



**APPRODI**  
**“From Ancient Maritime Routes to eco-touristic destinations”**

*Output T2.3. Durrës Ancient Harbour Pilot Case*

*PP 4 Durrës Municipality*



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Implementation of a systematic underwater archaeological investigation, investigation underwater in two archaeological sites in Durres city territory, using contemporary and innovative techniques and methodologies. Treatment and preliminary conservation of underwater archaeological finds. (Act. T2.3)

Underwater archeological excavations have been completed at the Cape Rodoni and Currila-Batlla sites. Data from systematic batimetric measurements and GPS at the Currila-Batlla site provided the possibility of identifying the archaic liman of Durrës. Wreck Rodon 3 was graphically documented. The archaeological material was initially treated with mechanical cleaning in situ and subjected to treatment with different % fresh and distilled water for desalination and consolidation of the structure. After drying the archaeological material, photographic and graphic documentation was performed.

### **Underwater archeological research in the area of Currila – Batlla**

Underwater archeological excavations in the area of Currila - Batlla were organized in such a way that two groups of divers independently worked on the sea surface bounded by buoys and defined in advance as well as in the area of Currila, where the entire underwater rock massif base is located that lies on the south-north axis for 3.2 km. In this area there are at least two large areas with compact rocks, composed of conglomerate material which in the language of fishermen is known as "Sharëza".

The objectives were that the first group, during the underwater survey to identify archaeological objects, to be documented and a part of them to be brought to the surface to be deposited in the premises of the Archaeological Museum of Durrës where it would be subjected to desalination and cleaning processes. While the second group would work on obtaining batimetry quotas and documenting reefs for a broader and more accurate interpretation of the beginnings in the archaic period of the ancient liman of Durres, in the context of all research conducted in this area, in the last decade.

The underwater survey had difficulties, as the underwater and sea visibility during this period has been poor and has hindered the performance at the required growth. In order not to hinder the searches, it was considered reasonable for them to be carried out alternately and in harmony with the weather conditions in both areas simultaneously (Cape Rodoni and Currila - Batlla).

The archaeological material identified in this area dates from the classical period to late antiquity. Ancient naval elements, architectural elements, fragments of amphorae, kitchen utensils, etc. were identified. Some of them were recovered while the rest were left at the site. This material complements the previous data obtained from research in the liman of Durrës. In contrast to the Cape of Rodon, where the archaeological material was not destined for the cape but the ancient city of Issus, while the material of Currila - Batlla is directly connected to the port of Durrës as the main destination. These sea routes were connected with important economic areas of the Mediterranean such as Corinth and Corkyra, with the ports of Sicily, those of the Italian Adriatic coast and those of North Africa.

The detection of the batimetric data of the two rock massifs as well as the northern half of the Batlla, ranged from -5 m to -0.4 m and made possible, as a result of sea level change in the last 3000 years, a new interpretation in the initial identification of the liman in the archaic period. These rocks have dimensions:

Massif A – 429 m x 277 m x 405 m x 179 m.

Massif B = 404 m x 250 m x 347 m x 248 m.

Between these two rock masses are two V-shaped canals that from the entrance from the sea have a depth of 4.8 m and go to the shore. The corridor from the south is still used by coastal fishermen and serves as a small protected port.

The bay coast of Durrës lacks geomorphological studies that demonstrate the movement of sea level over the centuries. This has been a major obstacle in deepening studies showing the location of the port in certain historical periods. The data collected by this project combined with some underwater archaeological indicators located on the coastline of Durrës and information obtained from previous research, gave us the opportunity to, in principle, determine the movement of sea level in this coastline. The data obtained was really impressive.

In principle, the Mediterranean tendency of sea level rise was maintained by about 1 m in 1000 years, this is valid for at least the last 3000 years.

The planimetry realized with these data reconstructed the area of Currila - Batlla different from what we see today. From antiquity to the Middle Ages this area had at least the northern half of the underwater massif above sea level. So from - 2.5 m, the end of the VI century BC, to - 0.5 m which corresponds to the XV century. This area, throughout the 1500 year period has represented the best possible protection from all sea winds, except the south wind. So it most likely represented the first archaic harbor of Epidamnus.

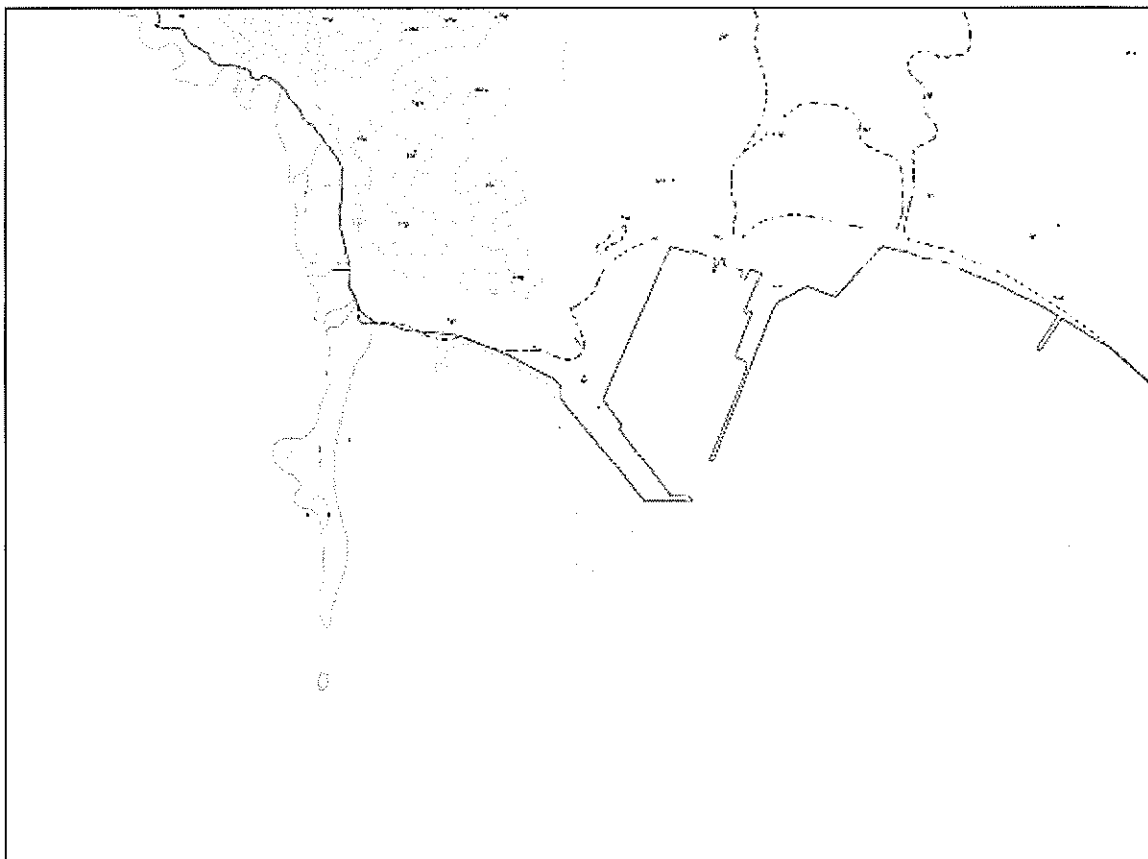


Fig 4 - Layout of the Currila-Batlla area reconstructed above the lowered sea level - 0.5 m



Fig.5 - Planimetry of the Currila-Batlla area reconstructed above the lowered sea level - 2.5 m.

## Archaeological material identified in the Currila - Batlla area.

- 1- 1- Architectural element. Height 10.5 cm. Base diameter 18 cm. Middle diameter 13.5 cm. Upper diameter 15.8 cm. Saved 20%.
- 2- Architectural element, column base with square base. Height 14.5 cm. It consists of two fixing elements at the bottom and top. The base is 17.5 cm wide. Thickness 4.3 cm. At the bottom is a circle created by engraving, the diameter of which is 27.5 cm. The fixing element in the lower central part of the plinth is square in shape with a length of 4.5 cm and a depth of 3.2 cm. The upper part of the element comes in a round and conical shape. Lower diameter 27 cm, middle (near the decorations) 22 cm, upper 20 cm. The fixing element has a square shape with a length of 4.5 cm and a depth of 2.4 cm. The object is 95% preserved.
- 3- Amphora part of the lip, neck and the beginning of two handles. Dating: Typology: Dimensions: Height 16 cm. The lip is 5 cm long. Outer diameter 11.5 cm, inner 8.5 cm. Thickness 1.5 cm. The neck is 8 cm long. Diameter 10 cm. The handle is 5 cm long. Diameter is 3 cm. The object is saved 10%.
- 4- Amphora part of lip, neck and beginning of two handles. Dating: Typology: Dimensions: Height 10.4 cm. The lip has a length of 2 cm. Outer diameter 10 cm, inner 7.4 cm. Thickness 0.6 cm. The neck is 9 cm long. Diameter 5.2 cm. The handle is 4.7 cm long. Width 4.5 cm. Thickness 2 cm. Object is saved 7%.
- 5- Amphora, part of lip, neck and a handle. Dating: Typology: Dimensions: Height 14.1 cm. The lip has a length of 1.5 cm. Outer diameter 7.6 cm, inner 5.4 cm. Thickness 1 cm. The neck is 9 cm long. Diameter 5 cm. The handle is 13 cm long. Width 3 cm. Thickness 2 cm. The object is saved 10%.
- 6- Amphora, part of the neck and the beginning of two handles. Dating: Typology: Dimensions: Height 33 cm. The neck is 30 cm long. Diameter 12 cm. The handle is 6 cm long. Width 4 cm. Thickness 3.2 cm. The object is restored and consists of 2 fragments. Saved 20%.
- 7- Amphora part of lip, neck and beginning of two handles. Dating: Typology: Dimensions: Height 25 cm. The edge is 5 cm long. Outer diameter 16 cm, inner 13 cm. Thickness 1.5 cm. The neck is 19 cm long. Diameter 12 cm. The handle is 7 cm long. Width 5.5 cm. Thickness 3 cm. Object is saved 15%.

- 8- Amphora. African typology, Lip parts, neck, two handles and the beginning of the body. Dimensions: Height 35 cm. The edge is 1.5 cm long. Outer diameter 13 cm, inner 7.3 cm. Thickness 1.9 cm. The neck is 17 cm long. Diameter below the branches 10.5 cm. The handle is 20 cm long. Width 3 cm. Thickness 2.5 cm. The body is 20 cm long. Width 41 cm. Thickness 1.5 cm. The object is saved 20%.
- 9- Amphora. African typology, Body parts. Dimensions: Height 45 cm. Width 31.8 cm. Thickness 1.4 cm. The object is saved 20%.
- 10- Greco-Italian amphora. Lip parts, neck, two handles and the beginning of the body. Dimensions: Height 51 cm. The lip has a length of 3 cm. Outer diameter 17 cm, inner 12 cm. Thickness 1.5 cm. The neck is 29 cm long. Diameter 11.8 cm. The handle is 26 cm long. Width 4.8 cm. Thickness 2.5 cm. At the end of the handle is a two-finger print decor. The body is 29 cm long. Width 27 cm. Thickness 1.6 cm. The object is saved 30%.
- 10/1- Greco-Italian amphora. Body parts.Length 36 cm. Width 11.5 cm. Thickness 1.9 cm. The object is saved 5%.
- 10/2- Greco-Italian amphora.The last part.Length 22 cm. Width 16 cm. Thickness 1.4 cm. The object is saved 5%.
- 10/3- Greco-Italian amphora.Body parts.Length 31 cm. Width 18.5 cm. Thickness 1.4 cm. The object is restored and consists of two fragments. Saved 10%.
- 11- Ceramic bowl with glaze. Body parts and the bottom. Height 11 cm. Body length 15 cm. Bottom outer diameter 21, inner 20.4 cm. Thickness 0.7 cm. The bottom is 2 cm long. Diameter 16.4 cm. Thickness 0.7 cm. The object is saved 40%.
- 12- Amphora. Part lips, neck, beginning of two handles and body. Typology:? Height 20.8 cm. The lip has a length of 1 cm. Outer diameter 7.1 cm, inner 4.3 cm. Thickness 1.1 cm. The neck is 15 cm long. Diameter 8.8 cm. The handle is 6.7 cm long. Width 4 cm. Thickness 1.7 cm. There are four relief rises and three decorative canals. The object is saved 15%.
- 13- Amphora. Typology: parts of lip, neck, two handles and the beginning of the body. Corinthian B. Height 16 cm. The lip has a length of 3.3 cm. Diameter max 16 cm, min 14.5 cm. Thickness 1.3 cm. The neck is 8.9 cm long. Diameter 10.2 cm. The handle is 17 cm long. Width 4.1 cm. Thickness 2.5 cm. The object is saved 20%.
- 14- Amphora. Typology: Lip parts, neck, one full handle and the beginning of the other. Height 26.4 cm. The lip has a length of 1 cm. Outer diameter 7.2 cm, inside 5.2 cm. The neck is 16.2 cm long. Diameter 6 cm. The handle is 22 cm long. Width 5.3 cm. Thickness 2 cm. The object is saved 18%.
- 15 Ceramic pot Body parts and bottom. Height 9.6 cm. The body is 8.3 cm long. Width 18 cm. Thickness 0.8 cm. The end is round in a conical shape with a height of 1.5 cm. Outer



- diameter 8 cm, middle 6.4 cm and inner 4.8 cm. Thickness 1.4 cm. The object is saved 40%.
- 16- Amphora. Typology: African? Neck parts. Height 11.6 cm. Outer diameter 12.7 cm, inner 9.8 cm. Thickness 1.5 cm. The object is saved 10%
  - 17- End of utensils, ceramic fine. Typology? Height 1 cm. Length 8 cm. Width 6.7 cm. Thickness 0.3 cm. The bottom has a diameter of 5 cm. The object is saved 20%.
  - 18- Ceramics with black varnish. Lips, neck and the beginning of the handle. Height 7.7 cm. The lip has a length of 1.3 cm. Outer diameter 8.5 cm, inner 5.5 cm. Thickness 1 cm. The neck is 2.7 cm long. Diameter 6.6 cm. Thickness 0.5 cm. The handle consists of two strips glued together with a length of 4.5 cm and a diameter of 0.7 cm. Object is saved 7%.
  - 19- Ceramic pots. Lip and body parts. Length 7 cm. Width 9 cm. The lip has a length of 2 cm. Width 5.4 cm. Thickness 0.8 cm. The object is saved 5%.
  - 20- Ceramic pot bottom. Height 3.2 cm. Bottom diameter 9.2 cm. Diameters 0.9 cm. The object is saved 5%.
- 21/a- Ceramic fragment. Amphora Typology LRA 2. Body parts. Length 9.7 cm. Width 8.1 cm. Thickness 0.6 cm. The object is restored and consists of two fragments. Saved 2%.
- 21/b- Ceramic fragment. Amphora Typology LRA 2. Body parts. Length 13.5 cm. Width 9.5 cm. Thickness 0.6 cm. The object is saved 3%.
- 21/c- Ceramic fragment. Amphora Typology LRA 2. Body parts. Length 13 cm. Width 5.3 cm. Thickness 0.6 cm. Object is saved 2%.
- 21 = 21/a; 21/b; 21/c.
- 22- End amphora. Typology Height 9.1 cm. Length 13.4 cm. Width 13 cm. Thickness 1.2 cm. Bottom diameter 7 cm. The object is saved 5%.
  - 23- Amphora. Lips, neck, one handle and the beginning of the other. Typology: ? Height 12.5 cm. The lip has a length of 2.9 cm. Outer diameter 14.5 cm, inner 11.5 cm. Thickness 1.4 cm. The neck is 7.5 cm long. Diameter 11.5 cm. The handle is 11 cm long. Width 2.5 cm. Thickness 1.4 cm. The object is saved 15%.
  - 24- Amphora. Neck parts, a handle and the beginning of the body. Length 21.5 cm. The neck is 5.5 cm long. Width 12.4 cm. Thickness 1 cm. The handle is 16 cm long. Width 4 cm. Thickness 2.3 cm. The object is saved 10%.
  - 25- Ceramic pots. Lip parts and the beginning of the neck. Length 13.5 cm. Width 17.6 cm. The edge is 4.5 cm long. Width 15 cm. Thickness 2.2 cm. The neck has a lift and takes a slight curve down the body. The raised part is 2 cm long and 1 cm wide. The neck is 9 cm long. Width 15 cm. Thickness 1.7 cm. The object is saved 5%.
  - 26 Pot bottom Height 3.2 cm. Outer end diameter 9.8 cm, inner 7.1 cm. Thickness 1.1 cm. The object is saved 5%.

- 27- Amphora. Neck parts and a handle. Height 15.5 cm. The neck is 14 cm long. Diameter 7.5 cm. Thickness 0.6 cm. The handle is 6.1 cm long. Width 4.2 cm. Thickness 1.5 cm. The object is saved 5%.
- 28- Amphora. Neck edge part and the beginning of the handle. Height 11.7 cm. The edge is 3.1 cm long. Outer diameter 14.8 cm, inner 11 cm. Thickness 1.7 cm. The edge has a decor consisting of two circles made with engraving. The distance between the two circles is 1.7 cm. The neck is 8.2 cm long. Diameter 13.2 cm. Thickness 0.8 cm. The handle is 12 cm long. Diameter 4 cm. The object is saved 10%.
- 29- Amphora. Parts of lip, neck, two handles and the beginning of the body. Typology: African. Height 21 cm. The edge is 4 cm long. Outer diameter 10 cm, inner 6.5 cm. Thickness 1.5 cm. The neck is 10 cm long. Diameter 10.5 cm. The handle is 13 cm long. Width 4 cm. Thickness 2 cm. The object is saved 20%.
- 30- Amphora. Lip parts, neck, two handles and the beginning of the body. Typology MGS 5. Height 27 cm. The edge is 3 cm long. Outer diameter 14.4 cm, inner 10 cm. Thickness 2.5 cm. The neck is 11 cm long. Diameter 10 cm. The handle is 16 cm long. Width 4.2 cm. Thickness 2.5 cm. The handle at the end of it has a finger press. The body is 23 cm long. Outer diameter 35.7 cm, inner 33.5 cm. Thickness 1.5 cm. The object is saved 30%.
- 31- Amphora. Typology Brindisi, Apani tip. II. Lips part, neck and two handles. Dimensions: Height 25.5 cm. The edge is 8 cm long. The upper edge is 4.5 cm long. Outer diameter 16.7 cm, inner 12.6 cm. Thickness 1.1 cm. The lower edge is 2.5 cm long. Diameter 13.6 cm. The neck is 14 cm long. Diameter 11.4 cm. Thickness 0.7 cm. The handle is 24 cm long. Diameter 3.5 cm. The object is saved 25%.

## **Searches at Cape of Rodon.**

The excavations at Cape of Rodoni were focused on the last part of it, where there are three hills with the valley in which the Church of Saint Ndou is located and further west the fortress of Gjergj Kastrioti.

In these researches it was considered reasonable not to focus only on underwater but also to include the land belt of the coast which has been in close relation with the sea, where the expectations were very high

The cape area in underwater archeological research was divided into two parts:

### **1- Area north of Cape of Rodon.**

### **2- Area south of Cape of Rodon.**

The area north of Cape of Rodon includes the entire water belt that is adjacent to the shore to a depth of 15 m and starts from the western extreme of the cape to the east of the military pier, where the fishermen's bay is located. This area is important for study because it includes the entire northern part of the Kastrioti fortress as well as the northern shore of the valley in which the church is located, where a freshwater torrent flows which starts from a watershed further south.

During this research archaeological material was identified which started from the end of the IV century BC and continued until the end of the medieval period. Parts of modern ships built of wood or metal have also been found scattered, and some of them probably belong to the wrecks of the First World War.

Earlier, in the past years, in this area have been identified two wrecks of the Hellenistic period that transported from Dyrrahium to Lissus amphorae and building materials, as well as two modern wooden wrecks which belong to the XVII and late XIX century. On this occasion we worked to better identify and document the wrecks of the XVII century.

The area south of Cape of Rodoni includes the entire water belt that is adjacent to the shore to a depth of 15 m and starts from the western extreme of the cape to the east of the small fortress tower which is located underwater. The archeological material mainly consisted of fragments of amphorae and tableware which belonged to the Roman imperial period.

The profile of the eastern defensive gap of the fortress was identified and documented, as well as the damaged base of the small tower located to the west, as part of the fortification wall. This also made possible the construction for the first time of the planimetry of the fortress. This planimetry corresponds to the planimetry given by the medieval sources of the 16th century<sup>1</sup>.

From the seashore excavations, a former deposit with beams prepared in advance was identified which served for the preparation of the foundations of the fortress walls. Also, the large lime pit which was prepared for the construction of the walls was identified. From the clearing of the vegetation on the side of the hill which is located directly with the small tower located in the sea, the protective gap was discovered in a degraded state by time and erosion. This gap belongs to the western part of the fort which remained unfinished.

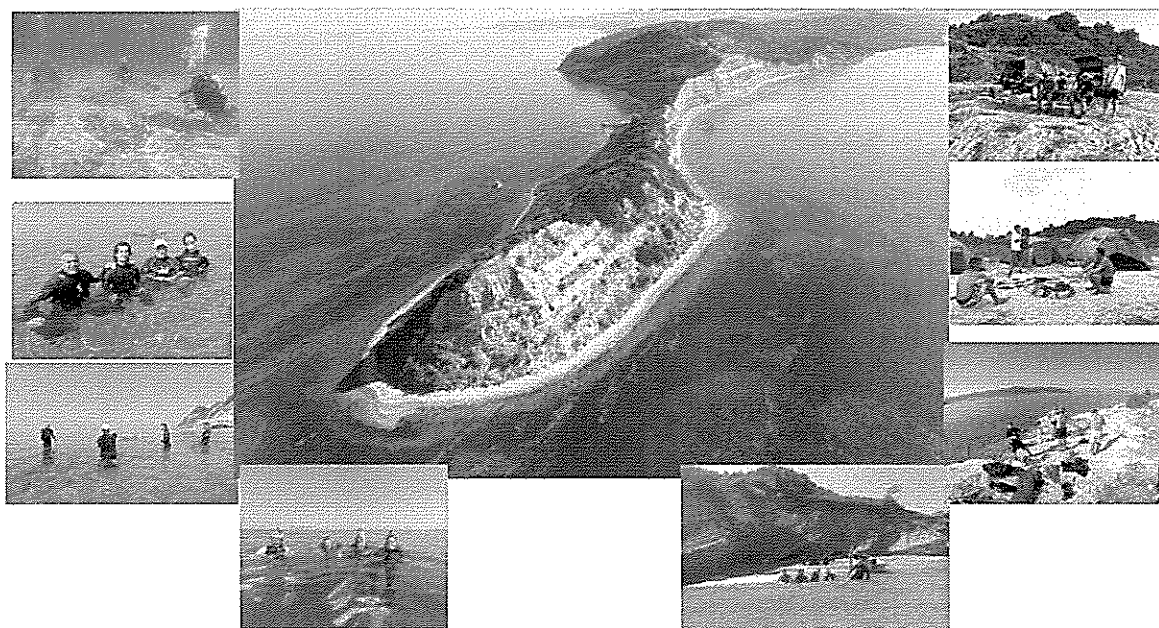


Fig. 6 - Underwater archaeological research at Cape Rodon.

<sup>1</sup> Coronelli, centry XVI.

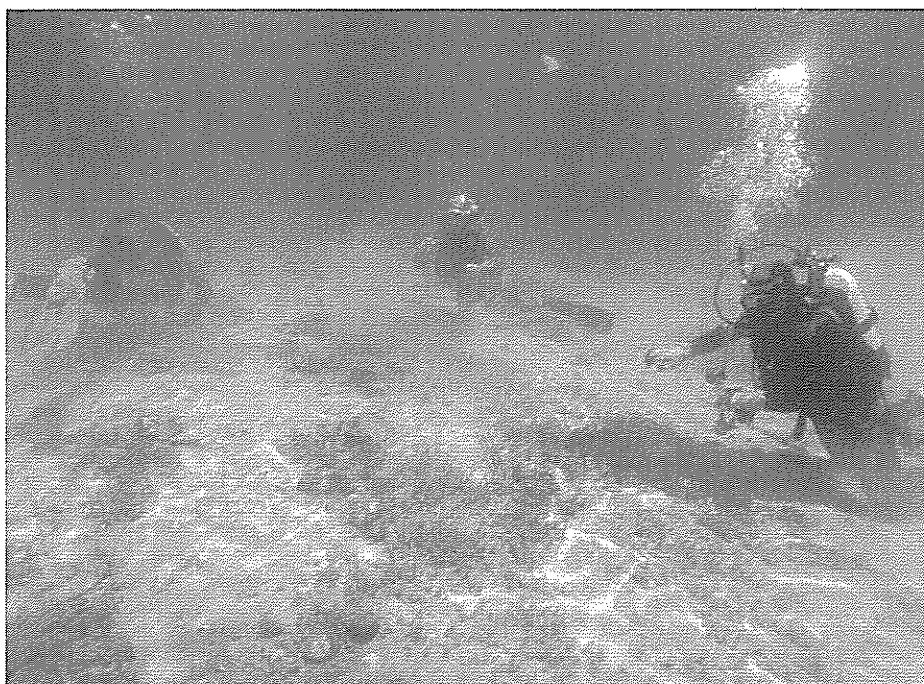
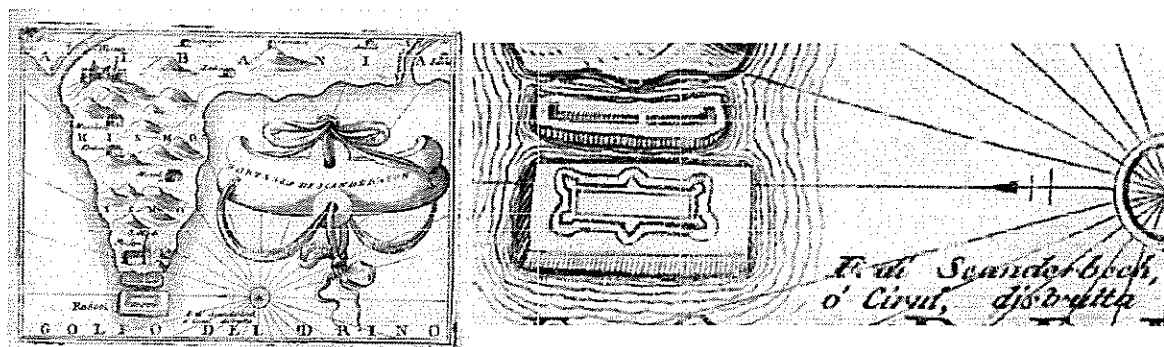


Fig.7 - Underwater archaeological research at Cape Rodon, detailed.



Fig. 8 - Corinthian amphora.



Coronelli 1688.

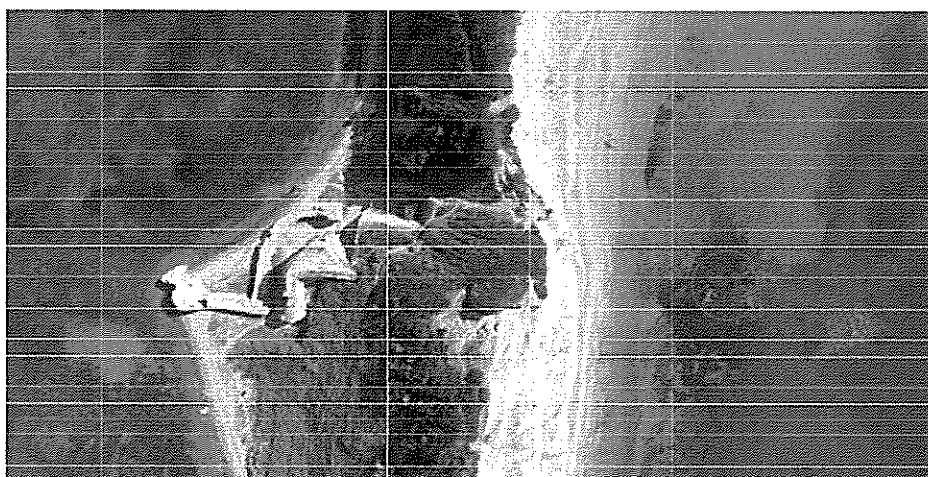


Fig. 9 - Identification of the small southeast tower.

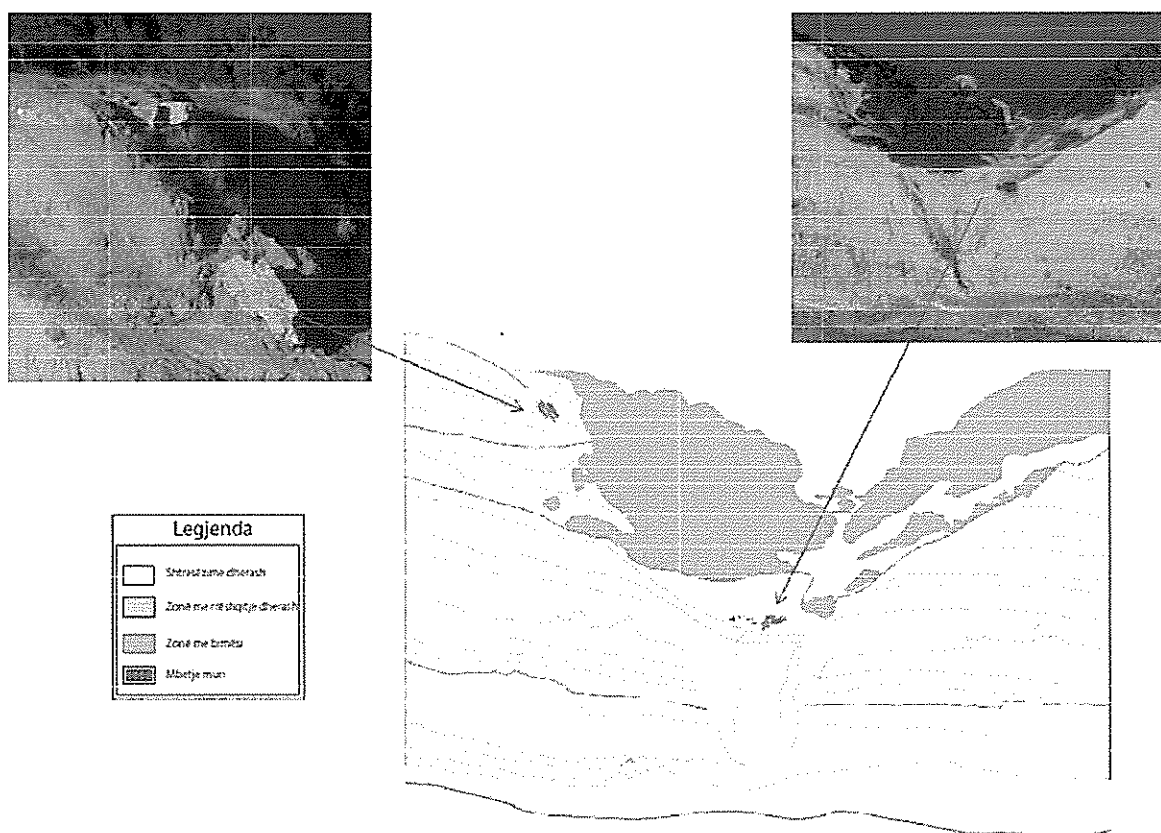


Fig. 10 - Profile of the eastern wall of Kastriot fortress.



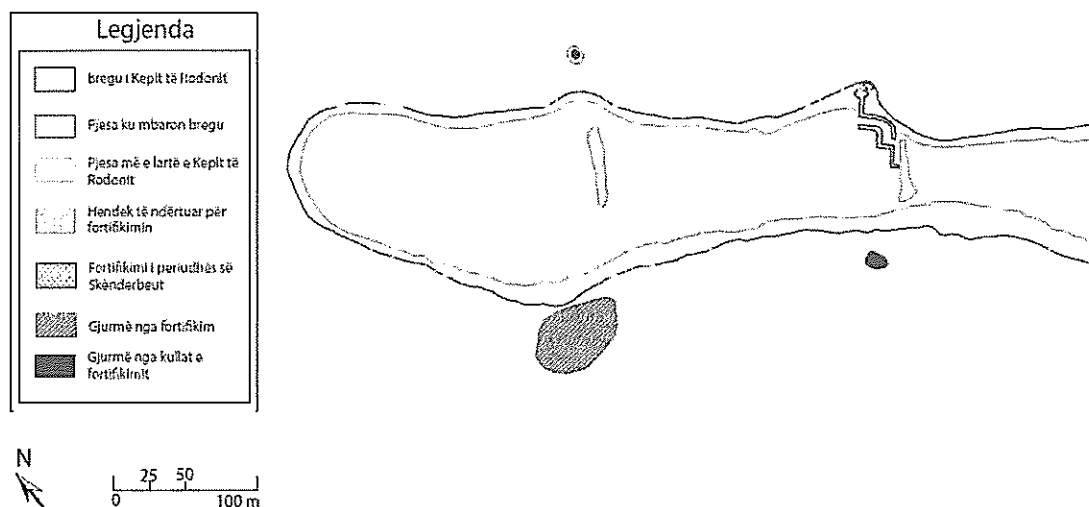


Fig. 11 – Documentation of new data from Kastriot fortress.



Fig. 12 - Identification of the road, the lime pit and the area with wooden pilots of the XV-XVI century.



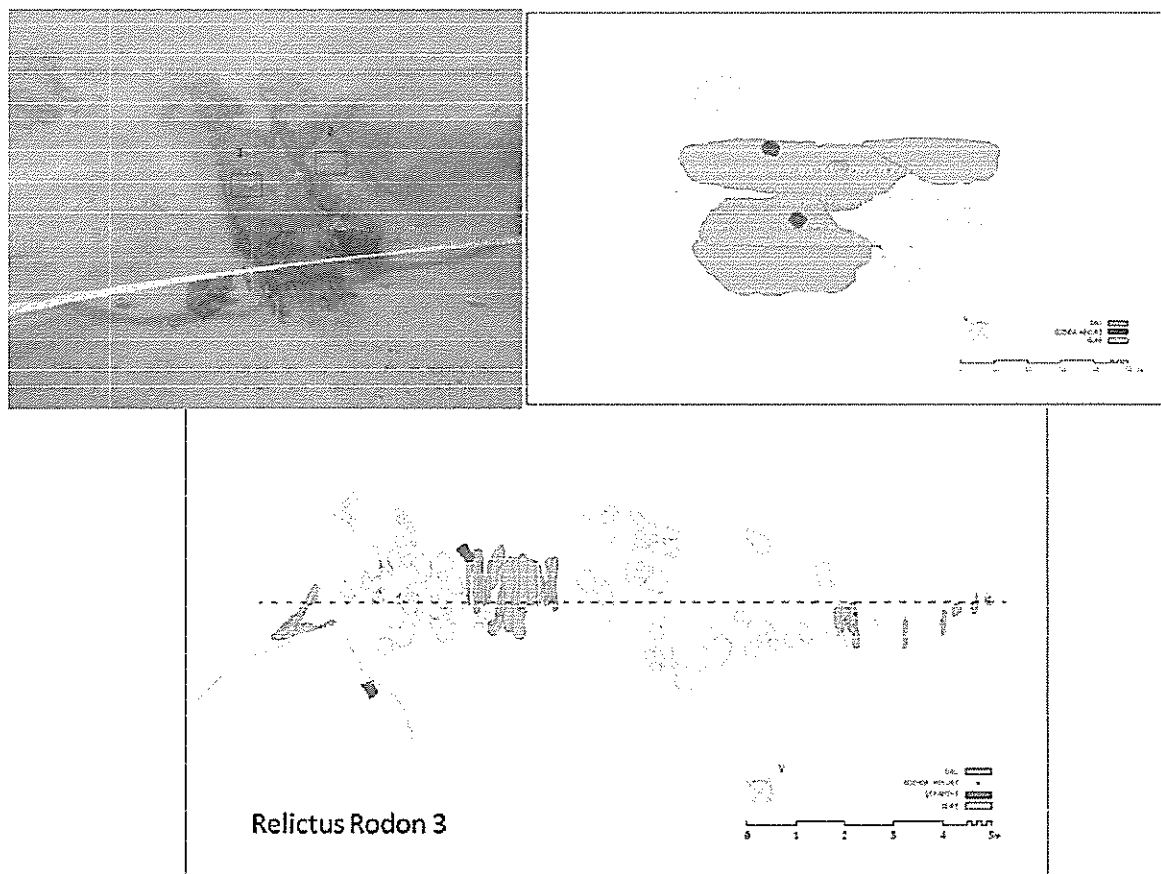


Fig. 13 - Documentation of the 17th century wreck.

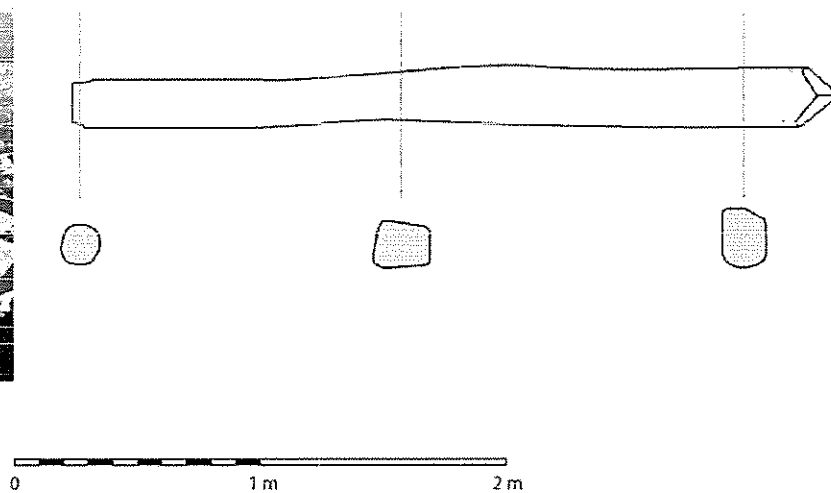
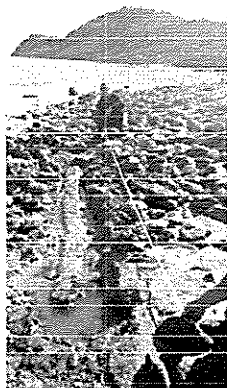


Fig. 14 - Documentation of one of the wooden pilots, XV century.

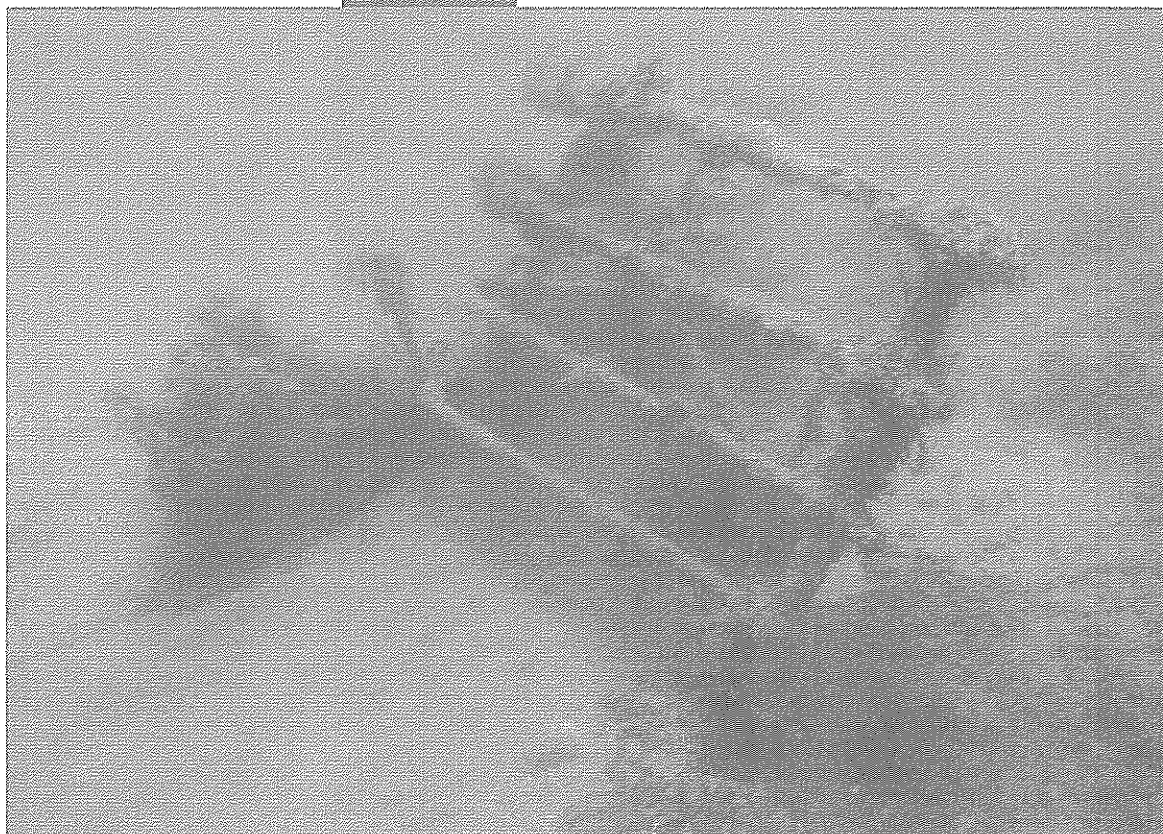


Fig. 15 - Metal parts from a modern wreck.

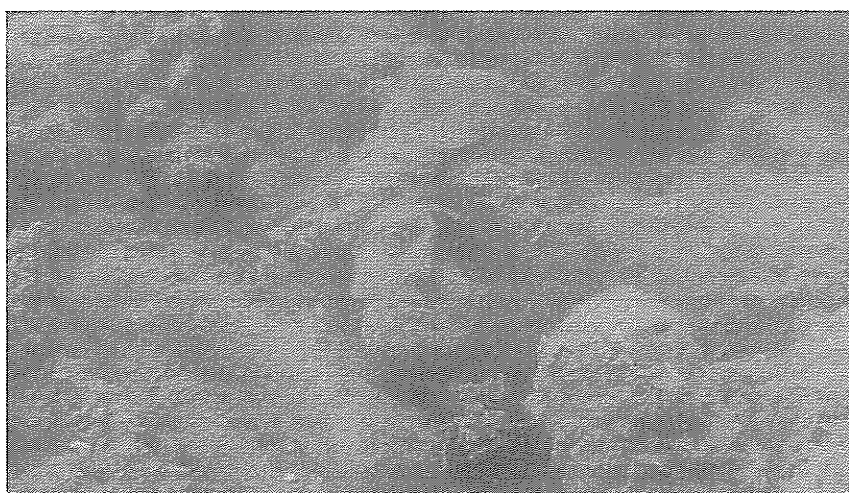


Fig. 16 - Protome discovered at Rodon Cape in 2015.

### **Surveys in the valley.**

The idea to conduct surveys in the valley between the two hills, near the church of Saint Ndou, arose after identifying in the field a large amount of fragmented construction material. These materials were discovered, after the opening by the church of the discharge sewers of a water fountain and those of the rains. The first square was placed near the canal in question.

This survey (3x3 m) was conducted in the form of a small square, measuring 3x3 m. It was located at a distance of 70 m from the church (southeast of it). A total of 4 stratigraphic units were identified. The first two units belonged to the modern humus created in recent years and the earliest humus directly beneath it. The third layer was a massive clay layer, in yellow-green color. Importantly, it was the fourth unit, which consisted of a cast of fragments of bricks, tiles, and scarcity. The bricks were 9 cm thick. The cast was located only on the west side of the square, with a maximum thickness of 39 cm, width revealed 1.60 m. Only a small amphora end was discovered, similar to the Italian products of the 19th century. IV / III-I before Cr. For its condition it was impossible to relate to a certain typology, but it could be approached with the MGS or Lamboglia 2 versions.

The second survey was conducted 115 m in the east of the first survey, in the form of a small square, 3x3 m. Below the level of humus came a layer of fragments of tiles laid out in an irregular shape. Beneath it lay a level of gray soil, while near and below the tiled rubble, a pit filled with sand.

These scraps clearly showed us that in the valley in question there were scraps and scraps of construction material coming from a ceramic atelier near the survey areas. To attempt to identify possible atelier structures, kilns as well as scrap layout, we spotted a third survey. For the purposes of this survey, it was conducted in the form of a trench, 3.70 x 1 m.

Below the humus layer was a clay level along the entire length of the survey. Below, in the southern part of the survey reappeared waste ceramic, but already rich with ceramic slag and structural cast parts of furnace.

To understand the extent of the territory where the pottery was found, a fourth quadrant was realized in the central area of the valley. No trace of ceramic cast was witnessed here, but only a layer of gray with very few ceramic fragments.

These surveys offered us the opportunity to have a new image on Cape of Rodon. The presence of traces of buildings of the antiquity period was mentioned early by Prof. Halil Myrto. But the passing of the years has practically erased the traces mentioned by him. But in no case this area has been identified as a artisanal production center.

The discovery of construction material waste and their scarcity is a clear testimony that ceramic ateliers have functioned in this area for mass production of construction material. In terms of

geology, the area has a quality clay composition. There are also water fountains, which in a certain area are known by the inhabitants as "lake". the presence of the structural elements of the furnaces testifies to a refunctionalization of them over the years.

Unfortunately the only dating data come from the brick thickness, 9 cm, and from the tile profiles. Based on these data we can give a preliminary dating to the century. III-IBC.

In terms of topography, the lack of waste throughout the first three surveys proves that not all of the territory was used for such a purpose. The available data lead us to believe that the waste is concentrated in the form of spots in the territory. We could not identify the presence of production structures or kilns, nor the location of the artisans' residence. Surveys can be carried out to identify productive structures or a geophysical study of the valley. As for the settlement, we believe that it can be searched on the southern hill near the valley in question. But the presence of a dense forest does not allow any research activity, even superficial observation



Fig.17 - archaeological survey area.





Fig. 18 - archaeological survey 1a.



Fig. 19 - archaeological survey 1b.

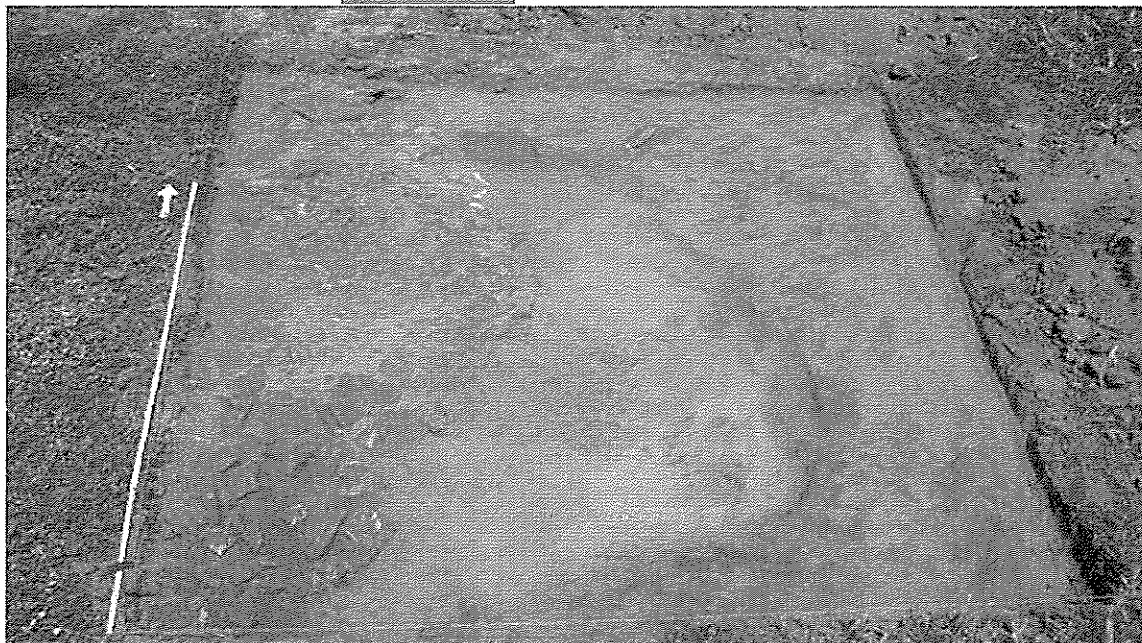


Fig. 20 - archaeological survey 2a.

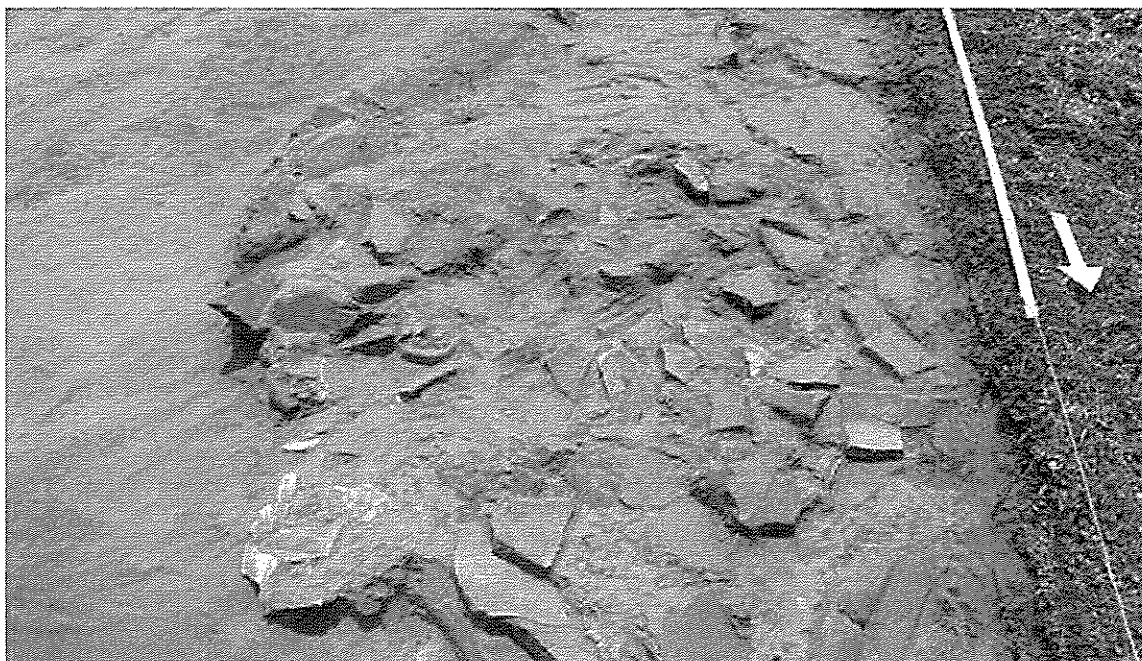


Fig. 21 - archaeological survey 2b.



Fig. 22 - archaeological survey 3a end 3b.



### **Survey in the last hills of Cape of Rodon and the valley where the church of Saint Ndou is located.**

Surface observations focused on the peninsular part of the cape which is surrounded on three sides by the waters of the Adriatic Sea. It is a hilly territory with very dense vegetation that greatly reduces the possibility of visibility in most of the hilly part. Only the extremities near the coastline and limited hilly parts provided visibility at a sufficient degree of information.

This area provided the possibility of identifying 10 areas with a concentration of archaeological finds, six of which (areas 1, 2, 3, 6, 10, 9) have sufficient data to predict structures related to the respective representative periods

What should be distinguished in the entirety of the documented information is the homogeneous shape of the construction material present in all documented areas except area 9. It is about bricks with a thickness of 8-9 cm and tiles with triangular edges, which are found mainly in urban contexts in Durrës related to Hellenistic structures. This definition is also supported by the fine ceramic material, pottery with black varnish as well as amphorae. These details on the other hand show the intensity of the use of this hilly peninsular space during the Hellenistic period.

Isolated forms of continuity can be suggested during late antiquity in the identified area 7, during the medieval period 13-14 century in area 4, as well as during the period of 16-18 century in area 1 and 9.

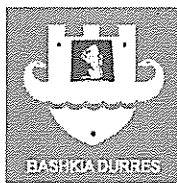
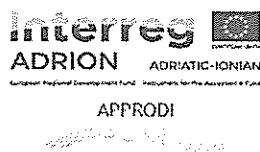
#### **Area 1**

It is a newly plowed land area, on the north side of the church very close to the sea shore. In the lower part, near the drainage channel, there is a large concentration of building materials, bricks 9cm thick and 42cm long, tuffstone and fragments of tiles.

Archaeological material represents two main periods, the Hellenistic period with fragments of amphorae and some cup fragments with black varnish. The next period is defined in the time frame of the 16th-18th century based on a number of categories of finds: glazed vessels, where we distinguish a fragment of the typology "slip painted ware", fragments of glass vessels that must belong to the same period as well as a fragment of flint used in the limits of the 18th / 19th century for firing gunpowder in firearms of this period.

#### **Area 2**

On a low hill, the remains of a possible site of the Hellenistic period are identified. The position favors a very good view from the south, north and the end part of Cape of Rodon. Most of this hill has been artificially displaced and continues to be damaged by constant landslides.



The most common archaeological material, spread over a wide area, consists of construction material, mainly bricks with a thickness of 8.5 cm, tiles with a triangular edge. In the preserved profiles of the hill are identified human bone remains, ceramic fragments with black varnish and vertical grooves, clear elements to suggest the dating of the site in the Hellenistic period.

### **Area 3**

High hilly massif split further as a road that descends to the castle of Skanderbeu. On both sides of the profiles there is a rich layer of bricks and tiles of the same nature as those of area 2. The collected archaeological material determines the Hellenistic period for dating. Compared to site 2, there are also later traces, through some fragments of glazed vases, one of the type "slip painted ware", dated in the period 16-18

### **Area 4**

The lower north side of the end part of the Cape, southwest of Skanderbeg Castle, on the coastline. Three periods of residence can be identified through the material. The Hellenistic period is evidenced by the building material. A fragment of a glazed vase of the type "Polychrome sgraffito ware" dated in the late 13th-early 14th century, represents another moment of use of this part during the medieval period. Some fragments of monochrome glaze, dating to the 16th century, make it possible to identify this period as well.

### **Area 5**

Identified on the coastline, this area appears to contain slides from the hill heights of archaeological materials, mainly construction materials, associated with site 3.

### **Area 6**

At the back of the terrace wall of Skanderbeg Castle there is a massive slide of building materials, bricks 8.5cm thick, connected to a possible Hellenistic structure that must have existed in the upper part of the hill.

### **Area 7**

The coastline following Zone 4 produces data on two historical periods. The profile preserved almost throughout the length of the area proves two stratifications. At the bottom are collected fragments of household utensils with black and red varnish, building materials of the Hellenistic period. In the upper deposit there are bricks with a thickness of 4-5.5cm thick, the form found in the building material of late antiquity. This level maintains burn marks that may suggest a level of abandonment associated with burn.

### **Area 8**

The southern slope of the highest part of the southwestern extreme of the Cape. The continuous slides of the clay mass have brought the gradual displacement of the site traces

discovered at the top of the cape, identified as area 9. The pottery found in the landslides are fragments of household pottery, plates imported from Corfu of the type "painted ware", dated to the end of the 18th century - the beginning of the 20th century, simple tableware related to the same period.

### Area 9

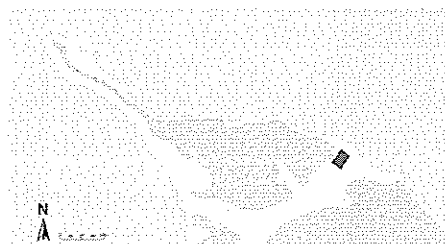
The highest part at the western end of the cape is preserved in the form of a narrow terrace that gradually decreases due to continuous slides, especially on the south side. The vegetation is very dense and makes it difficult to reach both the destination and the visibility of the terrain. The whole terraced space seems to be occupied by the massive structure of stone blocks connected with mortar, one of which must be a cistern. Archaeological material related to this site is documented in the slides of the southern site, documented as area 8

### Area 10

Subsequent hilly massif, in the north-eastern direction from zone 9, are identified wall structures with irregular tuff stones, tiles with triangular edges and bricks with dimensions 0.44x0.08m. These elements suggest a structure related to the Hellenistic period.



Fig. 23 - Survey area St. Ndout Church and the edge of Rodon Cape.



**Zona 1**

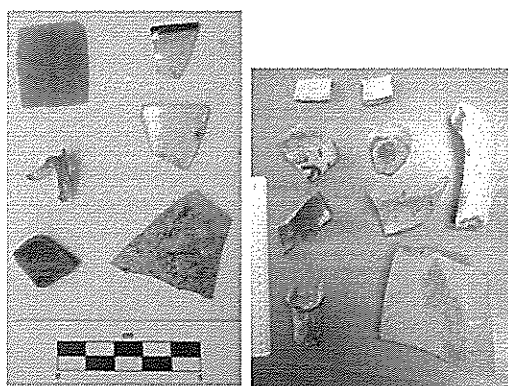
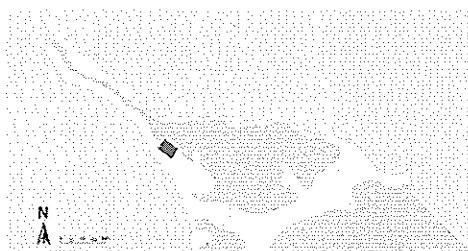


Fig. 24 - Zona 1.



**Zona 2**

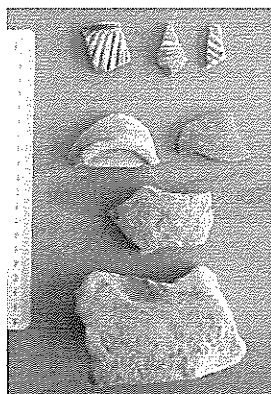
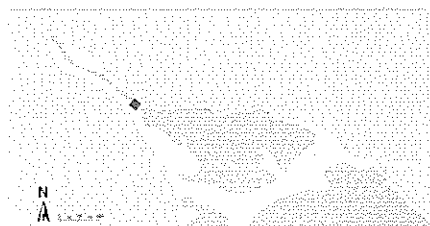


Fig. 25 - Zone 2.



Zona 3

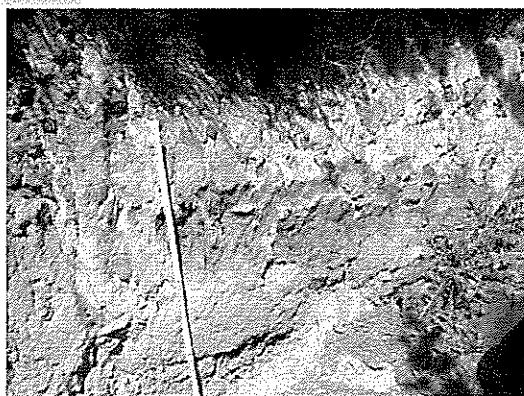
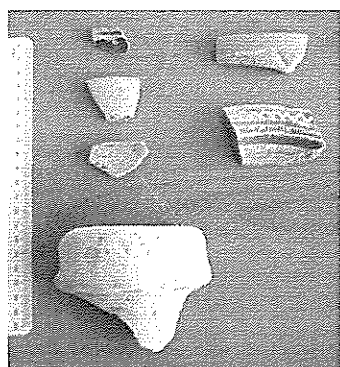


Fig. 26 - Zone 3.

Zonat 4, 5

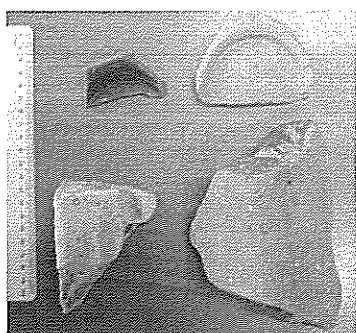


Fig. 27 - Area 4 and 5.

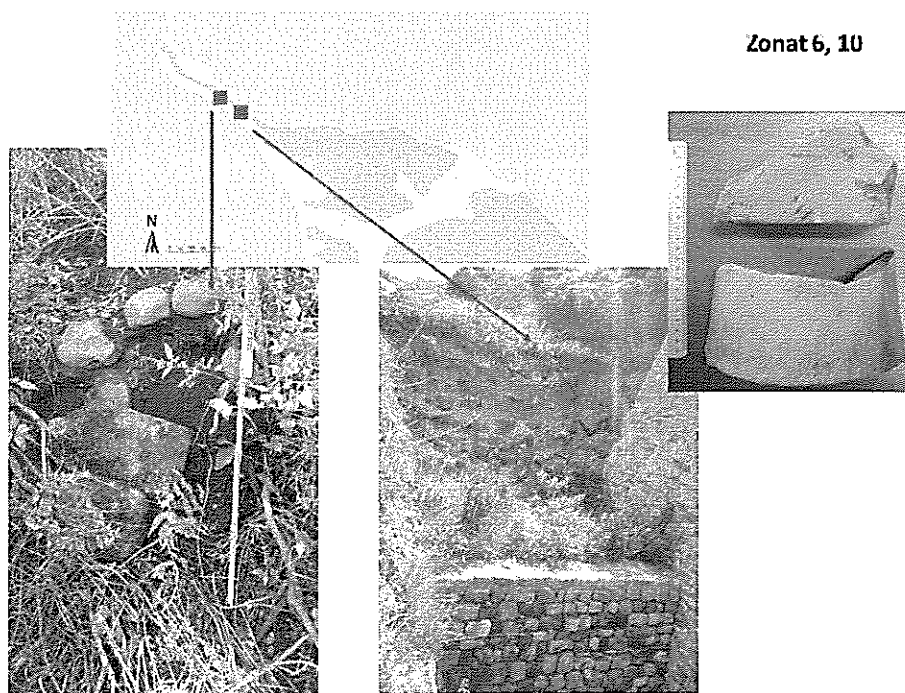


Fig. 28 - Area 6 and 10.

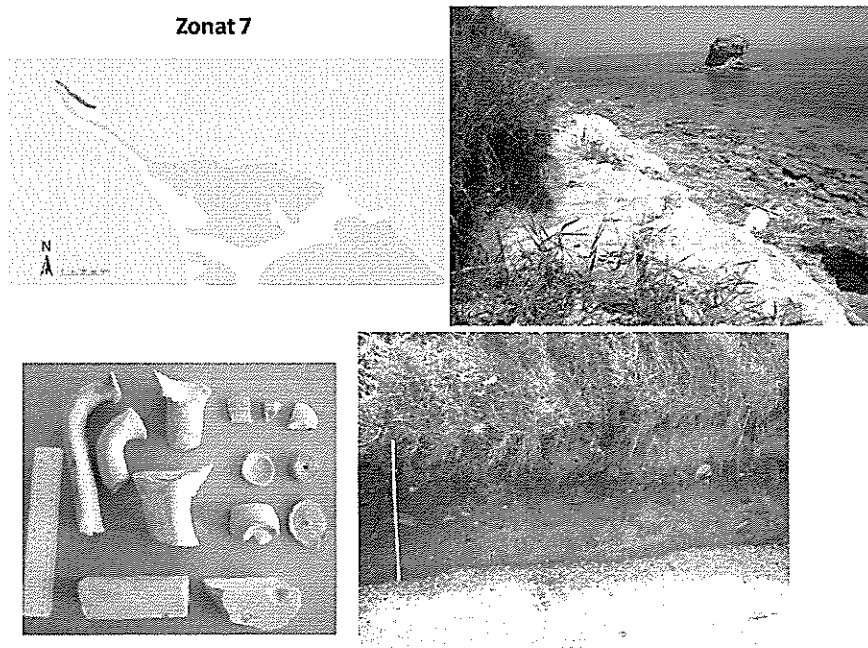


Fig. 29 - Area 7.



**Zonat 8, 9**

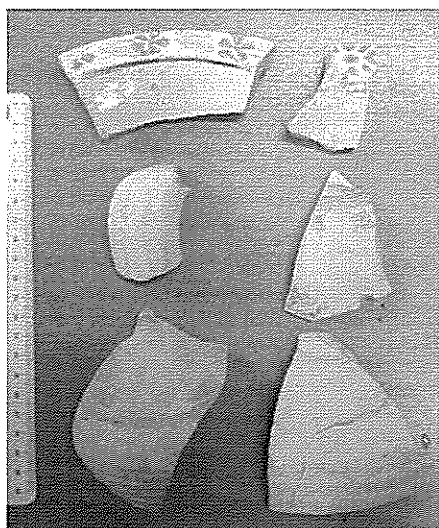


Fig. 30 - Area 8 and 9.



## Archaeological material identified in the Southern Cape of Rodon.

- 1- Ceramic pot. Lip parts, neck, two handles and the beginning of the body. Dating: Typology: Dimensions: Height 14.8 cm. Lip length 1.3 cm. Outer diameter 6.4 cm, inner 4 cm. Thickness 0.9 cm. The neck is 6.2 cm long. Diameter 8 cm. The handle is 17 cm long. Width 3.8 cm. Thickness 2.5 cm. The object is restored and consists of 5 fragments. Saved 15%.
- 2- Amphora Neck parts and a handle. Dating: Typology: Dimensions: Length 30 cm. The neck is 8.8 cm long. Outer diameter 10.4 cm, inner 6.8 cm. Thickness 1.7 cm. The handle is 28.4 cm long. Width 4.7 cm. Thickness 4.6 cm. The object is saved 10%.
- 3- Ceramic pot. Lip parts, neck, two handles and the beginning of the body. Dating: Typology: Dimensions: Height 13 cm. The lip has a length of 2.5 cm. Outer diameter 6.7 cm, inner 4.4 cm. Thickness 1.2 cm. Neck length 7 cm. Diameter 7.4 cm. The handle is 11.8 cm long. Width 2.6 cm. Thickness 1.9 cm. The object is saved 20%.
- 4- Amphora. Bottom pot. Dating: Typology: Dimensions: Length 15 cm. Upper outer diameter 14 cm, inner 11 cm. Thickness 1.5 cm. Bottom diameter 3.4 cm. Object is saved 7%.
- 5- Stone weight for nets. Length 10 cm. Perimeter 20 cm. Diameters 1 9 cm. The object is 100% preserved.
- 6- Ceramic pot. Neck parts, a handle and the beginning of the body. Dating: Typology: Dimensions: Length 13.5 cm. Width 13.6 cm. Thickness 0.8 cm. The handle is 12.5 cm long. Width 2.4 cm. Thickness 1.6 cm. The object inside has glaze. Saved 40%.
- 7- Ceramic pot. Lip and neck parts. Date: Typology: Dimensions: Height 7.8 cm. The edge has an outer diameter of 6.4 cm, an inner diameter of 4.1 cm. The object is saved 10%.
- 8- Ceramic pot. Lips, neck and a handle. Dating: Typology: Dimensions: The edge is 2 cm long. Width 5.4 cm. Thickness 0.1 cm. The neck is 2 cm long. Width 3 cm. Thickness 0.2 cm. The handle is 8.5 cm long. Width 2 cm. Thickness 1 cm. The object is saved 5%.
- 9- Ceramic pot. Lip parts, neck, two handles and the beginning of the body. Dating: Typology: Dimensions: Height 21.8 cm. The edge is 1.5 cm long. Outer diameter 7.6 cm, inside 5.8 cm. Thickness 1 cm. The neck is 15 cm long. Diameter 5.5 cm. The handle is 17 cm long. Diameter 3 cm. The object is saved 20%.



## Archaeological material identified in the Northern Cape of Rodon.

- 1- Amphora. Bottom of amphora. Dating. Typology. Dimensions. Length 28 cm. Width 20 cm. Thickness 1.2 cm. Bottom diameter 4 cm. The bottom has a hole which penetrates the bottom with a length of 2.7 cm with a diameter of 1.1 cm. The object is saved 20%. The object is restored and consists of 6 fragments.
- 2- Utensils on board. Neck parts, a handle and the beginning of the body. Dating. Typology. Probably the variant of Otranto. Dimensions: Height 16.3 cm. The neck is 3.5 cm long. Width 9.6 cm. Thickness 0.5 cm. The handle is 15 cm long. Width 3 cm. Thickness 1.7 cm. The body is 12.7 cm long. Width 14 cm. Thickness 0.7 cm. The object is saved 10%.
- 3- Utensils on board. Body parts. Dating. Typology. Dimensions: Length 10.6 cm. Width 14 cm. Thickness 1 cm. The object is saved 3%.
- 4- Ceramic pots. Neck and body parts. Dating: 15th-17th century. Typology: Ottoman. Dimensions: Height 9 cm. Width 6.7 cm. Thickness 0.9 cm. Object is saved 2%.
- 5- Ceramic bowl. Bottom part, body and lips. Dates: 100-160. Typology: Ottoman. Dimensions: Height 7.3 cm. Width 11.5 cm. Thickness 0.4 cm. The lip has a length of 2 cm. Below it there is a decor which is characterized by two strips made with engraving with a width of 0.7 cm. The bottom is characterized by a round bar with a length of 10 cm and a height of 0.5 cm. The object is saved 15%.
- 6- Amphora. Parts of the handle. Dating. Typology. Dimensions: Length 30 cm. Diameters 4.3 cm. The object is saved 4%.
- 7- Amphora. Parts of the handle. Dating. Typology. Dimensions: Length 12.5 cm. Width 3.5 cm. Thickness 1.7 cm. Object is saved 2%.
- 8- Amphora. Lip parts, neck and little body. Dating. Typology. Dimensions: Height 8 cm. The edge is 4.7 cm long. Width 11 cm. Thickness 1.5 cm. The neck is 2.2 cm long. Width 9 cm. Thickness 0.6 cm. The body is 2 cm long. Width 7 cm. Thickness 0.7 cm. The object is saved 5%.
- 9- Amphora. Parts of the handle. Dating. Typology. Dimensions: Length 20 cm. Diameter 1.7 cm. The object is saved 5%.
- 10- Ceramic pot. The Lip. Dating. Typology. Dimensions: Height 2.2 cm. Upper outer diameter 1.7 cm, inner 1.5 cm. Thickness 0.1 cm. Outer end diameter 3.7 cm, inner 2.5 cm. Thickness 0.7 cm. Object is saved 2%.

- 11- Amphora. The bottom of amphora. Dating: Typology: Dimensions: Height 14 cm. Diameter 5.8 cm. The object is saved 5%.
- 12- Amphora. Body parts. Dating: Typology: Lamboglia. Dimensions: Length 20 cm. Width 18 cm. Thickness 1.6 cm. The object is saved 5%.
- 13- Amphora. Neck pieces and the beginning of one handle. Dating: Typology: Dimensions: Length 21 cm. Neck width 15 cm. Thickness 1.4 cm. The handle is 7 cm long. Width 5.8 cm. Thickness 3.1 cm. The object is saved 3%.
- 14- Ceramic plate. Lip and body parts. Dating: Typology: Central Tunisia, first half of the century. All four Dimensions: Length 6.7 cm. Width 14.4 cm. Thickness 0.4 cm. The object is saved 10%.
- 15- Amphora. Body parts. Dating: Typology: Lamboglia. Dimensions: Length 20 cm. Width 21.5 cm. Thickness 1.4 cm. The object is saved 5%.
- 16- Amphora Handle. Dating: Typology: Dressel 2-5, Aegean. Dimensions: Length 15 cm. Width 5.7 cm. Thickness 2 cm. Object is saved 2%.
- 17- Amphora. Handle. Date: Typology: Dimensions: Length 15.7 cm. Width 6.2 cm. Thickness 1.5 cm. The object is saved 3%.
- 18- Amphora. Handle. Dating: Typology: Dimensions: Length 16 cm. Width 3.4 cm. Thickness 1 cm. The object is saved 5%.
- 19- Amphora. Handle. Dating: Typology: Dimensions: Length 22 cm. Width 4 cm. Thickness 2 cm. The object is saved 5%.
- 20- Amphora. Handle. Dating: Typology: Dimensions: Length 8 cm. Width 7 cm. Thickness 3.8 cm. Object is saved 2%.
- 21- Amphora. Bottom of amphora. Dating: Typology: Dimensions: Length 9.7 cm. Bottom diameter 5 cm. Thickness 16 cm. The object is saved 4%.
- 22- Amphora. Body parts. Dating: Typology: LRA V, Palestine. Dimensions: Length 12 cm. Width 6.7 cm. Thickness 0.6 cm. The object is restored and consists of two fragments. Saved 3%.
- 23- Amphora. Parts of the handle and neck. Date: Typology: Dimensions: Neck length 13 cm. Width 14.5 cm. Thickness 2 cm. The handle is 11 cm long. Diameter 3.7 cm. The object is saved 5%.
- 24- Amphora. Lip and neck parts. Dating: Typology: Dimensions: Length 11 cm. Width 12 cm. The edge is 2 cm long. Width 13 cm. Thickness 1.9 cm. The object is saved 3%.
- 25- Amphora. Lip parts. Dating: Typology: Dimensions: Length 1.9 cm. Width 10 cm. Thickness 1.7 cm. Object is saved 2%.
- 26- Tripod. Dating: Typology: Dimensions: Length 6 cm. Upper diameter 5 cm, lower outer 3.8 cm, inner 2.5 cm. Thickness 0.6 cm. The object is saved 5%.
- 27- Amphora. Lip parts. Dating: Typology: Dimensions: Length 5 cm. Width 7.7 cm. Thickness 0.8 cm. Object is saved 2%.

- 28- Amphora. Handle. Dating: Typology: Dimensions: Length 17 cm. Diameter 2.6 cm. The object is saved 4%.
- 29 Glazed bowl. The last part. Dating: 14-15 centuries. Typology: Venice Dimensions: Length 7.4 cm. Width 5 cm. Height 2 cm. Thickness 0.6 cm. The object is saved 3%.
- 30- Amphora. Neck parts. Dating: Typology: Dimensions: Length 5 cm. Diameter 5 cm. Thickness 0.4 cm. The object is saved 4%.
- 31- Amphora. Body parts. Dating: Typology: Lamboglia. Dimensions: Length 14.4 cm. Width 13.8 cm. Thickness 1.9 cm. The object is saved 3%.
- 32- Fragment of oil lamp. Base parts. Dating: Dimensions: Length 4.3 cm. Width 2.2 cm. Thickness 0.5 cm. The object is saved 5%.
- 33- Fragment of oil lamp Handles and body parts Dating: Dimensions: Length 4.7 cm Width 2 cm. Thickness 0.4 cm. The handle is 9 cm long. Width 1 cm. Diameter 1 cm. The object is saved 5%
- 34 Bottom of glaze pot. The last part. Dating: Typology: Dimensions: Height 4 cm. Length 11 cm. Width 2.5 cm. Thickness 0.8 cm. Object is saved 7%.
- 35- 35- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 14 cm. Width 5 cm. Thickness 2.3 cm. The object is saved 3%.
- 36- Ceramic fragment. Body parts. Length 8 cm. Width 4.5 cm. Thickness 0.8 cm. The object has a decor with engraving in the form of two parallel lines. Saved 5%.
- 37- Bottom of ceramic pot with glaze. Dating: Typology: Dimensions: Length 4.5 cm. Width 10 cm. Thickness 0.7 cm. Object is saved 7%.
- 38- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 6.6 cm. Width 5 m. Thickness 1.9 cm. The object is saved 3%.
- 39 Fragment of ceramic pot. Bottom parts. Dating: Typology: Dimensions: Length 5 cm. Width 4 cm. Thickness 0.3 cm. Object is saved 2%.
- 40- Fragments of ceramic vessels. Flat bottom parts. Dating: Typology: Dimensions: Height 2.5 cm. Length 10 cm. Width 2.8 cm. Thickness 0.7 cm. The object is saved 5%.
- 41- Amphora. Bottom parts. Dating: Typology: Dimensions: Length 6.7 cm. Width 5.1 cm. Thickness 0.9 cm. Object is saved 2%.
- 42- Fragment qeramike. Datimi: Tipologjia: Permasat: Gjatesia 7 cm. Gjeresia 5.8 cm. Trashesia 1 cm. Objekti ruhet 2%.
- 43- Amfore. Pjese vegjeje. Datimi: Shek XII-XIII, Italia e Jugut. Tipologjia: Permasat: Gjatesia 7 cm. Gjeresia 6.4 cm Trashesia 1.2 cm. Objekti ruhet 3%.
- 44- Ceramic pot. Fragment of handles. Dating: Typology: Dimensions: Length 4.6 cm. Width 2.3 cm. Thickness 1.6 cm. Object is saved 2%.
- 45- Ceramic pot. Lip parts and a little neck. Dating: Typology: Dimensions: Height 3.4 cm. Length 4.5 cm. Width 4 cm. Thickness 0.8 cm. The object is saved 5%.

- 46- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 8 cm. Width 5 cm. Thickness 2.1 cm. Object is saved 2%.
- 47- Amphora Bottom parts. Dating: Typology: Dimensions: Length 12 cm. Width 8 cm. Thickness 1 cm. Object is saved 2%.
- 48- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 15 cm. Width 5 cm. Thickness 1.8 cm. The object is saved 4%.
- 49- Bottom of fine ceramic pottery. Dating: Typology: Dimensions: Length 7.6 cm. Width 1.3 cm. Thickness 0.2 cm. The bottom has a diameter of 4.6 cm. The object is saved 8%.
- 50- Fragment of fine ceramic pottery. Dating: Typology: Dimensions: Length 3.2 cm. Width 3 cm. Thickness 0.7 cm. The object is saved 2%.
- 51- Fragment of ceramic pot with black varnish. Dating: Typology: Dimensions: Length 5 cm. Width 2.4 cm. Thickness 0.3 cm. The object is saved 3%.
- 52- Fragment of ceramic pot with black varnish. Dating: Typology: Dimensions: Length 3.1 cm. Width 2.9 cm. Thickness 0.5 cm. Object is saved 2%.
- 53- Fragment of fine ceramic pot with glaze. Dating: Typology: Dimensions: Length 3 cm. Width 1.3 cm. Thickness 0.4 cm. Object is saved 2%.
- 54- Fragment of ceramic pot with black varnish. Body parts. Dating: Typology: Dimensions: Length 2.4 cm. Width 2.2 cm. Thickness 0.3 cm. The object has a decor with carvings in the shape of lines 0.2 cm wide. Saved 1%.
- 55- Fragment of ceramic pot with black varnish. Lip parts. Dating: Typology: Dimensions: Length 2.4 cm. Width 2.3 cm. Thickness 0.2 cm. The object has a wavy decor below the lip. 1.8 cm below the edge we have the beginning of carvings in vertical form with a distance of 0.2 cm from each other. Saved 1%.
- 56- Fragment of ceramic pot with black varnish Bottom parts. Dating: Typology: Dimensions: Length 2.1 cm. Width 1.9 cm. Thickness 0.2 cm. The object is saved 1%.
- 57- Fragment of ceramic pot with black varnish. Belly parts. Dating: Typology: Dimensions: Length 3.4 cm. Width 1.2 cm. Thickness 0.4 cm. The object is saved 1%.
- 58- Fragment of ceramic pot. Belly parts with decor. Dating: Typology: Dimensions: Length 2.2 cm. Width 1.9 cm. Thickness 0.4 cm. The Object has zig-zag carving decor. The object is saved 1%.

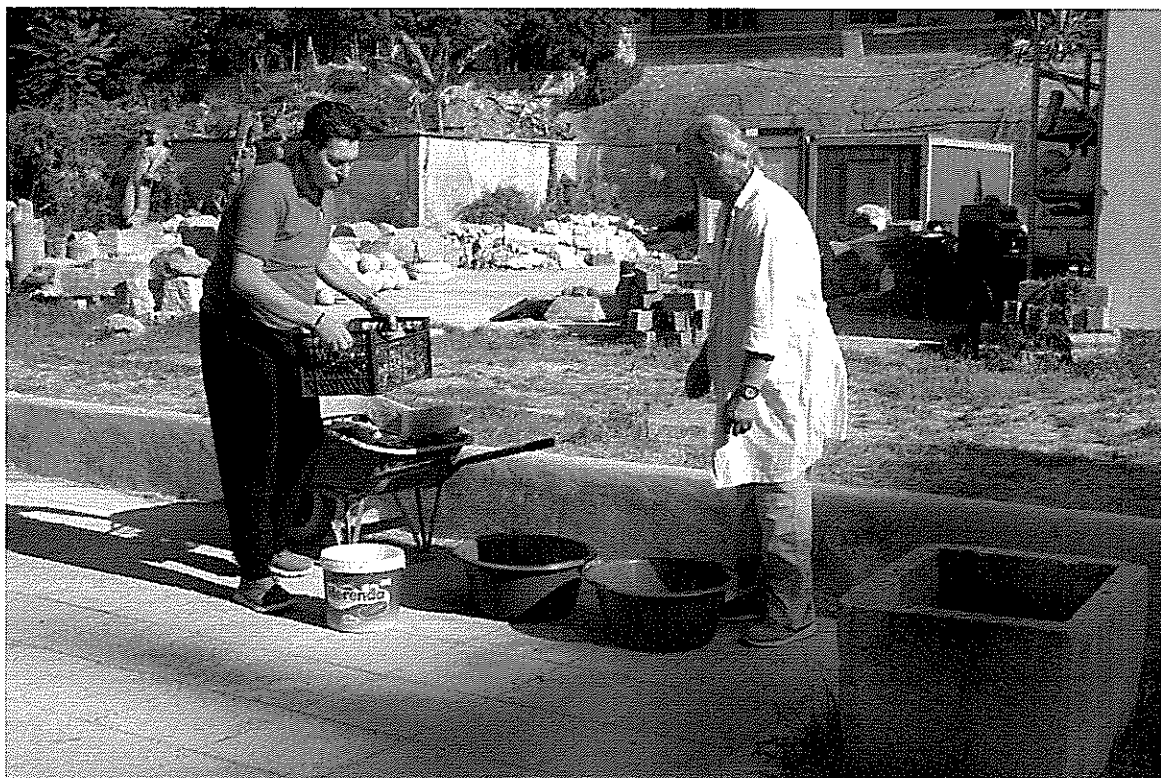


Fig. 31 - Long-term process of treatment of archaeological material to reduce% of salt.

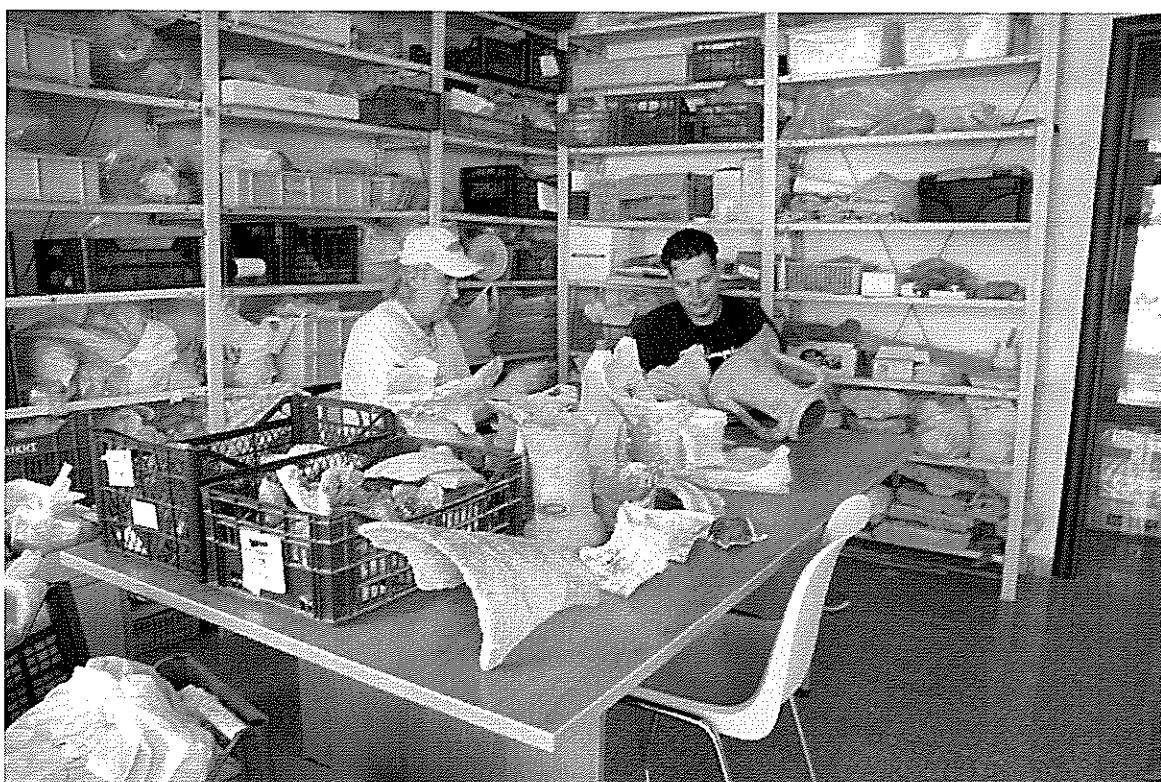


Fig. 32 - The process of restoration and consolidation of the structure of archeological objects.

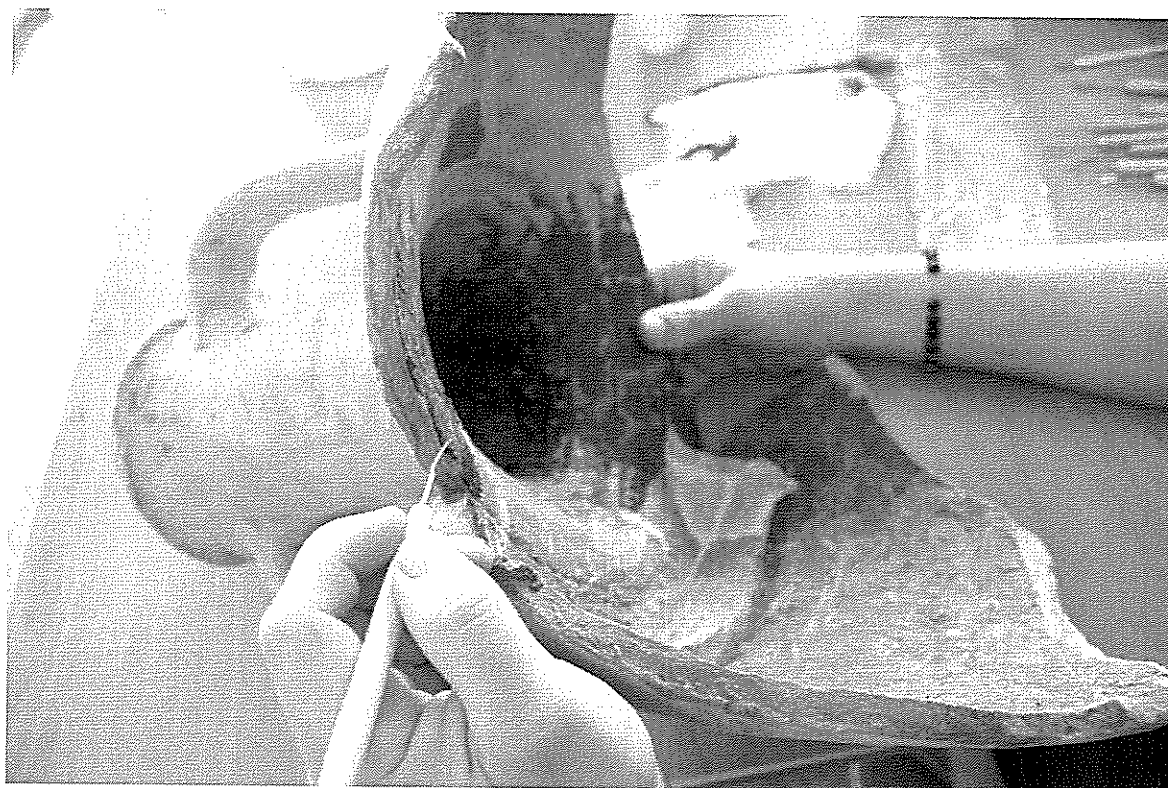


Fig. 33 - The process of restoration and consolidation of the structure of archeological objects.



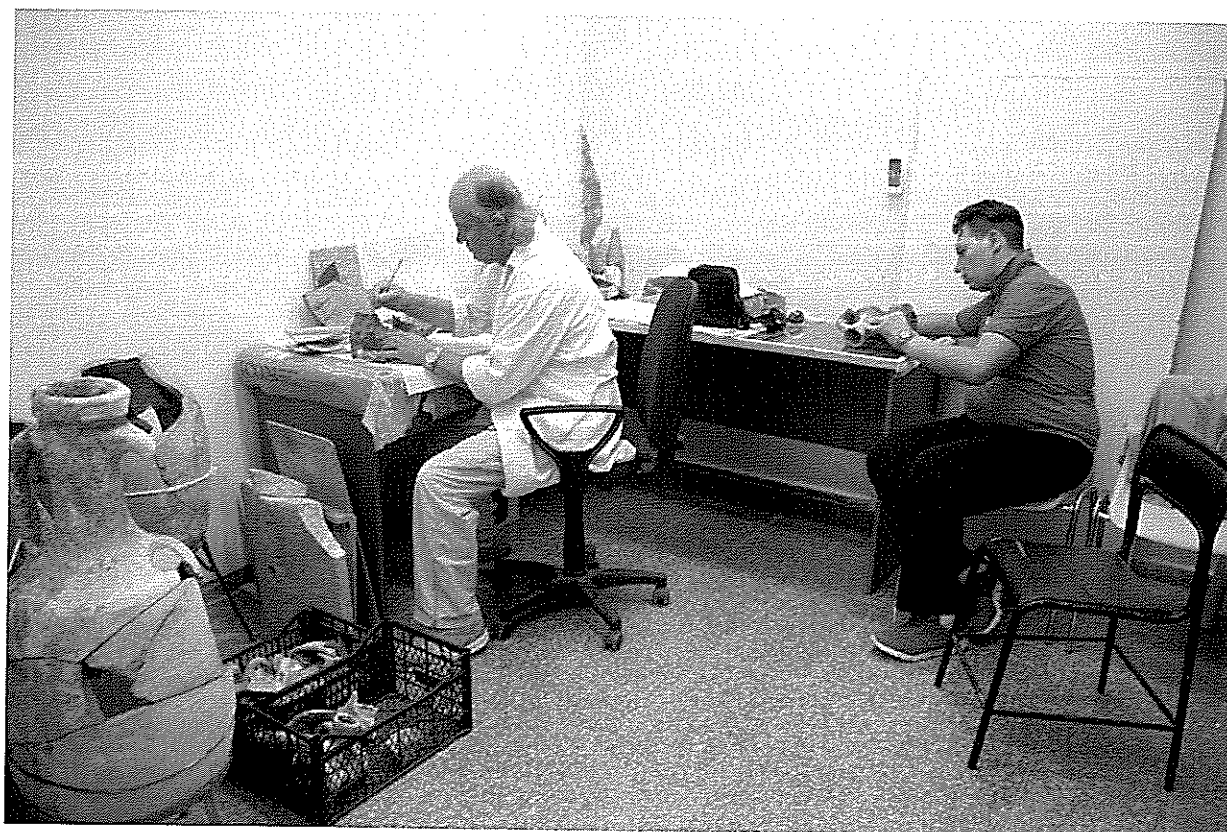


Fig. 34 - The process of restoration and consolidation of the structure of archeological objects.



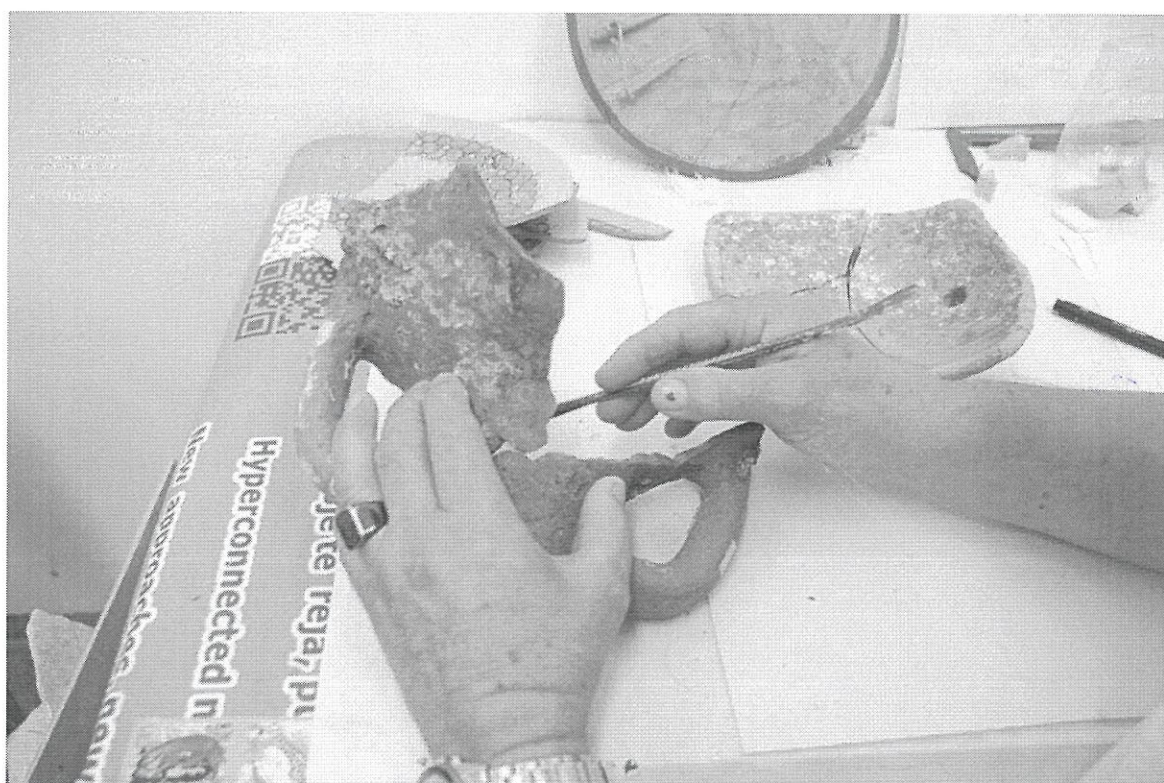


Fig. 35 - The process of restoration and consolidation of the structure of archeological objects.

*Andrius*  
01.30.12.2020

Pranci  
Flora  
01.30.12.2020





**APPRODI**



**APPRODI**

**“From Ancient Maritime Routes to eco-touristic destinations”**

*Del. T2.3 – Setting up of geo-archaeological map, even underwater, with  
the indication of eventual archaeological finds*

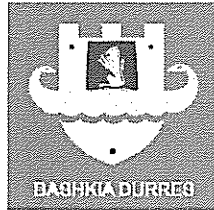
*PP 4 Durrës Municipality*



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1. An overview of the geomorphological areas of Currila-Batlla and Cape of Rodoni
2. Geomorphological explanation of the area of Cape of Rodon – Currila
3. Archaeological material identified in the Currila – Batlla area
4. Archaeological material identified in the Southern Cape of Rodon
5. Archaeological material identified in the Northern Cape of Rodon
6. The geo-morphological study of the Cape of Rodon and Currila – Batlla sites
7. Legend of the geo-morphological map of Rodon's Cape
8. Legend of the geo-morphological map of Currila – Batlla





## **Setting up of geo-archaeological map, even underwater, with the indication of eventual archaeological finds, (Act. '12.3)**

### **An overview of the geomorphological areas of Currila-Batlla and Cape of Rodoni.**

**Anticline hilly ridges** (brahianticline and monocline), which lie within the Coastal Lowland of Albania constitute one of the most characteristic elements of its relief. They extend from southeast to northwest, sometimes in the form of uninterrupted parallel ranges and sometimes in the form of separate hills.

As a rule, in the southeast direction, these ridges thicken and move away from the coast, while in the northwest direction, they become rarer and closer to the sea, while in the area of Durrës Mountain, Cape of Pali and Cape of Rodoni fall directly over the sea, formed soft, unstable cliffs that constantly erode and slip, thus losing their morphological features.

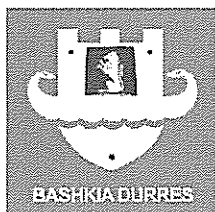
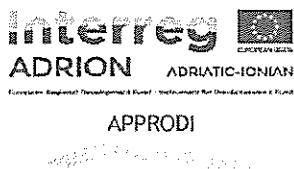
Lithologically, they consist mainly of Miocene and Pliocene terrigenous deposits (sandstones, conglomerates, marls, Neogene clays, etc.) and less often limestone.

Most of the hilly ridges represent long and narrow anticline structures with soft asymmetric slopes, composed mainly of molasses. But there are also monocline structures composed mostly of Miocene sandstones. Their heights range from 50-100 m to 200-250 m. Only two or three peaks can be raised above this height.

The hills and hilly ridges are organized in four main ranges, each with a northwest-southeast direction, which are divided between them by the river valley, by plain corridors in the shape of valleys, more or less in the same direction.

The first and easternmost range is the range of Rodon, Preza, Vora, Erzen, which has a monoclinial structure.

The second verse is not part of our study.



The third line starts with the Cape of Lagji and continues with the other hills up to Ardenica. This range takes a direction closer to the south than the southeast. To the north, the continuation of this range is Durrës Mountain and Cape of Pali<sup>1</sup>.

**Durrës Mountain** lies in the west of the Spitalla plain. It forms an anticline with a height of 178 m. Continuing it, Pali's Cape sits very gently in the sea. The different heights between Durrës Mountain and Cape of Pali are mainly conditioned by the different strength of the terrigenous rocks that form it. The asymmetry of the slopes (the steepest is the western slope) is due to the detachment tectonics of the western side of the anticline, marine abrasion processes and those of denudation. Morphologically, the territory is a double tombolo where the former islands of Durrës Mountain and Cape of Pali are connected through the deposits of the river Erzen<sup>2</sup>.

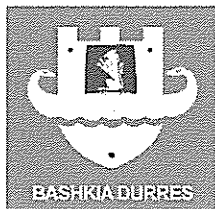
#### **Cape of Rodoni.**

The hilly range of Cape of Rodoni, Vora, Erzeni with a length of about 40 km, is located in the central part between Tirana, Lezha and Durrës. Morphologically this hilly range consists of a series of hills separated by small longitudinal depressions. It is highly fragmented, especially horizontally due to its terrigenous composition. Next to them there are territories with small fragmentation, in the northern part where a dense oak vegetation can be seen on the sandy and clay rocks. In the morphology of this range is observed the matching of the relief with the

---

<sup>1</sup> M. Kabo et al., M., *Gjeografia Fizike e Shqipërisë* 1991, vol II p. 437-38, chapter. V.

<sup>2</sup> Idem, p.478.



structures, but it is separated by some longitudinal deepening, due to the emergence of clayey-aleurolithic deposits between two sandy layers that are easily eroded by surface waters.<sup>3</sup>

### **Coastal Reliefs.**

From Shëngjin to Vlora the coast takes the north-south direction. The northern part of this coast, from Shëngjin to the Cape of Lagji, geomorphologically distinguished for the alternation of sandy beaches with rocky capes, which constitute one of the most basic morphological features of this part of the Adriatic coast. These capes are: Rodon Cape (Skanderbeg's Muzhli Cape), Pali Cape ( Bisht Palla) and Lagji Cape<sup>4</sup> They are a direct continuation of the structures of our Coastal Lowland, which the north-south direction of the coastline intersects. They consist mainly of terrigenous deposits (Miocene and Pliocene sandstones and clays).

In the geomorphological processing of these capes, in addition to abrasion, landslides play a major role, which are very strong, especially in Cape of Rodon, Cape of Pali and Currila<sup>5</sup>. Between these capes lie large sea bays (Drini bay, Lalëz bay and Durrës bay) which are a direct continuation of the respective Coastal Lowland synclinals. Cape of Pali and Durrës Mountain were once old islands, which as a result of the Erzen River deposits were connected to the ground by sand belts forming a double tombolo which is known as the Durrësi Tombolo<sup>6</sup>.

### **Currila area - Batlla detailed .**

The area of Batlla - Currila in which the research was conducted is positioned in the south of the mountain of Durrës. This mountain geologically, in the longitudinal axis south - north, divides

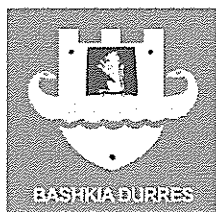
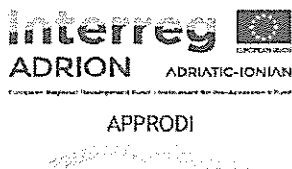
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<sup>3</sup>See note no. 1. Idem, p. 478-79.

<sup>4</sup> Idem. This cape is also known by toponyms "Kepi Melie", "Kepi Selitës" and "Kalaja e Turrës".

<sup>5</sup> Idem. P. 155.

<sup>6</sup>Idem. P. 155.



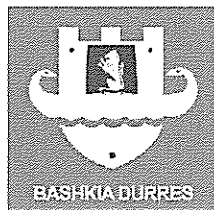
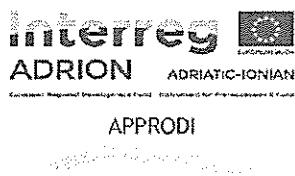
two different geological periods. The whole western face of this mountain has the earliest Messinian deposits, which in their composition have sandstones, clays and evaporites while the whole eastern face consists of Lower Pliocene deposits (Helmasi formation), such as clays, siltstones and sandstones. Precisely in our research area, from the ex polygon to the Venetian Torra, these layers mix with each other just above the coastline and continue under the sea to the south, forming the massif with the Currila and Batlla underwater reefs that are mainly composed of Lower Pliocene conglomerates. To the east of the underwater massif which continues to the south for about 3.2 km, overlap the seabed, Holocene deposits, swamp alluvial mainly sand and gravel.

The most widespread Holocene deposits are alluvial deposits, which have almost completely filled the Adriatic Lowlands and one of the most representative examples is the ex Durrës marsh which is located in the east of the city. The Holocene section is becoming more and more detailed and divided into two floors, the Early Holocene and the Late Holocene, often referred to as the Historic Holocene. It has received this name since on this floor the traces of human civilization have begun to be distinguished<sup>7</sup>.

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<sup>7</sup> Xhomo, A., et al. GJELOGJIA E SHQIPERISE – Stratigrafia, Magmatizmi, Metamorfismi, Tektonika, Neotektonika dhe Evolucioni Paleogeografik dhe Gjeodinamik, Tiranë 2002. p. 203.





## Geomorphologic explanation of the area Cape of Rodon Currila.

In the Outer Albanids, at the end of the second phase in the history of tectonic development, there was the most important phase in the formation of wrinkles<sup>8</sup>. This important palaeotectonic event creates the relationship between the orogen and the seabed in these regions. Orogenic

regions, in all their forms, rose above sea level. While the carbonate structures overlapped the orogenic structures, creating a clear tectonic boundary with the seabed<sup>9</sup>. Due to the geotectonic position it occupies, it is known as the Mountain Valley, while due to its geographical position, it is known as the Near Adriatic and is part of the southern Adriatic basin<sup>10</sup>.

These basins, according to the concept of tectonic plates, are positioned next to large structures linked to the phenomenon of subduction<sup>11</sup>. The sediments of the Mountain Valleys develop in the flat-formed section, which, when deposited, position themselves above the continental crust in a completely different way from the sediments of the oceanic trenches<sup>12</sup>. The neogenic basins of the Mountain Valley in the Adriatic territory, due to their position and duration of development, end their geotectonic cycle with a complete paleotectonic process<sup>13</sup>. This process is caused by the collision and subduction of continental plates.

<sup>8</sup> V., LECI, A., HYSENI, A., KOKOBOBO, ET AL, 1986.

<sup>9</sup> A., FRASHERI, 2012.

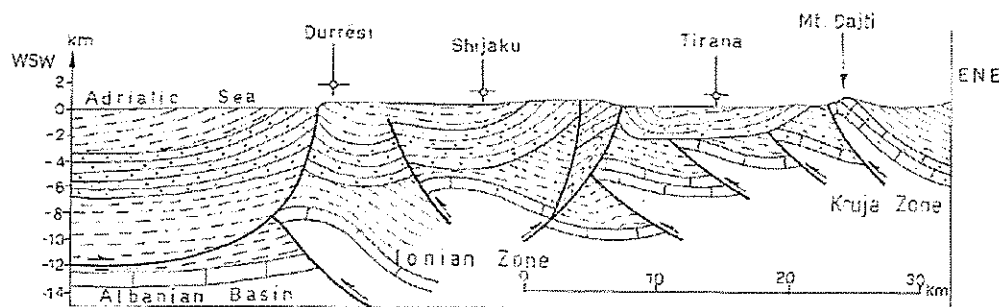
<sup>10</sup> MORELLI 1984.

<sup>11</sup> BALILI 1985 ET PIERI 1986.

<sup>12</sup> A., PAPA, L., PENGILI, 1981.

<sup>13</sup> A. FRASHERI, A., PAPA ET A., KOKOBOBO, 1991.

The South Near Adriatic Valley develops on the continental shelf of the Adriatic Sea, which stretches east and west<sup>14</sup>. The city of Durrës is part of this valley which, as a tectonic and palaeogeographic unit, was formed during the neotectonic phase (third phase in the history of tectonic development)<sup>15</sup>. In this valley, the neogenic structures are generally large and their components are clearly visible. They extend into the Durrës-Cape of Pali region and are asymmetrical towards the east with tectonic detachments. (**Table n° 1**).



**Table n° 1 ©Sh., Aliaj 2000**

The tectonic detachment has a post-pliocenic age. The molasse blocks are superimposed towards the east. This phenomenon is regional and extends over tens of kilometres to the east of the Durrës-Cape of Pali hills<sup>16</sup>. The neogenic layers are positioned homogeneously above the carbonate layer in the lower tectonic plane. This is an element that testifies to the influence of ancient tectonic structures in the genesis of neogenic structures<sup>17</sup>. In the Near Adriatic valley, the new tectonic movements were reflected, particularly during the Pliocene<sup>18</sup>.

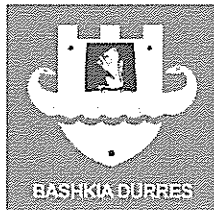
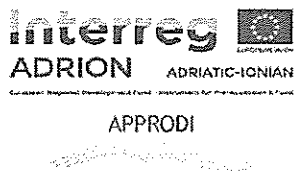
<sup>14</sup> H., DALIPI, 1990, p.89-102.

<sup>15</sup> A., HYSENI, P., MUHAMETI, A., KOKOBOBO, V., LECI, A., FRASHËRI ET AL, 1986.

<sup>16</sup> V. DALIPI, 1985

<sup>17</sup> DALIPI H., 1981

<sup>18</sup> U., VALBONA ET AL. 1990



The most important factor is the modification of the general structural plan of the Outer Albanids towards the west and north-west. The basin of the Middle Adriatic valley was formed as a result of the tilting of the old structure of the first molasse and the development of neotectonic movements which set the new molasse deposits against the old ones<sup>19</sup>. These factors have created new structural elements which are not always above the lower tectonic plane. In these structures, the tectonic detachment can also affect the deposits of the lower plane are not the continuous layers that accompany the carbonate structures.

In the Durrës-Cape of Pali region, the relationships between neogenic structures and lower tectonic structures are not well known. The positioning and coverage of neogenic structures in the Cape of Pali region must be influenced by the geological formation in the two tectonic planes of this region<sup>20</sup>.

According to the information concerning the two tectonic planes, it is known that the most developed structure is the anticline sector which is located just north of Cape of Pali where the Lalëzi- Rodon syncline begins<sup>21</sup>.

The eastward asymmetry of this structure and its tectogenesis developed during the Tortonian-Messinian period, where the deposits of the Pliocene are superimposed on those of the Tortonian. Tectogenesis in this region developed more intensely and dynamically. For this reason it is characterised as the most developed structure in the Near Adriatic valley<sup>22</sup>.

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<sup>19</sup> H., DALIPI, 1986, p. 13-28.

<sup>20</sup> SH.ALIAJ, 1971.

<sup>21</sup> A., PAPA, 1985 p. 96-116.

<sup>22</sup> A., KONDO, 1971.

Beyond the sedimentation and the increase in the thickness of the molassic deposits, the neogenic structures have a co-sedimentary development<sup>23</sup>. It is a palaeogeographic phenomenon which, in stratigraphic horizons of the same chronology, is accompanied by the difference in the morphology of the seabed during the sedimentation of the molassic deposits<sup>24</sup>. This phenomenon is linked to the way in which the sandy granular material diffused into the seabed in the molassic environment during the third phase of the history of the geological development of this region<sup>25</sup>. The relationships of neogenic structures with carbonate structures and how surface diffusion between the two tectonic planes contributed to the homogeneous diffusion of neogenic structural elements influenced by carbonate/limestone structures.

Neotectonic and seismic-tectonic studies indicate that the area shows wrinkles and scales, anticlinal, synclinal and thrust movements. Its structure was progressively tectonised by the Eocene until the beginning of the Quaternary. It is considered a “*heritage*” of the ancient structure. Some sectors of this structure, including part of it and the Near Adriatic valley, were rebuilt by the Tortonian<sup>26</sup>. The structures in this valley extend from the northwest to the north. They are accompanied by wrinkles but also by detachments which are of the sinking and superimposed type.

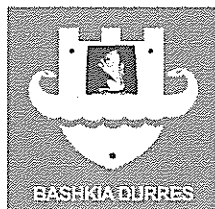
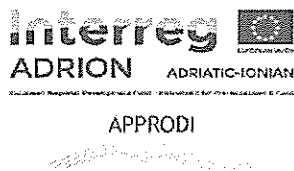
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<sup>23</sup> H., DALIPI, 1981.

<sup>24</sup> H., DALIPI 1990 p.89-102.

<sup>25</sup> R., ÇELA, 1982 p. 13-19.

<sup>26</sup> E., SULSTAROVA, 1986



These elements have caused numerous earthquakes with an intensity of 9 on the MSK-1964 scale<sup>27</sup>. The area in question presents very deep tectonic fractures, oriented north-west and south-east. They extend over 40 to 50 km and are located in the area of the Outer Albanids, Dinarids and Hellenids which extend southwards to the border between the Adriatic and Ionian Seas. These ruptures have ancient origins and continue to this day<sup>28</sup>.

The geophysical studies carried out in the Adriatic region<sup>29</sup> discovered the "*Moho*" border<sup>30</sup> in the area of the Ionian-Adriatic fractures located in the marine part at a depth of 25-30 km from the sea coast. They are an inclination from southwest to northeast. The following are considered to be the deepest fractures of the mantle<sup>31</sup>. In the course of neogenic development, the two phases of wrinkle formation influenced the regions of the Near Adriatic valley during the third phase of the history of tectonic development<sup>32</sup>.

In some studies<sup>33</sup>, several problems are dealt with concerning the palaeogeography concentrated on the regional tectogenesis of the outer Albanids of the valley. In the period following the Pliocene, there was the last phase of wrinkle formation which gave the final shape to the neogenic structures of the Near Adriatic valley<sup>34</sup>. In some cases, they have awakened old tectonic detachments<sup>35</sup>. This phase did not have the same intensity as the previous phases<sup>36</sup>. The

<sup>27</sup> E., SULSTAROVA, 1980 p.79-86

<sup>28</sup> T., VELAJ, 1982, p. 11-20.

<sup>29</sup> A., FRASHËRI ET ALI 1982; A., FRASHËRI 1987; A., FRASHËRI 1989 p.9-28 ; SH., ALIAJ, S., KOÇIU, B., MUÇO, E., SULSTAROVA, 2010.

<sup>30</sup> **Definition of the term:** in geology, the term "*discontinuity*" is used for a surface where seismic waves change speed. Such a surface exists at an average depth of 8 kilometres below the ocean basin and at an average depth of about 32 kilometres below the continents. At this discontinuity, the seismic waves accelerate. This surface is known as the discontinuous Mohorovicic or even often called "*Moho*". This discontinuity is the boundary between the earth's crust and the mantle.

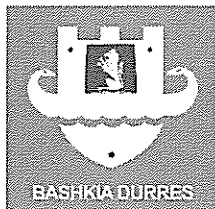
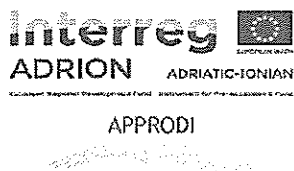
<sup>31</sup> BULETINI 1987.

<sup>32</sup> Z., MEKO, H., DALIPI, 1985.

<sup>33</sup> H., DALIPI 1981.

<sup>34</sup> H., DALIPI, 1977.

<sup>35</sup> K., PLAKU, 1973, p. 16-22.



regressive series of the Pliocene cycle shows that during the formation of the wrinkles in the neogenic layer, the general structural plane sank westwards, causing the regression of the Adriatic Sea and the regions of eastern Italy.

During the Old and New Pliocene, there is stratigraphic and axial incoherence, while the Upper Pliocene is accompanied by Quaternary formations of the marine facies<sup>37</sup>. Thanks to this inconsistency, it is possible to date the period and diffusion of the new wrinkle formation phase<sup>38</sup>

The modification of the general plan of the Albanids may have been accompanied by a phase of wrinkle formation also in the western part of Albania, but curiously, in the relations between the rock formations and the structural elements, there is no change<sup>39</sup>. The only explanation is that in this region there are no deposits dating back to the Lower and Middle Pliocene. The cause of all this and the fact that the structure was oriented towards the west. The process of wrinkle formation in the Apennines tries to counterbalance it by moving eastwards. (**Table n°2**)

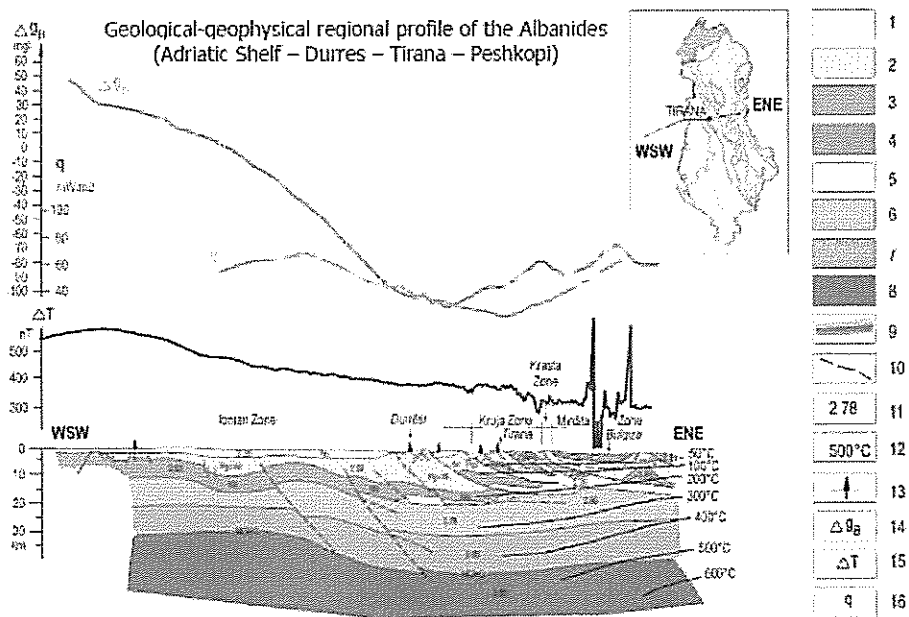
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<sup>36</sup> H., Dalipi, 1986, p. 13-28.

<sup>37</sup> D. SHKUPI, 1978, p. 33-50.

<sup>38</sup> U. CRESCENTI, C., D'AMATA, A., BALDUZZI, M., TONNA 1980.

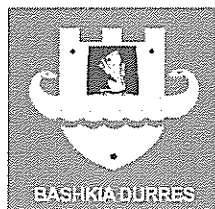
<sup>39</sup> V., JANOPULLI, 1973, p. 10-18.



**Table n°2 Geological and geophysical profile of the Albanids**  
**©E., Lekkas, S., Mavroulis, CH., FILIS, P., Carydis 2019**

- |  |                              |                            |
|--|------------------------------|----------------------------|
| - 1. Miocene-Pleistocene molasses        | - 7. Lower crust             | - 13. Deep wells           |
| - 2. Paleogen-Lower Paleogen             | - 8. "MOIHO" Discontinuity   | - 14. Bouguer's Anomaly    |
| - Flysch and formation of Flyschoidal    | -9. Tectonic pressure        | - 15. Magnetic anomalies   |
| - 3. Mesozoic-Eocene carbonate formation | - 10. Fractures of the crust | - 16. Thermal flux density |
| - 4. Ultrabasic rocks                    | - 11. Density                |                            |
| - 5. Salt                                | - 12. Temperature            |                            |
| - 6. Upper crust                         |                              |                            |





## Alluvial deposits

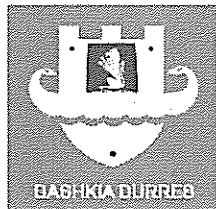
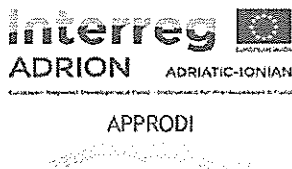
They are widespread in the lowlands, in the Durrës plain meet alluvial deposits formed by the tributaries of the river Erzeni, which after leaving the hilly area has filled the lowlands of Xhafzotaj-Rrushkulli. Here, too, they settle on Holocene marine deposits. They are represented by fine sands, alourite and less clay<sup>40</sup>.

The deposits of the "Helmasi" formation begin with the appearance in the cutting of sand layers and unsaturated conglomerates, which define its floor and at the same time mark the presence of Pliocene transgression. It is observed in the south-north extension of Durrës, where the thickness of the base conglomerates increases. Thus in the area of Currila (Durrës) the sand-conglomerate thickness reaches up to 250 m. On sandy and conglomerate layers the cutting continues with clay layers and clay-sand packages thin and medium layer until the presence of massive clays<sup>41</sup>.

In the Adriatic Lowlands Messinian deposits are exposed to the surface in a range of different structures. Where among the most typical are the mountain of Durrës and Cape of Rodoni. Lithologically there are two lithofacies, reflecting more or less the same developmental history as in the Tortonian. Sand-clay lithophagy is represented by the combination of sandy packages with clay-siltstone packages. The sandstones predominate in the cut and appear in the form of packages with a thickness of 6-7m. skin 15-20. They are generally different grains, with sloping stratification and are rarely seen and small gravels between sandstones. In regions where the cutting is dominated by sandstones, especially along the lateral edge of the Adriatic Lowland, fossilized wood is found, gypsum-bearing facies are missing and the cutting up to the ceiling is completely sandy. The clays have a more alevrolites appearance and are presented in ash-gray

<sup>40</sup> Idem. P. 203- 204.

<sup>41</sup> Idem. P. 189 – 191.



color. Among them meet some macrofauna horizons of the mainly ostrea type, traceable over long distances. Clay sandy lithophagy, unlike sand clay, is characterized by a deep environment where clays generally predominate.

The clays are presented in the form of thick packages, tens of meters which in the east direction pass hand in hand in impure clays up to the alevrolites. The thickness of Messinian deposits in the Currila section goes up to 600 m<sup>42</sup>

**Concrete information in one of the coring of the geological study of the coast, at the topographic point which is located at the junction of Batllawith the coastline:**

- a- 0 m - Sea level.
- b- - 0.20 m – Layer with modern filling, waste.
- c- - 3.00 m - Layer composed of fine-grained sand. Decomposed brown peat.
- d- - 0.60 m - Medium gray-blue sand, moderately compacted, gravel.
- e- - 2.00 m - Moderately compacted fine sand, small rounded stone contents.
- f- - 1.40 m - Blue-gray clay (root formation) in compact plastic condition.

**The depth of the survey (coring) went up to - 6.60 m.**

In total, of 5 corings were performed which went to a depth of - 3.30 m to - 6.60 m<sup>43</sup>.

The coordinates of the UTM topographic point are: Area 34T, 368933.50 m E and 4574603.41 m N.

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<sup>42</sup> Idem. P197 – 198.

<sup>43</sup> Rambis, T., . *Raport mbi kushtet inxhiniero-gjeologjike të sheshit të ndërtimit të objektit "Godina banimi dhe shërbimi 6 dhe 7 kat"*. Archive office in the Municipality of Durrës. Tirana, October 2009.

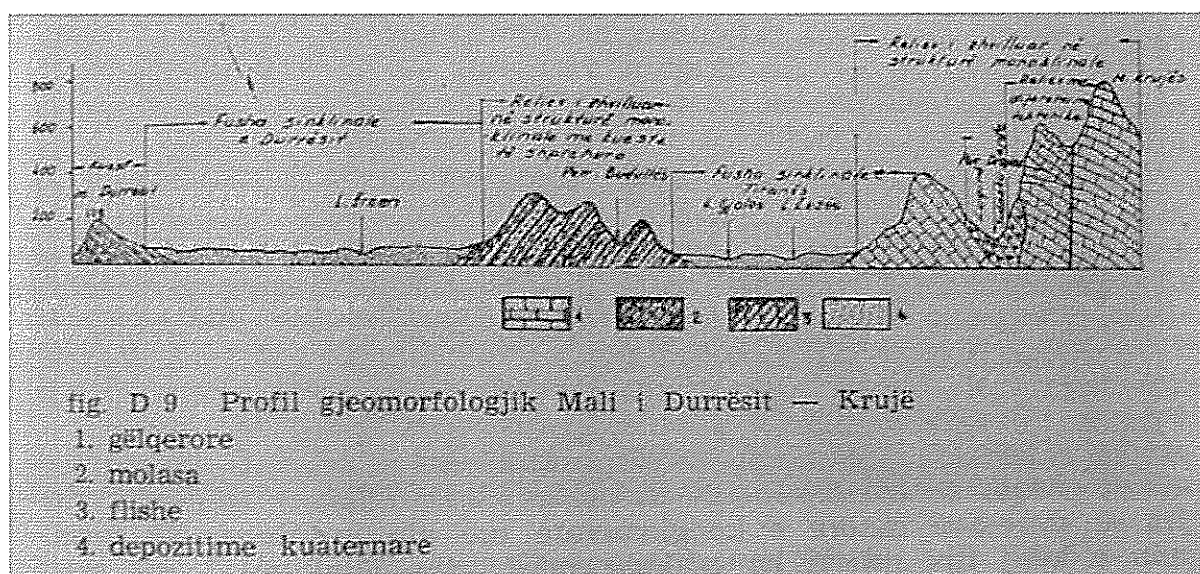


Fig. 1 - Geomorphological profile of Durrës.

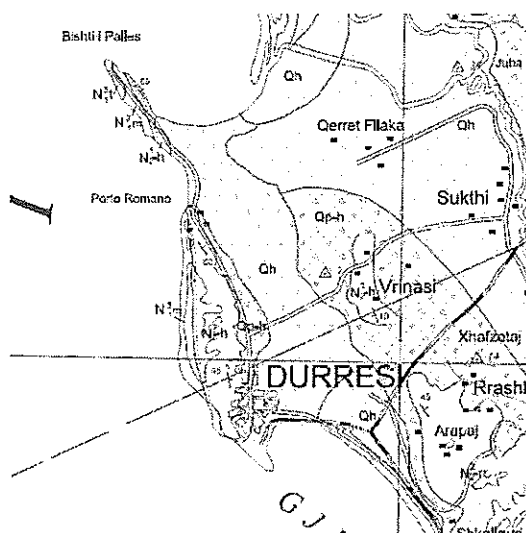
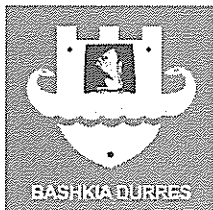
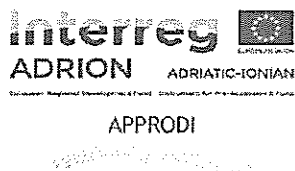


Fig. 2 - Geological map of Durrës.

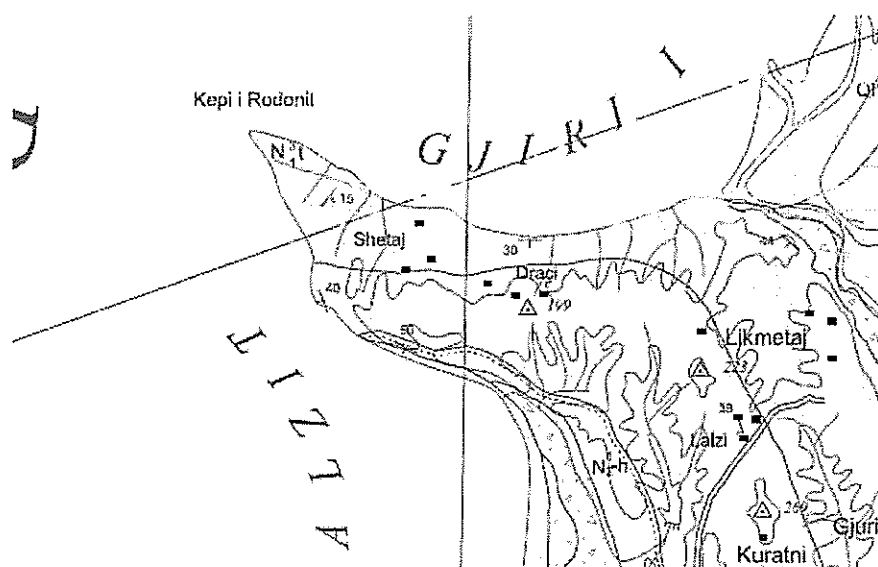


### **Detailed Cape of Rodon area.**

In our area of exploration in Cape of Rodon, the basic geological formation is the northern part of the hilly range, which is represented by the earliest deposits of the Tortonian period, which mainly consist of sandstones, clays, conglomerates and calcarenitic with lithotamini formations. Sandstones, mainly pumice, make up almost the entire upper part of the cape hill range where Skanderbeg Fortress is located. The clay is easily identified in the valley between the three hills west of the cape, where the church with the ruins of the monastery is located. While all the underwater reefs in the north and south of the cape have a composition of conglomerates which as a result of abrasive marine actions for centuries are stripped of tuff or clay. Their entire underwater context (seabed) is represented by marine deposits and clay which has been part of the Tortonian geological stratum.

These deposits are widespread both in surface and depth. Tortonian deposits both on the surface and in depth are represented by two lithofacies; Sandy-clayey lithophagy, which is spread in the peripheral part of the Adriatic Lowlands and the South Adriatic area, especially over the nearby orogeny, as well as the clayey-sandy lithophagy found in the western part of the Adriatic Lowlands and the entire center of the basin. Sand-clay lithophagy is characterized by interlocking sand and clay and lithotamnic limestone. The sandstones appear with light gray to yellowish color, while in fresh fractures they have a dark beige color. They are compact, large grain, to medium grain. The thickness of the layers varies from 0.5-1.5m. up to 5-6m. The clays are presented in gray blue color with shell construction and with a thickness of 2-3m. up to 15-20m. Often within them meet traceable horizons with macrofauna 1-2m. thick as well as multicolored. In some regions, small gypsum crystals can be seen on the horizons of the macrofauna. Lithotamnic limestones are presented in the form of layers with not very large spread and 2-3m thick. up to 7-8m., sometimes contain many lithotamnia and macrofauna of

different species. The latter, meet in the upper part of them, when lithologically they pass in alevrolite clays<sup>44</sup>.

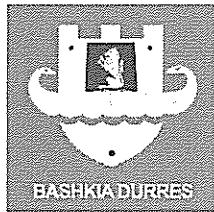
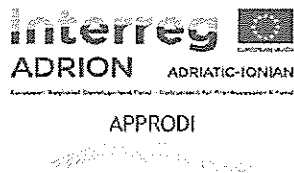


**Fig. 3 - Geological map of Cape Rodon.**

### **The hydrological potential of the Cape Rodon-Currila area.**

Now that we have an overview of the stratigraphy of the Cape of Rodon and Durrës-Currila areas, we must also explain their aquiferous potential. These two areas are situated above an enormous fresh water reservoir. However, this potential is not very visible on land, but rather in the sea. Both in the coast of the Cape of Rodon and in the coast of the Durrës Currila area, there is an enormous outflow of fresh and very cold water from the shore up to 4 km away. There is

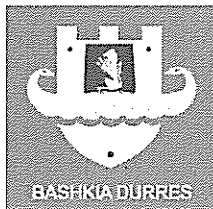
<sup>44</sup> Idem. P. 187 – 188.



also an alteration of the salinity of the water which is visible even to the naked eye as a kind of turbidity is created due to the differences in the salinity of the water.

The reason why all this water flows out so far from the shore is explained geologically. These areas are composed deep down of limestone and tightly packed clay. The hills, with their weight, exert an enormous force in the water reservoir, causing the water to escape to the surface at high pressure. This explains why the water flows up to 4 km away from the coast. In cases where the water finds weak points in the clay layers, it can also escape over the hills

This phenomenon was well known in antiquity, which is why we find the term "*Currila*" for the hills of the Cape of Rodon and the Durrës-Currila area. (In Albanian Currila means water spring). Also in Venetian documents from medieval times we find the term "*Kyrila*" for these hills. Since the hills in these areas are composed of clay, are rich in water sources and are located near the sea, they are subject to a great process of erosion.



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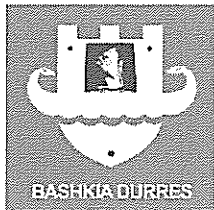
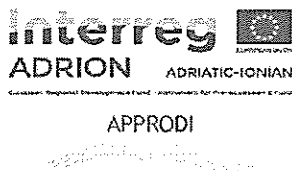
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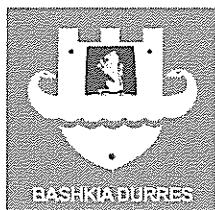
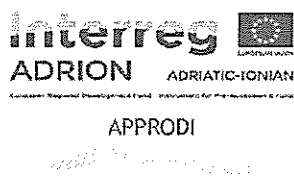
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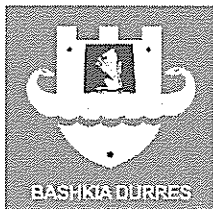
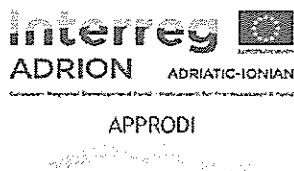
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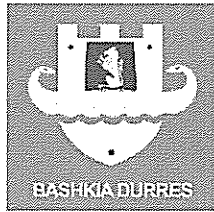
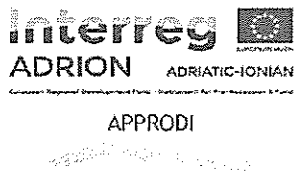
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### **Archaeological material identified in the Currila - Batlla area.**

- 1- Architectural element. Height 10.5 cm. Base diameter 18 cm. Middle diameter 13.5 cm. Upper diameter 15.8 cm. Saved 20%.
- 2- Architectural element, column base with square base. Height 14.5 cm. It consists of two fixing elements at the bottom and top. The base is 17.5 cm wide. Thickness 4.3 cm. At the bottom is a circle created by engraving, the diameter of which is 27.5 cm. The fixing element in the lower central part of the plinth is square in shape with a length of 4.5 cm and a depth of 3.2 cm. The upper part of the element comes in a round and conical shape. Lower diameter 27 cm, middle (near the decorations) 22 cm, upper 20 cm. The fixing element has a square shape with a length of 4.5 cm and a depth of 2.4 cm. The object is 95% preserved.
- 3- Amphora part of the lip, neck and the beginning of two handles. Dating: Typology: Dimensions: Height 16 cm. The lip is 5 cm long. Outer diameter 11.5 cm, inner 8.5 cm. Thickness 1.5 cm. The neck is 8 cm long. Diameter 10 cm. The handle is 5 cm long. Diameter is 3 cm. The object is saved 10%.
- 4- Amphora part of lip, neck and beginning of two handles. Dating: Typology: Dimensions: Height 10.4 cm. The lip has a length of 2 cm. Outer diameter 10 cm, inner 7.4 cm. Thickness 0.6 cm. The neck is 9 cm long. Diameter 5.2 cm. The handle is 4.7 cm long. Width 4.5 cm. Thickness 2 cm. Object is saved 7%.
- 5- Amphora, part of lip, neck and a handle. Dating: Typology: Dimensions: Height 14.1 cm. The lip has a length of 1.5 cm. Outer diameter 7.6 cm, inner 5.4 cm. Thickness 1 cm. The neck is 9 cm long. Diameter 5 cm. The handle is 13 cm long. Width 3 cm. Thickness 2 cm. The object is saved 10%.
- 6- Amphora, part of the neck and the beginning of two handles. Dating: Typology: Dimensions: Height 33 cm. The neck is 30 cm long. Diameter 12 cm. The handle is 6 cm long. Width 4 cm. Thickness 3.2 cm. The object is restored and consists of 2 fragments. Saved 20%.
- 7- Amphora part of lip, neck and beginning of two handles. Dating: Typology: Dimensions: Height 25 cm. The edge is 5 cm long. Outer diameter 16 cm, inner 13 cm. Thickness 1.5 cm. The neck is 19 cm long. Diameter 12 cm. The handle is 7 cm long. Width 5.5 cm. Thickness 3 cm. Object is saved 15%.

- 8- Amphora. African typology, Lip parts, neck, two handles and the beginning of the body. Dimensions: Height 35 cm. The edge is 1.5 cm long. Outer diameter 13 cm, inner 7.3 cm. Thickness 1.9 cm. The neck is 17 cm long. Diameter below the branches 10.5 cm. The handle is 20 cm long. Width 3 cm. Thickness 2.5 cm. The body is 20 cm long. Width 41 cm. Thickness 1.5 cm. The object is saved 20%.
- 9- Amphora. African typology, Body parts. Dimensions: Height 45 cm. Width 31.8 cm. Thickness 1.4 cm. The object is saved 20%.
- 10- Greco-Italian amphora. Lip parts, neck, two handles and the beginning of the body. Dimensions: Height 51 cm. The lip has a length of 3 cm. Outer diameter 17 cm, inner 12 cm. Thickness 1.5 cm. The neck is 29 cm long. Diameter 11.8 cm. The handle is 26 cm long. Width 4.8 cm. Thickness 2.5 cm. At the end of the handle is a two-finger print decor. The body is 29 cm long. Width 27 cm. Thickness 1.6 cm. The object is saved 30%.
- 10/1- Greco-Italian amphora. Body parts.Length 36 cm. Width 11.5 cm. Thickness 1.9 cm. The object is saved 5%.
- 10/2- Greco-Italian amphora.The last part.Length 22 cm. Width 16 cm. Thickness 1.4 cm. The object is saved 5%.
- 10/3- Greco-Italian amphora.Body parts.Length 31 cm. Width 18.5 cm. Thickness 1.4 cm. The object is restored and consists of two fragments. Saved 10%
- 11- Ceramic bowl with glaze. Body parts and the bottom. Height 11 cm. Body length 15 cm. Bottom outer diameter 21, inner 20.4 cm. Thickness 0.7 cm. The bottom is 2 cm long. Diameter 16.4 cm. Thickness 0.7 cm. The object is saved 40%.
- 12- Amphora. Part lips, neck, beginning of two handles and body. Typology:? Height 20.8 cm. The lip has a length of 1 cm. Outer diameter 7.1 cm, inner 4.3 cm. Thickness 1.1 cm. The neck is 15 cm long. Diameter 8.8 cm. The handle is 6.7 cm long. Width 4 cm. Thickness 1.7 cm. There are four relief rises and three decorative canals. The object is saved 15%.
- 13 Amphora. Typology: parts of lip, neck, two handles and the beginning of the body. Corinthian B. Height 16 cm. The lip has a length of 3.3 cm. Diameter max 16 cm, min 14.5 cm. Thickness 1.3 cm. The neck is 8.9 cm long. Diameter 10.2 cm. The handle is 17 cm long. Width 4.1 cm. Thickness 2.5 cm. The object is saved 20%.
- 14- Amphora. Typology: Lip parts, neck, one full handle and the beginning of the other. Height 26.4 cm. The lip has a length of 1 cm. Outer diameter 7.2 cm, inside 5.2 cm. The

- neck is 16.2 cm long. Diameter 6 cm. The handle is 22 cm long. Width 5.3 cm. Thickness 2 cm. The object is saved 18%.
- 15- Ceramic pot Body parts and bottom. Height 9.6 cm. The body is 8.3 cm long. Width 18 cm. Thickness 0.8 cm. The end is round in a conical shape with a height of 1.5 cm. Outer diameter 8 cm, middle 6.4 cm and inner 4.8 cm. Thickness 1.4 cm. The object is saved 40%.
- 16 Amphora. Typology: African? Neck parts. Height 11.6 cm. Outer diameter 12.7 cm, inner 9.8 cm. Thickness 1.5 cm. The object is saved 10%
- 17- .End of utensils, ceramic fine. Typology? Height 1 cm. Length 8 cm. Width 6.7 cm. Thickness 0.3 cm. The bottom has a diameter of 5 cm. The object is saved 20%.
- 18- Ceramics with black varnish. Lips, neck and the beginning of the handle. Height 7.7 cm. The lip has a length of 1.3 cm. Outer diameter 8.5 cm, inner 5.5 cm. Thickness 1 cm. The neck is 2.7 cm long. Diameter 6.6 cm. Thickness 0.5 cm. The handle consists of two strips glued together with a length of 4.5 cm and a diameter of 0.7 cm. Object is saved 7%.
- 19- Ceramic pots. Lip and body parts. Length 7 cm. Width 9 cm. The lip has a length of 2 cm. Width 5.4 cm. Thickness 0.8 cm. The object is saved 5%.
- 20- Ceramic pot bottom. Height 3.2 cm. Bottom diameter 9.2 cm. Diameters 0.9 cm. The object is saved 5%.
- 21/a- Ceramic fragment. Amphora Typology LRA 2. Body parts. Length 9.7 cm. Width 8.1 cm. Thickness 0.6 cm. The object is restored and consists of two fragments. Saved 2%.
- 21/b- Ceramic fragment. Amphora Typology LRA 2. Body parts. Length 13.5 cm. Width 9.5 cm. Thickness 0.6 cm. The object is saved 3%.
- 21/c- Ceramic fragment. Amphora Typology LRA 2. Body parts. Length 13 cm. Width 5.3 cm. Thickness 0.6 cm. Object is saved 2%.
- 21 – 21/a; 21/b; 21/c.
- 22- End amphora. Typology Height 9.1 cm. Length 13.4 cm. Width 13 cm. Thickness 1.2 cm. Bottom diameter 7 cm. The object is saved 5%.
- 23- Amphora. Lips, neck, one handle and the beginning of the other. Typology:? Height 12.5 cm. The lip has a length of 2.9 cm. Outer diameter 14.5 cm, inner 11.5 cm. Thickness 1.4 cm. The neck is 7.5 cm long. Diameter 11.5 cm. The handle is 11 cm long. Width 2.5 cm. Thickness 1.4 cm. The object is saved 15%.



- 24- Amphora. Neck parts, a handle and the beginning of the body. Length 21.5 cm. The neck is 5.5 cm long. Width 12.4 cm. Thickness 1 cm. The handle is 16 cm long. Width 4 cm. Thickness 2.3 cm. The object is saved 10%.
- 25- Ceramic pots. Lip parts and the beginning of the neck. Length 13.5 cm. Width 17.6 cm. The edge is 4.5 cm long. Width 15 cm. Thickness 2.2 cm. The neck has a lift and takes a slight curve down the body. The raised part is 2 cm long and 1 cm wide. The neck is 9 cm long. Width 15 cm. Thickness 1.7 cm. The object is saved 5%.
- 26- Pot bottom Height 3.2 cm. Outer end diameter 9.8 cm, inner 7.1 cm. Thickness 1.1 cm. The object is saved 5%.
- 27- Amphora. Neck parts and a handle. Height 15.5 cm. The neck is 14 cm long. Diameter 7.5 cm. Thickness 0.6 cm. The handle is 6.1 cm long. Width 4.2 cm. Thickness 1.5 cm. The object is saved 5%.
- 28- Amphora. Neck edge part and the beginning of the handle. Height 11.7 cm. The edge is 3.1 cm long. Outer diameter 14.8 cm, inner 11 cm. Thickness 1.7 cm. The edge has a decor consisting of two circles made with engraving. The distance between the two circles is 1.7 cm. The neck is 8.2 cm long. Diameter 13.2 cm. Thickness 0.8 cm. The handle is 12 cm long. Diameter 4 cm. The object is saved 10%.
- 29- Amphora. Parts of lip, neck, two handles and the beginning of the body. Typology: African. Height 21 cm. The edge is 4 cm long. Outer diameter 10 cm, inner 6.5 cm. Thickness 1.5 cm. The neck is 10 cm long. Diameter 10.5 cm. The handle is 13 cm long. Width 4 cm. Thickness 2 cm. The object is saved 20%.
- 30- Amphora. Lip parts, neck, two handles and the beginning of the body. Typology MGS 5. Height 27 cm. The edge is 3 cm long. Outer diameter 14.4 cm, inner 10 cm. Thickness 2.5 cm. The neck is 11 cm long. Diameter 10 cm. The handle is 16 cm long. Width 4.2 cm. Thickness 2.5 cm. The handle at the end of it has a finger press. The body is 23 cm long. Outer diameter 35.7 cm, inner 33.5 cm. Thickness 1.5 cm. The object is saved 30%.
- 31- Amphora. Typology Brindisi, Apani tip. II. Lips part, neck and two handles. Dimensions: Height 25.5 cm. The edge is 8 cm long. The upper edge is 4.5 cm long. Outer diameter 16.7 cm, inner 12.6 cm. Thickness 1.1 cm. The lower edge is 2.5 cm long. Diameter 13.6 cm. The neck is 14 cm long. Diameter 11.4 cm. Thickness 0.7 cm. The handle is 24 cm long. Diameter 3.5 cm. The object is saved 25%.

## Archaeological material identified in the Southern Cape of Rodon.

- 1- Ceramic pot. Lip parts, neck, two handles and the beginning of the body. Dating: Typology: Dimensions: Height 14.8 cm. Lip length 1.3 cm. Outer diameter 6.4 cm, inner 4 cm. Thickness 0.9 cm. The neck is 6.2 cm long. Diameter 8 cm. The handle is 17 cm long. Width 3.8 cm. Thickness 2.5 cm. The object is restored and consists of 5 fragments. Saved 15%.
- 2- Amphora. Neck parts and a handle. Dating: Typology: Dimensions: Length 30 cm. The neck is 8.8 cm long. Outer diameter 10.4 cm, inner 6.8 cm. Thickness 1.7 cm. The handle is 28.4 cm long. Width 4.7 cm. Thickness 4.6 cm. The object is saved 10%.
- 3- Ceramic pot. Lip parts, neck, two handles and the beginning of the body. Dating: Typology: Dimensions: Height 13 cm. The lip has a length of 2.5 cm. Outer diameter 6.7 cm, inner 4.4 cm. Thickness 1.2 cm. Neck length 7 cm. Diameter 7.4 cm. The handle is 11.8 cm long. Width 2.6 cm. Thickness 1.9 cm. The object is saved 20%.
- 4- Amphora. Bottom pot. Dating: Typology: Dimensions: Length 15 cm. Upper outer diameter 14 cm, inner 11 cm. Thickness 1.5 cm. Bottom diameter 3.4 cm. Object is saved 7%.
- 5- Stone weight for nets. Length 10 cm. Perimeter 20 cm. Diameters 1.9 cm. The object is 100% preserved.
- 6- Ceramic pot. Neck parts, a handle and the beginning of the body. Dating: Typology: Dimensions: Length 13.5 cm. Width 13.6 cm. Thickness 0.8 cm. The handle is 12.5 cm long. Width 2.4 cm. Thickness 1.6 cm. The object inside has glaze. Saved 40%.
- 7- Ceramic pot. Lip and neck parts. Date: Typology: Dimensions: Height 7.8 cm. The edge has an outer diameter of 6.4 cm, an inner diameter of 4.1 cm. The object is saved 10%.
- 8- Ceramic pot. Lips, neck and a handle. Dating: Typology: Dimensions: The edge is 2 cm long. Width 5.4 cm. Thickness 0.1 cm. The neck is 2 cm long. Width 3 cm. Thickness 0.2 cm. The handle is 8.5 cm long. Width 2 cm. Thickness 1 cm. The object is saved 5%.
- 9- Ceramic pot. Lip parts, neck, two handles and the beginning of the body. Dating: Typology: Dimensions: Height 18 cm. The edge is 1.5 cm long. Outer diameter 7.6 cm, inside 5.8 cm. Thickness 1 cm. The neck is 15 cm long. Diameter 5.5 cm. The handle is 17 cm long. Diameter 3 cm. The object is saved 20%.

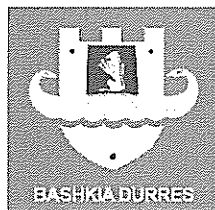
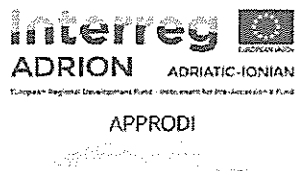
## Archaeological material identified in the Northern Cape of Rodon.

- 1- Amphora. Bottom of amphora. Dating: Typology: Dimensions: Length 28 cm. Width 20 cm. Thickness 1.2 cm. Bottom diameter 4 cm. The bottom has a hole which penetrates the bottom with a length of 2.7 cm with a diameter of 1.1 cm. The object is saved 20%. The object is restored and consists of 6 fragments.
- 2 Utensils on board. Neck parts, a handle and the beginning of the body. Dating: Typology: Probably the variant of Otranto. Dimensions: Height 16.3 cm. The neck is 3.5 cm long. Width 9.6 cm. Thickness 0.5 cm. The handle is 15 cm long. Width 3 cm. Thickness 1.7 cm. The body is 12.7 cm long. Width 14 cm. Thickness 0.7 cm. The object is saved 10%.
- 3- Utensils on board. Body parts. Dating: Typology: Dimensions: Length 10.6 cm. Width 14 cm. Thickness 1 cm. The object is saved 3%.
- 4- Ceramic pots. Neck and body parts. Dating: 15th-17th century. Typology: Ottoman. Dimensions: Height 9 cm. Width 6.7 cm. Thickness 0.9 cm. Object is saved 2%.
- 5- Ceramic bowl. Bottom part, body and lips. Dates: 100-160. Typology: Ottoman. Dimensions: Height 7.3 cm. Width 11.5 cm. Thickness 0.4 cm. The lip has a length of 2 cm. Below it there is a decor which is characterized by two strips made with engraving with a width of 0.7 cm. The bottom is characterized by a round bar with a length of 10 cm and a height of 0.5 cm. The object is saved 15%.
- 6- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 30 cm. Diameters 4.3 cm. The object is saved 4%.
- 7- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 12.5 cm. Width 3.5 cm. Thickness 1.7 cm. Object is saved 2%.
- 8- Amphora. Lip parts, neck and little body. Dating: Typology: Dimensions: Height 8 cm. The edge is 4.7 cm long. Width 11 cm. Thickness 1.5 cm. The neck is 2.2 cm long. Width 9 cm. Thickness 0.6 cm. The body is 2 cm long. Width 7 cm. Thickness 0.7 cm. The object is saved 5%.
- 9- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 20 cm. Diameter 1.7 cm. The object is saved 5%.

- 10- Ceramic pot. The Lip. Dating: Typology: Dimensions: Height 2.2 cm. Upper outer diameter 1.7 cm, inner 1.5 cm. Thickness 0.1 cm. Outer end diameter 3.7 cm, inner 2.5 cm. Thickness 0.7 cm. Object is saved 2%.
- 11- Amphora. The bottom of amphora. Dating: Typology: Dimensions: Height 14 cm. Diameter 5.8 cm. The object is saved 5%.
- 12- Amphora. Body parts. Dating: Typology: Lamboglia. Dimensions: Length 20 cm. Width 18 cm. Thickness 1.6 cm. The object is saved 5%.
- 13- Amphora. Neck pieces and the beginning of one handle. Dating. Typology. Dimensions. Length 21 cm. Neck width 15 cm. Thickness 1.4 cm. The handle is 7 cm long. Width 5.8 cm. Thickness 3.1 cm. The object is saved 3%.
- 14- Ceramic plate. Lip and body parts. Dating: Typology: Central Tunisia, first half of the century. All four Dimensions: Length 6.7 cm. Width 14.4 cm. Thickness 0.4 cm. The object is saved 10%.
- 15- Amphora. Body parts. Dating: Typology: Lamboglia. Dimensions: Length 20 cm. Width 21.5 cm. Thickness 1.4 cm. The object is saved 5%.
- 16- Amphora. Handle. Dating: Typology: Dressel 2-5, Aegean. Dimensions: Length 15 cm. Width 5.7 cm. Thickness 2 cm. Object is saved 2%.
- 17- Amphora. Handle. Date: Typology: Dimensions: Length 15.7 cm. Width 6.2 cm. Thickness 1.5 cm. The object is saved 3%.
- 18- Amphora. Handle. Dating: Typology: Dimensions: Length 16 cm. Width 3.4 cm. Thickness 1 cm. The object is saved 5%.
- 19- Amphora. Handle. Dating: Typology: Dimensions: Length 22 cm. Width 4 cm. Thickness 2 cm. The object is saved 5%.
- 20- Amphora. Handle. Dating: Typology: Dimensions: Length 8 cm. Width 7 cm. Thickness 3.8 cm. Object is saved 2%.
- 21- Amphora. Bottom of amphora. Dating: Typology: Dimensions: Length 9.7 cm. Bottom diameter 5 cm. Thickness 16 cm. The object is saved 4%.
- 22- Amphora. Body parts. Dating: Typology: LRA V, Palestine. Dimensions: Length 12 cm. Width 6.7 cm. Thickness 0.6 cm. The object is restored and consists of two fragments. Saved 3%.
- 23- Amphora. Parts of the handle and neck. Date: Typology: Dimensions: Neck length 13 cm. Width 14.5 cm. Thickness 2 cm. The handle is 11 cm long. Diameter 3.7 cm. The object is saved 5%.

- 24- Amphora. Lip and neck parts. Dating: Typology: Dimensions: Length 11 cm. Width 12 cm. The edge is 2 cm long. Width 13 cm. Thickness 1.9 cm. The object is saved 3%.
- 25- Amphora. Lip parts. Dating: Typology: Dimensions: Length 1.9 cm. Width 10 cm. Thickness 1.7 cm. Object is saved 2%.
- 26- Tripod. Dating: Typology: Dimensions: Length 6 cm. Upper diameter 5 cm, lower outer 3.8 cm, inner 2.5 cm. Thickness 0.6 cm. The object is saved 5%.
- 27- Amphora. Lip parts. Dating: Typology: Dimensions: Length 5 cm. Width 7.7 cm. Thickness 0.8 cm. Object is saved 2%.
- 28- Amphora. Handle. Dating: Typology: Dimensions: Length 17 cm. Diameter 2.6 cm. The object is saved 4%.
- 29- Glazed bowl. The last part. Dating: 14-15 centuries. Typology: Venice Dimensions: Length 7.4 cm. Width 5 cm. Height 2 cm. Thickness 0.6 cm. The object is saved 3%.
- 30- Amphora. Neck parts. Dating: Typology: Dimensions: Length 5 cm. Diameter 5 cm. Thickness 0.4 cm. The object is saved 4%.
- 31- Amphora. Body parts. Dating: Typology: Lamboglia. Dimensions: Length 14.4 cm. Width 13.8 cm. Thickness 1.9 cm. The object is saved 3%.
- 32- Fragment of oil lamp. Base parts. Dating: Dimensions: Length 4.3 cm. Width 2.2 cm. Thickness 0.5 cm. The object is saved 5%.
- 33- Fragment of oil lamp. Handles and body parts. Dating: Dimensions: Length 4.7 cm. Width 2 cm. Thickness 0.4 cm. The handle is 9 cm long. Width 1 cm. Diameter 1 cm. The object is saved 5%.
- 34- Bottom of glaze pot. The last part. Dating: Typology: Dimensions: Height 4 cm. Length 11 cm. Width 2.5 cm. Thickness 0.8 cm. Object is saved 7%.
- 35- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 14 cm. Width 5 cm. Thickness 2.3 cm. The object is saved 3%.
- 36- Ceramic fragment. Body parts. Length 8 cm. Width 4.5 cm. Thickness 0.8 cm. The object has a decor with engraving in the form of two parallel lines. Saved 5%.
- 37- Bottom of ceramic pot with glaze. Dating: Typology: Dimensions: Length 4.5 cm. Width 10 cm. Thickness 0.7 cm. Object is saved 7%.
- 38- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 6.6 cm. Width 5 m. Thickness 1.9 cm. The object is saved 3%.
- 39- Fragment of ceramic pot. Bottom parts. Dating: Typology: Dimensions: Length 5 cm. Width 4 cm. Thickness 0.3 cm. Object is saved 2%.

- 40- Fragments of ceramic vessels. Flat bottom parts. Dating: Typology: Dimensions: Height 2.5 cm. Length 10 cm. Width 2.8 cm. Thickness 0.7 cm. The object is saved 5%.
- 41- Amphora. Bottom parts. Dating: Typology: Dimensions: Length 6.7 cm. Width 5.1 cm. Thickness 0.9 cm. Object is saved 2%.
- 42- Fragment qeramike. Datimi: Tipologjia: Permasat: Gjatesia 7 cm. Gjeresia 5.8 cm. Trashesia 1 cm. Objekti ruhet 2%.
- 43- Amfore. Pjese vegjeje. Datimi: Shek XII-XIII , Italia e Jugut. Tipologjia: Permasat: Gjatesia 7 cm. Gjeresia 6.4 cm Trashesia 1.2 cm. Objekti ruhet 3%.
- 44- Ceramic pot. Fragment of handles. Dating: Typology: Dimensions: Length 4.6 cm. Width 2.3 cm. Thickness 1.6 cm. Object is saved 2%.
- 45- Ceramic pot. Lip parts and a little neck. Dating: Typology: Dimensions: Height 3.4 cm. Length 4.5 cm. Width 4 cm. Thickness 0.8 cm. The object is saved 5%.
- 46- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 8 cm. Width 5 cm. Thickness 2.1 cm. Object is saved 2%.
- 47- Amphora Bottom parts. Dating: Typology: Dimensions: Length 12 cm. Width 8 cm. Thickness 1 cm. Object is saved 2%.
- 48- Amphora. Parts of the handle. Dating: Typology: Dimensions: Length 15 cm. Width 5 cm. Thickness 1.8 cm. The object is saved 4%.
- 49- Bottom of fine ceramic pottery. Dating: Typology: Dimensions: Length 7.6 cm. Width 1.3 cm. Thickness 0.2 cm. The bottom has a diameter of 4.6 cm. The object is saved 8%.
- 50- Fragment of fine ceramic pottery. Dating: Typology: Dimensions: Length 3.2 cm. Width 3 cm. Thickness 0.7 cm. The object is saved 2%.
- 51- Fragment of ceramic pot with black varnish. Date: Typology: Dimensions: Length 5 cm. Width 2.4 cm. Thickness 0.3 cm. The object is saved 3%.
- 52- Fragment of ceramic pot with black varnish. Dating: Typology: Dimensions: Length 3.1 cm. Width 2.9 cm. Thickness 0.5 cm. Object is saved 2%.
- 53- Fragment of fine ceramic pot with glaze. Dating: Typology: Dimensions: Length 3 cm. Width 1.3 cm. Thickness 0.4 cm. Object is saved 2%.
- 54- Fragment of ceramic pot with black varnish. Body parts. Dating. Typology. Dimensions. Length 2.4 cm. Width 2.2 cm. Thickness 0.3 cm. The object has a decor with carvings in the shape of lines 0.2 cm wide. Saved 1%.
- 55- Fragment of ceramic pot with black varnish. Lip parts. Dating: Typology: Dimensions: Length 2.4 cm. Width 2.3 cm. Thickness 0.2 cm. The object has a wavy decor below the

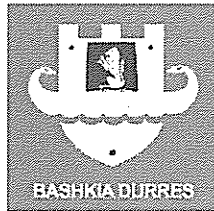
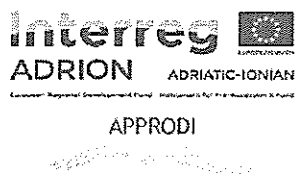


lip. 1.8 cm below the edge we have the beginning of carvings in vertical form with a distance of 0.2 cm from each other. Saved 1%.

56- Fragment of ceramic pot with black varnish Bottom parts. Dating: Typology: Dimensions: Length 2.1 cm. Width 1.9 cm. Thickness 0.2 cm. The object is saved 1%.

57- Fragment of ceramic pot with black varnish. Belly parts. Dating: Typology: Dimensions: Length 3.4 cm. Width 1.2 cm. Thickness 0.4 cm. The object is saved 1%.

58- Fragment of ceramic pot. Belly parts with decor. Dating: Typology: Dimensions: Length 2.2 cm. Width 1.9 cm. Thickness 0.4 cm. The Object has zig-zag carving decor. The object is saved 1%.



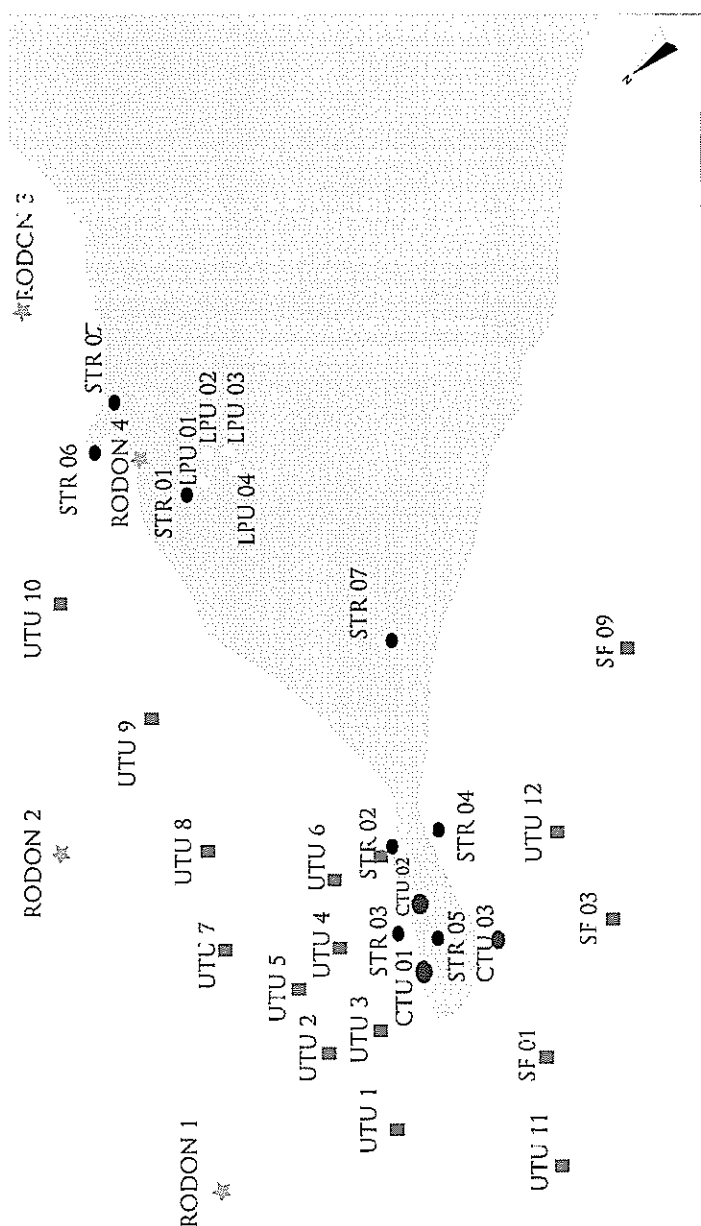
**The geo-morphological study of the Kepi Rodoni and Currila-Batlla sites has been completed.**

Archaeological findings are grouped methodologically in the following groups:

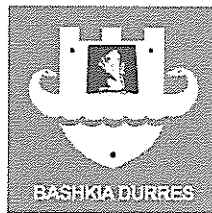
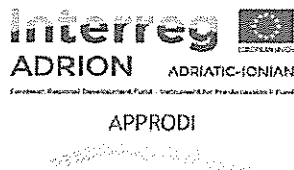
- 1- Underwater Topographic Units – (UTU)**
- 2- Coastal Topographic Units – (CTU)**
- 3- Land Topographic Units – (LTU)**

All these units are equipped with GPS coordinates **UTM - Area 34T.**





**Fig. 1 – Geomorphological map of Rodon's Cape**



## **Legend of the geo-archaeological map of Rodon's Cape**

### **Underwater topographic units UTU: (Red Square)**

Information concerning the northern area of Rodon's Cape.

UTU 1 – has the finds number: 01, 02, 03, 04, 05, 06 and 07.

UTU 2 – has the finds number: 08, 09, 10 and 11

UTU 3 – has the finds number: 12, 13 and 14

UTU 4 – has the finds number: 15 and 16.

UTU 5 – has the finds number: 17, 18, 19, 20, 21 and 22.

UTU 6 – has the finds number: 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33 and 34.

UTU 7 – has the finds number: 35, 36, 37 and 38.

UTU 8 – has the finds number: 39 and 40.

UTU 9 – has the finds number: 41, 42, 43, 44 and 45.

UTU 10 – has the finds number: 46, 47, and 48.

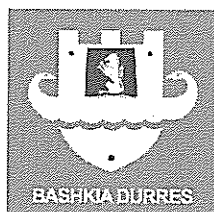
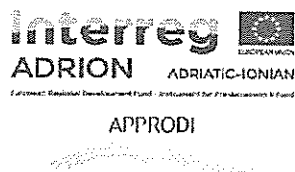
Information concerning the southern area of Rodon's Cape:

**Singular finds: SF (Red Square)** 01, 03 and 09.

UTU 11 - has the finds number: 02, 04, 05 and 06.

UTU 12 - has the finds number: 07 and 08.

### **Wrecks (Orange Star)**



**Wreck Rodon 01** had a cargo of Corinth B and MGS V amphorae. It also had been identified a collar in lead, component part of ancient anchor. Chronology of the cargo: fourth third century B.C.

**Wreck Rodon 02** had a mixed cargo of Corinth B, MGS V amphorae, building materials in ceramic, bricks, tiles and piece of lead stocks of the ancient anchor. Chronology of the cargo: fourth third century B.C.

**Wreck Rodon 03** only had the remains of the wooden *carena*. The cargo is missing. Chronology of the wreck: post-medieval-modern period.

**Wreck Rodon 04** only had the remains of the wooden *carena*. The cargo is missing. Chronology of the modern period.

#### **Coastal topographic units CTU: (Blue ellipse)**

CTU 01 – Part of the road, leveled and built with big stones. The stones are not from this area, but from another geographical area. Chronology: medieval period.

CTU 02 – Pit filled with CaCo<sub>2</sub>, used to prepare the ancient mortar for construction. Chronology: medieval period.

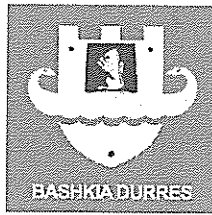
CTU 03 - Stones spread in a semi-circular surface with a radius of 15m. Chronology: probably medieval period.

#### **Structure: STR (Black ellipse)**

STR 01 – St. Anthony's church. Chronology: medieval period.

STR 02 – Gjergj Kastrioti Scanderbeg's fortress. Chronology: medieval period.

STR 03 – Fortress tower located in the north-western part of the Scanderbeg's Fortress. Chronology: medieval period.



STR 04 - Fortress tower located in the southern part of the Scanderbeg's Fortress. Chronology: medieval period.

STR 05 – Lighthouse. Chronology: modern period.

STR 06 – Pier. Chronology: modern period.

STR 07 – Group of Bunkers. Chronology: modern period.

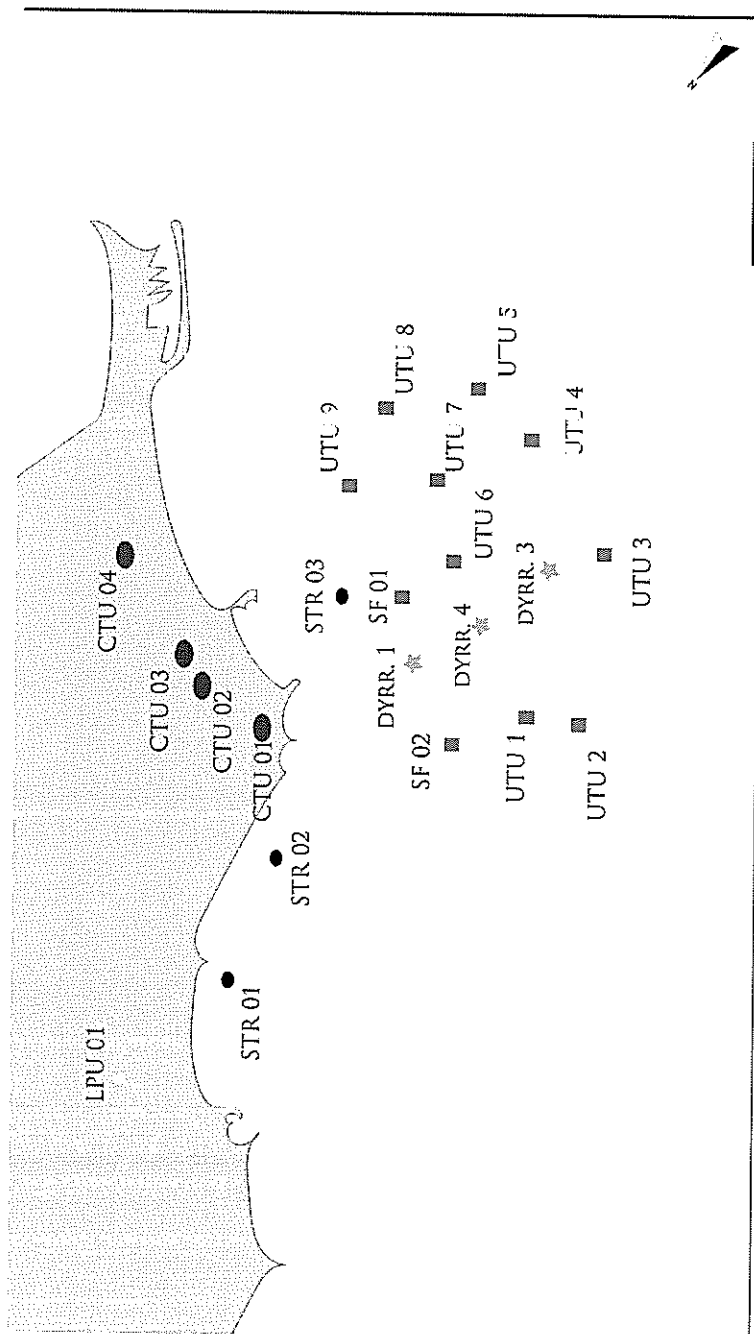
#### **Land Topographic Units: LPU (White Polygon)**

LPU 01 – Trench 3 x 3 m. It has been identified three US. Chronology IV/III-I century B.C.

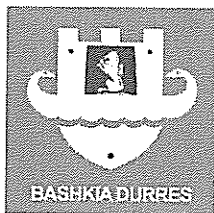
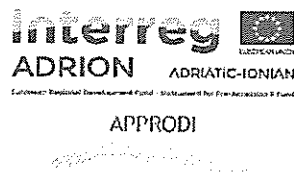
LPU 02 – Trench 4 x 3 m. Chronology IV/III-I century B.C.

LPU 03 – Trench 3.7 x 1 m. It has been identified ceramics and structural part of a kiln. Chronology IV/III-I century B.C.

LPU 04 - Trench 3 x 4 m. It has been identified a few ceramic fragments. Chronology probably Hellenistic period.



**Fig. 2 – Geomorphological map of Batlla-Currila.**



## **Legend of the geo-archaeological map of Currila-Batlla:**

### **Underwater topographic units UTU: (Red Square)**

UTU 1 - has the finds number: 03, 04, 05 and 06.

UTU 2 - has the finds number: 07, 08 and 09.

UTU 3 - has the finds number: 10, 11, 12, 13 and 14.

UTU 4 - has the finds number: 15, 16 and 17.

UTU 5 - has the finds number: 18 and 19.

UTU 6 - has the finds number: 20, 21, 22 and 23.

UTU 7 - has the finds number: 24, 25 and 26.

UTU 8 - has the finds number: 27 and 28.

UTU 9 - has the finds number: 29, 30 and 31.

### **Single finds**

SF - has the finds number: 02.

### **Wrecks: DYRR. (Orange Star)**

**Wreck Dyrrachium 1** had a cargo composed by Lamboglia 2 amphorae. Chronology I century B.C.



**Wreck Dyrrachium 3** had a cargo composed by Africana and Spanish amphorae. Chronology IV century A.D.

**Wreck Dyrrachium 4** had a cargo composed by Dressel 21-22 amphorae. Chronology I century B.C. – I century A.D.

#### **Coastal topographic units CTU: (Blue ellipse)**

CTU 01 – Necropolis. Chronology: Hellenistic period

CTU 02 – Kiln. Chronology: ancient period.

CTU 03 – Group of kilns. Chronology: ancient-medieval period.

CTU 04 – Group of kilns. Chronology: unidentified.

Structure: STR (Black ellipse)

STR 01 – Natural structure composed by one block of conglomerate rock.

STR 02 - Natural structure composed by one block of conglomerate rock.

STR 03 - Natural structure. Ancient liman. Chronology: archaic period.

#### **Land Topographic Units: LPU (White Polygon)**

LPU 01 – Clay area. Chronology: ancient period.

*Adrian Fustur*  
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dt. 30.12.2020

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dt. 30.12.2020