Prehistoric Gorgoneia: a Critical Reassessment

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Abstract. The purpose of this research is to investigate, re-evaluate and synthesize earliest images depicting the Gorgoneion (gorgon's head) and Gorgon (whole-body). These figures refer to prehistory covering a wide chronological frame in the Aegean World. Ten artefacts in total comprising of pottery, masks, seals are examined simultaneously for the first time. A detailed, critical evaluation of their dating, and the trade connections between mainland Greece and the Aegean are discussed. The issue is about making a symbol of the deceased introduced much earlier than the Archaic and later antiquity, showing the evolution of this form and the associated mythology has deep roots in the remote past. The forms of the Gorgon of the Archaic period depict a monster demon-like bellows, with feathers, snakes or spiral tentacles in the head, tongue protruding from the mouth and tusks. Snakes are the predominant element of this gorgon, which composes the gargoyle's hairstyle. This figure is identified and appropriately assessed from a dozen of images in pottery and semiprecious stones, in the wider prehistoric Aegean, making the related myths on Gorgon-Medusa interwoven with myths that have had a wide reflection throughout the later ancient times.

Rezumat. Cercetarea de față își propune să investigheze, să re-evalueze și să sintetizeze cele mai timpurii imagini reprezentând Gorgoneion (capul Gorgonei) și Gorgona (întregul corp). Aceste figuri din preistorie acoperă un spațiu cronologic extins în lumea egeeană. Zece artefacte de pe ceramică, măști și sigilii sunt examinate concomitent pentru prima dată. Sunt discutate, în afară de evaluarea critică a datării exemplarelor, relațiile comerciale dintre Grecia continentală și insulele din Marea Egee. Formele de Gorgona din perioada arhaică reprezintă un monstru de tip demon, cu pene, șerpi sau tentacule spiralate în cap, cu limba proeminentă și cu colți. Șerpii sunt elementele predominante, care definesc și coafura personajului. Această figură este identificată pe douăsprezece imagini de pe diverse exemplare ceramice și pietre prețioase în îndepărtata preistorie egeeană, ceea ce face ca miturile referitoare la Gorgona-Medusa să aibă o reflectare în timpuri mai vechi.

Keywords: Gorgoneion, Gorgon, apotropaic, goblin, symbol, Aegean, Sesklo, Minoan, Phylakopi, Crete, prismatic seals.

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Introduction

The diachronic study of the *gorgoneion* (averting head without body) and Gorgon-Medusa triggered our interest and forms the base of this critical evaluation, listing elements of prehistoric eras which evolve later in the Archaic, Classical, Hellenistic period and then in Roman times and later antiquity.

However, for the emergence of early findings that could be considered as archetypal templates, which impart typological characteristics to later (archaic) gorgoneion, the methodology chosen concerns the following elements: a) the geographical location, b) the context, c) their exact dating, d) the typological characteristics of early gorgoneia, as depicted in embossed or painted figures; and e) the interpretation.

In order to examine forms that have been described as "gorgoneia" (plural of gorgoneion) in the prehistoric period, we should first define the meaning of the gorgoneion in relation to other demonic forms, such as the mixed, winged (griffins, sphinxes, sirens), etc.

Gorgoneion is the bodiless head with particular and specific trait-causing features.² These features are bulging eyes, visible dentures that may include tusks, protruding tongue, snakes around the head and neck. The gorgoneion is decorated with feathers, but, in many cases, it has no wings. Under no circumstances will the winged gorgoneion be included in the large category of mixed winged birds such as Sirens with bird body and woman's head.

The gorgoneion has been identified as a definite demonic form, as demon, by foreign and Greek archaeologists.³

Various archaeologists call it "goblin," and Greek archaeologists call it a "demon" or "demonic form". Homer uses the term as the synonym of "god," either to describe the divine power, or in summary and vaguely with this term refers to the supernatural power (Homer in *Iliad*, H 291, 377, C 420, F 94). In Hesiod (*Theogony* 991) the "demon" is placed between god and mortal being, and in this form will prevail until the later times. In Empedocles only the term "demons" is found, with content related to the secular power attributed to Potnia. The "demons" of Empedocles are Neikos and Filotis, the two great cosmogenic powers (fragment B59) where in the grandiose image of their reunion, the conflict of the cosmic powers is deciphered, which Hesiod had depicted with a series of mythic imaginaries.

It was Marinatos (1927) who has described the demon as "gorgoneion" as a proof of his view with the definitions of "wicked faced" (βλοσυροπις) and "terribly aborted" (δεινόν δερκομένης) Gorgon (*Iliad* L 36–37). This view could be reinforced by the individual gorgonian Homeric head mentioned separately in other passages of the Iliad and the Odyssey.

² LAZAROU 2019.

³ PETTAZZONI 1921, 506-7; MARINATOS 1927-8, 28, 35; GEROYIANNIS 1928, 128; EVANS 1921, 274, 703.

The earliest artefacts

In order to examine forms that have been proposed or characterized by archaeologists as gorgoneia, we will investigate the following findings from the Neolithic period and the Bronze Age, and more specifically from the sites of Sesklo (Thessaly, central Greece), Phylakopi (in Melos Island, Aegean) and Minoan Crete.

In the ceramic mask from the Middle Neolithic period and Sesklo of Thessaly, a type of simple geometric motifs of clay with coating (5800–5300 BC or according to recent studies 6000–5500 BC) briefly has been referred to Gimbutas (2001). Specifically:

For the Gorgoneia of Phylakopi, excavation material from Atkinson (1904) for Phylakopi is initially summed up, a material that is redefined in light of newer views as to dating and the context. The gorgon-engraved stones from Minoan Crete have been identified by Evans (1921) in Knossos and collector Giamalakis in Malia. They are compared with stamps from Kato Zakros and Mochlos.

Table 1 summarizes the findings of Sesklo, Phylakopi, Knossos, Malia and Petras in chronological order with respective references. Our data consists of portraits of gorgoneia in a ceramic mask, in ceramic pottery and seals of semiprecious stones (carnelian, white sardonyx and onyx).

The following is a critical description of their characteristics, as well as the discussion of each of the findings, by including them in the five typological categories of analysis according to the mentioned characteristic features.

Table 1. The nine prehistoric objects or broken pieces identified as gorgoneion/gorgon in the Greek World (EM=Early Minoan, MM=Middle Minoan, LM=Late Minoan, MC=Middle Cycladic, LC=Late Cycladic)

Code	Site /period/ Museum code	Date	Material/ Type	Reference	Image
SES1	Thessaly, Sesklo, Larisa Museum, coordinates: X: 22 20′ 32″, Y: 39 27′ 59″ Found in a distance about 0.5 km, north of Saint George 3 village of Larisa. The western part intersectioned by country road of Saint	~6000–5500 BC/ 5800–5300 BC	Ceramic mask, part of a pottery	Gimbutas 2001; Reingruber <i>et al.</i> 2017	1/A, B

⁴ XENAKIS, 1949a,b.

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Code	Site /period/ Museum code	Date	Material/ Type	Reference	Image
	George – Saint Anargyroi. The settlement has following phases: Earlier Neolithic (Protosesklo phase), Middle Neolithic (phases Sesklo I, II and III).				
PHY1	Phylakopi, Cycladic, AMA, 6A (NAM5777)	~2000–1675/1600 BC, MC–LC I	Ceramic sherd	Atkinson et al., 1904	2/A
PHY1-1	Phylakopi, Cycladic, AMA 6B (NAM5777)	~2000-1675/1600 BC	Ceramic sherd, detail of PHY1	Atkinson <i>et al.</i> , 1904	2/B
РНҮ3	Phylakopi, Cycladic, AMA 6C (NAM5777)	~2000–1675/1600 BC	Ceramic sherd	Atkinson et al., 1904	2/C
PHY4	Phylakopi, Cycladic, AMA 9	~2000–1675/1600 BC	Ceramic sherd	Atkinson et al., 1904	2/D
KNO-S	Minoan, Crete, Knossos, Heraklion Museum	1800–1750 BCE, MM II	Seal from Carnelian	Evans, 1921	5
MAL1-S	Minoan, Crete, Malia, Heraklion Museum 3337	~2300-1750 BC, EM III- MM II	Seal from onyx	Xenakis, 1949a,b	7
MAL2-S	Minoan, Crete, Malia, Heraklion Museum, 3328	~2300–1750 BC, EM III – MM II	Seal from sardonyx	Xenaki, 1949a,b	8
PET1-S	Minoan Crete, Petras Cemetery Siteia, P.TSK05/322 House Tomb 2, Room 3, ca.3:1	1800–1750 BCE, MM II	Seal from carnelian, 4-sided prism	Krzyszkowska (2012)	9/A
PET2-S	Minoan Crete, Petras Cemetery Siteia P.TSK05/261, House Tomb 2, Room 3, ca.3:1 (not clear description from the author)	1800–1750 BCE, MM II	Seal(?) from agate, rectangular bar	Krzyszkowska (2012)	9/B

2. Sesklo

In our search for types of gorgon head, collections from various archaeological museums were researched and through bibliographic research interesting "ceramic facades" were found at the Archaeological Museum of Larissa, which are part of a vase. Their exact location of origin (Figure 1) is the Neolithic settlement Aghios Georgios 3 (Magoula Dragatsi) and are surface finds. One of them represents a head with gorgoneion features, such as bulging eyes, wide-open nostrils, and the semi-open toothed mouth of the prominent tongue, as well as red spots on the forehead.

This particular ceramic mask SES1 (Figure 1 and Table 1) of the Middle Neolithic period of Sesklo dates back to ~5800 to ~5300 BC. With a newer assessment and taking into account the Carbon-14 ages from Cyclops Youra cave, Theopetra cave, Argissa Magoula, dating goes to a higher range of 6000–5500 BC. It can be described as an "early" gorgoneion and is presented in the same showcase as other small animal-sized jigsaws (Figure 1C). An earlier report by Marija Gimbutas mentions this among other neolithic masks, particularly anthropomorphic ceramic pots and clay-coated ceramic masks. This view takes us to the final stage of the Early Neolithic ~6000 BC, which is very important for Greece. Thus, it seems that gorgoneion is a European symbol that is presented in Southeastern Europe in the Neolithic period as well as in the Bronze Age. All its elements are recognized in most of the gorgoneia, such as the elongated wide mouth, the pronounced prominent language, which characterize the dead goddess which later is identified with Gorgon.

3. Phylakopi

3.1. Excavation, finds and Context

The description of the ceramic vessels of Milos is an essential element in dating, typology and connotations, but also for the later revision, so we give somewhat greater analysis than just a reference to the original bibliographic / excavation report, in order to perceive the revised interpretation. The three phases or cities at Phylakopi are: I (2300–2000 BC or end of EC beginning of MC), II (2000–1550 BC, towards the end starts the minoanisation or MC), III (1550–1100 BC or LC).

The ceramic sherds of dark decoration with the gorgoneion forms in light-coloured depth were found in a standard house floor of phase $\rm II.^8$

⁵ TSOUNTAS 1908; ANDREOU et al., 2001; DEMOULE, 1994; REINGRUBER et al., 2017.

⁶ GIMBUTAS, 2001, 25, fig. 15.

⁷ GIMBUTAS, 2001, 25, fig. 15.

⁸ ATKINSON et al., 1904, 41, Fig. 27.



Figure 1. A-B) Ceramic red-figure on a white depth of a small-size façade of early Neolithic period of Sesklo, around 6000–5800 BC, 5×4cm (Photo courtesy of the Ephorate of Antiquities of Larissa).

Ephorate Topographic Archives Number 65, registered at the Museum as "gorgoneion" under registration number ML.THE.710, C) other beasts of the same group from Larissa, and D) Neolithic clay figurines of the Early-Middle Neolithic period (6800–5300 BC) from Thessaly from the excavations of late Chr. Tsountas (National Museum of Athens)

The Figures 2, 3, and individual pieces numbered in original publication as 6A, 6B, 6C and 9 (Figures 2 and 3), and, as PHY1-4 in our Table 1, are reported in fig. XIV of the excavation report of Phylakopi. In fact, the PHY1-3 (6A, 6B and 6C) have been synthesized along with other pieces in a jug exhibited at the Archaeological Museum of Athens (Figures 2/A, B, C, D). In each of these pieces there is a painted gorgoneion.

The house, which was studied by Mackenzie, is the 2nd City that belongs to the MC period and is located in the northern part of the H1: 1-13 and room 6, a large central room of the house. In the same room other ceramic utensils have been found, which are very characteristic examples of Cretan polychromy, with light-coloured patterns on a dark background. They are illustrated in Edgar's image XI and Figure XIV of the study of ceramic material⁹ (see Figures 2 and 3).

3.2. Typological elements

In gorgoneion PHY1 (6A in original publication, Figure 2/A) there are many sections that are erased. The facial features are not distinguishable but only the circular contour of the head. There is also a single feather that grows from the head. The feather is triangular in shape with black stripe lines.

In Figure 2/B the gorgoneion PHY1-1 (6B) is best preserved: the head is composed of a circular contour. The outline of one eye is saved, about a moment in the middle. The mouth extends as much as the diameter of the circular head, and open, with vertical lines depicting the teeth. One ear is painted outside the circular contour, at the same height as the eye. The head also sprawls a large feather in a triangular shape filled with seven parallel lines, and two legs on the surviving surface of the fragment, each ending in three nails.

Gorgoneion PHY3 (6C, Figure 2/C, Table 1) is similar to PHY1-1 (6B, Figure 2/B) except that over his eyes are painted mixed eyebrows. The shape of the head is ellipsoid and its left extension ends in a larger leg. There still seems to be a right ear at the top of the head. His left triangular wing is filled with eight parallel lines. It has three curved ends / legs, where one foot is almost three times the other, each ending in three nails. The empty space between the legs is decorated with a pattern that refers to a four-sided or a cross. Gorgoneion PHY3 (Number 9, Figure 2/D, Table 1) does not seem to belong to the same vase, since it is decorated differently from the jug's pattern. It is remarkable that one of the coils decorating the vase has been placed on the top of the head as a headdress. The eyes resemble the eye of 6B (Figure 2/B PHY1-1) while the mouth is slightly smaller than 6B and 6C (Figure 2/B, C), open, with lines depicting the teeth and a large tongue, is much thicker than the rest of it and protrudes from the mouth.

⁹ ATKINSON et al., 1904, 41.

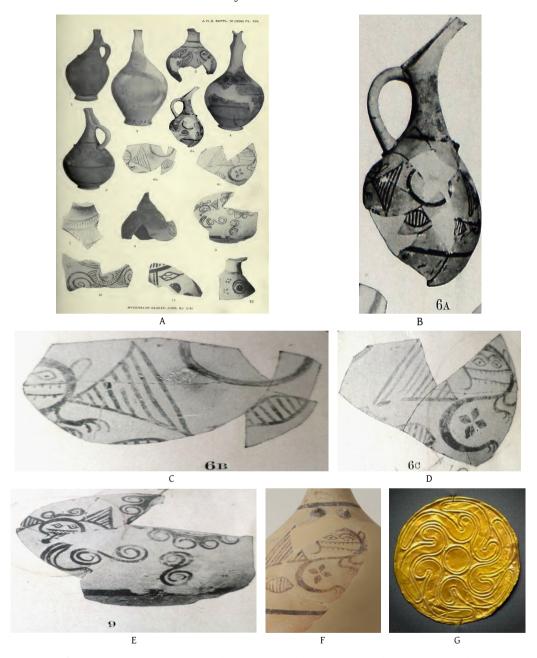


Figure 2. A) Pieces of jug. They were found in a MC period house. The sherds bearing painted gorgoneia are numbered 6A, 6B, 6C and 9 (EDGAR, in ATKINSON *et al.* 1904, 41), (B) Detail of a broken ceramic piece of the jug with gorgoneion 6A, (C) Detail of sherd 6B, (D) Detail of sherd 6C, (E) Detail from the gorgoneion of sherd 9, (F) Part of the jug. Credit line: National Archaeological Museum, Athens.

© Hellenic Ministry of Culture and Sports, Archaeological Receipts Fund, (G) Gold disk with helices of shaft grave III, Mycenae (Schliemann, 1878)

Three curved lines spring from the bottom of the head. At the end of a curved line three nails are distinguished. There are no ears, but in the place of the ears there are triangular wings that are also filled with parallel lines, but much smaller than the wings of the rest of the gorgoneia described. Apparently, the gorgoneion 9 (Figure 2/D) belongs to a different vase and is painted by another artist. Noteworthy that 6C and 9 (Figure 2/C, D) have three leg-like ends, all of which result in three lines. The three legs, the three nails and the three gorgoneia A, B and C in the same vase (Figure 3), refer to the three gorgons of the famous myth, which were born of two marine monsters. Once again, their marine origin is indicated.

In fig. XIV of Atkinson *et al.* (Figure 2)¹⁰ that include gorgoneia, it is observed that generally a free decoration system appears. Odd creatures ("goblin creatures" according to Edgar, in Atkinson *et al.*)¹¹ are of particular interest. No. 6 (Figure 2/A, B) is a bizarre version of this type. No. 9 (Figure 2/D) contains a similar demon model with an additional common spiral pattern over the head indicating hair. The eyes as a shape have been found in other sherds in the excavation of this period. Other characteristic features include hatched triangles denoting wings and spiral shapes resembling ionic spirals. The practice of filling the gaps of the spirals with short parallel curves recalls the golden discs from the shaft Mycenaean tombs¹² (Figure 2/Z).

One of the coils that decorate the vase bearing gorgoneion PHY3 has been placed on the top of the head as a headdress. Perhaps this is a snake design, although the spiral is usually attributed to sea wayes.

Illustrative themes exist in other MC vessels and the same applies to goblin subjects in the other ceramic vases in Phylakopi. Such issues also appear in other Middle Cycladic (2000–1600 BC) cups from the area, although this issue appears limited to the Melian vessels.¹³

Finally, we believe that the relationship between the winged marine creatures and the winged gorgoneia of Milos but and the "winged demons" from the double axe of Crete (labrys) is worth mentioning. There is also an interesting mural painting with winged fish in the LC I Phylakopi (1600–1100 BC) (Figure 4).

Although we do not attribute the winged demons exclusively to winged fish or double axe, it is interesting to see the visual representation that could either be given as a "loan" by the earliest Aegean artists or be regarded as an intimate recruiting image. Also, it is worth noting the great design similarity of the feathers of the fish with the feathers of the gorgoneia PHY1, 2, 3.

¹⁰ ATKINSON et al., 1904, fragments 3 and 5 to 10.

¹¹ ATKINSON et al. 1904, 109.

¹² EDGAR 1904, 109.

¹³ BARBER 1984, 179; GOODISON 2008, 421, Figure 39.3.g; MARTHARI 1987, 366; NIKOLAKOPOULOU et al. 2008.





Figure 3. A) Ceramic jug no. 5777 from Phylakopi containing gorgoneia 6A, 6B and 6C.
National Archaeological Museum; (B) Ceramic jug from Phylakopi no. 5777.
Credit line: Εθνικό Αρχαιολογικό Μουσείο/National Archaeological Museum, Athens,
© Hellenic Ministry of Culture and Sports/Archaeological Receipts Fund



Figure 4. Milos, Phylakopi II wall painting by Phylakopi. Designed representation of a section of frescoed wall painting. Late Cycladic I period. Athens, National Archaeological Museum 5844.

Ministry of Culture / TAP. Papathanassopoulos, G., National Archaeological Museum.

Neolithic-Cycladic, Melissa Publishing House, Athens 1981, 179, fig. 101

3.3. Chronology and context — new studies / assessments

A crucial point is the dating of these "demonic" forms that we attribute to early gorgoneia. It is for that reason the chronological context of the finds and context is at most importance. The first reports ¹⁴ have been reassessed, ¹⁵ while Tyler (2012) considers disturbed the deposition of the floor in the Mycenaean palace—as it is characterized—and rather wrong the description of the context. The alleged as gorgoneia in Phylakopi are based mainly on the original excavation research and subsequent re-evaluation.

(Briefly, the cultural periods: EC: \sim 3300–2000 BC; MC: 2000 ± 50 BC to 1600–1675 BC, LM IA: 1600–1675 to \sim 1500 BC, LH I–II: 1500–1400 BC, LH III A–B: 1400–1200 BC, LH III C: 1000–1200 BC).

We generally observed that the dating of this period in Phylakopi is complex and has been revised.

The presence of Gray Minyan, the imported MH gloss pottery and MM ceramics, as well as local imitations, show the opening of Phylakopi to external influences and, at the same time, recognizes the variety of these influences. There is a recent revision of Brodie (2009) on the interpretation of Mackenzie¹⁶ for the stratigraphy of Phylakopi, which was presented in 1904 in the last chapter of the relevant excavation report.

The dark-coloured vases approach the technique of Cycladic White pottery, from which they are probably influenced. They are utilitarian vases, piths, pitchers, cups, jugs, with linear themes, painted with dark matt black, but much of the vase remains uncovered. According to Papagiannopoulou *et al.*, ¹⁷ it is clear that during the Middle Bronze Age various exchanges in the ceramics production are taking place between the geographical areas we are looking at and the interaction between different styles is created. The house, which was studied by Mackenzie, with these peculiar images in the ceramic decoration belongs to the 2nd City, i.e. the MC period.

Our above-mentioned view of describing and re-evaluating gorgonian forms, their geographical location, typological characteristics, the chronological evaluation of excavators and scholars, the material, all is based on the following data about Phylakopi:

- a) the disturbed stratigraphy of Phylakopi concerning the collection of ceramic parts which carries the so-called demonic illustrations;
 - b) the complex dating of the findings of Atkinson, Edgar, MacKenzie, in cities I, II, II;

¹⁴ ATKINSON et al. 1904, 15; EDGAR 1904, 98, 108.

¹⁵ RENFREW et al. 2007, Chapter 3.

¹⁶ MACKENZIE, in ATKINSON 1904, 10-11.

¹⁷ PAPAGIANNOPOULOU et al. 1999, 67.

- c) the lack of similar demonic abhorrent forms in Mycenaean decoration from mainland Greece;
- d) the crushed condition of the ceramic and poorly preserved decoration due to its erosion both from the sea's proximity (for Phylakopi) as much as the corrosiveness of salt;
 - e) the dark painting on white substrate and spiral decoration present in MC II (~1850–1700 BC).

Concerning the MC-LC ceramic typology in the Aegean in relation to Phylakopi and Crete, one should start with the Cycladic White. The Cycladic White (the characteristic faint white background of the vases on which curvy black and white motifs are drawn) is preceding —as mentioned above—and influences the evolutionary development of dark-coloured vases. The Cycladic White as terminology was introduced by Barber in 1978 and replaced the old term "Early Mycenaean with a matt dark dye", used by the original excavators. Such a dark-coloured, black matt paint that leaves much of the vase uncovered has since been found after the excavation of Atkinson after 1980, at the Santorini Ftellos and Kea, Tenos, Amorgos.

In the present case and taking into account all of the above, our view of the dating of the Melian Vases places them in the Middle Minoan or Middle Cycladic period (\sim 2000–1675/1600 BC), associated with the date of the 2nd City of Phylakopi, which is MC II–III, i.e. before 1600 BC. As a result, we can now appreciate the different times of the particular manufacturing phases and the originality of the production of the Melian pottery despite the tradition of Cretan trend.

The chemical analysis of Mycenaean and Late Minoan I–II ceramics (e.g., in Chapter 8 of Renfrew 2007) facilitates the comparative study to include general pottery typologies from previous excavations at Phylakopi.

Thus, in addition to providing information on interactions and ceramic development, the chemical analysis of ceramic LC IIA/ LC IB, for example, shows that most of the pottery was produced in mainland Greece (according to Saint Irene's ceramics), thus providing a balanced solution (between continental and Minoan influences) in the long-term debate on the 'Minoanization' of the Aegean. After all, hybridisation of a mixture of local, Minoan, and Mycenaean traits has been reported for Karpathos.²⁰

It is noted that several issues are identified by Renfrew and his associates: a) a reassessment of the early Cycladic period in terms of local typological ceramic sequences and their regional change; b) the trade interaction of the Aegean islands is evidenced by petrographic analysis. That is relationships of specific contact areas between Cyclades centres and communities in the MBA and LBA from Crete and the Mycenaean hinterland²¹.

¹⁸ ATKINSON, EDGAR et al. 1904.

¹⁹ PAPAGIANNOPOULOU 1987, 79; ZERVOS 1957; BARBER 1978, 367-9.

²⁰ MINA and STEFANAKIS 2018.

²¹ See BETANCOURT 2003.

Despite the great length of time between the relief mask vase from Sesklo and the Melian "gorgoneia", it is useful to summarize elements of the tradition of Melian and Cretan pottery. The Melian pottery that we are looking at are dark coloured vases (pithoi, cups, pitches, jugs) with linear motifs, painted with a matt black paint that leaves much of the vase uncovered. Another variation of the dark-coloured pots, the Helladic colourful pottery, imitates the corresponding "Cycladic two-colour" technique, and uses black and red colour in the decoration. It is clear from this retrospective that during the Middle Bronze Age there are various exchanges in the pottery field between the geographical areas we are examining and thus an interaction between the different styles made. In Neolithic Thessaly the ceramic tradition was red-figured on a white background. The two traditions share the background and differ in decoration techniques.

5. Crete — seals

Many seals from semiprecious stones have been discovered in Minoan Crete.²² Moreover, from the so far reported excavated finds and investigations the hundreds of seals are forms that evolved in Middle Minoan (MM) IA and persisted to MM III/Late Minoan IA early, with its main floruit being MM II,²³ and recent finds sway opinion of a local Cretan manufacturing process.²⁴

5.1. Palace of Knossos — typological elements

The four-sided prismatic seals, made of semiprecious stones, were found in the excavation that took place at the palace of Knossos, in the layer of hieroglyphic objects of the MM II period 25 (Figure 5).

In the decoration of these stamps with demonic / monstrous forms only an averted significance could be attributed to these forms. ²⁶ The coexistence of gorgoneia in the seals with the double axe looks like an evolutionary artistic process of the "winged demons" from the double axe (labrys) of Crete, based on the images of the winged gorgons of Milos and of Knossos, as Evans²⁷ (Figure 6).

²² ZOUZOULA 2007; ANASTASIADOU 2011.

²³ ANASTASIADOU 2011.

²⁴ KRZYSZKOWSKA 2012.

²⁵ EVANS 1921, 277.

²⁶ MARINATOS 1927-28, 18.

²⁷ EVANS 1921, 704, fig. 527.

In Figure 5 in KNO-S we generally observe the gorgoneion on the side 2 of the quadrilateral seal. The head is round, with bulging eyes and mouth open, where the teeth are visible. The ears are apparent in normal position and size. The hair is different in size in the different parts of the head: at the top of the head there are five small lines reminiscent of pins, while from the sides of the head begins rich long hairstyle that ends in a helix.

In particular, we note with caution: (a) on side 1 a composition that refers to a exotic stylized facete composed of wings and a series of 7 teeth, star-shaped eyes and a flattened nose and almost similar size of the gorgon-like head of side 2; b) on side 2 a gorgoneion with a mouth open and a prominent line of prominent teeth, round face, extended ears, swollen eyes, human nose, top of the head spindle reminding the Malia stamp of the Giamalakis collection of MM II period.²⁸

From the sides of the head, two beams of rich headdress are emerging, ending in a cornice: the whole of the headdress refers to serpentine tentacles. The movement of the hairs reminds once again the seal of Malia (Figure 7). Hieroglyphic symbols are visible on either side of the head; c) On the $3^{\rm rd}$ and $4^{\rm th}$ sides are depicted more hieroglyphic symbols, such as a palm, one leg, and others.

Since Minoan hieroglyphics has not been deciphered yet, no interpretation of these symbols can be given (Dr Papadatos I, personal communication September 2018).

Evans²⁹ (Figure 6) dares to make a parallel comparison that is worth mentioning because it relates a purely Minoan symbol, the "double axe", with the two Melian Gorgoneia, intending to show a sequence in the shapes and obviously a correlation between Phylakopi and Crete. According to Evans, there is an evolution of the "winged demons" coming from the double axe of Crete and then the comparison of the shape of the double axe with the winged gorgons-like of Phylakopi (Figure 6/C, D and Figure 2/C, D).

As far as the dating of the seal with the gorgoneion found in the Palace of Knossos has been characterized by Evans as MM II (Evans 1921). Evans, of course, was unaware of the two seals from Malia (undiagnosed deposition) found later and classified as Minoan Period, namely MMII-MMIII.³⁰

²⁸ XENAKIS 1949a.

²⁹ EVANS 1921, 704, fig. 527.

³⁰ XENAKIS 1949b, 60.

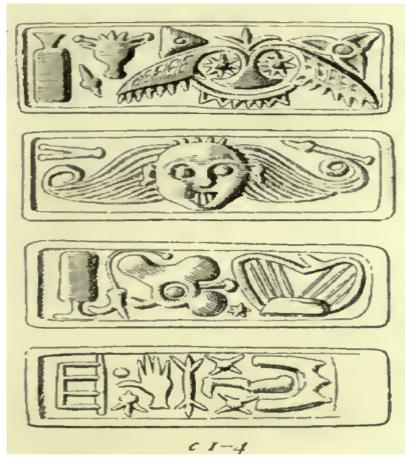


Figure 5. A four-sided prismatic seal from Knossos MM II.

One face is an image of an awesome early gorgoneion (EVANS 1921, 277, fig. 207)

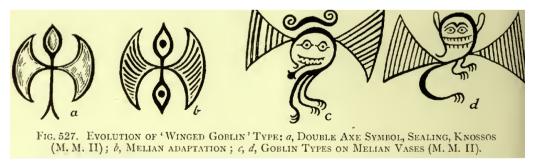


Figure 6. The evolution of the "winged demons" by the double axe of Crete (EVANS 1921, 704, fig. 527) and the comparison of the shape of the double axe with the winged gorgoneion of Phylakopi (c, d)

5.2. Seals from Malia

Two other Minoan seals (MAL1-S and MAL2-S, Table 1) with similar representation are mentioned in the Giamalakis Collection.³¹ They come from Malia and are undiagnosed as the collector Giamalakis bought them from villagers from Crete who found them scattered in fields (Figure 7, Figure 8).

The two masks are not unknown to the Minoan representations and based on their typological comparison these are dated by Evans in the MM II,³² while they have been classified as works of the Minoan Period and specifically of MMII-MMIII.³³

Observing those three seals we conclude that there have features of gorgon-heads such as snake headdress, prominent teeth, and swollen eyes. Compared to the gorgoneion-like MAL1-S no. 3337 of Giamalakis collection, it is noted that the gorgoneion-like MAL2-S no. 3328 differs in relation to the components that develop on both sides as snakes rather than as fins. The two masks of the type of gorgoneion in those seals (Table 1), i.e. 1β (3337) (Figure 7) and 2a (3328) (Figure 8) are not unknown from Minoan representations.

5.3. Petras, at Siteia Crete

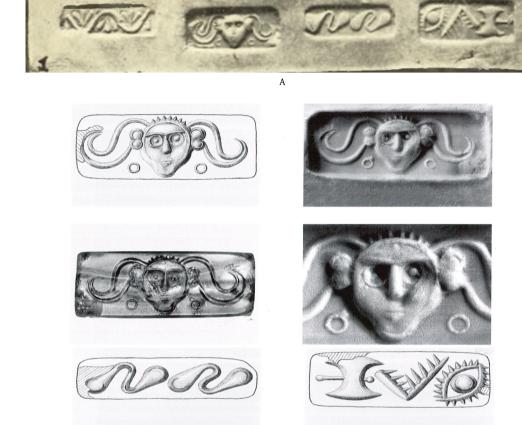
In the cemetery of Petras in Crete two seals bear engraved images recalling the gorgoneion and whole-body gorgon-medusa (Figure 9/A, B, C) of high quality and aesthetic sense. Few comparanda exist from secure contexts in Crete (Malia, Knossos). These are not crude attempts instead mature products of well-established institutions. They well fit within the Minoan glyptic repertoire. Their association with cemetery and house with hieroglyphics is a reminiscent of averting symbol to protect the deceased or a holy place (contrast with the analogy of finds in the Archaic and Classical periods; most were found in burials but also Temples).³⁴

³¹ XENAKIS 1949a, 60-84.

³² EVANS 1921, 277.

³³ XENAKIS 1949a, 60.

³⁴ KARAGIORGA 1970; VERNANT 1985.



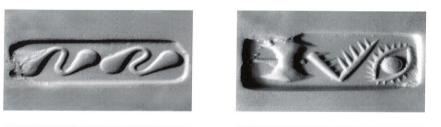




Figure 7. MAL1-S: (A) Prismatic stamp from Giamalakis collection with number 3337 (XENAKIS 1949a, 64, Table A, picture 1); (B) A more detailed description of the Giamalakis collection prismatic seal 3337 from CMS II, 237 with corresponding design performance made of onyx.

Dim. 0.047×0.007 and 0.005 cm



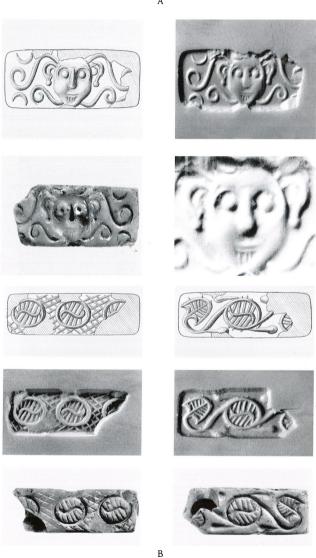


Figure 8. MAL2-S: (A) Prismatic stamp from Giamalakis collection no. 3328 (XENAKIS 1949a, 64, Table A, Figure 2); (B) Detail of prism seal No. 3328 Giamalakis Collection (CMS II, 1998, No. 238) with corresponding design performance. Made from sardonyx. Dim. 0.02×0.007cm

Seal PET1-S

In Figure 9/A the four sides exhibit spirals amply displayed on all sides of the prism of carnelian from The motifs include: (a) two animals with beaks and two legs each probably birds. The attribution to lions with outward curling hindquarters by Krzyszkowska,³⁵ is not convincing, b) a pair of creatures in profile with spiral "tails"; (c) a pair of similar heads in with spiral locks, (d) an unidentified creature (?) depicted frontally, with elongated spiral "appendages".

The motifs on faces (b) and (c) are arranged symmetrical and upside down, while (a) and (d) are simply symmetrical.

This carnelian example does not bear hieroglyphic inscriptions and has one face which makes it a unique (so far) example.

Emphasis it is given here to (c): it has gurgled eyes, open mouth, protruding tongue, two hazy teeth in upper mandible, ears, and above head emerge two rings and two tentacles in spiral style similar to that of Malia (Figure 9/C).

Seal PET2-S

The Figure 9/B shape is rare, but not unparalleled. It is not a prism, but rather a rectangular bar, with engraving on only two faces, i.e., the narrow sides are unengraved. On the reverse is an attractive lattice pattern. On the front is engraved one of the most extraordinary images to survive from the Aegean Bronze Age. This is a frontal figure with outsized head, pendulous breasts, hairy legs, and a tail possibly dangling in between. The arms/hands seem to be rendered in an abbreviated fashion, but may be holding something. The figure wears a strange skirt or cuirass. The head is especially striking: round eyes and ears, bulging cheeks, hairy facial outline. Above the forehead are spiked hair-dress and begins rich long hairstyle that ends in a helix, recalling Knossos Palace of Minos seal (Figure 9/C). This figure is not apparently feathers as Krzyszkowska (2012) suggests. It has four protruding teeth. Taken together the grotesque appearance this creature has α disgusting look, scary and repulsive.

³⁵ KRZYSZKOWSKA 2012.

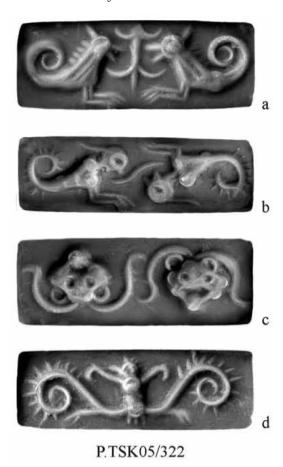
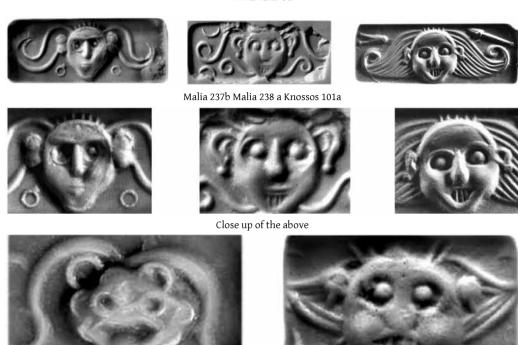


Figure 9/A. PET1-S. Impressions of seal prisms from Petras cemetery, Crete. The four sided seal, where the (c) side the image of a mask-like fiery head (from KRZYSZKOWSKA 2012, 151, fig. 6)



Figure 9/B. PET2-S. Rectangular bar from Petras, Crete, representing a creature, scale 3:1



P.TSK05/322c P.TSK05/261a

Figure 9/C. Selected prismatic seals from MM II contexts from Malia, Knossos compared with those at Petras in Crete (KRZYSZKOWSKA 2012, 155, fig. 9)

5.4. Seals from Mochlos, Phaistos, Kato Zakros

Evans has highlighted the relationship of the seals from Knossos with Ishtar's masks and other masks respectively of the eastern Sumerian circle. But Marinatos³⁶ more correctly recognized the relationship of these stamps with Greek gorgoneia, having collected other examples of seals and with other images from Minoan Crete such as Mochlos (Figure 10/A) Marinatos 1927-8, fig. 27, AE T.66-67), Zakros (Figure 10/C),³⁷ and Phaistos³⁸ (Figure 10/B),³⁹ as well as, Melian early Mycenaean vase of LC 1A, with common typological features, such as shape of face, spiked hair dressing, ears, bulging eyes, cheeks, oblate / toned mouth, abhorrent expression, meandering lines like tentacles, and the manner of running, adopted by subsequent whole body gorgonian forms.

³⁶ MARINATOS 1927-8, Fig. 27.

³⁷ PLATON 1998, seals 1199m & 1199w, No 117 & 118 respectively.

³⁸ CMS II 5, seals no 722 & 723 respectively.

³⁹ INGO PINI 1970.

In the Mochlos button shape, the imagery figure, with protruding facial features such as a wide mouth, gurgled eyes, hair dressing as two snakes with an additional vertical segment emerging from the top, and hands with three fingers, could be described as a demonic form (goblin). An early repulsive form that causes terror and fear. Marinatos⁴⁰ considers this to be a true gorgoneion, which shows that the Creto-Mycenaean people were familiar with the idea of the hateful and dissuasive. He claims that the round wild eyes, the characteristic of all gorgoneia wide mouth with furiousness grimace, and the snake pruning from the root of the ear and the centre of the head. The button-like bearing also a hole attached to for hanging, possibly have been used at the same time aa pendant, which to date is used by people today as "talisman".

Below it follows the seals from Phaistos and Kato Zakros that contain typological elements similar to those of the gorgoneia. (Figure 10/B, C).

Specifically for Phaistos (Figure 10/B):

- The 722 seal (stamp) according to Ingo Pini (1970) contains a possible octopus with four tentacles. The two left tentacles end up in helices, while the two right ones are joined at the edges (one right tentacle is toothed on the outside). However, the snake-like tentacles of this image recalls rather early gorgoneia of seals from Crete (Malia, Petras) already discussed above.
- The 723 seal is very similar to 722. It shows a stylized octopus(?) without a head, an egg-shaped body and four altogether tentacles that open slightly at the end. The two outer tentacles derive from same root. The tentacles of the octopus remind us of the snake hair dress of the prismatic seals gorgoneia that we discussed above.

For the seals from Kato Zakros (Figure 10/C), baked seal nodules from clay were found in Mycenaean House A, area VII (1490–1300 BC), in Kato Zakros. They were made of finely ground clay rather intentionally and not by fire, in a variety of shades of red. ⁴¹ They portray rather male figures in a run motion with open wings in place of hands, with a ram or bird head, or without a retained head, with pairs of rings on both thighs and a belt in the middle running either left or right. Specifically:

- Seals 1199m and 1199w are a combination of imagery, consisting of a human head, the frontal spreading wings and a bird's chest and the feet of a lion in the left or right profile with the tendons passing diagonally. Detailed design of the frontal-attributed head with turbulent lines for the contour of the hair and a varied wings structure.
- Stamps forms in a "running" movement (Figure 11/A, B)

⁴⁰ MARINATOS 1927-28, 17.

⁴¹ HOGARTH 1902; TULLY and CROOKS 2015.

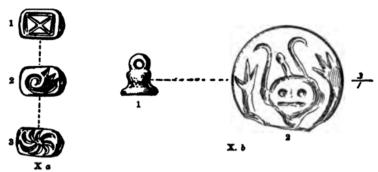


FIGURE 27. SCALE 1:1 AND 8:1

Figure 10/A. Seal from Mochlos (MARINATOS 1927-8), MM II period (SEAGER 1912, 58, fig. 27).

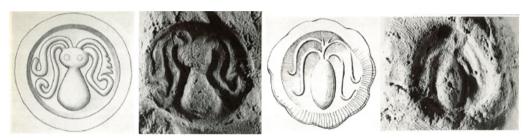


Figure 10/B. Phaistos, Inv. No. 722 (top) and 723 (bottom) (INGO PINI 1970, 260–262, CMS, II 5, 301, 302, Inv. No. 722, 723)



Figure 10/C. Kato Zakros (PLATON 1998, 132–133, CMS II 7,117, 118, OAM AE 1199m, 1199w)

The shape of the bent knee, also called the running movement, combined with the shape of the hands / feathers, does not appear to be an invention of archaic art, but occurs in earlier Aegean times (Mycenaean seals from Zakros). It is a fact that the Minoan type of the early gorgoneion is found in archaic art and is an evolutionary follow up in the wider Mediterranean region. Hence, one observes that the winged form in the running movement and the terrifying head are a combination that derives from Greek prehistoric art. It could be argued that it is a precursor to the winged Gorgon on the running style. 42

5.5. Discussion of the runner's style movement in the seal stones from Zakros

The "runner" movement resembles the depictions of the Archaic Gorgon (e.g, a dinos mixing bowl or cauldron in the Louvre Museum, Figure 12/D) that runs pursued either by Perseus or by her sisters Stheno and Euryale. The latter, according to Hesiod, persecute Perseus after the beheading of their sister Medusa (see Chapter of ancient sources).



Figure 11/A. Seal type as disc from Kato Zakros (CMS, 1998. Numbered by CMS 139 A, p. 160, pieces of seals HMs 3/1, 3, 7-9, 13, 14 OAM AE 199β , AE 1199j. HOGARTH 1902). Dim. 1.65×1.50 cm



Figure 11/B. Seal type from Kato Zakros (CMS, 1998. Numbered by CMS 140, p. 162, pieces of seals HMs 31/1–3. Dim. 2.00×2.10cm. HOGARTH 1902, Taf. VII, 81)

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⁴² GEROYIANNIS 1928, 165.

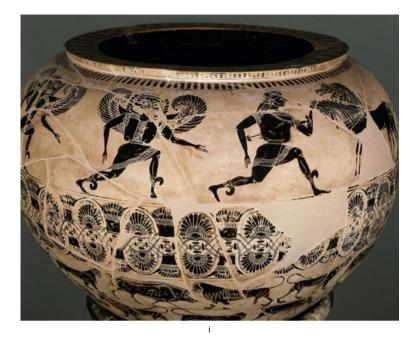




Figure 12/D. i) The two sisters of Medusa who persecute Perseus. All three forms are winged, a sample of speed and flight; ii) The Gorgons and Perseus are portrayed in a runner posture that is widely found in the Archaic period. Hermes and Athena support the Medusa's killing. She collapses headless and her sisters persecute Perseus. From the Unknown Painter of the Gorgon, Louvre (F874).

Black-figured Dino from Athens ~580 BC

These seals from Zakros are older than the eastern monuments that contain the running style movement. This figure, whose origin is Mycenaean-Minoan, seems to have originally functioned as a "loan," since it seems to have given its typological characteristics to eastern art of the 10th and 9th centuries. (e.g. Sendjirli of Asia Minor), and then returned as an "antiloan" to Greece with the typology of Archaic Gorgon who runs or has a bent knee. However, since the form of this gorgon derives from a combination of the characteristic shape of the running movement and the Gorgonian abominable fear, it seems to be related to the pure notion of terror (Figure 13).

The runner's seals may therefore, according to Geroyiannis (1928), be considered as standards for conceptions similar to the Arps and Gorgons of historical times without including gorgonian fear, since the aforementioned seals do not have an apostrophe / averted or fearful element. Geroyiannis (1928) also argues that running



Figure 13. Stone pedestal from Sendjirli, northern Syria earliest excavations 1888–1902 by Luschan, et al. A bearded male form with a short sleeve holds two lions as potnia theron ("mistress of the animals").

Originally found in the borders of modern Gaziantep, nearing Carchemish.

Now resting in İstanbul Archaeology

Museum. F. von Luschan, R. Koldewey and K. Humann. 1904. İstanbul Archaeology

Museum. Catalogue No. 1519
(Zincirli-Sam'al Excavations, 1888–1902)

movement is based on the flying gallop described by Evans⁴³ and is more likely to be Mycenaean and Cycladic art. However, the shape of flying gallop, inspired by felines and generally galloping animals, is not an exclusive style of origin of the running movement.

In conclusion, the wings, spiked hair dress, bulging features of the face (cheeks, eyes, ears) and the runner's movement style, also, remind the typological features of the Minoan seals later transferred to the Archaic Gorgon.

6.1. Identification and typological characteristics of prehistoric Gorgoneia

Based on the outline of the characteristics of a gorgoneion regarding the above-mentioned prehistoric gorgoneian forms, we note the following: a) the eyes are bulging; b) open mouth with openly exposed teeth and protruding tongue; (c) the hair-dress resembles scales seen in Sesklo, while in the Melian vessels it is spiked and refers to the Minoan seals from Malia, d) the first indication of addition of body and feathers to the gorgonian head (e) the first signs of snakes emerging from the headdress derive from the tentacles of the gorgoneia from Malia;

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⁴³ EVANS 1921, 711, fig. 534.

(f) the ears have the gorgoneia of Malia and the pots of Phylakopi. In the gorgoneion of Malia, eartags are observed for the first time, h) the apotropaic element is emphasized by the swollen eyes, the snakes' tentacles, the visible teeth, and the prominent tongue.

In general, the identified as Gorgon heads are mask-like frontal humane-like faces, circular or triangular, with monstrous facial expressions and characteristics. Encountered mostly in glyptic, their eyes are as a rule round and are thus conceived as bulging. They occasionally have prominent teeth and incorporate imported elements in the resemblance of wings flanking the face, and/or snake-like spiral lines flowing out of the neck. Their "ears" are not always naturally attached to the head and it is in consequence difficult to determine whether they are meant to be read as ears or ear-rings.

Xenakis (1949b) reviewed the apotropaic motifs of the Gorgon heads from seals and established the main characteristics of the type.

At any rate, admittedly the general difficulty on recognizing demons, is a fact, yet the perceived figures as real by the peoples of the Aegean or as beings created by the "eccentric" inventiveness of the artists, with the purpose of establishing variety and uniqueness in their products, makes hard to distinguish between apotropaic gorgon heads, bull-men and genii, cynocephaloi and bird-headed demons. However, those fantastic creatures and particular features they share comparable distinct elements with the archaic typical gorgon / gorgon's heads.

Was the inspiration for Minoan seal creatures an indigenous or whether it might incorporate foreign influences, is a rational question. At any rate, it is a well-known phenomenon in the Minoan Protopalatial period the arrival of exotic imagery on the island (sphinx, griffin, dragon, and Taweret, and the Egyptian hippopotamus goddess swiftly transformed into the Minoan genius). There were contacts between the peoples in the Eastern Mediterranean during at Bronze Age, in addition to the variants of myth of medousa. But the Taweret, or Bes, another friendly dwarf demi-god in the Egyptian pantheon (patron of child-birth with his grotesque appearance meant to drive away pain and sorrow with large head, goggle eyes, bowlegs, bushy tail, and usually a crown of feathers), are not similar to the Aegean creatures, despite other opinion and a plea for caution. The plethora of Minoan seals with gorgon-like heads are a local invention as they present unique features which most closely continue to the archaic images of gorgoneion. Bronze-age Greeks are known for their sole characteristic concepts or hybridisation in art and architecture.

Moreover, the earliest Sesklo mask also, supports the view of a pre-existing background of similar grotesque images in the Greek mainland.

⁴⁴ KRZYSZKOWSKA 2012, 154-155; OGDEN 2008; KARAGIORGA 1970; MARINATOS 1928.

⁴⁵ GEROYIANNIS 1928.

⁴⁶ MINA and STEFANAKIS 2018; cf. Archaeology Newsroom 2018; Keros Project.

6.2. The importance of the material in the prismatic seals from Crete

The two prismatic seals from Malia and the one stamped from Knossos are considered to belong to MM III – MM II, i.e. they cover a possible period of 2300–1750 BC.

For the existence of MM seals from Knossos and Malia (and elsewhere, Zakros, Mochlos etc), which carry abominable forms, Marinatos⁴⁷ claims that a seal from chalcedony from Mochlos (Figure 10) is a type of gorgoneion, according to Seager (1912) who probably dates it in MM III (1750–1600 BC).

It is worth mentioning that the prismatic stamp from Knossos (Figure 5) bearing gorgoneion in the same deposit with the hieroglyphics is made of carnelian.⁴⁸

Carnelian has a warm dark orange colour that is thought to soothe the senses and enhance the positive feelings. Its name comes from the Latin word "carnis", meaning "flesh", because of the similar colour. This particular gem has a long past and was once considered strictly an expensive gem used only by the aristocratic class.

In ancient Egypt they wore it in their hand to protect them from anger, as well as jealousy, envy and hatred.

Information gathered by the geologist G.F. Kunz⁴⁹ report views on the carnelian from Egypt and Babylonia. Written references to the *Book of the Dead* in ancient Egypt present the carnelian as a protective stone, which confirms the findings of Egyptian art (The chapter of A Tet of Carnelian, Papyrus of Ani Egyptian Book of the Dead 240 BC the papyrus of Ani (the Egyptian book of the dead).⁵⁰

In general, carnelian was the most widespread and used semi-precious stone in ancient Egypt (Figure 14), and Egyptian sources and works of art were made of cornelian with the usual burial decoration.⁵¹

Carnelian is still used today to promote peace and harmony. People with high social standing were often buried with this semi-precious stone and believed they would ensure a good journey to the soul to life after death. Carnelian beads were made of pendants to prevent evil. In Figure 15 an amulet of 2150 BC is depicted. The manufacturing of the carnelian was widespread in Egypt as it appears in similar frescoes in tombs of the 18th Dynasty (~1570–1292 BC) (Figure 16).

⁴⁷ AE, 1927-1928, 17.

⁴⁸ EVANS, 1921.

⁴⁹ KUNZ 1971, 290.

⁵⁰ Translated by EA Wallis Budge (URL: holybooks-lichtenbergpress.netdna-ssl.com/wp-content/uploads/Egyptian-Book-of-the-Dead.pdf).

⁵¹ HARRELL 2012, 12.



Figure 14. Chalcedony in two varieties: common white and orange-red carnelian.

Probably Later Period in Egypt ~700–500 BC

(HARRELL 2012, 12)



Figure 15. Amulet from a series of curved lozenges and beads and a central "leg" of carnelian with a non-homogeneous pigment.

Egypt, Dynasty 6 (HARRELL 2012, fig. 14)



Figure 16. Mural representation of carnelian bead construction from the tomb of Sobehotep in Thebes, 18th Dynasty (HARREL 2012, *UCLA Encyclopedia of Egyptology*, 17, fig. 27)



Figure 17. Necklaces of rhomboid agate beads (black / dark grey and white wavy tape), onyx (black / dark grey and white flat strip), sardonyx (reddish brown and white flat strip) and carnelian (orangered). Tell Dafana Egypt, Roman period (HARRELL 2012, 12, fig. 15)

The two Giamalakis seals with gorgoneia are made of onyx and sardonyx. In the example of Figure 16, we observe a necklace made up alternately of onyx, sardonyx, carnelian and agate from Egypt, which indicates the relations between Crete and Egypt. According to Harrell (2012), these materials, although present in some areas in the Nile and Nubia desert, may have entered from areas outside Egypt, possibly from Afghanistan, from where they supplied mainly lapis lazuli. Traditionally, Greece has not been regarded as a source country for gemstones, yet some quantities have been located in some places north of Greece and islands. ⁵²

Conclusion

It has been argued the prehistoric origin and wider Aegean origin of gorgon-medousa-gorgon's head (gorgoneion) repulsive image. Though well-established from early archaic times, and since then has taken the evolution of different shapes, the archetypal face and whole-body characteristics, are rooted deeply in the remote past.

With artist's free expression and differentiation, yet preserving certain elements and symbols, the apotropaic, repulsive figure, is re-evaluated coherently here and claim that it originates in the prehistoric Greek mainland and the Aegean.

The earliest gorgoneion features apparently comes from Middle Neolithic Sesklo (central Greece), as a ceramic mask with bulging eyes, wide-open nostrils, semi-open toothed and elongated wide mouth of the prominent tongue. The prismatic seals, made of semiprecious stones, found in the excavation that took place at the palace of Knossos, Malia, Mochlos, and Petras (so far from Crete) of MM II, as well as, the ceramic jars in Melos island in Phylakopi of MC, all have distinct characteristics of archaic gorgoneion features. The importance of the material from Crete made by semiprecious stones symbolizes social status for averting the evil spirit. Issues of the Middle Bronze dating of the Aegean objects and archaeological reports pertain to at least a MC origin.

Common typological characteristics of prehistoric Gorgoneia follow up later in Archaic times as the characteristics of a gorgoneion regarding head's and face features (eyes, hair dress, feathers to the gorgonian head, snakes emerging from the hair dressing).

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⁵² VOUDOURIS et al. 2019.

References

- ANASTASIADOU, M. 2011. The Middle Minoan three-sided soft stone prism: a study of style and iconography (CMS Beiheft 9), Darmstadt & Mainz.
- ANDREOU, M., FOTIADIS, M. and KOTSAKIS, K. 2001. Review of Aegean Prehistory V: The Neolithic and Bronze Age of Northern Greece. In: T. Cullen (ed.), Aegean Prehistory: A Review, Boston, 2001, 259–327.
- Archaeology Newsroom 2018 = Keros: Unexpected archaeological finds in the heart of the Aegean.

 Archaeology Newsroom 26.01.2018. Online: www.archaeology.wiki/blog/2018/01/26/keros-unexpected-archaeological-finds-in-the-heart-of-the-aegean.
- ATKINSON, T. et al., 1904. Excavation at Phylakopi in Melos. London.
- BARBER R.L.N. 1978. The Cyclades in the Middle and Late Bronze Age. PhD thesis St Andrews University, Scotland.
- BARBER, R.L.N. 1984. The pottery of Phylakopi, First City, phase ii (I-ii). In: J.A. MacGillivray & R.L.N. Barber (eds.), *The Prehistoric Cyclades: Contributions to a Workshop on Cycladic Chronology*, 88–94. Edinburgh.
- BETANCOURT, P.P. 2003. The impact of cycladic settlers on Early Minoan Crete. *Mediterranean Archaeology and Archaeometry* 3/1, 3–12.
- BRODIE, N. 2009. A Reassessment of Mackenzie's Second and Third Cities at Phylakopi, *Annual of the British School at Athens* 104, 49–72.
- GEROYIANNIS, K. 1928. Gorgo or Medousa. Arch. Eph. 128-176 (in Greek).
- CMS 1998. *Corpus Minoischen und Mykenischen Siegel*, II, Iraklion Archäologisches Museum II.7, 160–163. F. Matze & I. Pini & N. Platon (*Sammlung Giamalakis*, Berlin 1998, Nr 237, 238).
- DEMOULE, J.-P. 1994. Problèmes chrono-culturels du Néolithique de Grèce du Nord. In: J.-C. Decourt, B. Helly and K. Gallis (eds.), La Thessalie. Quinze années de recherches archéologiques, 1975-1990: Bilans et perspectives, 79-90. Athens.
- EDGAR, C.C. (1904). The pottery. In: Atkinson et al. 1904, 80-176.
- EVANS A. 1921, The Palace of Minos at Knossos, I, The Neolithic and Early and Middle Minoan Ages. London.
- HARRELL, J.A. 2012. Gemstones. In Willeke Wendrich (ed.), UCLA Encyclopedia of Egyptology. Los Angeles.
- HOGARTH, D.G. 1902. The Zakro Sealing. *Journal of Hellenic Studies*, 22, 76–93.
- ZERVOS, Ch. 1957. L'Art des Cyclades, du début à la fin de l'Age du Bronze, Paris.
- FURUMARK, A. 1941. The Mycenean Pottery: Analysis and Classification. Stockholm.
- GIMBUTAS, M. 2001. *The Living Goddesses*, edited and supplemented by Miriam Robbins Dexter, University of California Press Ltd.
- GOODISON, L. 2008. Horizon and Body: Some Aspects of Cycladic Symbolism. In: *Horizon, A Colloquium on the Prehistory of the Cyclades*, edited by Neil J. Brodie, Jennifer Doole, Giorgos Gavalas and Colin Renfrew, McDonald Institute Monographs. McDonald Institute for Archaeological Research, Cambridge, 417–431.
- KARAGIORGA, Th. 1970. Gorgeii Head: Origin and Meaning of Gorgon Shape in the Worship and Art of Archaic Period, PhD, University of Athens (in Greek).
- Keros Project = University of Cambridge, Department of Archaeology. Keros Project. URL: www.arch.cam.ac.uk/research/projects/current-projects/keros-project.

- KRZYSZKOWSKA, O. 2012. Seals from the Petras cemetery: a preliminary overview. In: M. Tsipopoulou (ed.), Petras, Siteia: 25 years of excavations and studies. Monographs of the Danish Institute at Athens, Volume 16. Acts of a two-day conference held at the Danish Institute at Athens, 9-10 October 2010. Aarhus.
- KUNZ, G.F. 1971. Lore of Precious Stones (Being a Description of Their Sentiments and Folk Lore, Superstitions, Symbolism, Mysticism, Use in Medicine, Protection, Prevention, Religion, and Divination, Crystal Gazing, Birthstones, Lucky Stones and Talismans, Astral, Zodiacal, and Planetary). Courier Corporation.
- LAZAROU, A. 2018. Golden Gorgon-Medousa Artwork in Ancient Hellenic World. *Scientific Culture* 5/1, 1–14. DOI: 10.5281/zenodo.1451898.
- MARINATOS, S. 1927-1928. Gorgones and Gorgoneia. Arch. Eph. 66-67, 7-41 (in Greek).
- MANNING, S. 1999. The Test of Time: The Volcano of Thera and the Chronology and History of the Aegean and East Mediterranean in the Mid-second Millennium BC. Oxford—Oxbow.
- MARTHARI, M. 1987. The local pottery wares with painted decoration from the volcanic destruction level of Akrotiri, Thera. *Archäologischer Anzeiger*, 359–379.
- MINA, M. and STEFANAKIS, M. 2018. Neither Minoanised nor Mycenaeanised: Karpathos in the Bronze Age. *Mediterranean Archaeology and Archaeometry* 18/1, 131–147.
- NIKOLAKOPOULOU, I. et al. 2008. Trapped in the Middle: New Stratigraphical and Ceramic Evidence from Akrotiri, Thera. In: N. Brodie, J. Doole, G. Gavalas & C. Renfrew (eds.), Horizon, A Colloquium on the Prehistory of the Cyclades, Cambridge, 25-28 March 2004, Ch.32, 311-324. Cambridge.
- OGDEN, D. 2008. Perseus. Rootlets UK.
- PLATON, N. 1998. Iraklion archäologisches Museum, VII, Die Siegelabdrücke Von Kato Zakros, Gebr Mann Verlag. Berlin.
- XENAKIS, A. 1949a. The Minoan seals of Giammalakis collection. Kritika Chronika 3, 60-84 (in Greek).
- XENAKIS, A. 1949b. Corpus der Minoischen und Mykenischen Siegel (CMS), Band II, 1998, Nr. 237, 238, 60-84.
- PETTAZZONI, R. 1921. The Origins of the Head of Medusa. Boll. d'Arte XV, 506-7.
- PAPAGIANNOPOULOU, A. 1987. The Influence of Middle Minoan Pottery on the Cyclades. PhD London University, Bedford College, UK.
- PAPAGIANNOPOULOU, A., D. PLATZOS, K. SOUEREF 1999. Arts I: Greek Arts, Review of Greek Architecture and Urbanism, vol. A: Prehistoric and Classical Art. Patras (in Greek).
- PLATON, N. 1998. Iraklion archaeologisches Museum, Teil 7, Die Siegelabdrücke Von Kato Zakros. Berlin. CMS II 7 (seals 1199m& 1199w, no. 117 & 118).
- INGO PINI 1970. *Iraklion archäologisches Museum*, Teil 5, *Die Siegelabdrücke Von Phaistos*. Berlin. CMS II 5 (seals, 301, 302, inv.nos. 722, 723, pp. 260–261).
- REINGRUBER, A., G. TOUFEXIS, N. KYPARISSI-APOSTOLIKA, M. ANETAKIS, Y. MANIATIS and G. FACORELLIS 2017. Neolithic Thessaly: Radiocarbon Dated Periods and Phases. *Documenta Praehistorica* 44, 34–52.
- RENFREW, *C. et al.* (eds.) 2007. *Excavations at Phylakopi in Melos* 1974-1977, co-edited by Neil Brodie, Christine Morris and Chris Scarre with contributions by R.L.N. Barber, John F. Cherry, Jack L. Davis, Alec Daykin, R.K. Evans, Lyvia Morgan, P.A. Mountjoy, Sarah J. Vaughan, David Williams and Nick Winder and also Allyson Shepard Bailey, William Brice, Mark Cameron, O.T.P.K. Dickinson, Elizabeth French, Clive Gamble, M.S.F. Hood, Richard E. Jones, Y. Maniatis, Jonathan H. Musgrave, Z. Stos-Gale, M.S. Tite, Dorothy and Charles Vitaliano, Todd Whitelaw and John G. Younger. London.
- SEAGER, R. 1912. Mochlos, Explorations in the Island of Mochlos. ASCSA, Boston.
- TSOUNTAS, Chr. 1908. *The Prehistoric Acropoleis Dimini and Sesklo*. Bibliothiki of Athens Archaeological Society, Athens (in Greek).

TULLY, C.J., S. CROOKS 2015. Dropping Ecstasy? Minoan Cult and the Tropes of Shamanism, Time and Mind. *The Journal of Archaeology, Consciousness and Culture* 8/2, 129–158.

TYLER, A.A. 2012. *Cycladic Nippled Ewers of the Middle and Early Late Bronze Age. Their Symbolism and Function* (By: Amelie April Tyler, Master Thesis), Oslo University.

VOUDOURIS, P. et al. 2019. Gemstones of Greece: Geology and Crystallizing Environments. *Minerals* 9/8, 461; URL: doi.org/10.3390/min9080461.

VERNANT, J.P. 1985. La mort dans les yeux, Textes du XXe siècle. Paris.

ZOUZOULA, E. 2007. The Fantastic Creatures of Bronze Age Crete. PhD thesis, University of Nottingham.



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