

# The sea in the temple?

## Shells, fish and corals from the sanctuary of the ancient town of Kythnos and other marine stories of cult

### Abstract\*

A broad variety of animal remains have been recorded from several cult contexts across Greece. They usually involve sacrificial victims and a variety of animals, and often corroborate ancient sources on the use of animals in ancient Greek cult. Although zooarchaeological or textual evidence regarding the presence of marine faunas in this type of contexts is not missing, their specific role within the sacrificial sphere is usually not extensively discussed. This paper aims to bring together available shell and other marine evidence from sanctuary deposits from ancient Greece with the aim of exploring the role of the sea within Greek cult. In order to bring forward research questions related to this group of remains from cult places, a case study from the adyton of the Archaic–Hellenistic temple of the Middle Plateau in the ancient town of Kythnos in the Cyclades will serve as the backbone of this approach. Careful study of shell and other marine remains in their specific context aims to detect possible ritual actions related to the marine world within an island sanctuary, and to find possible links between the latter and the identity of the worshippers and worshipped deity. What is underlined by this study is the everyday, individual and personal aspect of the cult beyond the official function of sanctuaries in the Greek world. The importance of careful recovery and study of all types of remains from excavations related to cult places is highlighted.

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### Introduction

Animals played an important role in ancient Greek cult.<sup>1</sup> Rituals performed at the altars of sanctuaries usually involved animal sacrifice. Other rituals were related to the deposition of food offerings, including animals or animal parts. Domestic and, in some cases, game animals were selected for the rituals following a more or less consistent pattern, as indicated by ancient textual sources and pictorial evidence.<sup>2</sup> The role of animals in ancient Greek cult practices is further highlighted by the zooarchaeological record. A broad variety of animal remains has now been recorded from cult contexts across Greece and the increasing number of studies of this type of evidence has underlined the discrepancy between formalized ancient textual information and the actual remains of ritual actions.<sup>3</sup> Although written sources often corroborate the available zooarchaeological data, there are several instances where bone material offers a different insight into everyday cult practices, allowing a more critical evaluation of thus-far preconceived interpretations of ancient Greek religion often based of ancient texts.

One such example involves marine animals. Indeed, in most animal lists, compiled on the basis of either textual or zooarchaeological evidence, the understated presence of the marine world in ancient Greek cult practices is striking. Although fish are sometimes mentioned in the texts, there is only sporadic evidence of other marine animals, especially marine invertebrates. With respect to the faunal record, shell

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<sup>1</sup> Detienne & Vernant 1979; Burkert 1985, 55–59; Grottanelli 1996; Ekroth 2002.

<sup>2</sup> Kadletz 1976; Jameson 1988; Hägg 1992; Sparkes 1995; van Straten 1995; Himmelmann 1997.

<sup>3</sup> For a first approach on the osteological material from cult contexts, see Hägg 1998, 49–56. More recent contributions in Kotjabopoulou *et al.* 2003. For updated bibliography, *ThesCRAI*, 64; Reese 2005, 121–123; MacKinnon 2007, 490–491; Ekroth 2007.



Fig. 1. Aerial photo of the ancient town, acropolis and harbour of Kythnos (archive of A. Mazarakis-Ainian). The sanctuary of the Middle Plateau is marked with a black arrow.

and fish remains from archaeological sites are usually analysed to shed light on ancient diet and environment, their use as raw materials or in purple dye production. On the other hand, their presence within well-defined cult contexts is not unusual either. However, they are usually only briefly recorded or evaluated as anecdotal events at the margins of traditional finds related to cult.

This paper presents the shell and fishbone assemblage from the sanctuary of the ancient town of Kythnos, bringing forward this relatively under-discussed group of remains from cult places. The possible role of this type of faunal remains will be assessed on the basis of zooarchaeological results from a specific context, combined with archaeological data and suggestions on the nature of the cult and worshipped deity. A more integrated picture of the role of these animals in Greek cult will be attempted in the light of possible textual references and relevant zooarchaeological evidence from other sanctuary deposits.

## Shells in the adyton

Although there is a growing body of information regarding the uses of animals within sanctuaries, little is known of what took place inside Greek temples. It is known that sacrifice was mostly enacted outside, on an open-air altar usually opposite the main, east façade of the temple, while the interior con-

tained objects dedicated to the deity, including a cult statue.<sup>4</sup> Even more obscure remains the function of the adyton, the inner room of a temple which would have served as a repository for sacred symbols, precious votives and funds, and possibly as a place for other activities related to the sanctuary.<sup>5</sup>

The case study of this paper focuses on a marine faunal assemblage recovered from such an inner room of one of the temples of the sanctuary situated at the north end of the Middle Plateau of the ancient town of Kythnos in the Cyclades (Fig. 1). This is one of numerous sanctuaries of the ancient capital of Kythnos known to researchers.<sup>6</sup> The temple consists of two rectangular *oikoi* (A–B and E), set side by side (Fig. 2a–b). On the basis of architectural evidence, it is suggested that the building, probably constructed in the first quarter of the 7th century BC, originally consisted of two cellas, one of which (E) went out of use after severe damage due to an earthquake, possibly in Early Hellenistic times. Only the southern *oikos* was preserved, and was divided dur-

<sup>4</sup> For a general discussion, see Hollinshead 1999, 189–218.

<sup>5</sup> The traditional association of this space with the performance of a cult ritual of chthonic nature, especially related to Demeter and Kore, and Artemis, has been refuted by modern scholarship, while other activities related to the organisation of the sanctuary have been suggested, namely storage and safekeeping (Hollinshead 1985, 420–430; 1999, 198–199; Ekroth 2003, 67–69), as well as the less common oracular function (Hollinshead 1999, 195–199 and 214). For a discussion on the function of this space in the sanctuary of Kythnos, see Mazarakis-Ainian 2005, 102–103; 2009, 308–309; 2010, 45–46.

<sup>6</sup> Mazarakis-Ainian 1998, 363–379; 2005, 87–103; 2009, 287–318; 2010, 21–53.

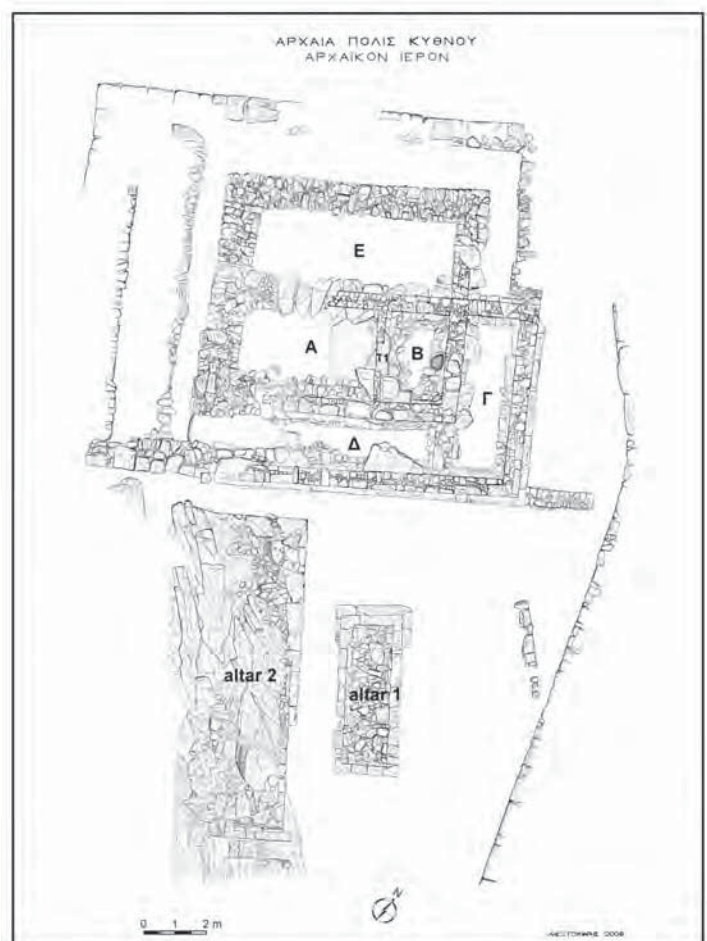
ing a late 3rd century BC repair into a cella (A, 5 × 2.90 m), and an adyton (B) of small dimensions (2 × 2.90 m), through the construction of a thin cross wall and a monolithic threshold.<sup>7</sup> Against the back wall of the adyton, on the axis of the temple, an oblong clay base might have supported a cult statue.

The excavation of the cella down to the original ground level produced few votive offerings.<sup>8</sup> Rather, the most numerous and spectacular finds came from the adyton.<sup>9</sup> More than 1,000 objects, including complete and some fragmentary vases imported from various regions (Paros, Chios, Ionia, Corinth, Attica), terracotta figurines, numerous iron and bronze objects, silver and gold jewels, scaraboids, seals, ivory and bone finds, and other small objects made from precious materials (amber, carnelian, rock crystal, other semi-precious stones, glass paste, faience, and coral), unburnt animal bones from young mammals (including 32 astragali), a few bird bones, and numerous seashells were unearthed *in situ*.<sup>10</sup> The discovery of iron nails alongside the walls of the adyton suggests that some of the finds were probably placed in an orderly fashion on wooden shelves, or fixed or hanging from the walls and ceiling, while others might have been placed inside baskets, pottery vessels (mostly *lekanai*) or wooden boxes.<sup>11</sup>



Fig. 2a (above right). The temple of the Middle Plateau. Photo: A. Mazarakis-Ainian.

Fig. 2b (right). Plan of the temple and altars. Drawing: A. Gounaris.



<sup>7</sup> Mazarakis-Ainian 2009, 311. A general presentation of the sanctuary in Mazarakis-Ainian & Mitsopoulou 2007, 301–317.

<sup>8</sup> The content of the cella cannot be securely evaluated, as it suffered from looting, Mazarakis-Ainian 2009, 310. It is possible that it had originally contained several votives, Mazarakis-Ainian 2005, 103.

<sup>9</sup> Mazarakis-Ainian 2005, 96–99; 2009, 291–292; 2010, 31–42.

<sup>10</sup> Noticeable, on the other hand, is the absence from the adyton of other types of offerings often found in temples, such as animal figurines, weapons, and stone votives (stelai and statues, with the exception of one torso); also coins are rare, see Mazarakis-Ainian 2009, 300. On comparison with votives from the sanctuary of Demeter at the acropolis, see Mazarakis-Ainian 2009, 306–307. Nevertheless, some of these categories of finds have been found in the destruction layer outside the temple, providing evidence for their use in the Middle Plateau sanctuary.

<sup>11</sup> Mazarakis-Ainian 2005, 102.

However, it appears that the objects had not been originally placed in the adyton, as they antedate its construction. Most of the finds date to the 7th and 6th centuries BC, while the majority of the terracotta figurines are datable to the Classical and early Hellenistic period.<sup>12</sup> According to the excavator, these are votives and other items that had gradually filled the original temple during its use from the early 7th century to early Hellenistic times (first phase: deposition). After the serious damage to the temple at the beginning of the Hellenistic period, intact and possibly some broken objects would have been carefully collected from the debris to be orderly placed in a *mis-en-scène*, in vessels, on shelves or hung inside the adyton constructed during the architectural repair dating from the late 3rd century BC (second phase: secondary deposition).

The conditions of this reorganization are not entirely clear. Although such operations are known in antiquity,<sup>13</sup> it is not clear whether the clean-up and rearrangement of the debris from the Kythnian temple concerned the whole deposit or a selection of items. It seems likely that mostly intact materials would have been collected, while the severely fragmented ones were not included.<sup>14</sup> The nature of the objects might have also been considered.<sup>15</sup> The content of the room, orderly arranged, would have been visible from the cella, although a protection may have blocked the view to the cham-

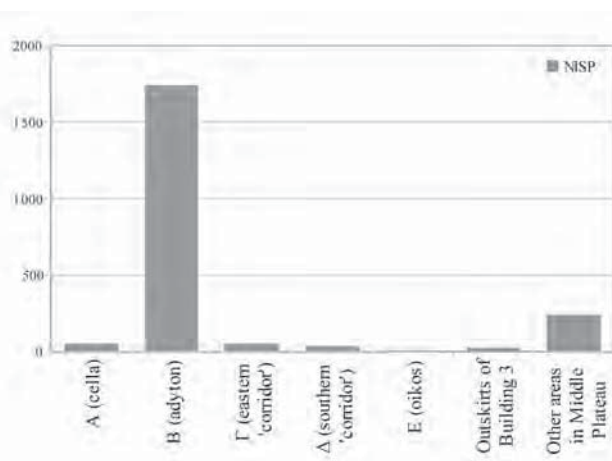


Fig. 3. Spatial distribution of shell remains in the sanctuary of the Middle Plateau.

ber.<sup>16</sup> In the light of the proposed *mis-en-scène*, the presence of an atypical category of finds, related to the marine world, is of special interest and needs to be discussed in detail, especially in relation to the meaning of the deposition of shells in a temple, and their placement into the adyton, as well as with regard to the suggested function of the latter.

Seashells from the adyton outnumber similar finds from any other part of the temple or its surroundings, as well as other excavated areas of the Middle Plateau (Fig. 3).<sup>17</sup> Zooarchaeological analysis may offer an insight into the deposition and uses of this material within the specific context. The shell composition from the adyton is particularly interesting.<sup>18</sup> Rough cockles (*Acanthocardia tuberculata*) make up

<sup>12</sup> Although some of the objects found in the adyton can be dated back to the Bronze Age (some carnelian and rock crystal beads) and the Protogeometric/Geometric periods (pins and fibulae), according to Mazarakis-Ainian (2005, 99; 2009, 305; 2010, 42) they might represent antiques or heirlooms (possible presence of a Cretan community on the island) or even fortuitous finds, and thus, their presence does not contradict the suggested date of construction of the temple or inauguration of the cult. On a detailed discussion on the chronology of the finds, see Mazarakis-Ainian 2005, 96–99; 2009, 287–318; 2010, 42.

<sup>13</sup> Mazarakis-Ainian 2005, 102. van Straten (1992, 254) also mentions that during clean-up operations or reorganizations of a sanctuary, it was not unusual to bury many of the older and smaller *ex votos* within the sacred precinct.

<sup>14</sup> On the presence of repaired items in the deposit, see Mazarakis-Ainian 2009, 308–309. He suggests that the repairs are not necessarily connected to the placement of these objects into the adyton after the destruction of the temple and proposes either a repair of goods damaged during their transport to Kythnos, or a repair of deposited offerings damaged due to long display and wear in the temple.

<sup>15</sup> According to Mazarakis-Ainian (2009, 307), the absence from inside the adyton of specific groups of finds, such as lamps, present around the temple or in other parts of the Middle Plateau sanctuary, as well as in the acropolis sanctuary of Demeter, may suggest a deliberate selection of votives of a private nature to be deposited in the inner room. On the other hand, utilitarian objects from the damaged temple that belonged to the property of the sanctuary would have been recovered and reused, Mazarakis-Ainian 2005, 102.

<sup>16</sup> Based on the axial positioning of the entrance, the absence of door fittings, as well as on the assumption of an orderly arrangement, Mazarakis-Ainian 2005, 103; 2009, 309–310; 2010, 45, also citing Paus. 2.10.30.

<sup>17</sup> Corals are another common marine material found in the temple, while fish bones are rather rare. The coral objects will not be extensively discussed here, as they are in most cases modified and are considered as part of the votives deposited in the sanctuary. Their analysis is in progress by the author. For an overview, see Mazarakis-Ainian 2009, 298, fig. 13; Theodoropoulou forthcoming b.

<sup>18</sup> Shell remains have been identified with the help of general manuals for the seashells of the Mediterranean and the Aegean Sea: D'Angelo & Garguillo 1978; Fischer, Bauchot & Schneider 1987; Dellamotte & Vardala-Theodorou 1994; Pope & Goto 1991; Koutsoubas, Koukouras & Voultziadou 1997. Identification was in most cases established to family, genus and species level. Scientific nomenclature follows the CLEMAM database (*Check List on European Marine Molluscs – Muséum National d'Histoire Naturelle de Paris*). Common English, Greek and known ancient Greek names have been based on Dance 1977; Dellamotte & Vardala-Theodorou 1994; Voultziadou & Vafidis 2007; www.sealifebase.org.

Table 1. Marine animal remains from the adyton.

Family	Species	Common name	NISP	%NISP
Cardiidae	<i>Acanthocardia tuberculata</i> (Linnaeus, 1758)	Rough cockle	1561	90%
	<i>Cerastoderma glaucum</i> (Poiret, 1789)	Cockle	86	5%
	<i>Acanthocardia</i> sp. (L., 1758)	Rough cockle	21	1,2%
	<i>Acanthocardia echinata</i> (L., 1758)	Spiny cockle	2	0,1%
Nassariidae	<i>Nassarius gibbosulus</i> (L., 1758)	Dog whelk/mud snail	24	1,4%
	<i>Nassarius</i> sp. (Iredale, 1916)	Dog whelk/mud snail	8	0,5%
Mytilidae	<i>Mytilus galloprovincialis</i> Lamarck, 1819	Mussel	6	0,3%
Patellidae	<i>Patella caerulea</i> L., 1758	Common limpet	4	0,2%
	<i>Patella ulyssiponensis</i> Gmelin, 1791	Rough limpet	1	0,1%
	<i>Patella rustica</i> L. 1758	Rustic limpet	1	0,1%
Carditidae	<i>Venericardia</i> sp. (L., 1758)	False cockle	3	0,2%
Glycymeridae	<i>Glycymeris</i> sp. da Costa, 1778	Dog cockle/bittersweet	3	0,2%
Columbellidae	<i>Columbella rustica</i> (L., 1758)	Dove shell	3	0,2%
Veneridae	<i>Venus verrucosa</i> L., 1758	Venus clam/carpet shell	2	0,1%
	<i>Dosinia lupinus</i> (L., 1758)	Smooth Artemis	1	0,1%
	<i>Chamelea gallina</i> (L., 1758)	Carpet shell	1	0,1%
Trochidae	<i>Phorcus mutabilis</i> (Philippi, 1846)	Top shell	1	0,1%
Mastridae	<i>Mactra glauca</i> (Born, 1778)	Trough shell/duck clam	1	0,1%
Cypraeidae	<i>Luria lurida</i> (L., 1758)	Cowrie	1	0,1%
Mesodesmatidae	<i>Donacilla cornea</i> (Poli, 1791)	Wedge clam	1	0,1%
Conidae	<i>Conus mediterraneus</i> Hwass/Bruguère, 1792	Cone shell	1	0,1%
Pectinidae	<i>Aequipecten opercularis</i> (L., 1758)	Queen scallop	1	0,1%
Labridae	<i>Labrus cf. merula</i> (L., 1758)	Brown wrasse	2	0,1%
			<b>1,735</b>	<b>100%</b>

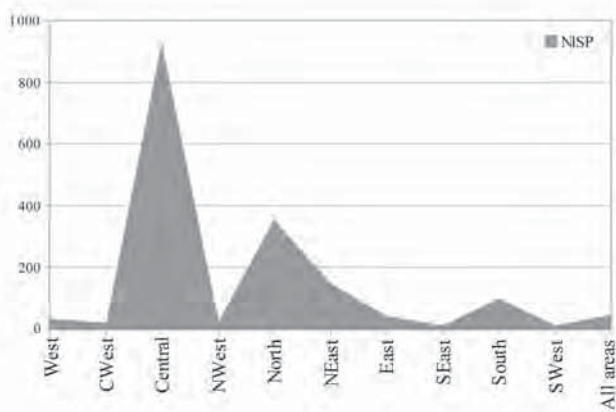


Fig. 4. Spatial distribution of shell remains in the adyton.

more than 96% of the material (Table 1 and Fig. 5a).<sup>19</sup> This is a common edible bivalve species, found in sandy or muddy bottoms of shallow waters. Species from another twelve families, both bivalves and gastropods, contribute with only one to six individuals, with the exception of Nassariids (nassa mud snails or dog whelks), represented by 32 individuals. Most of the species are edible (topshells, limpets, mussels, Venus clams or carpet shells, dog cockles or bittersweets, scallops, wedge clams, trough shells, smooth Artemis clams), although some are not considered edible today or are too small in size and quantities to be considered as food remains

<sup>19</sup> On the contrary, based on preliminary observations, other species, namely limpets, seem to be more common in other parts of the excavation, especially from the Hellenistic layers, see also Mazarakis-Ainian 2010, 41.

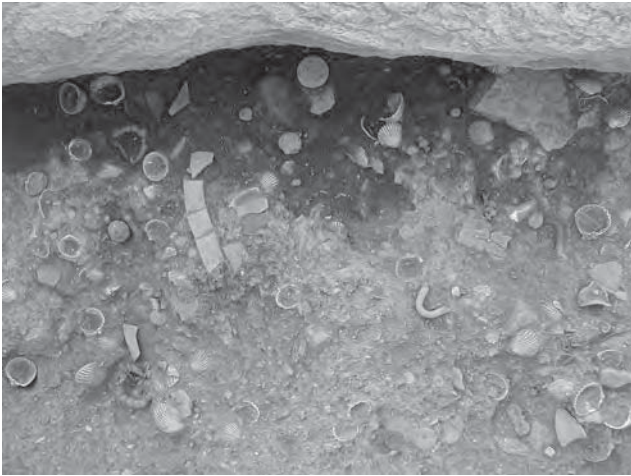


Fig. 5a and 5b. View of the shells in situ in the adyton and close-up. Photo: A. Mazarakis-Ainian.

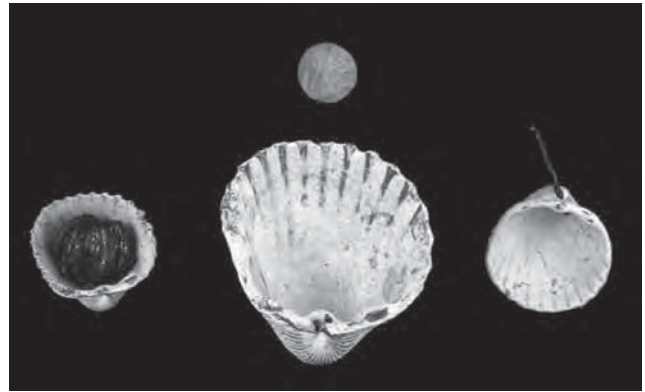


Fig. 6a (left) and 6b (above). Cockles with implements and metal wire in situ in the adyton and after cleaning. Photo: A. Mazarakis-Ainian.

(such as the dove shells, cone shells, cowries or dog whelks). Moreover, most of the Nassariid gastropods bear holes, thus indicating another use.<sup>20</sup> Among bivalves there is also a number of holed valves,<sup>21</sup> and three of the holed rough cockles still preserved the gold, silver or bronze wire from which they were suspended, while others, non-holed, were found filled with small beads (Fig. 6a–b). Finally, two pharyngeal teeth of brown wrasse (*Labrus merula*) found in the adyton are the

<sup>20</sup> There are eleven perforated basket shells (*Nassa gibbosulus*) and one cone shell (*Conus mediterraneus*). Holed Nassariids are particularly common in tomb contexts from this period. See, for example, the holed specimens from the Amathous tombs in Reese 1992b, 123 and pl. XXV; from the Lefkandi tombs in Popham & Lemos 1996, pl. 61; Theodoropoulou forthcoming a.

<sup>21</sup> 35 rough cockles (*Acanthocardia tuberculata*), one Venus clam (*Venus verrucosa*) and one bittersweet (*Glycymeris* sp.).

only fish bones recovered from the adyton. However, wrasse seems to be the only fish species that occurs in other parts of the sanctuary.

The spatial distribution of the marine fauna within the adyton may provide evidence for the use or arrangement of shells. Although seashells have been found all around the room, a certain spatial pattern may be observed, as the central and north/north-eastern areas yielded more significant quantities (Fig. 4 and Table 2).<sup>22</sup> This concentration might be related to a specific way of depositing some of the shells, either some of them deliberately thrown into the room from the western entrance to the adyton (T1), or others gathered

<sup>22</sup> Only few species (*Conus mediterraneus*, *Mytilus galloprovincialis*, *Donacilla cornea*) are restricted to either the eastern or southern parts of the adyton.

Table 2. Spatial distribution of marine animal remains within the adyton.

Family	West	C-west	Central	N-west	North	N-east	East	S-east	South	S-west	Not specified
Cockles	33	24	904	26	331	149	45	12	96	12	41
Dove shells				1	1						1
Cone shells									1		
Cowries			1								
Wedge clams							1				
Dog cockles			2		1						
Trough shells											1
Mussels				1	1	1			2		1
Dog whelks	2		12		15						3
Limpets			2		4						
Scallops			1								
Top shells			1								
Venus clams			2		1						1
Wrasse			2								
<b>Total/area</b>	<b>35</b>	<b>24</b>	<b>927</b>	<b>28</b>	<b>354</b>	<b>150</b>	<b>46</b>	<b>12</b>	<b>99</b>	<b>12</b>	<b>48</b>

in clay vases or other containers of perishable material, then placed in the central/north-eastern area of the room.<sup>23</sup> In fact, the latter may be assumed for some of the shells, those found in association with clay vessels (*Fig. 7a–b*).<sup>24</sup> On the other hand, it is not clear whether these shells had been deposited whole, with the animal still inside the shell, or if empty shells had been picked up (after consumption of the mollusc?) and put inside containers or thrown on the floor. Some clue to the first assumption is provided by the presence of paired valves in a number of samples.<sup>25</sup> As for cockles and other whole or perforated shells found in the periphery of the central area, close to the walls of the room, they could have also been part

of the *mis-en-scène* within the adyton, placed on shelves, attached to votive garments or hung from the walls or ceiling, or they may have been scattered all around during the final destruction of the temple.<sup>26</sup> Unfortunately, the spatial distribution of various shell species or holed and burnt specimens does not offer any further indication as to the possible concentration of particular types of shells in specific areas of the room. In this respect, it is not possible to suggest a more detailed arrangement regarding these finds.

Additionally, the complex architectural history of the temple makes it difficult to conclude on the original place, manner and time of deposition(s) of the marine fauna in the temple. As opposed to other types of archaeological finds, shells can only be dated from the context of recovery. Contextual data seem to confirm the deposition of shells in the temple along with the rest of the finds during the Archaic to early Hellenistic period of use,<sup>27</sup> although a primary deposition of some of the shells at the time of the rearrangement into the adyton cannot be conclusively excluded.<sup>28</sup> However, the question remains: what is the role of shells in a temple? Furthermore, if the shells from Kythnos were part of the re-

<sup>23</sup> Based on the observations made by the excavators (excavation reports), who note the scattered position of some shells close to the threshold of the adyton. They also noted high concentrations of shells in specific parts of the room. See also n. 24.

<sup>24</sup> Namely, 16 *Acanthocardia tuberculata* found inside a lekane from the destruction layer at the centre of the adyton, 83 *Acanthocardia tuberculata* in a large hydria close to the north wall of the adyton, and 21 *Acanthocardia tuberculata* recovered in association with (inside and scattered around) the body of a large vase close to the west wall of the adyton. Cf. Mazarakis-Ainian 2009, 292, fig. 5.

<sup>25</sup> The valve-pairing technique is based on the principle that the right and left valve of each bivalve only fit perfectly together if they belong to the same individual. In an archaeological assemblage it is possible to fit the two valves of the original one individual by separating all right and left valves from an identified species, then by successively comparing right valves with each left valve until perfect pairing of umbos is achieved (for details, see Koike 1979). A more detailed valve-pairing (cross-pairing of cockle valves from different areas of the space) is planned by the author.

<sup>26</sup> Mazarakis-Ainian 2005, 103.

<sup>27</sup> Mazarakis-Ainian 2009, 298–299. The adyton does not seem to have been used after the deposition of the deposit in question, Mazarakis-Ainian, personal communication. On the different shell composition in later periods, see n. 20.

<sup>28</sup> For such a scenario, see below, the section *Shells and other marine animals in Greek cult practices*.



Fig. 7a and 7b. Cockles found in association with clay vessels. Photo: A. Mazarakis-Aimian.

covered deposit from the old temple, their secondary transport into the inner chamber along with objects far more valuable is most significant. If we accept Hollinshead's view that "architectural modifications of temples to create inner chambers demonstrate a belated recognition of a particular need for security",<sup>29</sup> a point further underlined by a variety of valuable objects from the Kythnos deposit, the presence of these items, humble to the modern eye, needs to be evaluated in the light of ancient Greek religious customs.

## Shells and other marine animals in Greek cult practices

Life in sanctuaries is far from being completely unveiled to modern scholarship. The diverse expressions of faith by worshippers in Greek sanctuaries range from well-defined communal rituals to more improvised, individual gestures, summarized by van Straten in three basic means to sustain a good personal relationship with the gods, prayer, sacrifice, and votive offerings, normally closely connected.<sup>30</sup> Within this complex world of cult, the role of shells and other marine animals is far from being well documented.

Animals in ancient Greek religion are traditionally seen in relation to sacrifice. According to Theophrastos, people sacrificed to the gods to honour them, to thank them for something, or to gain their favourable disposition, to ask for something they needed or to avert some misfortune.<sup>31</sup> Modern scholarship has underlined the importance of blood sac-

rifice in Greek social and religious thought. There is a long list of sacrificial animals in Greek religion, but animals related to the sea are rarely mentioned.<sup>32</sup> Fish sacrifice occasionally appears in ancient sources,<sup>33</sup> performed for Poseidon, Ino and Palaimon and occasionally for other deities (Hekate, Artemis, Apollo, Priapos, Pan) or heroes.<sup>34</sup> On the contrary, no proper sacrifice is related to marine invertebrates.<sup>35</sup> One might suggest that bloodless animals (*anaima*) would contrast with the idea of blood sacrifice and would thus not be considered adequate to be sacrificed to the gods, although this might be seen as a later, theological-philosophical distinction

<sup>32</sup> Even if some animals appear as usual victims, such as cattle, sheep and goat, or pigs, there is no "official" repertoire of sacrificial animals; in fact, textual evidence suggests that the choice was larger, including equids, dogs or fish in certain cults, see *TheoCRA* I, 68.

<sup>33</sup> Burkert 1985, 55; Durand 1979b, 178–179.

<sup>34</sup> Lefèvre-Novaro 2010, 40–41, n. 18–24: such as the first tuna of the season sacrificed to Poseidon (Ath. 7.297e; see also Polyaeus *Strat.* 6.24) or the sacrifice of particularly large eels from Kopais to anonymous deities (Ath. 7.297d); to Ino-Palaimon (*Anth. Pal.* 6.223); to Hekate (Apollod. *FGrHist* 244 F 16); to Artemis (*Anth. Pal.* 6.105); to Apollo (Ath. 7.306a). There are several epigrams concerning fish sacrifices to the god Priapos in *Anth. Pal.* (6.89, 10.9, 10.14 and 10.16). On a dedicatory inscription with a relief from Parion showing a fish on an altar, associated to a dedication to Priapos by a guild of fishermen, see Frisch 1983, 10–14. On the unidentified fish *leukos* sacrificed to a goddess for abundant catches (Theoc. fr. 3 Gow), see Bodson 1978, 49, n. 20. On fish sacrifices to Poseidon, *TheoCRA* I, 87–88. See, also, the account of Rose 2000, 520–528, with regard to Aphrodite, Apollo, Artemis, Astarte, Athena, Berenike, Demeter, Hekate, Hera, Herakles, Hermes, Ino, Poseidon, Pan and the Nymphs, Priapos; cf. Bodson 1978, 49–51; Mylona 2008, 98. On fish sacrificed to heroes with other more usual offerings (first fruits, cattle, goat, pig, occasionally horse), see Rouse 1902, 10. On the later belief that "no fish is proper for sacrifice or dedication" (Plut. *Quaest. conv.* 729c), see Antonetti 2004, 171.

<sup>35</sup> With the exception of a slice of cuttlefish burned for the god Priapos (*Anth. Pal.* 10.16).

<sup>29</sup> Hollinshead 1999, 202.

<sup>30</sup> van Straten 1981, 65.

<sup>31</sup> Quoted by Porphy. *Abst.* 2.24.



in ancient Greek religion.<sup>36</sup> Alternatively, shells might represent food offerings accompanying the main sacrifice, which were also burned on the altar, before or after the sacrificial victim.<sup>37</sup> With regard to the Kythnian assemblage, there is no archaeozoological evidence of heavy burning, suggesting a contact with fire, which could support the idea of a deliberate burning of these animals, at least with their shell on. However, if this were the case of a singular ritual involving burning of marine unshelled molluscs, presumably accompanying other meats, it could be considered as a rather poor one as opposed to traditional sacrificial animals.<sup>38</sup> The subsequent discard of the shelled part of the animals inside the temple, and not in association with a hearth or altar, would also be a rather rare case.<sup>39</sup> However, the relative importance of a sacrifice of that kind within an island community, presumably actively involved in fishing and shell-collecting, cannot be weighted according to general standards known for Greek cult practices.<sup>40</sup>

However, as Ekroth observes, “the ritual world of the Greeks encompassed possibilities to abridge distinctions, by providing the gods with offerings, which seem to have been more adapted to the human participants’ tastes than to those of the immortal divinities.”<sup>41</sup> The everyday connection of the pious to the deities, on an individual rather than on a communal level, could be expressed in a variety of rituals that included animals and other foodstuffs, complementary to or independent of sacrifice, but less complicated and expensive and thus at times substituting for animal sacrifice, when the votaries were unable to make a greater offering.<sup>42</sup> Common actions that accompanied prayer, to please or thank the gods,

or ask something in return, were the pouring of libations, the burning of incense, or the placing of food before a cult image or on an altar. As Gill has pointed out, bloodless offerings or depositions of the most various kinds of food are a common and well-known feature of Greek religion, possibly following an ancestral tradition.<sup>43</sup> They differ from other food related to sacrifice, in that they could include a variety of foodstuffs people would themselves have had to eat, which were simply set in a place, where the god was present to receive them, and they were not burned or thrown away.<sup>44</sup>

These small, private offerings would be an everyday practice related to several deities or heroes. Burkert mentions an elementary form of gift offering to the gods, *aparchai*, the surrender of firstlings of food which the season brings (seasonal gifts, *boraiia*), whether achieved by hunting, fishing, gathering, or agriculture.<sup>45</sup> Such offerings could be set down on a sacred spot where they were left. Ancient sources occasionally mention the deposition of marine first fruits rendered by fishermen, such as fish, a crab, the carapace of a lobster, or a sea snail, to various deities.<sup>46</sup> What seems to be a common feature in all these cases is the private character and the rather improvised, informal or personalized nature of the dedica-

<sup>36</sup> On a discussion on the lower and chthonian nature of marine animals, making them improper for consumption (Eleusinian mysteries, Pythagorians), see Lefèvre-Novaro 2010, 42. On animals and their bodies, see Durand 1979a. On the nature of marine animals in Plato and the Pythagorians, see Bodson 1978, 46. On the abstinence from fish (no reference to shells or other marine animals) see Garnsey 1999, 89; Nadeau 2006, 59–74. An allusion to the remote habitats of fish, making them improper for sacrifice can be found in Vernant 1979, 243.

<sup>37</sup> Burkert 1985, 68. Bruit-Zaidman (2005, 32) based on Hesiod, argues that earlier expressions of sacrifice included both blood and bloodless sacrifice.

<sup>38</sup> van Straten (1981, 68) cites the case of the women in Herondas’ fourth *mimiambus* (Herond. 4.14–16) who ask Asklepios to accept their simple animal sacrifice, a cock, as a side dish, since they are by no means well-off. He notes that “the theme of the poor sacrificer who apologizes for the exiguity of his gift by referring to his reduced circumstances also occurs in the votive epigrams in the *Anthologia Palatina*”. For instance, see the poor fish sacrifice to Artemis (*ten penichren thysien*, *Anth. Pal.* 6.105).

<sup>39</sup> For an overview, see the section *Shells, fish, sanctuaries and zooarchaeological research*, below.

<sup>40</sup> On a similar assumption about other regions, see Mylona 2008, 98.

<sup>41</sup> Ekroth 2008, 87.

<sup>42</sup> Gill 1974, 119, 132; Antonaccio 2005, 99–100.

<sup>43</sup> Gill 1974, 117–119, with references to the first expressions of this practice. Pausanias (5.15.10) mentions the ancient tradition of bloodless sacrifices, *arxaion tina tropon*, see Etienne 1992, 307, also on Iron Age bloodless sacrifices. Burkert (1985, 67) describes bloodless offerings as a characteristic of a simple, primitive peasant world. Although bloodless offerings are usually strictly connected to inanimate foodstuffs, namely of vegetal origin, there seems to be a flexibility as to its use, encompassing a wide range of foods. As Jameson (1994, 37) notes, “bloodless offerings are usually related to the theory of primeval, pure offerings, free of the taint of blood, but the strict limiting of offerings to vegetarian foods was in practice associated with sectarian groups following a distinct ideology”.

<sup>44</sup> Gill 1974, 117–119. Burkert (1987, 44) introduces the idea of abandoning a desired object, preferably food.

<sup>45</sup> Burkert 1985, 66–67; Burkert 1987, 44–46. On the same type of offering, as well as on the conversion of fish catches to valuable offerings (*iithe, dekate*), see Simon 1986, 282. As Rouse (1902, 58) notes, “on the Acropolis of Athens we find the fisherman, the breeder, and the farmer, before the Persian invasion”. On the possible presence of *aparchai* in Attic inscriptions, see Rouse 1902, 53, n. 9–10. Bodson (1978, 48) points out that it was normal for maritime Greek people, many of them fishermen, to pray and vow offerings to the divinities for a more abundant catch.

<sup>46</sup> Rouse 1902, 51, n. 14–15 and 58, n. 12; Bodson 1978, 48, n. 16: on gurnards, parrot-wrasse and shad for Priapos (*Anth. Pal.* 10.9); on a fisherman who vows his first cast to the nymphs of Syra (according to Rouse, “*IGA* 7, if rightly restored”); on fish to Artemis (*Anth. Pal.* 6.105); on a crab to Pan (*Anth. Pal.* 6.196); on the unusual behaviour of a fisherman, who only dedicates the carapace of a lobster to Priapos, and eats the flesh himself (*Anth. Pal.* 6.89); on a twisted seasnail to the nymphs of the caves (*Anth. Pal.* 6.224). Rouse also cites as firstlings the first tuna offered to Poseidon mentioned by Athenaios (Ath. 7.297c; see also Polyaeus *Strat.* 6.24), but these should rather be considered as proper *thysia*, see, for instance, Lefèvre-Novaro 2010, 40, n. 18.

tions, although sometimes festivals were organized on the occasion of firstlings.<sup>47</sup>

A more well-defined expression of food offerings is called *trapezomata*, a term employed for gifts of raw meat placed on a table at the altar or in front of it, on the knees or hands of the cult statue or another statue of the divinity, or, less frequently, on the altar itself, while the sacrifice was taking place.<sup>48</sup> They could be left for some time before the statue, or they could be redistributed at the end of the ceremony, taken by the priests and religious functionaries, or, as criticized by Aristophanes, picked up by poor people.<sup>49</sup>

Another ritual was the *theo Xenia*, where the god was invited to a meal of human nature, after the actions at the altar had been concluded.<sup>50</sup> As opposed to the *trapezomata*, it was not necessary to have an animal sacrifice preceding the *theo Xenia* and the food offered was cooked in a human way.<sup>51</sup> The offerings were simple considering that it was a human edible meal, however, it was more easily available to the pious with moderate means than was animal sacrifice and at the same time, according to Jameson, it was more substantial and more dramatically effective than the donation of individual cakes, grains and fruits.<sup>52</sup> Literary evidence mentions various foodstuffs, of the kinds eaten by humans, such as various types of meat, cakes, bread, cheese, eggs, fruits and vegetables, and wine.<sup>53</sup> Marine foodstuffs are not explicitly listed, although they might be implied in the description of tables “full of all

sorts of meats.”<sup>54</sup> Seafood are sometimes mentioned in connection to either public cult festivals<sup>55</sup> or private rituals,<sup>56</sup> but not within the boundaries of a temple.

As a whole, marine animals were rarely sacrificed and occasionally deposited as food offerings in specific occasions and to certain deities or heroes. They usually represent modest individual offerings. As such could be considered the cockle assemblage as well as other edible specimens from the Kythnian adyton, presumably originally placed before the statue(s) of the deity(-ies) worshipped inside the Kythnian temple, as *aparchai* or *trapezomata*. It cannot be said how long they had remained there, even if we assume that, at least according to modern appreciation of odours, a long display of non-emptied seashells within a closed space would have resulted in a repugnant smell.<sup>57</sup> If they had been taken by the temple personnel, one wonders why they would bring the empty shells back to the temple. Burkert describes the late practice of dedicating money corresponding to the value of food gifts, still called firstlings, put into the *thesauros* (offering box).<sup>58</sup> It would be tempting to see a primitive, “food”

<sup>47</sup> For instance, on poor fish sacrifice to Artemis (*ten penichren thysien*, *Anth. Pal.* 6.105). Fishermen often sacrifice or dedicate to Priapos and Pan, gods of opportunities and simple people, according to Bodson 1978, 48. See also Porph. *Abst.* 4.22 referring to a law of Drakon, according to which “the gods should be worshipped privately according to the ability of each individual, in conjunction with auspicious words, the firstlings of fruits, and annual cakes”. See also, Jameson 1994, 38. On festivals, cf. Burkert 1985, 67.

<sup>48</sup> Gill 1974, 123–132; Jameson 1994, 56; *ThesCRA* II, 225; Ekroth 2008, 97. Pausanias (9.19.5) mentions offerings simply set on the ground. On the offering of votive bowls filled with all sorts of food except fish to the Delian deity Brizo, Bodson 1978, 49, n. 22; Semos, *FGrHist* 396 F 4 (5).

<sup>49</sup> Gill 1974, 132, also citing Ar. *Plut.* 594–597 and 676–681; Jameson 1994, 37.

<sup>50</sup> *Theoxenia* is mostly related to Apollo (Delphi, Andros, Kallatis) or the Dioskouroi (Athens, Sparta, Paros, Tenos, Keos, and elsewhere), less often to Dionysos, Herakles or other deities, *ThesCRA* II, 225. On the bloodless sacrifice to Apollo, see Lykidou 2007, 87 with references.

<sup>51</sup> Jameson 1994, 37; Bruit 1990, 172; *ThesCRA* II, 225–226; Ekroth 2008, 102. Veyne (2000, 4) suggests that *theo Xenia* were mostly performed by the richest individuals.

<sup>52</sup> Jameson 1994, 54–55.

<sup>53</sup> Bruit 1989, 20–21; Ekroth 2008, 98.

<sup>54</sup> For instance, Paus. 9.40.11–12 for an account of a table set beside the sceptre of Agamemnon at Chaironeia (Jameson 1994, 37); Bookidis *et al.* 1999, 44, n. 112. On the banquet offered in honour of Dioskouroi in the Prytaneion in the Agora of Athens, including serving of bread, fish and meat, see Jameson 1994, 47.

<sup>55</sup> For instance, Linders (1994, 77–79) mentions that no fish was served at the Poseideia on Delos, probably due to cultic rules, since it was served at the Eileithyiaia in the same month, during which the women celebrating had *tarichos*, salted fish. See also, Bookidis *et al.* 1999, 44 with references.

<sup>56</sup> A long and detailed inscription from Cos, late 4th to early 3rd century BC (*LS*, no. 177, lines 59–63), describes the ritual to be performed in honour of Herakles and the cult founder Diomedon’s own family, including a sacrifice (*thuein*) on the 16th of the month Petageutnyos and the offering of hospitality (*xenismos poiein*) to Herakles, and on the next day (the 17th) the offering of a fish fry (*apopyris*); see also Jameson 1994, 42. Similar offerings were offered every year to the hero Kylabras at Phaselis (Ath. 7.297e–f), possibly a *theo Xenia* ritual according to Ekroth (2002, 178), while three fish alongside pastries were offered to Epikteta on Thera (*LS*, no. 135, line 83), see Lefèvre-Novaro 2010, 41, n. 27–29; Mylona 2008, 135. A distinct category was the *deipna Hekates* (dinners of Hekate), the deity of the three roads (*triadoi*), which included the deposition at *triadoi* of red mullets (*triglai*) and picarels (*mainis*), see Jameson 1994, 38; *ThesCRA* II, 229–231; Ath. 7.325d). Also during the Amphidromia, a feast on the occasion of the birth of a child, among other foods it was a custom to eat cuttlefish, picarels, and octopus tentacles, see *ThesCRA* II, 234; Ath. 9.370d and 2.65c). On the absence of fish from the ritual meals (*kopidia*) of the Spartan Hyakinthia as opposed to their consumption as an extra course in the civic meals (*phiditia*) of the same festival, see Bruit 1990, 163.

<sup>57</sup> Food offerings deposited in sanctuaries usually were taken by the priests as a sort of payment, unless specified that they should remain to dry on the spot, *ThesCRA* II, 225. Gill (1974, 132) cites Pausanias (9.19.5), who describes of one case where the fruit offered in the shrine of Demeter at Mykalessos lay before the statue of the goddess for a whole year, but notes that the instance is an unusual one.

<sup>58</sup> Burkert 1985, 68.

phase of this practice in the shell assemblage from Kythnos. Another alternative, although less plausible, is that the use of these shells might be related to a ritual consumption of the *theoxenia* type. It could be hypothesized that the cockles from the adyton might represent food waste of a ritual meal that would have taken place inside or outside, and then empty shells would have been ritually gathered to be kept inside the temple.<sup>59</sup> The procedure that preceded the consumption of molluscs is not known, as cooking methods rarely leave any traces on the hard shell of the mollusc.<sup>60</sup> Molluscs, especially bivalves, can be eaten raw or cooked. If seashells had formed part of what was considered meat consumed in ritual occasions, cooking might have actually occurred, as most meat eaten at ritual meals seems to have been boiled, a cooking method eliminating distinctions in origin and status between the animals and transforming all their meat into sacred meat.<sup>61</sup>

In both scenarios regarding edible flesh of shells, deposited either as food offerings or as remains of a ritual meal, the conditions of consumption inside the temple and the connotations of their secondary transport into the adyton with the rest of the finds from the original temple are not easy to interpret.<sup>62</sup> Furthermore, it is equally possible that cockle shells are not related to food, but rather represent accumulated individual votives, such as the ones present in examples from Del-

phi or in the Delian Artemision.<sup>63</sup> A purely votive function might be easier to assume for the holed shell specimens from the adyton. Votive offerings form an integral part of the relation of the pious with the gods in ancient Greek religion. The perforated bivalve and gastropods could have been offerings or amulets, or they would have served ornamental purposes, decorating the walls, furniture or deposited/ritual garments originally deposited in the cella, then transferred to the adyton. Some of them are elaborately transformed into valuable objects, threaded with gold, silver or bronze wire. Others, simple unmodified shells, might have been part of what is defined by Kyrieleis as *naturalia*, modest offerings deposited to the deity as natural curiosities.<sup>64</sup> The unique or repeated event of deposition of the shells cannot be proved, but the rather diversified nature of the assemblage suggests that shells were possibly accumulated through time and at different occasions. The varied nature of the finds may suggest different status, sex and profession of the dedicators.<sup>65</sup> Yet, what seems to remain a constant theme is the connection to the sea since the dedications consist of shells.

It is not easy to elaborate further on any of these aspects, as archaeological evidence on the worshippers is usually lacking. However, a few comments proposed by the excavators with regard to the identity of the pious at the Kythnian sanctuary seem to confirm a certain tie to the sea. Beside the obvious suggestion that several Kythnian worshippers would have been local fishermen, the varied and often remote or antique nature of the non-shell adyton finds may suggest that the sanctuary was visited by seafarers and travellers, but also reveals the wealthy situation of some of the locals.<sup>66</sup> The numerous coral objects or unmodified corals from the same deposit may also be ascribed to the group of items with marine connotations. The question is: how do the identities of the worshippers fit with the shell deposits? More importantly, how do the high-quality, prestigious offerings go together with seemingly humble shells, and why did they choose to

<sup>59</sup> Tomlinson (1992, 337 and 346) suggests that in Geometric times ritual feasting were confined to the temple area and that after drinking and eating the participants left behind the used vessels for the god. He argues that not everything deposited in a sanctuary is an offering. In some cases, pits used for cooking close to where the dining took place were filled with the debris from dining, as well as with cooking ware and votive gifts, and the deposit was sealed after the ceremony was concluded, see Ekroth 2003, 83; Bergquist 1998, 41–47. However, the latter evidence is rather connected to kitchen and dining functions, activities concluding sacrifices. On the idea of “no carrying away” of the food at *theoxenia*, see Jameson 1994, 56.

<sup>60</sup> Raw consumption could be achieved by simply opening the valves of the cockles with a pointed tool. There are no distinctive or repetitive traces of such tool marks on the specimens from the Kythnian assemblage. Cooking, usually boiling or steaming, of these molluscs is also possible, but it is extremely difficult to distinguish such procedures on archaeological specimens, as cooking only takes a few minutes and there is no direct contact with fire, thus the shell is not altered. On the other hand, the presence of burnt shells in archaeological assemblages is usually associated with the post-consumption direct contact with fire of the discarded shells. Direct contact with fire would have rendered the flesh of molluscs inedible, Theodoropoulou 2007, 78–79.

<sup>61</sup> Boiling of the meat constitutes a link to the concept of equality, see Ekroth 2008, 99. For an overview of sacred vs. sacrificial meat, see Ekroth 2007, 249–272. On the notions of sacred and secular, see also Veyne 2000, 3–42.

<sup>62</sup> Association to altars, hearths, dumps or dining facilities related to a sanctuary would be more plausible, see also the discussion in Rose 2000, 535–536.

<sup>63</sup> Amandry 1984, 378–380. The example of the Delian Artemision is not well described, but according to Bevan (1986, 134) the presence of seashells along with other votives may suggest a similar use for these finds. See the section *Shells, sanctuaries and the zooarchaeological record*, below.

<sup>64</sup> Kyrieleis 1988, 219; see also Gebhard 1998, 108; on unmodified branches of coral from the Kythnian adyton, see Theodoropoulou forthcoming c.

<sup>65</sup> On the importance or not of these factors in the choice of the offering, see Antonaccio 2005, 100–101.

<sup>66</sup> Mazarakis-Ainian 2009, 303–305. With respect to the latter, Mazarakis-Ainian (2009, 305) notes the unique assemblage of metal objects and recalls the metal mines of the island. See also Mitsopoulou 2010, 43–90.

include them in the secondary deposition of objects from the original temple into the newly built adyton?<sup>67</sup>

Hollinshead, among others, notes that “temples and sanctuaries were filled with votive gifts ranging from modest terracotta figurines to inlaid chests, from garments to gold crowns”.<sup>68</sup> With regard to the Kythnian assemblage, only a small part of the material from the adyton must have been destined for the continuous performance of cult rituals in the sanctuary.<sup>69</sup> Most of the objects must have been votive offerings while open pottery vessels were possibly used for storage of necklaces and other jewels, and some of the pins and fibulae are probably associated with the cult statue or votive garments.<sup>70</sup> In this respect, the various holed shell objects, both the simple ones and those threaded with metal wire, may be viewed as votive gifts from the Archaic to Hellenistic period of use of the temple, dedicated by worshippers of various identities. Recognized as such, care would have been taken to pick them up from the debris after the destruction along with the rest of the votives, and to replace them in a sacred context, as everything that was dedicated to the deity would remain the deity’s property. Even if the dedication of shells did not persist to be recognized as typical cult practice by late 3rd century users, their association to the temple and the rest of the debris might have attributed them a sacred identity due to ancestry.<sup>71</sup>

On the other hand, if the dense concentrations of finds from inner rooms may be seen as accumulations of votive gifts, as suggested by modern literature,<sup>72</sup> the presence of food offerings or remains of ritual consumption (if this is what the numerous cockle valves from the adyton are), does not seem to fit with the rest of the finds, especially as a selection of objects seems to have taken place, as suggested.<sup>73</sup> The presence of other animal debris in the same space seems to support the idea of a food or sacrificial deposit of some kind. The nature of the bone finds would potentially help understand the presence of the edible shell assemblage from the adyton.<sup>74</sup> The gathering of such a deposit from the destroyed temple to be kept in the adyton might, as in the case of votive shell specimens, be driven by the recognition of their ritual role by later users of the sanctuary. If not, a rather bold hypothesis could be formulated as an alternative to the secondary

deposition with the rest of the finds, namely that, contrary to the rest of the finds originating from the first phase of use of the temple, the edible shells might represent a deposition of food, either sacrificial or ritual or depositional, which might have occurred at the time of the rearrangement into an adyton, subsequently not reused.

Summing up, the nature of the shell deposit from the adyton of Kythnos is a rather atypical and diverse one. Despite occasional references in ancient sources on the use of marine animals for ritual or votive purposes, there is no concrete evidence of a well-defined or repeated ritual expression encompassing seashells, fulfilling the Durkheimian sense of a ritual as functional to the integration of the group. On the other hand, the adyton assemblage as a whole is far from being a uniform one. Mazarakis-Ainian concludes that “although certain categories of offerings could be strongly associated to specific deities and cults, it would have been accepted to offer such offerings to gods with similar attributes, but in different quantities. Furthermore, it is possible that not all of the dedicators were completely familiarised with the dedicatory principles of every cult”.<sup>75</sup> As modern scholarship acknowledges, the choice of the offering was not determined by fixed rules, neither need it simply reflect the character of the deity or require votaries to mechanically reproduce formulas, especially on an individual level.<sup>76</sup> As stated by Porphyrios, mentioning a law of Drakon, “the gods and heroes should be worshipped publicly conformably to the laws of the country [...], but also, they should be worshipped privately according to the ability of each individual”.<sup>77</sup> In this respect, it can be argued that votives are more sensitive indicators of cultic categories.<sup>78</sup> An offering would fit into a coherent system of communication, formulated within the specificity of every cult place.<sup>79</sup> In the following, the nature of the cult in the Middle Plateau at Kythnos and possible links to specific deities and cults will be explored.

## The fisherman, the god and other marine stories in Greek religion

The discussion on the nature of the deposit goes hand in hand with the identity of the cult. There are no conclusive suggestions as to the identity of the divinity venerated in the sanc-

<sup>67</sup> Mazarakis-Ainian 2009, 306 and n. 94.

<sup>68</sup> Hollinshead 1999, 209; van Straten 1981, 78.

<sup>69</sup> Mazarakis-Ainian 2009, 291, especially a bronze phiale, possibly used for libations.

<sup>70</sup> Mazarakis-Ainian 2009, 291–292.

<sup>71</sup> On the multiplicity and changing categories of votives over time and space, active in constituting cult, see Antonaccio 2005, 100.

<sup>72</sup> Hollinshead 1999, 202.

<sup>73</sup> See nn. 14–16.

<sup>74</sup> Study in progress by Dr K. Trantalidou.

<sup>75</sup> Mazarakis-Ainian 2009, 311–312.

<sup>76</sup> de Polignac 2009, 33, 35.

<sup>77</sup> Porph. *Abst.* 4.22 ; Pirenne-Delforge 2009, 333.

<sup>78</sup> Antonaccio 2005, 100.

<sup>79</sup> de Polignac 2009, 36; Antonaccio 2005, 100. On the diversity of the zooarchaeological evidence related to sacrificial animals as offerings in various cities and rituals, see Leguilloux 1999, 423–424.

tuary of the Middle Plateau, for the few graffiti found on the site do not point to a clear identification.<sup>80</sup> On the basis of the nature of the votives from the site and literary evidence on the history of the island, a female divinity could be suggested, possibly Artemis or Aphrodite,<sup>81</sup> although other deities, such as Demeter, Athena or Hera are possible candidates.<sup>82</sup> The character of the goddess can be related to fertility and vegetation,<sup>83</sup> while a prophylactic-magical<sup>84</sup> and chthonian-oracular<sup>85</sup> power is also suggested by the finds. At the same time, a simultaneous worship of a male deity in the same sanctuary, possibly Apollo, is not excluded.<sup>86</sup>

The marine character of the studied assemblage invites a thorough investigation of the potential connection of Greek deities with the sea world. Among the Greek gods, besides Poseidon, two major female deities, Artemis and Aphrodite, are often linked to water or a marine environment. This seems to corroborate the rest of available data on the worshipped deity, presented above. Artemis, like Apollo, appears on the Kythnian coins of the Hellenistic period.<sup>87</sup> The goddess of wild nature is also connected to water. Her power encompassed areas where land and water met,<sup>88</sup> such as lakes (*Limnaia*), marshes (*Limnatis*), shores (*Paralia*) and harbours (*Limen-*

*itis*, *Limenoskopos*).<sup>89</sup> Although mostly associated with freshwater sources, she has a connection to the marine element through the marine powers attributed to her, as protector of the wild shores, bays and creeks, and the human activities undertaken there (such as marine voyages and ships, *Euporia*, *Neossoos*, *Ekbateria*).<sup>90</sup> She is traditionally considered as *Potnia theron*, a mistress of deer, lions and other animals, but she also protected aquatic birds, snakes, turtles, frogs and fish,<sup>91</sup> and the latter were not to be fished from waters sacred to the deity.<sup>92</sup> The deity is sometimes accompanied by fish motifs in representations, or even depicted as half-woman, half-fish.<sup>93</sup> Although Artemis received animal sacrifices, her cult in some sanctuaries, such as the one in Aulis, may have included rituals and bloodless offerings placed on *trapezai* (cult tables).<sup>94</sup> Menis, a net fisher, offers Artemis Limenitis a grilled red mullet (family *Mullidae*), a wrasse (family *Labridae*), a cup of wine and bread, asking in return that she grants full nets.<sup>95</sup> This dedication is particularly interesting in the light of pharyngeal teeth of brown wrasse found in the Kythnian adyton.<sup>96</sup> In the light of the aforementioned elements, fish and marine invertebrates, especially rough cockles found in shallow sandy or muddy coastal bottoms, might have represented food of-

<sup>80</sup> Mazarakis-Ainian 2005, 101, n. 84.

<sup>81</sup> The cult of Aphrodite is suggested by a 4th century BC inscribed base found near the ancient harbour; for more evidence regarding her worship on the island, see Mazarakis-Ainian 1998, 363 and 373.

<sup>82</sup> Mazarakis-Ainian 2005, 100–101. For instance, the female identity of the deity is based on a number of finds, such as pins and fibulae that possibly adorned a cult statue or votive garments, other pieces of jewellery, as well as perfume and oil vases (*hexaleiptra*, *kothones*), Mazarakis-Ainian 2009, 295–296. On a lost inscription from Kythnos mentioning “Artemis Hekate”, a Corinthian alabastron with a depiction of a *potnia* with swans, as well as a general discussion on the worship of female deities on the island, see Mazarakis-Ainian 2009, 300–302.

<sup>83</sup> Based on the frequent presence of the lotus flower, pomegranates and other fruit and flower motifs from necklaces and other jewellery, Mazarakis-Ainian 2009, 296.

<sup>84</sup> Based on the presence of various amulets, seals, semi-precious stones and scaraboids, some of which dated back to the Bronze Age, as well as corals. With regard to the latter finds, note the interesting association of a marine material with prophylactic powers (Plin. *HN* 32.24), providing, according to Mazarakis-Ainian 2009, 298–299, one more strand of evidence for the relation of the sanctuary with the sea.

<sup>85</sup> The 32 astragali may relate to *astragalomanteia* and, in general, to the cult of female deities, like Aphrodite, but also male ones, such as Apollo: Mazarakis-Ainian 2009, 299, n. 49 and 302, 53 with references. See also n. 84.

<sup>86</sup> His name is mentioned on a dinos and two statue bases, Mazarakis-Ainian 2009, 293, 301. Also, Apollo and Artemis are depicted on Hellenistic Kythnian coins, Mazarakis-Ainian 1998, 372. Judging from a votive relief, Asklepios was probably also worshipped on the island, possibly in connection to the hot springs located at the bay of Loutra, see Mazarakis-Ainian 1998, 378, n. 121.

<sup>87</sup> Mazarakis-Ainian 2005, 101.

<sup>88</sup> Morizot 1999, 271; for a general introduction, see Morizot 1994, 201–216.

<sup>89</sup> *LGRM*, 559–562; Bevan 1986, 131, n. 4; Morizot 1994, 205.

<sup>90</sup> Morizot 1994, 206.

<sup>91</sup> Burkert 1985, 149; Morizot 1994, 202; Fischer-Hansen & Poulsen 2009, 42. See also the discussion in Rose 2000, 522. On the fish being sacred to Artemis, as well as Roman representations of Artemis with fish, see *LGRM* I.1, 561. The chthonian theme of *Potnia theron* is also discussed by Stanzel 1991, 161, in his account of animal remains from the sanctuary of Apollo and Artemis in Kalapodi (Boiotia). The same role is, however, also attributed to other goddesses, such as Athena, in whose sanctuaries occasional fish dedications are recorded, see Bevan 1986, 134–136.

<sup>92</sup> Lefèvre-Novaro 2010, 41, n. 26 (Diod. 5.3.5–6), the same tradition related to Poseidon (Paus. 3.21.5) and Hermes (Paus. 7.22.4); while priests of the sanctuary of Demeter at Eleusis had special fishing rights in the sacred river Rheittois (Paus. 1.38.1); Bevan 1986, 132; Mylona 2008, 132. On sacred fish, see also Burkert 1983, 210. On a discussion on the role of Artemis as *Potnia ichthyon*, see Picard 1922, 60; Bodson 1978, 49; on sharing a cult with her brother Apollo Delphinios, and her association to the Cretan deities Diktyinna and Britomartis, as well as a Bronze Age tradition, see Boulotis 1989, 60 and n. 32; Laffineur 2001, 390–391. On the possibility of use of fish from “sacred waters” in dining, sacrifice, divination or other activities in sanctuaries, see Mylona 2008, 98.

<sup>93</sup> On fish votives related to Artemis, see Bevan 1986, 133, 135–136 and 400–401. On the passage from Pausanias (8.41.4) describing the *xoanon* of the goddess Eurynome with a fish-body in a difficult-to-access sanctuary near Phigaleia, cf. Morizot 1994, 207. Artemis is often identified in the minor deity Eurynome with the body of a woman and a fishtail, Lefèvre-Novaro 2010, 43.

<sup>94</sup> Gill 1991, 47. See also n. 32.

<sup>95</sup> *Anth. Pal.* 6.105. The red mullet was the sacred fish of the goddess, Bodson 1978, 52, n. 49 (Ath. 7.325a–d; Eust. *Il.* 20.73 (van der Walk, vol. 1, 138, lines 16–17); Antonetti 2004, 168.

<sup>96</sup> For *phykis* translated as wrasse, see Thompson 1947, 278.

ferings to a deity related to waters and shorelines, possibly as firstlings deposited by fishermen/collectors praying for abundant catches,<sup>97</sup> as the goddess was said to be helpful to fishers (Artemis Limnatis).<sup>98</sup> On the other hand, the absence of other objects from the adyton related to fishing activities, often deposited in other sanctuaries, is noticeable.<sup>99</sup>

At this point, it is worth recalling the understated marine nature of Apollo, usually co-worshipped with Artemis, and possible male deity in the Kythnian sanctuary. Miller stresses that, although Apollo was never considered a god of the sea, in the same sense that Poseidon was, he bears a few maritime titles and was hailed by seafarers, fishermen and colonials.<sup>100</sup> Thus, he was hailed by the Lokrians as “god of the islands” (*Nasiotas*) and as “god of the coasts” (*Aktios*) by inhabitants of Lefkada and the Ambracian Gulf, described as the “god of the broad sea” (*Euryalos*) by Hesychios, prayed to by the sailors when they set sail and consulted through his oracles regarding proposed sea voyages.<sup>101</sup> He was also described as the “fish-eater” protector god of Elis,<sup>102</sup> and, like Artemis and other gods he had a sacred species,<sup>103</sup> and owned sacred fish in Lycia, used for oracular purposes by his priests (*ichthyomanteia*).<sup>104</sup> In this respect, it would not be inappropriate to suggest a combined worship of the “marine nature” of the twin gods, Apollo-Artemis, within the same sanctuary.<sup>105</sup> The sea has always been considered as a particular habitat, unfamiliar and hostile to human life. At the same time, people in antiquity depended on the sea for their survival and communication. Apollo and Artemis, often described as the Lord and Mistress of wild nature, animals and hunting, may have played the role of mediators between the sea and the humans, ensuring safe journeys for mariners or abundant catches for fishermen.<sup>106</sup> Moreover, this marine hypostasis could be

wrapped up with a more chthonic dimension, suggested by the nature of the deities and the physical element.<sup>107</sup>

Let us turn to Aphrodite, as a possible receiver of the shell offerings from the Kythnian adyton, as the deity is believed to have had her place in the list of worshipped deities on Kythnos.<sup>108</sup> This deity is said to have emerged from the foam of the sea. Yet, Aphrodite’s power over the sea was more than a maritime association by birth, she was also approached for her abilities to calm and assuage troubled waters.<sup>109</sup> Thus, Aphrodite was given many maritime titles in antiquity, such as “goddess of the fair voyage” (*Euploia*), of harbours (*Limeneia*), of the sea itself (*Pontia*),<sup>110</sup> and was worshipped by merchants, ship-owners and seafarers, while fishermen, women and men who laboured on the sea would come to Aphrodite’s temple in some regions.<sup>111</sup> The deity also had a close connection to the marine animal world.<sup>112</sup> The goddess was said not to receive marine creatures as sacrifices, because they were sacred to her,<sup>113</sup> but in some places worshippers would eat fish on Friday, sacred day of the goddess, in an effort to

<sup>97</sup> On this type of offerings, see Burkert 1985, 66. On Artemis being the protector of hunters and fishers and the deity of fertility, see Miller 1939, 58; Bevan 1986, 131.

<sup>98</sup> Bevan 1986, 131 (Artem. 2.35), and associations with Diktyнна.

<sup>99</sup> For instance, Rouse 1902, 71. For examples from Ionian sanctuaries, see Simon 1986, 274–276; cf. Mylona 2008, 137–138.

<sup>100</sup> Miller 1939, 41; *LGRM* I.1, 430; on fish sacred to Apollo, see Thompson 1947, 114 (Ath. 7.306a).

<sup>101</sup> *LGRM* I.1, 440; Miller 1939, 41.

<sup>102</sup> Ath. 8.346b.

<sup>103</sup> *Kitharos Apollonos*, see Thompson 1947, 114; Bodson 1978, 52, n. 48 (Ath. 7.287a and 7.306a). On sacred fish in various regions, see Antonetti 2004, 168.

<sup>104</sup> Ael. *NA* 7.1, Plin. *HN* 32.17; Lefèvre-Novaro 2010, 44, n. 52–53. On fish owned by gods, Bevan 1986, 132. On the deposition of daily offerings to Apollo on Delos, see Jameson 1994, 38.

<sup>105</sup> Plutarch (*De soll. an.* 984a) links together as sea gods Apollon Delphinios and Artemis Diktyнна, cf. Bevan 1986, 141.

<sup>106</sup> Laffineur 2001, 391.

<sup>107</sup> In the Greek Anthology, Damis, a fisherman, offers Apollo a trumpet shell and asks for death without disease (*Anth. Pal.* 6.230). On the chthonian nature of the two gods, see Stanzel 1991, 161. On the chthonian nature of the sea, Lindenlauf 2004, 416–433.

<sup>108</sup> On a detailed discussion of textual and archaeological evidence (marble statue of Aphrodite Anadyomene and an inscribed base dedicated to her) relating Aphrodite to Kythnos, see Mazarakis-Ainian 2005, 100–101.

<sup>109</sup> *LGRM* I.1, 402; Pirenne-Delforge 1994, 433–437; Parker 2002, 151; Demetriou 2010, 67–89.

<sup>110</sup> For instance, at Hermione lay a temple of Aphrodite Pontia and Limenia (Paus. 2.34.11), where the goddess was possibly worshipped by the inhabitants of the coasts of this region, called *Halieis thalattourgoi* (fishermen who work on the sea), according to Pirenne-Delforge (1994, 186–187), who suggests a closer relation of Limenia to the coastal activities and production (also recalling the purple dyeing activities in the region), while Pontia would be more related to the maritime trade and travels. For an extensive account of the marine identity of the goddess, see Demetriou 2010, 67–89.

<sup>111</sup> *LGRM* I.1, 402; Giuffrida 1996; Parker 2002. On Roman representations of the marine Aphrodite in Gersht 2001, 63–71. On her worshippers, Demetriou 2010, 73, 76–78. For other textual references, see Rose 2000, 523. On the Bronze Age tradition of this connection, see Boulotis 1989, 60; Laffineur 2001, 391.

<sup>112</sup> Plut. *De soll. an.* 983e–f; Simoons 1994, 206–207 and 276; Pirenne-Delforge 1994, 417–418.

<sup>113</sup> Due to her birth in the sea, but also possibly from the myth of the birth of Astarte, in which the goddess was born from an egg carried to the banks of the river Euphrates by fish, Rose 2000, 522. See also Rose 2000, 527, on the connection of Priapos, son of Aphrodite, to fishermen and related offerings.

share in her fecundity.<sup>114</sup> Sacred fish of the goddess were the gilthead sea bream (*Sparus aurata*) and the pilot-fish *pompilos*.<sup>115</sup> Shells were also thought to be sacred to Aphrodite and were in some regions associated to her worship.<sup>116</sup> Especially, the scallop and the cockle were often depicted in her birth scene, as the deity emerged from one, while others were given her name.<sup>117</sup> Some shells were regarded as aphrodisiacs or were referred to as *lubrica conchyliia* (sexy shells) by later sources.<sup>118</sup> In fact, the half opened bivalve shells, such as the cockles of the assemblage, but also scallops, Venus clams, and the cowrie gastropods are believed to represent a woman's genitalia across many cultures.<sup>119</sup> According to Demetriou, Aphrodite's maritime function is not unrelated to her role as a goddess of sexuality, as also suggested by the custom of brides to sacrifice to marine Aphrodite.<sup>120</sup> Thus, offerings of

shells to this deity might be related to prayers for a safe journey in marriage, birth, or fecundity.<sup>121</sup>

This last comment evokes another divine couple of deities, Demeter and Kore, both present on the island of Kythnos.<sup>122</sup> The connection of the goddesses of agriculture and fertility to fish is occasionally attested by literary sources that mention the consumption of fish during festivals, possibly also during more family-oriented, private rites to Demeter and Kore.<sup>123</sup> The description of the Haloa festival provided by a scholiast to Lucian, where tables were filled with the fruits of land and sea provides another indirect evidence of the connection of these traditionally land-connected deities with the sea.<sup>124</sup> On a more symbolic level, the chthonian character of the deities might have been related to the remote, dark world of the sea.<sup>125</sup> However, another chthonian deity, Hekate, a deity said to be helpful to mariners, fishermen, and herdsmen, is more directly connected to the sea element, as she was related to abundant catches for fishermen, and fish are associated with rituals attributed to her.<sup>126</sup> A number of other deities, such as the Dioskouroi and minor nature deities including the Nereids, the Nymphs, and the Old Men of the Sea (Proteus and Glaukos), feature among the gods who represent the sea and its creatures, but there is no evidence thus far linking these deities with Kythnos.<sup>127</sup> However, a special mention needs to be made of the legend on the sacred escort fish (*pompilos*) especially honoured among the Samothracian

<sup>114</sup> Dunnigan 1987, 346; Simoons 1994, 271; Lefèvre-Novaro 2010, 41, n. 31. There is usually clear distinction between sacred and sacrificed animals (for instance, Lefèvre-Novaro 2010, 41, n. 26), but Burkert (1983, 205) with respect to fish notes that in Near Eastern cults (for example, Atargatis) fish were not eaten not because they were holy, but rather they were holy because they were eaten in a sacred sacrificial meal by the priests of the deity in the company of the goddess. On sacred fish not being eaten in Greek mythology and ancient sources, see Bodson 1978, 51; Burkert 1983, 209–210. The presence of pharyngeal teeth of brown wrasse (*Labrus merula*), the only fish bones present in the sanctuary, is of note.

<sup>115</sup> Thompson 1947, 208–209 (Ath. 7.328a); Bodson 1978, 52, n. 50 (Archip. fr. 18 Kock; Callim. *Carmina epica* 378 Pfeiffer; Eratosth. fr. 12.3 Powell); on *pompilos*, *zoon erotikon* born at the same time with Aphrodite from the blood of Ouranos, accompanying boats to safe harbours, Pirenne-Delforge 1994, 418 (Ath. 7.282f). Several species are attributed to this animal, such as *Naucrates ductor*, but the name was also given to a shoal of tunny (Thompson 1947, 208).

<sup>116</sup> For instance at Knidos.

<sup>117</sup> Karouzou 1971, 122–124; Cottrell 1980, 130; *LIMC* II.1 1984, 103–104 and 116–117, s.v. Aphrodite: “Aphrodite in der geöffneten Muschel” 1011–1017, “Geburt aus der Muschel” 1183–1185, “Aphrodite auf einer Muschel übers Meer fahrend” 1186–1187 (A. Delivorias). There is only one Roman literary source associating shells with Aphrodite's birth (Plaut. *Rud.* 704; Flory 1988, 500, n. 12), but according to Simon (1959, 42, pl. 27), the seashell carrying the newborn Aphrodite is known as an artistic motif from the 4th century BC onwards. Also, note the name *ostrakis* given to a statuette of Aphrodite, according to Hesychios, s.v. *ostrakis*. On the *ous Aphrodites* (Aphrodite's ear), the *Haliotis* shell, Ath. 3.88f and Hesychios, s.v. *ous Aphrodites*.

<sup>118</sup> Dalby 1993, 300 (Hor. *Sat.* 2.4.30); Voultziadou 2010, 240.

<sup>119</sup> According to Baring & Cashford (1993, 356) the word *kteis*, means both seashell and female genitals.

<sup>120</sup> Demetriou 2010, 70 and 81.

<sup>121</sup> In the prayer dedicated by Selenia in Aphrodite's temple in Arsinoe (Ath. 7.318b; Callim. *Epigr.* 5, ed. Pfeiffer = *Epigr.* 14, ed. Gow-Page), the bride symbolizes her safe journey in marriage with a nautilus shell, Gutzwiller 1992, 198–209; Demetriou 2010, 74 and 82, n. 87. Money and other valuable offerings, related to rich trade and commercial profits, or votive anchors were dedicated to Aphrodite by seafarers. Simon (1986, 283) relates the dedication of scallops to fertility. On a similar assumption regarding shells found at Zeytin Tepe, see Peters & von den Driesch 1992, 123.

<sup>122</sup> Mitsopoulou 2010, 43–90.

<sup>123</sup> Fish were eaten at the Thesmophoria (Ath. 3.104e–f); Simoons 1994, 276, n. 161; Bookidis *et al.* 1999, 44. On private rites including the consumption of pigs, piglets and fish, Gebhard & Reese 2005, 140–141.

<sup>124</sup> Bookidis *et al.* 1999, 44, n. 112; schol. ad Lucian *Dial. meret.* 7.4 (Rabe p. 280.20–22).

<sup>125</sup> On a Minoan gem engraved with a fish found at the sanctuary of Demeter at Knossos, possibly dedicated to chthonian Demeter or Kore, see Bevan 1986, 137.

<sup>126</sup> Thompson 1947, 257–268; Bevan 1986, 131; Larson 2007a, 165; Lefèvre-Novaro 2010, 40, n. 21 (Hes. *Theog.* 440–443). Her sacred fish was the red mullet, like Artemis, often dedicated at the dinners of Hekate, see Bodson 1978, 52; *ThesCRA* II, 229–231.

<sup>127</sup> Larson 2007b, 68–69. On several examples from the Near East, see Burkert 1983, 104–112.

gods, who also had a place among cults performed on the island of Kythnos.<sup>128</sup>

Waiting for more evidence from the Kythnian sanctuary to reveal its divine hosts, and in the absence of more concrete textual or iconographic evidence on the connection of one or another deity with marine animals and related rituals, any suggestions on the divine recipient of the shells from the adyton are difficult to prove. Some insight might be provided from direct comparison with relevant faunal evidence from similar contexts. In the following paragraphs, available comparanda from the Greek world will be encoded in an attempt to find possible recurrent behaviours with regard to shells among ancient Greek sanctuaries.

## Shells, fish, sanctuaries and zooarchaeological research

Zooarchaeological studies from sanctuary sites have increased over the last years.<sup>129</sup> They usually focus on sacrificial deposits and the “usual” sacrificial animals, accrediting rituals described by ancient texts. Within this increasing “sea of evidence” shells and fish bones do not usually feature among frequent or abundant types of zooarchaeological finds, especially when compared to similar deposits from non-cult sites.<sup>130</sup> Thus, investigating available data on marine faunal remains from sanctuary sites becomes particularly valuable in the light of the shell assemblage from Kythnos.

Further considering the possible venerated deities on Kythnos, some of the studied cultic contexts from the Aegean that included shells are indeed related to Apollo and Artemis. Little is known of shell remains from one of the more prestigious sanctuaries related to the cult of Apollo and Artemis in the Cyclades, on Delos. Old reports on the excavations of the Delian Artemision mention the presence of shells (without any further identification), found together

with pieces of gold, ivory, bronze, and animal bones, and interpreted as votive offerings.<sup>131</sup> A small shell assemblage is related to the cult of Artemis and Apollo at Kalapodi (Boiotia). Almost 100 individuals from 13 marine taxa were found in all strata, yet only few belong to the Geometric-Archaic levels, among which are several individuals of the *Cardiidae* family.<sup>132</sup> Some shells had been modified and Stanzel suggested that these had been dedicated by worshippers.<sup>133</sup> Only two fish bones of freshwater species were retrieved from post-Mycenaean levels, associated with either sacrifice or ritual dining.<sup>134</sup> The Artemision of Ephesos yielded similar numbers of shells.<sup>135</sup> Far more significant is the presence of shells in the Geometric pits of the sanctuary of Apollo Daphnephoros at Eretria as well as in the “Aire sacrificielle nord” related to Artemis, where more than 900 and 520 shell remains have been identified respectively, mainly belonging to purple shells (*Hexaplex trunculus*, *Murex brandaris*) and pen shells (*Pinna nobilis*), as well as more than 20 more taxa.<sup>136</sup> Another sanctuary of Apollo, that of Apollo Hylates at Kourion (Cyprus) produced a significant assemblage of marine shells, yet only a small number was retrieved from the late Archaic/Classical temple.<sup>137</sup> The *lakkos* deposit located in the pronaos of the Archaic–Classical temple of Apollo at Soros in Thessaly produced an assemblage of 2,338 shell remains, most of which were crushed purple shells.<sup>138</sup> One clam (*Donax trunculus*) was retrieved from one of the Artemis altars at

<sup>128</sup> Ath. 7.283a. In association to the Samothracian Gods and the allusion in Homer, Bodson 1978, 52–53; Antonetti 2004, 169. On the cult of the Samothracian gods and an inscribed stele on Kythnos, see Mazarakis-Ainian 2005, 100.

<sup>129</sup> See n. 3.

<sup>130</sup> For instance, Nobis 1994, 303; Boessneck 1985, 138–139; Reese 1998, 278–280; Peters 1993, 88–91; Peters & von den Driesch 1992, 117–125; Zimmermann 1993, 70; Nobis 1999. However, shells feature among finds from pre-Iron Age Aegean cult places and are believed to have fulfilled a symbolic role in such contexts. For a general overview of the significance of the marine world in earlier cults, see Glotz 1923, 280; Laffineur 1991; Vandenaebale 1992. For a unique shell assemblage, including *Acanthocardia* sp. and *Veneridae* shells, from the temple repository of Knossos, see Evans 1921, 42, fig. 21. On real shells and clay-moulded shells and their religious significance in Minoan sanctuaries, see Walberg 1987, 174.

<sup>131</sup> Beneath the east wall of the Archaic Artemision, see Gallet de Santerre & Tréheux 1947–48, 149, citing the excavations of R. Vallois (1944, 13). Bevan (1986, 134) also suggests that these seashells might be interpreted as votives as the rest of the finds.

<sup>132</sup> Seven *Cerithium vulgatum*, one *Monodonta turbinata*, two *Hexaplex trunculus*, one *Patella vulgata*, one *Cypraea pyrum*, six *Cerastoderma glaucum*, six *Acanthocardia tuberculata*, four *Cardium* sp., one *Spondylus gaederopus*, see Stanzel 1991, 144–152.

<sup>133</sup> Stanzel 1991, 144.

<sup>134</sup> Stanzel 1991, 144 and 174–175.

<sup>135</sup> 19 *Ostrea edulis*, 16 *Spondylus gaederopus*, eleven *Arca noae*, five *Cerastoderma edule*, two *Venus* sp., two *Cypraea pyrum*, one *Turritella communis*, one *Murex trunculus*, Wolff 1978, 109. Compare with the sacrificed animals from the sanctuary, see Forstenpointner, Krachler & Schildorfer 1999. On earlier references, see Picard 1922, 60, n. 2.

<sup>136</sup> Study in progress by the author of this article; Theodoropoulou 2013. However, only a handful of them were burned, but none calcined. Preliminary counts in Studer & Chenal-Velarde 2003, 176, Table 1. Of notice is the presence of several holed Nassariids in the North Sacrificial Area.

<sup>137</sup> *Charonia* sp., *Tonna galea*, Reese 1987, 72–79. Remains of sacrificed animals are more abundant, see Davis 1996.

<sup>138</sup> In NISP/MNI (when different) numbers: 1,815/415 *Hexaplex trunculus*, 104 *Trochidae*, 100/54 *Donacilla cornea*, 66/27 *Cerithium vulgatum*, 54/47 *Chama gryphoides*, 45 *Columbella rustica*, 36/3 *Pinna nobilis*, 35/25 *Patellidae*, 25/15 *Veneridae*, 14/5 *Arcidae*, 4/4 *Vermetus* sp., 1 crab, 1 coral, as well as 35 heavily water-worn shells. Theodoropoulou under study.



Olympia.<sup>139</sup> On the other hand, no shell remains are reported to have been found in other sanctuaries dedicated to Artemis or Apollo, while occasional fish finds from similar sites have been reported.<sup>140</sup>

The presence of shells is sometimes related to Aphrodite, as seen above. D.S. Reese mentions the presence of shells and fish bones from the altar of Aphrodite Ourania on the north side of the Athenian Agora, both unburnt from the fill and burnt which can be related to the burning on the altar.<sup>141</sup> The Proto-geometric levels of the sanctuary of Hermes and Aphrodite at Syme Viannou (Crete) also produced 61 shells and six fish bones.<sup>142</sup> The shells associated to the sacrificial deposits were either holed dove and cone shells or water-worn specimens.<sup>143</sup> The Cypro-Geometric levels of the sacred area (temple and *temenos* in Area II and associated *bothroi*) at Kition (Cyprus) also yielded examples of cone shells (*Conus mediterraneus*) and other shells, most of them holed or collected dead, as well as sea urchins.<sup>144</sup> The *bothroi* filled with debris of ritual or other activities associated with the Iron Age temples from the same site also produced 23 unburnt fish bones, among which a shark or ray vertebra and possible *Epinephelus* sp. and *Thunnus* sp. vertebrae.<sup>145</sup> Several shells have also been recovered from another Archaic/Hellenistic temple dedicated to Astarte-Aphrodite at Tamassos in central Cyprus, namely 73 *Donax* valves, as well as a few fossil species.<sup>146</sup> In Cyprus again, a number of mollusc remains has been recovered from the sanctuary of Aphrodite

in Amathous.<sup>147</sup> Numerous shell and fish remains have been found in the residential layers of Archaic Miletos (Kalabak Tepe) and seem to have constituted a common foodstuff,<sup>148</sup> and their presence is also attested in the city's sanctuary of Aphrodite at Zeytin Tepe.<sup>149</sup>

Marine invertebrates are reported to have been found in several sanctuaries dedicated to Demeter and Kore. In the sanctuary of the Heroes and Demeter in ancient Messene, a small number of fish and molluscs was recovered, yet Nobis notes that the latter had probably been collected on the Ionian seashore as souvenirs and had not been consumed.<sup>150</sup> The late Classical/Hellenistic sanctuary of Demeter and Kore on the Acropolis site of Mytilene (Lesbos) produced a wide variety of marine faunas from all strata, including 23 mollusc species and eight fish species, some of which might be related to ritual activities.<sup>151</sup> Most of the remains may be associated with ritual meals, but Dr D. Ruscillo reports the presence of burnt scallops and oysters, which might have been part of the sacrificial remains (including birds, young pigs and sheep/goats) from the altars.<sup>152</sup> In another well-known Demeter sanctuary, that in Eleusis, shells mixed with broken vases, ashes, charcoal and calcined bones have also been recovered

<sup>139</sup> Benecke 2006, 154; cf. Gropengiesser 1988.

<sup>140</sup> For example, the sanctuary of Artemis at Lousoi, Hofer 1997; the sanctuary of Artemis Limnatis at Kombotherka, Sinn 1981; the sanctuary of Apollo on Aigina, Margreiter 1988; the sanctuary of Apollo at Didyma, Boessneck & von den Driesch 1983. For an overview and bibliography of temples of Apollo and Artemis with adyta, where no shell finds have been recorded, see Lykidou 2007, 44–57 and 77–84. On unpublished fish bones (two) from the sanctuary of Apollo at Halieis, see Rose 2000, 530.

<sup>141</sup> Reese 1989, 68–70. They include three fish bones (including a small sparid vertebra), a few cockles (*Cerastoderma glaucum/edule*), one murex fragment (*Murex* sp.), one water-worn dog cockle (*Glycymeris* sp.), one charred basket shell (*Arcularia gibbosulus*), one cowrie (*Cypraea annulus*) with an open dorsum, and one fossil oyster fragment.

<sup>142</sup> Lebesi & Reese 1986, 185–188.

<sup>143</sup> 31 *Columbella rustica* (21 holed) and 19 *Conus mediterraneus* (twelve holed), water-worn: two *Bittium* sp., one *Glycymeris* sp., one *Murex trunculus*, one *Cerithium vulgatum*, one *Spondylus gaederopus*, one *Mitra* sp., Lebesi & Reese 1986, 185–188.

<sup>144</sup> *Arcularia gibbosulus*, *Murex brandaris*, *Luria lurida*, *Cerastoderma glaucum*, *Glycymeris* sp., *Cerithium vulgatum*, *Charonia* sp., *Monodonta* sp., *Tellina tenuis*, *Patella* sp., *Tapes decussates*; Reese 1985, 343.

<sup>145</sup> Rose 2000, 531, citing personal communication with D.S. Reese.

<sup>146</sup> Nobis 1976–1977, 296.

<sup>147</sup> Four *Nassarius gibbosulus*, one *Ostreidae*, one *Conus ventricosus*, one *Donax trunculus*, one *Glycymeris glycymeris*, one bivalve, Vigne 2006, 139–140. Compare with the numerous shells found in the tombs of the necropolis, see Reese 1992b, 123–144.

<sup>148</sup> More than 4,000 shell remains: Peters 1993, 94; Peters & von den Driesch 1992; Zimmermann 1993, 56.

<sup>149</sup> Namely 121 *Cerastoderma glaucum*, 71 *Murex brandaris*, 59 *Venus verrucosa*, 27 *Hexaplex trunculus*, twelve *Ostrea edulis*, six *Euthria cornea*, six *Spondylus gaederopsis*, five *Cerithium vulgatum*, four *Acanthocardia* sp., four *Arca noae*, three *Monodonta* sp., three *Pecten jacobus*, two *Arcularia gibbosulus*, two *Conus mediterraneus*, two *Mytilus galloprovincialis*, and single specimens from *Patella* sp., *Gibbula* sp., *Cypraea* sp., *Phalium granulatum*, *Tonna galea*, *Glycymeris* sp., *Venerupis aurea*, *Chamelea gallina*, and *Chlamys varia*, one unidentified shark and two sea breams, see Peters 1993, 94; Peters & von den Driesch 1992, 123–124; Zimmermann 1993, 56. Note the important numbers of *Cardiidae*, similar to the Kythnian deposit. According to Peters & von den Driesch (1992, 123), the shells from Zeytin Tepe may represent fertility symbols offered to Aphrodite. The maritime nature of the goddess and maritime character of the sanctuary, further supported by the presence of oriental votives, have been discussed by Senff 2003, 11–25.

<sup>150</sup> *Galeorhinus galues*, *Katsuwonus pelamis*, eight *Glycymeris insubricus*, one *Pecten maximus*, one *Tonna galea*, two *Macra stultorum*, one *Pecten jacobus*, one *Dentalium vulgare*; Nobis 1997, 108–109. Compare with fish and water-worn shells found in other contexts from the Asklepieion and Sebasteion at ancient Messene, Nobis 1994, 303.

<sup>151</sup> Ruscillo 1993, 202–205.

<sup>152</sup> Dr D. Ruscillo (personal communication) believes that many of the shell remains may be intrusive in the Hellenistic layers related to feasting, and are derived from the overlying Roman fill, which covered the destroyed sanctuary. Burnt shells from the altars (scallop, oyster) would be the only safe *in situ* finds related to ritual activities. She also notes the strong indication of Aphrodite worship at the sanctuary.

from the sacrificial pyres of the heroic cult identified between the grave tumulus and the building within the Sacred House precinct.<sup>153</sup> Among a few marine remains reported in the dining deposit from the sanctuary in Corinth, most of the shells are eroded and possibly represent offerings, while a number of small cockles and sea urchins, as well as 49 fish (mostly *Sparidae*) recovered from the dining deposit are the remains of ritual dining.<sup>154</sup> Fish bones have also been found occasionally in the sanctuaries of Demeter and Kore in Cyrene (Libya)<sup>155</sup> and Knossos (Crete),<sup>156</sup> and although no shells are present, in Cyrene several Archaic bronze pendants have the form of stylized shells, namely cockles and scallops, while three shark or ray vertebral centra have been interpreted as gaming pieces, amulets or beads.<sup>157</sup>

Marine faunal remains have been recovered from other cult deposits all around Greece, dedicated to various deities. One of the more significant fish and shell assemblages came from the hearth and altars of the Geometric/late Archaic temples at Kommos (Crete), possibly dedicated to Artemis, Hermes and Poseidon, or Pan.<sup>158</sup> This assemblage included 10,300 *Patella* sp., accompanied by other species in smaller quantities, as well as a few water-worn/fossil specimens, as well as a variety of fish (3,414 fish remains), such as grouper (*Serranidae*), various sea breams (*Sparidae*), wrasse (*Labridae*), bass (*Dicentrarchus* sp.), eel (*Anguilla anguilla*), red mullet (*Mullus* sp.), other bony fish (brown moray, conger eel, garfish, catfish, shore rockling, meagre and corb, picarel, parrotfish, mullet, and sole) and a shark or ray.<sup>159</sup> Some of the shells (cockles, murex) and fish remains might represent in-

dividual burnt offerings or remains of ritual dining.<sup>160</sup> A few invertebrates have been collected from the kitchen deposit associated to the *hestiatorion* of the sanctuary of Poseidon and Amphitrite on Tenos,<sup>161</sup> and the sanctuary of Poseidon and Melikertes-Palaimon at Isthmia; the latter included one holed cowrie from the Red Sea, one natural white coral and eight burnt shell fragments, all found in the deposits of the temple treasury with jewellery and silver coins.<sup>162</sup> More important quantities of marine animals have been recovered from the sanctuary of Poseidon at Kalaureia (Poros), including the deposition in a cistern of 2,355 purple shells along with other unusual animals (donkey, cattle, pigs, sheep, goats, dogs, fish, birds, birds' eggs, snakes, frogs and small mammals), possibly related to magic and divination.<sup>163</sup> Reese mentions the presence of four shell species found at the Harbour Sanctuary (690–600 BC) and the temple of Athena at Emporio on Chios.<sup>164</sup> The sanctuaries of Hera Akraia and Limenia at Perachora and the Heraion on Samos offer special cases of cult related to the marine world: only a few natural shells (some imported from the Red Sea) and shark/ray remains have been found in the deposits,<sup>165</sup> but several votive deposits indicate a connection to the sea (a bronze fish spear, two fishhooks, and an Archaic clay boat, 22 Archaic votive wooden ships, a stone base for a large ship, and an Archaic bronze plaque recording the dedication of captured ships to Hera and Poseidon).<sup>166</sup> Finally, shells and fish bones are sometimes found in cave sanctuaries at some distance from the sea, such as the Minoan to Geometric Idean Cave,<sup>167</sup> and the Pilarou Cave,<sup>168</sup> while a more interesting assemblage comes from the Korykian Cave on the slopes of Mount Parnassos, including around 428 shells from 32 different taxa, namely dog cock-

<sup>153</sup> Mazarakis-Ainian 1997, 151, n. 1053, citing an unpublished report of Travlos on the *Hiera Oikia* (1938). They are absent from other contexts from the sanctuary.

<sup>154</sup> 14 shells (*Dentalium* sp., *Cerastoderma glaucum*, *Glycymeris* sp., *Spondylus gaederopus*, *Hexaplex trunculus*, *Ostrea edulis*), as well as eight sea urchins; Bookidis *et al.* 1999, 38–39.

<sup>155</sup> Including a shark's vertebra, Crabtree 1990, 113–123 and 127–154; Crabtree & Monge 1987, 139–143.

<sup>156</sup> Jarman 1973, 177–179; cf. Jones 1978, 29; and compare with the shell finds from the Unexplored Mansion, Reese 1992a, 493–496.

<sup>157</sup> On bronze shells and modified fish vertebrae, see Warden 1990, 25–26 and 66.

<sup>158</sup> See also suggestions for an earlier worship of the Apollonian triad, as well as a cult of Near Eastern deities, associated to the Tripillar shrine, Shaw 2000, 711–712. On the latter hypothesis in relation to fish, see Lefèvre-Novaro 2010, 50–52.

<sup>159</sup> 130 *Donax trunculus*, 20 *Cerastoderma glaucum*, 19 *Arcularia gibbosulus*, 16 *Tonna galea*, 13 *Luria lurida*, eight *Murex trunculus*, three *Semicassis* sp.; Reese 2000, 571–642; Rose 2000, 495–560.

<sup>160</sup> Especially with respect to remains from the altars, while remains from inside the temples were less burned, see Reese 2000, 642; Rose 2000, 560. The Kommos temples also produced fishing gear, Rose 2000, 537. The individual character of the offerings may also be supported by the variety of species, possibly reflecting daily catches, see Lefèvre-Novaro 2010, 49.

<sup>161</sup> One *Sepia officinalis*, two *Mytilus galloprovincialis*, one *Patella vulgata*; Leguilloux 1999, 427.

<sup>162</sup> Gebhard 1998, 108, fig. 12; Gebhard & Reese 2005, 140–141.

<sup>163</sup> Mylona in this volume; Mylona forthcoming; Mylona *et al.* forthcoming; Syrides forthcoming; Theodoropoulou 2009.

<sup>164</sup> Reese 2000, 623.

<sup>165</sup> Reese 1984a.

<sup>166</sup> Payne 1940, 525–527; Dunbabin 1962, 527; Bevan 1986, 146–147, n. 22.

<sup>167</sup> Mentioned by Reese in Reese 2000, 623. Also unidentified fish bones, Rose 2000, 530, reporting personal communication with D.S. Reese.

<sup>168</sup> 20 *Hexaplex trunculus*, nine *Glycymeris violascens*, two *Tylocassis undulatum*, one *Patella caerulea*, one unidentified shell, six *Sparus aurata*, one *Thunnus thynnus* and three unidentified bones, uncertain if associated with ritual consumption; Becker 1997, 162–165.

les (*Veneridae* family) and cockles (*Cardiidae* family).<sup>169</sup> The excavator suggests that they were brought as offerings to Pan and the Nymphs by pilgrims coming from the Corinthian shores.<sup>170</sup> On the other hand, several other sanctuaries have not yielded any marine remains at all.<sup>171</sup>

To sum up, shell remains from historical cult contexts are not uncommon but there does not seem to be any recurrent pattern related to specific deities. In most cases, the limited numbers of edible and/or fresh species as well as the observed modifications of their shell indicate that these finds most probably fall within other classes of objects, usually ornaments and votive offerings, rather than food remains related to cult. More significant assemblages, such as the ones from Kommos, Eretria, Kalaureia or the Korykian Cave, although attesting the use of marine foodstuffs in various rituals within sanctuaries or sacred spaces, do not provide any direct comparanda relating the presence of shells in the adyton of a temple with a specific ritual. In this respect, the assemblage from the sanctuary of Kythnos remains a unique example.

## Conclusions

The important shell assemblage from the adyton of the sanctuary situated in the Middle Plateau of the ancient town of Kythnos has raised the question of the meaning of the presence of marine fauna within a sanctuary and, more importantly, its secondary deposition within the inner space of the temple. The study focused on the homogenous body of bivalve shells, rough cockles, found for the most part at the centre of the floor of the adyton. Other shells included singular holed specimens, occasionally modified to valuable objects with the addition of metal wires. The importance of the assemblage was further stressed by other finds from the deposit, precious objects from various materials including coral, as well as evidence for the presence of one or two cult statues inside the adyton. Due to the complex architectural history of the temple, the original place and function of the shells inside the temple is not easy to discern. In this respect, it is not clear whether these shells represent sacrifices, offerings, or remains of ritual meals performed by worshippers inside or outside the temple. Although the identity of the latter will re-

main unknown, it would be tempting to suggest on the basis of occasional textual evidence, that local fishermen praying at the sanctuary for large catches or other aid would have offered these tasty delicacies, possibly the first fruits of the sea, to the worshipped deity, while other pious people, either men or women, poor or rich, might have dedicated simple or more elaborate shell votives asking or thanking for a divine favour. Who among the gods would be well disposed toward human appeals for help and intervention, receiving fruits of the sea as offerings? While this question still remains to be answered, it seems that the sea, visible from the sanctuary, had found its way into the religious sphere of the islanders from Kythnos.

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## Abbreviations

- IGA* H. Roehl, *Inscriptiones Graecae Antiquissimae praeter Atticas in Attica repertas*, Berlin 1882.
- LGRM* H. Hunger, *Lexikon der griechischen und römischen Mythologie*, Wien 1959.
- LIMC* *Lexicon Iconographicum Mythologiae Classicae*, Zürich 1984.
- LS* F. Sokolowski, *Lois sacrées des cités grecques* (École française d'Athènes. Travaux et mémoires, 18), Paris 1969.
- ThesCRA I* A. Hermay, M. Leguilloux, V. Chankowski & A. Petropoulou, 'Les sacrifices dans le monde grec', in *Thesaurus cultus et rituum antiquorum I*, Los Angeles 2004, 59–134.
- ThesCRA II* F. Lissarrague, P. Schmitt-Pantel, L. Bruit & A. Zografou, 'Le banquet en Grèce', in *Thesaurus cultus et rituum antiquorum II*, Los Angeles 2004, 218–250.

<sup>169</sup> Amandry 1984, 378–380.

<sup>170</sup> Compare with the 21 marine shells from the Minoan to 8th to 7th centuries BC Idean cave (Crete), reported in Reese 1992a, 493–494.

<sup>171</sup> For instance, see zooarchaeological reports on the Herakleion of Thasos, des Courtils *et al.* 1996; the sanctuary of the Kabeiroi at Thebes, Boessneck 1973; the temple of Athena Alea at Tegea, Vila 2000; the shrine of Glaukos, Jones 1978; the Ekklesiasterion at Posidonia (Paestum), Leguilloux 2000; the cult of baby Opheltes at Nemea, MacKinnon 2004.

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