loud 1948: Pl. 226:7, see also the bracelets found in a hoard attributed to Stratum VI, Zarzecki-Peleg 2016: 310–311 with Photo/Fig. 98). Early Iron Age Cave A4 at Jebel al-Hawayah north-west of Amman produced a lot of eight iron (steel) rings, identified as anklets (Notis, Pigott, McGovern et al. 1986; we thank Dr. Adi Eliyahu-Behar for this reference). The function of the object is open to interpretation. Mazar (1985: 9) notes that such “bracelets” are among the most common iron objects found in the Levant during the 12–11th c. BCE, and were often burial gifts (see also Yahalom-Mack 2009b: 139; Zarzecki-Peleg 2016: 311). In a recent study, Weitzel et al. (2024) concluded based on evidence from Ḥorvat Tevet and other sites that these objects were symbols of social rank and gender identity, often associated with high-status female burials.

Table 1.7: Ring

No.	Object	Material	Reg. No.	Locus	Elevation	Square	Area	Stratum	W/D	Th	Wt	Preservation	Fig.
47	Ring	iron	7290/60	4095	-61.60	CD10	J	V	98.5	12.0	102	Co, Crd	Figure 1.5:47

Abr.: Sur. = surface; Br – broken; Co – complete; Crd – corroded; Fr – fragment; L/ W/ D/Th: in mm; Wt. in gr.

1.7 Figurative Artifacts

1.7.1 Anthropomorphic Figurine (Katri Saarelainen)

A small bronze arm (No. 48), measuring ca. 43 mm in length and 10 mm in width, was found on the surface of the Tell in Area N. The arm is straight and portrays only the forearm and hand, which is shown clenched into a fist. Originally it had a gold sheet coating, small pieces of the gold foil are still preserved in the grooves around the fingers. The arm appears complete, but on one side of the elbow there is a small cavity or a hole.

Apparently, it was a part of a three-dimensional figurine, and not an independent object, e.g., an amulet.¹² Such arms can be found on seated male figurines, which – based on excavated finds – are generally dated to the Middle and Late Bronze Ages. Also, the size corresponds well with the average proportions of such statues.¹³

The arm was most likely cast using the lost-wax technique in a clay mold. One of the challenges in producing these statues is to secure a rapid and consistent flow of metal into the limbs, which are protruding from the body at sharp angles. While some of the small metal figurines from the Southern Levant can have movable arms, even when the arms were not meant to be movable, due to technical reasons they were often cast separately (Ornan 2011: 257).

Extended or raised arms could be joined to the figurines by tangs inserted into corresponding sockets (cf., e.g., Seeden 1982: 113, Figs. 17, 21, from Byblos and Kamid el-Loz), which were occasionally further reinforced by small nails or pins; see e.g., figurines from Late Bronze Age contexts at Hazor (Ornan 2011: 257; Ornan 2012a: Fig. 4, 5; Ornan 2012b: Fig. 6, 7, 8), Kamid el-Loz (Kühne 1980: Taf. 18:1; Seeden 1982: 116–117, Fig. 21) and Ugarit (Negbi 1976: Pl. 22:1319). The small hole seen on the elbow probably functioned as a socket for some kind of a pin, which would have been pushed through the side of the figurine to keep the arm in its place (see e.g., Ornan 2012b: Fig. 8 from Hazor and Negbi 1976: Pl. 32:1464, of unknown origin, possibly North Syria).

These seated figurines, to which also the present fragment from Tel Kinrot most likely belongs to, portray benign figures. They never hold weapons, but have in their hands small objects (often scepters or cups), while the right hand is raised in a gesture of blessing and benediction (e.g., Negbi 1976: 1449, Fig. 57 from Shechem, Pls. 34:1457, 1458; both from Homs – all from unknown contexts; sometimes also the right hand is holding an object e.g., Negbi 1976: Pl. 35:1459, Mishrife, unknown context).¹⁴ A figurine from Megiddo can still be seen holding a flower (?) made of sheet gold (Loud 1948: Pl. 238:30, Stratum VII or VI). Similarly, a seated bronze figurine previously found at Tel Kinrot has a movable right arm which could be raised in blessing or lowered down, while the left hand originally held some object, now lost (Fritz 1990: 113–115, Pls. 42D, 118; Stratum II). These small objects rarely preserved, as they seemingly were not very securely attached to the figurines.

It is generally accepted that most of the Levantine seated male figurines should be identified with the god El (Ornan 2011: 272–273), but some of them may also portray deified rulers.¹⁵ Perhaps they functioned occasionally as cult idols or representations of gods. Sheet gold was usually used to cover images of divinities, but sometimes it can be found also on royal imagery (Ornan 2012a: 7–10; Ornan 2012b). These figurines are relatively rare and few of them are found, as metal was a material of great value and they were expensive to produce. After the images lost their significance, perhaps most of the precious metals were eventually re-

¹² Bone amulets depicting forearms have been found, e.g., at Ashkelon, Tell Jemmeh, and Tell el-Far'ah (S). They all have open palms (Herrmann 1994: Cat. Nos. 1267–1269). However, Herrmann (1994: 774) has argued that they could also have been parts of figurines. Another forearm with a closed fist, most likely used as an amulet, was found at Megiddo from a Late Bronze Age context in Stratum VIIIB (Loud 1948: 158, Pl. 205:9). The arm is made of gold sheet, which was folded in such a way that it could be suspended (Herrmann 1994: Cat. No. 1266).

¹³ The largest seated statue known so far from the pre-Classical Levant was found at Late Bronze Age Hazor. It is 35 cm high and weighs ca. 3 kg (Ornan 2011: 255; Ornan 2012a: 2). Most of the preserved bronze statues are, however, much smaller.

¹⁴ Other gestures are possible too: For example the “Ceremonial Palace” at Late Bronze Age Hazor (Locus 7420 in Area A) produced a seated figurine with unique gestures (Ben-Tor 2008: 1771; Zuckerman 2012: 113–116, Fig. 4.2, Taf. 28B; Ben-Tor 2013: 91, Fig. 37a–b). Both hands have a space in the middle made for objects; the right hand perhaps held a small cup (Ornan 2012a: 4).

¹⁵ Ornan (2011: 272–279) interprets one of the seated statues found at Late Bronze Age Hazor (Locus 7420 in Area A) as an image of enthroned Baal and a second statue from the same context as an image of a dead king (Ornan 2012a). The gold-sheeted figure wears a thick-fringed “rolled-hem” garment, which according to Ornan is typical of images of rulers in the Middle Bronze Age II. However, the gold plating elevates it closer to divine images (Ornan 2012a: 7–10; Ornan 2012b).

used or recycled for other purposes (Ornan 2012a: 448). Metal figurines, particularly large hoards, are usually found in sanctuaries, temples or other contexts classified as cultic.¹⁶ It is thus exceptional that the complete metal figurine from Tel Kinrot (mentioned above) was found within the remains of the Iron Age II gate structure. Whether this figurine was re-used during the Iron Age IIB or if it was residual within the later structures remains open to debate; the present item (No. 48), however, is a stray surface find.

1.7.2 Zoomorphic Figurine

In Area G, a bronze snake was found from an early Iron Age context (No. 49).¹⁷ The snake was cut out of a thin bronze sheet (less than 2 mm thick). It was found broken into two pieces but was originally ca. 143 mm in length. It is not possible to identify what species of snake it is supposed to represent, as no typical attributes are visible. To date nearly a dozen bronze snakes – some three dimensionally modeled, some cut out like the present item – have been found at Hazor, Megiddo, Shechem, Gezer, Lachish and Timna¹, mostly in cultic contexts of Middle and Late Bronze Age settlement layers (Münger in Faßbeck, Münger and Röhl 2003: 51 note 26; see also the overviews in Keel 1992: 195; Avalos 1995: 339–340; Sass 2004: 1500, Figs. 23.22:4, 23.32:3; Münnich 2008: 39*–42*). The item from Tel Kinrot, however, was found in a building considered to be a private house of the Early Iron Age (Faßbeck et al. 2003: 51; see Chapter “Stratigraphy” by Münger).

Table 1.8: Figurative artifacts

No.	Object	Material	Reg. No.	Locus	Elevation	Square	Area	Stratum	L	W/Dia.	Th	Wt	Preservation	Fig.
48	Anthropomorphic figurine	bronze/gold	6744/60	3644	- 55.90	BT9	N	Sur.	43	10	-	16	Fr, Crd	Figure 1.5:48
49	Zoomorphic figurine	bronze	5240/60	2050	- 21.30	AK34	G	V	143	6	2	3.11	Co, Br, Crd	Figure 1.5:49

Abr.: Sur. = surface; Br – broken; Co – complete; Crd – corroded; Fr – fragment; L/ W/ D/Th: in mm; Wt. in gr.

1.8 Bibliography

- Aja, A.J. 2011. “Metal Weapons and Tools.” In *Ashkelon 3: The Seventh Century B.C.*, 503–545. Harvard Semitic Museum Publications/Final Reports of the Leon Levy Expedition to Ashkelon 3. Winona Lake, IN: Eisenbrauns.
- Avalos, H.I. 1995. *Illness and Health Care in the Ancient Near East: The Role of the Temple in Greece, Mesopotamia, and Israel*. Harvard Semitic Monographs 54. Atlanta, GA: Scholars Press.
- Ben-Dov, R., and A. Gorsky. 2009. “A Metal Implement Wrapped in Linen from Tel Dan.” *Israel Exploration Journal* 59: 80–85.
- Ben-Tor, A. 1987. “The Small Finds.” In *Tell Qiri: A Village in the Jezreel Valley. Report of the Archaeological Excavations 1975–1977*, 236–243. Qedem 24. Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem.
- _____. 2008. “Hazor.” *The New Encyclopedia of Archaeological Excavations in the Holy Land. Vol. 5: Supplementary Volume*, edited by, Ephraim Stern. Jerusalem/Washington, DC: Israel Exploration Society/Biblical Archaeology Society: 1769–1776.
- _____. 2012. “Tools and Weapons.” In *Hazor VI. The 1990–2009 Excavations. The Iron Age*, edited by, Amnon Ben-Tor, Doron Ben-Ami, and Débora Sandhaus, 530–541. Jerusalem: Israel Exploration Society/Institute of Archaeology, Hebrew University of Jerusalem.

¹⁶ For example at Hazor in Area A (the “Ceremonial Palace”, Late Bronze Age) over 50 items, including fragments of 24 anthropomorphic figurines, 10 of which are almost complete, were found in and around a large building (Ornan 2011: 280; Ornan 2012a: 2)

¹⁷ This item was previously published in Faßbeck, Münger and Röhl 2003: 50–51 with Abb. 83a–b.

- _____. 2013. "The Ceremonial Precinct in the Upper City of Hazor." *Near Eastern Archaeology* 76: 81–91.
- Bidmead, J. 2013. "Textile Production." In *Megiddo V: The 2004–2008 Seasons*, edited by, Israel Finkelstein, David Ussishkin, and Eric H. Cline, 1094–1105. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 31. Winona Lake, IN: Eisenbrauns.
- Birmingham, J. 1963. "The Development of the Fibula in Cyprus and the Levant." *Palestine Exploration Quarterly* 95: 80–112.
- Birney, K.J., and E. Levine. 2011. "Balance Weights." In *Ashkelon 3: The Seventh Century B.C.*, 473–492. Harvard Semitic Museum Publications/Final Reports of the Leon Levy Expedition to Ashkelon 3. Winona Lake, IN: Eisenbrauns.
- Blockman, N., and B. Sass. 2013. "The Small Finds." In *Megiddo V: The 2004–2008 Seasons*, edited by, Israel Finkelstein, David Ussishkin, and Eric H. Cline, 866–929. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 31. Winona Lake, IN: Eisenbrauns.
- Bonn, A.G., H. Moyer, and M.R. Notis. 1993. "The Typology and Archaeometallurgy of the Copper-base Artifacts." In *The Late Bronze Egyptian Garrison at Beth Shan: A Study of Levels VII and VIII*, 203–220. University Museum Monograph 85. Philadelphia, PA: University Museum, University of Pennsylvania.
- Cour-Marty, M.-A. 1990. "Les poids égyptiens, de précieux jalons archéologiques." *Cahiers de Recherches de l'Institut de Papyrologie et de l'Égyptologie de Lille* 12: 17–55.
- Emery, A.C. 1999. "Weapons of the Israelite Monarchy: A Catalogue with its Linguistic and Cross-Cultural Implications." . PhD thesis, Cambridge, MA: Harvard University.
- Faßbeck, G., S. Münger, and S. Röhl. 2003. "Gotteshaus und Hausgott: Ausgewählte Hinweise auf möglichen Hauskult im antiken Kinneret." In *Leben am See Gennesaret: Kulturgeschichtliche Entdeckungen in einer biblischen Region*, edited by, Gabriele Faßbeck, Sandra Fortner, Andrea Rottloff, and Jürgen Zangenberg, 47–51. Sonderbände der antiken Welt. Mainz a.R.: von Zabern.
- Fritz, V. 1990. *Kinneret. Ergebnisse der Ausgrabungen auf dem Tell el-'Orēme am See Gennesaret 1982–1985*. Abhandlungen des Deutschen Palästina-Vereins 15. Wiesbaden: Harrassowitz.
- Fritz, V., and S. Münger. 2002. "Vorbericht über die zweite Phase der Ausgrabungen in Kinneret (Tell el-'Orēme) am See Gennesaret, 1994–1999." *Zeitschrift des Deutschen Palästina-Vereins* 118: 2–32.
- Gottlieb, Y. 2004. "The Weaponry of the Assyrian Attack. Section A: The Arrowheads and Selected Aspects of the Siege Battle." In *The Renewed Archaeological Excavations at Lachish (1973–1994)*, 1907–1969. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 22. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- _____. 2016. "Beer-Sheba Under Attack: A Study of Arrowheads and the Story of the Destruction of the Iron Age Settlement." In *Beer-Sheba III: The Early Iron IIA Enclosed Settlement and the Late Iron IIA–Iron IIB Cities*, 1192–1228. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 33. Winona Lake, IN: Eisenbrauns.
- Harding, G.L., and B.S.J. Isserlin. 1953. "An Early Iron Age Tomb at Madeba." *Palestine Exploration Fund Annual* 6: 27–41.
- Herrmann, C. 1994. *Ägyptische Amulette aus Palästina/Israel mit einem Ausblick auf ihre Rezeption durch das Alte Testament*. Orbis Biblicus et Orientalis 138. Freiburg (CH)/Göttingen: Universitätsverlag/Vandenhoeck & Ruprecht.
- Ilan, D. 2019. "The Metal Objects." In *Dan IV: The Iron Age I Settlement. The Avraham Biran Excavations (1966–1999)*, 507–525. Annual of the Nelson Glueck School of Biblical Archaeology 12. Jerusalem: Hebrew Union College Press.
- James, F.W. 1966. *The Iron Age at Beth Shan: A Study of Levels VI–IV*. University Museum Monograph 28. Philadelphia, PA: University Museum, University of Pennsylvania.
- Keel, O. 1992. *Das Recht der Bilder gesehen zu werden: Drei Fallstudien zur Methode der Interpretation altorientalischer Bilder*. Orbis Biblicus et Orientalis 122. Freiburg (CH)/Göttingen: Universitätsverlag/Vandenhoeck & Ruprecht.
- Kletter, R. 1994. "Phoenician(?) Weights from Ḥorvat Rosh Zayit." *'Atiqot* 25: 33–43.
- _____. 1998. *Economic Keystones. The Weight System of the Kingdom of Judah*. Journal for the Study of the Old Testament. Supplement 276. Sheffield: Sheffield Academic Press.

- _____. 2020. “Iron Age Scale Weights.” In *Tel Rehov: A Bronze and Iron Age City in the Beth-Shean Valley, Vol. V: Various Objects and Natural-Science Studies*, edited by, Amihai Mazar and Nava Panitz-Cohen, 207–223. Qedem 63. Jerusalem: Hebrew University of Jerusalem.
- Kühne, H. 1980. “Die Bronzestatuetten aus dem ‘spätbronzezeitlichen’ Tempel.” In *Bericht über die Ergebnisse der Ausgrabungen in Kāmid el-Lōz in den Jahren 1968 bis 1970*, 63–81. Saarbrücker Beiträge zur Altertumskunde 22. Bonn: Habelt.
- Lamon, R.S., and G.M. Shipton. 1939. *Megiddo I: Seasons of 1925–34. Strata I–V*. Oriental Institute Publications 42. Chicago: University of Chicago Press.
- Loud, G. 1948. *Megiddo II: Seasons of 1935–39*. 2 vols. Oriental Institute Publications 62. Chicago: University of Chicago Press.
- Mazar, A. 1985. *Excavations at Tell Qasile. Part II. The Philistine Sanctuary: Various Finds, the Pottery, Conclusions, Appendixes*. Qedem 20. Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem.
- Mazar, A., and N. Panitz-Cohen. 2001. *Timnah (Tel Batash) II: The Finds from the First Millennium BCE*. 2 vols. Qedem 42. Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem.
- McCown, C.C. 1947. *Tell en-Nasbeh. Excavated under the Direction of the late William Frederic Badé. Vol. I: Archaeological and Historical Results*. Berkeley, CA/New Haven, CT: Palestine Institute of Pacific School of Religion/American Schools of Oriental Research.
- Münich, M.M. 2008. “The Cult of Bronze Serpents in Ancient Canaan and Israel.” In *Iggud: Selected Essays in Jewish Studies. Vol. I: The Bible and Its World, Rabbinic Literature and Jewish Law, and Jewish Thought*, edited by, Baruch Schwartz, Abraham Melamed, and Aharon Shemesh, 1:39–56. Jerusalem: World Union of Jewish Studies.
- Negbi, O. 1976. *Canaanite Gods in Metal: An Archaeological Study of Ancient Syro-Palestinian Figurines*. Publications of the Institute of Archaeology 5. Tel Aviv: Tel Aviv University, Institute of Archaeology.
- Nodet, E. 1980. “Objets en métal.” In *Tell Keisan (1971–1976), une cité phénicienne en Galilée*, edited by, Jacques Briand and Jean-Baptiste Humbert, 323–326. Orbis Biblicus et Orientalis. Series Archaeologica 1. Fribourg (CH)/Göttingen/Paris: Éditions universitaires/Vandenhoeck & Ruprecht/Gabalda.
- Notis, M.R., V.C. Pigott, P.E. McGovern, K.H. Liu, and C.P. Swann. 1986. “The Metallurgical Technology: The Archeometallurgy of the Iron IA Steel.” In *The Late Bronze and Early Iron Ages of Central Transjordan: The Baq‘ah Valley Project, 1977–1981*, 272–278. University Museum Monograph 65. Philadelphia, PA: University Museum, University of Pennsylvania.
- Ornan, T. 2011. “‘Let Ba‘al Be Enthroned’: The Date, Identification, and Function of a Bronze Statue from Hazor.” *Journal of Near Eastern Studies* 70: 253–280.
- _____. 2012a. “The Long Life of a Dead King: A Bronze Statue from Hazor in Its Ancient Near Eastern Context.” *Bulletin of the American Schools of Oriental Research* 366: 1–23.
- _____. 2012b. “The Role of Gold in Royal Representation: The Case of a Bronze Statue from Hazor.” In *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East 12 April–16 April 2010, SEP, the British Museum and UCL, London. Volume 2. Ancient & Modern Issues in Cultural Heritage. Colour & Light in Architecture. Art & Material Culture. Islamic Archaeology*, edited by, Roger Matthews and John Curtis, 445–458. Wiesbaden: Harrassowitz.
- Paz, Y. 2016. “Metal Objects.” In *Beer-Sheba III: The Early Iron IIA Enclosed Settlement and the Late Iron IIA–Iron IIB Cities*, 1156–1188. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 33. Winona Lake, IN: Eisenbrauns.
- Pedde, F. 2000. *Vorderasiatische Fibeln. Von der Levante bis Iran*. Abhandlungen der Deutschen Orient-Gesellschaft 24. Saarbrücken: Saarbrücker Druckerei und Verlag.
- _____. 2001. “Development and Expansion of Near Eastern Fibulae in the Iron Age.” In *Migration und Kulturtransfer. Der Wandel vorder- und zentralasiatischer Kulturen im Umbruch vom 2. zum 1. vordchristlichen Jahrtausend. Akten des Internationalen Kolloquiums, Berlin, 23. bis 26. November 1999*, edited by, Ricardo Eichmann and Hermann Parzinger, 485–496. Kolloquien zur Vor- und Frühgeschichte 6. Bonn: Habelt.
- Petrie, W.M.F. 1883. “On New Examples of Egyptian Weights and Measures.” *Archaeological Journal* 40: 419–427.
- _____. 1917. *Tools and Weapons: Illustrated by the Egyptian Collection in University College, London, and 2,000 Outlines from Other Sources*. British School of Archaeology in Egypt and Egyptian Research

- Account 22. London: British School of Archaeology in Egypt, University College/Constable & Co/Quaritch.
- . 1926. *Ancient Weights and Measures: Illustrated by the Egyptian Collection in University College, London*. British School of Archaeology in Egypt and Egyptian Research Account 39. London: Department of Egyptology, University College.
- Platt, E.E. 1991. "The Objects." In *Madaba Plains Project 2: The 1987 Season at Tell el- 'Umeiri and Vicinity and Subsequent Studies*, edited by, Larry G. Herr, Lawrence T. Geraty, Øystein S. LaBianca, and Randall W. Younker, 246–265. Berrien Springs, MI: Andrews University Press.
- Platt, E.E., and P.J. Ray Jr. 2009. "The Textile Tools from Tell Hesban and Vicinity." In *Hesban 12: Small Finds: Studies of the Bone, Iron, Glass, Figurines, and Stone Objects from Tell Hesban and Vicinity*, edited by, Paul J. Ray Jr., 163–196. Berrien Springs, MI: Andrews University Press.
- Sass, B. 2004. "Pre Bronze and Bronze Age Artefacts. Section A: Vessels, Tools Personal Objects, Figurative Art and Varia." In *The Renewed Archaeological Excavations at Lachish (1973–1994)*, 1405–1524. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 22. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- Sass, B., and G. Cinamon. 2006. "The Small Finds." In *Megiddo IV: The 1998–2002 Seasons*, edited by, Israel Finkelstein, David Ussishkin, and Baruch Halpern, 353–425. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 24. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- Sawicky, B.A. 2005. "Metal Objects." In *Dothan I: Remains from the Tell (1953–1964)*, edited by, Daniel M. Master, John M. Monson, Egon H.E. Lass, and George A. Pierce, 167–170. Winona Lake, IN: Eisenbrauns.
- Sedman, L. 2002. "The Small Finds." In *Busayra: Excavations by Crystal-M. Bennett 1971–1980*, edited by, Piotr Bienkowski, 353–428. British Academy Monographs in Archaeology 13. Oxford et al.: Oxford University Press.
- Seeden, H. 1982. "Peace Figurines from the Levant." In *Archéologie au Levant. Recueil à la mémoire de R. Saidah*, 107–121. Collection de la Maison de l'Orient méditerranéen 12. Série archéologique 9. Lyon: Maison de l'Orient et de la Méditerranée Jean Pouilloux.
- Sherratt, S. 1994. "Commerce, Iron and Ideology: Metallurgical Innovation in 12th–11th Century Cyprus." In *Cyprus in the 11th century B.C.: Proceedings of the International Symposium Organized by the Archaeological Research Unit of the University of Cyprus and The Anastasios G. Leventis Foundation, Nicosia 30–31 October, 1993*, edited by, Vassos Karageorghis, 59–106. Nicosia: A.G. Leventis Foundation/University of Cyprus.
- Valkama, K., and J. Pakkala. 2024. "Scale Weights: Seasons 1994–1999, 2001, 2003–2008." In *Kinneret II/1: The Bronze Age, Iron Age II, Post-Iron Age periods and Other Studies*, edited by, Wolfgang Zwickel and Juha Pakkala, 845–852. Ägypten und Altes Testament Band 120. Münster: Zaphon.
- Weitzel, J., O. Sergi, K. Covello-Paran, H. Bezzel, O. Yagel, Y. Harlavan, and E. Ben-Yosef. 2024. "Bronze Anklets from Ḥorvat Tevet (Jezreel Valley): New Light on Exchange and Identity Construction in the Iron I." *Palestine Exploration Quarterly*: 1–31.
- Yadin, Y. 1963. *The Art of Warfare in Biblical Lands in the Light of Archaeological Discovery*. London: Weidenfeld and Nicolson.
- Yadin, Y., Y. Aharoni, and R. Amiran. 1960. *Hazor II. An Account of the Second Season of Excavations, 1956*. Jerusalem: Magnes Press.
- . 1961. *Hazor III–IV. An Account of the Third and Fourth Seasons of Excavations, 1957–1958, Plates*. Jerusalem: Magnes Press.
- Yahalom-Mack, N. 2009a. "Typology of the Metal Objects." In *Excavations at Tel Beth-Shean, 1989–1996. Vol. III: The 13th–11th Century BCE Strata in Areas N and S*, edited by, Amihai Mazar and Nava Panitz-Cohen, 564–581. Jerusalem: Israel Exploration Society/Institute of Archaeology, Hebrew University of Jerusalem.
- . 2009b. "Bronze in the Beginning of the Iron Age in the Land of Israel: Production and Utilization in a Diverse Ethno-Political Setting." PhD thesis, Jerusalem: Hebrew University of Jerusalem.
- Yahalom-Mack, N., and S. Shalev. 2006. "Metallurgical Activity in Level K-5 and K-4." In *Megiddo IV: The 1998–2002 Seasons*, edited by, Israel Finkelstein, David Ussishkin, and Baruch Halpern, 542–549. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 24.

- Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- _____. 2009. "Metal Objects." In *Aphek–Antipatris II: The Remains on the Acropolis. The Moshe Kochavi and Pirhiya Beck Excavations*, 416–443. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 27. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- Zarzecki-Peleg, A. 2016. *Yadin's Expedition to Megiddo: Final Report of the Archaeological Excavations (1960, 1966, 1967 and 1971/2 Seasons)*. Qedem 56. Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem.
- Zuckerman, S. 2012. "The Temples of Canaanite Hazor." In *Temple Building and Temple Cult: Architecture and Cultic Paraphernalia of Temples in the Levant (2.–1. Mill. B.C.E.)*, edited by, Jens Kamlah, 99–125. *Abhandlungen des Deutschen Palästina-Vereins* 41. Wiesbaden: Harrassowitz.
- _____. 2013. "Area S: Renewed Excavations in the Lower City of Hazor." *Near Eastern Archaeology* 76: 94–97.

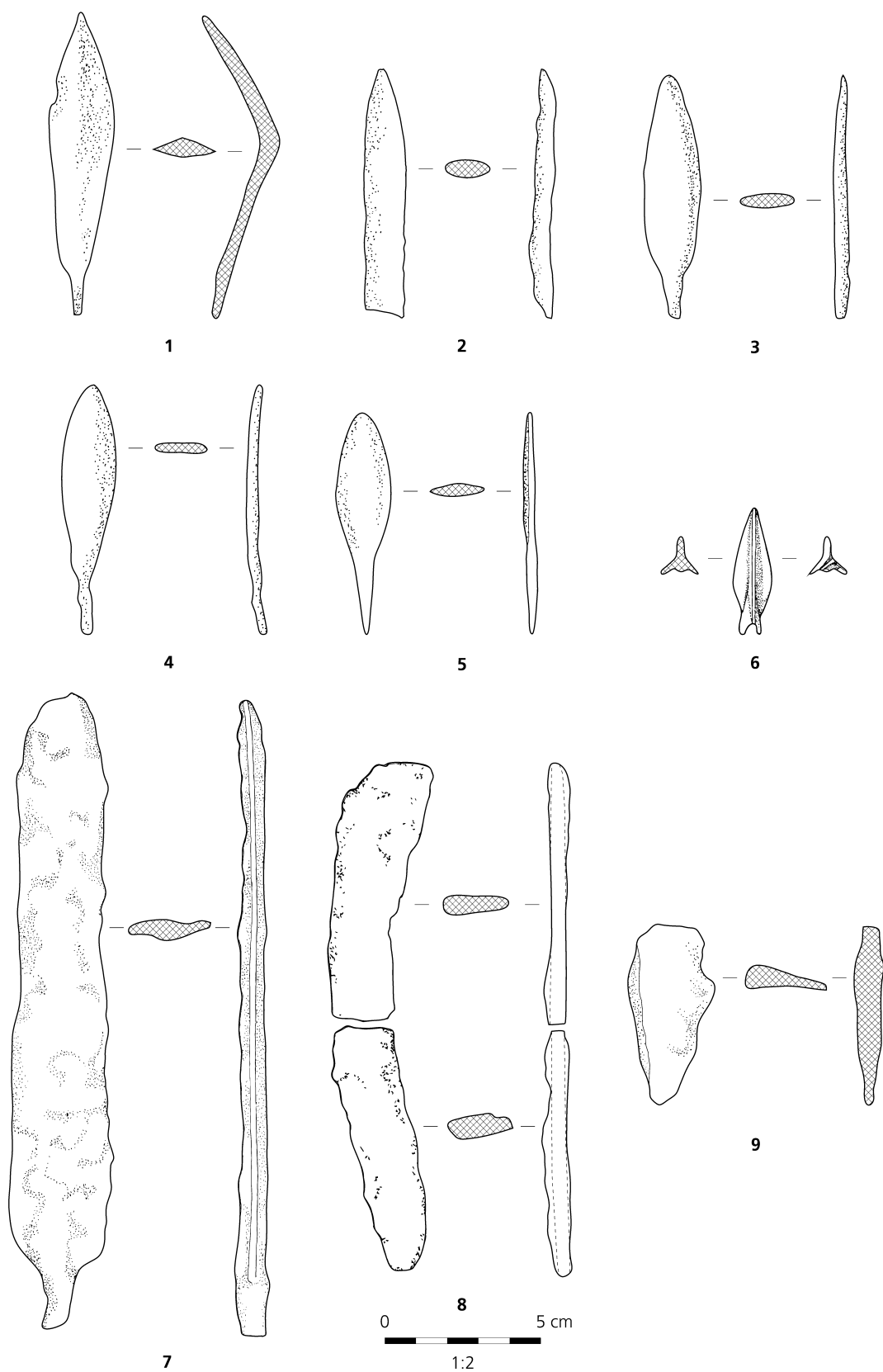


Figure 1.1: Javlin- and arrowheads, daggers

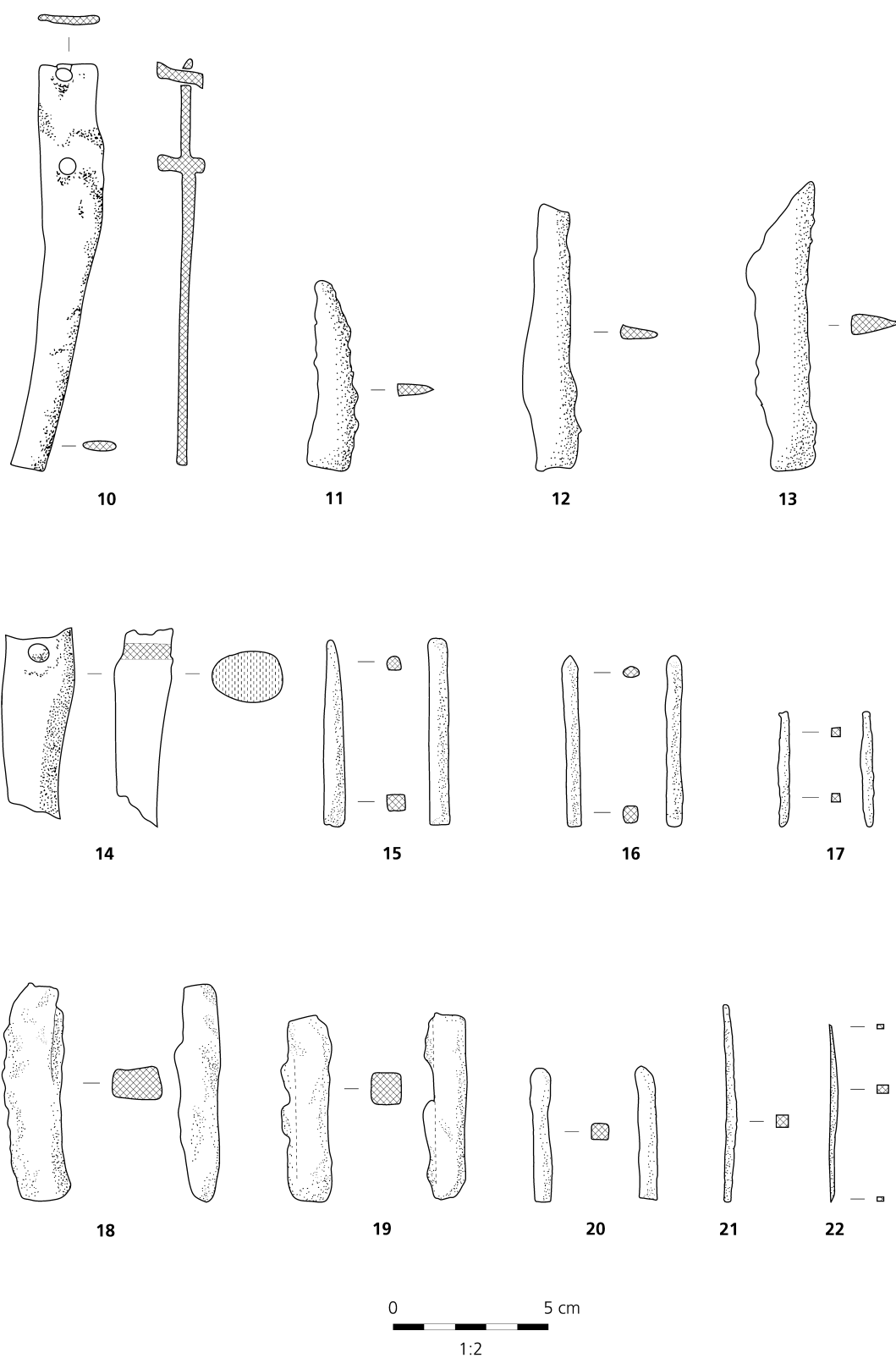


Figure 1.2: Knives, chisels, pins

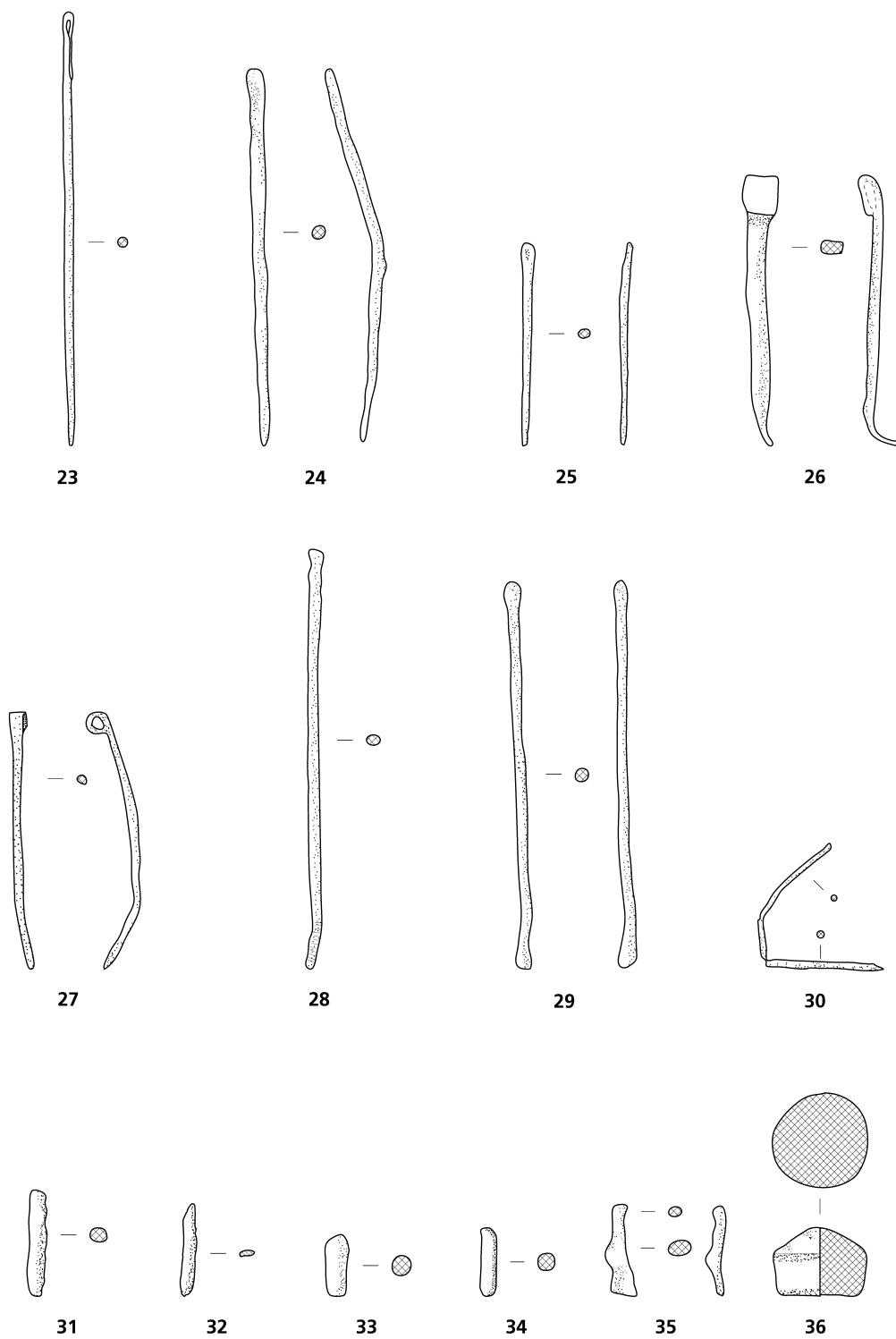
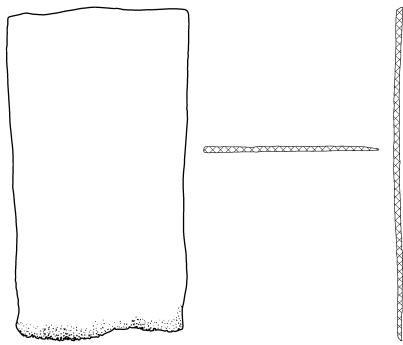
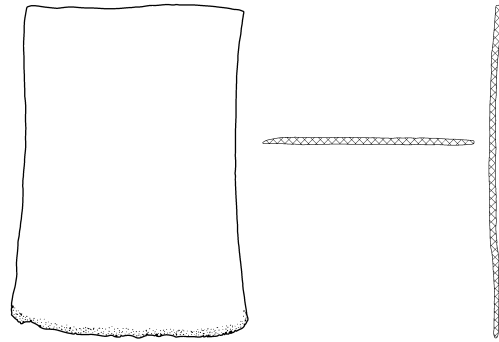


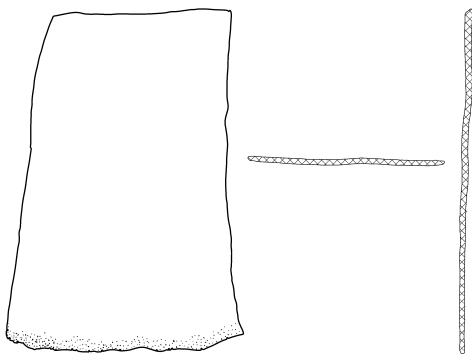
Figure 1.3: Needles, pins, scale weight



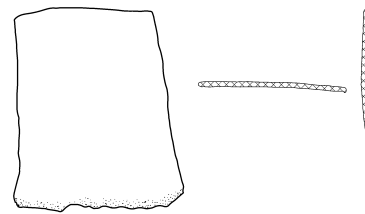
37



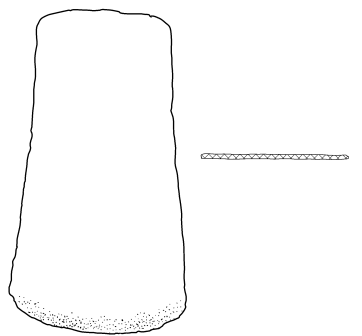
38



39



40



41

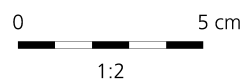


Figure 1.4: Sheets

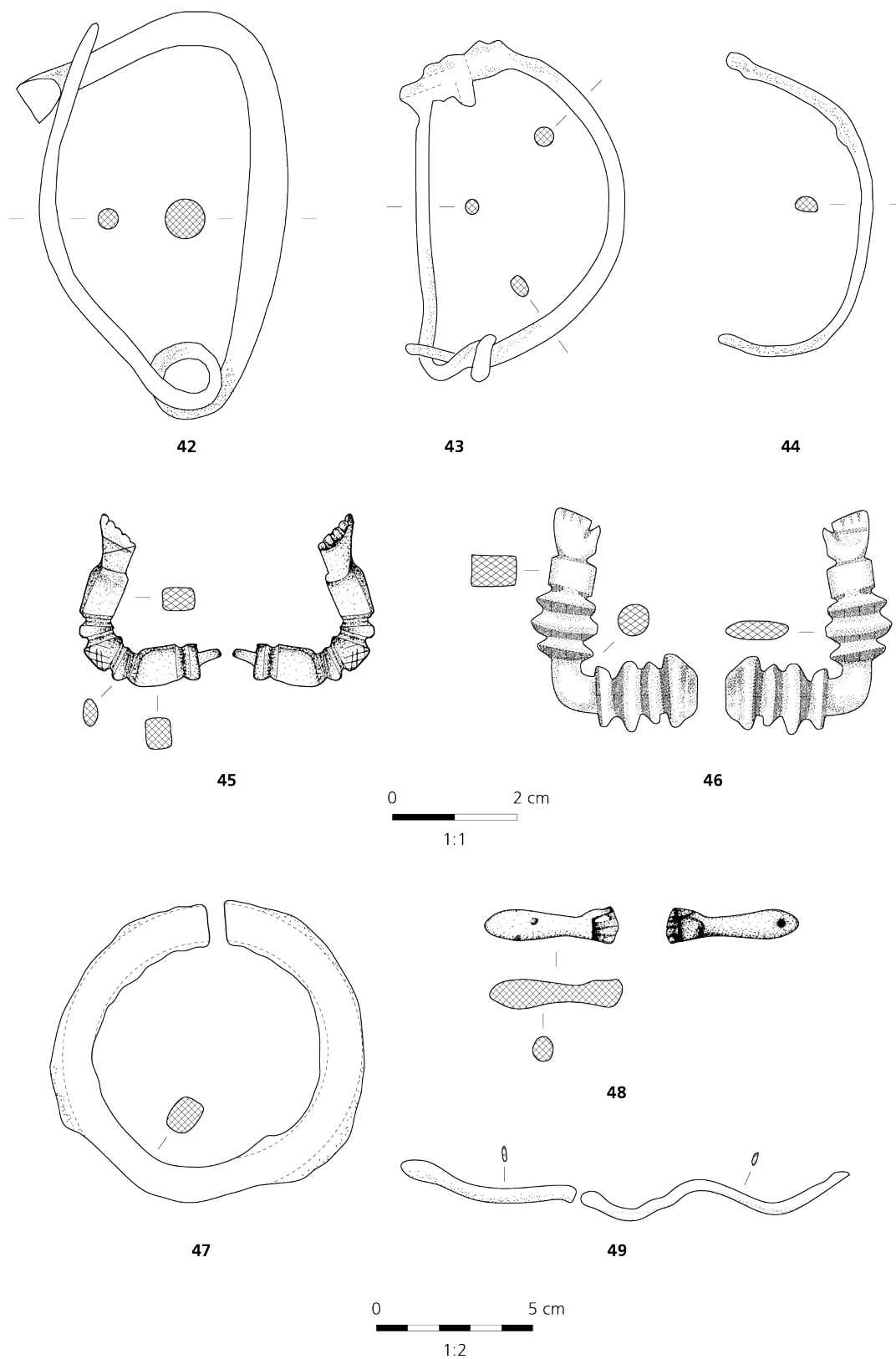


Figure 1.5: Fibulae, ring and figurative artifacts

Table 1.1: Stratigraphic distribution of metal finds.....	1
Table 1.2: Weapons	4
Table 1.3: Tools	8
Table 1.4: Scale weight.....	9
Table 1.5: Sheets.....	10
Table 1.6: Fibulae	12
Table 1.7: Ring	12
Table 1.8: Figurative artifacts.....	14
 Photo 1.1: Metal sheets.....	 10
 Figure 1.1: Javlin- and arrowheads, daggers	 19
Figure 1.2: Knives, chisels, pins.....	20
Figure 1.3: Needles, pins, scale weight	21
Figure 1.4: Sheets	22
Figure 1.5: Fibulae, ring and figurative artifacts	23