

AMULETS IN PORTUGAL — FROM OBJECTS TO SUPERSTITIONS: THE RED CORAL*

por

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Abstract: The study of amulets — objects with an apotropaic nature, i.e. of physical and spiritual protection —, which have, for example, the power to avoid illnesses, harm or misfortune, and of the superstitions associated with them, covers an important part of communities life: their beliefs and traditions, which reflect the way people relate to the universe around them, with their interpretation of the world in which they live, with their everyday practices. This work aims to study amulets made from (red) coral that are associated with the traditions and customs of Portuguese communities during the modern and contemporary eras.

Keywords: Amulets; Superstitions; Red Coral; Portugal.

Resumo: O estudo dos amuletos — objetos de natureza apotropaica, ou seja, de proteção física e espiritual —, que têm, por exemplo, o poder de evitar doenças, danos ou infortúnios, e das superstições a eles associadas, abrange uma parte importante do vida das comunidades: as suas crenças e tradições que refletem a forma como as pessoas se relacionam com o universo ao seu redor, com sua interpretação do mundo em que vivem, com suas práticas quotidianas. Este trabalho visa estudar amuletos feitos de coral (vermelho) que estão associados às tradições e costumes das comunidades portuguesas durante a época moderna e contemporânea.

Palavras-chave: Amuletos; Superstições; Coral vermelho; Portugal.

INTRODUCTION

The “world” of popular beliefs and superstitions has always seemed fascinating to me. Studying this way of seeing the world transported me to the popular imaginary, to the explanation of the world, to the relationship with phenomena whose scientific explanation was practically non-existent before the nineteenth/twentieth centuries.

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After reading the two volumes of the collection *Portuguese Ethnography* related to superstitions, entering the universe of superstitions became a difficult exercise as it implies entering a world that is intrinsically associated with suffering. The harsh living conditions, the hunger, the high mortality rate, namely of women in childbirth and children, the fragile social role of women, take us back to a society shaped by hunger, death, and fear. Thus, the importance given to amulets by the different Portuguese communities and all social groups. People (man) use amulets “because, in his supernatural imagination, when surrounded by evil beings, he always seeks to resist them (...). Amulets are endowed, according to the people, with wonderful virtues against evil” (Coelho, 2017, p. 26).

Amulets or talismans are objects to which supernatural virtues are attributed, they carry magical attractions of an apotropaic character and normally, the ritual of their creation is what gives them the strength of their power. (...)
(Rodrigues, 2016, p. 73).

José Leite de Vasconcelos divides talismans into amulets and *mascots* or *porte-bonheur*: “just as there are objects that protect from Evil, there are also those that, by the same natural force, attract Good. To the first category belong amulets; to the second those which the French word *porte-bonheur* (...) and the Portuguese begin to call them *mascots*”. Given their “magical” capacities, amulets could be divided into two major categories: pagan and religious, both used against the supernatural; natural phenomena; diseases; accidents; dangers; and disasters in general (Vasconcelos, [1985] 2007, p. 279). Some authors make a distinction between amulets and talismans. The former protects from evil, the latter attract good (fortune, luck, health and so on). Basically, we have two major categories: 1) objects, symbols or materials that protect and ward off evil, for which the word *amulet* seems to be consensual; and 2) objects, symbols or materials that attract good, fortune and health and for which we shall adopt the word *talisman*. There are situations in which the same object/symbol or material can have this double function. And sometimes these objects or symbols can be used to invoke Good, protecting people, property, business, or animals. They can also be used for Evil, such is the case of pentagram, which pointing up attracts good, but pointing down is associated with evil.

There are amulets whose virtue depends on: their form, or their form and substance at the same time: fig. sino-saiman [pentagram], coins, half-moon, three-cornered nut, little horn; and there are those whose virtue depends only on their substance, although they may have a definite form: beads (jet, coral), metallic rings, horseshoes, mole hands, teeth, thunderstones, and others.

The little horn or hornlet acts fundamentally by its substance, but it can be replicated using bone, and then it acts by its shape. Coins act either because they are made of metal or because they have representation of figures (Vasconcelos, 1915, p. 234).

Amulets protect people, animals, the home and its contents, and the land; and exist all over the country, with small variations from one region to another (Vasconcelos, 1915, p. 235).

Modern and Contemporary Portugal is a world of great contrasts; if on the one hand it is deeply marked by the Catholic religion (the devotion to Our Lady is a good example of this), on the other hand, it is, “as Francisco Bethencourt rightly noted, ‘a universe saturated with magic’. It was practised by countless individuals with multiple designations (sorcerers, witches, healers, *mezinheiros*, *benzadores*, *casa-aberta*, diviners, magicians)” who could be found anywhere in the country. These individuals (men or women) had thousands of clients, members of different social groups, from the humblest to the wealthiest (Paiva, 2000, pp. 369-370). Treatments, healing, fortune-telling, the “inclination of wills” [manipulation] and the elaboration of amulets were part of the functions of these individuals (Oliveira, 2013, p. 123). We can make a distinction between pagan amulets, made by these individuals, from Christian amulets that would be produced by goldsmiths and consecrated/blessed by priests.

Finally, we would like to highlight the following: there is the belief that some minerals, animals, and vegetables had “natural virtues”, being associated with the concept of “natural magic”, i.e., the manipulation of something that “with natural causes produces extraordinary effects” (Paiva, 2000, p. 374). We believe, given the different analyses, that the coral is one of these animals and we will describe these different virtues throughout this article.

THE CORALLIUM RUBRUM

*‘This is red coral!’ Holding a small sample of what has been collected from the bottom of the sea, this is how Joana introduces us to that precious piece, the branch that fishermen from Algarve usually bring hanging on their nets, unaware that some people pay thousands to have a jewel of that colour. Here, we only knew of its existence after they announced the arrest of an illegal net (...). Joana says that the *Corallium rubrum* lives mainly in the deep waters of the Mediterranean and the Atlantic, in an area closer to the Strait of Gibraltar (Visão, 2014).*

Corallium rubrum (Lamarck, 1816), *Gorgonia nobilis* (Linnaeus, 1789), *Isis nobilis* (Pallas, 1766), *Madrepora rubra* (Linnaeus, 1758) are some of the scientific names given to the red coral (FOA, 2020), which belongs to the class *Anthozoa*, subclass *Octocorallia*, order *Alcyonacea*, suborder *Scleraxonia* and family *Coralliidae*. There are about 30 species of *Coralliidae* (Jiménez & Orejas, 2017).

It is a Mediterranean species, although it has been detected in some areas of the Atlantic, near the Strait of Gibraltar. It usually forms dense populations, with more than 40 colonies per square metre, in poorly lit places (Gili & Diaz, 2001, p. 42), living between 15 and 300 meters deep. It has great longevity and grows, on average, only one millimetre per year. It is well known as the *Red Gold* of the Mediterranean (Vision, 2014). It is distributed across the western and eastern Mediterranean: from Greece and Tunisia to the Strait of Gibraltar, including Corsica, Sardinia, and Sicily; across the eastern Atlantic: southern Portugal, Morocco, the Canary Islands, and the Cape Verde Islands (FOA, 2020).

Red coral was exploited irregularly, in Portugal, in the Algarve, between 1200 and 1700, until the collapse of the fishery. In the last 300 years, there are no known reports of its occurrence (Boavida *et alii*, 2016). Red coral fishing by the Portuguese was known in northern Morocco (Cape Espartel), as well as in the Cape Verde Islands in the second half of the nineteenth century (Zibrowius *et alii*, 1984, p. 165). The oldest reference to fishing in Portugal that we have found are the following:

The gathering of coral, on the Portuguese coast, is documented, in literary terms, in the Middle Ages, namely from mid-ninth century. In fact, in 844, Ibn Jurdabih, based on earlier information, mentions, among other peninsular products exported to North Africa and the East, the coral obtained on the coasts that are now Portuguese (Gozalbes Cravioto, 1991, p. 31 apud Gomes et alii, 2015, p. 101).

During the reigns of King Afonso III and King Dinis, the Milanese would have settled in Lagos to fish for coral. This information is mentioned by José Bonifácio de Andrade e Silva, but he has not provided any documents to prove it. According to Gama Barros, the oldest document concerning this industry is a charter of 16 April 1462, where the contract for coral fishing “certainly on the Algarve coast” between King Afonso V and Filipe Peroço is established (Torres, 1971). In 1450 there is the record of a letter of privilege to Prince Henry, the Navigator, granting him exclusivity of coral fishing by King Afonso V (Viterbo, 1903, p. 316). On April 22, 1473, Lopo de Almeida obtained from King Afonso V a letter granting him nine years of exclusivity in coral fishing from Cape Espartel to the Tagadarte River (Morocco) (Rau, 1986, p. 153).

We know that in the sixteenth century Lisbon became an important trading centre where foreign goldsmiths and lapidaries established their workshops and to where precious metals and stones converged, namely coral, coming from the trading posts that Portugal had all over the world (MNMC, Jewellery, online).

In 1747, the Priest Luis Cardoso writes in the *Dicionário Geográfico* (1747, p. 285), about Algarve that “There used to be coral fishing, which they fetched three leagues from the sea; it was very profitable, but today it is no longer fished”. The documental records related to coral fishing ceased. The interest in this practice reappeared when King João V granted the Lisbon dealer Vicente Francisco the exclusive privilege, for five years, of fishing coral in the Algarve, by a charter of 2 November 1711 (Torres, 1971).

The red coral fishing in the Algarve is again in the news with the capture of corals through illegal fishing in 2014, which gives rise to a process of protection of this endangered species.

Coral gardens — places of refuge for other species in the underwater world — are threatened by illegal fishing. A legislative loophole has allowed one of the Algarve’s marine treasures, the red coral (Corallium rubrum), to be caught and sold to make jewellery. The Government is preparing a law banning the harvesting of this rare species (...). Red corals are found throughout the western Algarve and may extend to the Costa Vicentina. ‘We have records of fishermen who report their existence off the Carrapateira’, said Jorge Gonçalves (...) (Revez, 13 July 2020).

In these brief paragraphs we got to know some details about the characteristics of red coral as a sea-animal and the coral fishing in Portugal.

CORALS — MEDICINE, AMULETS AND SUPERSTITION

Among the actual aquatic creatures anointed by Greco-Roman paganism and embraced by Christianity were the fish, dolphin, bivalves, and coral, all of which were considered, then and now, as divine and beneficial animals (Miranda & Chambel, 2014, p. 81).

Organic materials, such as coral and pearls, were considered products of a long process influenced by the stars, which gave them supernatural powers (Penalva & Franco, 2016, p. 29).

It is this universe concerning the “stone trees” (Arbez, 1990, p. 149), divine and beneficial animals, influenced by the stars, keepers of supernatural powers, that we will address in the following pages.

According to José Leite de Vasconcelos, coral may be used as an amulet, in branch or piece, or in the form of a bead or fig. It is more common to find it worked in the form of a bead, often forming necklaces of beads (Vasconcelos, 1929: 50). For this author, coral objects were also used simply as adornments, having lost their property as amulets. He mentions having seen in 1893, “in Lisbon, a lady with earrings made of coral branches encased in gold: each earring with its branch” (Vasconcelos [1985] 2007, p. 216). Vieira Natividade, regarding the superstitions associated with the “cult of the stone”, says that the people of Alcoaça still keep the following amulets: the *pedra do raio* (thunderstone), the *conta leiteira* (milk bead); the *conta de azeviche* (jet gemstone bead); the amber beads “so that the teeth are born to the little children, and the *hand figs* made of coral and jet, substances that have a particular power against the evil eye and other spells” (Natividade, 1917, pp. 123-124). In this case, coral is interpreted as being a stone.

Taken as having apotropaic properties, capable of protecting from thunder, lightning and storms, from the evil eye, the devil, spells, madness and other diseases, but also of restoring strength and blood, using it against haemorrhages, gums and teeth disorders, gout, liver and intestine problems, namely worms, epilepsy, to heal several wounds or, still, for the success of childbirths, the coral was taken milled and especially its white variety (Gomes et alii, 2015, p. 85).

Regarding the medicinal properties of coral, red or white, the Abade of Baçal quotes the work of Francisco da Fonseca Henriques (Mirandela, October 6, 1665 – Lisbon, April 17, 1731), physician to King João V, who, having written the work *Medicina Lusitana — Socorro Dêlfico aos clamores da natureza humana para total profligação de seus males* (1710, 1731, 1750), states that “the water of ammoniac salt, distilled in a glass alembic, makes teeth fall without pain; the same virtue is found in red coral powdered and put in the tooth cavity; (...)” (Alves, [1934] 2000, pp. 239-240). In turn, José Leite de Vasconcelos (1929, p. 52), quoting this same work (1731) refers to coral’s other virtues, such as, for example, “the powders, when taken by the children before anything else, when they are born, preserve them from the coral gout” (= epilepsy). Still regarding health matters, José Leite de Vasconcelos collected the following information: in Vila Pouca [de Aguiar] “the women who breastfeed wear coral necklaces to get rid of breasts lumps”; a coral beaded necklace, placed around the neck, takes away jaundice; and, finally, when used by someone, if that person is sad or melancholic, the coral becomes

tarnished, announcing its carrier's mood (Vasconcelos [1985] 2007, p. 216). Besides the analogy of the red coloured coral with blood, the shape of the coral branches also refers to blood vessels. Thus, used as medicine, it was recommended for those with blood-related disorders: "Both in Pliny and the Lapidary of Alfonso X, the Wise, there is information that the ingestion of smashed coral was beneficial for those who vomited or spat blood" (Ragazzi, 2016, p. 38).

As an element of protection against Evil, "it is said in Vila do Conde that coral is worth the same as jet against witchcraft or the evil eye. It also breaks the evil eye cast on the wearer" (Vasconcelos [1985] 2007, p. 216) and frees those who wear it from the evil eye (Vasconcelos, 1929, p. 52). Queen Catarina, wife of King João III, had in her collections some objects and materials used for childbirth, such as two scorpion tongues (fossilised shark teeth), "a snake's head covered with gold, both used as an antidote for poison, perhaps also as an amulet and with medicinal purposes, two heart-shaped jasper stones to stop blood; a branch of coral to ward off the evil eye; (...)" (Buescu, 2019, p. 32).

In France, Belgium and Italy coral is used mainly for the protection of children. Another of the beliefs suggested is that if a piece of coral in a jewel loses its colour it is a sign of illness. The most common meaning in various traditions is protection from disease and everything associated with evil. This work refers to its resemblance to the tree of life (as *arborescens*) and therefore it has great symbolic value (personal information from Álvaro Campelo).

The Portuguese object that seems to best represent the tree of life is the *Santo Lenho* reliquary, made of silver and coral, decorated with coloured enamels, a unique piece of Portuguese jewellery. The coral keeps its natural "sea tree" shape, to which the gift of longevity is attributed (MNMC, Jewellery, online). It is part of Queen Isabel's Treasure, a set of five pieces consisting of the reliquary, a pilgrim's staff, a processional cross, a reliquary image of the Virgin with the Child and a necklace (Penalva and Franco, 2016: 28). The coral branch, with its multiple arms, stands out as the central piece of this reliquary (*idem*: 31). This large *corallium rubrum* polyp may come from the Mediterranean Sea (Carvalho, 2010-2011 *apud* Penalva & Franco, 2016, p. 53).

Corals were admired in antiquity, but without the species to which they belong being truly known. Their peculiar morphology and the different physical-chemical reaction when exposed to the elements water and air, becoming flexible like living beings or rigid like stones, placed them in a mystical frontier between the plant, mineral and animal kingdoms - to which they actually belong. Greco-Roman mythology forged a legendary origin for corals, making them result from the metamorphosis of algae through contact with Medusa's petrifying blood (Miranda & Chambel, 2014, pp. 84-85).

Through a process of syncretism, Medusa's blood would have been later "transformed" by Christianity to symbolise the sacred blood of Christ, both considered protective. The use of coral beads on rosaries and necklaces depicted around the neck of the Holy Child in devotional paintings is evidence of this belief (Balzan & Deidun, 2010, p. 436).

Coral had a dual medicinal and magical use, (...) as apotropaic amulets intended to ward off the evil eye and to protect homes and children. This last use, originally pagan, was preserved by Christians who attributed the coral to the Infant Jesus (...) Correlatively, the coral was considered prophylactic and redemptive, as the Blood of Christ, and, due to its crystallization and perpetual integrity, it was also taken as a metaphor for the eternity of the Christian soul (...) (Miranda & Chambel, 2014, pp. 84-85).

In this regard Luísa Penalva and Anísio Franco refer that the use of the [red] coral:

underlines this Christological sense, since it is known that this material, by conjugating, as was believed at the time, the three kingdoms of Nature — animal, plant and mineral —, symbolised the Tree of Life itself, therefore, the tree of the New Testament and the Vera Cruz. Also, the colour and the branched structure of the coral reinforced the sense of the sacrifice of the Son of God (Penalva & Franco, 2016, p. 31).

In fact, in European Christian iconography there are several examples of paintings where the Infant Jesus is depicted with a sprig of coral around his neck. This sprig would work as an amulet, being considered an element of protection. There are also paintings in which the Child Jesus wears a rosary made of coral beads around his neck. In the work "Madonna della Vittoria" by Andrea Mantegna (1496) we can see a pergola of leaves, flowers, and fruits from which hang strings of coral beads and rock crystal and a large whole branch of coral, which, being unworked/processed and having been recently extracted from the sea, preserved intact its protective power. Both the beads and the coral branch provided greater protection for the Virgin and the Infant Jesus (Bruce-Mitford, 1997).

In the Mediterranean, coral, like amber, was thought to contain the 'essence of life' of the Mother Goddess, who lived in a coral 'tree' in the ocean. Ancient people used coral that had not been worked by human hands to become powerful in magic. Coral was not polished, cut, carved, or drilled. It was believed that any interference with the coral could 'kill' its magical energies, for it was thought to be alive (as indeed it had been) (Cunningham, 1988, p. 98).

This text seems particularly meaningful if we look at the *Santo Lenho* reliquary, as well as the different pendants in the form of a coral sprig used by Christ in the paintings mentioned above and by children in their daily lives. Even today it is believed that rough stones, that is, stones that have not been polished, pierced, or worked, have more powerful magical properties.

In Portugal, paintings depicting coral branches or rosaries in this material are less numerous, but there are some examples. *Nossa Senhora das Neves* (“Our Lady of the Snows”), by Francisco Henriques, is an oil painting dated 1509-1511, in which the Child, sitting in the Virgin’s lap, has a necklace of coral beads (Matriznet).

Deposited in the Museu Nacional de Arte Antiga is a polished coral beads Rosary and another in gold filigree beads, dated 1601-1650 and measuring 71 cm high (Matriznet) and a painting entitled “Retrato de Senhora com rosário” (“Portrait of a Lady with Rosary”, supposedly in coral), by an unknown artist (Jooris van der Straeten?), dated mid-sixteenth century (Serrão, 2009, p. 28). Can we establish a relationship between the growing importance of the Rosary and its production in goldsmithery, as well as its representation in paintings?

Many deceased were buried with rosaries, some in coral. Could it be, as Alexandre Ragazzi (2016, p. 39) argues, that the pure coral sprig, coming from a pagan tradition, began to cause some discomfort within the Church, with representations of the Child with coral pendants in painting becoming “increasingly rare from the middle of the sixteenth century. The tendency (...) was for the pagan past to be hidden in the form of a rosary. In fact, the Counter-Reformation would replace the sprig of coral with this object”.

An oil painting on wood of Saint Catherine of Alexandria depicted wearing a red coral necklace (1664-1666), is held in the Museu da Terra de Miranda. In the Machado de Castro National Museum, there is an oil painting of Saint Catherine of Siena, depicted with a coral cross on her lap (1650-1700) (Matriznet).

In the 1761 inventory of the Braga Cathedral Treasury, reference is made to a chasuble, probably dating from the late sixteenth or early seventeenth century, although its date is not consensual. This piece, made of gold and silver wire, has two rows of coral and pearl beads (Braga Cathedral Museum, online). Could these coral beads and pearls have been placed here to give value to an essential piece of the Christian liturgy but also to have a protective function?

Already by the end of the nineteenth century, José Leite de Vasconcelos (1897, p. 88) refers that it is difficult to distinguish a modern amulet from an ornamental object, such as necklace beads and, in this case, in particular, made with coral, and explains: “In our country not only is coral still carried in necklaces, as it is an amulet and a jewel, and is also used superstitiously, for certain purposes, (...). I can also mention here the beaded rosaries” (*idem*: 154). Basically, we can say that some noble materials, precious

and semi-precious stones, were “first used as talismanic amulets” (Penalva & Franco, 2016, p. 50), but slowly and progressively lost their magical/protective character, limiting themselves to being used as a mere ornament or adornment, their aesthetic value prevailing to the detriment of the magical-religious one.

CORALS — ARCHAEOLOGICAL OBJECTS AND CONTEXTS

One of the greatest challenges of this work was to find amulets made from red coral and/or, if possible, archaeological contexts associated with their discovery. Because we have so little data on the subject, we chose to present all the references to coral that we were able to find in our bibliographical research. It was not possible to make an exhaustive and systematic collection, either in Museums, in archaeological publications, or even in excavation reports. Thus, we have only half a dozen bibliographic references to the existence of such amulets, as well as some indications of pieces and fragments of raw coral, beads, necklaces, bracelets, and rosaries in coral, which were mentioned to us by some colleagues, whom we would like to thank for their valuable indications.

In the fortified Chalcolithic settlement of Outeiro Redondo (Sesimbra) a violet-coloured coral fragment was collected in layer 2. According to Cardoso and Martins (2017, p. 342):

As for the coral fragment, its occurrence proves that this raw material was already sought after for the making of ornaments, although it was gathered at depth, possibly employing rakes dragged along the bottom. It is likely that the provenance of this piece can be found on the Algarve coast, or further.

This is the oldest trace of a coral branch in Portugal that we have been able to detect through our research so far. Further investigation may demonstrate the presence of other corals in Portuguese archaeological sites dating back to earlier times.

In the archaeological interventions carried out in [Islamic] Silves both in the citadel and in the medina, materials from other regions of “al-Andalus, North Africa and the Eastern Mediterranean were detected, from the eighth to the thirteenth century” (Portugal Islâmico, 1998, p. 139). Besides pottery, there are objects produced using precious metals (gold and silver), ivory, jet, bone, and “amulets, one of them with the representation of the ‘hand of Fatima’ and another with a coral element, (...)” (*Idem*: 141). In the South of Portugal, during the Middle Ages, amulets made of coral were already found. This was the earliest reference to amulets made from coral in Portugal that we have been able to determine so far.

José Leite de Vasconcelos mentions that Professor Belluci offered him a natural coral branch, with a ring, against the evil eye and that Mr. Manuel Vieira Natividade offered him a coral encased amulet (Vasconcelos, [1985] 2007, p. 241). In an article on coral amulets (Vasconcelos, 1929, p. 52), he explains that he acquired an amulet “made of a piece of coral, encased in silver, and provided with two rings, one fixed, the other mobile, to hang” in the municipality of Arcos in 1928, and that it is part of the collection he organised in the Ethnological Museum. We do not know if these two encased coral amulets are the same piece, described in two different documents, or if they are two different items.

In the Museu Nacional de Arqueologia (National Museum of Archaeology), there is an “amulet of coral and silver-plated brass, composed of three elements: a closed hand with two open fingers simulating horns, a rounded heart with a crucifix crossed with an anchor on both sides in relief, and a coral sprig, supposedly made in Lisbon, somewhere during the Contemporary Period” (Matriznet). Could this be related to any of the pieces previously described by José Leite de Vasconcelos?

Archaeological excavations were carried out at the Convento de Santana in Lisbon, which enabled the identification of structures and an abundant and varied collection, dated between the late sixteenth century (when the convent was built) and the eighteenth century. We are in the presence, among others, of objects made from hard materials of animal origin which can be interpreted as utilitarian, adornment, or devotional. The most frequent ones use bone as raw material and the rarest are produced in ivory, nacre, tortoise shell or coral (Gomes *et alii*, 2015, p. 85). Our interest focuses on the coral objects, which in this case are just two small pinkish-red beads of different shapes and different contexts: a 4 mm diameter spherical bead that was exhumed from a pit (pit 3) and an 8 mm long cylindrical bead from an archaeological layer with numerous organic remains. The very small size of these beads “seems to rule out the hypothesis that they are elements of rosaries or chaplets, more likely being part of earrings or other ornaments, in particular, attached to dresses” (*Idem*: 100).

Mário Varela Gomes believes “that the small coral beads, pinkish in colour, exhumed in the ruins of the Church of Santa Maria do Castelo (Torres Novas) may have belonged to a rosary” (Gomes *et alii*, 2015, p. 101).

According to the personal information of António Marques, from the Lisbon City Council: “There is a silver pendant with coral that was found in the excavations of Terraços do Carmo. It is a funerary remain that was associated with a burial, possibly from the sixteenth or seventeenth century”.

At the archaeological excavations of the Church of the Convento do Carmo, there were exhumed two pieces made from coral: a) a seventeenth-century bracelet made of 42 white coral beads and 10 metal beads with a diameter of 3.5 mm; b) a red coral

necklace from the sixteenth-seventeenth centuries, made of 121 beads with a diameter of 3 mm and 3 cylindrical beads with a length of 26.5 mm and an average diameter of 5 mm (Ferreira & Neves, 2005, pp. 607-608). The funerary context of these objects is related to the excavation of the chapels at the head of the church (where 43 graves were found), as well as the main nave and transept (where around 1500 burials were recorded). The remains from the graves were divided into different groups/categories, namely: sumptuary (adornment objects); magical-religious; clothing; weapons and miscellaneous. We believe that in this particular case, both the necklace and the bracelet have been classified as objects of adornment, but one object can have several functions. In this case, they could be objects of adornment with a magical-religious purpose.

The Church of Misericórdia in Almada was excavated in the early 1980s and again in 2013. Several graves were excavated, where osteological remains and various archaeological remains were found. Both the burials and the use of the sepulchral space can be marked between the sixteenth and eighteenth centuries (Dias *et alii*, 2017, p. 1675). In grave 9, a simple, sub-rectangular pit, excavated in the ground, several individuals were detected. Here were exhumed 110 spherical and oval beads and 12 turned bone beads and a light-pink coral bead was also identified (*idem*: 1679). In the excavations carried out inside the Chapel of Nossa Senhora dos Passos, among many other objects, it was found a coral bead and a fragment that may have belonged to some kind of adornment (Dias *et alii*, 2017, p. 1681).

The exhibition *Os Expostos da Roda da Santa Casa da Misericórdia de Lisboa* is accompanied by a catalogue which records the appearance of a coral bead: *Manuscrito e conta – Papel e coral. Portugal 179*. Document n.º 16.

This boy was born on the 28th of October of this present year 1792. He was baptized at birth because he was in danger and lacked the holy oils. His name should be Jose. He carries a coral as a sinal. And he dresses a black manteu, a chita (traditional Portuguese cotton fabric) wrapping, [and] some sleeves of white cotton (Os expostos..., 2001, p. 56).

The *sinais* [signs] of the *expostos* [abandoned children] are mostly manuscripts accompanied by one or more objects that would have had some meaning for the families that were forced to leave their children at the care of the Misericórdia of Lisboa. We are in the presence of:

artefacts of particularly affective significance, in several cases of symbolic, magical and religious meaning. In fact, the real value of these pieces lies fundamentally in their importance as a form of identification of the child, for family

members, in the possession of fragments of the signs left on the wheel, that could prove their kinship affinities in the act of recovering their loved ones (Morna et alii, 2001, p. 12).

Most written *sinais* have paper as support, but we can also find other types of materials (textile, metal, coral, etc.) that accompany them (Reis, 2016, p. 90). Noble, semi-noble or exotic materials have a lesser expression. The diversity of *sinais*, shapes and their materials show us the concern to place the child under protection: “Thus the *figas* and four-leaf clovers act as talismans that reinforce the protection requested for that child, (...)” (Reis, 2016, p. 128). Turtle, ivory, nacre, coral, and bone were used in amulets and talismans, appealing to magical protection for the child. They may appear alone or accompanied by other “elements of Christian symbolism, reinforcing a desire for protection for both spheres” (*Idem*: 267).

In Lagos, in the excavations of the medieval-modern “dump”, where bones of African slaves were discovered, a red coral was also found. It is exhibited in the *Núcleo Museológico da Rota da Escravatura* (Elena Morán’s personal information). The Valle da Gafaria is located in Lagos (Santa Maria) near the Porta dos Quartos, a few metres from the Cerca Nova that King João III had built (Neves et alii, 2011, pp. 29; 31). In this area, significant urban growth can be observed during medieval and modern times, with Lagos becoming a very dynamic commercial centre during the Middle Ages. The coral fragment we highlight in our work was discovered during the excavation of the deposits that constitute the context of the modern Lagos “dump” (Almeida et alii, 2012, p. 95):

a stratigraphic set composed of hundreds of terrain units, corresponding to successive intentional anthropic dumping of various domestic and urban wastes that constituted mounds of varying dimensions that overlay/adjust, forming lenticular levels, which would mainly include a lot of organic material (Neves et alii, 2011, p. 33).

This urban waste dump, accumulated in modern times, revealed the presence of 155 human skeletons (Neves et alii, 2011, p. 29). In these deposits, and as the rubbish accumulated, the bodies of the slaves that arrived in Lagos from Africa were deposited (*Idem*: 36). This site became known as the *Poço de Negros* and is carbon-14 dated to the mid-fifteenth century (Almeida et alii, 2012, p. 96).

In Lagos, around 1555, the *Confraria dos Homens Pretos da Senhora do Rosário* was created in the Church of Saint Sebastian (Neves et alii, 2011, p. 43), presenting an image of a rosery in red coral.



Fig. 1. Our Lady of the Rosary, Church of Saint Peter. Photograph courtesy of the Parish of S. Pedro de Faro.

The site of Cape Raso is the location of the sunken Florentine ship *Gran Principessa di Toscana*, which wreck occurred in 1696. Some documents report the situation that led to the sinking, from which we will only take a small excerpt:

(...) Paul Methuen (1689) mentions that the English mail again failed that week, due to bad weather, which had been stormy for twenty-five days without interruption. He also mentions that a large ship called the Great Princess of Tuscany, commanded by captain Benoit Prasca of Livorno, sank in Cape Roca, a league away from Cascais, most of the crew having drowned on Saint Andrew's day, at midnight, after three days of a storm that made them shout Mercy, which knocked down all the masts and that made them launch to shore with three anchors to the sea that did not prevent the ship from sinking because the bottom was very bad (...) (Cardoso, 2012, p. 11).

The first indication we were given about this site was from Guilherme Cardoso, who observed red coral being removed from a seventeenth century shipwreck near the Cape Raso in Cascais. Following this information, we contacted Mário Jorge Almeida, from the Museu Nacional de Arqueologia (National Museum of Archaeology), who claimed to have found small fragments of coral between 5 and 10 mm at that cape (personal information

from Mário Jorge Almeida). Earlier, in 1967, a team of divers had recovered at this same site five fragments of red coral (Cardoso, 2012, p. 9). The twenty-two coral elements, recovered in 1968 by Soares Branco (private collection) consist of a set of pierced and “crafted” beads, although some erosion associated with the dynamics of the sandy bottom sediments is noted on the materials (personal information from Mário Jorge Almeida). In 1996, Mário Jorge Almeida and some friends found a vast set of artefacts—pewter plates, compass, gun, silver coins, musket balls, lead pieces — along with 35 fragments of red coral (Cardoso, 2012, p. 10).

As shown, the different collections gathered at the site of the wreck of this ship from Tuscany brought to the surface several fragments of coral in its natural form, i.e. raw, with small-sized branches or pierced beads. They were going to become part of different types of jewels or amulets, in the work of the Portuguese goldsmiths and jewellers who, given the decline of coral fishing in Portugal, during this period, acquired this raw material outside the country.



Fig. 2. Thirty-five fragments of red coral recovered in 1996 by Mário Jorge Almeida. Photographs courtesy of Mário Jorge Almeida.

Although our study focuses essentially on red coral, white coral has been recorded in the scope of underwater excavations in the Ave riverbed, carried out by Ivone Magalhães in 2005. Some fragments of white coral (*dendrophyllia sp.*) were exhumed in the place

where the shipyards of Vila do Conde would have existed, in the fifteenth and sixteenth centuries. These finds arose during the construction of the quay for a sixteenth-century ship replica, in the area of the cofferdam, and were found at the Cais das Lavadeiras, Vila do Conde. This important commercial port of the fifteenth and sixteenth centuries, where naval construction was also carried out, held internal trade with Northern Europe (Antwerp) and the Mediterranean (personal information from Pedro Brochado de Almeida).



Fig. 3. White coral fragments, Vila do Conde. Photograph courtesy of the Archaeology Office — Vila do Conde Municipality.

According to Amélia Polónia “(...) we believe to be in possession of data that point to a notorious position of importance assumed by the Vila do Conde fleet within the naval power of the kingdom, as regards the capacity of maritime transport, in the second half of the sixteenth century” (Polónia, 1999, p. 367). We do not know where the white coral came from or what it was intended for, but it is plausible, based on the information presented above, that it was used for medicinal purposes, reduced to powder, or in the production of jewellery-beads used in earrings, necklaces, or bracelets.

FINAL CONSIDERATIONS

When we started our study on amulets, we were far from imagining the richness and diversity that this theme holds. Our first work was on *pedras de raio* [thunderstone] in which we could understand how Portuguese communities interpreted these prehistoric vestiges and the way they “integrated” them into their daily lives.

This second work, on corals, took us to a completely different world from the previous one. It is a world related to medicine, to the sea, to fishing, to goldsmithery/jewellery, to art, allowing us to access some phases of this know-how that comprises certain materialities; a specific knowledge about the transformation of these materials into objects; the adoption of a certain set of shapes; their consecration as protective objects (amulets) and, finally, their everyday use by children and adults.

We are thus in the presence of objects with a very explicit magical-religious-symbolic meaning but equally marked by the aesthetic quality of the objects produced from red (and white) coral. It is a theme that branches out, allowing the analysis of several sub-themes, which becomes very appealing.

In short, we know that red coral fishing existed in Portugal and that some objects were made from this material (caught here or imported from the Mediterranean) by goldsmiths/jewellers/craftsmen throughout the Modern and Contemporary Ages. There is evidence of the existence of coral sprigs used as pendants by children, as a form of protection, red coral beads used for rosaries, bracelets, necklaces, earrings, fabric pieces, among others. We have seen that many of these pieces were represented in art, namely painting, and that they have a profane character, like the coral *figas*, for example; religious, like the rosaries; and, simultaneously profane and religious, like the coral sprigs. We believe that the beads used on necklaces, bracelets and earrings could have had, at least in the early modern period, a double protective/adornment character. These objects not only accompany children and adults during their lives but also appear in burial contexts, accompanying them also in death.

We will continue our research on coral in Portugal, investing in more exhaustive bibliographic research; looking for more examples of the representation of these objects in paintings, sculptures, and pieces of goldsmithery; systematising the inventory of the items held in museums or appearing in archaeological contexts; seeking to understand in greater depth the fishing of red coral on the Algarve coast. These are some of the research paths that *corallium rubrum* points us out.

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