

BEER-SHEBA UNDER ATTACK: A STUDY OF ARROWHEADS AND THE STORY OF THE DESTRUCTION OF THE IRON AGE SETTLEMENT

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The ancient city of Beer-sheba experienced several destructions in its history. Unlike other Near Eastern sites, at Beer-sheba there is a complete absence of textual and pictorial documentation concerning the circumstances, possible causes and people responsible for the destruction of its strata. The destructions of ancient Beer-sheba are particularly subject to conjecture and comparisons to other sites; they are neither mentioned in the royal annals of the Assyrian warrior kings, nor in the Aramean inscriptions. As a result, the only way to shed light on events is through an in-depth study of the destruction remains, including a study of weapons used and, in particular, their spatial distribution.

While it is widely accepted that the vast destruction of Stratum II can be attributed to the 701 BCE Assyrian campaign of Sennacherib, the cause of other destructions at Tel Beer-sheba are a matter of debate. Herzog and Singer-Avitz (2004: 230) suggested that Stratum IV was terminated by an earthquake (but see Fantalkin and Finkelstein 2006: 22–23). Blakely and Hardin (2002) argued that Stratum III was destroyed by Tiglath-pileser III (but see Finkelstein and Na'aman 2004: 64–66). The fact that the city of Stratum III did not suffer from total destruction is claimed in Chapters 12 and 36. While arrowheads and other weapons are scarce in both Strata IV and III, it should be noted that their distribution pattern does not suggest any military event.²

Tel Beer-sheba is one of the few sites in the Land of Israel that provides a significant number of arrowheads in the Iron II, appearing in almost all strata of this period (Stratum VII, V–II). By comparing the arrowhead assemblages of the different strata, it is possible to examine the development of the local arsenal of missiles over the course of time as a reflection of the changing military reality.

Arrows are the only long-range missiles that were known in the Iron II.³ The distribution of arrowheads in the field, complemented by the study of mound topography and the character of destruction remains, provides independent archaeological evidence for ancient battles. It allows an assessment of tactics by which a city was captured and the course of an assault. The largest collection of arrowheads at Beer-sheba was in Stratum II (ca. 160 items); it provides an ideal case-study of the archaeology of ancient siege-battles.

The ensuing discussion of the Beer-sheba arrowhead corpus includes a comparative analysis of the Lachish III assemblage (Gottlieb 2004), which is the largest and most important Iron IIB arrowhead collection hitherto found in the Land of Israel. Accordingly, the typological terminology of the Lachish corpus is the one applied to the Tel Beer-sheba assemblage.

1 I wish to express my deepest gratitude to my colleague and friend Mario Martin for his invaluable help in preparing this chapter.

2 A destruction of Stratum V by Sheshonq I (Aharoni 1973a: 106) is no longer relevant (e.g., Na'aman 1998; Herzog and Singer-Avitz 2004; Fantalkin and Finkelstein 2006).

3 For a discussion of sling-stones, see Chapter 26.

The Beer-sheba assemblage consists of more than 200 arrowheads from Iron II strata. It is characterized by a great variety of types. The majority are made of iron; there are only a few copper-based specimens and a single bone projectile. In general terms, Figs. 24.1–24.4 illustrate the arrowheads typologically and then Figs. 24.5–24.13 by stratum and type. Several find clusters in Stratum II are arranged by specific context. Fragmented specimens were used exclusively for statistical and typological examination and are not presented in the figures.

THE CORPUS: TYPOLOGICAL AND FUNCTIONAL ANALYSIS

IRON ARROWHEADS

The iron arrowheads apparently make their first appearance in Stratum VIII, dated to the Iron I.⁴ One specimen (Fig. 24.5: 1), a plain lanceolate form with a rhomboid cross-section, was attributed to Stratum VIII (Brandfon 1984: Fig. 20: 17), but is reassigned to Stratum VII. A second specimen (Fig. 24.5: 2)—a distinct rhomboid form with pronounced shoulders—was originally attributed to Stratum VII, dated to the Early Iron IIA (*ibid.*: Fig. 25: 8); however, the item comes from a fill under the floor of a Stratum VII building, and thus could possibly have originated in Stratum VIII. Be that as it may, these two specimens are among the earliest iron arrowheads in the Land of Israel. Elsewhere, sporadic iron arrowheads come from Iron I sites, such as Kinneret Stratum VI (Muhly, Maddin and Stech 1990: 166, 168–169; Pl. 113: 2) and Ashdod Stratum XI (Dothan and Ben-Shlomo 2005: 165; Fig. 3.63: 14) and Early Iron IIA sites, such as Megiddo VB (Sass and Cinamon 2006: 398; Fig. 18.32: 685) and Tel Batash IV (Mazar and Paniz-Cohen 2001: 218). However, at Beer-sheba in particular and in the Levant in general iron arrowheads only became common in the Late Iron IIA (late 9th century BCE).

The various types of arrowheads appearing in the Beer-sheba assemblage throughout Strata VII–II are described in the following.⁵

TYPE I-1: LANCEOLATE ARROWHEADS (FIG. 24.1)

Figs. 24.5: 3, 7–10; 24.6: 1; 24.7: 1–7; 24.9: 1–3, 10, 11; 24.10: 1, 2, 7, 8, 13; 24.11: 1–4, 7; 24.12: 5, 12, 17, 18; 24.13: 1, 2

Plain projectile points of a narrow lanceolate form are the prevalent type in the Beer-sheba assemblages, and Lachish assemblages (Gottlieb 2004: 1916). Seventy-one examples of Type I-1 were found at Beer-sheba. This form appears in each of the strata excavated and seems not to have undergone any changes over the course of time.

Parallels: Gottlieb 2004: 1916, with references; Fig. 27.1: 1–19; Daviau 2002: 169–170; Fig. 2.128; Yahalom-Mack and Mazar 2006b: 13.11: 7; Thareani 2011: Pl. 6: 3; Ben-Tor 2012: 539, Fig. 10.7: 5.

TYPE I-1A: LINEAR-BLADED ARROWHEADS (FIG. 24.1)

Figs. 24.5: 4, 5; 24.7: 8–11; 24.9: 12; 24.10: 15; 24.12: 4, 6, 14

Arrowheads with a very thin, almost linear blade are relatively numerous (n=22) and were found in Strata V (n=2) and II (n=20) at Beer-sheba. At Lachish 40 specimens of this type were discovered.

Parallels: Gottlieb 2004: 1916, with references; Fig. 27.6: 11–14; Daviau 2002: 170–171; Fig. 2.130; Yahalom-Mack and Mazar 2006b: 501, Fig. 13.11: 7).

4 Chronology, terminology and strata correlation of the Iron I–IIA is based on Herzog and Singer-Avitz (2004; 2006).

5 Type definitions follow the typological framework established for Lachish, with minor adaptations (see Gottlieb 2004 for a more extended typological discussion). Note that, in contrast to Lachish, Types I-1, I-1A, I-1B and I-1C are here treated as four separate types.

TYPE I-1 LANCEOLATE

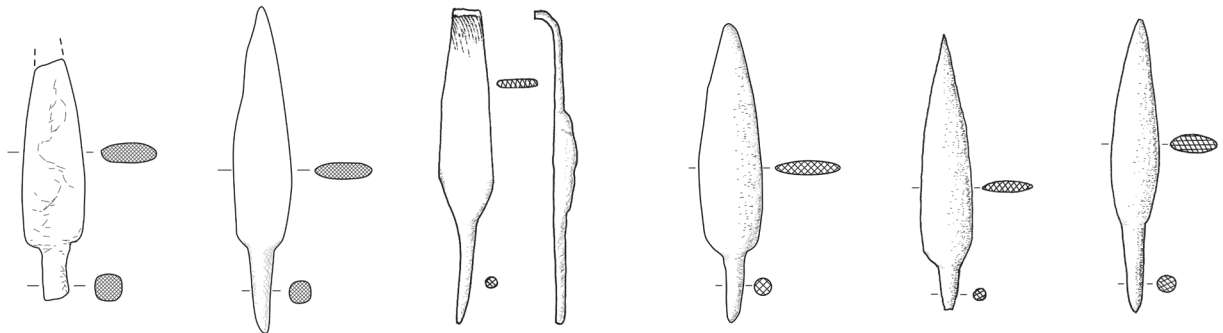


Fig. 24.5:11

Fig. 24.7:1

Fig. 24.9:2

Fig. 24.9:8

Fig. 24.9:10

Fig. 24.9:11

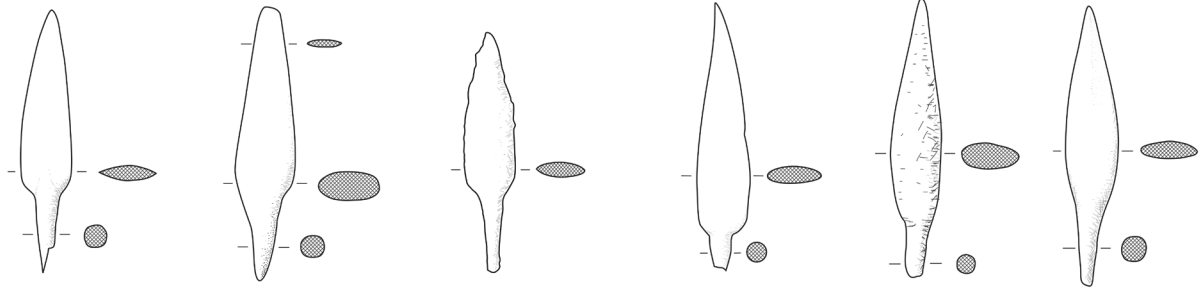


Fig. 24.10:1

Fig. 24.10:13

Fig. 24.10:8

Fig. 24.12:17

Fig. 24.11:3

Fig. 24.11:7

TYPE I-1A LINEAR

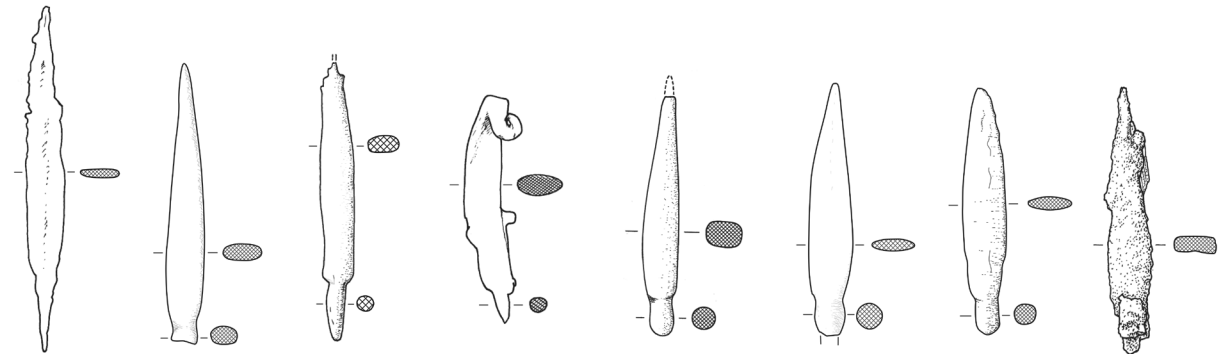


Fig. 24.5:4

Fig. 24.12:6

Fig. 24.9:12

Fig. 24.12:4

Fig. 24.10:15

Fig. 24.7:9

Fig. 24.11:8

Fig. 24.7:8



Fig. 24.1: Typology of iron arrowheads.

TYPE I-1B: MASSIVE LANCEOLATE ARROWHEADS (FIG. 24.2)

Figs. 24.5: 1; 24.6: 7; 24.7: 12; 24.10: 3; 24.12: 2

These are lanceolate arrowheads with a thick, heavy blade that weigh up to 28.5 g. This type is represented at Beer-sheba by six specimens. At Lachish 10 specimens were found.

Parallels: Gottlieb 2004: 1918, with references; Figs. 27.3: 2; 27.6: 1, 2, 7, 9.

TYPE I-1C: LAUREL LEAF-SHAPED ARROWHEADS (FIG. 24.2)

Figs. 24.6: 6; 24.7: 13–17; 24.10: 9, 11

The blades of these arrowheads are widest at the center and taper gently towards the tip and the base. The symmetrical blade was probably designed to enhance the arrowhead's durability, making it more resistant upon impact with a target. There are 10 specimens of this type in the Beer-sheba assemblage. At Lachish laurel leaf-shaped arrowheads are represented by 15 specimens.

Parallels: Gottlieb 2004: 1918, with references; Figs. 27.2: 9; 27.3: 4, 5; 27.5: 1, 2; Daviau 2002: 170; Fig. 2.129; Aja 2011: 507, Cat. Nos. 36, 29).

TYPE I-2: ELONGATED OVOID ARROWHEADS (FIG. 24.2)

Figs. 24.6: 4, 5; 24.7: 18–22; 24.8: 1, 3–6; 24.9: 4–7; 24.10: 4; 24.11: 11; 24.12: 7, 10, 15

Type I-2 includes plain, elongated ovoid arrowheads, characterized by a relatively broad blade. After Type I-1 it constitutes the most common type of projectile points in the Beer-sheba assemblage (32 exemplars). At Lachish this form is nearly as common as the lanceolates of Type I-1.

It should be mentioned that Types I-1 and I-2 are so frequent at sites in the Land of Israel and in other areas in the Near East that it is impossible to determine their origin. These basic forms of arrowheads probably developed independently in different regions.

Parallels: Gottlieb 2004: 1920, with references; Figs. 27.11; 27.13: 7–24; Daviau 2002: 172; Fig. 2.132; Curtis 2013: Pl. XI.

TYPE I-3: TRIANGULAR ARROWHEADS (FIG. 24.3)

Figs. 24.5: 2; 24.8: 7; 24.10: 5, 10; 24.11: 5

Arrowheads of this type are characterized by pronounced angular shoulders that join the tang either at an obtuse or at a right angle. They may be widest at the base of the blade (Figs. 24.5: 11; 24.10: 5), or have highly raised shoulders, which gives the blade a lozenge shape (Figs. 24.5: 2; 24.8: 7; 24.10: 10; 24.11: 5). At Beer-sheba this form is represented by nine specimens. It is one of the earliest types of iron arrowheads at the site, occurring as early as Stratum VII (or possibly even Stratum VIII; see above). At Lachish its first occurrence was recorded in fills of Level IV, which might belong either to Level IV or V. Arrowheads of the clear triangular form do not seem to be common in any of the Iron Age corpora.

Parallels: Gottlieb 2004: 1922, with references; Figs. 27.1: 13; 27.8: 13, 14, 18, 19; Daviau 2002: 171, 173; Figs. 2.131; 2.133; Thornton and Pigott 2011: 141, Fig. 6.2); Ben-Tor 2012: 539, Fig. 10.7: 1–324.5

TYPE II: ARROWHEADS WITH A THICKENING BETWEEN BLADE AND TANG (FIG. 24.3)

Figs. 24.6: 2; 24.8: 9–11; 24.9: 14; 24.10: 6, 12; 24.11: 10, 11, 13; 24.12: 8, 16, 19, 20; 24.13: 6–8

Arrowheads with a thickening between the blade and the tang represent the third-largest group in the assemblage. Twenty-five specimens were recorded. The thickening separating the blade from the tang was probably designed to fasten the arrowhead to the wooden shaft more securely and to prevent it from thrusting backwards into the shaft on impact, which would cause it to lose force and perhaps even

TYPE I-1B MASSIVE LANCEOLATE

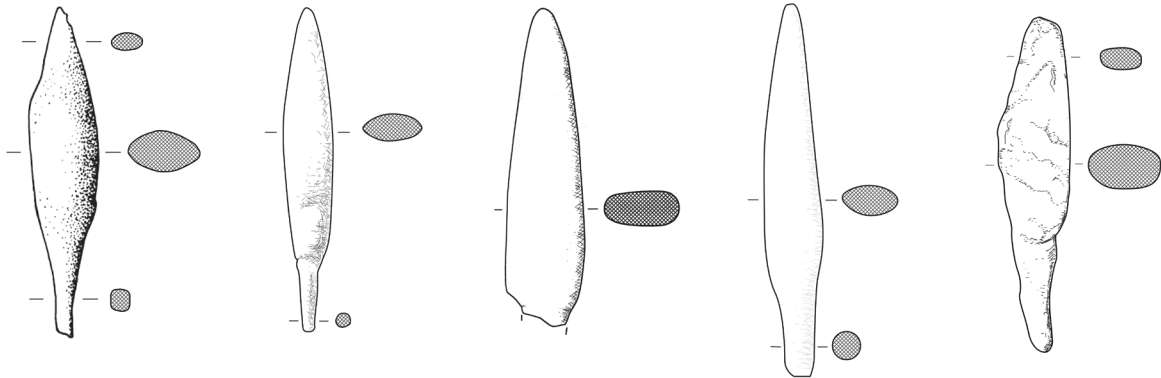


Fig. 24.5:1

Fig. 24.6:7

Fig. 24.7:12

Fig. 24.12:2

Fig. 24.11:15

TYPE I-1C LAUREL LEAF-SHAPED

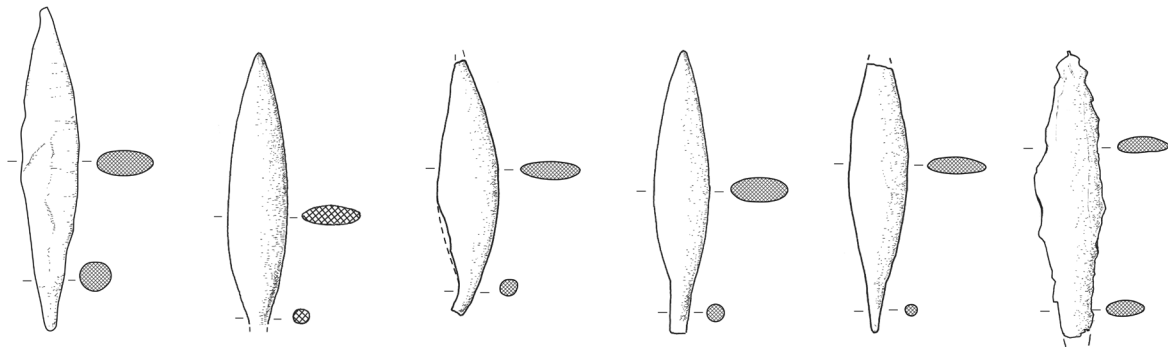


Fig. 24.10:14

Fig. 24.9:13

Fig. 24.7:13

Fig. 24.7:14

Fig. 24.7:15

Fig. 24.7:17

TYPE I-2 ELONGATED OVOID

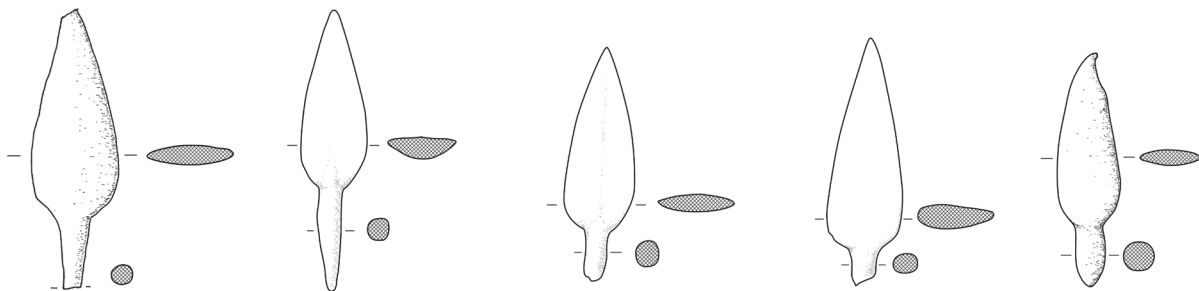


Fig. 24.7:18

Fig. 24.7:21

Fig. 24.8:1

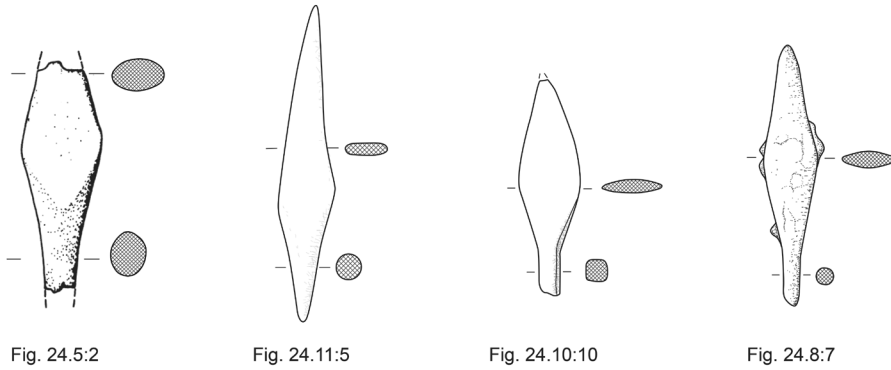
Fig. 24.8:2

Fig. 24.13:4

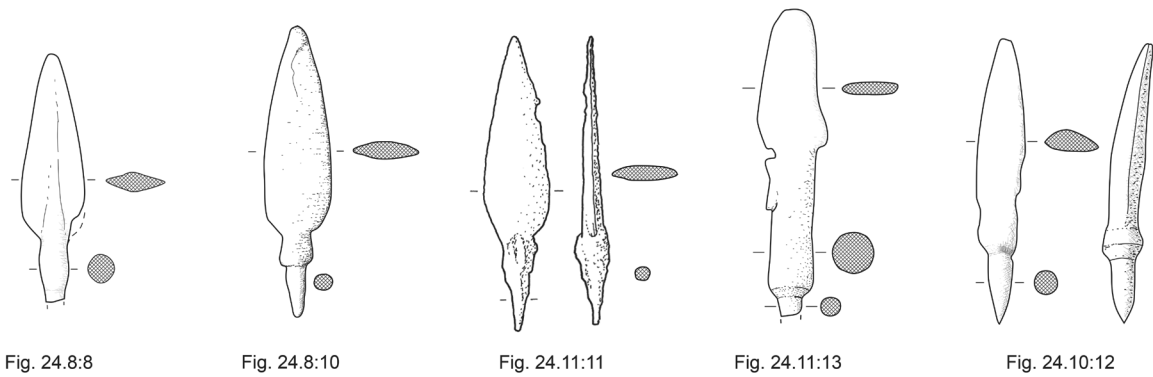


Fig. 24.2: Typology of iron arrowheads.

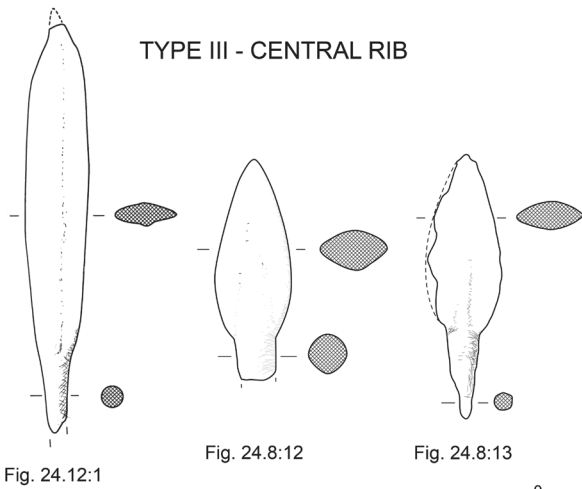
TYPE I-3 TRIANGULAR



TYPE II - THICKENING BETWEEN BLADE AND TANG



TYPE III - CENTRAL RIB



TYPE IV - ELONGATED PYRAMIDAL

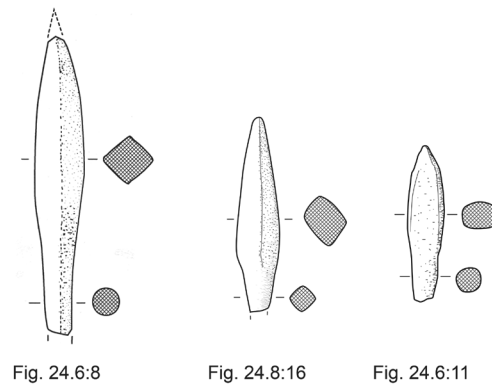


Fig. 24.3: Typology of iron arrowheads.

split the shaft. Arrowheads of this type are widely found at Neo-Assyrian, Urartian and Syrian sites, where they are mainly associated with Assyrian or Babylonian conquests (Gottlieb 2004: 1924, 1926; with references). In the Land of Israel, they are less common, with the majority of over 140 exemplars coming from Lachish.

At Beer-sheba, Type II first appears in Stratum III and becomes more frequent in Stratum II. Four sub-types have been discerned. Sub-type II-1 has a thickening, which in fact is an extension of the blade, forming a kind of step at the top of the tang (Figs. 24.10: 12; 24.11: 10; 24.9: 14). Sub-type II-2 is characterized by a pronounced thickening, round in cross-section, which constitutes an independent feature of the arrowhead (Figs. 24.8: 10; 24.12: 19). Both varieties are known at Assyrian sites such as Nimrud (Curtis 1979: Pls. XXII–XXIII; 2013: 40; Pl. XII), and in the Lachish assemblage (Gottlieb 2004: Fig. 27.3: 5, 8–10). In Sub-type II-3 the thickening on the upper part of the tang is vestigial and irregular (Figs. 24.10: 6; 24.8: 9; 24.13: 7). This sub-type is seemingly unique to Beer-sheba. Sub-type II-4, represented by a single specimen (Fig. 24.11: 13), stands out as a result of an extremely long, thickened element that even exceeds the blade in length. Similar arrowheads were very common in the 7th century BCE graveyards excavated at Luristan in modern-day Iran (Haerinck and Overlaet 1998: 17; Fig. 53).

Parallels: Gottlieb 2004: 1924–1928, with references; Figs. 27.1: 17, 18; 27.3: 4–11, 13; Yahalom-Mack and Mazar 2006b: 501; Fig. 13.11: 6, 8; Thornton and Pigott 2011: 142, Fig. 6.3; Ben-Tor 2012: 539, Fig. 10.7: 5, 6.

TYPE III: ARROWHEADS WITH A CENTRAL RIB (FIG. 24.3)

Figs. 24.12: 1, 11; 24.8: 12, 13

Only a single Beer-sheba arrowhead has a proper mid-rib (Fig. 24.12: 1). This specimen is also distinguished by a slender oblanceolate blade, which is atypical for iron arrowheads. Indeed, it does not appear in either the Lachish or the Assyrian arrowhead assemblages. However, oblanceolate blades with a mid-rib are characteristic of copper/bronze arrowheads from the Late Bronze and Iron Ages (Cross and Milik 1956: 18; Lamon and Shipton 1939: Pl. 81: 27, 28; Riis and Buhl 1990: 100; Fig. 50: 183).

Three additional arrowheads in the Beer-sheba corpus are characterized by a massive blade with a thickening in the center, resulting in a lozenge-shaped cross-section (Figs. 24.8: 12, 13; 24.12: 11). Since this thickening was designed for the same purpose as the mid-rib, namely the reinforcement of the blade, these specimens can be regarded as a variant of Type III, here classified as Sub-type III-1.

At Beer-sheba, Type III arrowheads (including Sub-type III-1) only appear in Stratum II (four specimens), which fits the evidence at Lachish, where this type was only recorded in the contemporaneous Stratum III (Gottlieb 2004: 1928–1931).

Parallels: Gottlieb 2004: 1928–1931, with references; Figs. 27.3: 11–14; 27.5: 7; 27.17: 10, 11; 27.19: 1; Yahalom-Mack and Mazar 2006b: 500; Fig. 13.11: 5; Thornton and Pigott 2011: 142, Fig. 6.3: HAS 72–N136a, HAS 74–427c; Ben-Tor 2012: 539, Fig. 10.7: 7, 8.

TYPE IV: ELONGATED PYRAMIDAL ARROWHEADS (FIG. 24.3)

Figs. 24.6: 8–11; 24.8: 13–15; 24.13: 10

Elongated pyramidal arrowheads with a square-sectioned blade form a small percentage of the Beer-sheba assemblage (eight specimens). A similar picture emerges from contemporaneous collections at other sites. This type of arrowhead originated in Anatolia, with the first iron specimen appearing in the Hittite empire period (Schmidt 1932: 56, Fig. 65; 269, Fig. 359). In the late Iron Age it was common

in the Phrygian levels at Boğazköy and Gordion (Boehmer 1972: 152–153, Pls. XLIX: 1513–1520; L: 1524–1531; LI: 1572; Thornton and Pigott 2011: 146). Arrowheads with rectangular cross-sections made of iron, copper/bronze and bone are known from the late 9th century BCE destruction level at Hasanlu in Iran (Thornton and Pigott 2011: 146; 145, Fig. 6.6, Type IIIB).

This type is quite frequent at the Syrian site of Hamath. The earliest example there came from the Iron I settlement of Level F2, the destruction of which was associated with the Aramean attack of Hadadezer (Sader 2000: 337). Later specimens were found in the Aramean citadel in the context of Sargon's destruction in 720 BCE (Fugmann 1958: Fig. 325: C; Riis and Buhl 1990: 102, Nos. 205–206, 208; 105, Nos. 228–229; Fig. 50).⁶

From the assemblage at Lachish it can be deduced that Type IV arrowheads, which were not encountered at sites in Assyria proper,⁷ have a northern origin. They were probably used by Aramean archers, who constituted one of the principal auxiliary troops in the Assyrian infantry (Postgate 2000: 100–101; Gottlieb 2004: 1934–1938). Significantly, at Lachish this type occurs exclusively in the context of the Assyrian destruction; not a single local Judahite example was found at the site. Specimens of this type were found in sectors that contained a large number of shots by the Assyrian attackers (*ibid.*: 1963).

Additional evidence for a non-local origin of Type IV arrowheads comes from the renewed excavations at Beth-shemesh, where an iron workshop was uncovered in Level 3 (Bunimovitz and Lederman 2003: 235–237; Veldhuijzen 2009), with activities dated from 905–810 BCE (*ibid.*: 129). This workshop yielded a large collection of iron objects, mainly arrowheads, yet not a single exemplar of the elongated pyramidal form was recorded (Veldhuijzen, personal communication). In light of the indisputably local Judahite production of the Beth-shemesh arrowheads, the absence of Type IV in the workshop indicates that at least until the late 9th century BCE this shape was not included in the arsenal of Judahite missiles.

At Beer-sheba Type IV first appears in Stratum III, which makes it the earliest occurrence in Judah, pre-dating Sennacherib's campaign in 701 BCE. While this may suggest that this shape was introduced into Judah during or some time after the Aramean invasions in the late 9th century BCE, the evidence in Stratum II does not indicate its subsequent adoption into the local missile arsenal. As in the case of Lachish III, in the Assyrian destruction of Stratum II at Beer-sheba, not a single specimen of Type IV was found in missile deposits, which represent the local stocks of ammunition.

Type IV arrowheads also appear at Beer-sheba in the Hellenistic and Roman periods. They are relatively common in Stratum H–2 of the Hellenistic period, where they constitute one-fifth of the total number of arrowheads.

Parallels: Gottlieb 2004: 1932–1939, with references; Figs. 27.4: 15–20; 29.6: 16, 17; 29.16: 3–7; Arad (Gottlieb, in preparation); Tawilan (Bennett and Bienkowski 1995: 82; Fig. 9.7: 3), dated broadly to the Iron Age–Persian periods; Tell el-Mazar, graves from the Persian period (Yassine 1984: Figs. 52: 77; 53: 91); Hasanlu, Period IVB (Thornton and Pigott 2011: 146; 145, Fig. 6.6, Type IIIB); Hazor, Iron Age fill (Ben-Tor 2012: 539, Fig. 10.7: 10).

⁶ Unfortunately, data on the Hamath arrowheads is extremely limited. Only a few of the 550 arrowheads found in Building V of the Aramean citadel were published in the excavation report, providing insufficient data on the range of types. Similarly, of the 360 arrowheads in Room E—a cache of weapons of Building V—not a single arrowhead was published; neither was a single type mentioned in the report. This makes a serious study of the arsenal of Aramean missiles impossible and prevents any comparative analysis.

⁷ Note, however, that Assyrian sites yielded spearheads with a comparable square-sectioned blade (Stronach 1958: Pl. XXXII: 10).

TYPE V: POKER-SHAPED ARROWHEAD (FIG. 24.4)

Fig. 24.8: 17

This type of arrowhead has a thick blade that is circular or almost circular in cross-section. It appears in two variants, one with a blade that passes gently to the tang and one with a step-like thickening on the upper part of the tang (Gottlieb 2004: 1940). Only the first variant is represented in the Beer-sheba assemblage. As with Type IV, the poker-shaped projectile point probably originated in Anatolia, where it appears from as early as the early second millennium BCE to the Hellenistic period (*ibid.*: 1940–1942). Poker-shaped arrowheads are scanty both in Assyria and in the Land of Israel, with the largest collections originating from Fort Shalmaneser at Nimrud (seven exemplars; Curtis 1979: Pl. XXIII, Type 5; 2013: 40; Pl. XIII: 199–200, 211–212) and Lachish (12 exemplars; Gottlieb 2004: 1940–1942). At Tel Beer-sheba this type is represented by only one specimen from Stratum II.

Parallels: Gottlieb 2004: 1940–1942; Figs. 27.1: 17; 27.4: 12–14; Arad (unpublished); Hasanlu, Iran (Thornton and Pigott 2011: 146; 145, Fig. 6.6, Type IIIA).

TYPE VI: SPINDLE-SHAPED ARROWHEADS (FIG. 24.4)

Fig. 24.8: 18–21

Type VI defines arrowheads with a stretched blade tip, sometimes as long as the tang. Their outline generally resembles a spindle. Type VI projectile points start to appear in the Iron I, mostly in copper-based alloys (Macalister 1912: 372, Pl. 215; Cross and Milik 1956: 23; Loud 1948: Pl. 176: 61, 65; Sass and Cinamon 2006: 399, Fig. 18.32: 684). Spindle-shaped arrowheads produced from iron are generally rare. A collection of ten specimens comes from Lachish. An individual example was found at Samaria (Crowfoot *et al.* 1957: Fig. 111: 14). At other sites, Type VI arrowheads continued to be manufactured from copper/bronze even in the advanced phases of the Iron Age (Lamon and Shipton 1939: Pls. 80: 22; 81: 4; McCown 1947: 263, Fig. 71: 8; Pl. 104: 15, 16; Albright 1943: Pl. 61: 21).

At Beer-sheba this type appears for the first time in Stratum II (five specimens). At Lachish it already appears in Level IVA, about a century earlier. There are no parallels to Type VI in the vast corpus of arrowheads from Assyria proper, nor does it appear at sites associated with the Assyrian conquests and domination. To date, the majority of these arrowheads have been found at Judahite sites, which might indicate their place of origin.

Parallels: Gottlieb 2004: 1942–1944, with references; Figs. 27.1: 16; 27.7: 12, 13, 15, 16, 18.

TYPE V - POKER-SHAPED

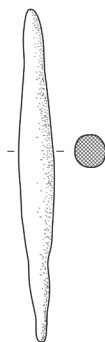


Fig. 24.8:17

TYPE VI - SPINDLE-SHAPED

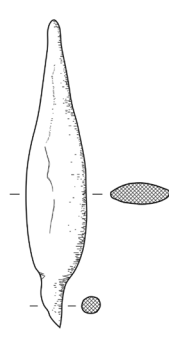


Fig. 24.8:18

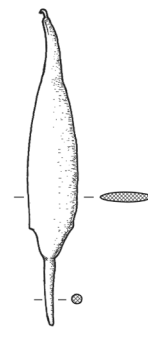


Fig. 24.8:19

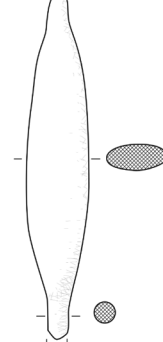


Fig. 24.8:21

MISCELLANEOUS

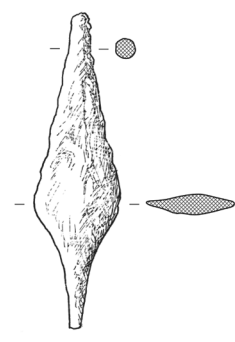


Fig. 24.6:12



Fig. 24.4: Typology of iron arrowheads.

MISCELLANEOUS (FIG. 24.4)

One iron arrowhead (Fig. 24.6: 12) was not classified into any of the above type groups. It is distinguished by a very wide blade with a long, stretched tip.

BRONZE ARROWHEADS

Two arrowheads in the missile assemblage at Beer-sheba appear to have been produced from bronze. They originate from dwellings of Strata IV and II respectively.

The Stratum IV specimen (Fig. 24.5: 6) has a slender blade that gently tapers toward a slightly thickened tang. This is a common form of arrowhead in the Land of Israel that occurs throughout the Bronze and Iron Ages (Petrie 1934: Pl. XVII: 149; Lamon and Shipton 1939: Pl. 81: 17; Yahalom-Mack and Mazar 2006a: 163, Fig. 6.3: 2; Yahalom-Mack 2009b: 425; Fig. 13.1: 4).

The Stratum II example (Fig. 24.11: 6) was found in association with an iron arrowhead. It is a small specimen with a rectangular cross-section, and a tang that equals the blade in length. This is a rare form that is reminiscent of copper/bronze bullet-arrowheads used mainly for fowling or knocking down small animals. Comparanda come from sites such as Lachish (Tufnell 1953: Pl. 60: 78), Tell el-'Ajjul (Petrie 1934: Pl. XVII: 161–168); Megiddo (Lamon and Shipton 1939: Pl. 80: 46; Sass 2000: Fig. 28.16: 5); Beth-Shean (Yahalom-Mack 2009a: 568–569; Fig. 10.3).

METALLURGICAL EXAMINATION OF BRONZE ARROWHEADS

The two arrowheads discussed above were examined by Atomic Absorption Spectroscopy by A. Lupu (Appendix 23.1, Table 23.1.1:25-26). The analysis reveals that they were made of a low percent tin-bronze, which is harder than unalloyed copper. The Stratum II specimens are leaded tin-bronze (Appendix 23.1, Table 23.1.1: 26).

Metallographic examinations of late Iron Age copper-based objects from the Land of Israel are extremely scarce. Data obtained from two copper-based arrowheads at Lachish demonstrate that one of them was made from unalloyed copper, with the presence of tin and arsenic as the only impurities, while the other was characterized by a relatively high content of tin, indicating that it was made from deliberately alloyed tin-bronze (Gottlieb 2004: 1963–1964).

In sum, each of the four examined specimens from Beer-sheba and Lachish revealed a different quality of manufacture. This small sample may indicate that the production of late Iron Age copper-based arrowheads was a random affair, resulting in higher-quality products to middling ones. Even if not produced of tin-bronze, copper-based arrowheads seemingly proved satisfactory for their intended function. Similarly, iron arrowheads apparently were also effective enough without the labor-consuming process of steeling (see below).

BONE ARROWHEAD (FIG. 24.12: 9)

A single bone arrowhead has thus far been discovered at Tel Beer-sheba. It was found together with a few iron arrowheads in the Basement Building within the debris of its collapsed superstructure (Locus 1822). In comparison to other bone arrowheads, this specimen is extraordinary both in terms of shape and quality of manufacture. In all likelihood it represents an attempt to imitate metal projectile points. It is of a well-defined lanceolate form, with sharp shoulders joining the tang at right angles, with a double-sided mid-rib creating a lozenge-shaped cross-section, and a step-like thickening between blade and tang. The arrowhead is executed with exceptional care and accuracy.

Several examples of bone arrowheads imitating metal shapes are known from Gezer (Macalister 1912: 374; Pl. CCXV: 69–72); most of them, however, were retrieved from the Hellenistic stratum and none of them provides an exact parallel to the Beer-sheba specimen. Seventeen bone arrowheads contemporaneous to the Tel Beer-sheba example were found at Lachish. These, however, are not comparable to the Beer-sheba arrowhead either in terms of typology or the character and quality of execution. Most of them are much simpler in appearance, of a plain ovoid or oblong shape, quite customary for bone arrowheads (Tufnell 1953: Pl. 63: 16–20; Gottlieb 2004: Fig. 27.1: 8–12; see also Mazar and Panitz-Cohen 2001: 265; Pl. 51: 13 and Bechar 2012: 504, Fig. 8.4: 1 for the closest parallel).

It seems evident that bone arrowheads, occurring in the age of advanced metal weaponry, were items of a comparatively primitive nature, possibly produced mainly for hunting. However, even if such projectiles were originally designed for hunting, they could well have been employed in battles as well—against opponents who were not protected by body armor—such as at Lachish (Gottlieb 2004: 1908; see also Thornton and Pigott 2011: 172). Moreover, an Iron IIA bone workshop recently discovered at Tell eṣ-Şāfi might have produced bone arrowheads in preparation for the siege of the city by Hazael (Lev-Tov 2012: 600–601).

DISCUSSION

QUANTITATIVE DISTRIBUTION AND COMPARATIVE ANALYSIS

The measurements in figure captions are given in centimeters and grams. The following abbreviations are used: NI—fragment/broken, not illustrated; D—destruction debris (brick debris, fallen stones, wooden beams); F—conflagration debris.

STRATA IX–VI (FIG. 24.5: 1, 2)

The early strata at Beer-sheba yielded only two arrowheads (iron) of Types I–1B and I–3. Both originated in Strata VIII–VII (see above).

STRATUM V (FIG. 24.5: 3–5)

Stratum V is represented by six arrowheads (iron) of Types I–1 (n=4) and I–1A (n=2).

STRATUM IV (FIG. 24.5: 6–11)

Yielded ten iron arrowheads and one copper-based specimen. The iron specimens include Types I–1 (n=8), I–2 (n=1) and I–3 (n=1).

STRATUM III (FIG. 24.6)

Produced 19 arrowheads, represented by Types I–1 (n=9), I–1B (n=1), I–2 (n=3), II–3 (n=2) and IV (n=3), as well as an unclassified specimen.⁸

STRATUM II (FIGS. 24.7–24.13)

In Stratum II 158 arrowheads of different types were found, forming a large and sufficiently variegated sample to warrant a type distribution analysis (Fig. 24.14) and a comparison with the vast contemporaneous arrowhead assemblage at Lachish III (Gottlieb 2004). With a share of almost 32%, the lanceolate arrowheads of Type I–1 are the predominant projectile in the Beer-sheba II assemblage,

⁸ Three additional arrowheads from street contexts affiliated with Stratum III were excluded, since they are presumably intrusive from Stratum II.

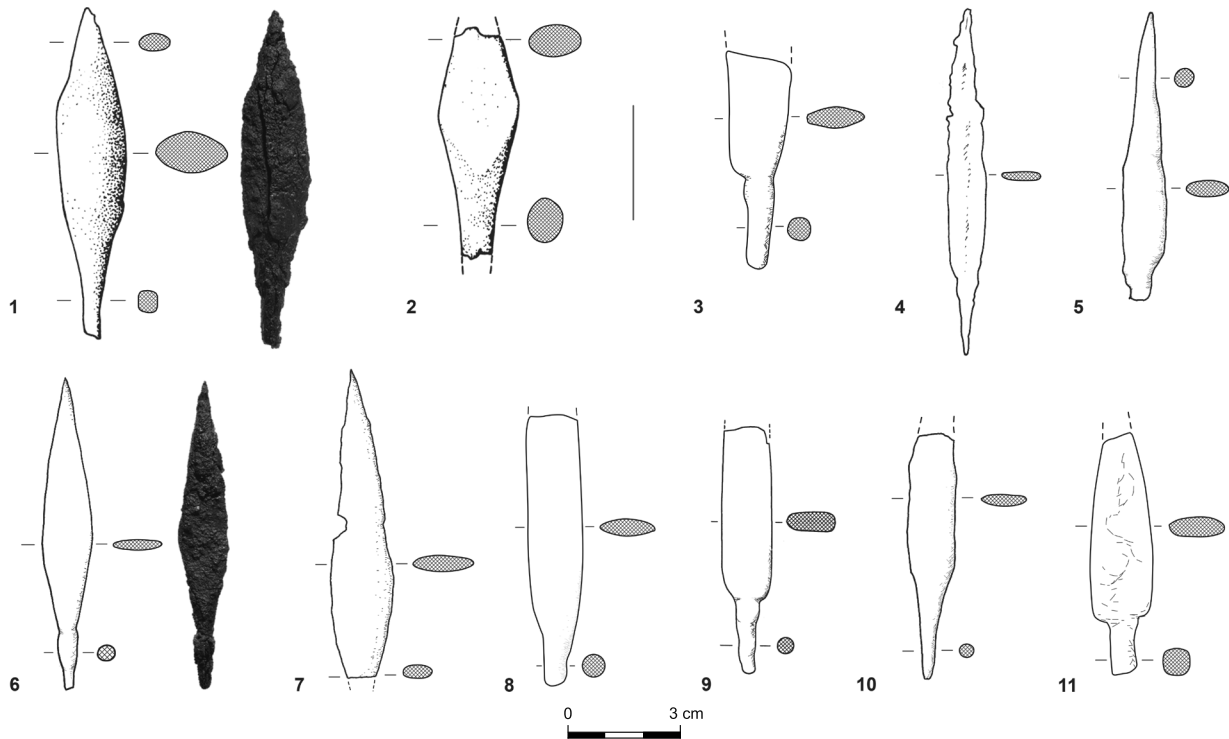


FIGURE 24.5: ARROWHEADS FROM STRATA VII (1-2); V (3-5); IV (6-11)

No.	Reg. No.	Type	Locus	Locus Type	Level	Floor Level	Length	Width	Weight	Stratum	Notes
1	17328/60	I-1B	1698	Room	6.1		8.08	1.08	21.85	VII	
2	15145/60	I-3	1902	Fill	6.92		6	2	-	VII	
3	16727/60	I-1	1739	Street	5.2	5.2	5.09	1.08	10.9	V	
4	17889/60	I-1A	2159	Room	5.85	5.9 D*	9.01	1	5.7	V	
5	15602/60	I-1A	1768	Room	4.3	4.4	7.06	1.01	6.75	V	
NI	15380/60	I-1	1731	Room	5	5				V	
NI	11180/60	I-1	1215	Room	3.3	-				V	
NI	12340/60	I-1	1464	Room	4.62	4.62				V	
6	15537/60	Bronze	1752	Room	3.83	4.0 D	8.02	1.03	7.95	IV	Chemical analysis Table 23.1.1:25
7	15529/60	I-1	1752	Room	3.72	4.0 D	8.02	1.06	9	IV	
8	16961/60	I-1	1470	Room	4.25	4.25 D	7.02	1.05	10.35	IV	
9	12345/60	I-1	1471	Room	3.42	4.05F*	6.08	1.04	8.2	IV	
10	15584/60	I-1	1763	Room	4.1	4.1	6.04	1.02	5.15	IV	
11	9848/60	I-3	1069	Room	3.95	4.2 DF	6.04	1.06	-	IV	
NI	9878/60	I-1	1069	Room	4.2	4.2 DF	6.04	1.06	-	IV	
NI	19652/60	I-1	2728	Room	4.4	5.1 D				IV	
NI	19656/60	I-1	2728	Room	4.5	5.1 D				IV	
NI	9885/60	I-1	1470	Room	3.9	4.0 D				IV	
NI	8556/60	I-2	10620	Room	4	4.3 D	7.02	1.08	10.2	IV	

* Very thick destruction/burnt debris layer.

which is roughly equal to their ratio in the Lachish III assemblage. Elongated ovoid specimens of Type I–2 constitute 16% at Beer-sheba II; in contrast, at Lachish III they are almost twice as frequent. Type II arrowheads constitute 14% at Beer-sheba II, which is identical to their percentage at Lachish III, and Type I–1A arrowheads are 12.6%, making them considerably less frequent at Lachish III (<5%). Other types are represented by no more than 5 percent each: Type I–1C: 5%, Type I–3: 4.4%, Type I–1B: 2.5%, Type IV: 2.5%, Type V: 0.6%; almost identical percentages for these types were observed at Lachish III. To these one can add one copper-based and one bone arrowhead.

Several types that are found in the Lachish corpus do not occur at all at Beer-sheba. These include broad-bladed arrowheads with a prominent mid-rib and a thickening between blade and tang (e.g., Gottlieb 2004: Fig. 27.3: 13), pike-shaped arrowheads (*ibid.*: Fig. 27.16: 1, 2), spatulate arrowheads (*ibid.*: Fig. 27.17: 6) and a variety of Type V with a thickening between blade and tang (*ibid.*: Fig. 27.1: 17). Conversely, the Beer-sheba corpus yields specimens that lack parallels at Lachish. these include the arrowheads of Sub-types II–4 (Fig. 24.11: 13) and III–1 (Fig. 24.8: 12, 13), the slender oblanceolate variant of Type III (Fig. 24.12: 1) and the square-sectioned copper/

FIGURE 24.6: ARROWHEADS FROM STRATUM III

No.	Reg. No.	Type	Locus	Locus Type	Level	Floor Level	Length	Width	Weight	Notes
1	20952/60	I-1	3608	Hall	4.21	5.2 D	6.08	1.05	8.00	+ seven sling-stones
2	20961/60	II-2	3608	Hall	4.36	5.2 D	10.02	1.06	-	
3	7691/61	I-1	10808	Room	3.2	3.25 F	5.07	1.04	9	
4	7702/60	I-2	10808	Room	3.25	3.25 F	6.03	1.06	7.1	
5	9680/60	I-2	2378	Room	2.8	3.65	9	1.06	6.55	
6	21176/60	I-1C	3609	Street	4.01	5	7	1.06	7.8	
7	6566/60	I-1B	879	Room	3.75	4.2	8.05	1.04	-	
8	7721/60	IV	824	Room	3.25	3.25 F	8	1.02	20.45	
9	11108/60	IV	1209	Room	3.95	3.95	6	1.02	14.1	
10	15338/60	IV	858	Fill	3.75	3.95 D*		1.01	7.65	
11	17955/60	IV	39	Street	3.95	4.3	4.02	0.9	4.35	
12	12390/60	unclassified	1237	Room	3.42		8.03	2.02	12	
NI	7702/61	I-1	10808	Room	3.25	3.25 F	6.03	1.03	7.05	
NI	7705/60	I-2	10808	Room	3.25	3.25 DF	6.07	2		
NI	17961/60	I-1	39	Street	4.05	4.3	-	1.09	-	
NI	19649/60	I-1	2713	Room	4	4.2				
NI	19643/60	I-1	2719	Room	4.25	4.5				
NI	10458/60	I-1	1209	Room	3.45	3.95				
NI	7441/60	I-1	795	Room	3.6	3.8				
NI	21087/60	I-1	3650	Room	3.97	4.22 F				
NI	9659/60	I-1	2377	Room	3	3				
NI	5073/60	II	2512	Room	4.1	4.28	7	1.03		

* Very thick destruction/burnt debris layer.

bronze point (Fig. 24.11: 6). The bone arrowhead from Beer-sheba is also typologically distinct from its counterparts at Lachish.

It bears mentioning that while narrow-bladed arrowheads are prevalent both at Beer-sheba II and at Lachish III, at Lachish III broad-bladed examples (Type I-2) are considerably more frequent than at Beer-sheba II. A certain diversity existed at each site, both in terms of arrowhead types and their quantitative distribution; no standard missile arsenal common to the two Judahite sites existed. This pertains to both the arsenals of the defending Judahites and the attacking Assyrians (see below). Moreover, it should be emphasized that alongside the abundant iron specimens, late Iron Age arrowheads at both sites were occasionally still produced from copper-based alloys and bone.

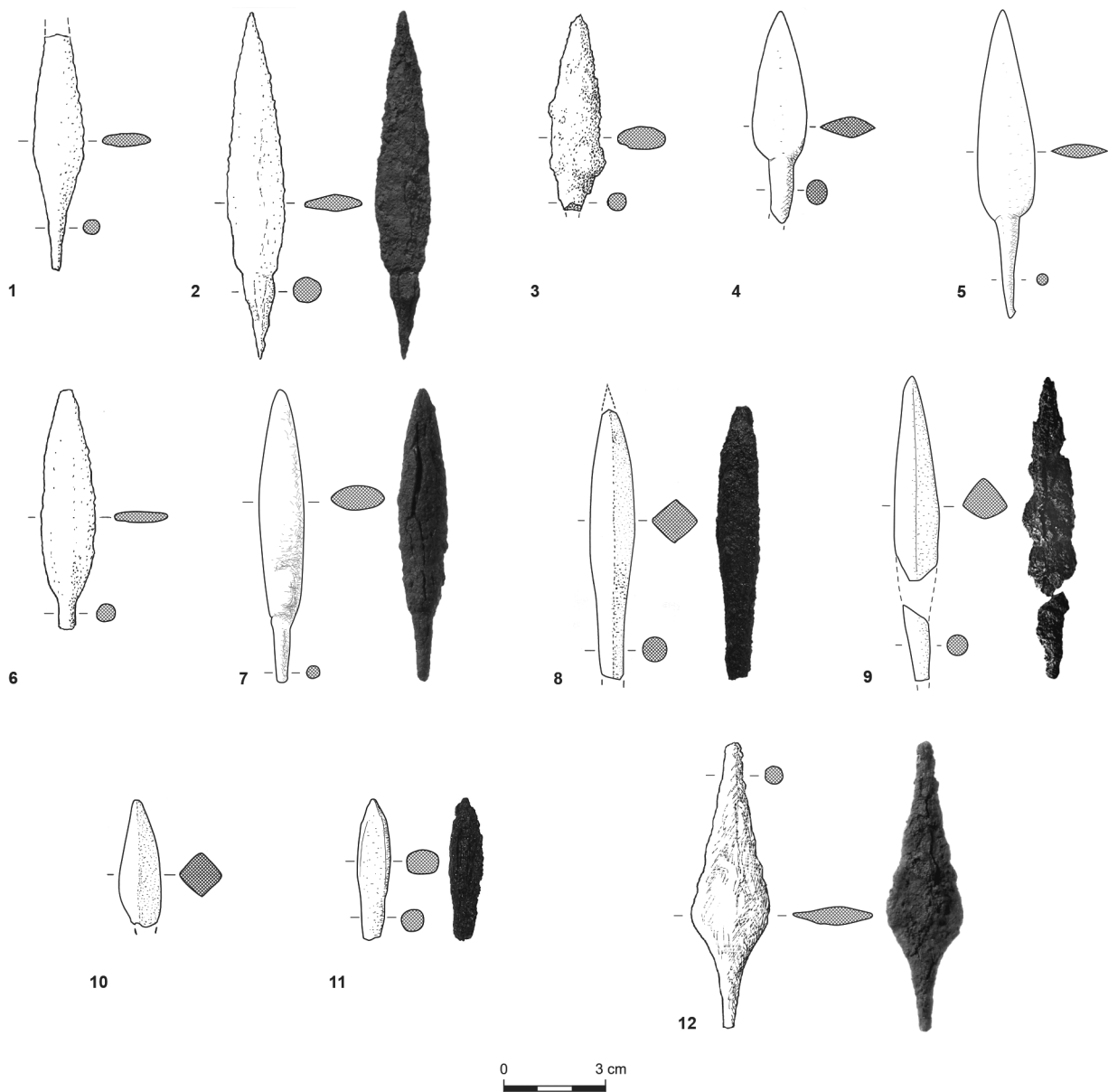


Fig. 24.6: Arrowheads from Stratum III.

THE DIACHRONIC EVOLUTION OF THE BEER-SHEBA ARROWHEAD ASSEMBLAGE

Late Iron IIA Strata V–IV at Beer-sheba exclusively yielded the simpler plain, narrow-bladed arrowheads. Iron IIB Stratum III witnessed the first appearance of the more elaborate Types II and IV. In Iron IIB Stratum II (late 8th century) advanced Types III and V occur for the first time. The development from simpler types in the earlier strata (V–IV) to more diverse and complex forms appearing alongside simpler ones in the later strata (III–II) provides clear evidence of the intensification of the military situation in the region in the 8th century BCE.

FUNCTIONAL ANALYSIS OF THE ARROWHEAD ASSEMBLAGE

The effectiveness of arrowheads expresses itself in terms of flight range and impact power—factors determined by design of the blade and the weight. The variety of types both in the Beer-sheba and the Lachish corpora reflects functional differences, indicating a wide range of tactical purposes. In general terms, both collections may be classified into two main categories: narrow bladed and broad bladed. Arrowheads of the first category may be regarded as the more effective battle projectiles.

FIGURE 24.7: ARROWHEADS FROM STRATUM II

<i>No.</i>	<i>Reg. No.</i>	<i>Type</i>	<i>Locus</i>	<i>Locus Type</i>	<i>Level</i>	<i>Floor Level</i>	<i>Length</i>	<i>Width</i>	<i>Weight</i>	<i>Notes</i>
1	12018/60	I-1	1443	Room	3	3.0 DF	8.07	1.04	8.4	
2	15841/61	I-1	1384	Room	2.6	2.75 F	7.03	1.05	-	
3	11838/60	I-1	300	Hall	4.4	4.95 D	6.09	1.09	7.45	
4	3988/60	I-1	93	Room	3.25	3.25	5.09	1.06	7.5	
5	10392/60	I-1	1114	Room.	2.75	3.3	5.06	1.06	7.2	
6	13664/60	I-1	1504	Room	3.65**	3.5	7	1.04	7.65	
7	18689/60	I-1	2406	Room	3.98**	3.95	7.02	1.04	7.65	
8	8321/60	I-1A	779	Room	2.75	2.9 D*	6.09	1.02	8.95	
9	14227/60	I-1A	1360	Basement	4.8	5.95, DF*	7	1.03	6.5	
10	14313/60	I-1A	1621	Fill	3.25		6.09	1.03	7.55	
11	7560/60	I-1A	809	Room	2.61	2.85 D	6.06	1.02	6.6	
12	7785/60	I-1B	833	Casemate	2.31	2.93 F*	8.04	2	28.5	
13	8515/60	I-1C	620	Room	3.75	3.85 D	6.8	1.7	8.35	
14	12349/60	I-1C	1441	Room	2.21	3.3 DF*	7.05	1.05	-	
15	12242/60	I-1C	1441	Room	3.45**	3.3	7.05	1.05	8.05	
16	7225/60	I-1C	756	Room	3	3.4	5.08	1.08	9.5	
17	19681/60	I-1C	589	Casemate	4.5	4.5	7.06	1.08	9.6	
18	11639/60	I-2	1231	Room	2.7	2.85 DF*	7.09	2.03	11.95	
19	1655/60	I-2	48	Room	3.35		6.05	1.07	-	
20	10114/61	I-2	1229	Room	3.35	3.40 D*	7.07	1.08	9.45	
21	11712/60	I-2	222	Hall	4.3	4.7 D	7.6	1.8	7.05	
22	9949/60	I-2	1077	Room	2.37	2.74 D*	8.03	1.06	10	
23	12109/60	I-2	1284	Room	2.8	3.12	7.01	1.04	6.65	

* Very thick destruction/burnt debris layer.

** These objects were found in a depression, slightly below the floor level of the room.

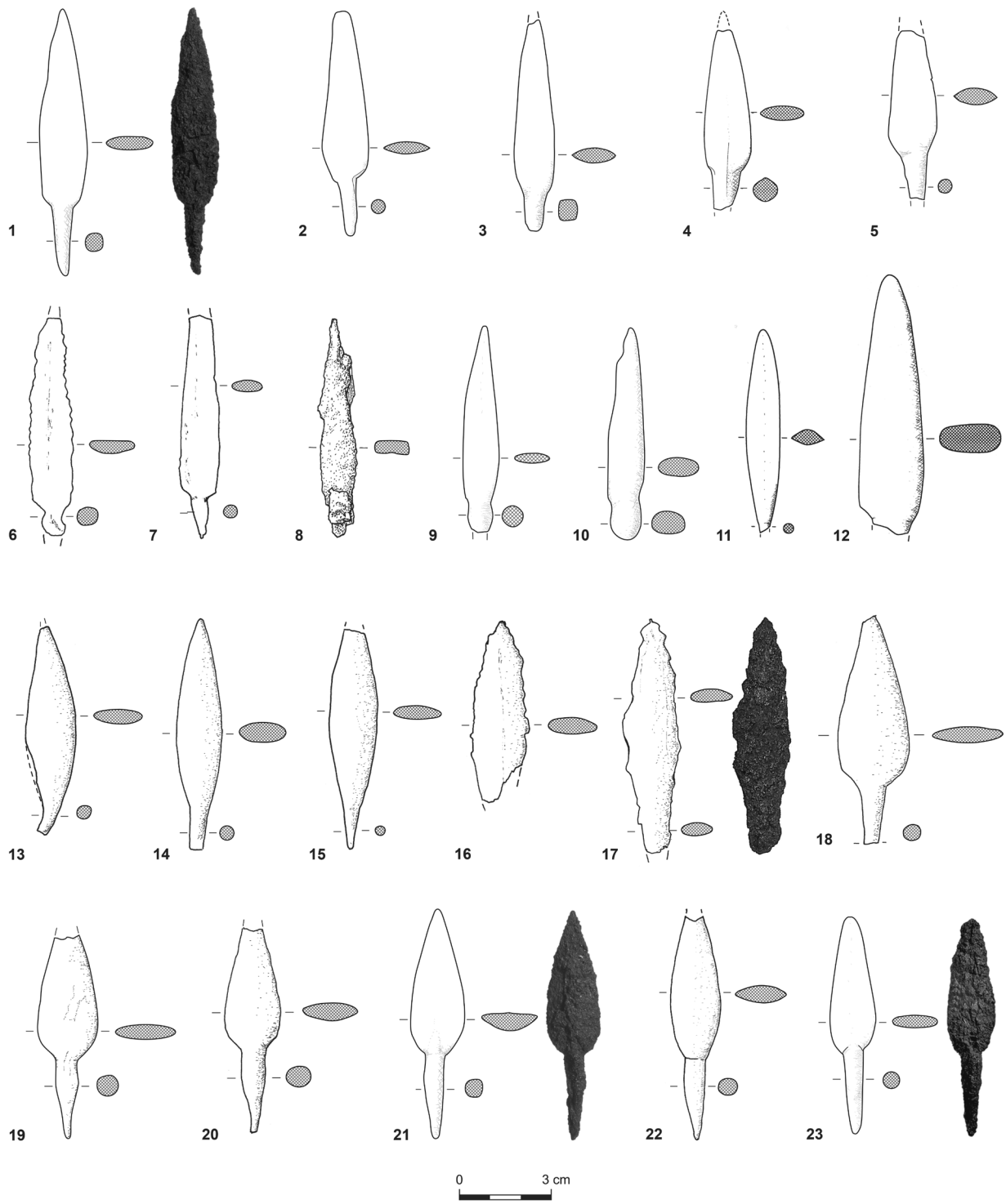


Fig. 24.7: Arrowheads from Stratum II.

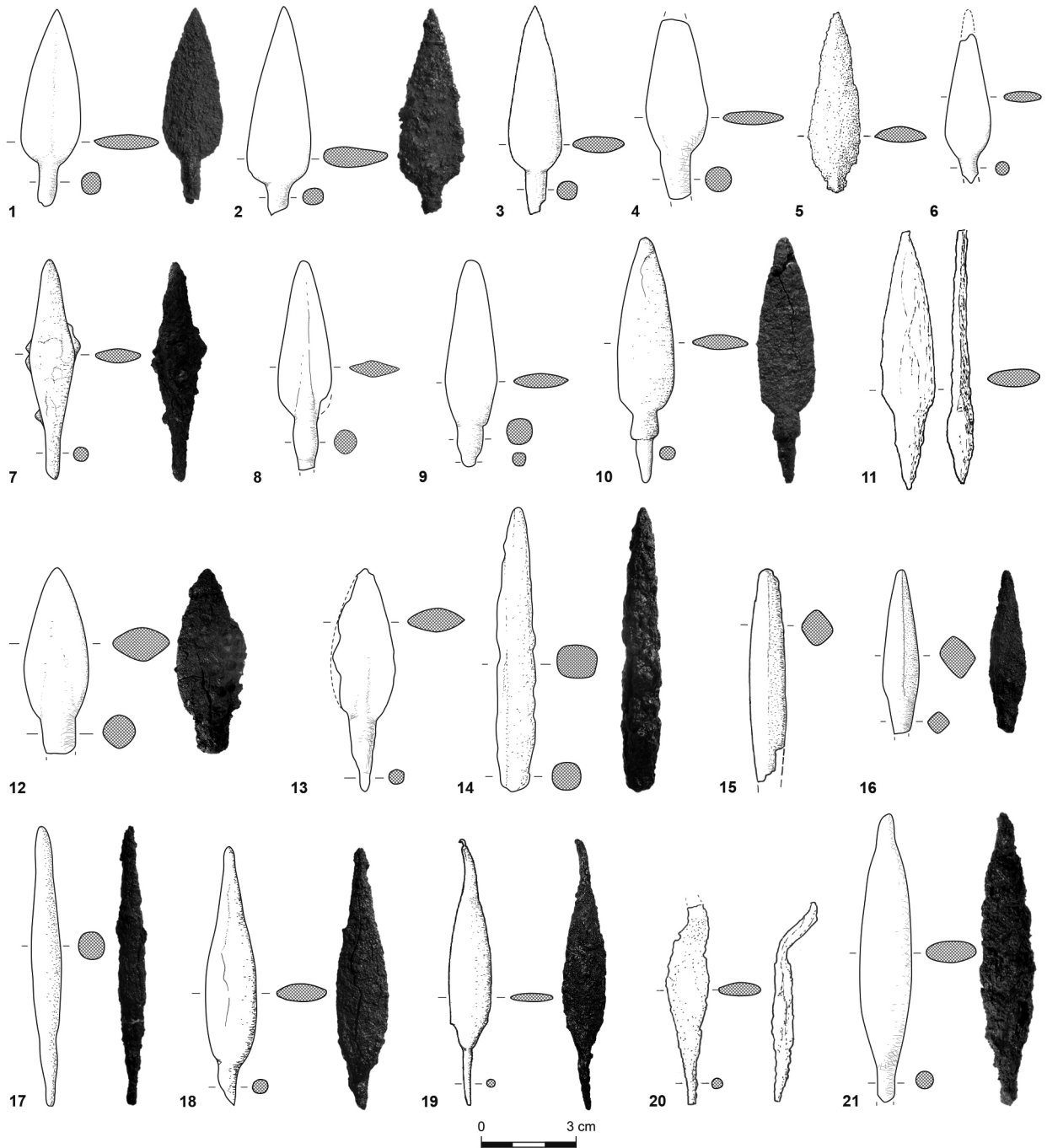


FIGURE 24.8: ARROWHEADS FROM STRATUM II (CONTINUED)

No.	Reg. No.	Type	Locus	Locus Type	Level	Floor Level	Length	Width	Weight	Notes
1	17056/60	I-2	1528	Room	3.9	3.95 D	6.06	1.09	6.85	
2	10398/60	I-2	1120	Room	2.7	2.8 DF	6.06	2	8.55	
3	16327/60	I-2	1838	Room	2.85	2.9 W	6.6	1.7	8.25	
4	8332/60	I-2	779	Room	2.6	2.9 DF	5.08	1.09	9.25	

<i>No.</i>	<i>Reg. No.</i>	<i>Type</i>	<i>Locus</i>	<i>Locus Type</i>	<i>Level</i>	<i>Floor Level</i>	<i>Length</i>	<i>Width</i>	<i>Weight</i>	<i>Notes</i>
5	8332/61	I-2	779	Room	2.6	2.9 DF	5.06	1.06	5.55	
6	15841/60	I-2	1384	Room	2.6	2.75 F	4.07	1.05	4.05	
7	1411/60	I-3	123	Room	3.25	3.45	6.08	1.04	-	
8	6355/60	III-1	529	Room	4.57	4.62	6.07	1.08	7.3	
9	5078/60	II-3	558	Room	3.5	3.6 D	6.06	1.06	7.65	
10	12057/60	II-2	1284	Room	3.06	3.12	7.08	1.07	-	
11	20927/60	II	3576	Room	3.76	3.8 F	8.02	1.08	13.55	
12	8586/60	III-1	647	Room	2.75	2.75 D	5.09	2	18.6	Impressed with dense pattern of identical small circles resulting from fusing together with another object during fire.
13	8744/60	III-1	962	Room	2.6	2.6 D	6.08	1.08	-	
14	3911/60	IV	75	Room	-	4.1 D	9.01	1.02	22.15	
15	9311/60	IV	300	Hall	4.6	4.95 DF	6.05	1.02	14.65	
16	15439/60	IV	1789	Room	2.25	2.7 DF	5.03	1.01	11.2	
17	7907/60	V	834	Room	2.15	2.35 D	8.09	0.9	9.2	
18	8678/60	VI	956	Room	2.5	2.5	8.08	2.05	13.15	
19	17044/60	VI	2393	Fill	3.95	-	8.05	1.04	4.4	Tip bent
20	21191/60	VI	3643	Granary	4.3	-	6.08	1.03	6.15	Upper part of blade is heavily bent
21	16441/60	VI	1847	Fill	2.95	-	9.03	1.07	12.75	
NI	10147/60	II	1231	Room	2.7	2.85	-	-	-	
NI	6270/60	I-1	633	Room	2.75	3.15	6.07	1.08	-	
NI	3931/60	I-1	28	Room	2.7	3.35	3.55			
NI	7386/60	I-1	759	Room	2.85	2.85 D*				
NI	20123/60	I-1	2393	Fill	4.63					
NI	10193/60	I-1	1226	Room	2.7	2.8				
NI	9779/60	I-1	856	Room	2.8	2.8 DF				
NI	9749/60	I-1	851	Room	2.9	2.9				
NI	9691/61	I-1	836	Room	-	2.3	5.05	1.03	-	
NI	7593/60	I-1A	812	Room	2.75	2.85 DF	-	-	-	
NI	13295/60	I-1A	1419	Room	2.85	2.9 DF*	-	-	-	
NI	5739/60	I-1A	902	Room	3.25	3.25	-	-	-	
NI	17044/61	II	2393	Fill	3.95		-	-	-	
NI	7570/60	I-1	808	Room	2.45	2.9				
NI	1501/61	I-2	66	Casemate	3.95	4.05				
NI	8807/60	I-2	850	Room	2.7	2.8 DF				
NI	18691/60	II	2406	Room	-	3.95	-	-	-	
NI	3813/60	II	461	Courtyard	2.85	3.05 DF	7.05	1.06	-	
NI	5078/61	II	558	Room	3.5	3.6 D	-	-	-	
NI	8744/61	I-1	962	Room	2.6	2.6 D	-	-	-	

FIGURE 24.9. ARROWHEADS FROM STRATUM II SEALED BY DESTRUCTION DEBRIS: ROOMS 859 (1–9); 1228 (10–12); 468 (13–14)

No.	Reg. No.	Type	Locus	Level	Floor Level	Length	Width	Weight	Notes
1	8863/60	I-1	859	2.82	2.82	9.02	1.04	13	
2	8842/65	I-1	859	2.82	2.82	8.08	1.04	9.4	Tip bent
3	8863/61	I-1	859	2.82	2.82	6.07	1.04	5.2	
4	8842/60	I-2	859	2.82	2.82	8.07	1.05	6.75	
5	8863/62	I-2	859	2.82	2.82	7.08	1.08	6.7	
6	8842/62	I-2	859	2.82	2.82	6.02	1.08	6.15	
7	8842/61	I-2	859	2.82	2.82	7.05	1.06	5.45	
8	8842/64	I-1	859	2.82	2.82	8.00	1.06	6.45	
9	8842/63	I-3	859	2.82	2.82	7.05	1.07	8.6	
10	10085/60	I-1	1228	2.65	2.8	7.04	1.04	-	
11	10081/60	I-1	1228	2.8	2.8	7.09	1.03	11.5	
NI	10085/62	I-1	1228	2.65	2.8	-	-	-	
12	10085/61	I-1A	1228	2.65	2.8	7.03	0.9	7.1	
13	3661/61	I-1C	468	2.7	3			-	
14	3661/60	II-1	468	2.7	3	7.07	1.7	13.15	

An arrowhead's ability to pierce leather and metal mail is an important parameter. Specifically, the slender and mostly heavy (see below) iron arrowheads of Types IV and V were considered effective in piercing metal mail (Petrie 1928: 15; Pl. XXVIII: 13–20; Snodgrass 1964: 154; Rothenberg 1975: 79–80; Curtis 1979: 168; 2013: 40–41; Jessop 1996: 198–199; Derin and Muscarella 2001: 190; cf. also Gottlieb 2004: 1950–1951). However, the capability of different arrowhead types to pierce metal armor was influenced by velocity, impact power and the metallurgical treatment of the arrowhead. Hardening a projectile by carburization, quenching and tempering certainly increased its piercing ability (Tylecote and Gilmour 1986: 109). However, while no metallographic study was conducted on the Beer-sheba assemblage, an analysis of ten arrowheads of different types (including Types IV and V) at Lachish III showed that all the examined items were manufactured from wrought (i.e., not hardened) iron (Shay 2004).⁹

Be that as it may, one can assume that in the period under review only a fraction of the army (e.g., officers) benefitted from the use of metal armor, while most of the soldiers were sent into battle without protective covering, and thus were vulnerable to all arrows.

Most of the Beer-sheba arrowheads are light specimens, weighing on average 6.5 g (see the weight column in Figs. 24.5–13).¹⁰ They were capable of a long flight range and were ideal for salvos in long-distance combat. In the close-range combat of siege battles, flight range is of no particular

⁹ This also emerges from several metallographic studies of arrowheads of other Near Eastern sites from different periods (Stech-Wheeler *et al.* 1981: 254; Gottlieb 2004: 1965, with references; Ashkenazi, Golan and Tal 2013). Thus, iron projectile points apparently proved to be effective enough to avoid a labor-consuming process of steeling.

¹⁰ This count is based exclusively on intact specimens. Yet, it can be stated that the majority of the broken arrowheads belong to the light-weight category (less than 10 g.) as well.

importance, and aim and impact power are the primary concerns. Impact power increases with weight, which makes heavy projectile points especially suitable for this fighting stage (Rothenberg 1975: 79). Indeed, at Lachish nearly all the heavy arrowheads (including Types IV and V) were concentrated in two areas where relatively short range battle was conducted (Gottlieb 2004: 1955–1958; Gottlieb in preparation). The Beer-sheba assemblage contains 28 relatively heavy arrowheads, the majority of which originated in Stratum II. Most of these weigh between 10 g and 20 g. Four specimens weigh over 20 g (up to 28.5 g). Very heavy specimens that reach up to 40 g, like those found at Lachish, are absent from the Beer-sheba assemblage.

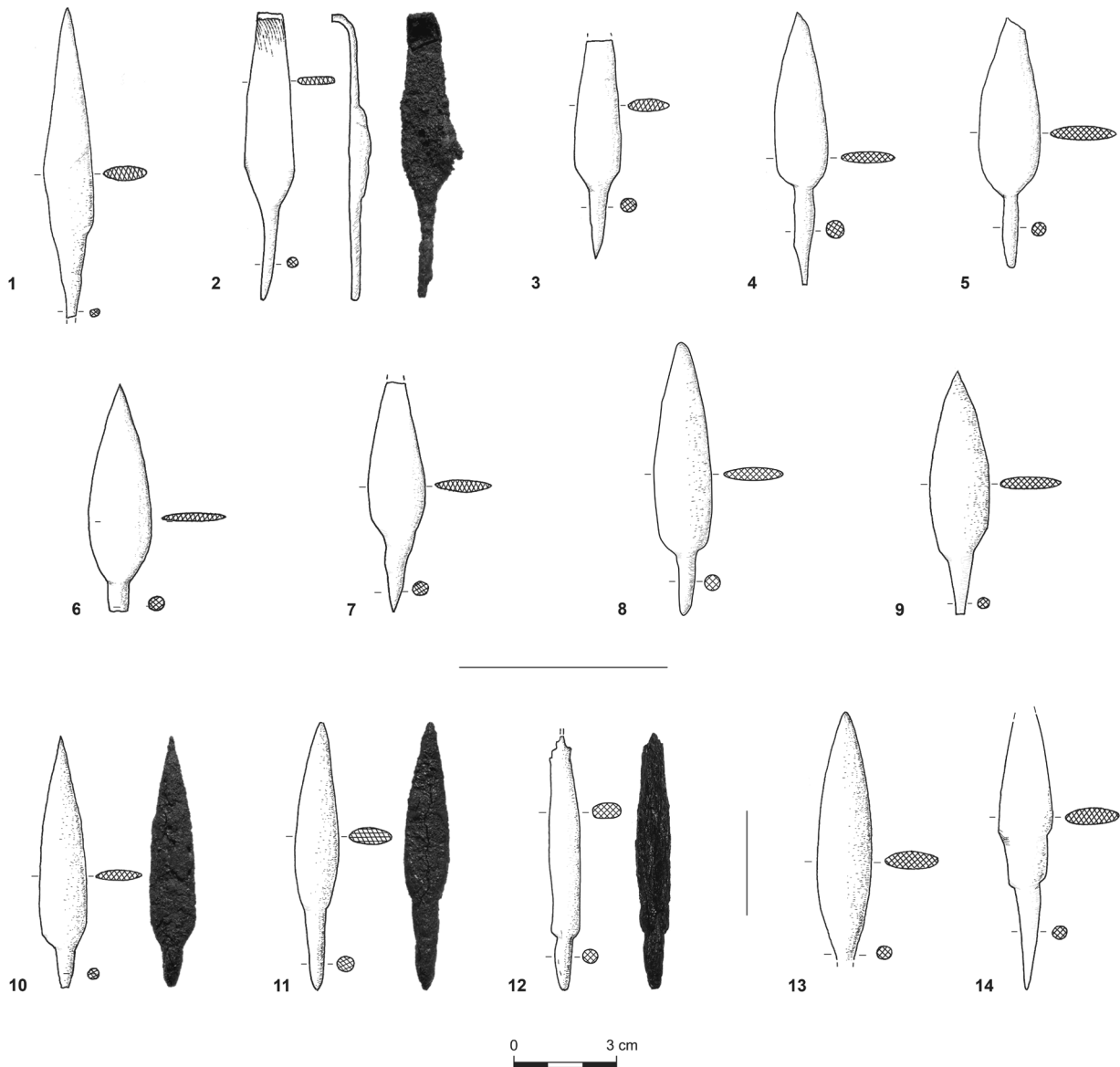


Fig. 24.9: Arrowheads from Stratum II sealed by destruction debris: Rooms 859 (1–9); 1228 (10–12); 468 (13–14).

THE ASSYRIAN ATTACK ON BEER-SHEBA

INTRODUCTION

The end of Stratum II at Tel Beer-sheba clearly falls into Forsberg's category of a destruction event that is principally reflected in the archaeological record. Furthermore, it is also indirectly identified and dated by means of a textual source, which "makes it possible to reconstruct history in such a way that there is only one point of time at which the destruction is likely to have taken place." (1995: 14; Type 2).

It is widely accepted today that the Stratum II destruction can only be identified with the 701 BCE military campaign of the Assyrian king Sennacherib. The same campaign terminated the settlement of Lachish Level III, as specifically mentioned in textual and pictorial sources (Ussishkin 1982; 2004). While there is no specific reference to Sennacherib's conquest of Beer-sheba, it may be assumed that the site is among the 46 besieged and conquered Judahite cities mentioned in Sennacherib's account (Luckenbill 1924: 32–33, lines 18–23; Na'aman 1974).

Due to the lack of direct documentation, detailed studies of the archaeological data of Stratum II at Beer-sheba are of particular significance. Among them is the analysis of the dispersal of missiles in the field, which are crucial to understanding the circumstances of the city's destruction.¹¹

SPATIAL DISTRIBUTION AND CONTEXTUAL ANALYSIS OF ARROWHEADS

The analysis of the distribution of arrowheads in the field illuminates two primary and interconnected goals:

1. Identification of the missile arsenals of the defending Judahite and the attacking Assyrian army.
2. Examination of the various aspects of the military event, such as offensive and defensive tactics and the course of the battle.

It is possible to distinguish between arrowheads that were found in enclosed spaces, such as in rooms of dwellings, storehouses, the gate rooms and the city wall casemate rooms (where arrowhead concentrations are especially important), and arrowheads that were found in open spaces, such as streets and open areas inside and outside the city wall.

In contrast to Lachish III, where the distinction between the attackers' and the defenders' shots by means of their spatial distribution was quite straightforward, at Beer-sheba the situation is much more ambiguous; the majority of the Beer-sheba arrowheads was found inside buildings and could have belonged to either the attackers or defenders (Fig. 24.15).

ARROWHEADS FOUND IN ENCLOSED SPACES

The deposition of arrowheads in enclosed spaces can be divided into two categories:

1. Missiles found up to ca. 1 m *above* the floors in the accumulated destruction layers, in the midst of brick debris from the collapsed superstructures and burnt remains of the fallen roof beams.
2. Missiles found directly *on* the floors that were sealed by destruction debris.

In terms of their spatial distribution, arrowheads of the first category may be assigned to either defenders or attackers equally. There are different ways to explain their deposition. One alternative is that these arrowheads were kept as a part of the local Judahite missile arsenal in a building's second story that collapsed during the city's destruction. A second alternative is that the attackers shot arrows

11 It must be emphasized that any attempt to reconstruct the course of events is qualified by the partial nature of the excavated material. First, many more missiles may still be hidden in the unexcavated areas of the mound. Second, weapons were probably collected after the battle for further use.

toward a building, either in a general salvo or to eliminate defenders positioned on the roofs of houses (cf. Cahill 1991: 165; for a discussion, see Lee 2001: 16). Such arrows might simply have missed their target and lodged between roof beams or become stuck in brick masonry, to eventually fall into the rooms as the building's superstructure collapsed. Examples of such cases are known from several Judahite sites, such as the City of David and En-Gedi (Shiloh 1984: 18; Stern 2001: 310–311). At both sites bronze trefoil arrowheads shot by Babylonian archers were found inside Judahite buildings intermingled with charred remains of wooden beams from collapsed ceilings. Indeed, some of the Beer-sheba arrowheads found inside the rooms had their tips bent or missing as a result of heavy impact on masonry (Figs. 24.8: 19; 24.9: 2; 24.12: 4). An arrowhead stuck *in situ* in standing masonry was found in the context of the Assyrian attack at Lachish (Gottlieb 2004: 1909).

When found in the form of isolated examples, the association of arrowheads of the second category—i.e., specimens found directly on floors—with attackers or defenders is equally problematic; there is no way to establish whether such missiles had been kept in the buildings or were launched into them by the enemy during the assault (for this possibility, see the Macedonian assault on Olynthos in 348 BCE; Lee 2001: 18).¹² A special case, however, is provided by arrowheads of different types found in clusters, frequently in association with other armaments, which can be ascribed with a great degree of confidence to the defenders of the city and are thus representative of the local Judahite missile arsenal. Such concentrations have been found in dwellings of the Central and Northern Quarters of the city as well as in the storehouses of the Eastern Quarter. They may either represent missiles stored at a specific location on a permanent basis or ammunition specifically prepared by the inhabitants on the eve of the Assyrian battle.

Central Quarter

A cluster of nine iron arrowheads was found on the floor of Room 859 of Building 855, where they were kept with other weapons and tools (Figs. 23.1: 6; 23.2: 14; 23.3: 9; 24.9: 1–9). The group consists of arrowheads of Types I–1, I–2 and I–3. Room 1402+1079 of Building 1410 yielded a concentration of six arrowheads of Types I–1, I–1A and I–3 (Fig. 24.11: 1–5). Four arrowheads of Types I–1 and I–1A were collected in Room 1228 of Building 1228 (Fig. 24.9: 10–12).

Northern Quarter

Room 3577 of Building 3578 yielded four arrowheads of Types I–1, I–1A, II and II–1 (Fig. 24.11: 8–11). Room 3578 of the same house yielded two arrowheads of Types I–2 and II–4 (Fig. 24.11: 12, 13), in contextual association with a spear butt (Fig. 23.2: 1) and several sling-stones. It bears mentioning that, based on the spatial distribution of ceramic finds in the Stratum II city, Singer-Avitz (1996: 171 and Chapter 35) suggested that the houses in the eastern part of the Northern Quarter were inhabited by military personnel.¹³ Accordingly, the missiles and other armaments mentioned above may represent part of the store of ammunition of the military garrison quartered in this part of the city.

Storehouses in the Eastern Quarter

A considerable number of arrowheads was found in the halls of the storehouses (Fig. 24.10). Four exemplars (Types I–1, I–2, I–3 and II–3) were found on the floor of Hall 1004 of Storehouse 1007. Hall

¹² Based on the occurrence of inscribed Macedonian missiles in Olynthian houses, Lee (2001: 18) proposed close-range shooting combats inside the houses.

¹³ The only concentration of missiles in Stratum III was found in the western part of the Northern Quarter. Room 10808 of House 10808 yielded two arrowheads (Fig. 24.6: 3, 4). In Hall 3608 of Storehouse 3534 two arrowheads (Fig. 24.6: 1, 2) and seven sling-stones were found within a burnt layer of collapsed debris including the remains of ceiling beams.

282 of the same storehouse yielded three arrowheads (Types I-1, I-1C and II-1). Four specimens of Types I-1, I-1C and I-3 were collected in Hall 221 of Storehouse 222. Room 283 in Storehouse 270 yielded one arrowhead of Type I-1A. All these missiles were found on the floor, sealed by destruction debris. To this collection we may add five specimens (Types I-1, I-1B, I-2, I-3 and II-3) from Hall 1004 and three specimens (Types I-1, I-1A, I-1C) from Hall 1007 (Storehouse 1007), which were retrieved from the destruction debris sealing the floor.

It is worth noting that apart from the arrowheads the storehouses contained other weapons as well, both of short and long range (Fig: 23.1: 2, 4, 11). They also yielded tools and agricultural implements (Figs. 23.2: 13; 23.5: 4; 23.7: 2). One may thus suggest that beyond stocking generic provisions (e.g., food and liquids in storage jars), these facilities were also used for storing ammunition and working tools. In other words, one can deduce that such stored ammunition is representative of the local arsenal. This hypothesis is also strengthened by the fact that the arrowheads were found in the side aisles of the storehouses, stacked with complete pottery vessels (Herzog 1973: 25 and Chapter 4 in this report). This raises serious doubt that any military activity could have taken place here.

FIGURE 24.10. ARROWHEADS FROM STRATUM II FOUND UNDER AND AMID DESTRUCTION DEBRIS: STOREHOUSE HALLS 1004 (1-6); 221 (7-10); 282 (11-12); 1007 (13-15)

<i>No.</i>	<i>Reg. No.</i>	<i>Type</i>	<i>Locus</i>	<i>Level</i>	<i>Floor Level</i>	<i>Length</i>	<i>Width</i>	<i>Weight</i>	<i>Notes</i>
1	9298/60	I-1	1004	4.65	5.12	7	1.05	4.85	
2	14146/60	I-1	1004	4.49	5.12	6.06	1.04	4.15	
3	9290/60	I-1B	1004	4	5.12	-	-	-	
4	14153/60	I-2	1004	4.45	5.12	5.01	1.06	6.65	
5	14153/60	I-3	1004	4.45	5.12	8.03	2.01	10.1	
6	14153/60	II-3	1004	4.45	5.12	7.04	1.08	11.25	
NI	14127/60	I-1	1004	4.35	5.12	-	-	-	
NI	12464/60	I-2	1004	4.87	5.12	4.01	1.06	10.4	
NI	9180/60	I-1A	1004	4.06	5.12	8	1.03	-	
7	986/60	I-1	221	4.6	4.75	7.07	1.06	-	
8	986/61	I-1	221	4.6	4.75	7.01	1.04	-	
9	1133/60	I-1C	221	4.87	4.75	7.01	1.04	-	
10	18304/60	I-3	221	4.85	4.75	5.09	1.06	5.6	
NI	2050/60	I-1	282	4.7	4.86 DF	-	-	-	
11	5151/60	I-1C	282	4.9	4.86	6.09	1.06	12.15	
12	5151/62	II-1	282	4.9	4.86	7.06	1.04	9.85	
NI	2297/60	I-1A	283	4.7	4.8 D	7.05	1.02		
13	9236/60	I-1	1007	4.26	4.45 D	7.02	1.06	7.85	
14	9236/61	I-1C	1007	4.26		8.08	1.05		
15	12433/60	I-1A	1007	4.42	-	6.04	0.9	6.65	

* Very thick destruction/burnt debris layer.

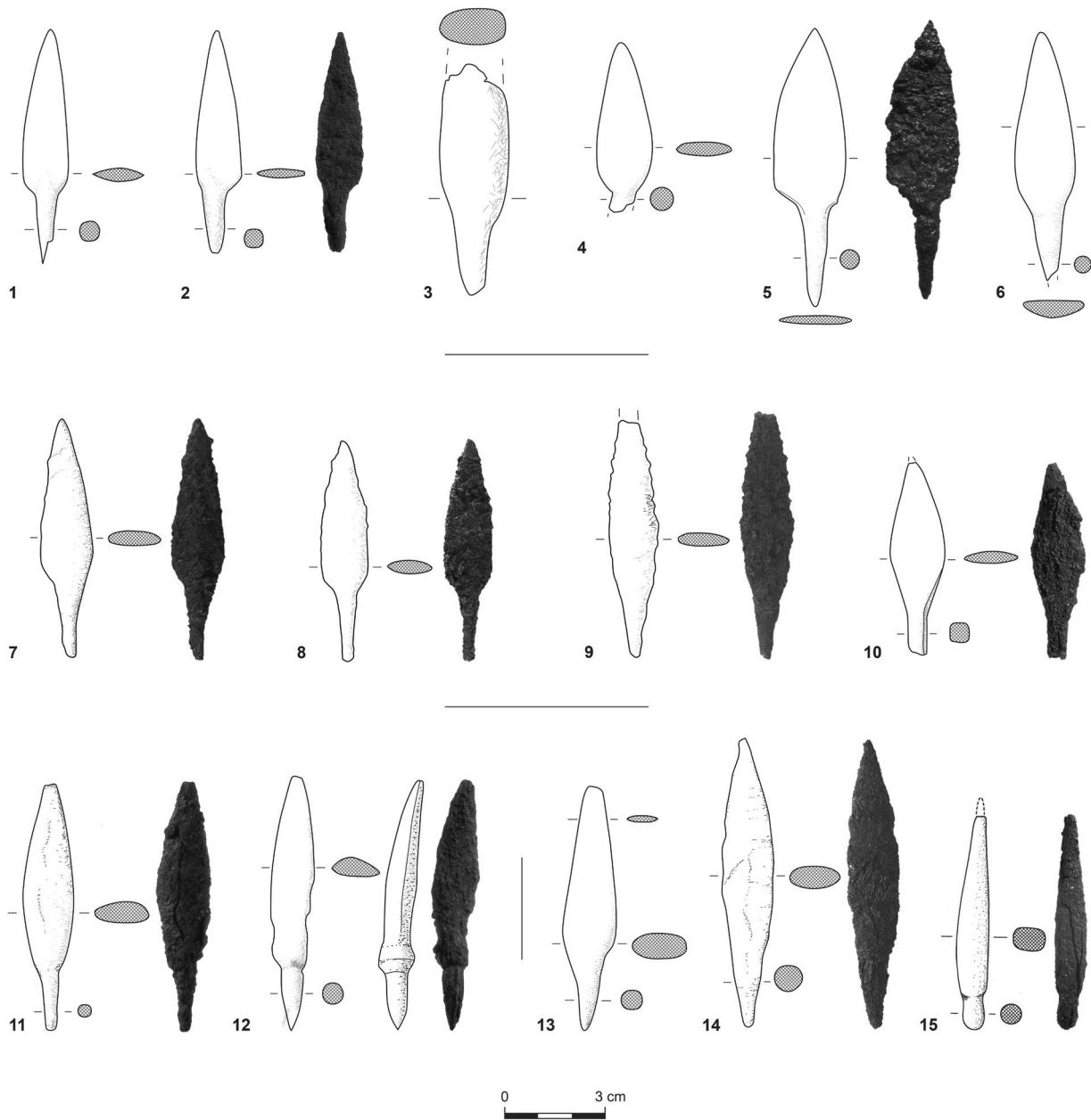


Fig. 24.10: Arrowheads from Stratum II found under and amid destruction debris: Storehouse Halls 1004 (1–6); 221 (7–10); 282 (11–12); 1007 (13–15).

ARROWHEADS FOUND IN OPEN SPACES

Fifteen projectile points were collected from open spaces, such as streets and open areas (Fig. 24.13). Significantly, with the exception of one Type IV specimen, no arrowheads were found *outside* the city wall, either on the slopes of the mound or on the approach leading to the city gate. Arrowheads found in open spaces include specimens of Types I–1 (4 examples), I–1A (1), I–1B (1), I–1C (1), I–2 (2), II (3), IV (1) and VI (1). With the exception of the Type IV arrowhead from outside the city wall, we cannot assign these missiles with any degree of certainty to either the attackers or defenders based merely on their spatial distribution.

THE JUDAHITE AND ASSYRIAN ARROWHEAD ARSENALS AT BEER-SHEBA

The picture of the last days of the Stratum II settlement at Beer-sheba as it emerges from the archaeological record is somewhat complicated; unlike at Lachish, no actual clash points with concentrations of shots that can be ascribed to either the defenders or the attackers have been discerned.

Nevertheless, combining the results of the spatial distribution of arrowheads in Stratum II with the type distribution in previous strata and with comparative typological data from other sites, final conclusions on the Judahite and the Assyrian missile arsenals can be drawn.

In terms of spatial distribution, it was argued above that clusters of arrowheads found on floors of buildings can be considered local ammunition. Beyond that, for isolated arrowheads found in destruction debris (*above* floors) one may suggest an affiliation with one of the respective missile arsenals only in two special cases:

1. Arrowheads, the tips of which were bent or broken as a result of impact with masonry, were most likely shot by the enemy towards the buildings.
2. It is highly likely that *all* arrowheads found in the storehouses constituted part of the original contents of these units and thus belonged to the local Judahite arsenal.

FIGURE 24.11. ARROWHEADS FROM STRATUM II SEALED BY DESTRUCTION DEBRIS. ROOMS 1402 (1–5) AND 1079 (NI); 1407 (6–7); 3577 (8–11); 3578 (12–13); GATE ROOMS 311 (14–15); 584 (STRATUM I) (16)

<i>No.</i>	<i>Reg. No.</i>	<i>Type</i>	<i>Locus</i>	<i>Level</i>	<i>Floor Level</i>	<i>Length</i>	<i>Width</i>	<i>Weight</i>	<i>Notes</i>
1	13219/62	I-1	1402	2.6	2.9 DF	5.09	1.02	6.35	
2	13219/61	I-1	1402	2.6	2.9	6	1.02	7.35	Tip broken
3	13219/60	I-1	1402	2.6	2.9	7.02	1.03	-	
4	13219/63	I-1	1402	2.6	2.9	5.04	1.05	5.25	
5	13232/60	I-3	1402	2.8	2.9	8.09	1.05	7.7	
NI	9972/60	I-1A	1079	2.8	2.8	6.08	1.01	3.7	
6	13276/60	Bronze	1407	2.45	2.65	4	0.7	2.55	Chemical analysis: Table 23.1.1: 26
7	13277/60	I-1	1407	2.45	2.65	7.04	1.04	7.6	
8	21102/60	I-1A	3577			6.06	1.02		
9	21173/60	I-1	3577	3.76	3.76 F*	6.09	1.07	7.95	
10	21168/60	II-1	3577	3.76	3.76 F*	8.02	1.05	12.3	
11	21173/61	II	3577	3.76	3.76 F*	7.08	1.07	7.5	
12	21099/60	I-2	3578	3.76	3.8 DF*	8.02	1.08	19.6	
13	21099/61	II-4	3578	3.76	3.8 DF*	7.08	1.09	-	Spear-butt (Fig. 23.2: 1), two sling-stones
14	2471/60	I-1	311	4.0	4.14 D	5.05	1.03	7.95	
15	2410/60	I-IB	311	3.36	4.14	9.02	2.0	26.25	
NI	2410/60	I-1	311	3.36	4.14 D	-	-	-	
16	5537/60	I-1	584	3.3	3.3 DF	4.05	1.03	4.80	
NI	5781/60	I-2	584	3.3	-	-	-	-	

* Very thick destruction/burnt debris layer.

Arrowhead types found in pre-Stratum II horizons can be used to establish the local arsenal of Stratum II as well; since none of the earlier strata was verifiably destroyed in a military event, such types arguably represent local ammunition.

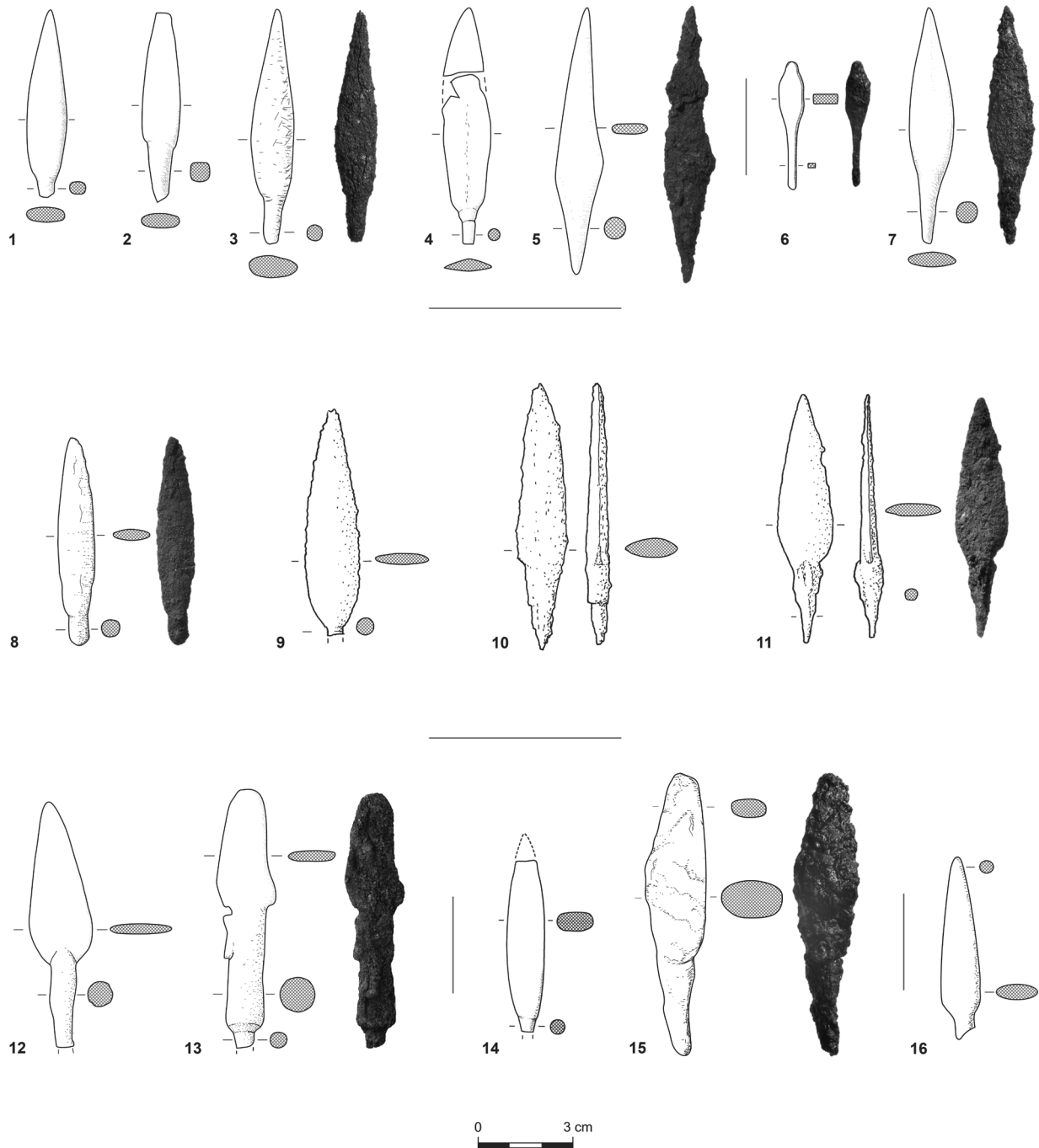


Fig. 24.11: Arrowheads from Stratum II sealed by destruction debris. Rooms 1402 (1–5); 1407 (6–7); 3577 (8–11); 3578 (12–13); Gate Rooms 311 (14–15); 584 (Stratum I) (16).

In light of the combined analysis, it is suggested that the arsenal of missiles used by the Judahite defenders at Beer-sheba consisted of Types I-1, I-1A, I-1B, I-1C, I-2, I-3, II-1, II-2, II-3, and with a clear predominance of narrow-bladed specimens; all these types appear in Stratum II in clusters identifiable as local deposits, and most of them make their first appearance already in previous strata at Beer-sheba. Moreover, Type VI was probably used by the defenders as well (see discussion in typology section above).

FIGURE 24.12. ARROWHEADS FROM STRATUM II FOUND AMID DESTRUCTION DEBRIS. ROOM 881 (1-4); BASEMENTS 1262 (5-8); 1822 (9-11); ROOM 1449 (12-16); CASEMATE 1337 (17-18); ROOM 1462 (19-20)

<i>No.</i>	<i>Reg. No.</i>	<i>Type</i>	<i>Locus</i>	<i>Level</i>	<i>Floor Level</i>	<i>Length</i>	<i>Width</i>	<i>Weight</i>	<i>Notes</i>
1	8049/60	III	881	4.05	4.25 D	10.09	1.06	19	Tip bent and broken; armor scale (Fig. 23.2: 7)
2	8049/60	I-1B	881	4.05	4.25 D	10	1.06	18.4	Tip slightly bent
3	8072/60	II	881	4.15	4.25 D	7.03	1.05	8.3	
4	8049/62	I-1A	881	4.05	-	6.02	1	6.9	Tip heavily bent
5	17023/60	I-1	1262	5.3	6.25	6.05	1.03	5.55	
6	16098/60	I-1A	1262	4.42	6.25	7.05	1	6.25	
NI	1449/60	I-1	1262	4.5	6.25	5.07	1.04	-	
7	16934/60	I-2	1262	4.68	6.25	6.06	1.08	7.15	
NI	17073/60		1262	6.1	6.25	6.02	1.07	-	
8	17065/60	II	1262	6.3**	6.25	6.06	1.05	6.75	
9	16365/40	Bone	1822	5.95	6.2 D	-	-	-	knife
10	16484/60	I-2	1822	5.85	6.2 D	7.01	1.04	9.30	
11	16484/61	III-1	1822	5.85	6.2 D	10.0	2.01	11.70	Tip broken
12	12291/60	I-1	1449	3.45	3.7 D*	7.0	1.4	9.25	
NI	12255/61	I-1	1449	3.47	3.7 D*				
13	12291/62	I-1A	1449	3.49	3.7 D	7.0	1.2	9.65	
14	12255/60	I-1A	1449	3.49	3.7 D*	7.5	1.4	9.70	
15	12265/60	I-2	1449	3.2	3.7 D*	6.08	1.07	-	
16	12266/60	II	1449	3.2	3.7 D*	6.0	1.05	9.85	
17	12578/60	I-1	1337	3.84	4.33 F	7.01	1.04	5.85	Tip slightly bent
18	12594/60	I-1	1337	2.91	3.84				
NI	12565/60	I-1	1337	3.84	3.84				
NI	12578/60	I-2	1337	3.84	3.84, F				
NI	12361/61	I-1	1462	3.72	3.72 D				
19	12343/60	II-2	1462	3.57	3.72 D	8.0	1.09	9.80	
20	12295/60	II	1462	2.8	3.72 D	9.01	1.08	13.15	

* Very thick destruction/burnt debris layer.

** This object was found in a depression, slightly below the floor level of the room.

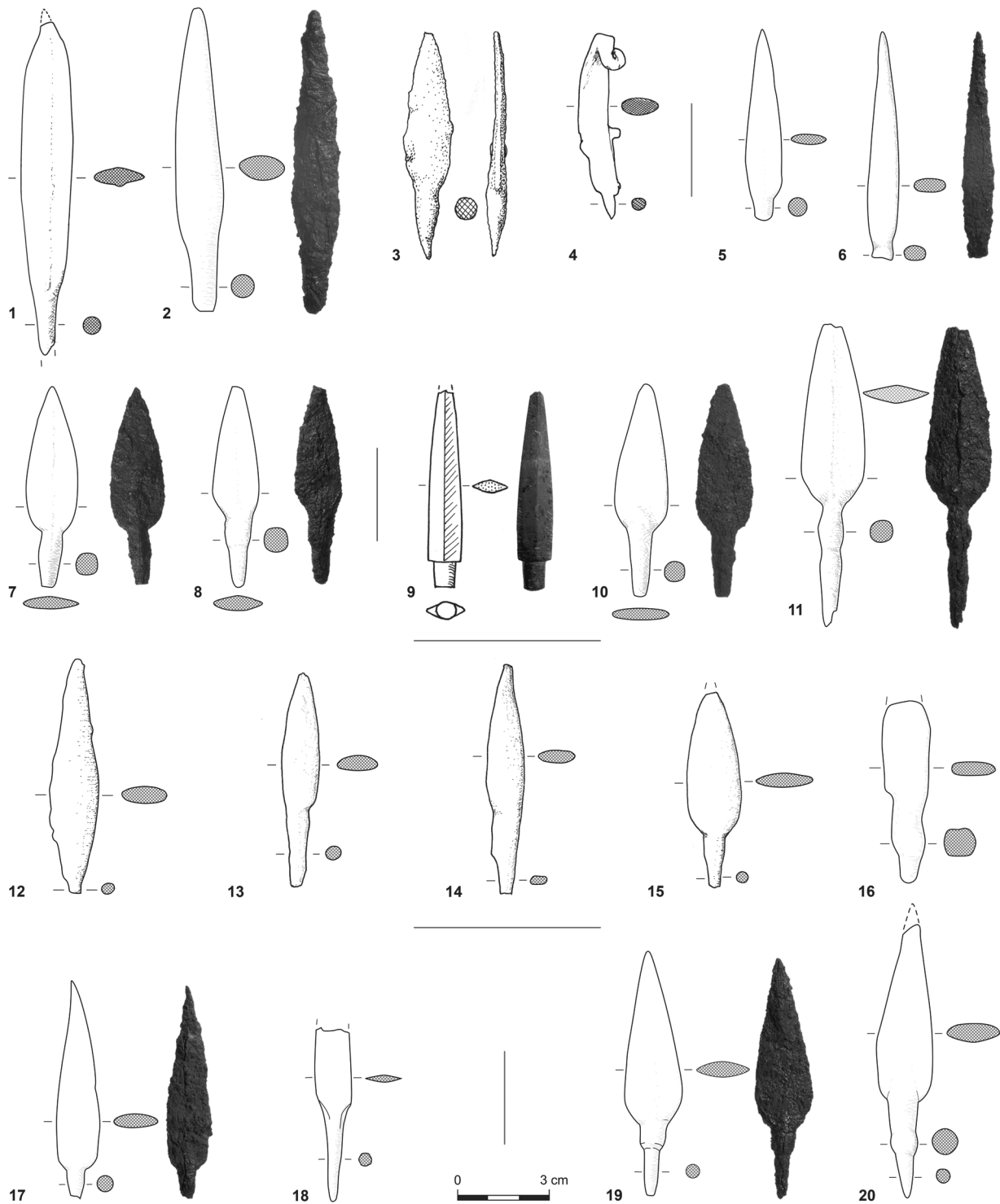


Fig. 24.12: Arrowheads from Stratum II found amid destruction debris. Room 881 (1-4); Basements 1262 (5-8); 1822 (9-11); Room 1449 (12-16); Casemate 1337 (17-18); Staircase 1462 (19-20).

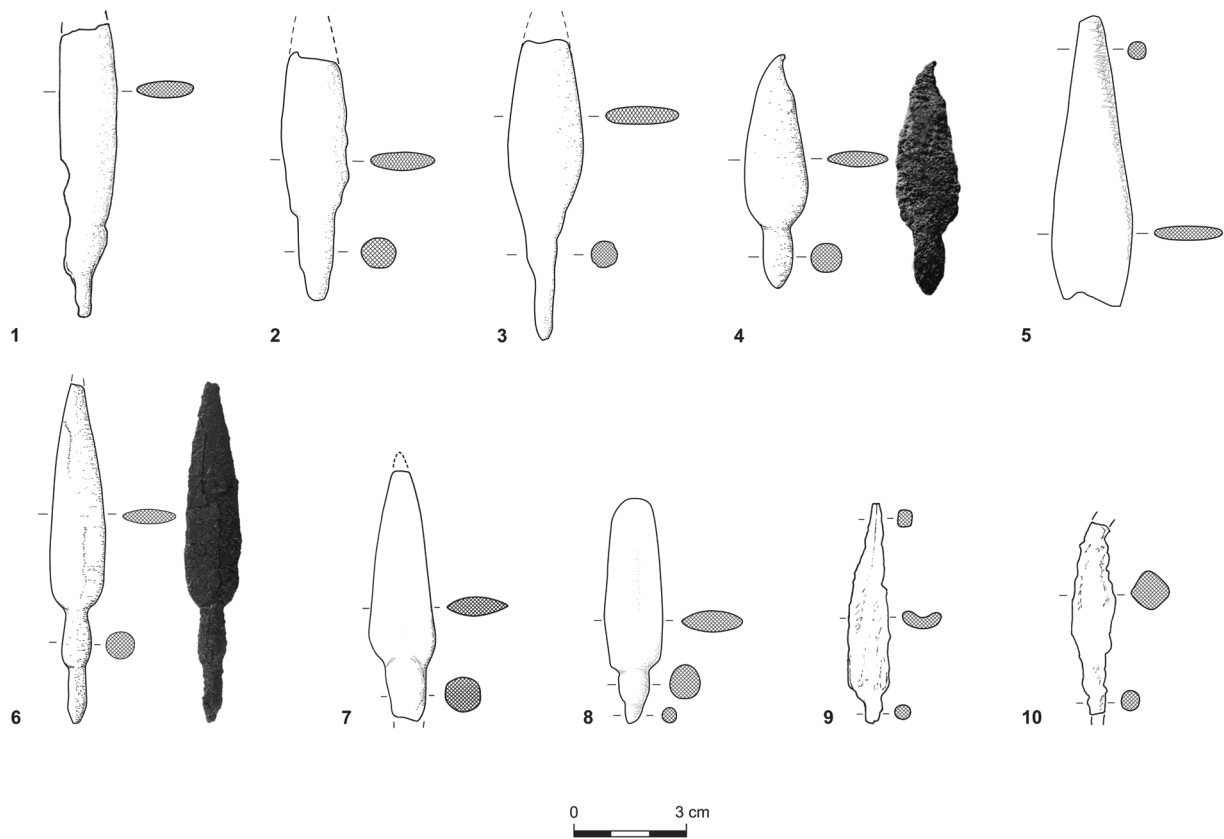


FIGURE 24.13. ARROWHEADS FROM STRATUM II, FOUND IN STREETS AND OPEN AREAS

No.	Reg. No.	Type	Locus	Level	Floor Level	Length	Width	Weight	Notes
1	1078/60	I-1	38	3.9	3.9	8.0	1.05	13.45	
2	1457/61	I-1	38	3.7	3.9	-	1.03	-	
3	1457/60	I-2	38	3.7	3.9	6.0	1.05	-	
NI	1457/64	I-1	38	3.7	3.9				
NI	1457/62	I-1	38	3.7	3.9				
NI	1457/63	I-1A	38	3.7	3.9				
NI	1465/60	I-1B	38	3.7	3.9	5.04	1.4		
NI	7969/60	I-1C	844	2.3	2.45 D	-	1.01	-	
4	2292/60	I-2	290	4.0	4.2				Tip bent
5	5555/60	rapier	587	2.5	3.2	-	2.0	-	Fig. 23.1: 13
6	959/60	II	216	3.75	4.2				
7	6533/60	II-3	664	3.35	3.6	6.07	1.07	10.55	
8	11559/60	II	1258	2.95	3.05	6.0	1.05	7.55	
9	7557/60	VI	810	2.4	2.75 D	5.09	1.01	5.65	Tip bent
10	4341/60	IV	141	4.3	-	5.01	1.0	6.25	Tip bent and broken.

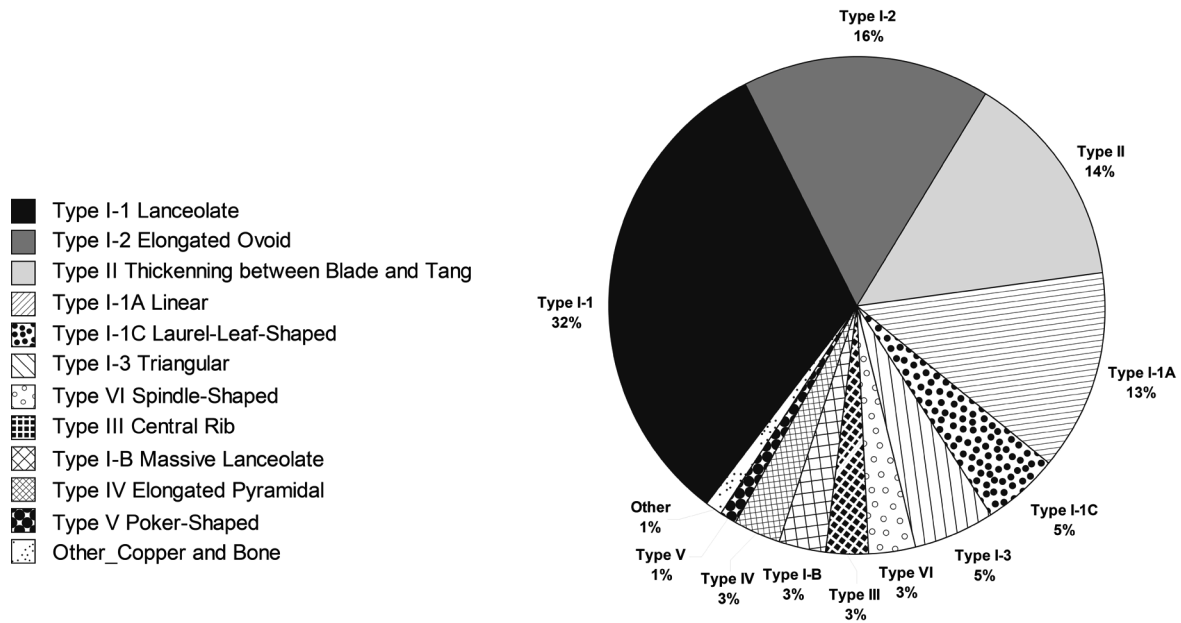


Fig. 24.14: Percentage correlation of Stratum II arrowheads types.

The Assyrian missile evidence at Beer-sheba is difficult to identify. We can say that individual arrows of Types I-1, I-2 and II although *not* found in clusters were probably used by the attackers since they are also well known at Assyrian sites. Types I-1, I-A, I-B and III-1 with bent or broken tips suggest they were shot by an enemy. The northern typological affiliation of Types IV and V would also suggest that they were used by the attackers; at Lachish, they were restricted to sectors of the Assyrian fire (Tufnell 1953: 108; Gottlieb 2004: 1932–1942, 1963). At Beer-sheba, however, except for a single arrowhead—a Type IV specimen—the association of these two types with the enemy is straightforward.

The Type IV specimen was found on the glacis outside and next to the city wall and has a bent tip, indicating that it was shot *towards* the wall (i.e., by the enemy) and bounced back upon impact. We cannot rule out that other examples, although absent from clusters, were used by the defenders; indeed, Type IV makes its first appearance at Beer-sheba already prior to the Assyrian conquest—in Stratum III.

A comparison between Beer-sheba and Lachish reveals diversity between the missile arsenals of both the local Judahite defenders and the attacking Assyrian forces of these two sites.¹⁴ This is especially interesting in relation to the Assyrian army, since the arsenals at both sites can be related to the same military campaign. It may be speculated that the absence/presence of certain types of Assyrian arrowheads at Lachish vis-à-vis their presence/absence at Beer-sheba indicates that the troop of archers that used such arrowheads at the one site did not take part in the siege of the other (variants of Types III and V with a step-like thickening are absent at Beer-sheba; Type III-1 is absent at Lachish). The notion that different auxiliary groups of archers were integrated into the Assyrian army is well documented both in Assyrian military records, such as Sennacherib's "Letter to God," and iconographic sources, such as the Lachish reliefs (Malbran-Labat 1982: 89–101; Postgate 2000: 100–103; Reade 1972: 104–105, Pl. XXXVIII: b; Na'aman 1974: 35; Ussishkin 1982).¹⁵

¹⁴ For the attackers' and defenders' missile arsenals at Lachish, see Gottlieb 2004: 1963.

¹⁵ The use of different projectiles by different (ethnic) groups of archers in the Roman army is attested at Gamla (Gutman 1994: 96–97).

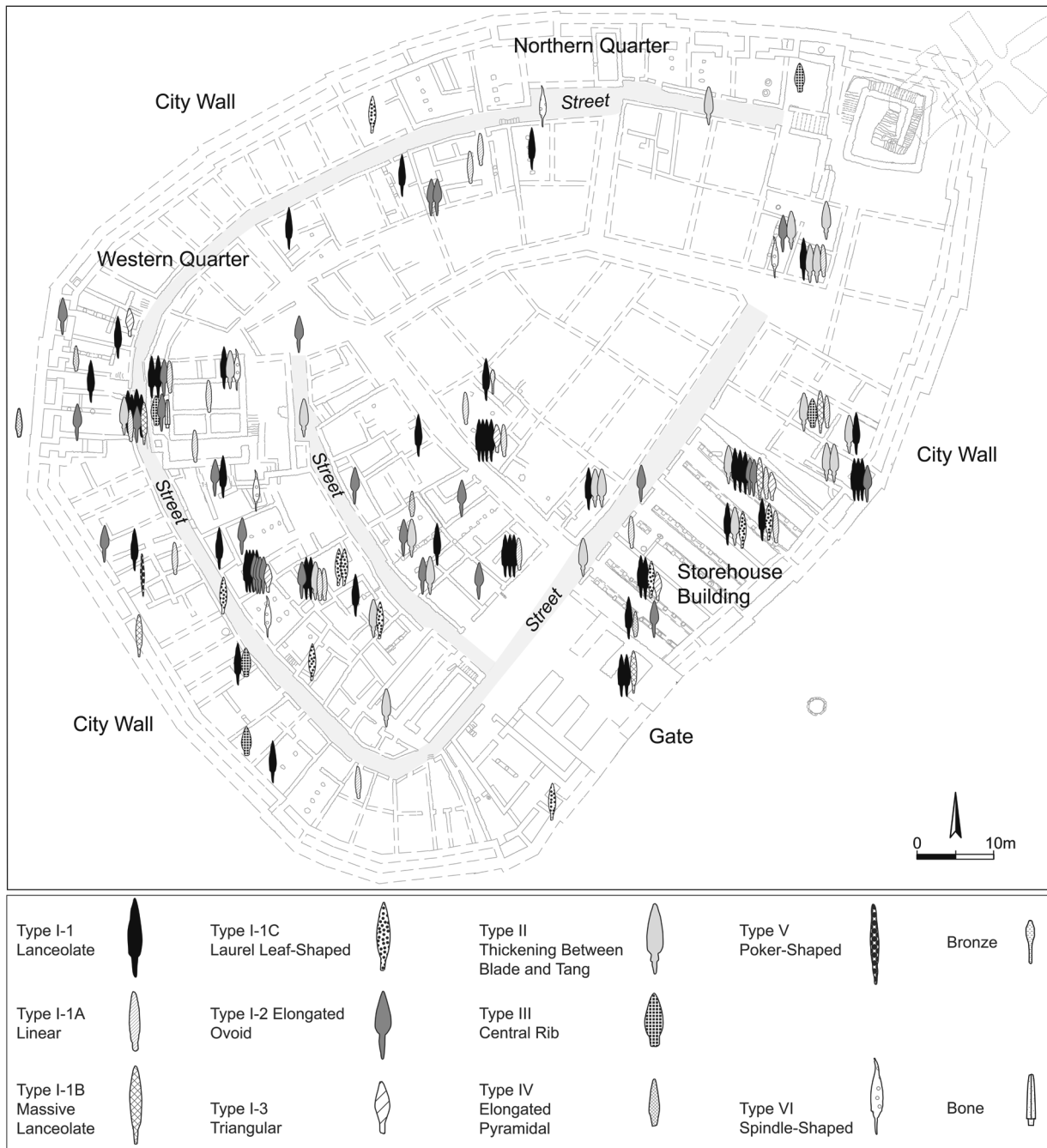


Fig. 24.15: Spatial distribution map.

RECONSTRUCTION OF THE BATTLE

The course of the battle that brought Stratum II at Beer-sheba to its violent end can be reconstructed with the aid of the spatial distribution of missiles complemented with topographical considerations. In terms of mound topography, the most favorable point for an assault on the city was its gentle southeastern slope, which is also the location of the city gate and its approach (Fig. 2.3). The northern slope of the tell can be excluded since it is especially high and steep.

In general terms, the preferred attack on a fortified city would have been conducted via the city gate or over the city wall by means of siege ladders. Breaching the city wall with battering rams would have been avoided if possible as this method required the most manpower, labor and time and could not be concealed from the defenders (Eph'al 1996: 66, 77). It was a last resort, used only when the easier and speedier tactics met considerable resistance by the defenders.

The most vulnerable point of a fortified city was its gate, and, to judge from numerous Assyrian representations and from the archaeological records at Lachish, Gezer, Jezreel and Bethsaida, it was indeed frequently chosen as the location from which to burst into a city (Dever 1985: 222, 226; Ussishkin and Woodhead 1997: 66; Arav and Freund 2000: 51–53). At Lachish, the city gate area was one of the two main zones of attack chosen by the Assyrians—as evidenced by large clusters of arrowheads, which demonstrate high dynamics of confrontation at that point (Gottlieb 2004).

In contrast, at Beer-sheba Stratum II, only three of the 158 arrowheads found were in the city gate area, all in Gate-room 311, where they were probably an arsenal used by the gate guards. None came from open areas near the gate, and not a single missile was found on the way leading to the city gate. Given the city gate's convenient location on gently sloping terrain, this evidence is rather perplexing. It must therefore be concluded that no major clash took place at the city gate.

Moreover, at Beer-sheba there is virtually no evidence of confrontation at any location outside the city wall. With the exception of a single arrowhead—a (missed) attacker's shot, possibly aimed to eliminate a guard atop the wall—not a single missile (arrowhead or sling-stone) was found. This negates the possibility that the Assyrian attackers penetrated the city by breaching the wall with battering rams, as it would clearly have given the defenders time to react. Otherwise, as at Lachish, evidence of defensive fire in the form of defenders' shots would clearly be expected (cf. Gottlieb 2004: 1951–1963). Beyond that, to move battering rams close to the city wall, the erection of a siege ramp would have been necessary in order to overcome the defensive glacis; no evidence of such a siege ramp was encountered in the excavations.

The picture of conquest that emerges from the evidence at Beer-sheba suggests that the city was attacked so suddenly and without warning that the defenders had no opportunity to withstand the invasion. In other words, the city was attacked by surprise, most probably under cover of night. This stands in direct contrast to the evidence at Lachish, where clear signs of heavy resistance were encountered, including preparatory defensive measures.

In light of the above, the most likely scenario is that the Assyrians penetrated the city by climbing the wall using assault ladders (for an alternative opinion, see Chapter 4). The element of surprise could have been enhanced by a simultaneous assault at several points on the city wall, a technique well attested for the Assyrian forces. This tactic would have caused problems even for defenders prepared for an attack; it would have forced them to scatter, making it more difficult to repel the assailants. The attackers' sudden appearance simultaneously at different locations, giving the impression of an overwhelming force, would clearly have caused panic among the inhabitants, possibly leading to the abandonment of the fortifications. The storm into the city may also have been facilitated by an attack by fire, in the form of burning arrows and torches. With parts of the city ablaze and the inhabitants of the city in panic, the invaders could have rushed in with minimal opposition.

The topography at Beer-sheba clearly allowed for the use of assault ladders. The uppermost portion of the glacis, next to the city wall, was almost level for a stretch of 3–3.5 m (Aharoni 1973b: 11). This would have permitted easy positioning of the ladders.

Without proper resistance the use of ladders was clearly the preferred method of assault (Eph'al 1996: 66–67). It was easy and fast. It would also explain the lack of a major clash in the gate area. Evidently, this strategy also eliminated the need of the labor-intensive measures of breaching the wall.

A possible model for the circumstances of the rush into the city of Beer-sheba, albeit much later, may be sought in Onasander's military tractate, "The General," dated to the 1st century CE: "Attacks by night are generally advantageous to the besiegers, since the besieged are unable to see what is happening and everything seems more terrible than they are, and they regard the attack as more dangerous than it really is. Hence there is confusion; no one is able to use sober judgement circumstances, and many things that are not happening are said to be happening; and the besieged does not know from what direction the enemy is attacking, nor in what numbers, nor with what force, and men run hither and thither, while the shouting and consternation cause disorder and panic" (Onasander, "The General," Chapter XLI in Aeneas *et al.* 1923).

Once the attackers surmounted the fortifications, the inhabitants composed themselves for minor resistance in the form of scattered skirmishes, if not an organized defense; this is indicated by the number of missiles found on the streets. Local confrontations took place in the Western Quarter (Street 38) and in the Northern Quarter (Street 524) of the city. The lack of short-range weapons in the streets may indicate that no hand-to-hand combat took place during the conquest of Tel Beer-sheba, although it must be conceded that such weapons were frequently collected after the battle for further use. We can assume that the Judahite defenders consisted primarily of night guards, who were regularly stationed at the city gate and walls but probably also at inner locations, such as the storehouses and the water system, and soldiers, who inhabited some of the buildings in the Northern Quarter.

The city was burned in a major conflagration, traces of which were evident all over the tell. It seems quite clear that we are dealing with a systematic incineration of the city. Total destruction was also the result of the Assyrian attack of Lachish III, a method well fit to Sennacherib's policy against Judah (Na'aman 1993).

No information exists regarding the fate of the inhabitants. No human remains have been unearthed at Beer-sheba, a situation also encountered at other sites with archaeologically documented siege battles, such as Lachish (Ussishkin 1982: 54), Gamla (Syon 1992: 31) and Olynthos in Greece (Lee 2001: 20). Following the Assyrian policy against defeated populations, it may be postulated that, apart from the elite, who were executed, survivors of the battle were sent into exile (see the Lachish reliefs; Ussishkin 1982: 99–113; 127–131). Casualties were probably removed for burial, possibly in mass graves, examples of which were excavated at Lachish (*ibid.* 1982: 56–58) and Ashdod (Bachi and Ben-Dov 1971: 88–105).

In sum, the picture that emerges at Beer-sheba Stratum II is an Assyrian onslaught that was sudden and unexpected. As opposed to Lachish, where the Assyrians made enormous efforts to conquer the city, such as the erection of a huge siege-ramp (Eph'al 1996: 79–80, n. 152; Ussishkin 2004: 707–723), it seems that Beer-sheba proved relatively easy prey.

CONCLUSIONS

The Beer-sheba arrowhead assemblage significantly supplements the corpus of Iron Age missiles in the Land of Israel in particular and in the Near East in general. The study presented here goes far beyond a purely typological analysis; it takes a holistic approach that combines typology and context, spatial distribution and mound topography and the full spectrum of related finds. This approach allows for the reconstruction of attack and defense strategies, circumstances of specific military events, as well as the distinction of local vis-à-vis foreign missile arsenals. The case-study of the Assyrian attack on Beer-sheba in Stratum II sheds light on the Assyrian conquests in Judah in particular and comprehension of ancient warfare in general.

The evolution of the Beer-sheba arrowhead assemblage from the simpler plain specimens in the earlier Iron Age strata (V–IV) to the more diverse and complex forms in the late Iron Age settlements (Strata III–II) illustrates the search for more effective solutions to warfare, as viewed against the background of an intensification of military tension in the region in the 8th century BCE. The great functional variety of projectile points in Stratum II testifies to the high level of development of the art of warfare in this period, a situation also encountered in Level III at Lachish (Gottlieb 2004).

This study proved to be a fundamental means for comprehending the strategy and tactics used in Assyrian conquests. Together with Level III at Lachish, Stratum II at Beer-sheba provides us with the only unequivocal cases of archaeologically documented Assyrian military operations in the Land of Israel. The fact that both sites were destroyed during one and the same event—Sennacherib’s campaign to Judah in 701 BCE—offered a unique opportunity for comparison. It emerged that the missile arsenals differed at the two sites—both of the defending Judahite and of the attacking Assyrian forces. In the case of the attacking forces this may be explained by the notion that the Assyrian army made use of different auxiliary corps of archers (using different types of arrows), which could have been engaged alternately in the military operations against different cities.

The evidence at Beer-sheba and Lachish demonstrates that in each individual case the Assyrians applied entirely different strategies and techniques of conquest, dictated by the particularities of a specific city (e.g., mound topography, character of fortifications) and the concomitant circumstances of the battle (e.g., preparedness of the defenders for attack and siege). Significantly, the use of different methods of conquest by the Assyrian army are in full accord with Sennacherib’s own accounts. Now for the first time we are able to witness these different methods in the archaeological record.

To conclude, it must be emphasized that, in contrast to the situation at Lachish, where the Assyrian conquest is well documented in textual and pictorial sources, no such documentation exists for the Assyrian attack on Beer-sheba. In this case, the comprehensive study of missiles provided the only means to clarify the circumstances of the city’s fall at the end of the 8th century BCE.

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