

Title: Cowrie shells and their imitations as ornamental amulets in Egypt and the Near East

Author(s): Amir Goalni

Journal: *Polish Archaeology in the Mediterranean 23/2, Special Studies: Beyond ornamentation. Jewelry as an Aspect of Material Culture in the Ancient Near East*, edited by A. Golani, Z. Wygnańska

Year: 2014

Pages: 71-94

ISSN 1234-5415 (Print), ISSN 2083-537X (Online)

Publisher: Polish Centre of Mediterranean Archaeology, University of Warsaw (PCMA UW), Wydawnictwa Uniwersytetu Warszawskiego (WUW)

www.pcma.uw.edu.pl - www.wuw.pl

Abstract: Shells of the genus *Cypraea*, commonly known as “cowries”, are common finds in archaeological excavations throughout the Near East from the prehistoric period onward. They are often found modified by the removal of their backs in order to facilitate stringing. Although certain species of these shells were historically used as currency, their prime importance was as amuletic jewellery. The extensive distribution and chronological time span of these shells attests to their immense popularity among many ancient and unrelated cultures. Their value stems probably from the suggestive form of the shell itself, the shell being considered as a protective amulet guarding against sterility, ensuring fertility and warding off the “evil eye”. While the shell itself may have been acquired by trade, the form of the shell was emulated in other materials that afforded the form added symbolic power.

Keywords: cowrie shells, shell ornaments, amulets, ancient jewelry, imitation, Near East, ancient Egypt

COWRIE SHELLS AND THEIR IMITATIONS AS ORNAMENTAL AMULETS IN EGYPT AND THE NEAR EAST

Amir Golani

Israel Antiquities Authority

Abstract: Shells of the genus *Cypraea*, commonly known as “cowries”, are common finds in archaeological excavations throughout the Near East from the prehistoric period onward. They are often found modified by the removal of their backs in order to facilitate stringing. Although certain species of these shells were historically used as currency, their prime importance was as amuletic jewellery. The extensive distribution and chronological time span of these shells attests to their immense popularity among many ancient and unrelated cultures. Their value stems probably from the suggestive form of the shell itself, the shell being considered as a protective amulet guarding against sterility, ensuring fertility and warding off the “evil eye”. While the shell itself may have been acquired by trade, the form of the shell was emulated in other materials that afforded the form added symbolic power.

Keywords: cowrie shells, shell ornaments, amulets, ancient jewelry, imitation, Near East, ancient Egypt

Shells are among the most durable natural materials next to stone and bone that can be recovered from archaeological excavations. Until recently, however, they have been only casually retrieved and seldom reported on in any detail. Nowadays archaeological shells have begun to receive due attention, although many publications still largely overlook this component of material culture.

One of the earliest natural materials used by man, shells were often exploited as a source of food, whereas whole or crushed shells were used as building materials,

made into vessels, tools and various other implements. They were used as a medium of exchange and for offerings, and were also traded, making them an important part of the evidence for the existence of trade contacts with other regions (Safer, Gill 1982). Finally, shells are among the oldest and readily available means of decoration (Clark 1986: 23ff., Bar-Yosef Mayer 2005). The modification of natural shells and their manufacture into ornaments is relatively simple (see Francis 1982; Wapnish 1997) and almost any shell can be used for ornamentation, many

with little or no modification other than being strung. As personal ornaments of specific shape and form, shells may exhibit a broad range of symbolic meanings as ritual objects and some shells may be used as protective amulets. Their symbolic and protective significance further emphasizes their value as expressions of power and status (Trubitt 2003).

CONTEXT

Shells in their ornamental function, either modified or not, appear in diverse archaeological contexts. They are mentioned in ancient textual sources and occasionally depicted as ornaments on statues and figurines (e.g., Beck 1995: Figs 3.16–3.17, 3.19–3.20), thus providing further evidence of their value. Their presence in tombs validates their interpretation as status objects that may have also functioned as ornaments. In occupational fills they are found entirely by chance, lost by their owners or detached from their original context by post-depositional processes. In hoards or accumulations of wealth hidden by their owners they occur as objects of intrinsic value (e.g., at Larsa, Huot 1978: 195–196; Arnaud, Calvet, Huot 1979; at Ur, Woolley, Mallowan 1976: U. 16929 A–B; and at Babylon, Reuther 1926: 16). They are also found in foundation deposits comprising accumulated wealth that was deposited and essentially sacrificed with no intent of future retrieval (see Ellis 1968: 132–133, 135–136; Golani 2008: Fig. 24).

COWRIE SHELLS

A recurrent type of shell found in different archaeological contexts is the cowrie (or cowry, plural *cowries*),

a common name for a group of small to large marine gastropods of the *Cypraeidae* family. The taxonomic designation '*Cypraea*' derives from Cyprus, where worship of Aphrodite, the goddess of love, is thought to have begun (Reese 1988: 262; Stol 2000: 52). The name 'cowrie' is of Indian origin and in 6th century Sanskrit denoted 'change' or 'currency' (Kovács 2008: 6). The term is now used in reference to shells of the *Cypraea* family, including some 160 species worldwide, generally inhabiting shallow tropical or subtropical waters.

The rounded, shiny, porcelain-like cowrie shells are pleasing to look at and to handle. They come in a broad range of sizes and colors, and are compact and durable, making them convenient trade items. Certain species have historically been used as currency in several parts of the world (Hogendorn, Johnson 1986: 12–19; Gregory 1996), but this aspect of cowrie use will not be dealt with here. Cowries are worn and traded today throughout the world and are also used as ornaments in modern society.

In the Near East, human use of a broad array of shells for ornamentation is a very ancient tradition dating back to the Epipaleolithic period. Cowries from the Red Sea and the Mediterranean have been found among other shells at settlement sites throughout Israel and Jordan (Reese 1986: 328–330; 1991: 188). These shells are usually intact or were perforated at their narrow end. With the change from hunter-gatherer societies to early farming communities in the 9th millennium BC, a more restricted range of shells, among these the cowrie, came into use in the southern Levant (Bar-Yosef *et alii* 1986: 137, 151; Kovács 2008: 16). This change

may be due to modified trade distribution stemming from the development of more permanent settlements and may also be due to developing attitudes related to the symbolic importance of these shells.

From the Neolithic period onwards, cowries with their dorsum or rounded back removed made an appearance in Egypt and the Near East [Fig. 1]. The shape was achieved by sawing or by abrasion on a rough surface, such as a flat stone, and was probably done to facilitate the stringing of the shells as pendants or as beads that could have been worn by themselves or as necklaces of several beads together, headbands, girdles or bracelets. Removal of the dorsum also enabled these shells to be displayed together in larger numbers as a flat chain, making them convenient to be worn in groups as a belt, for example, or to be sewn onto clothing. This form of modification also ensured that the base of the shell would remain in frontal display and could easily be sewn onto clothes (Kovács 2008: 18). Most of these cowries originated from the Red Sea (e.g., *Cypraea annulus*, *Cypraea turdus*, *Cypraea erosa* *nebrites*, *Cypraea moneta*), whereas only

a few examples (e.g., *Cypraea lurida*) were of Mediterranean origin. Red Sea cowries were probably preferred due to their larger size and are evidence of trade connections with this region.

During the Bronze Age, cowries became more common as grave goods, usually associated with burials of women and children (Kovács 2008: 17). They were also popular in predynastic Egypt and also in the southern Levant of the Bronze and Iron Ages (see Bar-Yosef Mayer 2007: Table 18.3). For example, cowrie shells comprised a third (128) of all the shells recovered from excavations of Iron Age II levels at Kadesh Barnea (10th–7th/6th centuries BC). Of these, a fourth were found modified with their dorsum removed (Bar-Yosef Mayer 2007: 280–281), indicating that the modification of the shell was of importance and may have been practiced at the site itself. In Egypt, cowries were found in graves of young girls from predynastic times (Reese 1991: 189) and in the southern Levant modified cowries were discovered arranged around the skull in female burials, e.g. at Tomb 201 from the 10th–



Fig. 1. Cowrie shells with cut off or ground down dorsum
(Photo A. Golani)

8th centuries BC at Tell el-Far'ah(S) (Petrie 1930: 36 center left), indicating that they had been worn as a headband. In Egypt of the Middle Kingdom, Red Sea cowries occurred strung as beads on a girdle around the hips of female figurines (Breasted 1948: Pl. 89: Fig. b; Desroches-Noblecourt 1953: Pl. I; Hodžaš 1971: Fig. 13 [see *Fig. 2*]). The recurring and prominent display of cowries in the pelvic area suggests that the shells were not just ordinary decorative beads, but were probably imbued with a function beyond ornamentation. Cowries have also been found in burials of children, such as Tomb 120 from the 13th century BC at Tell el-Sa'idiyeh (Pritchard 1980: Pl. 25:3). In addition to their association with females and children as expressed in burials and attested by the iconography of ancient Egyptian figurines, cowries were occasionally found adorning animals. The Egyptians were especially fond of decorating their domestic cats with cowries (Mogensen 1930: Pl. 53; Seipel 1989: 318, [No. 486]), suggesting a protective function of these shells with respect to animals as well.

Their association with males seems to be sporadic. A cultic representation of a large, hollow, jar-shaped anthropomorphic statue of a bearded man from a 7th century BC Edomite shrine at Horvat Qitmit in Israel [*Fig. 3*] shows a string of what appear to be cowrie shells modeled in clay (Beck 1995: 45, 115–116 [No. 23], Figs 3.16–3.17, 3.19–3.20), apparently fringing the man's garment. Leather cloaks and shawls with cowrie shell decoration continue to be worn even today in Africa and Asia (Beck 1995: 115–116), although the shells on the Qitmit figurine may also be interpreted

as a long necklace. Regardless of how they were worn or otherwise affixed to the garments, the association of cowries with the male worshiper at Qitmit only serves to highlight the cultic/religious and possibly amuletic value of these items.

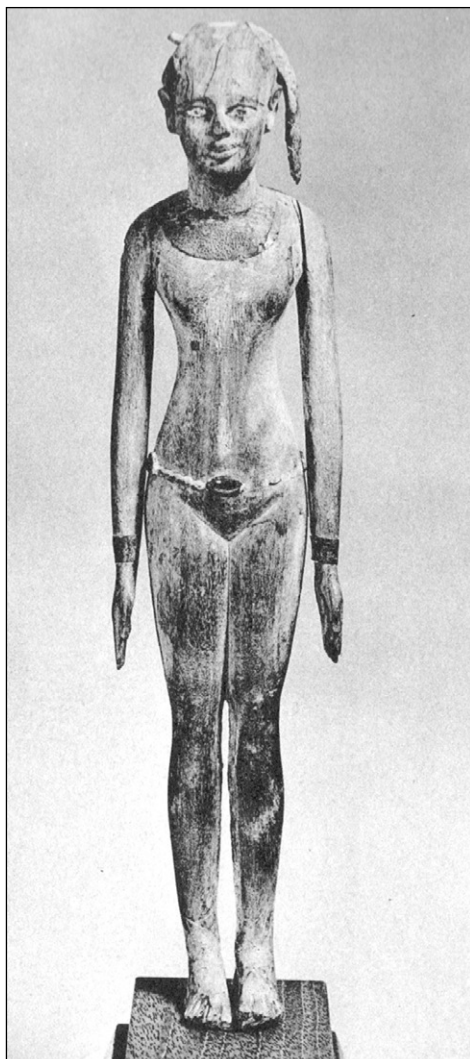


Fig. 2. Egyptian female figurine of the Middle Kingdom with a cowrie girdle (After Breasted 1948: Pl. 89, Fig. b)

The importance of cowries extends throughout the Fertile Crescent as noted in Neo-Assyrian records that specifically mention cowrie shells alongside precious items, as well as silver and gold (e.g., Fales, Postgate [eds] 1992: 66, 68, 72, 118, 129). Such texts highlight the cultic and religious importance of cowries, as well as their economic value expressing status and wealth.

A growing appreciation of the shells resulted in their extended distribution. The use of cowries spread northwards into Europe and ornaments made of Red Sea cowries reached southern Europe as early as the 1st century AD (Lennartz 2004), becoming more common by the 7th century AD, at which time they are found as far north as Scandinavia (Reese 1991: 188–189).

SYMBOLIC MEANING OF COWRIES

The extensive distribution of cowries attests to their immense popularity among many ancient and unrelated cultures, in the past as well as the present. Their recording in sexed burials, as well as various depictions showing how they were worn in ancient Egypt and the southern Levant, combined with the recurring use of cowries in association with females, children and occasionally animals and cultic male figures, suggest that their popularity may be due to their specific form which bears symbolic significance. Ethnographers, cultural historians and archaeologists alike are in general agreement that the symbolism of the cowrie shell is linked with the appearance of its underside: the lengthwise, serrated opening resembling a female vulva or a squinting eye. Thus, cowries have been commonly interpreted as amulets intended to protect against sterility, to increase fertility and to ward off the evil eye and bring good luck (Clark 1986: 23ff.; Andrews 1990: 65; 1994: 42).

The elongated opening of the shell on its ventral side was suggestively associated by many ancient cultures with female genitalia. As a result, cowries were connected with fertility, pregnancy and



Fig. 3. Bearded worshiper from Horvat Qitmit in Israel with a string of cowries (After Beck 1995: Figs 3.16–3.17, 3.19–3.20; courtesy of the Institute of Archaeology, Tel Aviv University)

hence the recurrent association of cowrie shells with women and young girls. The relationship between the cowrie amulet and the body part protected by it is clearly demonstrated in Egyptian figurines prominently displaying cowries in the pelvic area [*Fig. 2*].

The finding of cowries in female graves is another expression of their protective powers that may have also been used to promote regeneration. The ancient Sumerians and Babylonians also saw shells (not necessarily, but quite possibly cowries) as associated with pregnancy and the Sumerian ideogram for 'pregnancy' is the same as for 'shell' (Stol 2000: 51–52). In addition, it has been suggested that the way in which the organism leaves the shell itself may recall the act of childbirth. Cowries may thus be connected with the act of giving life, symbolizing rebirth and the afterlife, possibly intended to ensure existence or resurrection after death (Reese 1991: 189). Cowries have also been related to deities personifying fertility, such as Aphrodite of Cyprus, for example, and their cults.

The resemblance of the underside of a cowrie shell to a half-open human eye has also been recognized and interpreted as a prophylactic against the 'evil eye' and its malicious effects. The link between cowries and human eyes is attested by numerous skulls with plastered faces, having cowries inserted into the eye sockets, e.g., the finds from Neolithic Jericho, and figurines with cowrie-like eyes that are well-known from the Neolithic period (e.g., Bar-Yosef, Garfinkel 2008: Figs 358, 339–341). However, it should be noted that cowries were not the only shells used to depict eyes in Neolithic plastered skulls.

The symbol of the eye has long played a prominent role in superstitious belief and practice. The 'evil eye', cast willfully or not with envy, jealousy or admiration, can harm people and animals (see Elsworthy 1895; Safer, Gill 1982: 140–141). Women, children, and domestic animals were thought to be especially vulnerable to the evil eye. The evil eye superstition is still prevalent throughout the Middle East, the Mediterranean and in India, and numerous types of amulets are employed against it.

The amuletic and prophylactic aspects of cowries that have been noted above are not mutually exclusive and may have been employed concurrently as protection against the evil eye. They were especially vital to women during pregnancy and childbirth. Even today, in eastern Africa and Egypt, women wear aprons sewn with cowrie shells to protect the pelvic organs from the aborting and sterilizing effect of a malevolent gaze (Aldred 1971: 15–16). Because of their recognized symbolic and cultic value, cowrie shells also functioned as status symbols. In Africa, cowries were commonly used as a media of exchange, so their use was also employed to denote royal authority and power (Safer, Gill 1982: 94).

IMITATIONS OF COWRIES IN OTHER MATERIALS

Further evidence of the high regard in which cowries were held, comes from imitations of the cowrie form in precious metals, stone and siliceous materials, such as faience and glass. Imitations have been found in contexts as early as the Neolithic period in the form of ceramic figurines fitted with cowrie eyes (Bar-Yosef, Garfinkel 2008: Figs 339–341). In Egypt,

cowrie shells were imitated as early as the Sixth Dynasty in blue terracotta, carnelian, quartz, glass or glass paste or as stylized plates (Kovács 2008: 18, 162–172). During the Middle Kingdom in Egypt, outstanding imitations of hollow cowries were made of sheet gold, silver and electrum (Aldred 1971: Pls 19, 31; D'Amicone 1984; Hayes 1990: 239, Fig. 153; Andrews 1994: 42, Figs 49:g, 69:a) [Fig. 4]. Egyptian

goldsmiths also occasionally put bits of metal into the hollow parts of the cowrie imitation, causing a jingling, rattling sound when the wearer moved. The imitations were generally made of precious stones, artificial materials and metals of far greater value than the shells themselves. For the Egyptians, gold and silver had added symbolic meaning: gold was linked to the sun and was symbolically



Fig. 4. Amuletic girdle with cowrie shells imitated in electrum, Twelfth Dynasty, Egypt (After Andrews 1994, Fig. 69; courtesy © Trustees of the British Museum)

representative of the flesh of the gods, whereas silver was associated with the moon and represented the gods' bones (Andrews 1994: 105–106). In ancient Egypt, various semiprecious stones as well as artificially manufactured faience and glass, the colors of which often imitated these stones, were also held to possess symbolic powers (Baines 1985; Wilkinson 1994: 1–4).

Beads in the general shape of cowries, usually termed 'cowroids' in the literature, were a favorite with the ancient Egyptians from the Middle Kingdom onwards and were also used in the southern Levant at the same time (Brandl 1984). These beads functioned as seals and usually bore hieroglyphs or various designs on their flat underside. They may have been fashioned in this form to generally resemble the cowrie shell and were usually made of semiprecious stones or siliceous materials, such as faience. As the flat underside was needed for an inscription or design, the ventral slit of the shell was not depicted, so it is uncertain whether the artisan actually had a cowrie in mind when fashioning the bead.

Phoenicians of the Iron Age II period also fashioned cowrie imitations, e.g., examples made of faience and Egyptian Blue, found in the Phoenician necropolis of Akhziv in northern Israel (Dayagi-Mendels 2002: Fig. 4.21:57; Cowie 2004: 247). Golden cowries were also made by the Phoenicians in the 7th–6th centuries BC (e.g., finds from Sardis in western Asia Minor, Curtis 1925: Pls 3:3, 12, 5:33). The Phoenicians were well-known for their eclecticism and often made use of Egyptianizing traits and iconographic motifs that were often long obsolete in Egypt of the Third Intermediate Period

(Markoe 1990: 116). Even today, the cowrie form continues to be imitated in various materials, fashioned into ornamental jewelry.

Imitations of cowrie shells were produced by cultures which otherwise had easy access to the shells themselves. So, why did they go to the trouble and expense of making imitations? Shell and bone were among the least prestigious materials used in the manufacture of ornaments in ancient Egypt and the Near East. Relatively common, they were easily obtainable and held little or no intrinsic symbolic meaning. This may be why beads made of shell and bone were less common than beads made of other materials in the southern Levant of the Iron Age II period (Golani 2013: 176–177). As demonstrated by S. Pollock, lower status burials from the Early Dynastic Royal Cemetery at Ur had more shell and bone beads than did burials of higher status, which were usually male and in which the use of semiprecious stones and precious metals was more prevalent (Pollock 1983). A similar situation was reported by Hughes-Brock with regard to the late Mycenaean period burials in Greece, where cheaper, white, bone and shell beads were reserved for women and child burials, while other beads of more expensive materials or with colors of more significance were usually associated with males (Hughes-Brock 1999).

Clearly, when the shell itself was worked and had lost its original form, such as in the production of beads from a shell, it was not the material that gave the object status. Therefore, an imitation of the cowrie form was undertaken apparently not because of the rarity, symbolic significance or prestige of the shell material, but because of other factors. If the reason was not economic,

then the shell must have been reproduced and thus emulated in other materials because of the symbolic potency of its form. Thus, while the shell had to be acquired by trade, the form and the inherent powers that it bestowed could be acquired by imitation. If the duplication involved materials with symbolic attributes of their own, then the significance of the form was enhanced.

In this regard, it should also be noted that in ancient Egypt cowrie imitations have been found so far only in burial contexts. This suggests that the role of cowrie imitations was to give added significance to the deceased in the afterlife, conferring the much sought-after strength of rejuvenation, rebirth and protection from the evil eye in the netherworld, a significance that was highlighted, enhanced and further empowered by the use of material other than shell, furnished with a color or other intrinsic properties of symbolic potency. In the southern Levant, most cowrie imitations also derived from burials, but a few were found in habitational contexts (Tufnell 1953: Pl. 36:53; Sass 2004: Figs 28.17:10, 28.32:9). The latter, however, are chance finds of unclear contextual significance.

Representations of shells in other materials were not reserved to cowries alone, as imitations of other species have been noted in the archaeological record as well (Andrews 1990: Figs 11, 157). Other types of shells may have also had amuletic or prophylactic significance, yet their meaning is at present unclear.

SUMMARY

Cowrie shells are one of the most common types of shell ornaments encountered in the archaeological record. Their immense

distribution, often far removed from their origin, indicates that they were widely traded and very popular among many cultures from time immemorial. People today continue to value cowries as ornaments for their aesthetic appeal, but may not be aware of the symbolic significance accorded to these shells by ancient societies.

The amuletic use of cowries appears to have begun in the Neolithic in the southern Levant and may be related to changes of social structure in the more permanent settlements, the inhabitants of which may have placed added importance on fertility and the need for protection. By their resemblance to the female vulva, cowries personified the female principle and the force of reproduction, functioning as protective amulets for adolescent girls to ensure conception, birth and to cure sterility. Believers in this principle wished to secure for the deceased in the afterlife symbolic powers of rebirth and regeneration, symbolized by the shell and by the animal within it. As cowries also resemble a half-open squinting human eye, they were apparently regarded as potent protection against the malicious powers of the evil eye in this world and the next, often believed to be the cause of malady or misfortune.

The ownership and wearing of more cowries may have been understood as stronger and more effective protection, so that people sought to acquire more shells in order to gain stronger social and magical benefits. Thus, cowries became items of tangible social and economic value and their accumulative protective powers became an object of trade.

As protective amulets, the symbolic potency of the cowrie form was enhanced

when it was duplicated in other materials that were often ascribed symbolic meaning of their own. As the form of the shell and not the shell itself was of significance, the

use of other materials of symbolic power to produce the cowrie form served to emulate and enhance the cowrie's amuletic protective powers.

Amir Golani
Israel Antiquities Authority
POB 586, Jerusalem 91004, Israel
amirgolani77@gmail.com

REFERENCES

- Aldred, C.
1971 *Jewels of the Pharaohs. Egyptian Jewellery of the Dynastic Period*, London: Thames and Hudson
- Andrews, C.A.R.
1990 *Ancient Egyptian Jewellery*, London: British Museum Publications
1994 *Amulets of Ancient Egypt*, Austin, TX: University of Texas Press
- Arnaud, D., Calvet, Y., Huot, J.-L.
1979 Ilšu-Ibnišu, orfèvre de l'E.BABBAR de Larsa. La jarre L.76.77 et son contenu, *Syria* 56/1-2, 1-64
- Baines, J.
1985 Color terminology and color classification: Ancient Egyptian color terminology and polychromy, *American Anthropologist* 87/2, 282-297
- Bar-Yosef, O., Belfer-Cohen, A., Goren, A., Hershkovitz, I., Ilan, O., Mienis, H.K., Sass, B.
1986 *Nawamis* and habitation sites near Gebel Gunna, southern Sinai, *Israel Exploration Journal* 36, 121-167
- Bar-Yosef, O., Garfinkel, Y.
2008 *The Prehistory of Israel. Human Cultures before Writing*, Jerusalem: Ariel [in Hebrew]
- Bar-Yosef Mayer, D.E.
2005 The exploitation of shells as beads in the Palaeolithic and Neolithic of the Levant, *Paléorient* 31/1, 176-185
2007 Shell trade at Kadesh Barnea [in:] R. Cohen, H. Bernick-Greenberg, *Excavations at Kadesh Barnea (Tell el-Qudeirat) 1976-1982*, I [=IAA Reports 34/1], Jerusalem: Israel Antiquities Authority, 273-283
- Beck, P.
1995 Catalogue of cult objects and study of the iconography [in:] I. Beit-Arieh, *Horvat Qitmit. An Edomite Shrine in the Biblical Negev* [=Monograph Series of the Institute of Archaeology of Tel Aviv University 11], Tel Aviv: Tel Aviv University, Institute of Archaeology, 27-197
- Brandl, B.
1984 A scarab, two seal-impressions and a cowroid [in:] E. Stern (ed.), *Excavations at Tel Mevorakh (1973-1976)* II. *The Bronze Age* [=Qedem 18], Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem, 60-61

- Breasted, J.H. Jr.
 1948 *Egyptian Servant Statues* [=Bollingen Series 13], New York: Pantheon Books
- Clark, G.
 1986 *Symbols of Excellence. Precious Materials as Expressions of Status*, Cambridge–New York: Cambridge University Press
- Cowie, P.J.
 2004 Amulets [in:] E. Mazar, *The Phoenician Family Tomb N. 1 at the Northern Cemetery of Achziv (10th–6th centuries BCE)* [=Cuadernos de Arqueología Mediterránea 10], Barcelona: Edicions Bellaterra, 227–254
- Curtis, C. Densmore
 1925 *Jewelry and Gold Work I. 1910–1914* [=Sardis 13/1], Rome: Sindacato italiano arti grafiche
- D'Amicone, E.
 1984 Cowrie-shells and pearl-oysters: two iconographic repertoires of Middle Kingdom gold-work, *Bulletin de la Société d'Égyptologie* 9–10, 63–70
- Dayagi-Mendels, M.
 2002 *The Akhziv Cemeteries, the Ben-Dor Excavations, 1941–1944* [=IAA Reports 15], Jerusalem: Israel Antiquities Authority
- Desroches-Noblecourt, C.
 1953 « Concubines du mort » et mères de famille au Moyen Empire. À propos d'une supplique pour une naissance, *BIFAO* 53, 7–47
- Ellis, R.S.
 1968 *Foundation Deposits in Ancient Mesopotamia* [=Yale Near Eastern Researches 2], New Haven, CT: Yale University Press
- Elsworthy, F.T.
 1895 *The Evil Eye. An Account of this Ancient & Widespread Superstition*, London: J. Murray
- Fales, F.M., Postgate, J.N. (eds)
 1992 *Imperial Administrative Records I. Palace and Temple Administration* [=State Archives of Assyria 7], Helsinki: Helsinki University Press
- Francis, P.
 1982 Experiments with early techniques for making whole shells into beads, *Current Anthropology* 23, 713–714
- Golani, A.
 2008 Ashqelon, Barnea' B-C, *Hadasot Arkheologiyot* 120, online resource: http://www.hadashot-esi.org.il/report_detail_eng.asp?id=805&mag_id=114 [accessed: August 2010]
 2013 *Jewelry from the Iron Age Levant* [=Orbis Biblicus et Orientalis 34], Fribourg: Academic Press; Göttingen: Vandenhoeck & Ruprecht
- Gregory, C.A.
 1996 Cowries and conquest: towards a subalternate quality theory of money, *Comparative Studies in Society and History* 38/2, 195–217
- Hayes, W.C.
 1990 *The Scepter of Egypt. A Background for the Study of the Egyptian Antiquities in the Metropolitan Museum of Art I. From the Earliest Times to the End of the Middle Kingdom*, New York: Metropolitan Museum of Art

- Hodžaš, S.I.
1971 *Egipetskoje iskusstvo v Gosudarstvennom muzee izobrazitel'nyh iskusstv im. A.S. Puškina / Les antiquités égyptiennes au Musée des beaux-arts Pouchkine*, Moskva: Izobrazitel'noe iskusstvo
- Hogendorn, J.S., Johnson, M.
1986 *The Shell Money of the Slave Trade* [=African Studies Series 49], Cambridge: Cambridge University Press
- Hughes-Brock, H.
1999 Mycenaean beads: gender and social contexts, *Oxford Journal of Archaeology* 18/3, 277–296
- Huot, J.-L.
1978 Larsa. Rapport préliminaire sur la septième campagne à Larsa et la première campagne à Tell el-'Oueli (1976), *Syria* 55/3–4, 183–223
- Kovács, L.
2008 *Vulvae, Eyes, Snake Heads. Archaeological Finds of Cowrie Amulets* [=BAR IS 1846], Oxford: Archaeopress
- Lennartz, A.
2004 Die Meeresschnecke *Cypraea* als Amulett im Frühen Mittelalter: Eine Neubewertung, *Bonner Jahrbücher* 204, 163–232
- Markoe, G.E.
1990 Egyptianizing male votive statuary from Cyprus: a reexamination, *Levant* 22/1, 111–122
- Mogensen, M.
1930 *La collection égyptienne. La glyptothèque Ny Carlsberg II*, Copenhagen: Levin & Munksgaard
- Petrie, W.M.F.
1930 *Beth Pelet I* [=BSAE 48], London: British School of Archaeology in Egypt
- Pollock, S.M.
1983 *The Symbolism of Prestige. An Archaeological Example from the Royal Cemetery of Ur*, Ph.D. diss., University of Michigan
- Pritchard, J.B.
1980 *The Cemetery at Tell es-Sa'idiyeh, Jordan* [=University Museum Monograph 41], Philadelphia: University Museum, University of Philadelphia
- Reese, D.S.
1986 The marine and freshwater shells [in:] P.E. McGovern (ed.), *The Late Bronze and Early Iron Ages of Central Transjordan. The Baq'ah Valley Project, 1977–1981* [=University Museum Monograph 65], Philadelphia: University Museum, University of Philadelphia, 320–332
1988 Recent invertebrates as votive gifts [in:] B. Rothenberg (ed.), *The Egyptian Mining Temple at Timna*, London: Institute for Archaeo-Metallurgical Studies; Institute of Archaeology, University College London, 260–265
1991 The trade of Indo-Pacific shells into the Mediterranean Basin and Europe, *Oxford Journal of Archaeology* 10/2, 159–196
- Reuther, O.
1926 *Die Innenstadt von Babylon (Merkes)*, Leipzig: J.C. Hinrichs
- Safer, J.N., Gill, F.M.
1982 *Spirals from the Sea. An Anthropological Look at Shells*, New York: C.N. Potter

Sass, B.

- 2004 Iron Age and Post-Iron Age artefacts, Section A: vessels, tools, personal objects, figurative art and varia [in:] D. Ussishkin (ed.), *The Renewed Archaeological Excavations at Lachish (1973–1994) IV. The Iron Age and Post-Iron Age Pottery and Artefacts* [=Monograph Series of the Institute of Archaeology of Tel Aviv University 22], Tel Aviv: Tel Aviv University, Institute of Archaeology, 1983–2057

Seipel, W.

- 1989 *Ägypten. Götter, Gräber und die Kunst. 4000 Jahre Jenseitsglaube. Katalog zur Ausstellung, Schlossmuseum Linz, 9 April bis 28 September 1989*, I, Linz: Schlossmuseum

Stol, M.

- 2000 *Birth in Babylonia and the Bible. Its Mediterranean Setting* [=Cuneiform Monographs 14], Groningen: Styx

Trubitt, M.B.D.

- 2003 The production and exchange of marine shell prestige goods, *Journal of Archaeological Research* 11/3, 243–277

Tufnell, O.

- 1953 *Lachish (Tell ed-Duweir) III. The Iron Age* [=The Wellcome Archaeological Research Expedition to the Near East Publications 3], London: Oxford University Press

Wapnish, P.

- 1997 Bone, ivory and shell: typology and technology [in:] E. Meyers (ed.), *The Oxford Encyclopedia of Archaeology in the Near East* IV, Oxford: Oxford University Press, 335–340

Wilkinson, R.H.

- 1994 *Symbol & Magic in Egyptian Art*, London: Thames and Hudson

Woolley, C.L., Mallowan, M.A.L.

- 1976 *Ur Excavations VII. The Old Babylonian Period*, London: British Museum Press

