

# Seashell discs from the Early Iron Age collective tombs of Daba (Sultanate of Oman).

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This poster presents the typological and functional studies carried out on 27 special truncated conical discs, perforated and sometimes decorated, obtained by processing of large gastropods. These discs were discovered during the excavation of two large collective tombs located near the village of Daba (Musandam peninsula) in the north of the Sultanate of Oman, and are dated between the end of the Late Bronze Age and early Iron Age (ca. 1500- 700 BC). The Ministry of Heritage and Culture of the Sultanate of Oman excavated two large collective graves, LCG-1 and LCG-2 that include hundreds of individuals, of both sex and different ages, buried in primary and secondary deposition with thousand objects together (Genchi, 2013). In both LCG-1 and 2 were found this discs. This class of artifacts was almost unknown before of the finds in these tombs, and in the few known cases in the bibliography these discs were variously defined as buttons, medallions and pendants. The number and variability of these discs found in Daba have allowed a detailed study and stylistic and morphological analysis of the techniques used to make different types of disc. Similar perforated discs were found almost exclusively as finished objects in funerary contexts disturbed. The lack of associations contextualized with the dead and with other items of equipment makes it difficult to theorize about their production and consequently on the processing steps useful for their creation and decoration. Similarly it is difficult to make safe assumptions about the capabilities of these discs.



## Morphological Studies

The first activities of direct study on the material have been about the morphology. The first approach has consisted in the take the measures of the discs: for each discs were measured the diameter, the length, the minimum thickness, the average thickness and the maximum thickness. The detection tool was a digital caliber, to obtain the major possible precision. These measurements have shown that there are no "standardized" measures referring to the diameter, the length and thickness, but that in some cases they differ significantly between the discs. This is because the diameter, the length and thickness are connected directly with the size of the gastropod used as raw material: if the gastropod has small dimensions, the disc will be more contained in the measures; the opposite will happen when the gastropod used has considerable size. As regards the diameter, the measures range between 4 cm and 6 cm and were taken by measuring the disc in its maximum diameter. Opening the caliber between the outer edges. Even for the length it's possible to speak about maximum extension, because also in this case the measures have been taken opening the caliber between the outer edges. The length of the discs ranges from a maximum of 4 cm to a minimum of 8 cm.

Second part of the morphological study has been about the drilling holes. After having established the presence and number, the measurements were carried out by calculating the maximum diameter of the hole, taking measurements of the first drilling, that is made on the outermost surface of the hole. Here it is noted, immediately in the first hole, an oval enlargement which presupposes the use of the drill in an oblique position to form an acute angle. Later i have measured the amplitude of the second hole, that of drilling carried out below the surface of the shell, run with the drill in a vertical position. In this case it was found that the width of the hole is less than the previous one; in fact this second action of drilling is useful in the creation of the channel for passage of the string or the like which will serve to bind the disc and use in its probable functions. The discs have on the rear from 1 up to 6 holes made with multiple perforations of one or more drills with metal point (sometimes of different sizes) used with drilling directions coincident to create a central hollow space and three or more channels converging towards the center. The drill points have a medium size of 2,5 /3 mm. . These holes do hypothesize the use of a string to tie the discs to clothes or other ornaments. The use of strings can be seen on the external part of the holes where is noticed the wear and tear caused by the action of something that has been rubbed on the surface of the shell. The manufacture underlying the production of these discs allows to consider, as well as for the application of decorations, craft shops highly specialized for the production of these special ornaments.

## Stylistic studies

The discs have two worked faces. The frontal one is often interested by decorations applied with carving, incision and inlay techniques. The decorations, in some exemplars, show an incredible ability used by the crafters. The tools used were not to be very large, because the discs that have the bigger size, have a diameter about 10 cm, and because of this the surface to be decorated is limited. This involved the use of a technique almost miniaturist from which it is possible to assume the use of "precision" tools and because of this fitted with a small tip.

Three of these decorated discs present a complex carved decoration. These carved decorations consist in three different motives that seem to be interested by from Iranian influence, but at the same time, in some cases (inlay technique, dot in circle technique and the snake motive) are widely attested in the local decorations in others typology of artifacts: one with pomegranate flowers (or opium capsule); another one with gazelles (or caprines) and one with geometric figures organized on four rows, where in the first and in the third, it's possible to recognize the snake's figure. the decorations almost certainly have been applied with the chisels and awls made of metal, probably bronze, copper or iron.

Others discs present the frontal face apparently free from decorations. In this case this part of the discs could have been decorated with painting technique, using natural pigments erased over time.

## Functional and historical interpretation

These discs could have different functions. They could have been buttons, brooches or fibulas, but also elements of more complicated ornamental finery. Hypothesis about the functions of these particular ornaments could be formulated considering the number of the drill drilled on every discs. Only one hole could mean a use as a pendant or as a part of a ornamental finery. Two or more holes could mean use as brooches, fibulas or button.

The use of raw materials exotic or otherwise difficult to find; the complex techniques at the base of the manufacture that included the use of traditional tools coming from different traditions (metallic and lithic). The frequent characterization of these discs with decorations carving and inlay of great technical complexity. The realization of decorations full of detail and artistic complexity. Give to these seashell artifacts a great intrinsic value that could justify itself use also in funerary contexts. Their characterization with motifs related to chthonic sphere (snakes) and rebirth (pomegranate, caprines, etc), could also assume the presence of a more specific meaning within of the ancient ritual funeral of the Iron Age communities of the Arabian Peninsula.

