

# COWRIE SNAILS (MOLLUSCA, GASTROPODA) IN TELL EL-GHABA, A THIRD INTERMEDIATE TO LATE PERIOD SETTLEMENT IN NORTH SINAI, EGYPT. COMMENTS ON THEIR USE

Alberto Luis Cione<sup>\*1</sup>, Leandro Pérez<sup>2</sup> and Cristina Bacquerisse<sup>3</sup>

## Introduction

Cowry or courie is the common name for many of the 250 species of the Family Cypraeidae (Gastropoda) that mainly inhabit the Indian and Pacific Oceans.<sup>4</sup>

Cowries have been used as currency in many cultures for hundreds of years. They were also used in jewelry, amulets, and in different kinds of ceremonies.<sup>5</sup> The oldest cowries associated with man date from the Upper Paleolithic (30,000-9,000 BC).<sup>6</sup> Since then cowries have been reported in archaeological contexts in many places throughout the world, including Ancient Egypt.<sup>7</sup> However, given the wide distribution of the various cowrie species, Kovács<sup>8</sup> points out that there is no scientific evidence that would permit conclusions to be drawn about the geographically defined area or precise origin of an archaeological find.

It is widely accepted that the name cowrie ultimately derives from the Greek word *kokhlos* meaning “snail/shell/bivalve” in general. The name for cowries, *khoiriné*, also used to refer to voting stones, derived from *khoiros* “pig/piglet” with a secondary meaning, “female genitalia” because of its similarity to the female genitalia aperture.<sup>9</sup> The name cowrie, according to Kovács,<sup>10</sup> as it is used in archaeology, bears no connection with the Greek word *khoiros*. On the contrary, it is of Indian origin and comes from the Sanskrit word, *kapârda*, *kapârdika* which was used to refer to “change currency” in the Sixth Century AD. The word became *kauri* in Hindustan and was used as *kori* “obligation tax” in Gujarat. From there the English first borrowed *gowrie/cowrie*, then *cowrie* (pl. *cowries*)/*cowree/coury/kauri/kavadi* and passed it on. In the beginning, this word referred only to the two small species

used as change/currency, i.e. money cowrie and ringed cowrie. However, in archaeology, cowrie is employed to name all porcelain shells. Some cowries are remarkably beautiful. The term porcelain derives from the old Italian name for the cowrie shell *porcellana/porcelletta* due to the similar translucent appearance.<sup>11</sup> This term originated in the shape of the cowries which consists of a flat apertural side and a strongly convex dorsal surface. Italians considered that the shell resembled a crouching piglet (*porcello*).

Tell el-Ghaba, a site in north Sinai (30° 57' 50" North and 32° 25' 23" East, Egypt; Plate II), has been surveyed by the Argentine Archaeological Mission since 1995.<sup>12</sup> The site is presently dated from the Third Intermediate to early Saite Periods (see Lupo, this volume). North Sinai was a frontier area, the land bridge between Egypt and the Levant, where the so-called “The Ways of Horus” were and where many settlements were founded. Tell el-Ghaba is one of these sites, located on the North shore of a lagoon between Tell Hebwa and Tell Qedwa (Plate II). Tell el-Ghaba was near to one of the canals of the Pelusiac branches, in the easternmost section of the Delta. The Pelusiac branch collapsed in the Middle Age, dramatically affecting the distribution of aquatic fauna, which became restricted to more western areas.<sup>13</sup>

In this paper we describe and discuss the origin and use of the cowry shells recorded in the site.

## SYSTEMATICS

Clade Gastropoda Linné, 1758  
Clade Caenogastropoda  
Architaenioglossa Lindberg, 1997  
Clade Hypsogastropoda  
Clade Littorinimorpha  
Superfamily Cypraeoidea Rafinesque, 1815  
Family Cypraeidae Rafinesque, 1815  
Subfamily Erosariinae Schilder, 1924 [= Cypraeacitinae  
Schilder, 1930 (inv.); = Nariinae Schilder,  
1932; = Staphylaeinae Iredale, 1935]  
Genus *Monetaria* Troschel, 1863  
**Type Species.-** *Cypraea annulus* Linnaeus, 1758 (OD).  
*Monetaria* aff. *annulus* (Linnaeus, 1758)

\* Corresponding author.

1. División Paleontología de Vertebrados, Museo de Ciencias Naturales de La Plata. UNLP, Paseo del Bosque s/n. Argentina – CONICET. [acione@fcnym.unlp.edu.ar](mailto:acione@fcnym.unlp.edu.ar).

2. División Paleontología de Invertebrados, Museo de Ciencias Naturales de La Plata. UNLP, Paseo del Bosque s/n. Argentina – CONICET. [pilosaperez@gmail.com](mailto:pilosaperez@gmail.com).

3. [cristinabacq@gmail.com](mailto:cristinabacq@gmail.com).

4. Anonymous 2012.

5. Andrews 1994; Kovács 2008.

6. Bosse-Griffiths 2001; Kovács 2008.

7. For a detailed survey see Kovács 2008.

8. 2008.

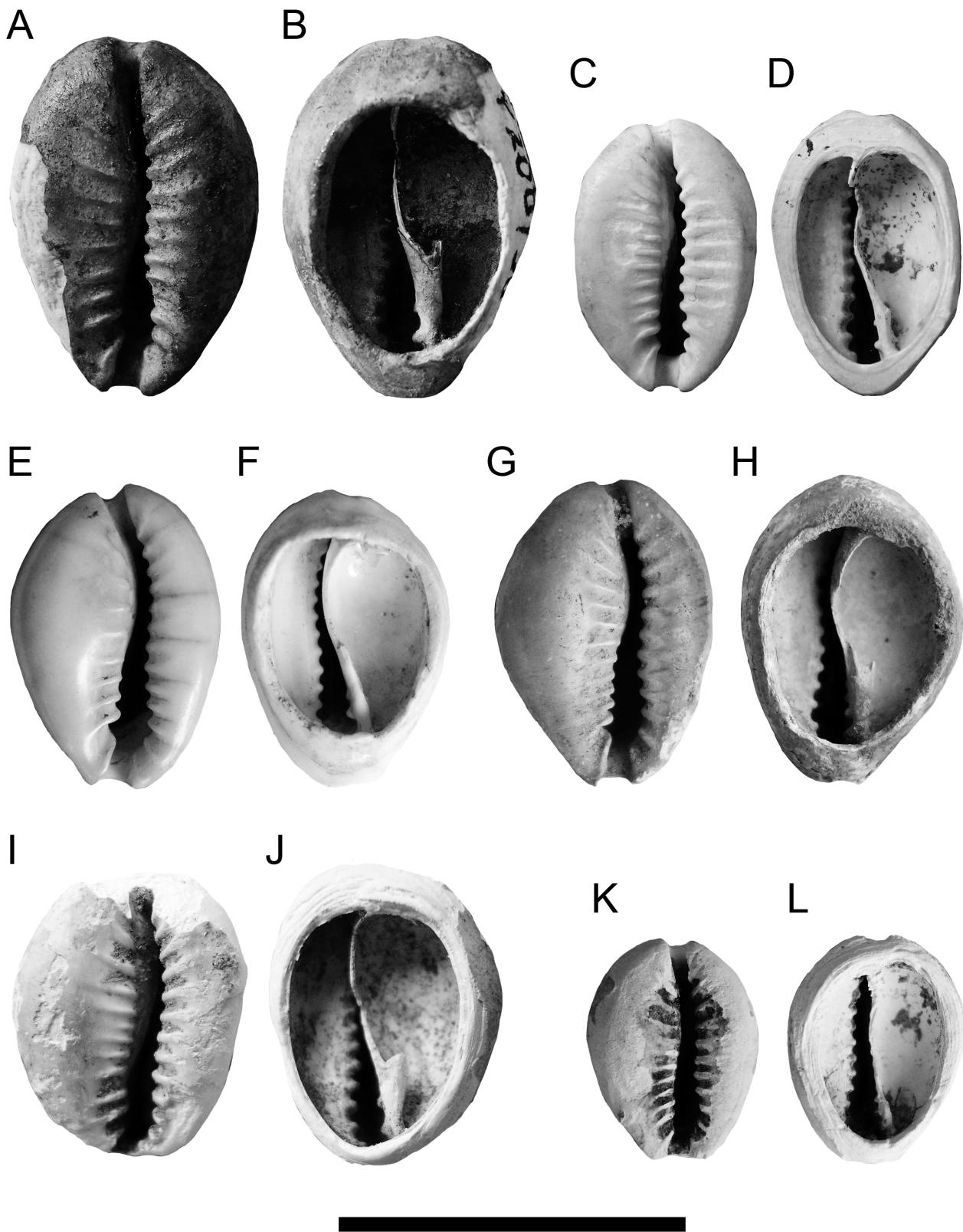
9. For a thorough discussion, see Kovács 2008.

10. 2008.

11. Anonymous 2012.

12. See Fuscaldo 2005.

13. Goodfriend, Stanley 1999.



**Figure 1.** *Monetaria* aff. *annulus*. A-B, F0208, Object No. 013; C-D, F0344; E-F, F0830; G-H, F0837; I-J, F0067, F0921A; K-L, F0922. All specimens are shown in dorsal and ventral views. The line is 2 cm.

*Inventory numbers and provenance of species found at Tell el-Ghaba, northern Sinai.*

F0208, Object No. 013 (Area I, Level IV, Building B, L0016=L0183), F0344 (Area I, Level IV, Building B, L0126), F0830 (Area II, Level I, strata below Building L, L1410), F0837 (Area I, Level II, Building A, L0040), F0067, F0921 (Area VI, Level I, pre-Building F, L0511), and F0922 (Area VI, Level III, post-Building F, L1001=L1004, destruction layer) (each number corresponds to one specimen; all the shells with dorsum removed).

*Material associated.* Different shells of gastropods belonging to the families Neritidae (*Nerita* sp.), Connidae (*Conus* aff. *mediterraneus*) and Cassidae (*Phalium* sp.).

*Description.* Porcelain-like appearance of the shell, moderately globose, oval, flattened ventral side and dorsal surface with strong convex. The overall length of the shell varies between 15 and 23 mm. Spire short and hidden by rolling back the last lap. Smooth outer surface with an elongated, narrow opening that carries 10/11 well developed parallel narrow teeth, along the entire inner and outer lip. Right-side margin with a callus which extends towards the dorsal side. The opening ends slightly curved, siphonal canal short and wide, allowing that the crease observed the morphology of the based of columella, anal canal narrow and elongated, both curved. Smooth and strongly convex dorsal surface.

*Distribution and habitat of Cypraeidae.* The family of cowries comprises more than 250 species, most of which inhabit the shallow, 3-5 m deep waters of the coral reefs of the Indian and Pacific Oceans where the temperature never falls below 18°C, generally between the 40° parallel of the northern hemisphere and the 40° parallel of the southern hemisphere. Shallow-water specimens have occasionally been observed at depths of 50 m while some species may even live in waters as deep as 100-600 m. Certain species can also be found in the Mediterranean and the Adriatic Sea.<sup>14</sup> *Monetaria annulus* does not occur in the Mediterranean but in the Red Sea (Figure 2).<sup>15</sup>

**The working of cowries**

In general, intact, whole cowries have rarely been found in graves, appearing more frequently in settlement finds worldwide. This suggests that in some cases at least, tradesmen delivered unmodified shells to settlements. Although anyone could have worked them, that is, perforated the shells for stringing, there is evidence that this happened after delivery to the place where they would be used, not where they were first gathered.<sup>16</sup>

The dorsum of all the cowrie shells recorded at Tell el-Ghaba had been removed. Shells could have been first pierced with a pointed tool and then the hole enlarged with

a sharp tool made of shell, stone or metal to get the desired shape and size or - characteristic of the specimens from the Scythian and the Celtic Periods of Europe - rubbed on the back of a fixed cowrie with a rough stone.<sup>17</sup> Francis<sup>18</sup> conducted experiments using both methods and found that it took about 25 minutes to rasp off the dorsum of an unidentified cowrie whereas it took only 6 minutes to pierce it and enlarge the hole.

We found that both techniques were used in the material from Tell el-Ghaba: hole pierced and enlarged is found in specimen nos 208, 830, 837, and 921, and dorsum rubbed in specimen nos 344 and 922. In those perforated, the wall of the snail presents an angle with the surface (Figure 1 B, F, H, J). In those rubbed, the wall thickness is flat (Figure 1 L).

**Use of cowries at Tell el-Ghaba**

Few cowries were recorded in Tell El-Ghaba occurring in the area ranging from one of the beds corresponding to the earliest permanent occupations of the site (Inv. No. 0837A, Area I, Level II, L0040, Building A) to the final destruction horizon (Inv. No. 0922A, Area VI, Level III, L1001, post-Building F, destruction layer). The small number and the distant provenance of cowries strongly suggest that these molluscs were not part of the diet of the inhabitants of Tell el-Ghaba. Besides, the animal itself was not generally eaten, because it was believed to have a bad taste.<sup>19</sup>

For many years, cowries were used as currency, jewelry, and amulets in different cultures. The use of cowries as 'money' has been widely proven in different places.<sup>20</sup> Moreover, the name of one species particularly refers to this use (*Monetaria moneta*). For instance, in archaeological contexts, at Megiddo in Israel, Bar-Yosef Mayer<sup>21</sup> suggests that *M. annulus* might have been used as shell-money. However, she also mentions that it does not contradict its possible use as ornament items, which might have been the case at Megiddo, where all the *E. annulus* are worked. It remains to be seen how the use of cowries as shell-money, well documented in historical and ethnographic literature,<sup>22</sup> might be combined with the monetary system of silver ingots which is attested at Iron Age sites in Israel.<sup>23</sup> The occurrence of concentrations of cowrie shells in some sites has been used to hypothesize that they were used as money.<sup>24</sup> However, this type of evidence is very weak.<sup>25</sup> In fact, the use of cowries as currency in Egypt appears to be completely unsupported. We do not know of any writing, engraving, or pictorial evidence in the country indicating this.

14. Kovács 2008.

15. Vine 1986.

16. Kovács 2008.

17. Francis 1987; Kovács 2008.

18. 1987.

19. Kovács 2008.

20. Hogendorn, Johnson 1986; Bar-Yosef Mayer 2000a; Kovács 2008.

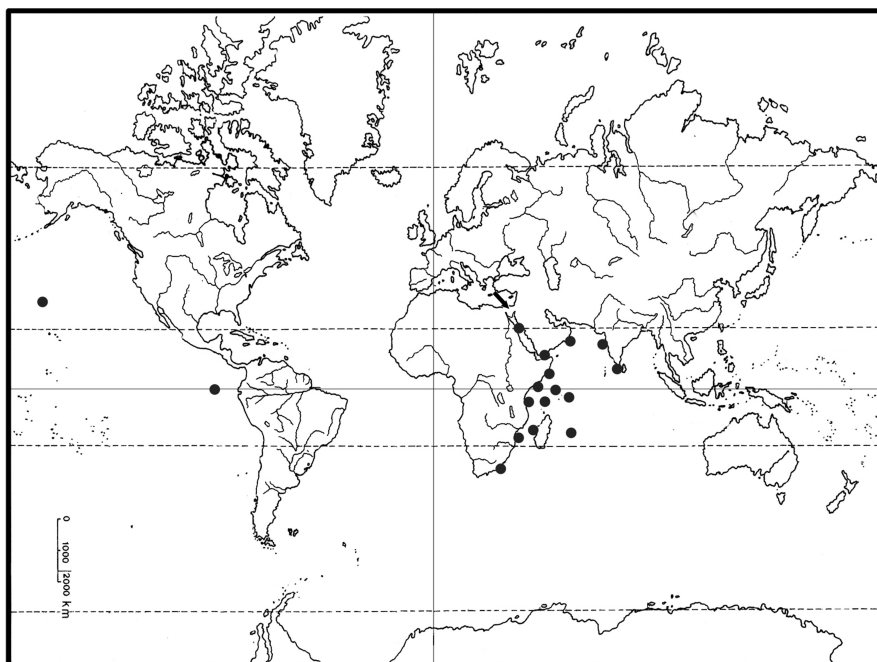
21. 2000a.

22. e.g. Hogendorn, Johnson 1986.

23. e.g. Ronen 1966.

24. Jackson 1917 at grave D114 in Abydos; Quiggin 1949 at a Latvian grave.

25. Kovács 2008.



**Figure 2.** Full circles indicate the present distribution of *Monetaria annulus*. The arrow indicates the location of Tell el-Ghaba (Rosenberg, 2012).

On the other hand, due to their appropriate size, outstanding beauty and the fact that they are not spiky but have a rather massive construction, cowries were appreciated as ornaments or jewelry. Also, metal copies (in electrum or gold) were used as beads in necklaces and other jewelry.<sup>26</sup> One example was described for Dahshur, dating from the Twelfth Dynasty.<sup>27</sup>

However, many of the former wearers and owners were not only satisfied by the fact that they had come into the possession of a distant, therefore rare and also precious object with a beautiful shape and color that could be employed as a bead or a pendant, but also - as most ethnographers and cultural historian agree - because cowrie shells resemble the female vulva or a half-closed human eye or a serpent's head. Due to their symbolic importance and as a result of this resemblance, cowries were mainly worn to protect against the "evil eye" or to secure female fertility and fecundity.<sup>28</sup> This special type of ornament is designated by the word derived from Latin *amuletum* "amulet." This word refers to a small object with magic power to ward off, even passively, the harmful effects of witchcraft, illness, wounds, bewitching and, especially, the evil eye.<sup>29</sup> According to Andrews,<sup>30</sup> cowries retained their importance as amulets until the end of the Pharaonic history.<sup>31</sup> Moreover, Petrie<sup>32</sup> considered them in its IV

category: the group of the so-called protective amulets.

#### Origin of the cowries of Tell el-Ghaba

Shells have been traded to Egypt since Prehistoric times.<sup>33</sup> Certainly, cowries have been moved great distances from their original source.<sup>34</sup>

*Monetaria annulus* has been detected in many archaeological sites. For instance, the excavations at Tell Megiddo in present-day Israel have yielded thousands of shells. The seasons reported produced 840 mollusc shells of aquatic origin which include marine (Mediterranean and Red Sea) shells, and freshwater shells originating either from springs in the vicinity of the site or in the Nile River. Four *Monetaria annulus* from the Red Sea were found. The dorsum of all four had been removed. *Monetaria annulus* is commonly found in Iron Age levels at Megiddo as well as in other Iron Age sites.<sup>35</sup> In Egypt, it was found in different sites.<sup>36</sup>

Tell el-Ghaba was located very close to the Mediterranean coast when the site was occupied (Plate II). However, *Monetaria annulus* is a marine Indo-Pacific species that does not occur in the Mediterranean. Consequently, the shells found at Tell el-Ghaba have been brought, at least, from the Red Sea if not farther.<sup>37</sup>

26. Bosse-Griffiths 2001.

27. Bosse-Griffiths 2001.

28. Andrews 1994; Kovács 2008.

29. Kovács 2008.

30. 1994.

31. See also Wainwright 1915, pl. 32 depicting amulets from Kafr Ammar.

32. 1914.

33. Reese et al. 1986.

34. Kovács 2008.

35. Bar-Yosef Mayer 2000b.

36. Herakleopolis Magna, Third Intermediate Period, Molero 2009.

37. Fishelson 1971.