

- Münger, S. 2003. Egyptian Stamp-Seal Amulets and their Implications for the Chronology of the Early Iron Age. *Tel Aviv* 30: 66-82.
- Münger, S. 2005a. Medien und Ethnizität. Das Beispiel einer Tanitischen Stempelsiegel-Gruppe der frühen Eisenzeit. In: Frevel, C. (ed.) *Medien im antiken Palästina? Materielle Kommunikation und Medialität als Thema der Palästinaarchäologie* (Forschungen zum Alten Testament II/10). Tübingen. Pp. 85-107.
- Münger, S. 2005b. Stamp-Seal Amulets and Early Iron Age Chronology. An Update. In: Levy, T.E. and Higham, T. (eds.) *The Bible and Radiocarbon Dating. Archaeology, Text and Science*. London and Oakville. Pp. 381-404.
- Münger, S. 2011. *Studien zur Frühen Eisenzeit in Israel/Palästina* (PhD. dissertation, Bern University). Bern.
- Petrie, F. 1914. *Amulets*. London.
- Petrie, F., 1925. *Buttons and Design Scarabs*. London.
- Reich, R. Shukron, E. and Lernau, O. 2007. Recent Discoveries in the City of David, Jerusalem. *Israel Exploration Journal* 57: 153-168.
- Sass, B. 2000. The Small Finds. In: I. Finkelstein, I., Ussishkin, D., and Halpern, B. (eds.) *Megiddo III: The 1992-1996 Seasons* (Sonia and Marco Nadler Institute of Archaeology Monograph Series 18). Tel Aviv. Pp. 349-423.
- Strawn, B.A. 2005. *What is Stronger than a Lion? Leonine Image and Metaphor in the Hebrew Bible and the Ancient Near East* (Orbis Biblicus et Orientalis 212). Freiburg-and Göttingen.
- Tufnell, O. 1953. *Lachish III (Tell ed-Duweir). The Iron Age*. London.
- Wiese, A. 1990. *Zum Bild des Königs auf ägyptischen Siegelamuletten* (Orbis Biblicus et Orientalis 96). Freiburg and Göttingen.
- de Wit, C. 1951. *Le rôle et le sens du lion dans l'Égypte ancienne*. Leiden.

CHAPTER 6

BEADS

Hagar Ben Basat

INTRODUCTION

The following chapter presents 35 beads, one pendant and one shell from Tsur Natan. The chapter includes three parts: a typology of the beads, a synthesis of the finds and a detailed catalog.

In this study 'bead' is defined as an object which is perforated at its center, is relatively small, and can be easily worn on the body or garment. A bead is usually threaded by itself or alongside other beads to create a composite item of beadwork. Objects that are not perforated in their center are defined as 'pendants'.

In many cases beads were threaded into necklaces, but archaeological findings have shown that beads

were integrated into many other items such as hassocks (Friedman 1998: Fig. 12) or dolls (*ibid.* Fig. 65).

Beads can serve as chronological indicators but sometimes they are survivors from earlier periods. Therefore this study will not discuss their chronological distribution.

The typology presented in this chapter was developed in my M.A. thesis (Ben Basat 2011: 41). The types are characterized by raw material, length (measured along the bead's stringing hole), and by morphological characteristics (globular, tubular, oblate, etc.).

The terminology used here is based on the studies of Beck (1928), Spaer (2001) and Golani (2009).

The following are some of the terms relevant to the present typology: the ‘height’ of a bead is an imaginary line that passes through the center of the perforation (i.e. the stringing line); the ‘diameter’ of a bead is an imaginary line that passes through the center of the bead (perpendicular to the stringing line); and ‘disk’, ‘short’, ‘standard’ and ‘long’ are terms used in this study to describe the ratio between a bead’s height and its maximum external diameter.

RAW MATERIALS

The Fig. 6.2 chart presents the distribution of raw materials represented in the Tsur Natan bead assemblage:

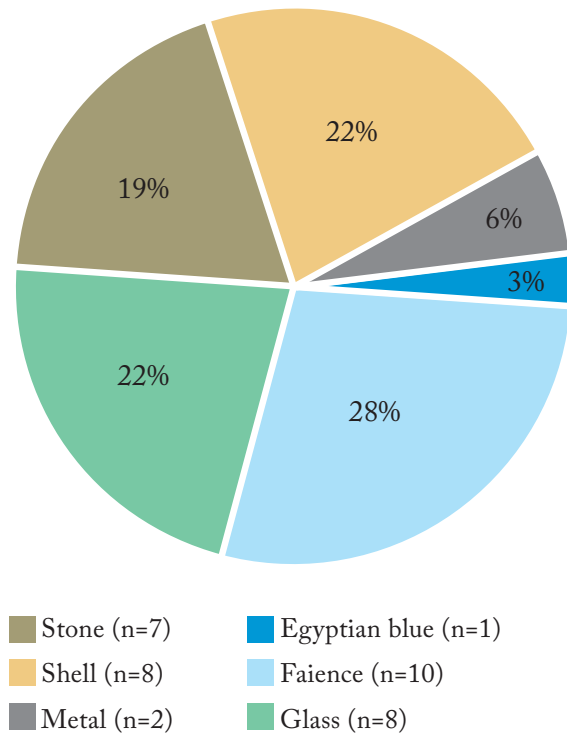


Figure 6.2. Bead material types.

Seven beads (19%) are made of stone. One of these (Fig. 6.1:9) is made of carnelian. Carnelian pebbles can be found in Sinai and the eastern desert of Egypt (Aldred 1978: 16; Aston *et al.* 2000: 27). This is one of the earliest gemstones used in Egyptian and Levantine bead production (Aston *et al.* 2000:

27), and one of the most common materials attested among beads in these regions during the Iron Age (Golani 2009: 163; Ben Basat 2011: 143).

Eight beads (22%) are of shell. These were made from three different shell species: *Conus* (n=1), *Nassarius* (n=3) and *Cypraea* (cowry, n=4). Another object included in this catalog was a *Glycymeris* shell (reg. no. 93) also found in the tomb. However, this item was not perforated or worked in any way.

Two beads (6%) are made of unidentified metal, either copper or bronze.

Siliceous beads are divided into three groups: Egyptian blue (n=1, 3%), faience (n=10, 28%) and glass (n=8, 22%). The differences between these three groups, which are all silica-based materials, are the varying amounts of alkali, lime and copper. Their different manufacturing methods also resulted in different morphological types.

One Egyptian blue bead was found at Tsur Natan. Egyptian blue frit is produced by firing a mixture of quartz, lime, a copper compound and an alkali flux (Tite and Shortland 2008: 147).

Ten beads (28%) are made of faience. One is red, four are white and five are yellow. Faience is a glazed non-clay ceramic material, composed of crushed quartz or sand with small amounts of lime, and either natron or plant ash. This material served as a core that was covered with a soda-silica-lime glaze (Nicholson and Peltenburg 2000: 186; Friedman 1998: 15). The earliest objects made of faience were beads (Patch 1998: 42).

Eight beads (22%) were made of glass. All of them have a dark blue-black color and therefore are presumed to be made from the same glass gob.

The only type of decoration found among the Tsur Natan beads are engravings. One Egyptian blue bead (Fig. 6.1:23; reg. no. 52) and one faience bead (Fig. 6.1:19; reg. no. 69) have horizontal engravings—i.e. perpendicular to the stringing hole (see below, “segmented bead”). Two faience beads (Fig. 6.1:16, 20; reg. nos. 38 and 79) have horizontal engravings—i.e. parallel to the stringing hole (see below, “melon bead”). One faience bead (Fig. 6.1:21; reg. no. 99) has vertical and horizontal engravings.



Figure 6.1. A selection of beads from the Tsur Natan tomb.

Figure 6.1.

No.	Object	Reg. no.	Locus	Description
1	Bead	40	2	Type 5.B. Short globular glass bead.
2	Bead	98/3	2	Type 5.C. Standard globular glass bead.
3	Bead	74	2	Type 5.C. Standard globular glass bead.
4	Bead	89	2	Type 5.A. Short tubular glass bead.
5	Bead	59	2	Type 5.B. Short globular glass bead.
6	Bead	57	2	Type 5.B. Short globular glass bead.
7	Bead	61	2	Type 5.D. Long oblate glass bead.
8	Bead	92	2	Type 3. A short globular metal bead.
9	Bead	46	2	Type 1.B. Standard globular stone bead.
10	Bead	98/5	2	Type 1.D. Long biconical stone bead.
11	Bead	98/4	2	Type 1.C. Long tubular stone bead.
12	Bead	98/1	2	Type 1.A. Short tubular stone bead.
13	Bead	41	2	Type 1.C. Long tubular stone bead.
14	Bead	98/2	2	Type 1.A. Short tubular stone bead.
15	Pendant	43	2	Type 1.E. Elongated stone pendant.
16	Bead	38	2	Type 4.B. Standard globular faience bead.
17	Bead	105	2	Type 4.B. Standard globular faience bead.
18	Bead	91	2	Type 4.A. Short globular faience bead.
19	Bead	69	2	Type 4.C. Long tubular faience bead.
20	Bead	79	2	Type 4.D. Long oblate faience bead.
21	Bead	99	2	Type 4.E. Long granulated faience bead.
22	Bead	70	2	Type 4.D. Long oblate faience bead.
23	Bead	52	2	Type 3.A. Long segmented Egyptian blue bead.
24	Bead	39	2	Type 2.B. Cut cowry shell bead.
25	Bead	58	2	Type 2.C. Perforated <i>Nassarius</i> shell bead.
26	Bead	64	2	Type 2.A. Cut <i>Conus</i> shell bead.

TYOLOGY

Stone Beads and Pendant

Type 1.A. Short tubular stone bead (Fig. 6.1:12, 14; reg. nos. 98/1 and 98/2).

Type 1.B. Standard globular stone bead (Fig. 6.1:9; reg. no. 46).

Type 1.C. Long tubular stone bead (Fig. 6.1:14, 11; reg. nos. 41 and 98/4).

Type 1.D. Long biconical stone bead (Fig. 6.1:10; reg. no. 98/5).

Type 1.E. Elongated stone pendant (Fig. 6.1:15; reg. no. 43). This is the only pendant that was found in the tomb at Tsur Natan. It is relatively small (17.6mm) compared with the beads, and lacks decoration.

Shell Beads

Type 2.A. Cut *Conus* shell bead (Fig. 6.1:26; reg. no. 64). This shell was cut next to its whorl, creating a disk bead with a natural spiral decoration. This particular bead has a round perimeter; rectangular examples are known from elsewhere (Ben Basat 2011: 53).

Type 2.B. Cut cowry shell beads (Fig. 6.1:24; reg. nos. 39, 71.1-3). All four cowry beads found at Tsur Natan were cut into circles with an open center. 60% of the early Iron Age shell beads were made from cowries (Ben Basat 2011: 144). Cowries originate in the Red Sea (Bar-Yosef Mayer 1999) and unlike beads made from other materials, which have a wide variety of shapes, colors and decorations, shell beads were made in very few ways and from very few species. In broad and undefined terms it may reasonably be supposed that this phenomenon indicates the importance—and perhaps symbolic meaning—these beads had in society.

Type 2.C. Perforated *Nassarius* shell beads (Fig. 6.1:25; reg. nos. 42, 58 and 62). This is the only bead type at Tsur Natan that was not elaborated apart from the perforation of the stringing hole. It must be noted that these *Nassarius* shells could have been naturally bored by animals and not mechanically perforated.

Metal Bead

Type 3.A. Short globular metal bead (Fig. 6.1:8; reg. nos. 92 and 97).

Egyptian Blue Bead

Type 3.A. Long segmented Egyptian blue bead (Fig. 6.1:23; reg. no. 52). This bead has 11 horizontal incisions (perpendicular to the stringing hole).

Faience Beads

Five different morphological types were identified among the Tsur Natan faience beads:

Type 4.A. Short globular faience bead (Fig. 6.1:18; reg. no. 91).

Type 4.B. Standard globular faience bead (Figs. 6.1:16, 17; reg. nos. 37, 38, 95, 96 and 105).

Type 4.C. Long tubular faience bead (Fig. 6.1:19; reg. no. 69).

Type 4.D. Long oblate faience bead (Fig. 6.1:20; reg. nos. 70 and 79).

Type 4.E. Long granulated faience bead (Fig. 6.1:21; reg. no. 99). This bead has parallel and perpendicular incisions.

Glass Beads

Type 5.A. Short tubular glass bead (Fig. 6.1:4; reg. no. 89).

Type 5.B. Short globular glass bead (Fig. 6.1:1, 6, 5; reg. nos. 40, 57 and 59).

Type 5.C. Standard globular glass bead (Fig. 6.1:3, 2; reg. nos. 74, 90 and 98/3).

Type 5.D. Long oblate glass bead (Fig. 6.1:7; reg. no. 61).

SUMMARY

Thirty-five beads, one pendant and one shell were found in the Iron Age IIA tomb (L2) at Tsur Natan, attributed to Phase 1 of the site.

Most of the beads were made from faience (28%), glass (22%) and shell (22%). However, stone beads, metal beads and one Egyptian blue bead were also found. Almost all of the beads have a simple geometric shape and lack decoration; the exceptions are the incisions on the faience and Egyptian blue beads.

In recent years a growing number of scholars have published bead corpuses in detail. The accumulated data from the various sites reflect technical abilities, trade routes and cultural preferences.

SOME FURTHER REMARKS ON BEADS
IN IRON AGE SOUTHERN LEVANTINE
MORTUARY CONTEXTS

Conn Herriott

Our bead assemblage seems quite typical: beads are the most common ‘jewelry’ objects in southern Levantine Iron Age burials, being found in about a third of all tombs and graves studied by Bloch-Smith (1992: 81). They are most common in cave and bench tombs (*ibid.* 82). Near Eastern folk traditions have been recorded attributing symbolic powers of protection and vivification to various colors and shapes, especially in the form of beads (Erikson 1969: 136; Brunner-Traut

1975). MacKenzie, in the publication of his Beth Shemesh excavations (1975: 63, cited by Bloch-Smith [1992: 81]), referred to a then-current Palestinian folk belief that carnelian helps cure ophthalmia (conjunctivitis). It is likely that Iron Age beads’ ornamental and amuletic attributes overlapped (Wilkinson 1971: 196): people probably considered gifts of jewelry to the dead as both simple ornamentation and perhaps also talismans in the next life.

There is no indication that beads—or indeed any ‘objects of ornamentation’—were more associated with one sex than the other, or with any age groups (Bloch-Smith 1992: 81-2).

REFERENCES

- Aldred, C. 1978. *Jewels of the Pharaohs: Egyptian Jewelry of the Dynastic Period*. New York.
- Aston, G.J., Harrell, A. and Shaw, I. 2000. Stone. In: Nicholson, P.T. and Shaw, I. (eds.) *Ancient Egyptian Materials and Technology*. Cambridge. Pp. 5-77.
- Bar-Yosef Mayer, D.E. 1999. Shells from Archaeological Contexts in Israel. *Qadmoniot* XXXII/117: 45-51. (Hebrew)
- Beck, H.C. 1928. *Classification and Nomenclature of Beads and Pedants*. London.
- Ben Basat, H. 2011. *Early Iron Age beads at Tel Dor: a comparative study* (M.A. thesis, Haifa University). Haifa.
- Bloch-Smith, E. 1992. *Judahite burial practices and beliefs about the dead* (Journal for the Study of the Old Testament/The American Schools of Oriental Research Monograph Series 7). Sheffield.
- Brunner-Traut, E. 1975. Farben. In: Helek, W. and Westendorf, W. (eds.) *Lexikon der Ägyptologie*. Wiesbaden. Cols. 118-127.
- Erikson, J.M. 1969. *The Universal Bead*. New York.
- Friedman, F.D. 1998. Faience: The Brilliance of Eternity. In: Friedman, F.D. (ed.) *Gifts of the Nile*. London. Pp. 15-21.
- Golani, A. 2009. *The Development, Significance and Function of Jewelry and the Evolution of the Jeweler’s Craft In the Land of Israel during the Iron Age II* (PhD. dissertation, Tel Aviv University). Tel Aviv.
- MacKenzie, D. 1975. *Palestine Exploration Fund; 1912-13, Excavations at Ain Shems (Beth-Shemesh)*. London.
- Nicholson, P.T. and Peltenburg, E. 2000. Egyptian Faience. In: Nicholson, P.T. and Shaw, I. (eds.) *Ancient Egyptian Materials and Technology*. Cambridge. Pp. 178-194.
- Patch, D.C. 1998. By Necessity or Design: Faience use in Ancient Egypt. In: Friedman, F.D. (ed.) *Gifts of the Nile*. London. Pp. 32-45.
- Spaer, M. 2001. *Ancient Glass in the Israel Museum, Beads and Other Small Objects*. Jerusalem.
- Tite, M.S. and Shortland, A.J. 2008. *Production Technology of Faience and Related Early Vitreous Materials* (Oxford University School of Archaeology Monograph 72). Oxford.
- Wilkinson, A. 1971. *Ancient Egyptian Jewellery*. London.

Reg. no.	Object	Quantity	Type	Color	External diameter	Perforation diameter	Height	Taphonomy
98/1	Bead	1	Type 1.A. Short tubular stone bead.	Yellow	7.2mm	1.9mm	7.6mm	Whole
98/2	Bead	1	Type 1.A. Short tubular stone bead.	Brown	7.2mm	2.3mm	6.8mm	Whole
46	Bead	1	Type 1.B. Standard globular stone bead.	Red	11.2mm	2.8mm		Whole
41	Bead	1	Type 1.C. Long tubular stone bead.	Gray	6.8mm	2.5mm	7.5mm	Whole
98/4	Bead	1	Type 1.C. Long tubular stone bead.	Brown	6.7mm	2.4mm	10.6mm	Whole
98/5	Bead	1	Type 1.D. Long biconical stone bead.	Brown	8.6mm	3.1mm	12mm	Whole
43	Pendant	1	Type 1.E. Elongated stone pendant.	White	17.6mm	2.3mm		Whole
64	Bead	1	Type 2.A. Cut <i>Comus</i> shell bead.	White	18.1mm	2.9mm	5.6mm	Whole
39	Bead	1	Type 2.B. Cut cowry shell bead.	White	18.2mm	10mm	6.2mm	Whole
71/1	Bead	1	Type 2.B. Cut cowry shell bead.	White	16.2mm	11mm	5.2mm	Whole
71/2	Bead	1	Type 2.B. Cut cowry shell bead.	White	17.3mm	11.2mm	6.2mm	Whole
71/3	Bead	1	Type 2.B. Cut cowry shell bead.	White	18.1mm	12.7mm	7.1mm	Whole
42	Bead	1	Type 2.C. Perforated <i>Nassarius</i> shell bead.	White	14.5mm	1.8mm	9.8mm	Whole
58	Bead	1	Type 2.C. Perforated <i>Nassarius</i> shell bead.	White	19.5mm	2.2mm	7.8mm	Whole
62	Bead	1	Type 2.C. Perforated <i>Nassarius</i> shell bead.	White	19.1mm	2mm	10.5mm	Whole
92	Bead	1	Type 3. A. short globular metal bead.	Green (verdigris patina)	5.5mm	2mm	3.4mm	Whole
97	Bead	1	Type 3. A. short globular metal bead.	Green (verdigris patina)	5.5mm	2mm	3.4mm	Whole
52	Bead	1	Type 3.A. Long segmented Egyptian blue bead.	Blue	10.6mm	4.8mm		Whole
91	Bead	1	Type 4.A. Short globular faience bead.	Yellow	9.3mm	2.9mm		Whole

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Reg. no.	Object	Quantity	Type	Color	External diameter	Perforation diameter	Height	Taphonomy
37	Bead	1	Type 4.B. Standard globular faience bead.	White	11.6mm	3.1mm	11mm	Partial
38	Bead	1	Type 4.B. Standard globular faience bead.	White	19mm	4.6mm	12.7mm	Partial
95	Bead	1	Type 4.B. Standard globular faience bead.	Red	10.2mm	3.8mm	7.5mm	Partial
96	Bead	1	Type 4.B. Standard globular faience bead.	Yellow	-	3mm		Fragmentary
105/1	Bead	1	Type 4.B. Standard globular faience bead.	White	10.4mm	3mm	9.4mm	Whole
69	Bead	1	Type 4.C. Long tubular faience bead.	White	7.5mm	3mm	9.8mm	Whole
70	Bead	1	Type 4.D. Long oblate faience bead.	Yellow	3.2mm	1.5mm	5.2mm	Partial
79	Bead	1	Type 4.D. Long oblate faience bead.	Yellow	6.2mm	2mm	7.5mm	Whole
99	Bead	1	Type 4.E. Long granulated faience bead.	Yellow	7.1mm	2.2mm	14.1mm	Partial
89	Bead	1	Type 5.A. Short tubular glass bead.	Black	7mm	4.2mm		Whole
40	Bead	1	Type 5.B. Short globular glass bead.	Black	12mm	4.2mm	8.1mm	Whole
57	Bead	1	Type 5.B. Short globular glass bead.	Black	5.2mm	2.8mm		Whole
59	Bead	1	Type 5.B. Short globular glass bead.	Black	5.1mm	3.4mm		Whole
74	Bead	1	Type 5.C. Standard globular glass bead.	Black	10.8mm	4mm		Whole
90	Bead	1	Type 5.C. Standard globular glass bead.	Black	9.5mm	1.9mm		Partial
98/3	Bead	1	Type 5.C. Standard globular glass bead.	Black	11.3mm	3.2mm	8.9mm	Whole
61	Bead	1	Type 5.D. Long oblate glass bead.	Black	6.mm	2.4mm		Whole
66	Unidentified	-						Fragmentary
80	Unidentified	-						Fragmentary
93	<i>Glycymeris</i> shell	1						Whole