

ANCIENT HARBORS IN THE GULF OF VARNA

Preslav PEEV (Varna, Bulgaria)

The Gulf of Varna is situated between Cape St. George to the north and Cape Galata to the south (fig. 1). This is the second largest gulf along the Bulgarian Black Sea coast after the Gulf of Bourgas. The length of the coastal zone is 14 km, the maximum depth – 18 m and the approximate area of the bay – 20 km². The exposure of the coast is east – south-easterly, which means that this is a dangerous direction that may affect shipping, coastline and port facilities. Its northern and southern shores are high and steep, while the west coastal strand is low, shaped by accumulative processes. At the bottom of the gulf there are sand deposits separating the Varna – Beloslav Lake from the sea.

The underwater coastal slope of the Gulf of Varna is almost completely covered by modern sediments. It is associated with the Nimpheion transgression, which is the cause of flooding of ports and parts of the ancient towns along the seacoast.

(Antonova, 1971, 102–118).

In the Gulf of Varna, at least four ancient ports are known, which began to function as early as the Antiquity: the harbor at the Euxinograd residence at the medieval castle Kastritsi, Odessos, at the location Karantinata and at cape Galata. Two of them had harbor structure: Karantinata and Galata.

Kastritsi. The most northern port in the Gulf of Varna is the castle of Kastritsi. cape the (fig. 2). The earliest pottery found is Early Byzantine and is dated to the end of the 4th century. The end of the life of this port was at the beginning of the 15th century. During excavation season 2006 a little stone anchor with one hole and cross mark was found (fig. 3).

This is the only port in the gulf, which is very well protected from the northeastern winds, unlike Odessos and the ports along the southern coast (Karantinata and Galata). the cape Y. Subsequently, since the 70's of the 20th century, after the construction of the breakwater wall, deposition of sand at the bottom of the bay began, and according to direct observations the beach is growing every year with about one meter.

At the aquatory of the sea side resorts „Sts. Konstantin and Elena” a lead stock was found (Figure 4). other material was not found. Therefore in this part of the coast unquestionably there was no port.

Odessos. According to Pseudo Scymnos (*Ps. Sc.* 748–750), Odessos was founded by Milesian settlers at the time of the Midian king Astiagus (second quarter of the 6th century BC). This information is confirmed by Annonimus Periplus (*Ann. PPE* 79–80). So according to the ancient authors Odessos was established during the second half of the 6th century BC. At the same time cultural activities began in the bay to the west of cape Varna.

Discussing Odessos and its harbor, we have to take into consideration the works of G. Toncheva (1964, 715) and M. Lazarov (2000, 3032; 2003, 136). The earliest pottery was dated by M. Lazarov (2000, 3032) to the middle of the 6th century BC. Archaic artifacts, again dated to the middle of the same century, have been found also by G. Toncheva (1967, 157180). All of this confirmed the information from the written sources.

Till now in the area of the modern port are found two stone anchors with holes. The first finding is a large stone block with a hole and sign discovered in the area of the modern Port Varna (Archaeological museum Varna Inv. № II 4967). It has been published by M. Lazarov (2004, 24, fig 7). The other one is a stone anchor with three holes (Archaeological museum Varna Inv. № II 6211)(Figure 5).

In spite of the suitable situation and optimum environment, other artifacts such as the above have not been found. One exception is another stone anchor with three holes in the southern part of the Gulf of Varna, which is still beneath the sea at depth about 78 m.

At this stage, details of the exact location of the ancient port of Odessos are not available. It could be assumed that the commencement of construction of the port of Varna at the end of 19th century the port was located in the same place since Odessos has been founded in 6th century BC. Observations on the excavations suggest that it was located near today's Central railway station Varna. This is confirmed by G. Toncheva (1964, 715). The ancient coastline could be traced to the old port warehouses large stone buildings constructed during the Ottoman period.

The site was naturally protected by Cape Varna, non-existent today. Cape Varna now represents the beginning of the breakwater wall of the Naval Station. In the same location before the

building of the modern Port of Varna was located a large wooden pier. However, the cape was hardly a well defended harbor basin since it is mentioned in the portolans that it was not well protected from strong winds.

In the area of the ancient port Odessos a two lead stock with box was found (*Figures 6 and 7*). Interesting for this study is the rock bank Mako sherry (Трифонов, 2003, 119). In the northern part of the bay near the Mako sherry bank has been found one lead stock with bolt hole (fig. 8). The minimum depth is now 1.5 m, but when the Black Sea level was lower by few meters, the bank was over the sea and was a part of the mainland. Except for the above-mentioned lead stock and ceramics sherds, other materials are not known. At least for now the archaeological material does not allow us to claim with confidence that the region of Mako sherry was a pier or a temporary berth, but the accumulation of data may be that Odessos had had another pier in the region of the Gulf of Varna.

The modern coast near Odessos differs significantly from the shoreline in the past. Decisive for its genesis and development was the anthropogenic activity during the 20th century. The Gulf of Varna is repeatedly reflected in a series of maps and navigational plans published in various European editions from the 19th century. These materials can be defined as adequately precise and showing accurate bathymetrical data (Peev, 2008, 252). They provide evidence that the coastline in the area of Varna consisted mainly of rocks and cliffs.

The antique (and medieval) coast today can be traced along Boulevard Primorski to the Naval Museum towards the Aquarium. The cliffs to north of the Aquarium are observed by the area of the Maritime casino on the edge of a high sea terrace (Figure 9).

Karantinata (or Lazuren bryag). At the time of the underwater archaeological investigations in the early 1960s, the existence of a submerged antique harbor construction was confirmed. It is present as a perpendicular coastal jetty 250 m long. It was built from medium size broken stones without mortar which were paneled with bigger oval stones (Toncheva, 1964, 2122, Figures 13 and 15), (Figure 10). The highest parts of the construction are at depth 2.5 m b.p.l. and 4.5 m from the bottom. The function of the wall was to prevent its western territory from the waves and the east and northeast winds.

West of this pier and east of the old iron bridge in the landscape Karantinata is the aquatory of this ancient port. In the 60's of the 20th century during underwater archaeological excavations here fragments of amphorae, bowls, anchors were found and still continue to emerge.

In our underwater observations of the site we never saw the cross section of the underwater jetty, suggested by G. Toncheva (1964, 22, fig. 13). Moreover, it is highly probable that this is not an artificial structure but a natural reef which is today under the current sea level at depth 2-3 m.

Besides the many and varied ceramic material in the area of Karantinata were found and excavated three iron anchors as well. Two of them are grapnels and the last one is T-shaped (Figure 11). Chronologically the T-shaped anchor is earlier, as this type of iron anchors was used by sailors during 6th - 8th century and grapnels are much later and came into use during the late Middle Ages.

Galata. The other underwater quay is situated in the area of the lighthouse on cape Galata. The first archaeological materials from the area (anchors and amphorae) were found in 1962. In the same year an underwater wall was found close to the modern jetty of the Varna Galata ferryboat line near restaurant "Romantika". Regular diving investigations along the southern coast of the Gulf of Varna were carried out till the end of 1960s.

Due to the lack of sufficient bibliographic information (Toncheva, 1964, 22, Figure 14) we could not specify anything about the jetty at the area of cape Galata. Most probably this construction belonged to the ancient Thracian settlement of Karabizia. The construction consists of large broken stones having the same shape as those from Karantinata. The highest parts of the site are at depth 3.5 m b.p.l.

In August 1969 in the area of the jetty at cape Galata a stone anchor with one hole was found and taken out (Figure 12). Three years later two lead stocks from wooden anchor were also found (Figure 13).

In this part of the bay there is another underwater site interesting for our investigation. It is located west of the modern bridge at restaurant "Romantic". Most likely it comes to natural underwater reef with a length of about 250-300 m and maximum depth of 2.53 m.

It begins immediately from the shore with a slightly recessed, but pronounced cape. This cape is marked in all charts, without exception, as the direction is like the other two: north - south. The general impression is that all three identified breakwaters have the same northsouth direction and that they are perpendicular to the coastline.

The general impression is that in the relatively small area of Varna Bay are located at least four

ancient harbors, which have functioned since antiquity. Some of them are used today. It can be assumed that the traders from Odessos used them according to the weather conditions, because some of them, as illustrated above, are protected from north and northeast, and the other - from the east and southeast.

Reference:

- Blackman, D. *The harbours of Phaselis*. International Journal of Nautical Archaeology 2, 1973, 355-364
- Fouche, E., P. Sibella, R. Dalongeville. *Holocene variations of the shorelines between Antalya and Andriake (Turkey)*. International Journal of Nautical Archaeology 28. 4, 1999, 305-318
- Jameson, M. *The excavation of a drowned Greek temple*. Scientific American 231, 1974. 110-119
- Liou, B. *Les découvertes archéologiques du golfe de Fos et le tracé du littoral antique*. In: Déplacements et lignes de rivage en Méditerranée. Paris, 1987. 59-65
- Lloyd, A. *Herodotus Book Commentary* 198. Lieden, 1976.
- Morhange, C., J. Laborel, F. Laborel, Deguen, V. Lounnas, E. Verrecchia. *Indiquer biologique et variations relatives du niveau de la mer sur les côtes rocheuses de Provence depuis 4500 ans*. Géologie Méditerranéenne 2, 1993. 89-100
- Morhange, C., J.P. Gorian, M. Bourcier, P. Carbonel, J. Le Campion, J.M. Rouchy, M. Yon. *Recent Holocene paleo-environmental evolution and coastline changes of Kition, Larnaca, Cyprus, Mediterranean Sea*. Marine Geology 170, 2000, 205-230
- Raban, A. *How the Herodian Harbour of Caesarea was Built?*. Thracia Pontica V, 1994, 241-268
- Simossi, A. *Underwater Excavation at the Ancient Port of Thassos*. Thracia Pontica V, 1994, 237-240
- van Andel, T.H., N. Lianos. *Prehistoric and historic shorelines of the Southern Argolid Peninsula: A subbottom profiler study*. International Journal of Nautical Archaeology 12.4, 1983, 303-324
- Vella, C., M. Provencal. *Relative sea level rise and neotectonic events during the last 6500 yr on the southern eastern Rhône delta, France*. Marine Geology 170, 2000, 27-39
- Антонова, И. *Оборонительные сооружения Херсонесского порта в средновековую эпоху*. Античная древность и средние века. 7. Свердловск, 1971, 102-118
- Блаватский, В. *Подводные раскопки Фанагории в 1959 г.* Советская археология 1, 1961, 277-279
- Грач, Н. *Нимфейская экспедиция Государственного Эрмитажа*. Археологические открытия 1973 г. Москва, 1974, 263-264
- Дачев, В, Ж. Чернева. *Надлъжно-брегово преместване на бреговата зона на Българското Черноморие между нос Сиврибурун и Бургаски залив*. Океанология 4, 1979, 30-42
- Димитров, Б., А. Орачев. *Пристанищната система по Западнопонтийското крайбрежие (средата на II хилядолетие пр. н. е.)*. Археология. кн. 1, 1982, 111
- Крыжицкий, Д., К. Шилик. *Подводные работы в Ольвии*. Археологические открытия 1973 года. Москва, 1974.
- Лазаров, М. *Българското Черноморие през архаичния период*. Състояние на проучванията. Известия на Народния музей Бургас. том 3. Studia in memoriam Ivani Galabov, 2000, 23-41
- Лазаров, М. *Одесос Варна*. Варна. Славена. 2003.
- Лазаров, М. *Древните каменни котви и загадъчното второ хилядолетие*. Известия на Народния музей Варна 36-37 (51-52), 2004. 19-40
- Огненова Маринова, Л. *Подводни проучвания в Несебър*. Векове. кн. 3, 1975, 43-48
- Огненова-Маринова, Л. *Подводни проучвания в Несебър*. Музеи и паметници на културата кн. 3, 1980. 26-29
- Пеев, П. *Физикогеографско описание на Варненския залив и езерата*. В: Варна през средновековието. Част първа: От VII до края на X век. Варна, 2008. 250-280
- Пейчев, В., П. Пеев. *Еволюция на българското черноморско крайбрежие след ранния холоцен*. Изд. Славена. Варна, 2006.
- Тончева, Г. *Потънали пристанища*. Варна, 1964.
- Тончева, Г. *Архаични материали от Одесос*. Известия на Археологическия институт XXX, 1, 1967. 57-180
- Трифонов, Т. *700 наименования от българското Черноморие*. Варна, 2003.
- Шилик, К. *Определение высоты и абсолютного возраста нечерноморской террасы в Ольвии*. Доклады АН СССР. 203. 5. Москва, 1972.
- Шилик, К. *Античный город на дне Керченского пролива*. Человек, море, техника. Ленинград, 1987.
- Шилик, К. *Колебания уровня Черного моря по геологическим, археологическим и историческим данным*. Добруджа. 1997, 14-16; 1999, 10-36.
- Щеглов, А. и др. *Работы на Тархункутском полуострове*. Археологические открытия 1975 года. Москва, 1976.

ANTIQUH HARBORS IN VARNA GULF

Peev Preslav (Varna, Bulgaria)

Abstract

Varna gulf is the second largest gulf along the Bulgarian Black Sea coast after the gulf of Bourgas. Along its shores at least four harbors which started functioning as early as in antiquity have been localized through archaeological methods: the harbors at Evksinograd residence (Medieval Kastritsi), Odessos, Karantinata location and cape Galata.

To correctly reconstruct the antique landscape of the harbors, it was necessary first to clarify the situation in Varna gulf from geological and geo-morphological point of view. For the correct assessment and precise localization of the aquatory of the ancient harbors, it was essential to clarify the problem of the Black sea level in antiquity. For this purpose we used data not only from the region of Black sea, but also from the eastern part of the Mediterranean. This paper presents archeological materials most of which are unknown and have not been published up to now.

PORTURI ANTICE DIN GOLFUL VARNA

PeEv Preslav (Varna, Bulgaria)

Rezumat

Golful Varna este după golful din Burgas cel al doilea după mărime pe coasta bulgară a Mării Negre. De-a lungul malurilor sale prin metode arheologice au fost localizate, cel puțin, patru porturi care a început să funcționeze în antichitate: porturi lângă Evksinograd (medieval Kastritsi), Odessos, localitatea Karantina (coasta de Azur) și lângă Cap Galata.

Pentru a reconstitui corect peisajul antic al porturilor, mai întâi a fost necesar să fie clarificată o situația din golful Varna din punctul de vedere geologic și geo-morfologic. Ea este esențială pentru evaluarea corectă și precisă a localizării a aquatoriei porturilor vechi, precum și pentru clarificare problemei de nivelul Mării Negre în antichitate. În acest scop, am folosit datele nu numai din regiunea Mării Negre, dar și din partea de est a Mării Mediterane. Acest articol prezintă materiale arheologice dintre care majoritatea sunt necunoscute ori nu au fost publicate până în prezent.

АНТИЧНИ ПРИСТАНИЩА ВЪВ ВАРНЕНСКИЯ ЗАЛИВ

Преслав ПЕЕВ (Варна, България)

Резюме.

Варненският залив е вторият по големина залив по Българското Черноморие след Бургаския. По неговите брегове има най-малкото четири установени по археологически път пристанища, които започнали да функционират поне през античността: пристанището при резиденция Евксиноград (средновековния Кастрици), Одесос, в местността Карантината (Лазурен бряг) и при нос Галата.

За коректната възстановка на античните пристанищни ландшафти бе необходимо да бъде изяснена ситуацията във Варненския залив от геолого-геоморфоложка гледна точка. За правилната оценка и точната локализация на древните пристанищни басейни от изключително значение бе изясняването на въпроса свързан с равнището на Черно море през античността. За целта бе използвана информация не само от черноморския регион, а също така и данни от Източното Средиземноморието. В статията е представен археологически материал, по-голямата част от който не е публикуван и е неизвестен до този момент.

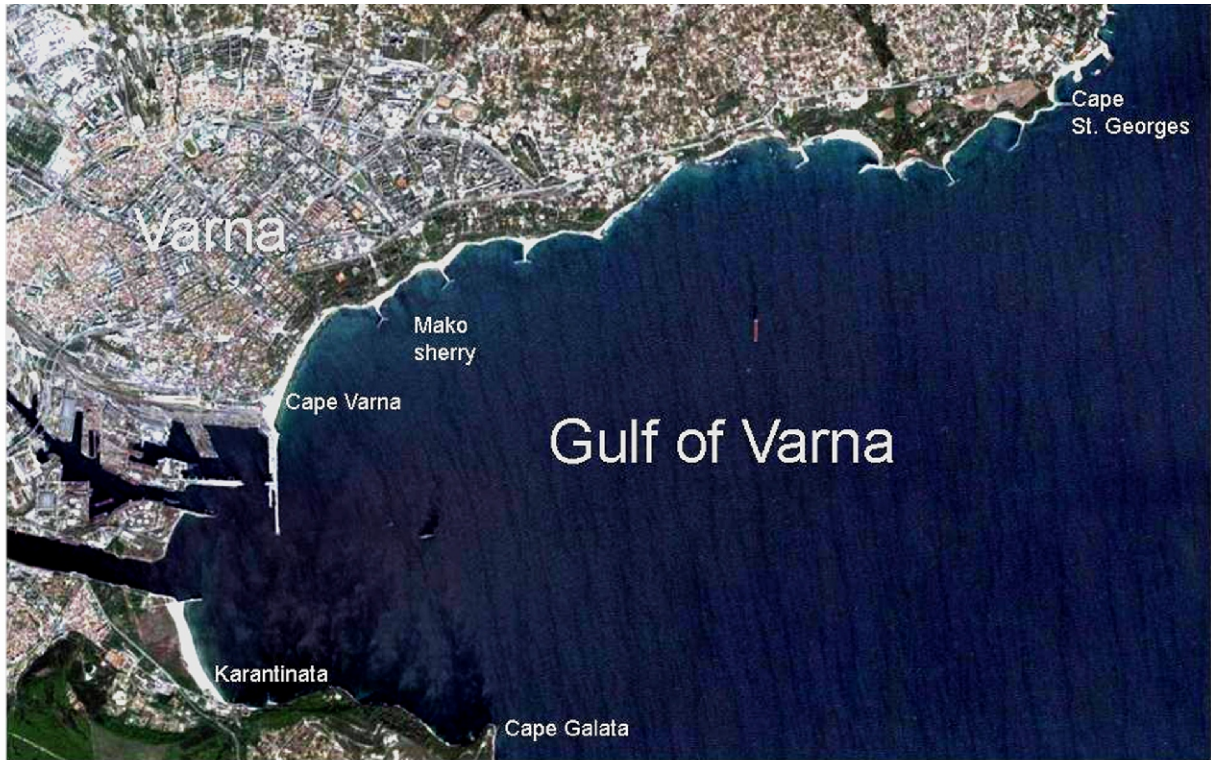
АНТИЧНЫЕ ГАВАНИ В ЗАЛИВЕ ВАРНЫ

Преслав ПЕЕВ (Варна, България)

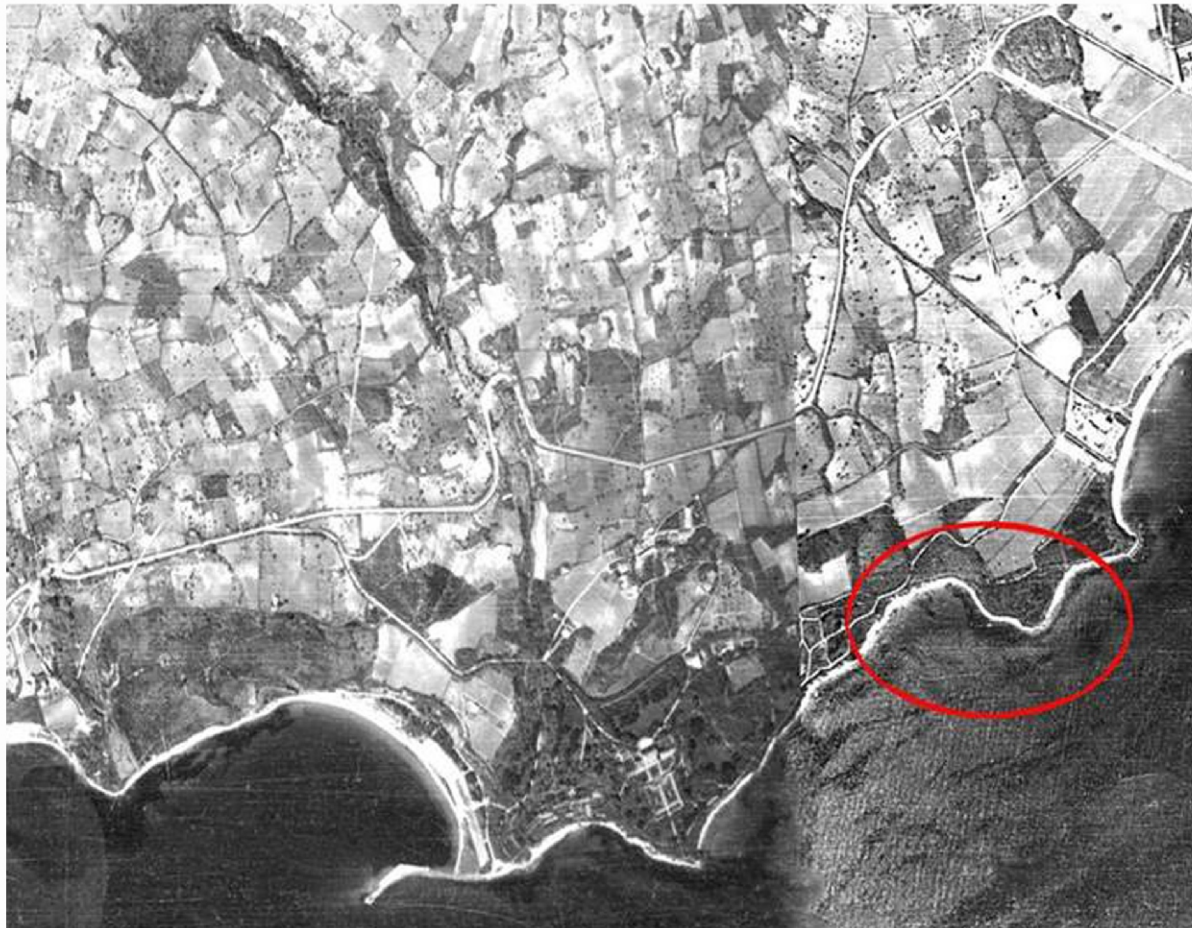
Резюме

Варненский залив является после залива в Бургасе вторым по величине из заливов на болгарском побережье Черного моря. Вдоль его берегов, через археологические методы были локализованы, по крайней мере, четыре гавани которые начали свою деятельность еще в древности: гавань у поселения Евксиноград (Средневековый Кастрици), Одесос, в местности Лазурный берег (Карантин) и у мыса Галата.

Для правильной реконструкции ландшафта гавани в древности, было необходимо, прежде всего, прояснить ситуацию в Варненском заливе с точки зрения геологической морфологии. Она имеет важное значение для правильной оценки и точной локализации акватории древней гавани, а также для выяснения вопроса об уровне Черного моря в древности. С этой целью были использованы данные не только из региона Черного моря, но и из восточной части Средиземного моря. В настоящей статье представлены археологические



1



2

Fig.1 1- Harta Golfului Varna. 2- Fotografia aeriană a localității Castritsi.

Fig.1 1- Map of the Gulf of Varna. 2- Aerial photo of Castritsi.

Обр. 1. 1-Карта на Варненския залив.2- фотография с въздух на Кастриси.

Рис.1 1- Карта Залива Варны. 2- Аэроснимок Кастрици.

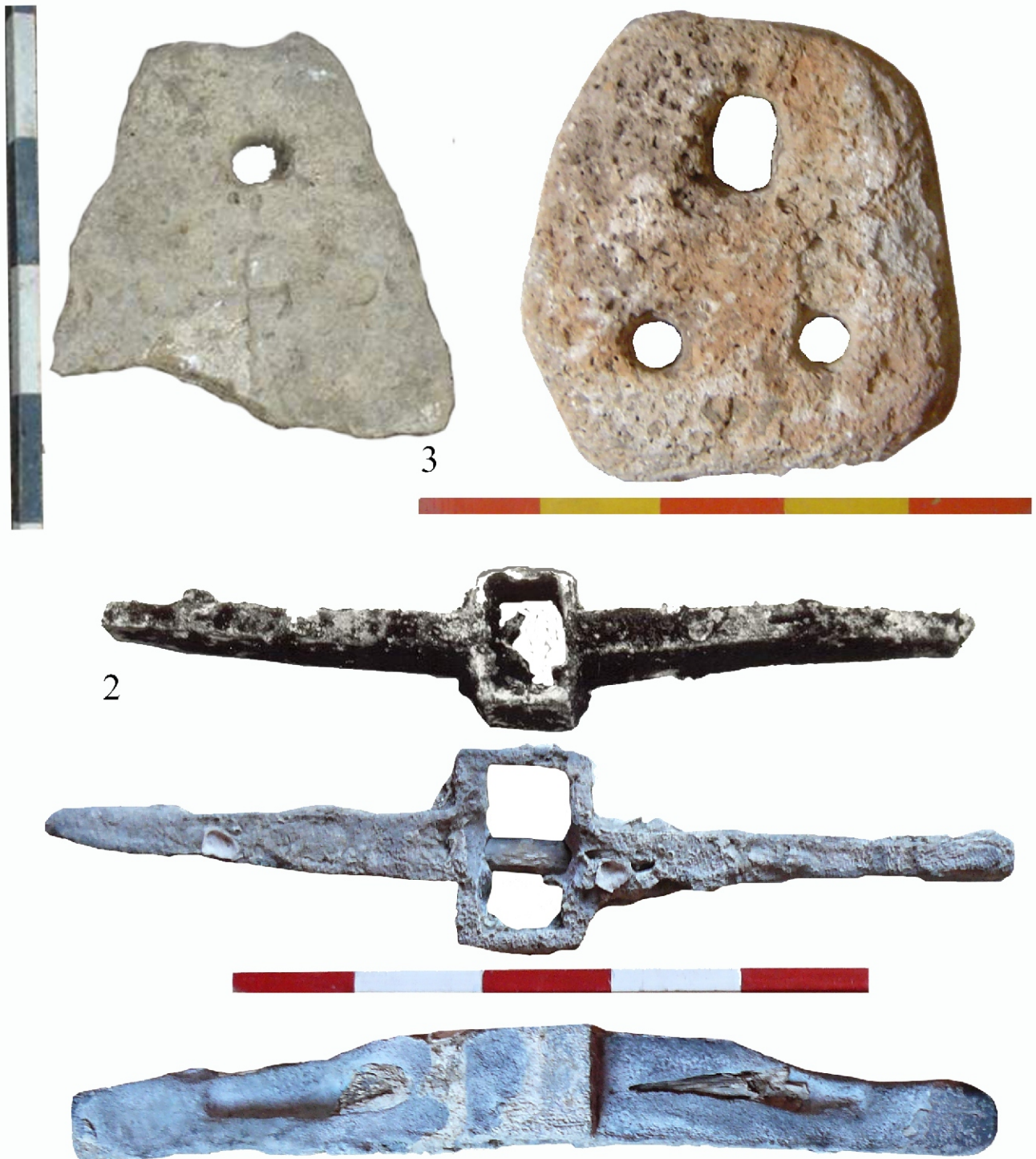


Fig. 2. 1-Ancora de piatră cu un orificiu . 2-Ancora de piatră cu un orificiu din Muzeul de Arheologie Varna (Inv. № II 6211) 3- Balast din plumb din stațiunea „Sf.,sf. Constantin și Elena” (foto Traian Traianov, 1969).4-Balast din plumb cu piciorul de lemn din Muzeul de Arheologie Varna (Inv. № II 5831).

Fig.2 1- Stone anchor with hole from 2- Stone anchor with three holes from Archaeological museum Varna (Inv. № II 6211). 3- Solid lead stock from the sea resort “St.st. Konstantin and Helena” (photo Traian Traianov 1969). 4 Solid lead stock with wooden shank from Archaeological museum Varna (Inv. № II 5831).

Обр. 2. 1-Каменна котва с един отвор 2- Каменна котва с три отвора от Археологически музей Варна (Инв. № II 6211) 3- Оловна тежест (щок) от морския курорт “Св. Св. Константин и Елена” (фотография на Траян Траянов, 1969 г.).4- Оловен щок с дървена основа от Археологически музей Варна (Инв. № II 5831).

Рис. 2. 1-Каменный якорь с отверстием 2-Каменный якорь с тремя отверстиями из Археологического музея - Варна (Inv. № II 6211) 3- Свинцовый балласт из морского курорта “Святые. Константин и Елена” (фото Траян Траянов 1969).4- Свинцовый балласт с деревянной ногой из Археологического музея - Варна (Inv. № II 5831).



Fig. 3. 1-Balast din plumb cu piciorul de lemn din golful Varna (foto Traian Traianov, 1963).2-Balast din plumb mișcătorcu orificiu din Mako șerry (descoperit în 1965).3- Harta falezei și curentelor de apă în anticitate.

Fig. 3. 1- Solid lead stock with wooden shank from the Gulf of Varna (photo Traian Traianov 1963).2- Movable lead stock with hole from Mako sherry (found in 1965).3- Map of the ancient coastline and the streams.

Обр. 3. 1- Оловен шок с дървена основа от Варненския залив (фотография на Траян Траянов, 1963 г.).2- Подвижна оловна тежест с отверстие от Мако шерри (намерена през 1965 г.).3- Карта на древната брегова линия и водните течения на Варненския залив.

Рис. 3. 1- Свинцовый балласт с деревянной ногой из Залива Варны (фото Траян Траянов 1963 г.).2- Подвижный свинцовый балласт с отверстием из Мако шерри (найденный в 1965 г.).3- Карта древней береговой линии и потоков

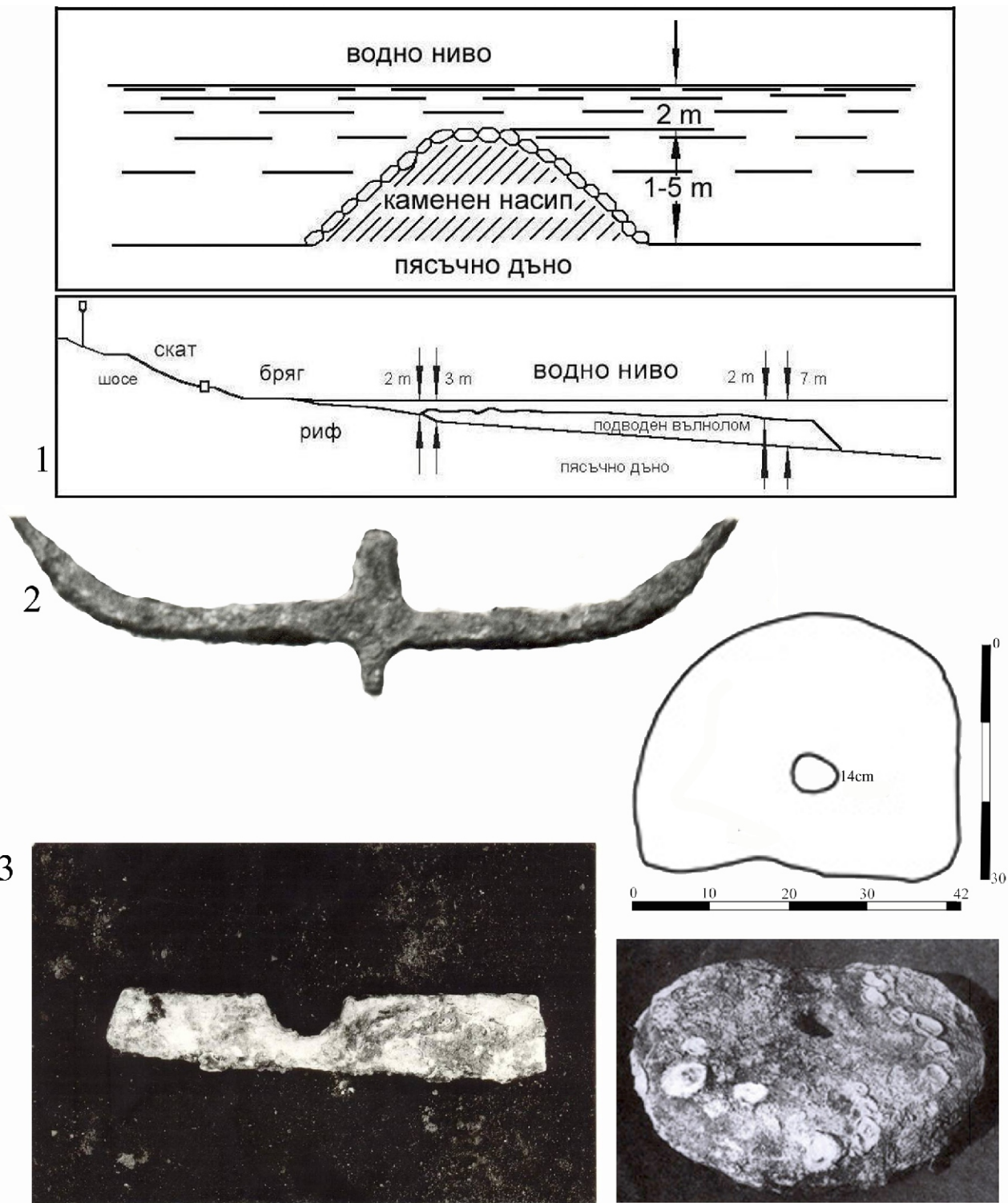


Fig. 4.1- Schiță molului din Carantin (după Tonceva, 1964, 22, fig.13). 2- Ancora din fier sub forma T-ului (foto Traian Traianov, 1969). 3- Ancora de piatră din Galata. 4- Balast din plumb din Galata. (foto Traian Traianov, 1972).

Fig. 4. 1- Sketch of the jetty in Karantinata (after Toncheva, 1964, 22, fig. 13). 2-T-shaped iron anchor (photo Traian Traianov 1969). 3- Stone anchor from Galata. 4- Lead stock from Galata (photo Traian Traianov 1972).

Обр.4 1- Образ на мол от Карантина. (Тончева, 1964, 22, рис. 13). 2-Т-образна железна котва (фотография на Траян Траянов, 1969 г.).2- Оловен щок от Галата (фотография на Траян Траянов, 1972 г.).3- Каменна котва от Галата. 4- Оловен щок. от Галата (фотография на Траян Траянов, 1972 г.).

Рис. 4. 1- Эскиз причала в Карантине (по Тончевой, 1964, 22, рис. 13). 2-Т-образный железный якорь (фотография Траян Траянов 1969).3- Каменный якорь из Галаты.4- Свинцовый балласт из Галаты (фотография Траян Траянов 1972).