Fig. 1 The inscribed ivory pomegranate from the Israel Museum collection (88.80.129), two views

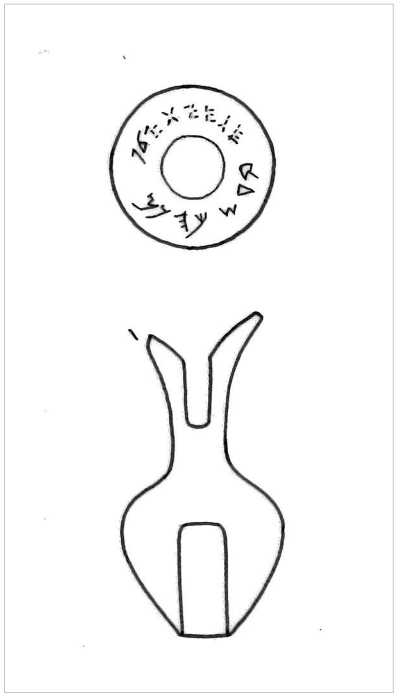

Fig. 2 The inscribed ivory pomegranate from the Israel Museum collection (scale 1:1)

Fig. 3 Late Bronze Age ivory objects with pomegranate headings from the Fosse Temple at Lachish. Israel Antiquities Authority collection

Pomegranate and Poppy-Capsule Headings from Ivory and Bone in the Late Bronze and Iron Ages

Putting the Famous Inscribed Ivory Pomegranate in Context[1]

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To Prof. Benjamin Sass,
who opened the door for me to the world of small finds....

The Ivory Pomegranate from the Israel Museum collection (IMJ 88.80.129; figs. 1 and 2), for a time considered one of the most powerful icons of the Iron Age in Israel, has in recent years almost completely disappeared from the public and scholarly eye. Purchased in 1988 for the Bronfman Archaeology Wing of the museum, its distinction was due not to the object itself but to the dramatic and archaeologically significant inscription on its shoulder: "[Belonging] to the Tem[ple of Yahwe]h, holy to the priests." In 2004, sensational revelations regarding the authenticity of the inscription greatly diminished the pomegranate's importance. In the wake of an examination by a committee of experts the pomegranate itself was deemed genuine and likely dated to the Late Bronze Age, but the inscription on its shoulder was judged to be a modern forgery.[2]

In 2007, the once highly valued artifact was removed from the museum's permanent exhibition and relegated to the storeroom, where it seldom attracts any interest.

This article does not deal with the inscription; it is rather a study of the object itself. Since Hebrew University professor Nahman Avigad first published information about the find,[3] this thumb-sized ivory has been largely neglected if not entirely forgotten. Now, years after it was purchased, exhibited, and sensationally exposed, it is time to "unearth" this artifact from the depths of the museum storeroom and to finally place it in its rightful, broader archaeological context.

The Israel Museum Pomegranate

The pomegranate from the Israel Museum collection is made of hippopotamus ivory.[4] It is 4.3 cm high and has a maximum width of 2.1 cm; it weighs only 6.23 g. The body, which is piriform, is perforated from the bottom to fit on top of a shaft, which was not preserved. About a quarter of the pomegranate's body is missing. Its long and elegant calyx was originally made up of six petals, of which only four have survived. This well-designed object represents a pomegranate in its blossom stage of growth (fig. 10). Morphologicaly, ivory pomegranate headings from Ugarit, Minet el-Beida, and Nauplion are the best parallels ever found for this artifact.[5]

The Archaeological Record

Ninety-four ivory/bone pomegranates and poppy-capsules, dated from the fourteenth to the sixth century BCE and geographically spread from the Levant to Cyprus, Greece, and Egypt were assembled in the database for this article (See Tables 1 and 2 and Appendix I).[6]

The Late Bronze Age

Bone and ivory shafts with pomegranate headings first appeared in the Late Bronze Age II.[7] The most famous examples dated to this period from the Southern Levant[8] are three specimens that were unearthed at Lachish: one from a tomb and two others from the Fosse Temple (Table 1: 5–7; figs. 3 and 4: 1–2). Five additional pomegranates were also uncovered in the Southern Levant from this period (Table 1: 1–4, 8).

The site that yielded most of the Levantine examples during this period was Ugarit, where twelve ivory pomegranates came to light (fig. 4: 4–6),[9] and five additional pomegranates were excavated in the immediate vicinity of the site at Minet el-Beida and Ras Ibn Hani (figs. 4: 7, 8; 12: 1).[10] An additional specimen from the Northern Levant, still set on its broken shaft, was found in Kamid el-Loz.[11]

Table 1 Late Bronze Age Pomegranate Headings from the Southern Levant (by Sites, from North to South)

	Site and context	Material	Date	Dimensions (cm)	Function according to publication	Reference	Notes
1	Megiddo; Tomb 989 C1	Bone	LB II	H 2.7; W 1.3	Spindle?	Guy and Engberg 1938: pl. 100: 26	Elongated schematic pomegranate with 4(?) pointed petals; unpublished type of perforation
2	Megiddo; Disturbed Stratum VII context	Bone	LB III(?)	H 4.2; W 1.6	Pinhead?	Loud 1948: pl. 197: 20	Pomegranate in its blossom stage of growth; probably four long pointed petals, only two survived; unpublished type of perforation
3	Beth Shemesh, Context was not provided (IAA H-180)	Bone	LB II(?)	H 3.5; W 1.8	–	Mackenzie 1912–1913: pl. XIII: 10 (left)	Pomegranate in its blossom stage of growth (schematically designed) with five pointed irregular petals. Not perforated, but was attached from bottom (to tenon?)

	Site and context	Material	Date	Dimensions (cm)	Function according to publication	Reference	Notes
4	Azekah, Context was not provided; fig. 4: 3	Reported as bone, though probably ivory	LB II(?)	H 4.7; 1.9	Chessman	Bliss and Macalister 1902: 146–147, pl. 76: 25	Pomegranate in its blossom stage of growth; 7(?) long pointed petals incised on their upper part with four horizontal lines; unpublished type of perforation
5	Lachish; Tomb 216; fig. 4: 1	Published as bone, yet British Museum website informs it is ivory	LB IIA	Pomegranate: H 3.6; W 1.5. Shaft: H 16.2; 1.4	Wand or spindle	Tufnell 1958: 87, pls. 28: 7; 54:2	Shaft with pomegranate heading (carved separately); pomegranate in its blossom stage of growth; five or six long pointed petals; unpublished type of perforation
6	Lachish; Structure III of Fosse Temple (Shaft IAA 1935-2330; pomegranate IAA 1934-7700); figs. 3: top; 4: 2	Hippopota-mus ivory	LB IIB	Pomegranate: H 4.5; W 1.8. Shaft: H 18.9; Max. W 0.9	Wand/ used for toiletry purposes	Tufnell, Inge and Lankester 1940: 62, pl. XX: 25	Shaft with pomegranate heading (carved separately); pomegranate in its blossom stage of growth with five long pointed petals; four incised horizontal lines on upper part of petals; perforated only from bottom
7	Lachish; Structure III of Fosse Temple (IAA 1935-2332); fig. 3: bottom	Hippopota-mus ivory	LB IIB	Pomegranate: H 2.1; W 1.3. Shaft: H 21.7; Max. W 0.8	Wand/ used for toiletry purposes	Tufnell, Inge and Lankester 1940: pl. XX: 26	Shaft with pomegranate heading (probably carved separately, but glued today); oval pomegranate with seven pointed petals; perforation type is unknown
8	Tell Beit Mirsim; Tomb 100 (IAA 1984-1277)	Bone	LB II	H 3.4; W 2.4	Scepter head	Ben-Arieh 2004: 20, fig. 2.45: 144	Round pomegranate with four(?) long pointed petals); perforated only from bottom

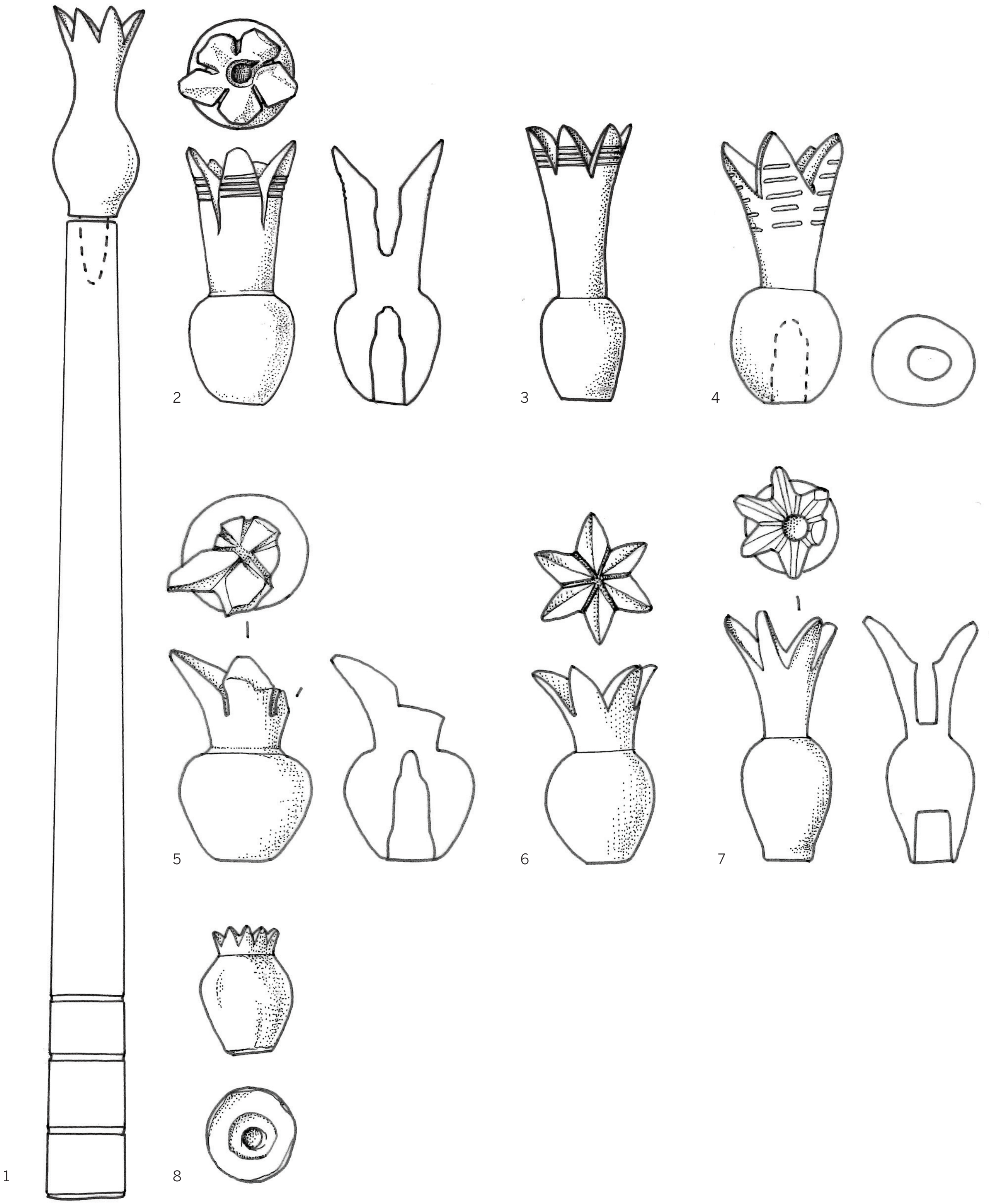

Fig. 4 Late Bronze Age ivory headings (scale 1:1): 1. Lachish (Table 1: 5; after Tufnell 1958: Pl. 28: 7); 2. Lachish (Table 1: 6; only the heading, without the shaft); 3. Azekah (Table 1: 4; after Bliss and Macalister 1902: Pl. 76: 25); 4. Ugarit (Appendix I: 5; after Gachet-Bizollon 2007: #255); 5. Ugarit (Appendix I: 10; after ibid.: #260); 6. Ugarit (Appendix I: 9; after ibid.: #259); 7. Minet el-Beida (Appendix I: 14; after ibid.: #251); 8. Ras Ibn Hani (Appendix I: 16; after ibid.: #263)

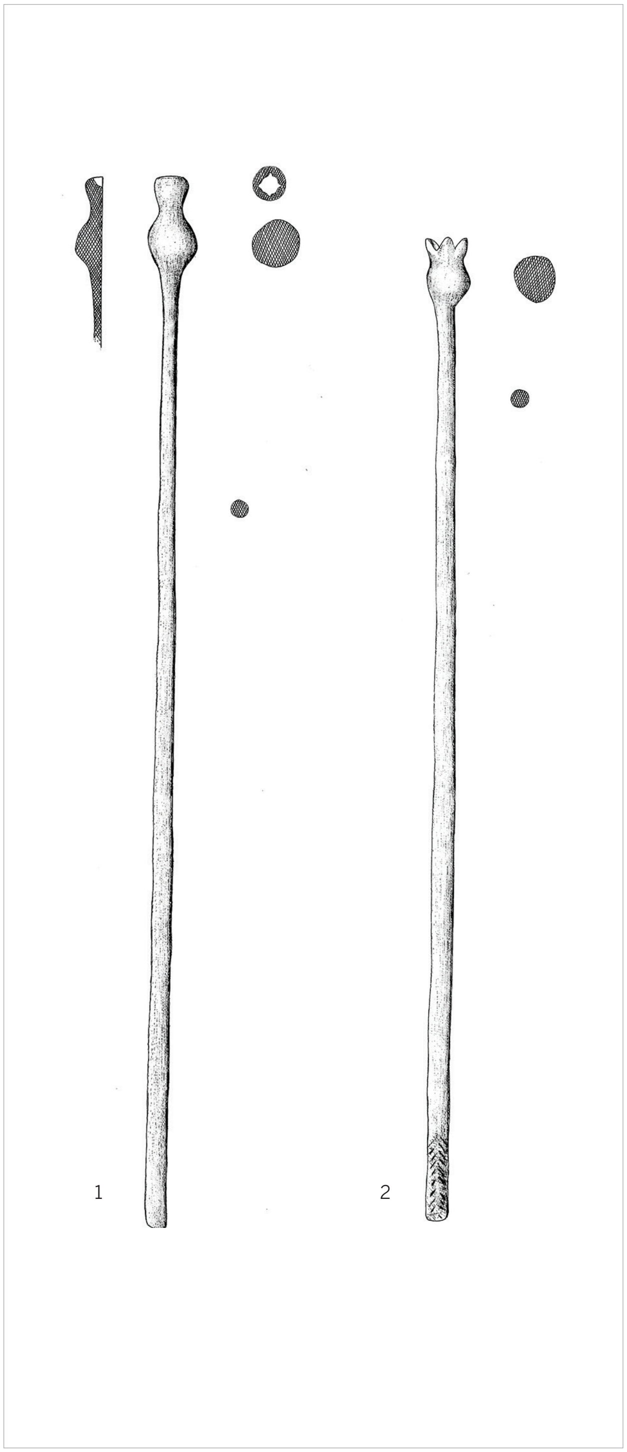

Fig. 5 Late Bronze Age bronze fruit-headed shafts from Tel Nami (scale 1:2): 1. IAA 1989-650; 2. IAA 1989-649

Fig. 6 Late Bronze Age bronze fruit-headed shafts from Tel Nami. Israel Antiquities Authority collection

Beyond the Levant, ivory/bone pomegranate headings were found in Egypt, where three examples have survived,[12] and another nine specimens were unearthed in Cyprus: six in Enkomi,[13] two at Kition,[14] and one at Ayios Iakovos.[15] Two additional Cypriote examples form part of the Cesnola Collection in the Metropolitan Museum of Art.[16] Further, two specimens were uncovered in Greece:[17] one in Nauplion[18] and one in the Artemision at Delos (fig. 12: 2).[19] Two more specimens were found in the Uluburun shipwreck.[20]

During this period, shafts with pomegranate or poppy-capsule headings were also manufactured in bronze (figs. 5, 6),[21] gold (Anatolian poppy-capsule-ornamented pins and a mold[22]), and wood (only Egyptian eighteenth Dynasty examples survived: from Lahun,[23] Gurob,[24] Deir el-Medina,[25] and the workmen's village at el-Amarna[26]). In all of these specimens the shaft and the fruit were made as a single piece. Remarkably, a small glass bottle from Arpera, Cyprus, dated to the fourteenth–thirteenth century BCE also imitates this shape.[27] The Eretz Israel Museum in Tel Aviv has a similar unprovenanced vessel in its collection.[28]

The Iron Age

Shafts with pomegranate headings continued to be produced during the Iron Age, and in addition, poppy-capsule headings made of ivory and bone were introduced during Iron Age I. Thus, the latter should be understood as a new development from this period, which probably descended from the metal examples of the Late Bronze Age.[29] Twenty-five examples of pomegranate/poppy-capsule headings (some still attached to their shafts) were unearthed in the Iron Age strata of the Southern Levant, and they are presented in detail in Table 2. Many of these examples are firmly dated according to their contexts from Iron Age I to Iron Age IIC. It should be emphasized that almost half of the examples from this large group were found in tombs around Tel Achziv (figs. 7, 8: 2–3, 9: 1–4; Table 2: 2–13).[30]

Table 2 Iron Age Pomegranate/Poppy-Capsule Headings from the Southern Levant (by Sites, from North to South)

	Site and context	Material	Date	Dimensions (cm)	Function according to publication	Reference	Notes
1	Sarepta, unknown	Ivory/ bone (not clear from the reports)	Iron II(?)	Complete object: H 11.7; other dimensions were not provided	Pin	Pritchard 1975: Fig 59:5; Pritchard 1988: 110, Figs. 29:1, 30:1	Pomegranate and shaft are carved as one piece; round pomegranate with an unknown number of petals; shaft is incised with lattice pattern between horizontal lines
2	Tel Achziv, Tomb Z V (IAA 1948-22)	Ivory	Iron IIA-IIB	H 1.5; W 1.4	–	Dayagi-Mendels 2002: fig. 3.6:5	Rounded pomegranate, only half preserved (the perforated part is missing); six(?) pointed petals

	Site and context	Material	Date	Dimensions (cm)	Function according to publication	Reference	Notes
3	Tel Achziv, Tomb Z XI (IAA 1948-91) ; fig. 9: 4	Ivory	Iron IIA-IIB	H 1.5	–	Dayagi-Mendels 2002: fig. 3.10:44	Oval poppy-capsule; schematic calyx with no petals; perforated only from bottom
4	Tel Achziv, Tomb Z XX (IAA 1948-123) ; fig. 9: 1	Bone	Iron IIA-IIB	H 1.7; W 1.3	–	Dayagi-Mendels 2002: fig. 3.16: 59	Cylindrical pomegranate with four pointed petals; perforated only from bottom
5	Tel Achziv, Tomb Z XX (IAA 1948-124) ; fig. 9: 2	Bone	Iron IIA-IIB	H 2.0; W 1.5	–	Dayagi-Mendels 2002: fig. 3.16: 60	Oval pomegranate with four pointed petals; perforated lengthwise
6	Tel Achziv; Tomb ZR XXXVI (IAA 1948-671)	Bone	Iron IIA-IIC	H 1.4; W 1.1	–	Dayagi-Mendels 2002: fig. 4.27: 118	Bag-shaped pomegranate with four horizontal petals; remains of shaft still attached from bottom; unpublished type of perforation
7	Tel Achziv; Family Tomb N. 1	Ivory	Iron IIA	H 1.4; W 1.2	Staff head	Mazar 2004: 131, fig. 31: 31	Round poppy-capsule with eight small closed petals; perforated only from bottom
8	Tel Achziv; Tomb T.C.4	Ivory	Iron IIA-IIB	H 1.9; W 1.3	Staff head	Mazar 2001: fig. 18: 6; Photo 44	Oval poppy-capsule with six small closed petals; perforated only from bottom
9	Tel Achziv; Tomb T.C.2 (IAA 1989-498)	Ivory	Iron IIA-IIB	H 1.6; W 1.5	Staff head	Mazar 2001: fig. 25: 5	Round pomegranate with six pointed petals; perforated lengthwise

	Site and context	Material	Date	Dimensions (cm)	Function according to publication	Reference	Notes
10	Tel Achziv; Tomb 979 (IAA 1981–1885); figs. 7: 1; 8: 2	Ivory/ bone	Iron IIB(?)	Pomegranate: H 1.25; W 1.3. Shaft: H 16.6; Max. W 0.8	Scepter	Société des artistes indepéndants 1985: 172, right; Avigad 1990: 163	Shaft with pomegranate heading (carved separately); round pomegranate with six pointed petals; perforated lengthwise
11	Tel Achziv; Tomb 979 (IAA 1981–1886); figs. 7: 2; 8: 3	Ivory	Iron IIB(?)	Pomegranate: H 1.65; W 0.85. Shaft: H 16.3 (addition part is glued in pomegranate heading); Max. W 0.9	Scepter	Société des artistes indepéndants 1985: 172, left; Avigad 1990: 163	Shaft with pomegranate heading (carved separately, but glued today); with round body and eight pointed petals; perforated only from bottom
12	Tel Achziv; Tomb 979 (IAA 1991-2589)	Ivory	Iron II	H 1.4; W 1.1	–	Moshe Prausnitz excavations; unpublished	Round pomegranate; only half of object preserved; bad preservation state (with thick patina); not even a single petal completely preserved; probably four to six petals; perforated only from bottom
13	Tel Achziv; Tomb 4012 (IAA 1996-311); fig. 9: 3	Ivory	Iron IIA-IIC	H 4.9; W 3.1	–	Moshe Prausnitz excavations; unpublished	Large rounded pomegranate with probably eight petals (only two preserved); perforated lengthwise; only half of the object preserved
14	Ḥorvat Rosh Zayit; room in fort (IAA 1996-3159)	Ivory/ bone	Iron IIA	H 8.7; pomegranate: H 1.4; W 0.9	–	Gal and Alexandre 2000: Figs. III.114b; III.119: 5	Pomegranate and shaft were carved as one piece; pomegranate with four small closed petals

	Site and context	Material	Date	Dimensions (cm)	Function according to publication	Reference	Notes
15	Megiddo; granary 1414	Bone	Iron IIC	H 7.35; pomegranate: H 1.3; W 1.0	Rod	Lamon and Shipton 1939: pl. 96: 20	Pomegranate and shaft were carved as one piece; rectangular pomegranate; number of pointed petals unknown
16	Megiddo; fill(?)	Bone	Disturbed Iron IIB	H 6.4; pomegranate: H 1.0; W 1.0	Rod	Lamon and Shipton 1939: pl. 96: 21	Pomegranate and shaft were carved as one piece; angular body pomegranate; number of pointed petals unknown
17	Megiddo; floor 1478 in front of monumental gate	Bone	Iron IIB	H 2.3; W 1.5	Amulet or stick head	Lamon and Shipton 1939: pl. 100: 10	Rectangular pomegranate with four(?) pointed petals; probably perforated lengthwise
18	Tel Reḥov; context was not provided	Bone	Iron IIA	Not provided	Pendant	Mazar 2016: fig. 143	Pomegranate and shaft were carved as one piece; rectangular pomegranate with four pointed petals; the shaft is perforated in its bottom (to be hanged) and might be secondary used as a pendant only after been broken
19	Ophel, Jerusalem; context was not provided	Bone	Disturbed context	H 1.2; W 0.9	Multifunc-tional	Naeh 2015: fig. III.10.1: 15	Rounded pomegranate with six rounded petals; perforated lengthwise
20	Ophel, Jerusalem; context was not provided	Bone	Iron IIA(?)	H 1.6; W 0.95	Multifunc-tional	Naeh 2015: fig. III.10.1: 16	Cylinder-like elongated pomegranate with four pointed petals; perforated only from bottom

	Site and context	Material	Date	Dimensions (cm)	Function according to publication	Reference	Notes
21	City of David, Jerusalem; rock-cut 'pool' (IAA 2011-1335)	Ivory	Iron IIA	H ca. 2	Decoration of furniture	Reich, Shukron and Lernau 2007: 160–161; fig. 10	Rounded pomegranate with unknown horizontal rounded petals; a bird sits upon it; perforated only from bottom
22	Tel Miqne (Ekron); fill; fig. 9: 5	Ivory	Iron I	H 1.6; W 1	–	Ben-Shlomo and Dothan 2006: fig. 15:4; Dothan and Ben-Shlomo 2016: 474, fig. 8.2: 5	Biconical pomegranate with five rectangular petals; angular perforated body (only from bottom)
23	Ashkelon; room of building	Ivory	Iron I	Not provided	Small scepter	Stager 2008: 1582	Round poppy-capsule with eleven pointed petals; unpublished type of perforation
24	Tel Sera; foundation of wall (IAA 1987-18); figs. 9: 6; 8: left	Bone	Iron II (disturbed context)	Poppy-capsule: H 1.5; W 1.0. Shaft: H 19.2 (addition part is glued inside the heading); max. W 0.75;	Spindle	Arie forthcoming	Shaft with poppy-capsule heading (carved separately, but glued today); with rectangular body and eleven pointed petals; perforated only from bottom
25	Tel Malḥata; floor of a building	Bone	Iron IIC	H 4.0; W 0.8	Pin	Freud and Reshef 2015: 656; fig. 14.6.2:2	Pomegranate and shaft are carved as one piece; oval pomegranate with six short squared petals; dimples on pomegranate give a realistic appearance; shaft is incised with horizontal lines

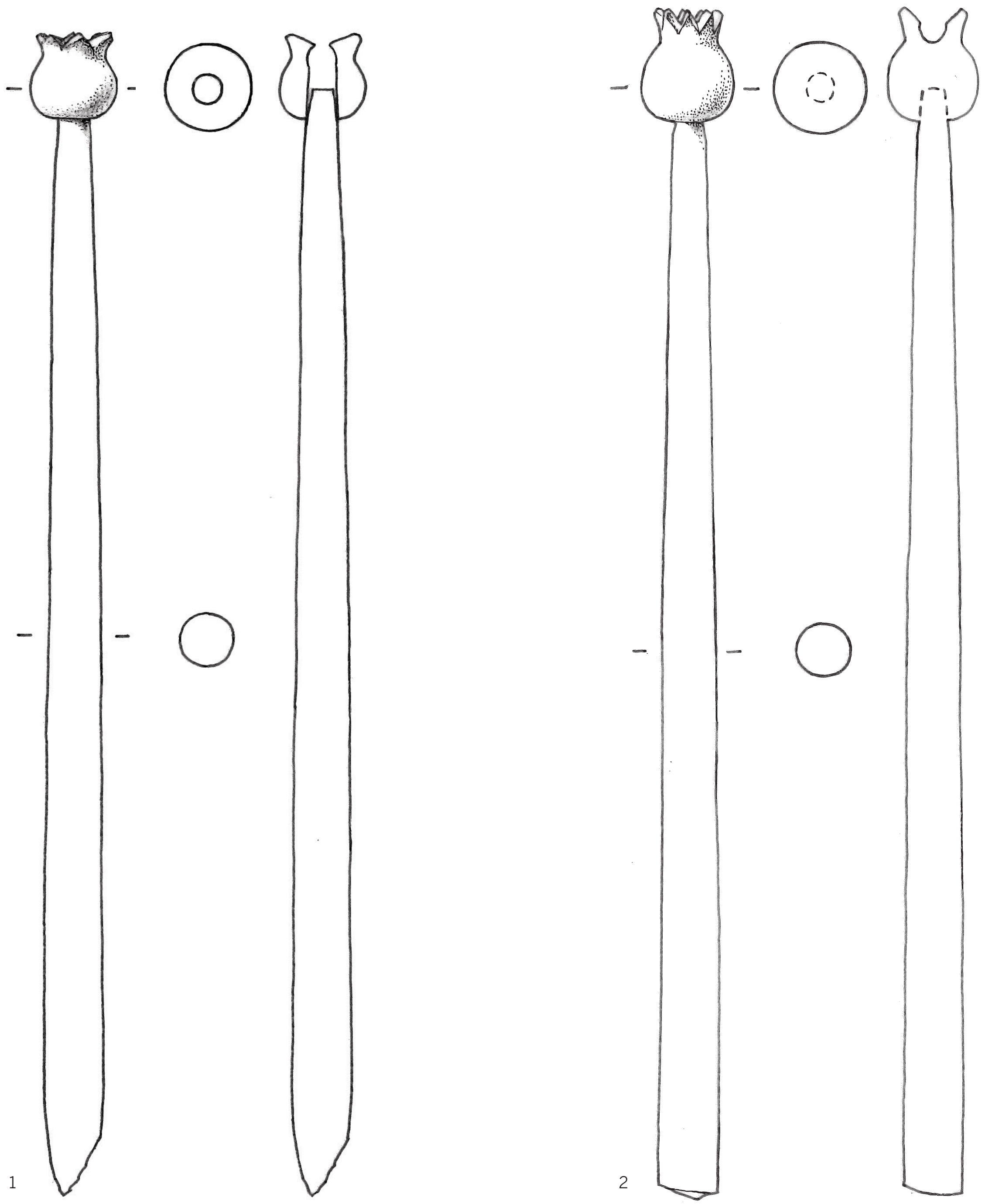

Fig. 7 Iron Age ivory shafts with pomegranate headings from Tel Achziv (scale 1:1): 1. Table 2: 10; 2. Table 2: 11

Fig. 8 Two Iron Age ivory shafts with pomegranate headings from Tel Achziv (2-3) and a shaft with poppy-capsule heading from Tel Sera (1).
Israel Antiquities Authority collection

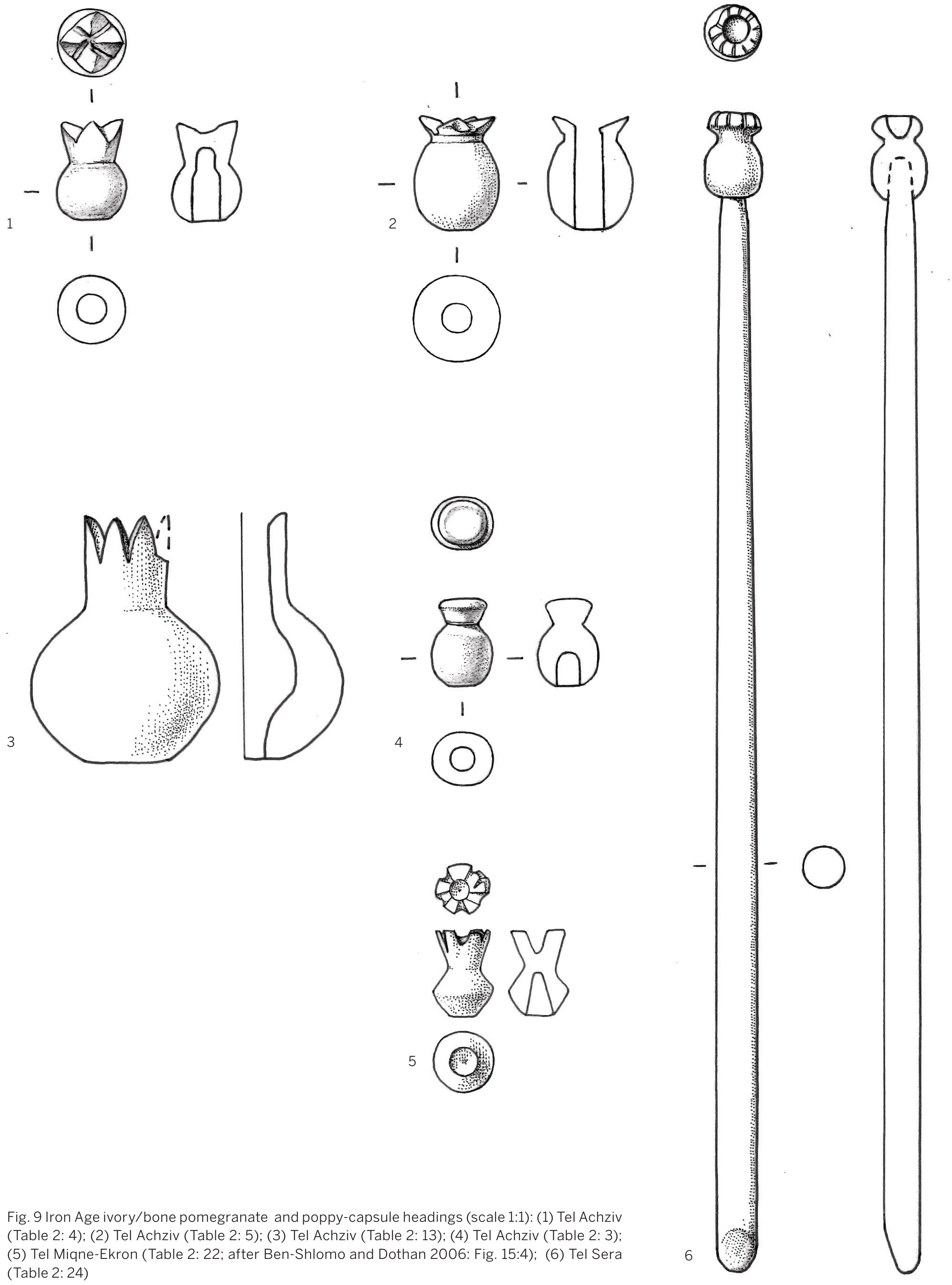

Fig. 9 Iron Age ivory/bone pomegranate and poppy-capsule headings (scale 1:1): (1) Tel Achziv (Table 2: 4); (2) Tel Achziv (Table 2: 5); (3) Tel Achziv (Table 2: 13); (4) Tel Achziv (Table 2: 3); (5) Tel Miqne-Ekron (Table 2: 22; after Ben-Shlomo and Dothan 2006: Fig. 15:4); (6) Tel Sera (Table 2: 24)

Other pomegranate/poppy-capsule headings were also found beyond the Southern Levant during the Iron Age.[31] In the Northern Levant eleven examples were uncovered in Hama (fig. 11: 3),[32] two in ʿAin Dara (fig. 11: 1, 2);[33] two in Tell Afis;[34] and one in Tell Mastuma.[35] Moreover, Cyprus yielded nine specimens: three in Kition,[36] one at Palaepaphos,[37] and five in Lapithos.[38]

Further bronze examples were unearthed at Tell en-Naṣbeh,[39] Tawilan, Jordan,[40] Kamid el-Loz,[41] Deve Hüyük near Carchemish,[42] Lapithos, Cyprus,[43] Tarsus, Turkey[44] and Sparta, Greece.[45] An additional gold specimen was also uncovered in Lapithos, Cyprus.[46] It is worth noting that the bronze type continued well into the Persian period and even beyond, as reflected by examples from Hazor,[47] Ḥorvat Malṭa,[48] Gezer[49] and Nush-I Jan (Iran),[50] but that discussion is beyond the scope of this article.[51] Worth noting, two long pins made of silver and gold with poppy-capsule headings were found in a tomb dated to the sixth century BCE in Aigai, Greece.[52]

Distribution, Morphology, and Raw Materials

A comparative study based on the ninety-four ivory and bone pomegranates/poppy-capsules described above (Tables 1 and 2 and in Appendix I) delineates the profound differences between the LBA specimens and the examples dated to the Iron Age. Several variables were used for this analysis: the geographic distribution of the specimens and their archaeological contexts; their morphological development (form, size, etc.); and the diachronic changes in the raw materials of manufacture.

For the purpose of this comparison, the LB II is defined as the fourteenth–thirteenth centuries BCE; Iron Age I is dated to the twelfth–eleventh centuries BCE; and Iron Age II ranges from the tenth to the sixth century BCE. This dating system is of course only schematic, but it fits the main principles of the Ancient Near Eastern chronologies. It should be noted that whereas the periods studied here are not equal in their duration (the LBA about 200 years and the Iron Age about 600 years), the number of pomegranates dating to each period is almost the same: forty-four date to the LBA, and fifty to the Iron Age (see Table 3). This fact likely signifies that the early production of these items was massive from the beginning.

Geographic Distribution

Table 3 presents the geographical distribution of the researched items. It demonstrates the major shift in the manufacturing regions in the transition from the Bronze to Iron Ages. Whereas the Northern Levant served as the main production center during the LBA, production of these items shifted southward during the Iron Age toward the Southern Levant. In any case, it is important to note that in both periods, the core area of this phenomenon was the Levant, where ca. 60% of the items in the LBA and more than 80% of the ones from the Iron Age were unearthed. In both periods, Cyprus yielded between a fifth to a quarter of the specimens, which attests to its tight link with the Levant, but probably also indicates an independent manufacturing center.

It is interesting to note that it was only during the LBA that ivory pomegranates were found beyond the Levant and Cyprus. Therefore, the examples from Egypt and Greece most probably reflect commercial ties, as is also suggested by the specimens from the shipwreck of Uluburun.

A closer look at the geographical distribution of these items shows that during the LBA the main center of the Northern Levant was Ugarit and its immediate surroundings. In the Southern Levant the major concentration of these objects was found in the Judean lowlands at four different sites (Table 1: 3–7). During the Iron Age, Tel Achziv and Tell Hama were the principal sites for these objects, yielding twelve and eleven examples, respectively.

Table 3 Distribution of Ivory/Bone Pomegranates/Poppy-Capsules with Provenance (According to Period)

	Late Bronze Age		Iron Age		Total	
	n=	%	n=	%	n=	%
Southern Levant	8	18%	25	50%	33	35%
Northern Levant	18	40%	16	32%	34	37%
Cyprus	11	25%	9	18%	20	21%
Uluburun	2	5%			2	2%
Greece	2	5%			2	2%
Egypt	3	7%			3	3%
Total	44	100%	50	100%	94	100%

Archaeological Context

Tables 4 and 5 present the distribution of the researched items according to their archaeological context during the LB and Iron Ages. It seems that during the LBA ivory pomegranates were mostly used in domestic and burial contexts. However, it was only in the Northern Levant that these objects were found in domestic contexts, as elsewhere they were mostly restricted to tombs. It seems logical to assume that, owing to the tomb-focused excavations in these parts, six objects from unknown contexts (from Cyprus and Egypt) also originated from burials contexts. Four additional objects were found in cultic contexts in temples at Lachish, Kamid el-Loz, and Delos (Table 1: 6, 7; Appendix I: 18, 33).

During the Iron Age (Table 5), a sharp increase in burial contexts can be ascribed to the fruit-shaped specimens, which now represent more than half of the excavated examples. Others were uncovered in domestic contexts, in both the Northern and Southern Levant, though in smaller numbers than in the LBA. The latest specimens originating in cultic contexts are three Cypriote examples from the twelfth century BCE (all from the temples area in Kition).

Palatial contexts are noticeably rare comprising only one LBA example from Ugarit and an additional example from Iron II Megiddo, a pattern that has far reaching implications for the presumed function of these objects (see below).

Table 4 Distribution of the Contexts of LBA Ivory/Bone Pomegranates/Poppy-Capsules

	Domestic	Burial	Cultic	Palatial	Shipwreck	Unknown
Southern Levant		3	2			3
Northern Levant	14	2	1	1		
Cyprus		8				3
Uluburun					2	
Greece		1	1			
Egypt						3
Total	14 (32%)	14 (32%)	4 (9%)	1 (2%)	2 (5%)	9 (20%)

Table 5 Distribution of the Contexts of Iron Age Ivory/Bone Pomegranates/Poppy-Capsules

	Domestic	Burial	Cultic	Palatial	Unknown
Southern Levant	4	12		1	8
Northern Levant	4	10			2
Cyprus		6	3		
Total	8 (16%)	28 (56%)	3 (6%)	1 (2%)	10 (20%)

Morphology

Tables 6–10 list several morphological aspects of the researched items. Tables 6 and 7 show the representations of the fruits. One can easily observe that during the LBA most of the headings represent pomegranates in their blossom stage of growth (fig. 10), whereas only ca. 10% of the examples suggest a ripe fruit. However, during the Iron Age, most of the headings depict ripe pomegranates and poppy-capsule headings appear for the first time (as opposed to metal examples that appeared already during the LBA, see Tel Nami[53]).[54]

Fig. 10 The inscribed ivory pomegranate from the Israel Museum collection (88.80.129) and a pomegranate in blossom

Table 6 Distribution of Form Type in LBA Ivory/Bone Pomegranates

	Pomegranate blossom	Ripe pomegranate	Schematic pomegranate	Unknown
Southern Levant	5	2	1	
Northern Levant	14	1		3
Cyprus	7	2		2
Uluburun	2			
Greece	2			
Egypt	2			1
Total	32 (73%)	5 (11%)	1 (2%)	6 (14%)

Table 7 Distribution of Form Type in Iron Age Ivory/Bone Pomegranates/Poppy-Capsules

	Ripe pomegranate	Schematic pomegranate	Poppy-capsule	Unknown
Southern Levant	19		5	1
Northern Levant	11	5		
Cyprus	5		4	
Total	35 (70%)	5 (10%)	9 (18%)	1 (2%)

Table 8 presents the distribution of different types of attachments between the shaft and the fruit-shaped heading. During the LBA, all the defined headings were carved separately from the shafts, but a new technique was introduced in the Iron Age. Shafts with fruit-shaped headings were carved as one piece and so were permanently attached to one another. Nearly half of the Iron Age examples were manufactured in this way, likely attesting to the different function of at least some of these examples (see below).

Table 9 shows the distribution of body-perforation-type among the separated headings in both the LB and Iron Ages. In both periods, two types of perforation were in use: throughout the body of the fruit-shaped heading (from top to bottom) or a limited perforation of the bottom of the fruit that does not go through to its top. Almost all of the LBA examples were perforated only at the bottom, whereas the Iron Age examples were equally divided between the two techniques.

Table 8 Distribution of Attachments between Shaft and Fruit-Shaped Headings in the LBA and the Iron Age

	LBA		Iron Age	
	Separated	Unknown	Separated	One piece
Southern Levant	7	1	19	6
Northern Levant	16	2	2	14
Cyprus	10	1	6	3
Uluburun	2			
Greece	2			
Egypt	2	1		
Total	39	5	27	23

Table 9 Distribution of Perforation of the Body of Separated Fruit-Shaped Headings in the LBA (n = 39) and the Iron Age (n = 27)

	LBA			Iron Age		
	Bottom Only	Throughout body	Unknown	Bottom Only	Throughout body	Unknown
Southern Levant	2		5	10	5	4
Northern Levant	15	1			2	
Cyprus	5	2	3	1	3	2
Uluburun			2			
Greece			2			
Egypt			2			
Total	22	3	14	11	10	6

The last morphologic feature examined for this study is the size of the fruit-shaped headings (Table 10). Only examples with complete profiles are included, and of the examples, those that were carved as one piece with the shafts are left out, as they are all much smaller than the free headings, so including them would have led to biased results. Even without all of these Iron Age specimens, Table 10 clearly demonstrates that the LBA headings are much bigger than their Iron Age successors. In all regions except for Cyprus, the LBA specimens were almost twice as big as the Iron Age examples. The Cypriote anomaly was due to three smaller headings from Enkomi and Kition. Since at least two of these examples are of ripe pomegranates (the third one is too broken to be defined), they might be understood as the precursors of the Iron Age examples. One should also mention an ivory pomegranate from an Iron Age tomb (4012) at Tel Achziv, which is published here for the first time (fig. 9: 3; Table 2: 13). It is the largest example from both the LB and Iron Ages ever discovered, 4.9 cm high. This unique specimen is beyond explanation.

Table 10 Average Height (in cm) of Fruit-Shaped Headings with Complete Profile (Only Separated Specimens)

	LBA	Iron Age
Southern Levant	3.6 (n = 7)	1.8 (n = 17)
Northern Levant	3.8 (n = 12)	2 (n = 2)
Cyprus	3.2 (n = 9)	2 (n = 6)
Greece	3.9 (n = 1)	
Egypt	3.8 (n = 1)	
Total	3.6 (n = 30)	1.9 (n = 25)

Raw Materials

Table 11 lists the distribution of materials that were used to produce the studied items. During the LBA most of the specimens were carved from ivory. Only 14% of the objects from this period, mostly from the Southern Levant, were recognized as bone. Out of thirty-seven ivory examples, ten were more precisely defined as hippopotamus ivory and only one as elephant ivory. The latest hippopotamus ivory specimen comes from Palaepaphos, Cyprus (Appendix I: 56) and can be dated to the twelfth century BCE (Iron Age I). Not a single Iron Age II example was identified as hippopotamus ivory.[55]

During the Iron Age the distribution of raw materials changed completely with fewer than half of the objects in ivory and the rest in bone. This change may attest to the higher value of ivory during the Iron Age and its cheaper replacement by bone items.

Table 11 Distribution of the Raw Material of Headings in the LBA and the Iron Age

	LBA					Iron Age			
	Ivory	Hippo ivory	Elephant ivory	Ivory/ Bone	Bone	Ivory	Hippo ivory	Ivory/ bone	Bone
Southern Levant	2	2			4	11		3	11
Northern Levant	9	6	1		2	4			12
Cyprus	8	2		1		6	1		2
Uluburun	2								
Greece	2								
Egypt	3								
Total	26	10	1	1	6	21	1	3	25

The Symbolism of Pomegranates and Poppy-Capsules

Pomegranates

Representations of pomegranates in various materials were very common,[56] and their remains as well as their symbolism in both the Bible and Ancient Near Eastern art have been dealt with in depth.[57] This rich assemblage of objects is dated, as are the bone/ivory examples, from the LB II to the end of the Iron Age. There is no doubt that the pomegranate was a major agricultural product in the Levant during this period. It is noteworthy in this regard that the fruit was identified with the Phoenicians, as attested by its Roman name: *malum punicum* = Punic apple.[58]

Owing to their many seeds, pomegranates were associated with abundance, fruitfulness, and fertility – hence with life. However, their appearance in tombs and their later association with Persephone in Greek mythology also link them to the underworld.[59] Immerwahr[60] proposed that the red juice played a symbolic role, appropriate for those going on a journey to the underworld. Presumably, the long-term preservation of pomegranates after they have been harvested, as well as their medicinal traits, reinforced the deep meaning of this iconic symbol.

Moreover, pomegranates were also considered a symbol of femininity, probably owing to the "juiciness" and the color of the fruit, its aphrodisiac nature, and its firm and round form, which was compared with women's breasts.[61] In the fourth–second centuries BCE in Greece, the fruit was given to brides, as it was associated with legal fertility, hence to marriage.[62] As a divine attribute, the pomegranate seems to be largely limited to the domain of goddesses, such as the Ancient Near Eastern Kubaba and the later Aphrodite, Hera, Persephone, and Kybele.[63]

Bennett[64] suggested viewing pomegranates (in the Greek world) as liminal objects, mediating between opposing conditions: life and death, male and female, immediacy and eternity. This interesting interpretation can bridge the two principal symbolic meanings that were described above, but the geographic and chronological gaps inhibit a direct projection of these values over the Levantine pomegranates.

Two special examples of ivory/bone pomegranate headings from Ugarit (Appendix I: 4) and the City of David in Jerusalem (Table 2: 21) may shed further light on questions of symbolism. The pomegranate from Ugarit is carved on a woman's head and a bird, probably a dove, sits upon the ivory pomegranate from Jerusalem. Whereas femininity is explicit in the example from Ugarit, the dove should also be related to the woman's sphere, as it is the attribute of the goddess Ishtar.[65] These examples, together with the wide perception of the pomegranate as a symbol of femininity, provide the key for understanding the symbolic meaning of pomegranate headings.

Poppy-Capsules

In contrast to the vast literature on pomegranates, poppies have been studied less intensively,[66] which is probably due to the foreign nature of this species in the Levant and the debated issue of the occurrence of the plant in that region.[67] Recently, Frumin convincingly showed that the origin of opium poppy (*papaver somniferum*) should be attributed to the Aegean region, where locally cultivated seeds were found, and that it was only introduced to the Southern Levant during Iron Age I through the Philistine migration.[68]

Many symbolic associations have been linked to the poppy.[69] Scholars have understood it as a representation of life or wealth by reason of the oil taken from its many seeds. Furthermore, they have associated it with healing because of its narcotic, hypnotic, and general curative properties. Lastly, they have assumed it might be linked to euphoria, voluptuous ecstasy, and increased fertility. They suggest that where several capsules appear together, they imply the multiple symbolic meanings listed above.

Among the fifty ivory/bone pomegranate/poppy-capsule headings dated to the Iron Age (Table 2; Appendix I: 37–61), only nine (fewer than a fifth) represent poppy-capsules and not a single specimen can be dated to the LBA. The small number of poppy-capsule headings in this group, together with their later appearance, may reflect a Western influence on the Levantine pomegranate-ornamented shafts. However, the transition from pomegranate to poppy-capsule headings may have had little effect on their symbolic meaning as the basic representational media in both cases remained the same – ivory/bone shafts with fruit-shaped headings.

The Use of Shafts with Pomegranate/ Poppy-Capsule Headings

The use and function of ivory and bone shafts with pomegranate and poppy-capsule headings are largely debated. Almost 120 years have passed since Bliss and Macalister[70] erroneously labeled their find from Tel Azekah "a chessman," which was followed by a wide array of definitions.[71] Terminology has ranged from rods,[72] to wands,[73] staff heads,[74] scepters,[75] furniture decoration,[76] spindles,[77] pins,[78] toiletry accessories such as kohl sticks,[79] and lately they have also been considered to be multifunctional objects.[80]

These definitions can be divided into four major categories: (1) symbolic objects of rule and cult (rods, wands, staff heads, and scepters); (2) decorative elements for furniture, most probably also with a symbolic value; (3) functional objects related to textile manufacture and use (spindles and pins); and (4) functional objects related to beauty and cosmetics (pins and kohl sticks).

Based on the evidence of typology and context, it seems that the association with royal and priestly functions should be entirely rejected. The usual length of shafts with pomegranate/poppy-capsule headings is ca. 20 cm, and the shaft width is only about 1 cm. These modest dimensions suggest that they were never used to manifest splendor and marvel, being too thin to be comfortably held and lacking an impressive appearance. Moreover, nowhere in the art of the Ancient Near East can one find a male figure (either a noble or a priest) holding such an object.

Labeling these objects as furniture decoration is also doubtful, especially when they are found together with their shafts. Naeh[81] compares the bone pomegranates from Jerusalem to a floral motif that adorned the famous bed from Salamis. Yet a closer look at the finds from Salamis demonstrates that Naeh is actually referring to lotus flowers – a well-rooted motif in ivory/bone art. Moreover, the ornaments from Salamis were attached to the wooden parts of the bed from the bottom and the top, as opposed to the pomegranates discussed here, which were, in most cases, perforated only at the bottom.

In order to deal with the last two groups (functional objects related to textiles or beauty), one should differentiate between the shafts with fruit-shaped headings that were produced as single pieces and those for which the shaft and the heading were made separately.

Shafts with ivory/bone pomegranates and poppy-capsules that were made as one piece can be divided into two subgroups, differentiated by the structure of the shafts, some of which taper toward their edges (fig. 11: 1, 2) and others that become wider (fig. 11: 3). In both subgroups, the fruit-shaped headings tend to be much smaller than those of pomegranates and poppy-capsules that were not made as single pieces, which sometimes measure only 0.5 cm in height and are narrower than the maximum width of the shaft (see below).

The form of the shaft has to be related to the use of these objects. Tapering shafts might have been used as pins or kohl sticks. This assumption is supported by the length of the only three *complete* examples that survived from Sarepta (Table 2: 1), ʻAin Dara and Lapithos (Appendix I: 48, 59), which measure only 11.7 cm, 7.4 cm, and 6.2 cm, respectively. Tapering shafts are also present on the examples from Megiddo, Reḥov, Malḥata, ʻAin Dara, and Lapithos (see Table 2: 15, 18, 25 and Appendix I: 49, 60, 61).


1


2


3

Fig. 11 Iron Age ivory/bone pomegranate-headed shafts made in one piece (scale 1:1): (1) ʿAin Dara (Appendix I: 48; after Stone and Zimansky 1999: Fig. 88: 5); (2) ʿAin Dara (Appendix I: 49; after ibid.: Fig. 88:6); (3). Hama (Appendix I: 37; after Riis 1948: Fig. 217A)

Widening shafts were not designed to be sharp pins or fine kohl sticks and probably had different functions. The only two complete objects of this type were found at Hama (fig. 11: 3; Appendix I: 37) and Tell Afis (Appendix I: 50), and they measured 21 and 24.5 cm in length, respectively. The similar proportions of these examples to those of the fruit-shaped headed shafts that were manufactured separately may suggest similar functions. Both groups have a widening shaft, which supports the notion of their comparable functionality.

The most comprehensive studies of pomegranate/poppy-capsule headings were conducted by Gachet-Bizollon and by Sauvage. Gachet-Bizollon[82] published the pomegranate headings from Ugarit and its surroundings and then surveyed this phenomenon throughout the LBA. Sauvage[83] thoroughly explored the use and function of what she defines as ivory/bone spinning kits in the LB and Iron Ages. Both scholars discuss two outstanding pomegranate-heading shafts set with a spindle whorl from Minet el-Beida (Appendix I: 13[84]) and Delos (Appendix I: 33[85]) (fig. 12). These shafts clearly confirm their identification as spindles. Furthermore, Sauvage[86] demonstrates that fruit-shaped-headed shafts were always found together with tools of the textile industry (whorls, shafts, etc.), which reinforced their close relationship.

Spinning, as other features of the textile industry in the Ancient Near East and beyond, was an important activity that was performed exclusively by women.[87] In addition to the spindles that have actually been found in excavations, their images appear in iconographic depictions from the Ancient Near East[88] some even with fruit-shaped headings. The symbolic value of spindles, which can be considered gender indicators, was augmented by adorning them with a pomegranate or a poppy-capsule heading.

Apart from their symbolic value, the fruit-shaped headings were probably also used to fix the end of the thread on the petals instead of a standard hook.[89] As noted above, in the widening shafts that were made as one piece with the fruit-

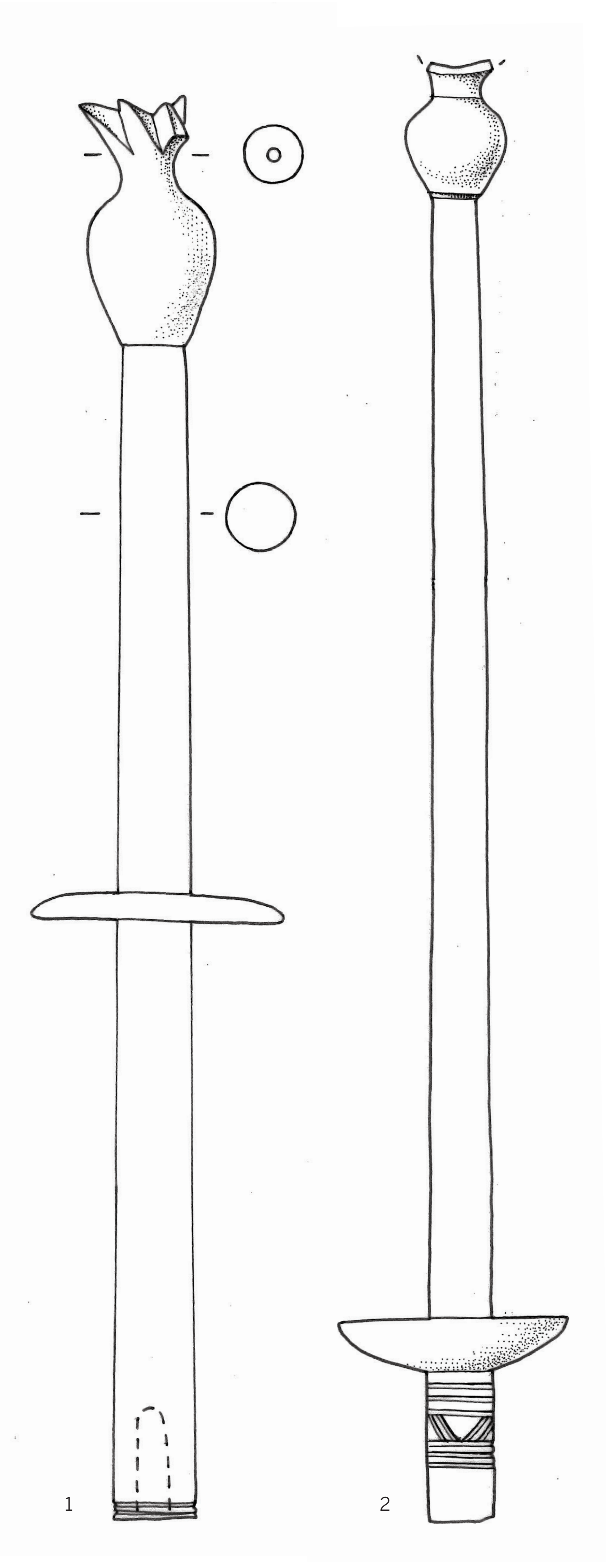

Fig. 12 Late Bronze Age ivory spindles (scale 5:6): (1) Minet el-Beida (Appendix I: 13; after Gachet-Bizollon 2007: #137); (2). Delos (Appendix I: 33; after Gallet de Santerre and Tréheux 1947–1948: Fig. 16; drawn from a photo)

shaped headings, the width of the fruit is less than the maximum width of the shaft, which allowed for a whorl on the shaft from the side of the fixed heading.

The scarcity of ivory/bone pomegranate and poppy-capsule headings in palatial contexts and their complete absence from the large ivory palatial assemblages of Megiddo, Samaria, Nimrud, and Arslan Tash speak to their association with the private sphere. Most likely they were used by upper-class women and did not reach these "masculine" palatial assemblages.

I contend that pomegranate/poppy-capsuled-headed spindles that were found in cultic contexts in both the LB and Iron Ages should be considered women's offerings to temples. Such offerings could have included the exquisite spindle itself, as well as a precious thread on it.

Were these ivory and bone objects really functional? The answer to this question is probably positive although most of the usable spindles were likely made of wood (as many excavated Egyptian examples) and were not preserved. Moreover, the fact that so many of the ivory/bone examples were found in tombs may suggest that at least some of them were manufactured especially as symbolic models to be used as burial offerings.

In my opinion, the three rather long bronze shafts with pomegranate and poppy-capsule headings from Minet el-Beida[90] and Tel Nami (figs. 5, 6[91]) should also be related to this group of symbolic spindles, although they were not found with whorls. One should keep in mind that the two specimens from Nami were discovered near an ivory shaft (erroneously labeled "scepter" by Artzy[92]). In this regard, one should note that metal spindles, which were too heavy to be used for spinning, were found *exclusively* in tombs[93] and should therefore be considered symbolic burial models. Remarkably, two bronze spindles from tombs in Kamid el-Loz[94] and Tamassos[95] still with their whorls also bear fruit-shaped headings. These examples suggest that there were funerary models of spindles (either of ivory/bone or of different metals), which were made especially for interment in tombs and hence were probably never used as functional tools. A similar phenomenon of spindles' models is known as early as the Early Bronze Age in Cyprus, where nonfunctional clay models have been retrieved from tombs.[96]

Conclusions

More than ninety ivory/bone pomegranate and poppy-capsule headings from the LB and Iron Ages have been collected for this article, some still attached to their original shafts. They come from Greece in the north through Cyprus and the Levant southward to Egypt, but their concentration in the Levant leaves no doubt as to their place of origin. Yet, it seems that as early as during the time when they were first produced (but also later) there may have been a manufacturing center in Cyprus, as attested by the wide range of Cypriote examples from both the LB and Iron Ages.

In the course of their long period of use (fourteenth–sixth centuries BCE) two distinct 'biographies' can be written for bone/ivory pomegranate and poppy-capsule headings. During LB II (fourteenth–thirteenth centuries BCE) pomegranate headings were distributed throughout a vast geographic area, which reflects the tight commercial and cultural ties during this period. Their find contexts are mainly domestic and funerary, testifying to their daily as well as their mortuary aspects. All of the LBA examples show a pomegranate, mostly of a fruit in its blossom stage of growth. Almost all of these objects were made of ivory, with a clear preference for hippopotamus ivory. The pomegranate headings are quite large, reaching a height of ca. 4 cm on average; all of the specimens were manufactured separately from their shafts. They were most probably used by high-status women as spindles and were eventually buried in their owners' tombs as their private possessions.

In contrast, during the Iron Age, the geographic distribution of these objects was restricted to the Levant and Cyprus. About 60% of the examples were used as burial offerings, suggesting that their daily use was less common; some might have been originally produced as burial offerings and not as functional objects. Headings in the form of poppy-capsules first appear during this period (in both the Levant and Cyprus), probably attesting to a Western (Cypriote?) connection to the Levant. Headings in the form of a pomegranate tend to appear in the shape of a ripe fruit, the dimensions of which are about half of the earlier LBA examples. Bone objects became as popular as those made of ivory during this period. Moreover, for the first time, shafts with fruit-shaped headings were made as single pieces. Some of these examples were probably used as pins or kohl sticks, while others, together with the separated items, were used in the same way as women's spindles.

Pomegranates represent ca. 90% of all fruit-shaped headings from both LB and Iron Age contexts with poppy-capsule headings shaping the rest of the assemblage. The pomegranate likely symbolized a vital force, regeneration, and rebirth; it was traditionally linked to femininity and regarded as an attribute of female deities. Thus, it became a perfect symbol with which to decorate some of the most representative objects in the female sphere such as spindles, pins, and kohl sticks.

After surveying more than ninety examples of ivory/bone pomegranate and poppy-capsule headings, I now look at the famous inscribed Iron Age ivory pomegranate from the Israel Museum's Collection. Its size and shape, a pomegranate in its blossom stage, testifies to its LBA date,[97] yet according to paleographic considerations the inscription incised on its shoulder is dated to the eighth century BCE.[98] It seems unlikely that such an object would have been in use for centuries and be inscribed with a dedicatory inscription 500 years after it was produced. Moreover, to this day, this is the only inscribed pomegranate from this group. There is no doubt that the conclusions of this article support the result of the committee that dealt with the authenticity of the inscribed pomegranate. Whereas the pomegranate itself is genuine and dates to the LBA, its inscription is a modern fake. The person who incised the fake inscription (who probably knew about the ivory pomegranates from the Fosse Temple at Lachish) failed to realize that only a small number of these items were found in cultic contexts. Therefore, this sensational inscription was designed to try to link the pomegranate to the cultic sphere. The pomegranate (with its lost shaft) was never used as a scepter by a priest or as anything related to the Temple in Jerusalem. This mistaken modern interpretation should now be rejected.

Postscript

As this article was going to press, it came to my attention that an additional shaft with a pomegranate heading was published in the excavation report of Tell Jemmeh (Petrie 1928: 16; Pl. XXXIII: 6). It is made of ivory or bone, is 23.7 cm in length (the pomegranate itself has four petals and measures 1.7 cm). It is dated to Iron II, but, its exact context is unknown. Although it does not appear in the statistics of the present research, it does not change the results presented here.

Notes

[1] This research was supported by the Krauthammer Cathedra for the Land of Israel and Archaeology Studies at Bar-Ilan University. I would like to thank Debi Ben-Ami and Alegre Savariego from the Israel Antiquities Authority and Alison B. Ashenberg, Nurith Goshen, and Paolo Recanati from the Israel Museum, Jerusalem, for their kind help and support.

[2] Goren et al. 2005; Lemaire 2006; Ahituv et al. 2007. See also Rollston 2015.

[3] Avigad 1990: 161–166.

[4] All the included figures that were previously published are based on the published drawings, but were redrawn in the Israel Museum by Ester Stark to fit the figurative conceptions of this article.

[5] Gachet-Bizollon 2007: pl. 24: 251, 261; Deilaki 1973–1974: pl. 145: lower most; See also Appendix I: 11, 14, 32.

[6] This form of pomegranate/poppy-capsule ornamented shaft continued to be manufactured hundreds of years after the chronological framework of this research (Ayalon 2003: 129–130, #204–241), but such a discussion is beyond the scope of this article.

[7] Kourou 1994: 206–207; Caubet 2002: 112; Gachet-Bizollon 2007: 125–127: nos. 3, 4, 6, 60, 64, 67, 68.

[8] Although the division of the Levant into northern and southern portions is well accepted, the border between the two parts is under debate. Since, in any event, this is an artificial line, I defined the latitude of the city of Sidon (for the purposes of this article) as the limit between Northern and Southern Levant.

[9] Gachet-Bizollon 2007: 272–274; 24, 78; Cat. no. 249–250, 253–262.

[10] Ibid.: 260, 272–274; pls. 19, 24, 75, 78; Minet el-Beida Cat. no. 137, 251–252; Ras Ibn Hani Cat. no. 263–264.

[11] Metzger and Barthel 1993: 353, pl. 45: 2.

[12] Petrie 1914: pl. XV: 129f; 1927: pl. XXXVIII: 59 (Inv. # UC58817 in the Petrie Museum, London); an additional unpublished example is in the Petrie Museum; Inv. # UC52009.

[13] Murray 1900: fig. 24, see also: Crewe, Catling, and Kiely 2009: #1974,1101.39; Gjerstad et al. 1934: pl. LXXVIII: 240–241; Caubet 1987: 25, 30, fig. 3: 37; Crewe, Catling, and Kiely 2009: #1897,0401.1376; Pilides and Papadimitriou 2012: 164, #104. A seventh specimen from Enkomi from the British Museum excavations at the site probably arrived at the University of Leeds in 1896. Unfortunately, it seems to have been lost, and only a photo has survived, so it is not included in this database. See photo: https://cypriotartleeds.wordpress.com/page/3/.

[14] Karageorghis 1974: 66, #60–62; 91, #132, pls. LXXXVII, CLXX.

[15] Gjerstad et al. 1934: pl. LXIII: 13.

[16] Karageorghis, Mertens and Rose 2000: 69, #10.

[17] Several examples of bone and gold pomegranate/poppy-capsule ornamented shafts from Ephesus, Turkey (Jacobsthal 1956: figs. 141, 144–146) were omitted as they are of a completely different nature.

[18] Deilaki 1973–1974: 203, pl. 145: lowermost; today in the Nafplio Archaeological Museum.

[19] Gallet de Santerre and Tréheux 1947–1948: 198–199; fig. 16; Tournavitou 1995: 523.

[20] Pulak 1994: fig. 10.

[21] Minet el-Beida, see Gachet-Bizollon 2007: fig. 36; Tel Nami, figs. 5 and 6, see Artzy 1990: 49; 1995: fig. 2.14; Hazor, see Yadin et al. 1961: pl. CCLXXXIII: 33; this example is less distinct.

[22] Hnila 2002.

[23] Petrie 1927: 24, pl. XIX: 21.

[24] Petrie 1927: 24, pl. XIX: 20, 22.

[25] from the Louvre Museum Collection, #E14075.

[26] Peet and Woolley 1923: 74, pl. XX: fig. 3, second from left, today in the British Museum #EA55082.

[27] Åström 1972: 530; fig. 71: 4.

[28] Lehrer 1972.

[29] For example, Artzy 1995: fig. 2.14, top specimen.

[30] An additional ivory pomegranate from the Immanuel Ben-Dor excavation at Tel Achziv is registered in the Israel Antiquities Authority database (IAA 1948-125). It was not published in the archaeological report of the site and its present location is unknown, so it is not included in the present database.

[31] Two ivory pomegranates that were uncovered in Nimrud (Mallowan 1966: 138, fig. 79) are not discussed here, as a hook was carved on their bottoms. They were probably sewn onto a garment or suspended from a diadem and were never attached to a shaft. Hence, they should be compared to metal pomegranates that ornamented jewelry (e.g., Hussein 2016: pl. 17: a, b).

[32] Riis 1948: 173–174, 178; figs. 217: A, B; 227: A, B; Riis and Buhl 1990: 207, #737.

[33] Stone and Zimansky 1999: 75, fig. 88: 5, 6.

[34] Cecchini 1992: 3, 7–13; fig. 1: 1, 2.

[35] Nishiyama 2009: fig. 8.28: 18; pl. 8.6: 16.

[36] Karageorghis 1985: 110, #5268; 218, #555, 232, #1982; Karageorghis and Demas 1985: photos: pls. CXII, CLXX, CLXXXII; drawings: pls. CXCI, CCXXVIII, CCXXXIX.

[37] Karageorghis and Michaelides 1990: 80, pl. LXXXIII: 27B.

[38] Gjerstad et al. 1934: pls. XLII: 5; XLVIII: 25; LVII: 25; Diakou 2013: 119, #40; 126, #65.

[39] McCown 1947: 303, pl. 105: 15.

[40] Bienkowski 1995: 81, fig. 9.6: 9.

[41] Poppa 1978: pls. 7: 10, 13, 14; 13: 19; 25: 7; Hachmann and Penner 1999: pl. 31: 1–4, 13.

[42] Moorey 1980: 98, fig. 16: 396–398, 400, 405–407.

[43] Gjerstad et al. 1934: pls. XLVI: 15b, 17b, 101; LIV: 6.

[44] Goldman 1963: 375, fig. 175: 63.

[45] Dawkins 1929: 202, pl. LXXXIX: n.

[46] Gjerstad et al. 1934: pl. LI: 5.

[47] Yadin et al. 1961: pl. CXCI: 21, 22.

[48] Covello-Paran 2008: Fig. 52: 2.

[49] Macalister 1912: pl. CXXXIII: 43; Dever and Cole 1974: 85, pl. 41: 7.

[50] Curtis 1984: 34–35; fig. 7: 298.

[51] It is interesting to note that one of the Hazor specimens was found next to a kohl tube (Yadin et al. 1961: pl. CXCI: 23), hinting at the use of this bronze object as a kohl stick.

[52] Kottaridi 2014: 228–229.

[53] Artzy 1995: fig. 2.14, top example.

[54] Smith (2009: 97–102) treats all Cypriote examples of the LB and Iron Ages as poppy-capsules and not pomegranates, but most scholars (e.g., Karageorghis 1974: 69; Åström 1972: 530, 550) believe that this is not the case.

[55] Cf. Rehak and Younger 1998: 231; Caubet 2002: 112.

[56] For examples of the fruit in clay, see Borowski 1995; Dothan and Ben-Shlomo 2005: 160–161; for stone, see Nigro and Spagnoli 2018: Fig. 4b; for glass, see Israeli 2003: 39; for faience, see Immerwahr 1989: Fig. 2, pl. 71: d; and for metal, see Pierides 1971: pl. VIII: 4, 5; Golani 2013: fig. 22: 8, 9; Nigro and Spagnoli 2018: figs. 3d, 3e, 4d, 5, 6a, 6b, 8; other materials appear less frequently. Pomegranates were also depicted on both monumental and minor art objects such as stelae and seals (e.g., Muttman 1982: fig. 22; Avigad and Sass 1997: 143, #321).

[57] For physical remains, see Ward 2003; Chandra et al. 2010; Nigro and Spagnoli 2018: 51–52. For biblical references, see Houtman 1990; Abram 2009; Nigro and Spagnoli 2018: 55–58. For Ancient Near Eastern art, see Jacobsthal 1956: 186–200; Börker-Klähn 1957–1971; Goor 1967; Sass 1993: 210; Beck 1995: 160–161; Borowski 1995: 153–154; Keel and Uehlinger 1998: 360; Ward 2003; Ben-Arieh 2011: 158–159; Nigro and Spagnoli 2018: 52–55.

[58] Reich, Shukron, and Lernau 2007: 160–161; Nigro and Spagnoli 2018: n. 6.

[59] e.g., Beck 1995: 160; Gansell 2008: 284; Nigro and Spagnoli 2018: 51–53.

[60] Immerwahr 1989: 405, 408.

[61] e.g., Gansell 2008: 202, 252; Nigro and Spagnoli 2018: 51–53.

[62] Rozenberg 1988: 125.

[63] Rozenberg 1988: 125–127; Rova 2008: 562.

[64] Bennett 2011.

[65] Ziffer 1998: 37*–51*. An additional unprovenanced ivory pomegranate adorned with a sitting dove was sold in an online auction. It was erroneously cited by Nigro and Spagnoli (2018: fig. 7d) as the example from Jerusalem (Table 1: 21). In any event, since the emblems are identical to those on the Jerusalem pomegranate, it reinforces the interpretation suggested here .

[66] Kritikos and Papadaki 1967; Hnila 2002.

[67] For example, Krikorian 1975; Behn 1986; Merrillees 1989.

[68] Frumin 2017: 164–165.

[69] Kritikos and Papadaki 1967; Hnila 2002.

[70] Bliss and Macalister 1902: 147.

[71] The first published pomegranate of this type was the example from Enkomi unearthed by Murray (1900: 15, Fig. 24; Appendix I: 19), but he did not deal with its function, merely labeling it "pomegranate."

[72] For example, Lamon and Shipton 1939: pl. 96: 20, 21.

[73] For example,Tufnell 1958: 87.

[74] For example, Mazar 2001: Figs. 18: 6, 25:5; Mazar 2004: fig. 31: 31.

[75] For example, Avigad 1990, but see note 17; Stager 2008: 1582.

[76] For example, Reich, Shukron, and Lernau 2007.

[77] For example, Tufnell 1958: 87.

[78] For example, Pritchard 1988: 110; Freud and Reshef 2015: 656.

[79] For example, Decamps de Mertzenfeld 1954: 58; Courtois, Lagarce, and Lagarce 1986: 128, 157; Karageorghis, Mertens, and Rose 2000: 69; Malmgren 2003: 105.

[80] Naeh 2015: 584–585.

[81] Naeh 2015: 584–585.

[82] Gachet-Bizollon 2007: 115–127, 260, 272–274.

[83] Sauvage 2014.

[84] Gachet-Bizollon 2007: pls. 19:137; 75:137.

[85] Gallet de Santerre and Tréheux 1947/1948: 198–199; fig. 16.

[86] Sauvage 2014: 194, 205.

[87] Mazzoni 2005: 7–8; Rova 2008: 562.

[88] For example, Rova 2008: Figs. 1–13; Garfinkel 2018: 21–28.

[89] Cecchini 1992: 8; Gachet-Bizollon 2007: 116.

[90] Gachet-Bizollon 2007: fig. 36.

[91] Artzy 1990: 49; 1995: fig. 2.14.

[92] Artzy 1990: 49; 1995: 28.

[93] Bronze specimens were uncovered at Deve Hüyük (Moorey 1980: 98, fig. 16: 399–400) and an iron example was unearthed at Lapithos, Tomb 411 (Gjerstad et al. 1934: pl. XLVIII: 32b, 32c); actually, an ivory pomegranate from the same tomb (#25 in the same plate; Appendix I: 58), could be part of the bronze spindle #32c.

[94] Poppa 1978: 78–79, pl. 7: 10; Hachmann and Penner 1999: pl. 31: 13.

[95] Buchholz 2010: 129–131; fig. 61a, b.

[96] For example, Pilides and Papadimitriou 2012: 128, #38.

[97] See Caubet 2002: 112.

[98] Avigad 1990: 159–160.

Bibliography

Abram, M.

2009 The Pomegranate: Sacred, Secular, and Sensuous Symbol of Ancient Israel. *Studia Antiqua* 7: 23–33.

Ahituv, S., et al.

2007 The Inscribed Pomegranate from the Israel Museum Examined Again. *Israel Exploration Journal* 57: 87–95.

Arie, E.

Forthcoming Bone Shaft with Poppy-Capsule Heading and Other Broken Bone/Ivory Shafts from Tel Sera. In: *The Excavations at Tel Sera' (Tell esh-Shria') 1972–1978*, eds. E. D. Oren and H. Bernick-Greenberg.

Artzy, M.

1990 Pomegranate Scepters and Incense Stand with Pomegranates Found in Priest's Grave. *Biblical Archaeology Review* 16/1: 48–51.

1995 Nami: A Second Millennium International Maritime Trading Center in the Mediterranean. In: *Recent Excavations in Israel: A View to the West* Archaeological Institute of America, Colloquia and Conference Papers, No. 1,. ed. S. Gitin. Dubuque: 17–40.

Åström, L.

1972 Other Arts and Crafts. In: *The Swedish Cyprus Expedition. Vol. IV. Part 1D. The Late Cypriote Bronze Age*, eds. L. Åström and P. Åström. Lund: 473–674.

Avigad, N.

1990 The Inscribed Pomegranate from the "House of the Lord." *The Biblical Archaeologist* 53: 157–166.

Avigad, N. and Sass, B.

1997 *Corpus of West Semitic Stamp Seals*. Jerusalem.

Ayalon, E.

2003 *The Assemblage of Bone and Ivory Artifacts from Caesarea Maritima, Israel, 1st–13th Centuries CE* (Unpublished Ph.D. Dissertation). Ramat-Gan.

Beck, P.

1995 Catalogue of Cult Objects and the Study of the Iconography. In: *Ḥorvat Qitmit. An Edomite Shrine in the Biblical Negev.* Monograph Series of the Institute of Archaeology of Tel Aviv University 11., ed. I. Beit-Arieh, . 27–197. Tel Aviv.

Behn, C. P.

1986 The Use of Opium in the Bronze Age in the Eastern Mediterranean. *Listy Filologické* 109: 193–197.

Ben-Arieh, S.

2004 *Bronze and Iron Age Tombs at Tell Beit Mirsim*. IAA Reports 23. Jerusalem.

2011 Temple Furniture from a Favissa at 'En Hazeva. *'Atiqot* 68: 107–175.

Ben-Shlomo, D. and Dothan, T.

2006 Ivories from Philistia: Filling the Iron Age I Gap. *Israel Exploration Journal* 56: 1–38.

Bennett, M.

2011 The Pomegranate: Marker of Cyclical Time: Seeds of Eternity. *International Journal of Humanities and Social Science* 1/19: 52–59.

Bienkowski, P.

1995 The Small Finds. In: *Excavations at Tawilan in Southern Jordan*. British Academy Monographs in Archaeology no. 8, eds. C. M. Bennett and P. Bienkowski, 79–92. Hertford.

Bliss, F. J., and Macalister, R. A. S.

1902 *Excavations in Palestine during the Years 1898–1900*. London.

Börker-Klähn, F.

1957–1971 *Granatapfel. Reallexicon der Assyriologie und Vorderasiatischen Archäologie* III, 610–630. Berlin.

Borowski, O.

1995 The Pomegranate Bowl from Tell Ḥalif. *Israel Exploration Journal* 45: 150–154.

Buchholz, H.-G.

2010 *Tamassos: Ein antiker Stadtstaat im Bergbaugebiet von Zypern. Band I. Die Nekropolen I, II und III*. Alter Orient und Altes Testament, Band 48/1. Münster.

Caubet, A.

1987 Enkomi (fouilles Scaeffer 1934–1966): Inventaire complémentaire: I. Les objets en matière dure animale. *Report of the Department of Antiquities, Cyprus*. 23–35.

2002 Le Travail de l'ivoire au Levant, de la fin de l'Âge du Bronze au début de l'Âge du Fer: Continuité et rupture. In: *Die nahöstlichen Kulturen und Griechenland an der Wende vom 2. zum 1. Jahrtausend v. Chr. : Kontinuität und Wandel von Strukturen und Mechanismen kultureller Interaktion. Kolloquium des Sonderforschungsbereiches 295 "Kulturelle und sprachliche Kontakte" der Johannes Gutenberg-Universität Mainz, 11.–12. Dezember 1998*, eds. F. A. Braun-Holzinger and H. Matthaus, 111–122. Mohnesee.

Cecchini, S. M.

1992 Gli avori e gli ossi. Appunti sull'attività tessile in Siria del nord durante l'Età del Ferro. In: *Tell Afis e l'Età del Ferro*, ed. S. Mazzoni, 3–35. Pisa.

Chandra, R. Babu, K.D. Jadhav, V.T. and da Silva, J.A.T.

2010 Origin, History and Domestication of Pomegranate. *Fruit, Vegetable and Cereal Science and Biotechnology* 4: 1–6.

Courtois, J.-C. Lagarce, J. and Lagarce, E.

1986 *Enkomi el le bronze récent à Chypre*. Nicosia.

Covello-Paran, K.

2008 Excavations at Ḥorvat Malṭa, Lower Galilee. *'Atiqot* 59: 5–79.

Crewe, L., Catling, H. and Kiely, T.

2009 A Catalogue of the Ancient Cyprus Collection at the British Museum. Online Research Catalogue: http://www.britishmuseum.org/research/publications/online_research_catalogues/ancient_cyprus_british_museum.aspx.

Curtis, J.

1984 *Nush-I Jan III: The Small Finds*. Hertford.

Dawkins, R.M., ed.

1929 *The Sanctuary of Artemis Orthia at Sparta*. The Society for the Promotion of Hellenic Studies; Supplementary Paper No. 5. London.

Dayagi-Mendels, M.

2002 *The Akhziv Cemeteries: The Ben-Dor Excavations, 1941–1944*. IAA Reports 15. Jerusalem.

Decamps de Mertzenfeld, C.

1954 *Inventaire comménté des ivoires phéniciens et apparentés découverts das le Proche-Orient*. Paris.

Deilaki, E.

1973–1974 Nauplion: The Cemetery of Evangelistria. *Archaiologikon Deltion* 29: 202–203 (Greek).

Dever, W. G., and Cole, D. P.

1974 Part II. Gezer: The 1968–70 Seasons, Field II. In: *Gezer II: Report of the 1967–70 Seasons in Field I and II*, ed. W. G. Dever, 45–87. Jerusalem.

Diakou, S.

2013 *Lapithos: The Upper Geometric Cemetery* (unpublished Ph.D. dissertation). Bryn Mawr.

Dothan, M., and Ben-Shlomo, D.

2005 *Ashdod VI: The Excavation of Areas H and K*. IAA Reports No. 24. Jerusalem.

Dothan, T., and Ben-Shlomo, D.

2016 The Iron Age I Ivory Objects. In: *Tel Miqne-Ekron Excavations 1985-1988, 1990, 1992-1995. Field IV Lower – The Elite Zone. Part 1: The Iron Age I Early Philistine City*, eds. T. Dothan, Y. Garfinkel, and S. Gitin, 471–478. Winona Lake.

Freud, L., and Reshef, N.

2015 Small Finds from the Iron Age. In: *Tel Malḥata: A Central City in the Biblical Negev*. Tel Aviv University, Sonia and Marco Nadler Institute of Archaeology, Monograph Series 32, eds. I. Beit-Arieh and L. Freud, L, 627–667. Winona Lake.

Frumin, S.

2017 *Invasion Biology Analysis in Archaeobotany: Philistines Culture at Tell eṣ-Ṣâfī/Gath as a Case Study*. (unpublished Ph.D. dissertation). Ramat-Gan.

Gachet-Bizollon, J.

2007 *Les ivoires d'Ougarit et l'art des ivoiriers du Levant au Bronze Récent*. Ras Shamra-Ougarit XVI. Paris.

Gal, Z., and Alexandre, Y.

2000 *Ḥorvat Rosh Zayit: An Iron Age Storage Fort and Village*. IAA Reports 8. Jerusalem.

Gallet de Santerre, H., and Tréheux, J.

1947–1948 Rapport sur le dépôt égéen et géométrique de l'Artémision à Délos. *Bulletin de Correspondance Hellénique* 71–72: 148–254.

Gansell, A.R.

2008 *Women of Ivory as Embodiments of Ideal Feminine Beauty in the Ancient Near East during the First Millennium BCE*. (unpublished Ph.D. dissertation). Cambridge.

Garfinkel, Y.

2018 Chasing Away Lions and Weaving: The *longue durée* of Talmudic Gender Icons. In: *Sources and Interpretation in Ancient Judaism. Studies for Tal Ilan at Sixty*, eds, M. M. Piotrkowski, G. Herman, and S. Dönitz, ,11–31 Leiden.

Gjerstad, E., Lindros, J. ,Sjöqvist, E. and Westholm, A.

1934 *The Swedish Cyprus Expedition. Vol. I (Text and Plates). Finds and Results of the Excavations in Cyprus 1927–1931. Stockholm.*

Goldman, H., ed.

1963 *Excavations at Gözlü Kule, Tarsus. Volume III: The Iron Age*. Princeton.

Golani, A.

2013 *Jewelry from the Iron Age II Levant*. OBO 34, Series Archaeologica. Fribourg.

Goor, A.

1967 The History of the Pomegranate in the Holy Land. *Economic Botany* 21: 215–230.

Goren, Y., et al.

2005 A Re-Examination of the Inscribed Pomegranate from the Israel Museum. *Israel Exploration Journal* 55: 3–20.

Guy, P. L. O., and Engberg, R.M.

1938 *Megiddo Tombs*. OIP 33. Chicago.

Hachmann, R., and Penner, S.

1999 *Kāmid el-Lōz 21. Der eisenzeitliche Friedhof und seine kulturelle Umwelt*. Bonn.

Houtman, C.

1990 On the Pomegranates and the Golden Bells of the High Priest's Mantle. *Vetus Testamentum* 40: 223–229.

Hnila, P.

2002 Some Remarks on the Opium Poppy in Ancient Anatolia. In: *Mauerschau. Festschrift für Manfred Korfmann*, eds. R. Aslan,. S. Blum, G. Kasti,. F. Schweizer, and D. Thumm, D., 315–328. Remshalden-Grunbach.

Hussein, M. M.

2016 *Nimrud: The Queens' Tombs*. Chicago.

Immerwahr, S. A.

1989 The Pomegranate Vase: Its Origins and Continuity. *Hesperia* 58: 397–410.

Israeli, Y.

2003 *Ancient Glass in the Israel Museum: The Eliahu Dobkin Collection and Other Gifts*. The Israel Museum, Jerusalem Catalogue no. 486. Jerusalem.

Jacobsthal, P.

1956 *Greek Pins and their Connexions with Europe and Asia*. Oxford Monographs on Classical Archaeology. Oxford.

Karageorghis, V.

1974 *Excavations at Kition I: The Tombs*. Nicosia.

Karageorghis, V.

1985 *Excavations at Kition V: The Pre-Phoenician Level (Text)*. Nicosia.

Karageorghis, V., and Demas, M.

1985 *Excavations at Kition V: The Pre-Phoenician Level (Plates)*. Nicosia.

Karageorghis, V., Mertens, J. R., and Rose, M. E.

2000 *Ancient Art from Cyprus: The Cesnola Collection in the Metropolitan Museum of Art*. New York.

Karageorghis, V., and Michaelides, D.

1990 *Tombs at Palaepaphos: 1. Teratsoudhia. 2. Eliomylia*. Nicosia.

Keel, O., and Uehlinger, C.

1998 *Gods, Goddess, and Images of God in Ancient Israel*. Minneapolis.

Kempinski, A.

1990 Is It Really a Pomegranate from the "House of the Lord"? – On: N. Avigad, "An Inscribed Ivory Pomegranate from the 'House of Lord'". *Qadmoniot* 91–92: 126. (Hebrew).

Kottaridi, A.

2014 The Lady of Archontiko. In: *The Greeks: Agamemnon to Alexander the Great*. Exhibition Catalogue, eds. M. Andreadaki-Vlazaki, and A. Balaska,224–235. Athens.

Kourou, N.

1994 Scepters and Maces in Cyprus Before, During and Immediately After the 11th Century. In: *Cyprus in the 11h Century B.C.*. ed. V. Karageorghis, . 203–228. Nicosia.

Kritikos, P. G., and Papadaki, S. P.

1967 The History of the Poppy and of Opium and Their Expansion in Antiquity in the Eastern Mediterranean Area. *Bulletin on Narcotics* 19/3: 17–38; 19/4: 5–10.

Krikorian, A. D.

1975 Were the Opium Poppy and Opium Known in the Ancient Near East? *Journal of the History of Biology* 8: 95–114.

Lamon, R. S., and Shipton, G. M.

1939 *Megiddo I: Seasons of 1925–34, Strata I–V*. OIP 42. Chicago.

Lehrer, G.

1972 Three Fragments of Rare Glass Objects from the Museum's Collection. *Museum Haaretz Tel-Aviv Bulletin* 14: 62–68. (Hebrew).

Lemaire, A.

2006 A Re-Examination of the Inscribed Pomegranate: A Rejoinder. *Israel Exploration Journal* 56: 167–177.

Loud, G.

1948 *Megiddo II: Seasons of 1935–1939*. OIP 62. Chicago.

Mackenzie, D.

1912–1913 Excavations at Ain Shems (Beth-Shemesh). *Palestine Exploration Fund Annual I*. London.

Macalister, R. A. S.

1912 *The Excavation of Gezer 1902–1905 and 1907–1909. Vol. III: Two Hundred and Twenty-Six Plates with Index*. London.

Mallowan, M. E. L.

1966 *Nimrud and Its Remains,* vol. I. London.

Malmgren, K.

2003 *Klavdhia-Tremithos: A Middle and Late Cypriote Bronze Age Site*. Studies in Mediterranean Archaeology and Literature. Pocket Book 159. Jonsered.

Mazar, E.

2001 *The Phoenicians in Achziv: The Southern Cemetery. Jerome L. Joss Expedition. Final Report of the Excavations 1988–1990*. Cuadernos de Arqueología Mediterránea Vol. 7. Barcelona.

Mazar, E.

2004 *The Phoenician Family Tomb N.1 at the Northern Cemetery of Achziv (10th–6th Centuries BCE). Sam Turner Expedition Final Report of the Excavations*. Cuadernos de Arqueología Mediterránea Vol. 10. Barcelona.

Mazar, A.

2016 Discoveries from Tel Reḥov: The Early Days of the Israelite Monarchy. In: *It is the Land of Honey: Discoveries from Tel Reḥov, the Early Days of the Israelite Monarchy*. Eretz Israel Museum Catalogue, ed. I. Ziffer. Tel Aviv.

Mazzoni, S.

2005 Having and Showing: Women's Possessions in the Afterlife in Iron Age Syria and Mesopotamia. In: *Women and Property in Ancient Near Eastern and Mediterranean Societies*, eds. D Lyons and R. Westbrook. Washington D.C. (https://chs.harvard.edu/CHS/article/display/1219).

McCown, C. C.

1947 *Tell en-Naṣbeh: Excavated under the Direction of the Late William Frederic Badè. Vol. I: Archaeological and Historical Results*. Berkeley.

Merrillees, R. S.

1989 Highs and Lows in the Holy Land: Opium in Biblical Times. *Eretz- Israel* 20: 148*–153*.

Metzger, M., and Barthel, U.-R.

1993 *Kämid el-Loz 8. Die spätbronzezeitlichen Tempelanlagen: Die Kleinfunde*. Bonn.

Moorey, P. R. S.

1980 *Cemeteries of the First Millennium B.C. at Deve Hüyük, near Carchemish. Salvaged by T. E. Lawrence and C. L. Woolley in 1913 (with a catalogue raisonné of the objects in Berlin, Cambridge, Liverpool, London and Oxford)*. BAR International Series vol. 87. Oxford.

Murray, A. S.

1900 Excavations in Enkomi. In: *Excavations in Cyprus*, eds. A. S. Murray, H. B. Walters, and A. H. Smith, 1–54. London.

Muthmann, F.

1982 *Der Granatapfel: Symbol des Lebens in der Alten Welt*. Schriften der Abegg-Stiftung Bern, vol. 6. Bern.

Naeh, L.

2015 Worked Ivory and Bone Objects from the Ophel. In: *The Ophel Excavations to the South of the Temple Mount 2009–2013. Final Reports Volume I*, ed. E. Mazar, 581–616. Jerusalem.

Nigro, L., and Spagnoli, F.

2018 Pomegranate (*punica granatum l.*) from Motya and its Deepest Oriental Roots. *Vicino Oriente* XXII: 49–90.

Nishiyama, S.

2009 Other Objects. In: *Tell Mastuma: An Iron Age Settlement in Northwestern Syria*, eds. T. Iwasaki, S. Wakita, K. Ishida, and H. Wada, 473–503. Tokyo.

Société des artistes indepéndants.

1985 *De la Bible à nos jours: 3000 ans d'art*. Exhibition Catalogue, Grand-Palais, Paris, 6.6.–28.7.1985. Paris.

Peet, T. E., and Woolley, C. L.

1923 *The City of Akhenaten, Part I. Excavations of 1921 and 1922 at El-'Amarneh*. London.

Petrie, W. M. F.

1914 *Amulets: Illustrated by the Egyptian Collection in University College, London*. London.

1927 *Objects of Daily Use: Illustrated by the Egyptian Collection in University College, London*. London.

1928 *Gerar*. London

Pierides, A.

1971 *Jewellery in the Cyprus Museum*. Picture Book No. 5. Nicosia.

Pilides, D., and Papadimitriou, N.

2012 *Ancient Cyprus: Cultures in Dialogue. Exhibition Catalogue*. Nicosia.

Poppa, R.

1978 *Kāmid el-Lōz 18. Der eisenzeitliche Friedhof Befunde und Funde*. Bonn.

Pritchard, J. B.

1975 *Sarepta: A Preliminary Report on the Iron Age. Excavations of the University Museum of the University of Pennsylvania, 1970–72*. Museum Monograph. Philadelphia.

Pritchard, J. B.

1988 *Sarepta IV: The Objects from Area II, X. The University Museum of the University of Pennsylvania Excavations at Sarafand, Lebanon*. Publications de l'Université Libanaise; Section des Études Archéologiques II. Beirut.

Pulak, C.

1994 Excavation at Uluburun: The Final Campaign. *INA Quarterly (Institute of Nautical Archaeology)* 21/4: 8–16.

Rehak, P., and Younger, J. G.

1998 International Styles in Ivory Carving in the Bronze Age. In: *The Aegean and the Orient in the Second Millennium. Proceedings of the 50th Anniversary Symposium, Cincinnati, 18–20 April 1997*, Aegaeum 18, eds. E. H. Cline and D. Harris-Cline, 229–256. Liège.

Reich, R., Shukron, E., and Lernau. O.

2007 Recent Discoveries in the City of David, Jerusalem. *Israel Exploration Journal* 57: 153–169.

Riis, P. J.

1948 *Hama. Fouilles et recherches de la fondation Carlsberg 1931–1938. Vol. II,3: Les cimetières à crémation*. Copenhagen.

Riis, P. J., and Buhl, M.-L.

1990 *Hama. Fouilles et recherches 1931–1938. Vol. II,2: Les objets de la Période dite Syro-Hittite (Âge du Fer).* Copenhagen.

Rollston, C. A.

2015 The Ivory Pomegranate: The Anatomy of a Probable Modern Forgery. In: *Epigraphy, Philology and the Hebrew Bible: Methodological Perspectives on Philological and Comparative Study of the Hebrew Bible in Honor of Jo Ann Hackett*. eds. J. M. Hutton and A. D. Rubin, 237–251. Atlanta.

Rova, E.

2008 Mirror, Distaff, Pomegranate, and Poppy Capsule: On the Ambiguity of Some Attributes of Women and Goddesses. In: *Proceedings of the 4th International Congress of the Archaeology of the Ancient Near East. 29 March–3 April 2004, Frei Universität Berlin*. (vol. I), eds. H. Kühne, R. M. Czichon, and F. J. Kreppner, 557–570. Berlin.

Rozenberg, S.

1988 *The Silenomachy and the Centauromachy on the Temple of Hera at Foce del Sele*. (Unpublished Ph.D. dissertation). Jerusalem.

Sass, B.

1993 The Pre-Exilic Hebrew Seals: Iconism vs. Aniconism. In: *Studies in the Iconography of Northwest Semitic Inscribed Seals. Proceedings of a Symposium "Studies in iconography," Fribourg 17–20.4.1991*. OBO 125, eds. B. Sass and C. Uehlinger. , 194–256. Fribourg.

Sauvage, C.

2014 Spindles and Distaffs: Late Bronze and Early Iron Age Eastern Mediterranean Use of Solid and Tapered Ivory/Bone Shafts. In: *Prehistoric, Ancient Near Eastern & Aegean Textiles and Dress*. Ancient Textiles Series Vol. 18, eds. M. Harlow, C. Michel, and M.-L. Nosch, 184–226. Oxford and Philadelphia.

Smith, J.

2009 *Art and Society in Cyprus from the Bronze Age into the Iron Age*. Cambridge.

Stager, L.

2008 Ashkelon. In: *The New Encyclopedia of Archaeological Excavations in the Holy Land* 5. Supplementary Volume, ed. E. Stern, 1577–1586. Jerusalem.

Stone, E. C., and Zimansky, P.E.

1999 *The Iron Age Settlement at ʿAin Dara, Syria. Survey and Soundings*. BAR International Series 786. Oxford.

Tournavitou, I.

1995 The Mycenaean Ivories from the Artemision at Delos. *Bulletin de Correspondance Hellénique* 119: 479–527.

Tufnell, O.

1958 *Lachish IV: The Bronze Age*. London.

Tufnell, O., Inge, C. H., and Lankester, H.

1940 *Lachish II: The Fosse Temple*. London.

Ward, C.

2003 Pomegranates in Eastern Mediterranean Contexts during the Late Bronze Age. *World Archaeology* 34: 529–541.

Yadin, Y., et al.

1961 *Hazor III–IV, Plates: An Account of the Third and Fourth Seasons of Excavations, 1957–1958*. Jerusalem.

Ziffer, I.

1998 *O My Dove, that Art in the Clefts of the Rock: The Dove Allegory in Antiquity*. Exhibition Catalogue. Tel Aviv.

Appendix

This appendix includes all provenanced ivory/bone pomegranate and poppy-capsule headings originating outside of the Southern Levant (according to date and geographic distribution).

	Site; Date	Context	Material	Form	Attachment to shaft	Fruit size	Perfora-tion	Reference
1	Ugarit1; LB II	Domestic	Ivory?	Pomegranate flower	Separated	H 3.8	Bottom only	Gachet-Bizollon 2007: 272, #249
2	Ugarit2; LB II	Domestic	Ivory	Pomegranate flower	Unknown			Ibid.: 273, #250
3	Ugarit3; LB II	Domestic	Ivory?	Unknown		H 4.2	Unknown	Ibid.: 273, #253
4	Ugarit4; LB II	Domestic	Ivory?	Pomegranate flower on woman's head	Separated	H 4.1	Bottom only	Ibid.: 273, #254
5	Ugarit5; LB II; fig. 4: 4	Burial	Hippo ivory	Pomegranate flower	Separated	H 4.5; W 1.9	Bottom only	Ibid.: 273, #255
6	Ugarit6; LB II	Domestic	Hippo ivory	Pomegranate flower (broken)	Separated	H 2.9; W 2.7	Bottom only	Ibid.: 273, #256
7	Ugarit7; LB II	Palatial	Ivory?	Pomegranate flower	Separated	H 3.1; W 1.6	Through-out body	Ibid.: 273, #257
8	Ugarit8; LB II	Burial	Hippo ivory	Unknown (broken)	Separated	H 1.5; W 1.3	Bottom only	Ibid.: 273, #258
9	Ugarit9; LB II; fig. 4: 6	Domestic	Hippo ivory	Pomegranate flower	Separated	H 3.4; W 1.7	Bottom only	Ibid.: 273-274, #259
10	Ugarit10; LB II; fig. 4: 5	Domestic	Hippo ivory	Pomegranate flower	Separated	H 3.8; W 1.9	Bottom only	Ibid.: 274, #260
11	Ugarit11; LB II	Domestic	Elephant ivory	Pomegranate flower (broken)	Separated	H 3.6; W 1.7	Bottom only	Ibid.: 274, #261
12	Ugarit12; LB II	Domestic	Hippo ivory	Pomegranate flower	Separated	H 4.5; W 1.8	Bottom only	Ibid.: 274, #262
13	Minet el-Beida1; LB II; fig. 12: 1	Domestic	Ivory	Pomegranate flower	Separated	H 4; W 2	Bottom only	Ibid.: 260, #137
14	Minet el-Beida2; LB II; fig. 4: 7	Domestic	Ivory?	Pomegranate flower	Separated	H 4.2; W 1.6	Bottom only	Ibid.: 273, #251

	Site; Date	Context	Material	Form	Attachment to shaft	Fruit size	Perfora-tion	Reference
15	Minet el-Beida3; LB II	Domestic	Ivory?	Pomegranate flower	Separated	H 4.4; W 1.9	Bottom only	Ibid.: 273, #252
16	Ras Ibn Hani1; LB II; fig. 4: 8	Domestic	Ivory	Mature pomegranate	Separated	H 2; W 1.6	Bottom only	Ibid.: 274, #263
17	Ras Ibn Hani2; LB II	Domestic	Bone?	Pomegranate flower (broken)	Separated	H 3.4; W 1.9	Bottom only	Ibid.: 274, #264
18	Kamid el-Loz1; LB II	Cultic	Bone	Unknown (broken)	Separated	App. H 2	Bottom only	Metzger and Barthel 1993: 353, pl. 45: 2
19	Enkomi1; LB II	Burial?	Ivory	Pomegranate flower	Separated	H 4.1; W 2.1	Un-known	Murray 1900: fig. 24
20	Enkomi2; LB II	Burial	Ivory	Pomegranate flower	Separated?	App. H 3.7	Bottom only?	Gjerstad et al. 1934: pl. LXXVIII: 240
21	Enkomi3; LB II	Burial	Ivory	Pomegranate flower	Separated?	App. H 3.7	Bottom only?	*ibid* .: LXXVIII: 241
22	Enkomi4; LB II	Burial	Hippo ivory	Unknown (broken)	Separated	H 2.3; W 2	Through-out body	Caubet 1987: 25, 30, fig. 3: 37
23	Enkomi5; LB II	Burial	Hippo ivory	Pomegranate flower	Separated	H 3.4; W 2	Bottom only	Crewe, Catling and Kiely 2009: #1897, 0401.1376
24	Enkomi6; LB II-Iron I	Unknown	Ivory/ bone	Mature pomegranate	Separated	App. H 2.6; W 1.7	Bottom only	Pilides and Papad-imitriou 2012: 164, #104
25	Kition1; LB II	Burial	Ivory	Unknown (broken)	Separated	App. H 1.8	Bottom only?	Karageorghis 1974: 66, #60-62
26	Kition2; LB II	Burial	Ivory	Mature pomegranate	Separated	App. H 2.3	Through-out body	*ibid.*: 91, #132
27	Ayios Iakovos1; LB II	Burial	Ivory	Pomegranate flower	Unknown			Gjerstad et al. 1934: pl. LXIII: 13
28	Cesnola1; LB II	Unknown	Ivory	Pomegranate flower	Separated	H 3.8	Unknown	Karageorghis, Mer-tens and Rose 2000: 69, #10
29	Cesnola2; LB II	Unknown	Ivory	Pomegranate flower	Separated	H 3.7	Unknown	

	Site; Date	Context	Material	Form	Attachment to shaft	Fruit size	Perfora-tion	Reference
30	Uluburun1; LB II	Shipwreck	Ivory	Pomegranate flower	Separated	Unknown		Pulak 1994: fig. 10
31	Uluburun2; LB II	Shipwreck	Ivory	Pomegranate flower	Separated	Unknown		
32	Nauplion1; LB II	Burial	Ivory	Pomegranate flower	Separated	App. H 3.9	Unknown	Deilaki 1973-1974: 203, pl. 145: lower most
33	Delos1; LB II?; fig. 12: 2	Cultic	Ivory	Pomegranate flower (broken)	Separated	App. H 2	Unknown	Gallet de Santerre and Tréheux 1947-1948: 198-199; fig. 16
34	Egypt1; LB II	Unknown	Ivory	Unknown (broken)	Unknown			Petrie 1914: pl. XV: 129f
35	Egypt2; LB II	Unknown	Ivory	Pomegranate flower	Separated	App. H 3.8	Unknown	Petrie 1927: pl. XXX-VIII: 59
36	Egypt3; LB II	Unknown	Ivory	Pomegranate flower (broken)	Separated	H 2.2; W 1.5	Unknown	The Petrie Muse-um, London; Inv. # UC52009
37	Hama1; Iron I; fig. 11: 3	Burial	Bone	Mature pomegranate	One piece	App. H 0.8	-	Riis 1948: 173, fig. 217A, # G VIII 458
38	Hama2; Iron I	Burial	Bone	Mature pomegranate	One piece	App. H 0.8	-	Ibid.: 173, fig. 217B, # G VIII 398
39	Hama3; Iron I	Burial	Bone	Mature pomegranate	One piece	Un-known	-	Ibid.: 173, #G VIII 503 (not drawn)
40	Hama4; Iron I	Burial	Bone	Mature pomegranate	One piece	Un-known	-	Ibid.: 173, #G VIII 586 (not drawn)
41	Hama5; Iron I	Burial	Bone	Mature pomegranate	Separated	W 1.6; app. H 2	Throughout body	Ibid.: 178, fig. 227A
42	Hama6; Iron I	Burial	Bone	Schematic pomegranate	Separated	H 2	Throughout body	Ibid.: 178, fig. 227B
43	Hama7; Iron IIB	Burial	Bone	Mature pomegranate	One piece	Un-known	-	Riis 1948: 173, #G IX 145 (not drawn)
44	Hama8; Iron IIB	Burial	Bone	Mature pomegranate	One piece	Un-known	-	Ibid.: 173, #G IX 160 (not drawn)
45	Hama9; Iron IIB	Burial	Bone	Mature pomegranate	One piece	Un-known	-	Ibid.: 173, #G IX 270 (not drawn)
46	Hama10; Iron IIB	Burial	Bone	Mature pomegranate	One piece	Un-known	-	Ibid.: 173, #G XXX 8 (not drawn)

	Site; Date	Context	Material	Form	Attachment to shaft	Fruit size	Perfora-tion	Reference
47	Hama11; Iron IIB	Domestic	Bone	Mature pomegranate	One piece	Un-known	-	Riis and Buhl 1990: 207, #737
48	ʻAin Dara1; Iron IIB?; fig. 11: 1	Domestic	Ivory	Schematic pomegranate	One piece	H 0.7	-	Stone and Zimansky 1999: 75, 104, fig. 88: 5
49	ʻAin Dara2; Iron IIB?; fig. 11: 2	Domestic	Bone	Schematic pomegranate	One piece	H 0.9	-	Ibid.: 75, 102, fig. 88: 6
50	Tell Afis1; Iron IIC	Not provided	Ivory	Schematic pomegranate	One piece	App. H 0.6	-	Cecchini 1992: 3, 7–13; fig. 1: 1
51	Tell Afis2; Iron IIB	Not provided	Ivory	Schematic pomegranate	One piece	H 1.1	-	Ibid.: 3, 7–13; fig. 1: 2
52	Tell Mastuma1; Iron IIC	Domestic?	Ivory	Mature pomegranate	One piece	App. H 1.2	-	Nishiyama 2009: fig. 8.28: 18
53	Kition3; Iron I	Cultic	Ivory	Mature pomegranate	Separated	H 1.9; W 1.7	Throughout body	Karageorghis 1985: 110, #5268
54	Kition4; Iron I	Cultic	Ivory	Mature pomegranate	Separated	H 2.4; W 1.8	Throughout body	Ibid.: 218, #555
55	Kition5; Iron I	Cultic	Ivory	Mature pomegranate	Separated	H 2.6; W 1.8	Throughout body	Ibid.: 232, #1982
56	Palaepaphos1; Iron I	Burial	Hippo ivory	Mature pomegranate	Separated	H 1.8; W 1.8	Bottom only	Karageorghis and Michaelides 1990: 80, pl. LXXXIII: 27B
57	Lapithos1; Iron IIA	Burial	Ivory	Mature pomegranate	Separated	App. H 1.2	Unknown	Gjerstad et al. 1934: pl. XLII: 5;
58	Lapithos2; Iron IIA	Burial	Ivory on iron shaft	Poppy-capsule	Separated	App. H 1.9	Unknown	Ibid.: pl. XLVIII: 25
59	Lapithos3; Iron IIA	Burial	Ivory	Poppy-capsule	One piece?	App. H 1.1	-	Ibid.: pl. LVII: 25
60	Lapithos4; Iron IIA	Burial	Bone	Poppy-capsule	One piece	App. H 1.2	-	Diakou 2013: 119, #40
61	Lapithos5; Iron IIA	Burial	Bone	Poppy-capsule	One piece	App. H 0.6	-	Ibid.: 126, #65