



UNIVERSITÀ DI NAPOLI  
**L'ORIENTALE**

## **DOTTORATO IN ASIA AFRICA E MEDITERRANEO**

### **1 – Project title**

Shells, corals, and other Red Sea products in Egypt and Sudan during the first half of the II millennium BC.

### **2 – Scientific area of the project**

L-OR/02

### **3 - Abstract (max 5000 characters)**

The relationships between Egypt and its neighbouring south-eastern African regions (Upper Egypt, south-eastern Sudan, southern Red Sea) and the ways they interacted during the II mill. BC are not fully understood. The most recent studies highlighted the intensity of these interactions, through the study of obsidian, animal species, cultural practices and the way specific material and cultural aspects spread across those regions. The problem to deal with is the Egypto-central point of view largely – although unconsciously – rooted in scientific literature, implying the need to adopt a new perspective focusing on the active role played by the Eastern Desert and Nubian-Sudanese cultures in developing and spreading cultural, material, and technological innovations.

The aim of the project is to study the artefacts made of Red Sea shells, corals and other organic materials in ancient Egypt and Nubia, until now poorly considered by scholars. This kind of objects is often associated with other artefacts attesting the cultural identity of the Nubian cultures such as the C-Group, Kerma, Pan-Grave and those of the southern Atbai (Gash Group and Jebel Mokram Group), whom Egypt interacted with during the II millennium BC. For this reason, another topic that will be considered is how these materials likely influenced coeval Egyptian artisanal and habits, especially in the environment of the pharaonic court and the hegemonic/ruling class. Such phenomenon, indeed, could be considered as the result of the exchange politics that during the II millennium BC brought Egypt to strongly interact with the

Red Sea and the Eastern Desert to obtain *wadi*'s hard and precious stones, aromatic resins, high-valued woods like ebony, etc.

#### 4 – State of art (max 5000 characters)

Some works analyse how important seashells were in cultures widespread around the world<sup>1</sup>. The first attestation in funerary contexts can be traced back to the Upper Palaeolithic (30 000-9000 BC)<sup>2</sup>, which endured until more recent eras<sup>3</sup>. In Nubia, for instance, they are attested since Neolithic (al-Sour, al-Barga) and in the A-Group culture tombs, especially from the cemetery L of Qustul (IV millennium BC)<sup>4</sup>. However, this kind of artefacts is poorly considered by current and past research<sup>5</sup> and there are little data about marine products' use in ancient Egypt<sup>6</sup>, where their exploitation as personal ornamentation, or as part of jewels/more complex adornment, is attested at least from the Neolithic and the Predynastic era (IV millennium BC)<sup>7</sup>.

Surly, the Red Sea, characterized by the rich and various ecosystem of the coral shields<sup>8</sup>, was a place of supply and exploitation of these and other resources since ancient (prehistoric) times. On its coasts, the Old Kingdom pharaohs built their harbours during the III millennium BC (Ayn Soukhna, Wadi el-Jarf)<sup>9</sup>.

The contributions of Bar-Yosef Mayer and Sowada highlighted how during the Early Bronze Age II-III shells both from the Nile (*Aspatharia rubens*) and from the Red Sea (*Lambis Truncata*, *Pinctada Margaritifera*) were some of the more exported materials between Egypt and the Levant through the Sinai Peninsula, as a part of the complex believes systems and funerary behaviours of both cultural contexts<sup>10</sup>.

Beside the use of marine shells as coin, a use never adopted in Egypt<sup>11</sup>, great relevance has been given by scientific literature to their apotropaic and magical powers. It is usually thought that the so-called “cowrie shells” (*Cypraeidae* sp.), were frequently used because of their shape,

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<sup>1</sup> Trubitt 2003.

<sup>2</sup> Cione, Pérez, Bacquerisse 2015, 25.

<sup>3</sup> Linseele, Van Neer, Friedman 2009, 114; Golani 2014, 72. In Nubia, for instance, the productions of mother-of-pearl pendants was persisted until recent centuries, see Mumford 2012, 114.

<sup>4</sup> Markowitz, Doxey 2014, 86; Lacovara, Markowitz 2019, 58, 59, 62.

<sup>5</sup> See what Golani 2014, 71 says.

<sup>6</sup> Carannante, Fattovich, Pepe 2012, 112.

<sup>7</sup> Mumford 2012, 114.

<sup>8</sup> El-Einin *et al.* 2021.

<sup>9</sup> Tallet, Marouard 2014.

<sup>10</sup> Bar-Yosef Mayer 2002; Sowada 2009, 94-95, 203.

<sup>11</sup> Cione, Pérez, Bacquerisse 2015, 27.

alternatively recalling that of feminine genitalia, of a squinting eye or a snake head, symbols strictly linked with the idea of fertility and protection from the evil<sup>12</sup>. This use is widely spread throughout all pharaonic Egypt history<sup>13</sup>.

Until now, the only sites where some attempt to understand how molluscs and other sea products were employed are Ras Budran (Sinai Peninsula)<sup>14</sup> and Mersa Gawasis, the last being excavated by University of Naples “L’Orientale”, both on the littorals of Eastern Desert. This is the Egyptian site that gave the wider specimen of Red Sea shells and other organic products<sup>15</sup>, which lead to the understanding of what were the different uses which the local species were destined to *in situ*: consumption, ornamental and cosmetic (?) purpose, and religious-votive *habitus*<sup>16</sup>.

There is no trace of a similar approach on sites of Egyptian (Nilotic) inner territory.

More attention has been given to shell adornments and imitations in high-value materials such as gold, silver, electrum, and hard stones<sup>17</sup>. Particularly, an exemplar from Riqqah (tomb 124), dating to Middle Kingdom, shows some of the first, if not the, traces of filigree and granulation techniques, more commonly observed from the New Kingdom onwards<sup>18</sup>. The most recent works focus on mother-of-pearl and oyster shells, largely attested during Middle Kingdom, some of which show an inscribed royal *cartouche* with pharaoh’s *nomen* or *praenomen*, coming from Middle (Deir Rifa, Haragah<sup>19</sup>, Sheikh Farag/Naga ed-Deir<sup>20</sup>) and Upper Egypt (Abydos, Qau el-Kabir, Coptos, Aswan, Dendera, Hu, Gebelein, Esna, el-Salmiya,

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<sup>12</sup> Andrews 1994, 42-43; Golani 2014, 75, 76; Cione, Pérez, Bacquerisse 2015, 28.

<sup>13</sup> Andrews 1994, 9 (fig. 3a, b). This idea is strengthened by the Egyptian word (*wḏḏ.w*, “the healthy ones”) used on coeval sarcophaguses decorations’ to label the pendants made of shells or their imitations in precious metals, see Abouseteit 2019, 27.

<sup>14</sup> The harbour is dated to the end of Ancient Kingdom, vd. Mumford 2012.

<sup>15</sup> Carannante, Fattovich, Pepe 2012, 126. At least one attestation shows the use of sea-turtle shell to create tools and jewels, which is very striking considering that Egyptian often use the shells of Nilotic/fluvial species, see Mumford 2012, 116.

<sup>16</sup> Mound WG 29 consist of more than a thousand of fragments, mostly of *Lambis Truncata* specie, considered as votive offerings made by the sailors taking part at maritime expedition sailing from (and returning to) Mersa Gawasis, see Carannante, Fattovich, Pepe 2012, 125-126, 126-130, 132.

<sup>17</sup> Abouseteit 2019, 26.

<sup>18</sup> Troalen *et al.* 2019, 594, 595.

<sup>19</sup> <https://www.metmuseum.org/blogs/now-at-the-met/2016/haraga-treasure-jewelry> (entered 28/05/2022, 15:24)

<sup>20</sup> Andrews 1994, 11.

Qubbet el-Hawa)<sup>21</sup>. These papers enlarge a field already stated during the past century<sup>22</sup>: at present, we know about fifty samples of this kind<sup>23</sup>.

Lastly, some works of Manzo should be recall, where he suggests that the habit of wearing shell pendants across the different Nubian cultures Egyptian interacted with effected the production of such ornaments and their metallic replicas in Egyptian (regal) workshops<sup>24</sup>.

Concerning corals, widely less diffused than seashells, their use can be traced back to the IV millennium BC (Naqada – predynastic period) in strata from Hierakonpolis (cemetery HK29A)<sup>25</sup>, Armant, Mostagedda; they were still used in the following eras of pharaonic history, throughout which their value as *exotica* and/or amulets persisted, despite the scarce amount of data<sup>26</sup>.

Even less known is the exploitation of other Red Sea organic resources (sea urchins, sea-turtle etc.) along the Nile Valley<sup>27</sup>.

## 5 – Bibliography (max. 5000 characters)

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<sup>21</sup> Abouseteit 2019; Mekawy Ouda 2019; 2022.

<sup>22</sup> Arkell 1944.

<sup>23</sup> Abouseteit 2019, 24.

<sup>24</sup> Manzo 2011, 72; 2017, 25-26 (fig. 21), 31, 35, 36 (fig. 25), 42 (fig. 35), 51; 2020a, 99.

<sup>25</sup> Linseele, Van Neer, Friedman 2009, 115

<sup>26</sup> Mumford 2012, 115 (n. 36).

<sup>27</sup> See, for instance, Mumford 2012, 115-116 (n. 42); *supra*.

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### Online resources

<https://www.metmuseum.org/blogs/now-at-the-met/2016/haraga-treasure-jewelry>

### 6 – Project description (max 15000 characters)

The candidate aims to concur for the *Asian, African and Mediterranean Studies* (XXXVIII Cycle), *Archaeological* curriculum.

The object of the study will be:

- Red Sea shells and artefacts they were part of (necklace beads, bracelets, anklets, belts, pendants, tools etc.);
- Worked oyster valves, i.e., pierced for suspension and/or decorated;
- Corals;
- Other Red Sea organic resources (sea urchins, tortoise shells);
- Precious replicas and imitations in precious materials

The following geographic horizon will be considered:

#### A) Egypt

I. Fayum Region between Lower and Upper Egypt: the materials considered will be those coming from Lisht, Lahun, Hawara, Riqqah, Haragah and Dashur, because this is the area where XII Dynasty pharaohs placed their capital (*Itj-t<sup>3</sup>.wy*). For instance, the necropolis of Dahshur gave back rich burials equipment of some royal princesses, including some striking gold and electrum replicas of marine shells<sup>28</sup>.

II. Qubbet el-Hawa (Upper Egypt): placed on the Assuan west bank of the Nile, this is the site where the wider specimens of worked oyster shells comes from<sup>29</sup>.

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<sup>28</sup> Grajetzki 2014, 132.

<sup>29</sup> Mekawy Ouda 2022, 80.

III. Hierakonpolis (Upper Egypt): during the 2000s' the excavations brought to light materials deeply connected with the Nubian C-Group (cemetery HK27) and *Pan-Grave* (HK21A and HK47) cultures<sup>30</sup>.

#### B) Nubia (Sudan)

For the chronological range here considered, the best-known evidence comes from the Egyptian fortresses of Mirgissa<sup>31</sup> and Uronarti (see, for instance, tomb 3)<sup>32</sup>, places where different ethnic and cultural daily interacted, and from numerous sites of Middle and Upper Nubia ascribed to C-Group, Kerma and Pan-Grave cultures<sup>33</sup>. In the site of Kerma some marine shells replicas in gold and calcite were found<sup>34</sup>. Above all, the mother-of-pearl clip hair, likely used by women<sup>35</sup>, are some of the most characteristic and striking artefacts coming from the sites of different ancient Sudanese cultures.

#### C) Southern Atbai (south-eastern Sudan)

During the Middle Bronze Age, this region was deeply linked with Egypt through commercial routes and maritime expeditions wanted by the XII Dynasty pharaohs (2000-1700 BC)<sup>36</sup>. In this context, various findings testify the use of Red Sea shells in burials<sup>37</sup>. The following sites, excavated by University of Naples "L'Orientale" are those from which the wider archaeological evidence come Mahal Teglinos (K1), where various cohabitating burial customs (= distinct cultures) were found; UA53; UA50; JAG1<sup>38</sup>.

Summarizing, the geo-cultural context considered will spread from the Nile Valley basin, between the Delta and the Atbara River confluence in Sudan, to the Red Sea littorals of Eastern (Hill) Desert.

Specific biological and malacological literature will always be consulted while carrying on the study<sup>39</sup>:

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<sup>30</sup> Friedman 2001; 2007.

<sup>31</sup> Abouseteit 2019, 31.

<sup>32</sup> Lacovara, Markowitz 2019, 70.

<sup>33</sup> Säve-Söderbergh 1989, 59, 111-116, 137-140.

<sup>34</sup> Dunham 1982, 138, 143, 146, 200, pl. XLlc.

<sup>35</sup> Lacovara, Markowitz 2019, 66

<sup>36</sup> Manzo 2011; Bard, Fattovich 2018.

<sup>37</sup> Carannante 2012, 93-98.

<sup>38</sup> Manzo 2020.

<sup>39</sup> I would like to thank prof. Roberto Chemello (University of Palermo) for suggesting me these volumes.



- I) Rusmore-Villaume, M.L. 2014. *Seashells of the Egyptian Red Sea*. American University in Cairo Press;
- II) Vine, P. 1996. *Red Sea Invertebrates*. Immel Publishing;
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The research will focus on:

- 1) When dealing with artefacts of unknown provenance, trying to reconstruct their place of origin, especially of those from urban settlements, the rarer and the harder to identify;
- 2) While studying the high-value replicas, understanding what chronological and cultural links tie these artefacts with the original marine products they emulate. Moreover, the study will try to highlight if the spreading of these objects in ancient Egyptian non-élite society came from the habits of the pharaonic court to wear/use such jewellery pieces or if the process followed the exact opposite path. In addition, some spectrometric analysis might be conducted on some samples to determine their chemical/alloys composition, leading on the identification of the metalliferous sources exploited by Egyptians and Nubians<sup>40</sup>;
- 3) Building a comparison between the uses and the working techniques in the traditions of Nubia and Southern Atbai of the first half of II millennium BC, in order to understand if their customs inspired the coeval Egyptian ones<sup>41</sup>;
- 4) Analysing the regional changes occurring on this class of artefacts, setting up a classification based on the following parameters: materials, shape, and use. This approach can be useful to identify prototypical samples and to understand the cultural entanglement that took place<sup>42</sup>. For instance, the use of oyster bivalves in Egypt could have been borrowed from the coeval Nubia/Kerma practice and re-interpreted according to the local cultural syntaxis, as the findings from various burials clearly show<sup>43</sup>.

### **Work organisation:**

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<sup>40</sup> See Troalen *et al.* 2019 for the results obtained from this analysis on some jewellery pieces from Middle Kingdom tomb 124 from Riqqah.

<sup>41</sup> Similarly, Walsh 2020 analyses how Egyptian ceramics, cosmetics, and related tools influenced Kerma court habits, resulting from exchanges that likely took place during diplomatique meetings and feasts.

<sup>42</sup> For “cultural entanglement” I refer to the definition given by Stockhammer 2012, meaning the phenomenon of how cultural aspects (both material and intangible) get shared, transferred, and modified from a historical context to another one. For a practical application of this notion in the relationships between Egypt and Kerma during the II millennium BC, see Miniaci 2019.

<sup>43</sup> Markowitz, Doxey 2014, 96.

<p><b>Anno I</b></p>	<p>The first six months will be destined to collecting and organising the bibliographical materials concerning the sites considered in this study, more attention given to the older reports of past excavation.</p> <p>In second place, there will be a preliminary analysis to the online database of museum collections and storages to identify materials that have never been studied before.</p> <p>Some months will be spent in a training period with experts of (archaeo)malacology to obtain a deeper knowledge of the subject. At the same time, the study will attempt to identify as many references as possible about marine shells and other Red Sea organic products in ancient Egyptian literature and written sources.</p>
<p><b>Anno II</b></p>	<p>This year will be dedicated to the study of the objects previously identified among museum collections such as: the <i>Rijksmuseum van Oudheden</i> (Leiden, Netherlands), <i>Museo Egizio</i> (Turin, Italy), <i>Musée de l'Institut de Papyrologie et d'Égyptologie de l'Université Charles de Gaulle</i> (Lille, France), <i>Musée d'art et d'histoire of Geneva (MAH)</i> (Switzerland), <i>British and Petrie Museum</i> (London, England), <i>Manchester Museum</i> (England), the <i>Gustavianum (Uppsala Universiteit)</i>, Sweden), <i>Oriental Institut Museum</i> (Chicago, Usa).</p>
<p><b>Anno III</b></p>	<p>The last year will see the final writing of the PhD thesis and punctual organisation of the data obtained by the study, building up a comparative system between these artefacts coming from Egyptian archaeological contexts and those coming from the Nubian/Sudanese/African cultural <i>milieu</i>.</p>

### 7 – Expected results (max 3000 characters)

The project here described aim to study in a systematic and organic way a class of artefacts widely occurring in archaeological Nubian and Egyptian contexts, although scarcely studied. The first result expected from this study is to provide a first attempt of classification of this materials' class, based on the following parameters: objects typology/use; working techniques; seashells species used (whenever the state of conservation will permit it). This cataloguing could be useful to highlight interesting diatopic and diachronic variations and/or some recurring patterns.

The study will also help to point out new perspective on the relationships between Egypt and the surrounding African regions, highlighting how the lasts likely influenced, at least, pharaonic and Egyptian ruling class, stressing the active role they played in the cultural and historical horizon of ancient north-eastern Africa between.

Last, the chemical/spectrometric analysis on some of the most important metallic replicas of oyster bivalves and Red Sea shells, might enlighten new helpful elements to identify the auriferous/metalliferous resources exploited by the political powers of the time, namely ancient Egypt and the Kingdom of Kush (Kerma), and by the different nomadic groups living across the Eastern Desert, linking the Red Sea bays to the Nile Valley basin.