

# Decorated shell discs from Sumhuran, Oman

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## *ABSTRACT*

During the excavations of Sumhuran (1997-2018) a large number of findings were brought to light. An interesting and enigmatic group of objects, composed of 18 big shells that have particular decorative motifs, are particularly interesting for understanding the interconnection between Arabia Felix and the Near East. In fact, the objects and the iconography had no comparisons in south-western Arabia, but there are close comparisons from Iran and some similar objects from the Gulf area and the north of Oman. In order to understand if these objects were imported or belonged to a local production, they were analytically studied. Considering the few comparisons at the current state of research, it is difficult to establish their origin with certainty. It is possible, however, to say that close relations with Iran are present. This emphasizes the uniqueness of the city of Sumhuran also regarding its artistic production, which turns out to be a reinterpretation of models from different cultures and places.

## *KEYWORDS*

Pre-Islamic Arabia, decorated shell disc, Dhofar, Sumhuran, Indian Ocean trade, pomegranate, South Arabian Kingdoms

## 1. Introduction

In this paper I will present a group of 18 objects that we found in the city of Sumhuram (300 BC – AD 500). The city located in the area of Khor Rori (fig. 1) is the most important pre-Islamic settlement in the Dhofar region, southern Oman. The city was founded in a geographically strategic place for the activity of the most important Indian Ocean trade routes of the time. The lagoon in front of the city is a perfect natural port, while behind it lies the Nejd region, where the best quality of frankincense was, and still is, produced.<sup>1</sup>

Since 1997 the Italian Mission to Oman, directed by Prof. Alessandra Avanzini<sup>2</sup> of the University of Pisa in collaboration with the Office of the Adviser to His Majesty the Sultan for Cultural Affairs, have been working in Sumhuram. During the archaeological excavations a large number of findings were unearthed.<sup>3</sup> These were indispensable for understanding the activities of the pre-Islamic cities along the coast of Arabia. Among these, of particular interest are a group composed of eighteen ornamental objects made from big shells that have particular decorative motifs.

This class of objects was almost unknown and in the few known cases these artefacts were variously defined as buttons, medallions, pendants, discs or bosses.<sup>4</sup> Attribution of the part of the shell used is still uncertain since the handiwork is so accurate that there remains little evidence of the characteristics of the raw material.

This study aims to present an analysis of this group of objects, which represent a significant group in terms of quantity and are interesting for

the variety of their decorations. Some discs have already been published in the two volumes edited by A. Avanzini<sup>5</sup> while the discs that refer to the seasons between 2004 and 2018 are discussed here for the first time. The only exception is the poster by Lischi which summarizes the disc assemblage up to 2015.<sup>6</sup> The study of these objects still is marginal within archaeological studies, such as beads and other ornamental materials.<sup>7</sup>

The miniaturist characters of the decorations allow us to think that they were part of a corpus of luxury objects.<sup>8</sup> The study of this type of materials, neglected until most recently, is becoming increasingly important as it allows us to identify and understand a cross-section of the society of that period otherwise difficult to identify. Moreover, the uniqueness of the materials and the techniques require highly skilled artisans who could operate in well-defined centers, and with the necessary precautions identifiable or work in groups of itinerant workers with very precise origins. The study of these characteristics allows us to identify the social role of these objects with the aim of understanding the ancient economic models.<sup>9</sup>

What is extremely interesting is the lack of similar findings in south-western Arabia, such as the chronological incongruity that is delineated between the materials found in Sumhuram and those present in the Emirates, in Saudi Arabia and in the north of Oman.<sup>10</sup> It is probably difficult to obtain precise chronological indications from these artefacts as they often have prolonged use over time, but it is possible to highlight typical patterns of a period or characteristic trends of an area.

<sup>1</sup> ALBRIGHT 1982; AVANZINI, SEDOV 2005; AVANZINI 2008, 2011, 2014; PAVAN, SEDOV 2008.

<sup>2</sup> My heartfelt thanks to Professor Alessandra Avanzini, director of the Archaeological Mission at Sumhuram, Italian Mission to Oman, University of Pisa, for making this study possible and allowing to me to study these unpublished materials that are presented here.

<sup>3</sup> An overview of the materials unearthed in Sumhuram can be found in the two volumes edited by A. AVANZINI in 2002 and 2008.

<sup>4</sup> GENCHI 2013; JASIM 2012; DEGLI ESPOSTI 2015; CAPUTO, GENCHI 2015; LOMBARDI 2002; LOMBARDI ET AL. 2008; WEEKS ET AL. 2017.

<sup>5</sup> LOMBARDI 2002, pp. 168-169, cat. 121; LOMBARDI ET AL. 2008, p. 403.

<sup>6</sup> LISCHI 2015.

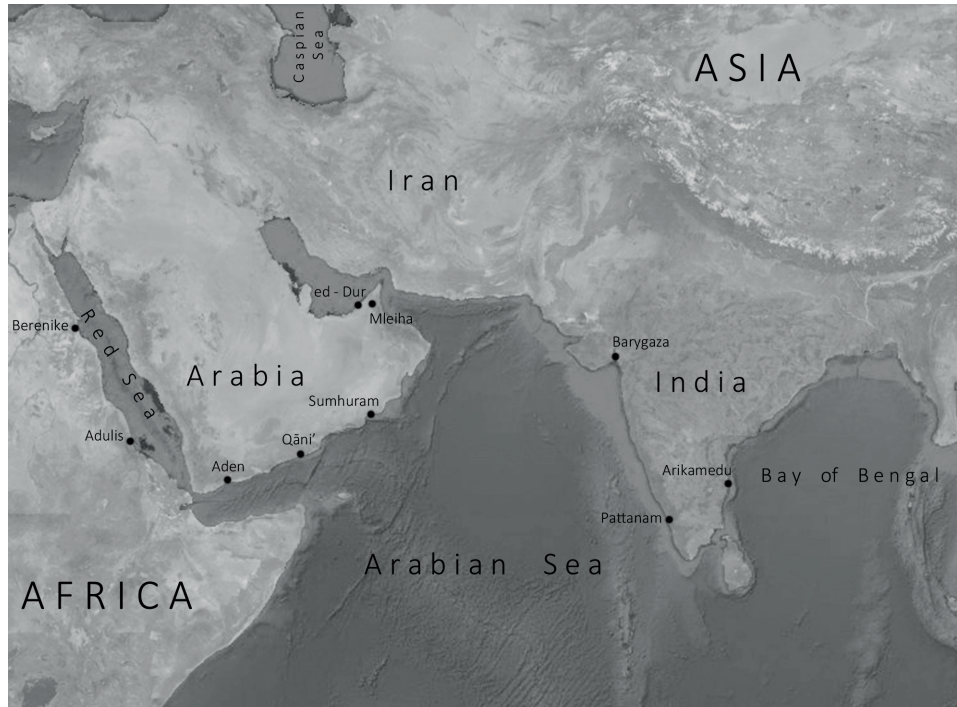
<sup>7</sup> LISCHI 2018, p. 2; FRANCIS 2007, p. 251.

<sup>8</sup> CAPUTO, GENCHI 2015.

<sup>9</sup> LIVERANI 2005.

<sup>10</sup> AL-HAJRI 2006, Pl. 3.11.c; WEEKS ET AL. 2017, p. 56, fig. 24; CAPUTO, GENCHI 2015; HARTNELL, BARKER 1999; JASIM 2012, p. 185, fig. 220; YULE, KERVRAN 1993, p. 81, fig. 3:13.

FIGURE 1  
The map of the area with Sumhuram and other sites involved in the Indian Ocean trades during the Classical period (map, S. Lischi)



## 2. Materials, techniques and typology

### 2.1. Materials

This class of objects have a circular shape and is produced from a piece of marine gastropod shell. As mentioned before these objects were finely processed, so during fabrication have removed the diagnostic elements necessary to identifying the species of shell used.<sup>11</sup> Recently, the shape and the size of the artefacts, have allow to find two species of shell which may have been used as raw material to produce this objects: *Lambis truncate sebae* and *Pleuroploca trapezium*.<sup>12</sup> Given the variable morphology of the archaeological artefacts discussed, it is possible that have been used of different variety of shells found naturally on the shores.

<sup>11</sup> MOOREY 1994, p. 130.

<sup>12</sup> WEEKS 2017 ET AL. 2017, p. 56, fig. 24.

### 2.2. Production techniques

The shell working tradition developed, in south eastern Arabia and surrounding, since the Neolithic period. This long history of local shell manufacture, with the availability of the raw materials, makes it likely that, at least in part, the discs were produced in this area. The shell discs that are found in different areas of the ancient Near East, are similar to our but are differentiate by the presence of a single central perforation.<sup>13</sup> This feature is uncommon in our assemblage, which normally show a multiple perforations drilled on the obverse surface of the objects. Below are presented the drilling techniques. In the end, we can say that the product processing was probably divided into 3 or 4 phases: the cutting of the shell to obtain the desired shape, smoothing of the surfaces, perforating to allow for the passage of the wire, engraving of the decorative motif (when present).

<sup>13</sup> BRADL 1984.

### 2.2.1. Drilling techniques





The shell discs of Sumhuras have on their rears from 3 to 4 holes made with multiple perforations of one or more drills with probably metal point. It is possible that the points were different in size. The drills were used with coincident drilling directions to create a central hollow space and two or more channels converging towards the centre.

Analysing in depth the technique of drilling we note that some holes show an oval enlargement which presupposes the use of a drill in an oblique

position to form an acute angle. If the hole is almost perfectly circular this would suggest the use of a drill in a vertical position. The drill points have a medium size of 0.3 cm.

In the assemblage of Sumhuras it is possible to divide the objects with preserved holes in 4 different typologies based on the number and on the position of the holes. The first type is composed of one circular central hole that forms a hollow space connected with the other three holes arranged in a triangular shape. The second is composed of three holes in a line, the central one is circular and connected with

TABLE 1  
Scheme of the drilling techniques used in the Sumhuras's assemblage (ph. S. Lischi)

DRILLING TECHNIQUES			
TYPE	DEFINITION	N. OF HOLES	SCHEME
H.1	triangularly arranged and connected together	4	
H.2	linearly arranged	3	
H.3	rectangularly arranged and connected two by two	4	
H.4	four-leaf arranged and connected together	4	



the other two. In types three and four, both are composed of four oblique holes. In the third type the holes are connected two by two, in the fourth type the holes are connected together from a hollow space in the middle. A brief overview of these drilling systems is present in the table 1.

The use of a wire or string to tie the discs to the supports are testified by the wear and tear on the external parts of the holes, caused by the action of something (wire or string) that had been rubbed on the surface of the shell.

### 2.2.2. Decoration techniques

The artefacts show two worked faces. The obverse is smoothed and shows a reworked natural recess of the shell (fig. 2). The reverse is often interspersed with engraving decorations.

This decoration can be identified by a typology composed of four main types: the pomegranate mo-

tif, the geometric motif, the figurative motif and the plain discs. The second can be divided into two sub-types: simple and complex.

The decorations, in some examples, show an incredible ability used by the crafters. The dimensions of the surface to be decorated are normally very small (the diameter is about 10 cm) and this involves the use of a “miniaturist” technique. For this reason, the tools probably had very small tips. Below is a summary of the typology already mentioned.

#### *Type 1 – pomegranate motif*

The seven discs that are included in this type, as the name suggests, present a complex carved decoration consisting of 6 or less concentric stripes, with different and continuous decorative motifs. The prominent element is the pomegranate-flower motif. An important data is that, in general, the pomegranate is not present in the South Arabian iconogra-



FIGURE 2  
Some examples of shell discs with a well visible reworked natural recess below and some traces of black substances inside the engravings. Clockwise direction: Sh778, Sh574, Sh327, Sh778, Sh376, Sh497 (ph. S. Lischi)

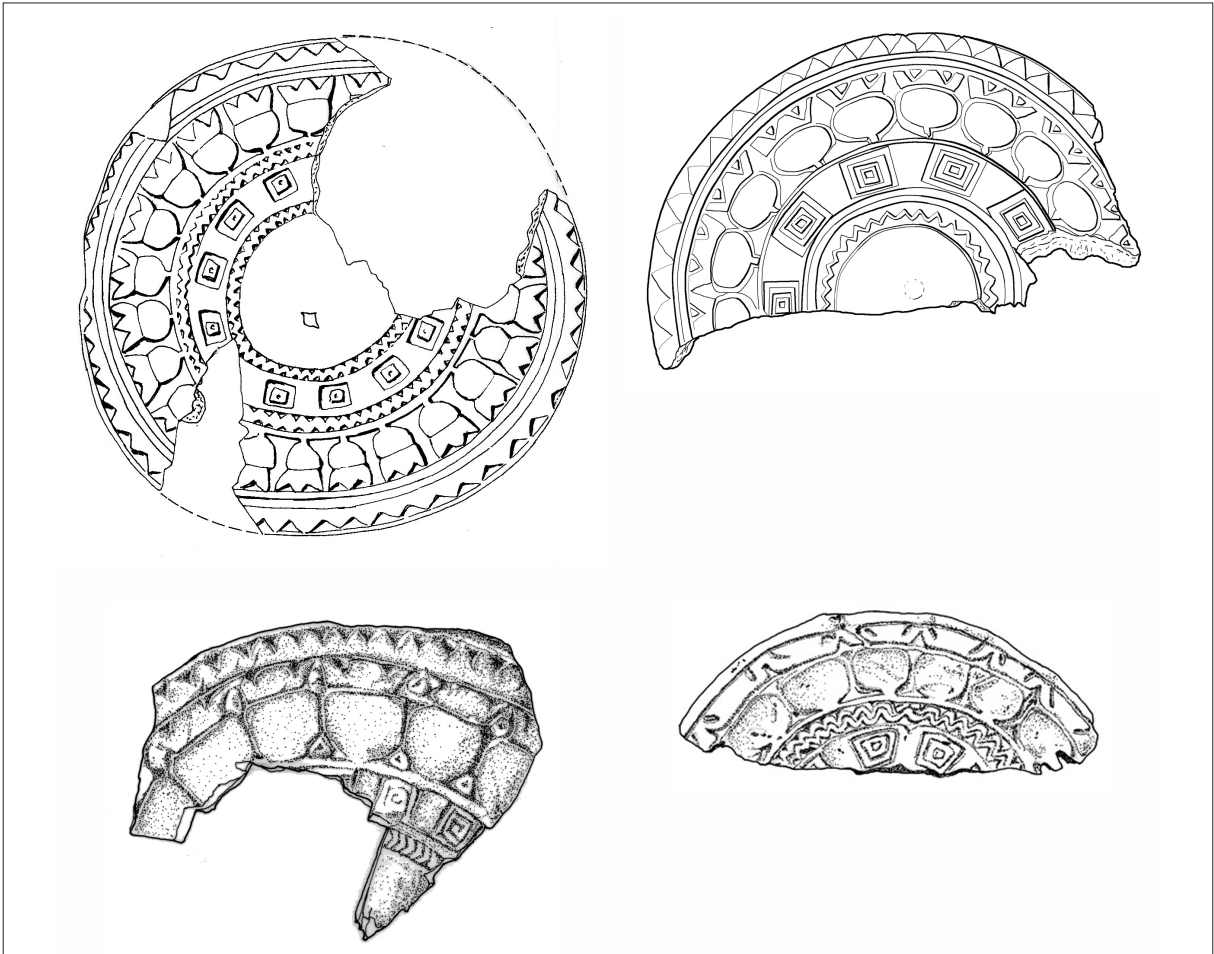


FIGURE 3

Some examples of shell discs with pomegranate decorative motif. The two in the upper part show the pomegranate motif finely worked while the other two show a sketchy pomegranate motif. Clockwise direction: Sh327, Sh569, Sh183, Sh1 (drawings S. Martelli, V. Labianca)

phy, the first and unique representation known is from Zafar, but it is later (sixth century AD) and represents an external artistic tradition.<sup>14</sup> Furthermore, it is important to remember that the pomegranate seems a non-local motif also in southeastern Arabia. Even if the concentration of this decorative element in the Persian Gulf region suggests a local production of these objects, the greater familiarity of the Near East with the cultivation of pomegranate should not be forgotten.<sup>15</sup>

<sup>14</sup> YULE ET AL.2007, p. 535, pl. 37.3.

<sup>15</sup> In the Near East there are archaeological and textual evidence that suggests the begin of cultivation of the pomegranate at least to the Bronze Age (TENGBERG 2012).

Another important observation is the quality of the pomegranate decoration in the Sumhuram assemblage. There are, in fact, two different groups, the first with pomegranate finely worked, composed by four pieces; and the second with pomegranate extremely sketchy, composed by three pieces. It is difficult to propose a clear stratigraphic differentiation for the city, given the many changes that took place over time, it seems clear that the artifacts with finely produced pomegranates are generally attributable to the most ancient period, while the most sketched ones have been found in more layers recent.

In the other stripes there are geometric or stylized decorative motifs consisting of triangles, saw-

tooth motifs, lines, squares and zigzag or stylized snakes (fig. 3).

*Type 2 – geometric decorative motif*

In Type 2 there can be seen a carved decoration consisting of concentric and parallel stripes with some geometric signs inside (eight discs). Only one object has geometric motifs disposed in a completely different position. In this case the decoration consists in simple geometric symbols like triangles and squares divided by vertical lines in 8 segments, disposed in a radial position. As you can see from the picture the difference is well visible, for this reason we divided this type in to two subtypes: complex and simple decoration (fig. 4).

*Type 3 – figurative decorative motif*

This type is composed of one piece with figurative decoration. The disk shows a figurative representation of birds, perhaps birds of prey, and felines (ca-

racal or Arabian leopard?). It is not clear if there is a humanoid figure highly stylized near the fracture. But there is a stylized sun which is engraved around the apex of the shell. Among the main figures there are small floral symbols (fig. 5).

*Type 4 – plain discs*

Last but not least, a disc reveals its upper surface without decoration. On the back the holes are present. The disc could have been decorated with painting, erased over the time, or the disc could be an unfinished piece (fig. 6).

An important observation regards the engravings that frequently were filled with a dark substance, perhaps bitumen, with the probable intention of bringing out the decoration from the white surface of the shell. The material, the decorations and the presence of the holes suggest a decorative use, probably as a boss of cloth, brooch or belt buckle. The reassumed typology is present in the table 2.

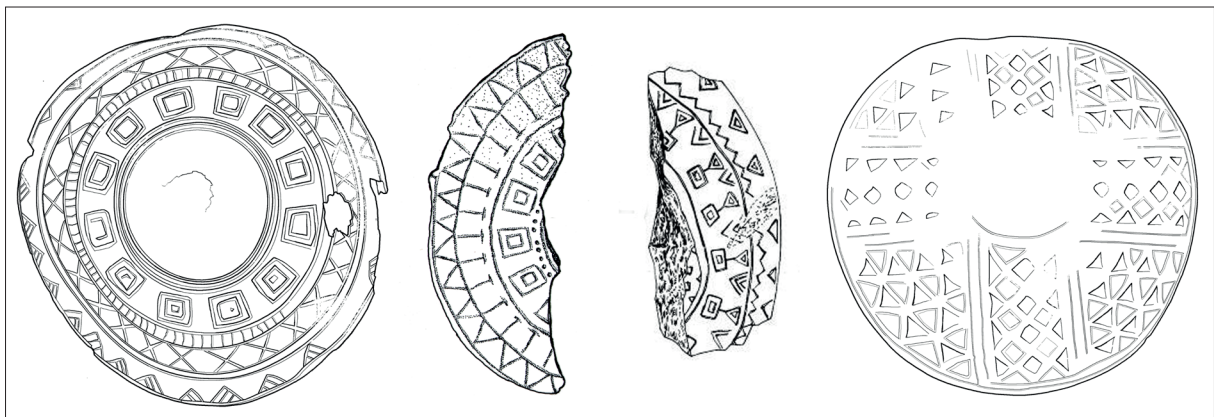


FIGURE 4  
In the picture there are visible some shell discs belonging to type 2. The first three objects belong to the group with complex decorative motif, while the last one belongs to the simple decorative motif. From left to right: Sh496, Sh174, Sh376, Sh564 (drawings S. Martelli)





FIGURE 5  
The shell disc belongs to type 3, Sh574 (photo S. Lischi, drawing S. Martelli)

FIGURE 6  
The shell disc belongs to type 4, Sh515 (photo S. Lischi)



TABLE 2  
Scheme of the typology of the shell discs discovered in Sumhuram

DECORATIVE TYPOLOGY		
TYPE	DEFINITION	SUBTYPE
Type 1	Pomegranate decorative motif	
Type 2	Geometric decorative motif	Simple
		Complex
Type 3	Figurative decorative motif	
Type 4	Plain (probably painted)	



### 3. Distribution

At the moment of writing there is a lack of attestations in the South Arabian Kingdoms of these decorative disks. Several comparisons are present in south-eastern Arabia (north of Oman and UAE) and also in Saudi Arabia. These comparisons were found in Wadi Qwar and Fashgha 1, Shimal, Salut, Dibba, Tell Abraq, Jebel al-Buhais, Saruq al-Hadid and Tayma.<sup>16</sup> One such comparison in the Iranian area is an object collected by The Metropolitan Museum of Art of New York attributed to the geographical area of Iran during the Iron Age, but unfortunately from a private collection.<sup>17</sup> This seems to support the hypothesis that these kinds of objects come from the Mesopotamic area or were under Iranian influence.

The discovery context, in the above cases, is funerary. The graves where these materials are found are dated from the Bronze Age (Wadi Suq period), about second millennium BC, to the Iron Age, about first millennium BC. This information seems to suggest a prolonged use of these types of objects. The finest examples of Sumhuram show a series of concentric stripes with different and continuous decoration motifs (triangles, lines, squares, saw-tooth), and in some cases with more complex figurative motifs such as pomegranate or stylized snakes. The use of pomegranate, fruit associated in antiquity to the funerary and fertility beliefs (rebirth) and the stylized snakes normally related to the chthonic sphere are of particular interest and justify their use in funerary contexts.<sup>18</sup>

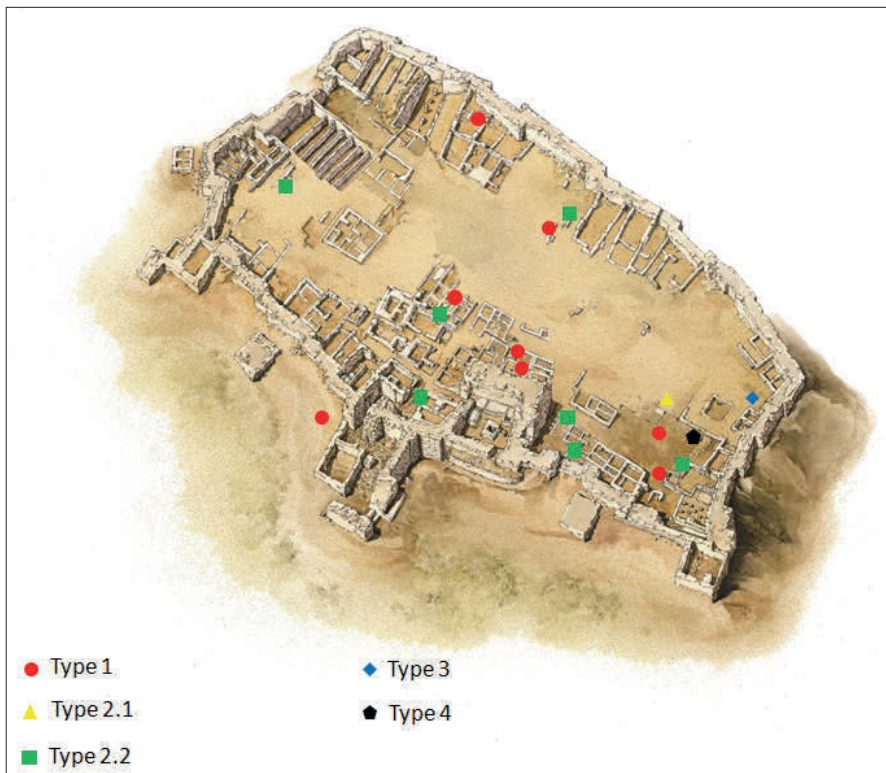


FIGURE 7  
Distribution plan  
of the decorated discs  
inside Sumhuram  
(IMTO archive,  
S. Lischi)

<sup>16</sup> PHILLIPS 1987; VOGT, KASTNER, VOGT 1987; HARTNELL, BARKER 1999; AL-HAJRI 2006; JASIM 2012; CAPUTO, GENCHI 2015; DEGLI ESPOSTI 2015; WEEKS ET AL. 2017.

<sup>17</sup> It is possible to find the comparison at the following link: <https://www.metmuseum.org/art/collection/search/324300>.

<sup>18</sup> CAPUTO, GENCHI 2015; SCHNEIDER 1945.

The discovery in a city context, like Sumhuram, underlines the intrinsic value and emphasized the uniqueness of the artistic production of the city due to its role as a trading centre and cultural crossroads.

Looking at the distribution of these objects inside the city of Sumhuram we note that most of these (eight pieces) were found in Area F. This area is mainly dedicated to the cult although residential buildings were also found. We observed an interesting concentration of ornamental disks in the square area, called A20, in front of the *intra-muros* temple. Seven pieces come from Area A. This area is generally considered to be a residential area and there are small production structures, probably for family use. There is a particular concentration of two disks with the pomegranate decorative motif in a pit inside room A123. This room is included in a building complex where there are evident traces of structures connected with production activities. In Area H we found only two disks with different kinds of decoration and in Area G we found only one shell disc.

A high frequency of findings of these objects in the streets of the city or in the open areas has been noted: 7 in Area F and 2 in Area A. Corresponding approximately to 60% of the total. This observation probably confirms the hypothesis that these objects were used for the decoration of clothes. It is possible that they have since been worn away, dismembered and lost during the normal life of the city (fig. 7).

#### 4. Conclusions

In conclusion these objects seem to be unique and with very few comparisons in the Middle East.

Some questions remain open. The use of the pomegranate decorative element is curious and almost absent in South Arabian iconography. However, it is extremely common in Iran, where this product was purchased. This could suggest that these objects were produced in Iran or in the Gulf area and exported to Sumhuram. In contrast with this observation there is the presence of a shell disc with unfinished perforations. This would seem to indicate that the production happened, at least in part, inside the city or that some unfinished objects were traded. In any case the detailed decoration and iconography gives these objects a great intrinsic value that appears to justify the long life of these discs. Also the trading and use in different contexts are comprehensible. Furthermore, the discovery of discs with different qualities of pomegranate decoration can suggest that there was a reinterpretation of an ideal model, which as it moved further away from the initial concept, resulted in making the decorative system ever more abstract. This may also indicate a change in the production centres of these objects, which then reinterpret the model according to local styles. Taking a look at the objects found in the sites mentioned in the article we realize that the discs found in the most ancient contexts have an inlay or strongly figurative decoration while over time the inlay is lost and the figures become more and more geometric.

Hopefully in the future we will be able to collect more information about these discs, to understand the places of production and origin of such sophisticated objects and have an ever more complete idea of the chronology and movement of materials during the Bronze Age and the Iron Age along the Arabic coast; forever the crossroads between east and west.

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