



An Archaeological Analysis of the Existing Shell Vessels (Libation Shell) in the Archaeological Contexts of the Iranian Plateau in the Third to the First Millennium B.C.

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Sea shells are natural-biological objects. They are embedded in geological layers in the form of fossils, but also, to find in archaeological deposits as a result of human activities. Archaeologists can use the provenance of shells in the functional analysis of ancient sites in terms of social archeology and prehistoric trading activities. Archeological excavations in several sites of the Iranian Plateau have shown that from the 3rd third millennium B.C. onwards, finds of sea shells (e.g. Lambis, Dentalium, etc.) rapidly increased. Such shells were for instance discovered from ritual cemetery contexts such as Shahdad, Tepe Hesar, Kale Nisar cemeteries or Bani Surma. These objects are mainly used as natural or polished shells. In some cases, they served as a raw material for making all kinds of beads, buttons, and other ornamental objects.. The main question is to understand the relationship between the use of seashells and archaeological context, and also, their role in Bronze Age ritual life. In this article, the descriptive, analytical method has been used in the biological recognition of all types of shells. This method is also used based on similar studies on this issue in Mesopotamia's archeology of the Sumerian-Akkadian period. The distribution of recognizable species shows that these objects are concentrated in the settlements from south to southeast of Iran in the coastal strip of the Persian Gulf, and from the Oman Sea to the Zagros intermountain valleys, as well as in the northwest and northeast of Iran. The biological origin can be placed in the northern shores of the Oman Sea to the Gulf of Kutch on the northern coast of the Indian Ocean. It seems that with the growth and development of urbanization in Southwest Asia and especially the development of sea trade, oysters have been traded as valuable goods and other prestige goods. The importance of the shell findings is more than the value of the shells themselves because they were used as sacred goods in religious affairs. Analysis of the fields where the shells were discovered is more related to cemeteries and temples as sacred spaces. Also, the significant presence of Lambis shells for the production of specific ritual bowls, placed together with bronze axes in graves, can be seen as the reflection of a patriarchic tradition in the social-political organization of the third and second millennia B.C. Despite many excavations and the discovery of many samples of these types of shells, no further going investigation on these specific objects was undertaken so far. This desideratum reveals more valuable findings in the archeology of the Iranian plateau. Therefore, one of this article's final goals is to focus more on analyzing the context of the discovery of seashells in future Excavation.

pottery, petrographic, XRF, ICP, TL Dating, Jahangir.

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1. Introduction

Shell vessels have been made of several large marine gastropods species that were rarely used as grave objects in many cemeteries excavated in Mesopotamia. These documents belong to the third and second millennium B.C. The closest source of these shells is several hundred km far away (all distances noted are as-the-crow-flies). However, there is no independent work or mention of the prevalence of these rare and exotic species in Iranian archaeological publications. The source of these shells is in the Persian Gulf to the Indian Ocean south of the Indus Valley. The existence of one ancient trade route between the southern centers of Mesopotamia (at Uruk) to the Indus Valley has been confirmed based on traded lapis lazuli, chlorite, agate, and marine resources (Edens, 1992: 123, Kenoyer, 2008: 19). However, there have been changes in this ancient trade route at different phases due to cultural changes (Alden 1982:622-28). Based on these findings, the first discussion in this paper is about trans-regional trade. Another discussion of the paper is the study and analysis of the primary burial contexts that yielded these objects. Therefore, it is necessary to do some research on the archaeology of the dead for an accurate interpretation of the present data.

The information from the graves is one way of determining the social position of the deceased (Darck 2003: 111). It can be said that death has never been a priority in the human mind. However, essential was the emphasis on life and eternity (Larsson 2015:11). Sometimes, the grave structures reflect the social classification. However, the gender roles in the burials cannot be reliably identified. Gifts placed in graves are a gift from the living to the dead, and these gifts are sometimes of no use to the living people (Larsson 2015:12. Parker, Pearson, 1991; Duday and Pearce: 2009). The rarity and emphasis on the semiotic relationship of "symbiosis" belong exclusively to these objects in the graves of middle-aged men. It is often found alongside other symbolic objects, such as bronze axes. In this regard, we can mention the royal tombs in Ur, which are interpreted based on the political and social power of the rank and class within society. Most likely, these objects may show the deceased's social position or property; perhaps, these are merely memorials to those who participated in the deceased's funeral (Darck 2003:1-31).

Shell vessels: previous research and their sources

Most shell vessels are derived from two gastropod species: *Lambis* and *Turbinella pyrum*.

1.1.1. *Lambis*

Lambis (the spider conch) is a large gastropod (Figure 1). Their shell's size measure up to 220 - 330 mm wide. *Lambis* is found in the Persian Gulf and the Red Sea. *Lambis truncata sebae* is undoubtedly found in the Red Sea, and *L. truncata* may be as well (G. Walls, 1980: 60)

1.1.2. *Turbinella pyrum*

Turbinella (formerly called *Xancus*; the chank shell, [sacred] chank, or divine conch) is a large, heavy shell with a maximum length of 250 mm, width of 100 to 150 mm, and weight of about 800 g. (Abbott, 1991: 70) (Figure 2). Its exterior is perfectly smooth, making it very attractive for printing and engraving. Its geographic range is limited to the Indian Ocean. It was used as the leading shell resource at Mohenjo-Daro (Kenoye, 1984: 51). Although commonly used in the Indus Valley, it is not found in Mesopotamian sites. The absence of *Turbinella* Persian Gulf is attributed to the difference in salinity and the abundance of silt sediments in many parts of the Gulf. It has always been believed that in the past, *Turbinella* was derived only from the Indian Ocean (Gensheimer 1984:67).

1.1.3. *Pleuroploca trapezium*

Pleuroploca (formerly *Fasciolaria trapezium*; the trapezium horse conch or striped fox conch) is a relatively large gastropod (length 150 to 200 mm, width 200 mm) with a set of short

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 tubercles on the shoulder of the body whorl (Abbott, 1991: 65) (Figure 3). The central columella has two or three distinctive ridges or folds. This species is found in the Red Sea and parts of the East African coast. It is also reported from the Gulf of Kutch (west coast of India) and the Makran coast (southeast Iran and southwest Pakistan). They live in rocky areas or coral reefs, not on sandy ocean bottoms. There is no archaeological evidence that it had ever lived in the Persian Gulf.

Trumpet Triton, a familiar name the Triton's trumpet or the giant Triton, is a massive sea snail, a marine gastropod mollusk in the Charoniidae, the tritons.[1] Reaching up to two feet (or 60 cm) in shell length, this is one of the giant mollusks on the coral reef. One slightly smaller (shell size 100–385 millimeters (3.9–15.2 in)). Charonia species inhabit temperate and tropical waters worldwide. This species is found throughout the Indo-Pacific Oceans, the Red Sea included (Linnaeus, 1758)

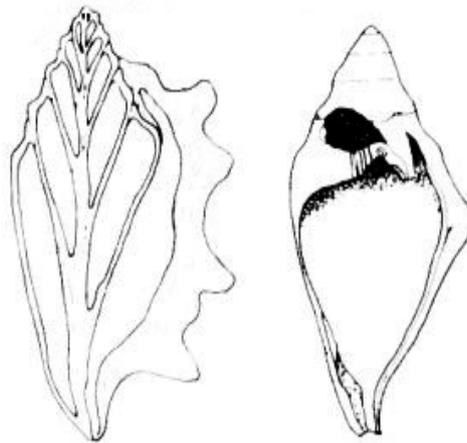


Figure 1. *Lambis* cross-section (left) and shell vessel (right) (Kenoyer 1983: fig. 3 and Gensheimer 1984: fig. 2:3).

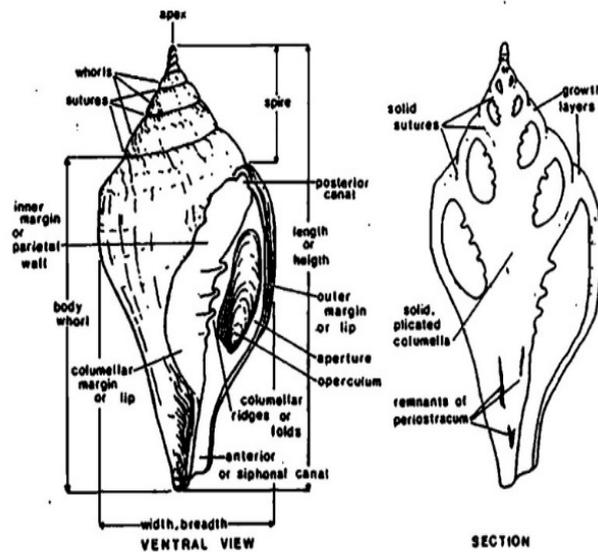


Figure 2. Exterior and cross-section of *Turbinella* (Kenoyer 1983: fig. 2 and Gensheimer 1984: fig. 2:2).



Figure 3. Cross-section (a), unworked columella (b), and worked Columellas (c-d) of *Pleuroploca* (Gensheimer 1984: fig. 2:1).

To create shell vessels, they first made a longitudinal cut at the surface of the shell and then removed much of the inner parts and part of the mouth and body. The external surface of *Lambis* is relatively flat in adulthood and more extensive than that of *Turbinella*. Nevertheless, the lower part of the shell is thorny. The morphology of this shell resembles a vessel or boat (Quenet 2018:16-17).

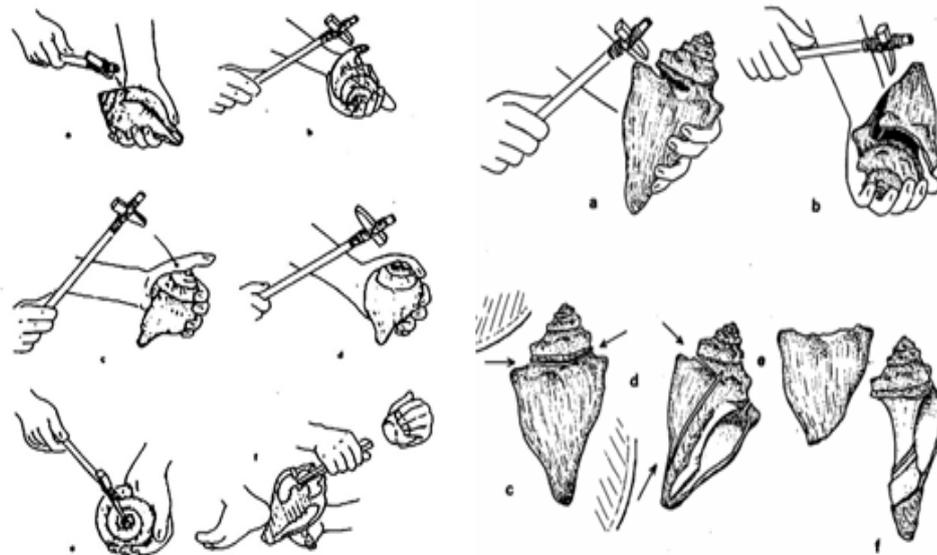


Figure 3. Making a shell vessel (Kenoyer 1983: fig. 9-8).

1.2. Shell vessels in Iran

Archaeological excavations in Iran have produced several shell vessels from cemeteries: Barde Zarda (Sharifi 2019), Kalle Nisar (Haernick and Overlaet 2006:60, 2008:58-59), Shahdad (Hakemi 1997, and Bani Surmeh (Vanden Bergh 1968). There is also one large gastropod found in Tepe Hissar (Schmidt 1937:232).



Map1. Iran and the site found shell vessels

1.2.1. Barde Zarda (West Azarbaijan province)

Barde Zarda is located about 15 km southwest of Piranshahr city in West Azerbaijan province and just behind the crown of Kani Sibe, about 1640 km from the Persian Gulf. For many years the remains of a cemetery from the third millennium B.C have been damaged due to the construction of the Kani Sibe Dam and the conversion of the area to farmland. In an area of nearly 1 hectare, signs of sedimentary bedrock and human bone remains are scattered.

For this reason, the archaeological team led by Mahnaz Sharifi excavated a trench right in the center of the destroyed cemetery. Excavations found a destroyed grave with a rock mass texture among a dense rock texture. Unfortunately, it was destroyed in its place due to the construction operations, so it was impossible to draw the architectural status and plan of the grave structure. However, among those deposits, the remains of at least one middle-aged male could be identified. Also, one of the worked shells, *Lambis trocenas* was identified in the same tissue.

This vessel is 160 mm long and 80 mm wide, and its closest biological sources are on the northern shores of the Gulf of Koch in the Indian Ocean and the Sea of Oman. So far, many species have been reported in most groups of the third millennium to the first half of the millennium B.C. in Mesopotamia. During polishing, about one-third of the base shell is removed and then flattened by the edge of the shell throughout the oval circulation. It resembles the type o vessel that oysters are known as in the spiritual literature as Libation vessels. So far, the discovery of this rare species of shells has been reported exclusively in royal tombs or people of high social status. Unfortunately, the destruction makes it impossible to determine such a ratio in this context. However, using deductive reasoning, this grave can be considered one of the known types of graves. About 1640 km from the Persian Gulf. A destroyed tomb yielded a complete *Lambis* vessel and other objects (including a bronze axe). This vessel is 160 mm long and 80 mm wide (Sharifi 2019) (Figures 4–5).

1.2.3. Bani Surmeh cemetery (Chawar region)

This cemetery is in western Iran (Elam province), about 1290 km from the Persian Gulf, and was excavated by Vanden Bergh's team. Grave A6-36 produced a large gastropod (Figure 7). The excavator compared it to shell vessels found in Iraq (Vanden Bergh 1968b:58). There are also reports of similar sherds in Lurestan (Haernick and Overlaet 2006:60).

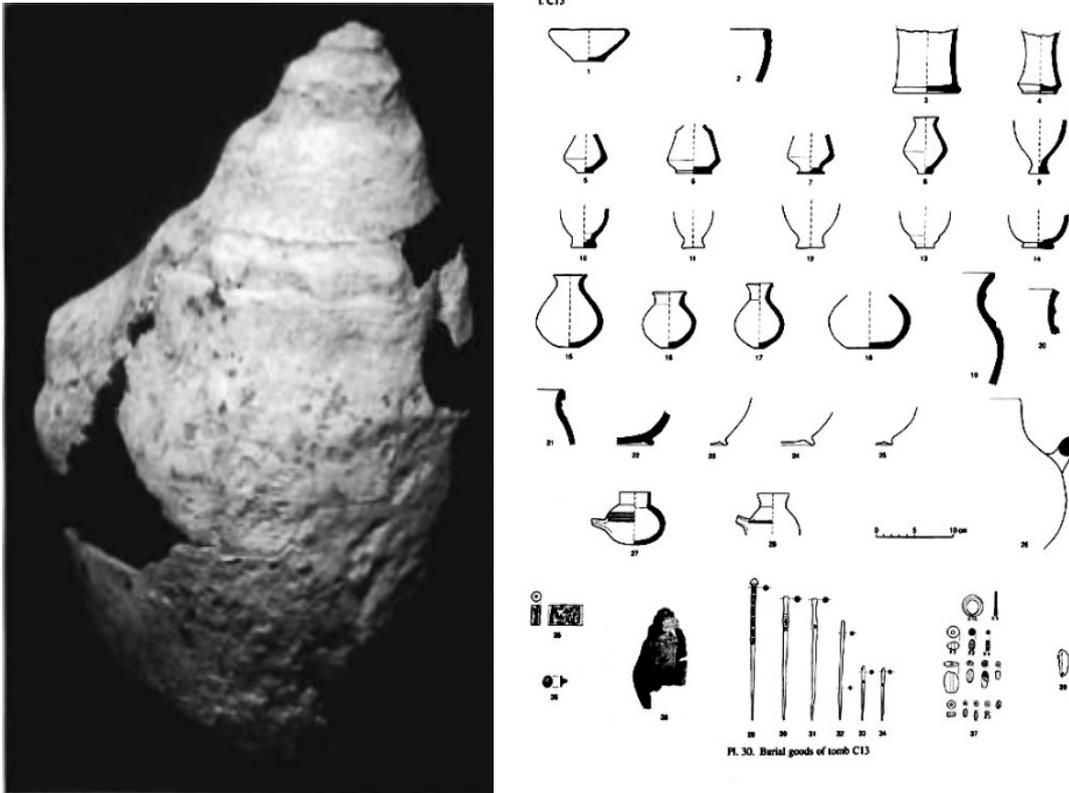


Figure 7. Shell from Bani Surmeh Grave A6-36 (Haernick and Overlaet 2006:60).

1.2.4. Shahdad cemetery (southwest of Put Plain)

Shahdad is in the center of the Iranian plateau, about 775 km from the Persian Gulf. One of the cemeteries at this site, called B cemetery or "Takab," is now wholly denuded due to severe wind erosion. In one of the shallow graves (at a depth of 150 mm), part of a human leg bone was found with other objects, including a Lambis vessel (Hakemi 1997:72-73) (Figure 8). The pottery and metal objects in the cemetery show links to western Iran (Susa), Mesopotamia, and sites and areas to the east such as Tepe Yahya, Shahr-i Sokhta, Baluchistan, and the Indus Valley. The alabaster and chlorite objects are comparable to those of Susa, Ur, and Uruk in the west and Kerman and Baluchistan in the east (Casanova, 2020, 302). The exciting thing about this shell is that it has been covered with plaster after processing.



Figure 8. *Lambis* vessel from Shahdad cemetery
(Authors. of the National Museum of Ancient Iran)

1.2.5. Tepe Hissar

Tepe Hissar in northern Iran, excavated in 1931–32, is almost 1400 km from the Persian Gulf. It probably produced a *Charonia Tritonis* (Triton or trumpet shell) with an open apex and a broken mouth from the Hissar III (second half of the third millennium and beginning of the second millennium B.C.; Bronze Age). It was published as "a large marine shell perforated for suspension" (Schmidt 1937:231-32, pl. LXX: H 1973). It could have been used as a vessel or a trumpet.

2. Shell vessels in Mesopotamia

In Mesopotamian archaeology, there is much more evidence in regards of using shells (Moorey 1994:128-29; Gensheimer 1984).

A significant number of shell vessels have been found in Mesopotamia, 1994:134), especially in the E.D., for example, at Ur (Figures 10–12), Kish, Tello, Abu Salabikh... A significant number of shells have been found in Mesopotamia (Aynard 1966, p. 29–30, Gensheimer 1984. p. 69; Moorey 1994, p. 134), especially in the early dynasty, for samples in Ur (Woolley 1934, p. 245, 248, pl. 137) Abu Slabikh (Martin, Moon & Postgate) Kish (Mackay 1925, p. 135. pl. III: 8; Moorey 1970, p. 105 sq.: Moorey 1978, p. 113), Farah (Martin 1988, pp. 59, 213), Chukha (Rumaidh 2000, p. 28, fig. 88) Site in Diyala (Delougaz 1967, p. 95–96, t. 89) and Hamrin (Ahmad al-Hattu: Eickhoff 1993, p. 77,167) and Marie (al-Hattu: Eickhoff 1993, p. 77,167). Examples of *Lambis truncata* species have been found in the Ur cemetery, decorated with carvings on the shell (Figure 15). One of the notable examples is the carved shell, the end shape of which is a duck's head (Fig. 16). (Gensheimer, 1984, woolly 1934, plate 102). A clear illustration of the primary type of changing structure of use is given by several categories of shell objects in 3rd-millennium Mesopotamia. Conch shells carved into lamps or cups are some of the little standards discovered in 3rd-millennium Mesopotamian destinations (see Aynard 1966).

These vessel shells are sometimes decorated with geometric patterns, painted, or just a splash and polish. In some cases, containers made of metal or stone were made in the shape of this shell container, which shows the importance of these shell containers. However, they appear to have a place for *Lambis truncata sebae*, *Lambis lambis*, and *Turbinella*. *Pyrum* (Gensheimer 1984:71; Kenoyer 1984:59; D. Reese, individual communication, 1986). *Turbinella Pyrum* occurs as it extends along the coast of the Indian subcontinent north of the Indus Delta, while *Lambis truncatasebae* and *Lambis lambis* have a wide distribution in the Indo-Pacific.

3 Functionality and stylistic shell vessel - decorated

A shell is a tool we can use to reconstruct aspects of the social and economic mechanisms of the past, such as the source of the shells, their final destination (trade routes) (Kenoyer, 2008: Edens, 1992), how the shells are modified (technology) and how they are used (as exchange goods, funeral gifts, ornaments...) (Bar-Yosef Mayer 2011:186). According to Kenoyer, each region's shell artifact production has distinctive features. For instance, vessels were mainly manufactured from *Turbinella* in Mohenjo-Daro workshops (650 km from the Indian Ocean). Vessels were often manufactured of *lambis* in Mesopotamia. The carved motifs on the Indus vessels also differ significantly from those in the Mesopotamian. The huge columella and internal septa were painstakingly removed from the Indus vessels through the aperture, leaving the apex intact. The exterior of the hollow shell was then ground to eliminate the natural shell surface before being simply grooved (Kenoyer 1984: 57-59).

Some people think they were utilized as oil lamps. Although there is no proof of burning at the edges, it is possible to speculate that these were cups. Similarly, "In South India, unitized shells are used to give sick people their medicine or to milk-feed infants. Bengal produces more intricate, meticulously etched cups utilized all over South Asia for unique religious libations. The Indus containers were undoubtedly utilized in specific ritual functions because of their unique manufacture and shape, particularly suited to pouring some liquid. Therefore, Kenoyer labeled them "libation " (1984: 59-61) Vessels". However, care must be taken in using literature related to this species in Mesopotamia. Shells previously identified as *Turbinella* from Ur, Kish, and Tello (Hornell 1941: 23) have been recognized as *Lambis*. *Pleuroploca* was used almost exclusively in the Harappa and Mohenjo-Daro (Mallowan 1966:635).

Haerinck and Overlaet (2008:200) pointed out that Kalle Nisar and Bani Surmeh are similar to examples found in new Sumerian culture. However, in only one grave from each cemetery is a shell vessel discovered in, suggesting that one person would have had a higher rank than any other community member.

With the beginning of the third millennium B.C., special links between the coast and the sea emerged, which can be seen as a reflection of this belief and link to the grave goods in the Middle East (Méry and Charpentier 2009:22).

Based on the evidence, using marine shells as grave objects in the third millennium was essential. To the extent that objects were sometimes made of metal and stone to mimic the shape of shells, such as in Ur (see Appendix). Before the Ur Dynasty, some shells were found that were not only used to make vessels but were sometimes decorated with carving or engraving as well. For example, there is one instance where a piece of stone in the shape of a duck's head is attached to the bottom end (Zettler and Horne, eds. 1988:141-44).

Woolley suggested these shells were used for drinking or pouring liquid, similar to what Mackay (Marshal 1931:569) has described for shell vessels in the Indus Valley. Mackay has called a group of Lambis "U shell containers" because of their u-shaped cross-section. He pointed out, "In Sumer, smoothed shells are used as drinking cups or containers for purification" (Kenoyer 1984:59; Gensheimer 1984:70). The containers were initially interpreted as oil lamps. However, Woolley's views and Irene Winter referred to them as the "horns of freedom." He used it in events such as funerals and ritual ceremonies. However, his hypothesis was based mainly on Ur Third Dynasty cemetery finds. However, at least similar examples have been used centuries ago, found in many tombs and buildings where religious activities occurred at the end of the Jemdat Nasr period and the Second dynasties (Quenet 2018:17-20). Therefore, it can be concluded that at the beginning of the third millennium B.C., two species of large gastropods were used in Mesopotamia for a specific purpose (Quenet 2018:20-22). The shell vessels in Mesopotamia seem to be mainly found in elite burials

4.1. Shell trade

Various models of trading and exchange systems have been discussed for the prehistoric period (Lamberg-Karlovsky 1975; Clark 1968). Attempts were made to understand the value of "universal goods" in the prehistoric world, such as lapis lazuli, shells, metals, ceramics, and trade beads. While they were a trade and exchange commodity, they have attracted the attention of archaeologists. It is mentioned in discussions about early global trade communication (Friedman & Rowlands 1977; Graeber 2011; Brumfiel & Earle 1987; Marcus 2008; Prestholdt 2008; Stein 1998). Underscoring many of these discussions is the idea that 'exotic' early global commodities were objects of 'high value' that functioned as wealth and underscored power (Earle 2002; Friedman & Rowlands 1977; Harris 2017; Hayden 1998; Trubitt 2003). Larger cities appear to be directly related to regional networks and to have external trade connections. These cities, in turn, were associated with smaller towns and villages with intra-regional networks. At the local level, goods were distributed without reference to larger networks (Kenoyer 2008: 23). The Persian Gulf takes the commodities of the Inlet exchange included metals, materials, semiprecious stones, ivory, woods and reeds, cereals, all various vegetables and other condiments, oils, shells and conceivably pearls, and a little cluster of wrapped up items of wood, metal, or stone (cf. Pettinato 1972; Heimpel 1987). Many of these products may be classified as luxury goods whose use is more known in Mesopotamia. Where it carries the greatest load of ideological values, certain goods were used for clergy or people of high social class. On occasion, the intentions of holiness and specialist inserted in lapis lazuli are well known (Cassin 1968:114-119). It can be said that the raw and worked shells played an important economic or financial role in the region's economy. However, this industry has certainly been important. This issue has been confirmed by the distances from which the shells had to move (Kenoyer 2008: 23–25). The existence of shell artifacts in ancient places shows that shells were collected and made in Mohenjo Daro from other areas in the 3rd millennium B.C. These shells were found in the third millennium B.C. and exchanged with other regions through trade (Kenoyer 1983: 106-07).

Nevertheless, many of these models cannot be proven without written documentation from the Indus Valley. Based on the limited archaeological evidence from the Indus excavations. Shell industries existed at major Harappan sites such as Harappa, Lothal, Dolavira, etc., suggesting that internal trade networks were possible on the Indus

An archaeological Analysis of the Existing Shell Vessels (Libation Shell) in the Archaeological Contexts ... 177 (Kenoyer 1989). Kenoyer pointed out that the trade in Asia and South Asia is based on family business relationships and that governments are not involved in this economic policy.

Furthermore, the long-term maintenance of such trade networks results from extensive kinship relationships and temporary contracts between producers and consumers. In the absence of strong state control, long-distance relationships would have been a form of insurance in trade relations (Kenoyer 2008:23). In Mesopotamia, Iran, and the Indus region, the role of various objects such as shells can be seen in a complex, socio-economic, and possibly socio-religious cultures in the 4th and early 3rd millennium B.C. (Kenoyer 1983:106-07). There is also evidence that people from the Indus Valley (e.g., Meluhha) lived in Mesopotamia during the Akkadian period (ca. 2350–2200 B.C.) and became absorbed into the local population (Parpola *et al.* 1977). From the second half of the third millennium B.C. and then for several centuries to the second millennium B.C., Indus and Mesopotamian have been related to each other (Moorey 1994:132). Large gastropods were valuable objects in the third millennium B.C. (Moorey 1994:134). Kenoyer considers the presence of unique shells and beads and dark red agate specific to the Indus Valley as a particular trade item and exported from the Indus Valley to Mesopotamia and exported from the Indus Valley to Mesopotamia. It is considered a unique trade item and is exported from the Indus Valley to Mesopotamia. In the class society of Mesopotamia, only the elite could buy certain goods, such as vessels. The use of these shells was so crucial that gold and silver examples of these shells were made in the royal tombs of Ur because solid religious beliefs were hidden in them (Quenet 2018:25-27).

Several of the species used belong to the Indus coast. An exchange network for the movement of these shells is reconstructed through the connection between cities on known trade routes (see Map 2). According to the map, it can be seen that the closest place to trade shells on the Iranian plateau is Shahr-i Sokhta (Durante 1975, 1977, 1979). Which is then lead to Shahdad, Susa, behind the Luristan Mountains, and Barde Zarde. Based on the sites where *Lambis* has been found, it can be said that all of these sites were on the trade route in the third millennium B.C. The shells may have entered the Iranian plateau through two trade routes. Shells found in the western parts of Iran are likely to have entered the Zagros through Mesopotamian passages. Accordingly, it must be said that *Lambis* first entered Mesopotamia and then into the western parts of the Iranian plateau. Another discussion on shell vessels was their use in everyday life before being buried with the dead. Accordingly, two views have persisted. The first perspective was an oil lamp due to its shape and functional similarity.

In most cases, it was necessary to retain traces of the shell due to the fire's proximity to its pipe. However, the shell's calcium carbonate compounds are highly reactive to heat and will get burnt after a while, therefore, placing doubt on the general agreement that shell vessels are unlikely to have been used as lamps (Gensheimer 1984:69). Sometimes, the black color attributed to fire is considered to be the remains of a black cosmetic (common vermilion) as it is distinct from the effects of burning (see Mackay 1929:135).

Another use for these shell vessels is for pouring liquids, as Woolley noted (Woolley 1934a:283; cf. Mackay 1925: 18; Marshall 1931:569). What is clear is that raw shells were imported into Mesopotamia and produced locally using Sumerian-style decorations (Moorey 1994:134). The shell vessels from contemporary graves of the Iranian plateau are included in this classification.

5. Conclusion

Shells were a less accessible material to the inhabitants of the Iranian plateau in the third and second millennium B.C. Although, its importance in the cities of Mesopotamia has been widely regarded and significant. With the formation of the southern Mesopotamian cities and the classification of society, archaeological objects of a more dignified nature became more prominent. A strong connection between the southern shores of the Persian Gulf and the Indus can be documented in the Mature Harappan period and, to some extent, in the immediately post-Harappan period (Carter 2001; Laursen 2010). Regardless of its geographical location, Magan lost prominence in cuneiform sources after the Ur III period, when the trade between Mesopotamia and the cities to the southeast was directed through Dilmun (Potts 1990; Crawford 1998; Carter 2003). The imported materials are lapis lazuli, turquoise, copper, and shells. Based on the origin of these materials, the question of the existence of trade routes in the Uruk world, then eastwards to the end of Badakhshan in Afghanistan and the Indus Valley to the most eastern places such as Dilmun, Magan on the southern coast was raised. Because of their polished brilliance, scarcity, and spiritual and metaphysical dimensions, Marine shells originating in the sea are believed to have significance in the religious world, especially in people's views of life after death. Indeed, the contemporary cultures of the Sumerian dynasties in the Iranian plateau, especially in the western border regions of Iran or the places on the path of eastern trade routes, were influenced by the prevailing culture of Mesopotamia.

Hence, all ancient sites on the Iranian plateau where shell vessels are found are located on the western border connected to Mesopotamia or on the trade route. However, these vessel shells indicate the influence of Mesopotamian religion and religious thought on neighboring cultures such as Iran. Because in this period, we see many similarities between the culture of Iran and Mesopotamia. However, unfortunately, we are facing a lack of excavation data in Iran. All Iranian vessels were found in graves (except Hissar) and in cases where physical anthropological studies were performed in adult male graves. In at least three other cases, a bronze axe was found along with the oyster dish, showing its ritual, symbolic aspects, and social status. Based on the sites where Lambis has been found, it can be said that all of these sites were located on the third millennium B.C trade route. Note that shells may have entered the Iranian plateau through the two routes. Although the source of these shells is unique to the Indus region, shells obtained from the western parts of Iran are likely to have entered the Zagros region through Mesopotamian passages. On this basis, it must be said that the Lambis first entered Mesopotamia and then into the western parts of the Iranian plateau. The shell vessels are found only in particular graves in each cemetery. The status of the deceased's rank and class other than their male gender is unclear. Their elite status is similar to examples from the royal cemetery at Ur, where Woolley pointed to the critical presence of Lambis vessels.

References

- Alden, J. 1982. Trade and Politics in Proto-Elamite Iran. *Current Anthropology* 23/6: 613-640.
- Allen, M.J. and B. Payne. 2017. Mollusks in archaeology: an introduction. In M.J. Allen, ed., *Mollusks in Archaeology: Methods, Approaches, and Applications*. Oxford: Oxbow Books, 1-5.
- Aynard, J.M. 1966. Coquillages Mésopotamiens. *Syria* XLIII/1-2: 21-37.

An archaeological Analysis of the Existing Shell Vessels (Libation Shell) in the Archaeological Contexts ... 179

- 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.
- _____. 2011. Nawamis, Shells, and Early Bronze Age Pastoralism. In M.S. Chesson, ed., *Daily Life, Materiality, and Complexity in Early Urban Communities of the Southern Levant*. Winona Lake, IN: Eisenbrauns, 185-195.
- Chakrabarti, D.K. 1990. *The external trade of the Indus Civilization*. New Delhi:
- Charpentier, V., J.-F. Berger, and F. Borgi. 2016. Les premier's chasseurs-collecteurs Maritimes d'Arabie (IXe-IVe millénaires avant Notre ère). ou paiement par courrier: formulaire papier à nous retourner à l'adresse de gestion et de correspondance de la SPF:BSPF, Maison de l'archéologie et de l'ethnologie Pôle éditorial, boîte 41, 21 allée de l'Université, 92023 Nanterre. Charpentier.v , J.-F. Berger, R. Crassard, F. Borgi and Ph. Béarez. 2016. Les premiers chasseurs collecteurs maritimes d'Arabie.(IXe-IVe millénaires avant notre ère, (Responsables des réunions scientifiques de la SPF :Jacques Jaubert, José Gomez de Soto, Jean-Pierre Fagnart et Cyril Montoya Directeur de la publication: Jean-Marc Pétilion Secrétariat de rédaction, maquette et mise en page : Martin Sauvage et Frank Barbery (CNRS, USR 3225, Nanterre) Correction et vérification: Karolin Mazurié de Keroualin (www.linarkeo.com) Mise en ligne: Ludovic Meve).
- Charpentier V., S. Méry, E. Fortini, É Pellé. 2009. “Un chef est un requin qui voyage par terre”: fonctions et statuts des armatures de projectile en dents de *Carcharhinus leucas* et aiguillon caudal de raie dans l'Arabie des VIe-IIIe millénaires av. notre ère. *Arabian Archaeology and Epigraphy* 20/1: 9-17.
- Claassen, C. 1991. Normative thinking in shell-bearing sites. In M.B. Schiffer, ed., *Archaeological Method and Theory*. New York: Springer, 249-258.
- _____. 1998. *Shells*. Cambridge: Cambridge University Press.
- Clark, D.L. 1968. *Analytical Archaeology*. London: Methuen & Co. Ltd.
- Conchiglie 1981. *Conchiglie, Il commercio e la lavorazione delle conchiglie marine nel medio oriente dal IV al II millennio a.C. Roma Palazzo Brancaccio, 14 maggio-19 luglio 1981*. Rome: De Luca Editore.
- Darck, K.R. 2003. *Theoretical archaeology*. Ithaca: Cornell University Press.
- Delougaz, P. and S. Lloyd. 1942. *Pre-Sargonid Temples in the Diyala Region*. Oriental Institute Publication 58. Chicago: The Oriental Institute, University of Chicago.
- Delougaz, P., C. Hill and S. Lloyd. 1967. *Private Houses and Graves in the Diyala Region*. Oriental Institute Publication 88. Chicago: University of Chicago.
- Durante, S. 1975. The utilization of *Xancus pyrum* (L.) at Shahr-i-Sokhta. In _ von Lohuizen and J.E. de Leeuw, eds., *South Asian Archaeology 1975*. Leiden: E.J. Brill, 27-42.
- _____. 1977. The use of imported sea-shells at Shahr-i Sokhta; trading between inland Iran and the Indian Ocean coastal regions. In M. Basaglia et al., *La Città Bruciata del Deserto Salto*. Venezia-Mestre: Erizzo Editrice, 215-223 (Italian), 223-228 (English).
- _____. 1979. Marine Shells from Balakot, Shahr-i Sokhta, and Tepe Yahya: Their Significance for Trade and Technology in Ancient Indo-Iran. In M. Taddei, ed., *South Asian Archaeology 1977*. Naples: Istituto Universitario Orientale, 317-344.
- Eickoff, T. 1993. *Grab und Beigabe. Bestattungssitten der Nekropole von Tall Ahmad al-Hattu und anderer frödynastischer Begräbnisstätten im südlichen Mesopotamien und in Luristan*. Münchener Universitätschriften Philosophische Fakultät 12 (= Münchener vorderasiatische Studien XIV). München-Wien.
- Eliade, M. 1991. *Images and Symbols: Studies in Religious Symbolism*. Princeton: Princeton University Press (translated from the French by P. Mairet. First published in 1952).
- Gensheimer, T.R. 1984. The Role of Shell in Mesopotamia: Evidence for Trade Exchange with Oman and the Indus Valley. *Paléorient* 10/1: 65-73.

- Haernick, E. and B. Overlaet. 2006. *Bani Surmeh: An Early Bronze Age grave in Pusht-I Kuh, Luristan*. Luristan Excavation Document Vol. VI (Acta Iranica 43). Leuven: Peeters.
- _____. 2008. *The Kalle Nisar Bronze Age Graveyard in Pusht-I Kuh, Luristan*. Vol. VII (Acta Iranica 46). Leuven: Peeters.
- Hakemi, A. 1997. *Shahdad: Archaeological Excavations of a Bronze Age Center in Iran*. Rome: IsIAO. Spell out IsIAO
- Hall, H.R. and C.L. Woolley. 1927. *Ur Excavations I Al-'Ubaid*. Oxford: Oxford University Press.
- Horne, L. 1998. Ur and Its Treasures: The Royal Tombs. *Expedition* 40/2: 4-11.
- Hornell, J. 1941. Sea Trade in Early Times. *Antiquity* 15: 233-256.
- Kenoyer, J.M. 1983. Shell Working Industries of the Indus Civilization: An Archaeological and Ethnographic Perspective. Unpublished Ph.D. dissertation, University of California, Berkeley.
- _____. 1984. Shell Working Industries of the Indus Civilization: A Summary. *Paléorient* 10/1: 49-63.
- _____. 1989. Socio-economic structures of the Indus Civilization as reflected in specialized crafts and the question of ritual segregation. In J.M. Kenoyer, ed., *Old Problems, and New Perspectives in the Archaeology of South Asia*. Wisconsin Archaeology 2. Madison, WI: Department of Archaeology, 183-192.
- _____. 1991. Urban process in the Indus tradition: a preliminary model from Harappa. In R.H. Meadow, ed., *Harappa Excavations 1986-1990*. Madison, WI: Prehistory Press, 29-60.
- _____. 2008. Indus and Mesopotamian Trade Networks: New Insights from Shell and Carnelian Artifacts. In E. Olijdam and R.H. Spoo, eds., *Intercultural Relations between South and Southwest Asia. Studies I Commemoration of E.C.L. During Caspers (1934-1996)*. BAR International Series 1826. Oxford: _____, 19-28.
- Kenoyer, J.M. and R.H. Meadow. 1999. Harappa: New Discoveries on its origins and growth. *Lahore Museum Bulletin* XII: 1-12.
- Kenoyer, J.M. and M. Vidale. 1992. A new look at stone drills of the Indus Valley Tradition. In P. Vandiver, J.R. Druzick, G.S. Wheeler and I. Freestone, eds., *Materials Issues in Art and Archaeology* III. Pittsburgh: Materials Research Society, 495-518.
- Kenoyer, J.M., M. Vidale, and K.K. Bhan. 1991. Contemporary stone beadmaking in Khambhat, India: patterns of craft specialization and organization of production as reflected in the archaeological record. *World Archaeology* 23/1: 44-63,
- Kohl, P.L. 2001. Comment on Shereen Ratnagar (2001). The Bronze Age: Unique Instance of a Pre-Industrial World System? *Current Anthropology* 42: 367-368.
- Lamberg-Karlovsky, C.C. 1975. Third Millennium Modes of Exchange and Modes of Production. In J. Sabloff and C.C. Lamberg-Karlovsky, eds., *Ancient Civilization and Trade*. Albuquerque: _____, 341-368.
- Larsson Å.M. 2015. Opening Ancient Death Ways. In K. von Hackwitz and R. Peyroteo-Stjerna, eds., *Caring for the Dead. Ancient Death Ways. Proceedings of the workshop on archaeology and mortuary practices*. Occasional Papers in Archaeology, ?city, ?publisher, ?pages.
- Mackay, E.J.H. 1925. *Report on the Excavation of the "A" cemetery at Kish, Mesopotamia, Part I*. Anthropology Memoirs 1/1. Chicago: Field Museum of Natural History.
- _____. 1929. *A Sumerian Palace and the "A" cemetery at Kish, Mesopotamia*. Anthropology Memoirs 1/2. Chicago: Field Museum of Natural History.
- _____. 1931. *Report on the Excavations at Jemdet Nasr, Iraq*. Field Museum of Natural History, Anthropology Memoirs 1/3. Chicago: Field Museum of Natural History.
- _____. 1943. *Chanhu-Daro Excavations 1935-36*. American Oriental Series 20. New Haven: American Oriental Society.
- Mallowan, M. 1966. *Nimrud and its Remains I + II*. London:

- Marshall, J. 1931. *Mohenjho-daro and the Indus Civilization*.
3 volumes. London: A. Probsthain.
- Martin, H.P. 1982. The Early Dynastic Cemetery at Al Ubaid,
a Re-Evaluation. *Iraq* 44: 145-185.
- _____ 1985. Metalwork. In J.N. Postgate, ed., *Abu Salabikh Excavations 2: Graves 1-99*.
London: British School of Archaeology in Iraq,
- _____ 1988. *Fara, a Reconstruction of the Ancient Mesopotamian City of Shuruppak*.
Birmingham, UK: Chris Martin.
- Moorey, P.R.S. 1966. A Reconsideration of the Excavations
at Tell Ingharra (East Kish), 1923-1933. *Iraq* XXVIII: 18-51.
- _____ 1970. Cemetery A at Kish: Grave Groups and Chronology. *Iraq* XXXII: 88-128.
- _____ 1978. *Kish Excavations, 1922-33, with a microfiche catalogue of the Objects in Oxford
excavated by the Oxford-Field Museum, Chicago Expedition to Kish in Iraq, 1923-1933*.
Oxford: Clarendon Press.
- _____ 1982. *Ur of the Chaldees*. Ithaca: Cornell University Press.
- _____ 1994. *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence*.
Oxford:
- Oppenheim, A.L. 1963. Mesopotamian Conchology. *Orientalia* ns. XXXII: 407-412.
- Parpola, S. A. 1994. *Deciphering the Indus Script*. Cambridge.
- Parpola, S., A. Parpola, and R.H. Brunswig. 1977. The Meluhha village: evidence of
acculturation of Harappan traders in late third millennium Mesopotamia? *Journal of the
Economic and Social History of the Orient* XX/2: 129-165.
- Potts, D.T. 1997. *Mesopotamian Civilization: The Material Foundations*. London or Ithaca:
Cornell University Press.
- Postgate, J.N. 1980. Early Dynastic Burial Customs at Abu Salabikh. *Sumer* XXXVI: 65-82.
- Postgate, J.N. and J.A. Moon. 1982. Excavations at Abu Salabikh 1981. *Iraq* 44: 103-136.
- Quenet, Ph. 2018. Luxe et transgression dans les cités-états sud-mésopotamiennes (3100-2350
av. J.-C.) d'après quelques séries d'objets en coquille. *Ktèma, Civilisations d'Orient, de la
Grèce et de Rome Antiques* 43: 5-34.
- Ratnagar, S. 1981. *Encounters: The Westerly Trade of the Harappa Civilization*. New Delhi:
Oxford University Press.
- Ridout-Sharpe, J. 2019. Shell ornaments, icons, and other artifacts from the eastern
Mediterranean and Levant. In M.J. Allen, ed., *Mollusks in Archaeology: Methods,
Approaches, and Applications*. Oxford: Oxbow Books, 290-307.
- Schmandt-Berserat, D. and S.M. Alexander. 1975. *The First Civilization: The Legacy of Sumer*.
Austin: The University of Texas at Austin.
- Schmidt, E.F. 1937. *Excavations at Tepe Hissar, Damghan*. Philadelphia: University Museum.
- 73-Sharifi, M, 2019. The Middle Bronze Age in the Little Zab Basin in the Light of the
Excavations at Barde Zard Tepe, Northwest Iran . *Iranian Journal of Archaeological
Studies* Vol, 9, No, 1, Pp 39-56
- Starr, R.F.S. 1939. *Nuzi. Report on the Excavations at Yorghana Tepe Near Kirkuk, Iraq
Conducted by Harvard University in conjunction with the American Schools of Oriental
Research and the University Museum of Philadelphia, 1927-1931*. Text. Cambridge, MA:
Harvard University Press.
- Vanden Berghe, L. 1968a. Belgische opgravingen en navorsingen in de Pusht-i Kuh, Luristan;
39 campagne: oktober 1967 - januari 1968. *Phoenix, Bulletin uitgegeven door het
Vooraziatisch-Egyptisch Genootschap Ex Oriente Lux* 14:1, 109-127.
- _____ 1968b. La nécropole de Bani Surmah. Aurore d'une civilisation du Bronze. *Archéologia*
24: 52-63.
- _____ 1972. Recherches archéologiques dans le Luristan. Cinquième campagne 1969.
Prospections dans le pusht-I kuh central (rapport préliminaire). *Iranica Antiqua* 9: 1-49.

- Watelin, L.C. 1934. *Excavations at Kish*, Vol. 4, 1925-1930. Paris: Librairie Orientaliste Paul Geuthner.
- Winter, I.J. 1999. Reading Ritual in the Archaeological Record: Deposition Pattern and Function of two Artifact Types from the Royal Cemetery at Ur. In H. Kühne, R. Bernbeck, and K. Bartl, eds., *Fluchtpunkt Uruk: Archäologische Einheit aus methodischer Vielfalt. Schriften für Hans Jörg Nissen*. Rahden/Westf.: Verlag Marie Leidorf GmbH, 229-256.
- Woolley, C.L. 1934a. *Ur Excavations II. The Royal Cemetery*. London and Philadelphia: British Museum and the University of Pennsylvania.
- _____. 1934b. The Excavations at Ur (1933-4). *The Antiquaries Journal* XIV/4: 355-378.
- _____. 1955. *Excavations at Ur*. London: Ernest Benn Ltd.
- Zettler, R.L. and L. Horne, eds. 1998. *Treasures from The Royal Tombs of Ur*. Philadelphia: The University of Pennsylvania Museum of Archaeology and Anthropology.

تحلیل باستان‌شناسی رگ‌های صدفی موجود (پوسته لیباسیون) در زمینه‌های

باستان‌شناسی فلات ایران در هزاره سوم تا اول پیش از میلاد

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چکیده

صدف‌های دریایی اشیایی طبیعی-بیولوژیکی هستند. مدت‌ها در لایه‌های زمین‌شناسی به‌صورت فسیل‌ها و بعدها در لایه‌های باستانی در نتیجه فعالیت‌های انسانی کشف و قابل داده بودند. باستان‌شناسان می‌توانند از منشأ پوسته‌ها در تحلیل عملکردی مکان‌های باستانی استفاده کنند. باستان‌شناسی اجتماعی و تجارت قرار می‌گیرد. نتایج کاوش‌های باستان‌شناسی در فلات ایران نشان داده است که از حدود هزاره سوم پیش از میلاد به‌طور ناگهانی با صدف‌های دریایی زیادی از لامبیس، دنتالیوم و ... مواجه می‌شویم که این صدف‌ها از بافت‌های گورستان‌های آیینی مانند شوش، شهاد، ... تپه حصار، گورستان کله نثار، بنی سورما و ... این اشیاء عمدتاً به‌صورت صدف طبیعی یا صیقلی استفاده می‌شوند. در برخی موارد فقط به‌عنوان ماده اولیه برای ساخت انواع مهره‌ها، دکمه‌ها و سایر اشیاء و زیورآلات زینتی استفاده می‌شود. سؤال اصلی درک و شناخت رابطه بین استفاده از صدف‌ها و زمینه‌های محل حفاری است. همچنین اهمیت برخی از این اشیاء در جوامع عصر مفرغ فلات ایران برای استفاده آیینی. در این مقاله از روش توصیفی، تحلیلی در شناسایی بیولوژیکی انواع پوسته استفاده شده است. روش قیاس نیز بر اساس مطالعات مشابه در این زمینه در باستان‌شناسی بین‌النهرین دوره سومری-اکدی استفاده شده است. پراکندگی گونه‌های قابل‌شناسایی نشان می‌دهد که این اشیاء در سکونتگاه‌های جنوب به جنوب‌شرق ایران در نوار ساحلی خلیج فارس، دریای عمان تا دره‌های زاگرس و شمال غرب و شمال شرق ایران متمرکز شده‌اند. منشأ بیولوژیکی این پوسته‌ها مربوط به سواحل شمالی دریای عمان تا خلیج کوچ در سواحل شمالی اقیانوس هند است. به نظر می‌رسد با رشد و توسعه شهرنشینی در آسیای جنوب غربی و به ویژه توسعه تجارت دریایی، صدف‌ها به‌عنوان کالاهای با ارزش مورد خرید و فروش قرار گرفته‌اند و سایر کالاهای معتبر اهمیت صدف را بیش از ارزش خود صدف می‌یابد زیرا متعلق به امور مذهبی است. به‌عنوان کالاهای مقدس تجزیه و تحلیل زمینه‌هایی که در آن صدف‌ها کشف شده است بیشتر مربوط به گورستان‌ها و معابد به‌عنوان فضاهای مقدس است. همچنین حضور چشمگیر پوسته بره به شکل کاسه موسوم به جام روحانی به همراه تیرهای برنزی در قبور مردان، بازتابی از شکل‌گیری سنت اجتماعی و سیاسی مبتنی بر مردسالاری در جوامع هزاره سوم و دوم است. قبل از میلاد مسیح. است. متأسفانه با وجود کاوش‌های فراوان و کشف نمونه‌های فراوان از این نوع پوسته‌ها، اقدام دیگری برای توصیف و معرفی آنها صورت نگرفته است. این خلأ اطلاعات شناختی، یافته‌های ارزشمندتری را در باستان‌شناسی فلات ایران نشان می‌دهد. بنابراین، یکی از اهداف نهایی مقاله تمرکز بیشتر بر تحلیل زمینه کشف صدف‌ها در حفاری آینده است.

واژه‌های کلیدی: رگ‌های صدفی، پیش از تاریخ ایران، بارده زردا، کله نثار، بنی سورمه، شداد، تپه حصار، لامبیس، توربینلا

پیروم.

