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DIVING IN ANCIENT GREECE DURING THE LATE ARCHAIC AND CLASSICAL PERIOD (6TH-4TH CENTURY BC)

ABSTRACT

The existence of categories of divers and the anxiety for discovery of an early breathing apparatus suggests that the issue of diving was quite thoughtful in classical times and ancient divers were already acquainted with some form of diving apparatus. But the absences of data make every effort of research difficult. How the ancient divers dived, what was their behaviour during submerged, what kind of equipment was available at their times, and how these were functioned, are matters that are still remaining with no answers until the moment that new data will be emerging.

Diving in classical times is a subject that fascinated researchers and deserves the effort for a further study.

KEYWORD: DIVING, ANCIENT GREECE, LATE ARCHAIC PERIOD, CLASSICAL PERIOD.

The words «κατάδυση» (katádysi = diving) and «δύτης» (dýtis = diver) derive from the ancient Greek verb «δύω» (dýo) which occurs from the Homeric epics, while the term «δύτης» (= diver) appears subsequently. Since then, various names were created for those engaged in diving, depending on the skills they had or the diving depths they were approaching. Concluding from their names, «κολυμβητές ὑφαλοι» (kolymvités ýfaloi), or «κολυμβητές ὑφιδροι» (kolymvités ýfidroi), «βύθιοι» (výthioi), and «ὑπονηχόμενοι» (yponyhomenoi) (Pollux 2004: A97-98) Hesychius of Alexandria 1979, it is almost certain that these divers were acting below sea surface «ὑπὸ τῆς ἀλός». The two first terms include the word «κολυμβητές», which correspondes to 'swimmers', but with the addition of the second word «ὑφαλοι» or «ὑφιδροι» express the meaning that there are able to dive. In

iconography its hard to distinguish if a swimmer just swims or if he is about to dive. For example, on the famous attic vase of 570 BC, painted by Kleitias, (Fig. 1) we can see, among others, details of Theseus Cretan adventure. On that detail, Theseus's ship is depicted on the shore while a person is swimming beside the ship. Considering that most of young people had already disembark, why this man is swimming? Is it an artistic effort of showing that this man accompanied the ship by this action? More acceptable, in my opinion, is that he is swimming up to the point that he will decide to dive in order to arrange the mooring. It is widely known that a large proportion of divers were fishermen (Ioannidou 2014). They fished shellfishes, sponges, corals etc. usually using strong nets such as «γαγγάμη» (gangámi) or «γάγγαμον» (gángamon) (Pollux 2004: 97-98; Hesychius of Alexan-

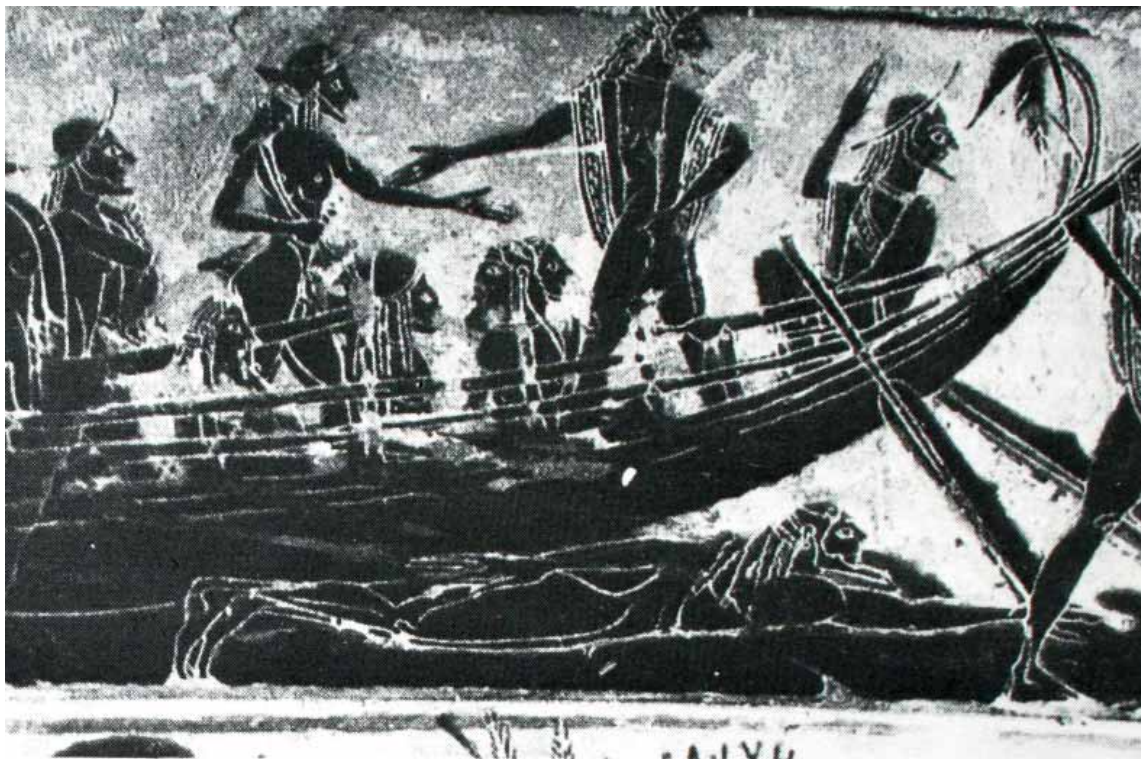


Fig. 1a Athenian attic crater, the so-called 'Vase Françoise' 570 BC. (Museo Archeologico, Florence, no 4209. Photo from Basch, L., *Le muse imaginaire de la marine antique*, Athens 1987, 205).

dria; Ioannidou 2014). But besides divers-fishermen and sponge divers, there were also those who were exclusively occupied in the shipping sector. They were checking seabed and hull's condition, mooring etc. Perhaps the swimmer on *kletias* vase is a diver of this category.

Another category, the «ἐπιπολάζοντες» (*epipolázontes*) (Pollux 2004: 97-98; Hesychius of Alexandria; Ioannidou 2014), were actually swimming or keeping position closer to the surface, possibly looking deep down in order to observe the seabed.

Last but not least, «ἀρνευτήρες» (*arneftíres*) (Hesychius of Alexandria; Ioannidou 2014) were those who went head first into water from a high point like the modern divers from diving board. This term exists from Homeric epics and a wonderful depiction of such '*arneftír*' diver is dating from about 470 B.C., founded at the frescoes of the Tomba del Tuffatore (Tomb of the Diver) at Paestum (Fig. 2). In ancient texts, we meet another category too. These divers are considered, by

a modern meaning, as the first underwater demolition teams which aimed at underwater tasks in order to sabotage enemy ships.

First documented information we derive from the 5th century BC. concerning the famous diver *Scyllis* or *Scyllias* from Skioni of Macedonia. *Scyllias*, while serving in the fleet of Xerxes, escaped and swam covering a distance of 80 stadia, with emergence and diving, to get to Artemisio and denounce to Greeks the intentions of Xerxes. He also dove through the Persian anchorage and cut all of the enemy's ship's mooring lines (Herodotus, 1975: 8, 8). According to Pliny (Pliny. *Natural History*, 35.139), the Roman painter Androbius had paint *Scyllias* cutting King Xerxes's rope anchors:

[Androbius painted a *Scyllus* Cutting the Anchorropes of the Persian Fleet]

«*Androbius pinxit Scyllum, ancoras praecedentem Persicae classis*».

During siege of Spartan Guard at Sfacteria by Athenian Forces (424 BC), divers «κολυμβητές

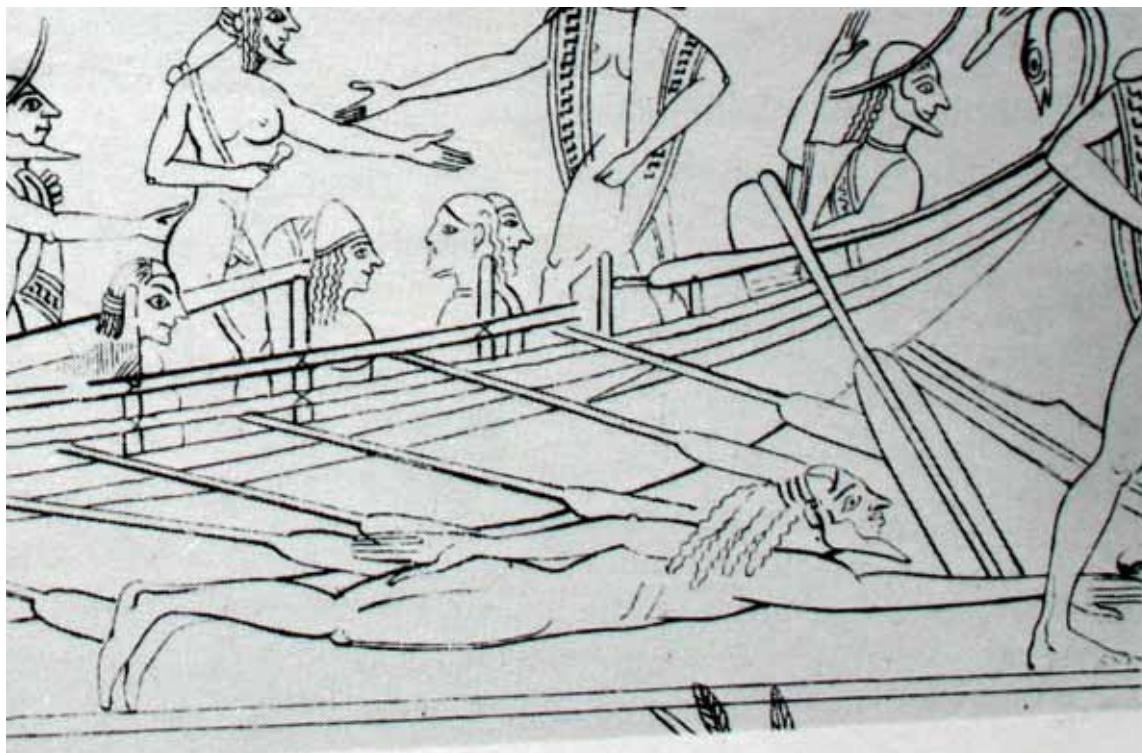


Fig. 1b Design by Minto 1960. Photo from Basch, L., *Le muse imaginaire de la marine antique*, Athens 1987, 205).

ὑφιδροι» were transport food below the sea (Thucydides, 2001: 4, 26).

During the Athenian expedition in Sicily (415-413 BC), Syracusians divers placed piles under the sea surface to cause damage to ships of the Athenian fleet. As we learn from Thucydides, Athenians confronted this by using divers who cut up the piles with saws. Strange though it may appear, these divers were professionals and worked on this mission as salaried employees.

[...Even these were sawn off by men who dived for hire]

«...ἀλλὰ καὶ τούτους κολυμβηταὶ δόμενοι ἐξέπριον μισθοῦ» (Thucydides, 2001: 7, 25).

Other demolition teams encounter during the Siege of Tyre by Alexander The Great (334 BC)

[... Divers plunging in cut the cables]

«...ὑφαλοὶ κολυμβηταὶ τὰς σχοίνους αὐτοῖς υπέτεμνον» (Arrian, 2004: 2, 21).

The following evidence from 510 BC it may offers a characteristic example of the above mentioned. On a black-figured oinochoe from Attica

(Fig. 3), we can see a ship and three men inside it. The type of the ship appears as a warship while these three men depicted with no symmetrical forms, according to the dimensions of the vessel. Such disharmony of these large enough figures could be interpreted as the effort of the artist to give emphasis to these men and their task. We cannot consider them as fighting warriors as they depicted naked without helmets, shields or any weapons. Neither as fishermen. No fishing items are depicted from the artist. If he really wanted to draw a fishing activity he will used, among others, the appropriated items and, mainly, a fishing vessel.

The first young man standing on ship's ram, shows that he is ready to make a movement while the third one, who seems elder, is making a gesture. Giving his blessing, advice or an information, it is hard to distinguish. If the first man wanted just to disembark, action that surely not take place from the ram, why is he naked? It is quite obvious that these men are divers and the first one is about to dive from the lower level of the ship.



Fig. 2 Depiction of ‘arneftír’ diver, 470 B.C. Frescoes of the Tomba del Tuffatore (Tomb of the Diver) at Paestum. Photo by Michael Johannig. (https://en.wikipedia.org/wiki/Tomb_of_the_Diver)

However, questions arise regarding the second young man. What is he holding? Could it be spear, pole, boathook or tube?

According to my opinion they are divers who are occupied in the shipping sector or they could belong to a part of underwater demolition team. In any case they seem that they about to start an underwater task. Could that task be an examination/preparation for putting piles, enemy’s observation as well as to transfer information.

ABOUT DIVING EQUIPMENT

The diving equipment of the ancient Greeks was still at the experimental stage. Each diver, depending on the type of diving he choosed, would care to study his needs and to search for additional accessories that would facilitate his task. Tools such as knives, ropes, nets, etc. were stored in a bag or tied in a belt around the waist or hips to

allow complete freedom of diver’s arms and his movements. It had been mentioned also that they tied sponges round their ears to prevent a violent entering of sea water and damage eardrums (Aristotle, 1995: 33, 962a, 3).

But what the ancient breath-holder diver was really seeking, in order to upgrade his equipment, was an apparatus that would permite him to stay underwater longer. Remaining at the bottom could be done by holding his breath. The breath holding in diver’s terminology has been established as “apnea“(Chrisholm, Hug. Apnoea1 1911), a term derived from the ancient Greek word «ἀπνοια» which means, however, the lack of wind (windless). Ironically it is not related to human respiratory system. The ancient word corresponding to unintentional / intentional interruption of the respiratory cycle is «ἀπνευστία» (*apnefstia*) (Aristotle, 1995: 33, 962a, 5; Stamatakos 1999).

The voluntary *apnefstia* should not exceed an average of 2 to 2.5 minutes. We imagine that these



Fig. 3 British Museum, London. Current Collection: B 508. Previous Collection: 1867.5-8.964.
Photo from Basch, L., *Le muse imaginaire de la marine antique*, Athens 1987, 225).

limits roughly maintained since ancient divers. Remarkable is the first record in history where these limits were exceeded. Interstringly enough Greek and Italian press of 1913, describes the strength of Symian sponge diver Γεώργιος Στάθης Χατζής George Stathis Hadjis. He, on July 16, 1913 dived up to 88 m. (according to other sources to 75m.) and remained in the bottom three minutes and 58 seconds in order to pass a loop to the anchor of the Italian battleship «Regina Margherita».¹

¹ In Italian press the name was written: Georgios Haggi Statti and that caused much confusion at the republications. At *Encyclopaedia of Helios* (εγκυκλοπαίδεια του Ηλίου), vol 6, [in Greek], it is written wrongly as Georgios Kaggis (Γεώργιος Κάγγης). Newspaper: “The Tribune of Symi”

A breathing apparatus, which was invented by its own divers and not by some who have dealt with the science of physics, mentioned by Aristotle:

[just then as divers are sometimes provided with instruments for respiration, though which they can draw air from above the water, and this main remain for a long time under the sea...]

«Οἷον οὖν τοῖς κολυμβηταῖς ἐνιοὶ πρὸς τὴν ἀναπνοὴν ὄργανα πορίζονται, ἵνα πολλὸν χρόνον ἐν τῇ θαλάττῃ μένοντες ἔλκωσιν ἔξωθεν τοῦ ὕγρου διὰ τοῦ ὄργανου τὸν ἀέρα, ...» (Ogle, 1912: 2, 16/659a 9).

(Συμμαϊκό Βήμα), 133, (1974): 5. Unfortunately the same mistake exists in some modern Greek thesis too.

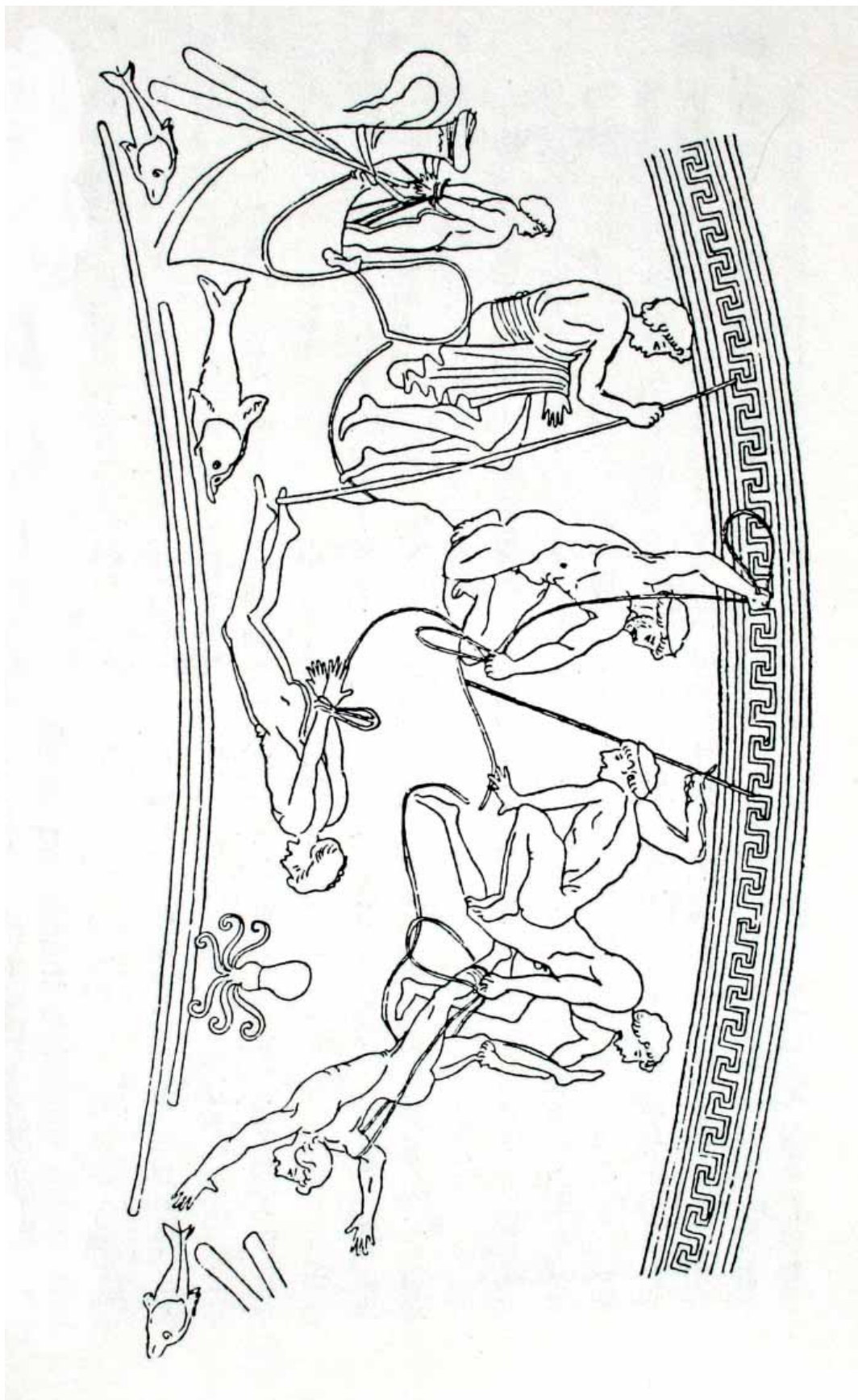


Fig. 4 Lekythos from Attica (480-470 BC). National Museum of Athens, no 487. [after Ormerod 1924]. Photo from Basch, L., *Le muse imaginaire de la marine antique*, Athens 1987, 270).

Unfortunately there is not enough information about this device which seems quite interesting as it was provided fresh air from outside. If it is not a simple idea of using a piece of reem or tube, then we are unlucky, indeed, to miss such an important information due to insufficient data.

Other type of respiration device appears again on another Aristotle's work. Concerns the famous «λέβης» (lévis = cooker, boiler, cauldron), a premature diving helmet but without having a "fresh air circulation" system:

[... for they enable the divers to respire equally well by letting down a cauldron; for this does not fill with water, but retains the air, for it is forced down straight into the water; since, if it inclines at all from an upright position, the water flows in].

«...ὁμοίως γὰρ ἀναπνοὴν ποιοῦσι τοῖς κολυμβηταῖς λέβητα καταφέροντες. οὐ πίμπλαται γὰρ οὗτος τοῦ ὕδατος ἀλλὰ τηρεῖ τὸν ἀέρα. μετὰ βίας γὰρ ἢ κάθεσις, ὀρθὸν γὰρ ὅτιοῦν παρεγκλιθὲν εἰσρεῖ» (Aristotle, 1995: 32, 960b, 30).

But even at this point there are not enough insights that can lead to reliable conclusions and to understand the utility of this device, such as, for example, if there was an opening covered airtight by a glass so the diver can see. If not, then we will work on the assumption that the utility of such apparatus was just only for diver's short intermissions of "apnefstia".

DIVING AS A FORM OF EXECUTION

Among the types of diving mentioned above, there have been also cases that this fascinating aquatic exercise had simultaneously a 'black' version. 'Diving by force' was creating as a type of execution for person who had been convicted of crimes. The ancient Greek word «καταποντισμός» (katapontismós) has the meaning of drop someone from a high point to the ground or to the sea, to sunk someone alive, while the term «σχοινισμός»

(schinismós = the strappado)² means to tide someone with rope and drop him to the ground/sea.

The acting of throwing a person to sea alive is quite frequent in ancient Greek mythology and history. Out of a punishment for crimes, it was a result of war actions, piracy, personal conflicts or even human jettison (Herodotus 1975: 8, 118). An ideal example appears of diving as an execution for crimes on text of Plutarch, on which it is written that the murderers of Hesiodos are sank alive (Plutarch 1928: 162e).

What really surprise is that there are no references for 'strappado' in ancient Greek texts and its commonly known that this torture was put from the times of Inquisition, and as a naval punishment much centuries later. The lack of any concrete information about 'strappado' in classical period taking place on sea is well illustrated on an attica lecythos of 5th century BC (Fig. 4). On this depiction four men on a ship represent the crew. The figure wearing clothes, perhaps the one who is first in hierarchy, is observing the rest of the crew doing strappado to two men while a third one (perhaps the helmsman) is tied to the prow. The evidence of the tied helmsman guide our thoughts to the assumption that this scene may represent an action of piracy. In any case the use of ropes for dropping these two men into the sea corresponds to strappado either if this took place as a punishment for undisciplined crew or not.

² Strappata (Italian), estrapade (French), garrucha (Spanish).

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REZIME**RONJENJE U ANTIČKOJ GRČKOJ
TOKOM KASNOG ARHAJSKOG I
KLASIČNOG PERIOD A (OD VI DO
IV VEKA STARE ERE)**

KLJUČNE REČI: RONJENJE, ANTIČKA GRČKA, KASNI ARHAJSKI PERIOD, KELASIČNI PERIOD.

Postojanje kategorije ronilaca kao i otkriće najstarijih instrumenata za disanje ukazuje da se o ronjenju vodilo računa u klasičnom periodu grčke kulture, budući da su drevni ronionci već tada bili opremljeni sa nekim vidom ronilačke opreme. Ali nedostatak brojnijih podataka znatno otežava istraživanje u ovoj oblasti. Kako su antički ronionci ronili, kakva oprema je bila dostupna u to vreme, kako je funkcionisala? Sve su to pitanja na koja još uvek nema pravih odgovora. Treba reći da tema ronjenja u periodu klasične Grčke privlači brojne istraživače danas i nadajmo se da će buduća istraživanja dati odgovore na neka od ovih pitanja.