

Natural Environment

The natural environment of the archeological sites and monuments of the Caldera consists of the vertical, high and steep volcanic walls of the Caldera, a unique monument of nature, in which the history of the geological formation of the volcanic island complex of Santorini has been embossed. It could be claimed that it makes for a real archive of the volcanic activity in the area of Santorini that is controlled by the fault line which starts from Christiana and ends in Amorgos. This activity includes cycles of formation and collapse of volcanoes and it is responsible for the gradual formation of the once united island firstly inhabited in the Late Neolithic period, but also for the present topography of Thera, Therasia and the tiny Aspronisi - remnants of the united island after the Late Bronze Age eruption.

With the area of Athinios being the only one with a pre-eruption bedrock, the monuments of the Caldera, depending on the time of their establishment, have been erected either on the pyroclastic soil or on the layer of volcanic ash that covered the island during the Bronze Age eruption, sometimes in the type of a cave-building, or on the solid lava, which was denuded of the volcanic ash that covered them, due to the erosion.

In the center of the Caldera, the islets of Palea and Nea Kameni, the newest land of the Eastern Mediterranean, are the current peaks of the volcano which is gradually being built underwater by the volcanic activity after the Bronze Age eruption. The first land activity of this volcano is manifested in 197 BC by the Greek geographer Strabo. Since then, eight more eruptions follow, during which islets rise and fall: 46-47 AD, 726, 1570-1573, 1707-1711, 1866-1870, 1925-1928, 1939-1941, 1950. The Nea Kameni appears with the eruption of 1707 and its current form is due to the explosions that followed. The houses that had been built on its shoreline sank with the eruption of 1866-1870.

The state of conservation of the monuments testifies to the volcanic and seismic activity that struck them, setting at the same time, in combination with the special geophysical characteristics of their place of establishment, the special framework of their protection. The natural volcanic environment of the Caldera, where the monuments have been erected over time, inevitably predetermines the specific treatment and protection that such monuments require. Erosion and its accompanying effects on the landscape are clearly apparent. Because the remarkably high, steep, inner walls of the Caldera are made of pyroclastic material, which is often very unstable, landslides - a particularly serious danger - are a common occurrence especially when earthquakes loosen the rock formations. All the above facts make the access to some monuments even more dangerous and the implementation of the necessary interventions for their preservation, particularly difficult since the elaboration of specific interdisciplinary studies for each monument or location is needed. At the same time, the inclusion of these monuments in visitors' travel routes is being prohibitive, due to safety reasons.

M. Efstathiou

Description of the Work Done

In the framework of the Interreg Balkan-Mediterranean 2014-2020 program, the Ephorate of Antiquities of Cyclades, after the invitation of the European Center for Byzantine and Post-Byzantine Monuments, participates, in collaboration with the Municipality of Thira, in the wider Project Monuments in Nature - A creative co-existence (MoNa) with the action: "Management of the cultural and natural heritage of the Santorini caldera" under the supervision of Dr Demetrios Athanasoulis, Director of the Ephorate of Antiquities of Cyclades, with the project team consisting of Maya Efstathiou, Chysanthi Sakellakou, Marina Vogkli, Maria-Eugenia Kourousia, Kostas Georgakopoulos archaeologists, Demetris Kormanias, architect, and Asimina Giannioti, accountant.

The project provided the opportunity for a substantial cooperation with the Municipality of Thira. The team for the implementation of the project under the supervision of the Mayor, Antonis Sigalas, the Deputy Mayor Sofia Kitsou, and the General Secretary Ioannes Eudaimon, consisted of Konstantinos Davarinos mechanical, Flora Anaplioti administrative officer and Maria Papatthanasiou accountant.

In the framework of the project, archaeological sites and individual monuments, although already known, were recorded, systematically photographed and documented through the relevant existing bibliography, on the purpose of creating a single archive for the protection of the cultural and monumental heritage of the Caldera. The assemblage and organized archiving of the scattered relevant material (articles, studies, imprints, engravings, photographs, maps, etc.) concerned eleven (11) sites and 70 individual monuments in Thera and Therasia. The state of preservation of the monuments was also documented in order to take any necessary actions at a later stage. At the same time, as far as the recording concerned churches, their portable icons were included.

Furthermore, the project focused on six locations in the island complex, including archaeological field work, enhancement actions, architectural mapping, three-dimensional and photogrammetric mapping, aerial photographing as well as small-scale restoration works. These are the sites of the Castles of Hagios Nikolaos (Epano Meria), Oia, Skaros and Megalochori quarries in Thera, and the sites of Palaiokastros, Prophetes Elias and Koimesi in Therasia. (fig. 3)

The focal point of the works of the project was the Castle of Skaros, (fig. 4) the ruined medieval castle, once the capital of the island, at the top of a promontory projecting inside the Caldera gulf. This characteristic landmark on the western coast of Thera was inhabited from antiquity. It is one of the most important archaeological sites of Caldera's cultural heritage, and at the same time a place in which the preservation of the monument is in absolute relation with its special natural environment, as it is determined by the slow, however continuous, erosion of the volcanic soil, on which it has been erected.

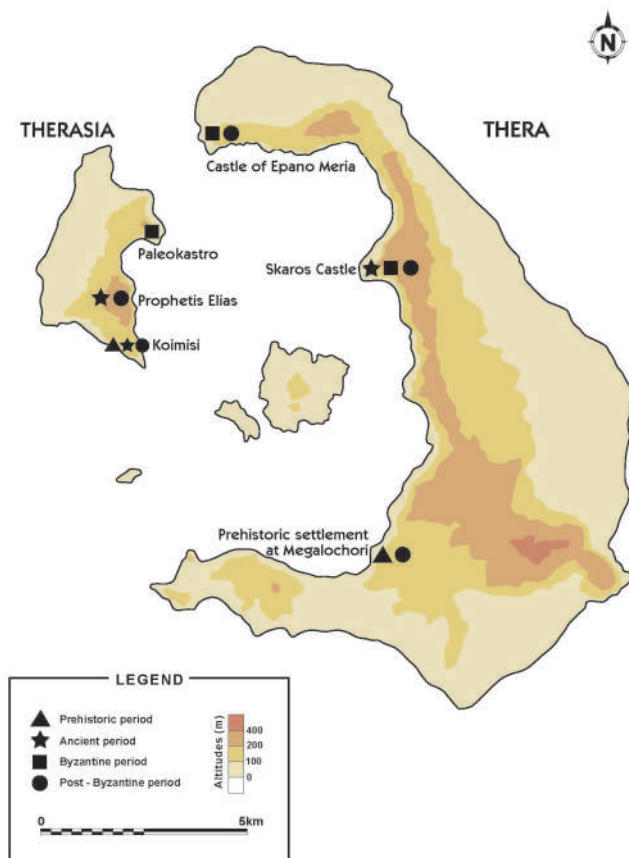


Fig. 3 Map of the sites and monuments of the project



Fig. 4 The site of Skaros
(EFAKYK Archive, Photographer: Thanos Kartsoglou)



An inscription, engraved on the cliff dating approximately to the second half of the 5th c. BC, marked the boundary of a sanctuary dedicated to Athena. The inscription, in addition to several reports concerning other antiquities, in combination with the privileged, natural fortified, position of Skaros, suggest the existence of a settlement of some significance at this promontory also in antiquity. Its name "Scharo", first appears in 1485, by traveller Bartolomeo da li Sonetti. Although very few, pottery sherds of ancient times, some architectural parts as well as substantial parts of ancient structures that came to light at the promontory during the Mo.Na Project, strengthen the evidence of the existence of an ancient settlement. The process of identification of the puzzling complexity of the ruined structures in the framework of our Mo.Na Project has also provided us with evidence for the use of Skaros during the early Middle Ages and the Protobyzantine period respectively, a strong indication of the continuous use of the site from antiquity until the foundation of the Venetian castle.

The Skaros Castle built on this naturally fortified location in 13th century by the Barrocci family, (1207–1265), was the first Venetian capital of Thera. In written sources, it was first mentioned in Buondelmonti's Manuscript of 1430 Traveler's Report, as the seat of the Dukes and the Governors of the island and at the same time, as the Episcopal See of the Latin bishop.

The densely populated fortified settlement consists of the Upper Castle or citadel, known as "Rocca", which was the first residential hub, and the Lower Castle, around the foot of the rock. During Venetian and Ottoman times, a small gulf on the south shore of the promontory was used as a port. Relevant sources report that "Rocca" was seriously damaged after the volcanic eruption in 1650 and that its inhabitants gradually moved to the Lower castle. The serious volcanic eruptions of the 18th (1707-1711) and 19th century (1866-1870) forced its inhabitants to abandon Skaros and settle in the modern capital of the island, Phera.

Fauvel's drawing of the Skaros Castle, in the Thomas Hope Collection of the Benaki Museum (fig. 5), is a valuable and accurate depiction of its post-medieval fabric. The Castle was fortified with a defensive wall strengthened with towers and included many houses and churches. Its entrance was located to the East.

Within the framework of the Mo.Na Project, Fauvel's drawing was the basis for our actual exploration of the ruins of the Castle where even today we can see the towers of rectangular plan reinforcing the east wall of the settlement.

The tower in the center of the east enceinte protected the main gate of the Castle (fig. 6), which was also secured by a drawbridge. It follows the typical for that period organization of the space. The towers and the defensive wall were the exterior parts of the houses of the urban fabric. Pottery finds from the tower date from 15th to 19th c.

Fig. 5 Fauvel's drawing of the Castle of Skaros.
Thomas Hope Collection of the Benaki Museum



Fig. 6 Skaros Castle. The east tower
(EFAKYK Archive, Photographer: Thanos Kartsoglou)



At the west side of the Castle, a cylindrical tower was investigated (figs.7a-b). Its excavation revealed findings (pottery from 13th up to the 20th century, animal bones, shells, fragments of glass) indicating its later use as kind of a later deposit pit. As its masonry reveals, the tower was constantly repaired, and it was connected with the protection of the western postern of the defensive wall. The trial trenches inside the walls revealed a series of rooms leaning against the inner façade of the enceinte. As soon as the architectural mapping of the site is completed, we will be able to reach in safer conclusions about the different phases of the walls and their dating.



Fig. 7a Skaros Castle. The west tower and the defensive wall
(EFAKYK Archive, Photographer: Thanos Kartsoglou)

Fig. 7b Skaros Castle. The west tower
(EFAKYK Archive, Photographer: Thanos Kartsoglou)



The continuous collapses of the volcanic rock as well as of the structures had covered the ruins of the fortified town with debris. During the cleaning works, we inventoried dozens of buildings inside the Skaros walls (fig. 8a), the basements or ground floors of which were brought to light. Parts of these vaulted structures were carved in the volcanic soft soil, while others were built with stone. A characteristic example of these structures is one in which the twin barrel vaults of the basement were supported by a central arcade (fig. 8b) Characteristic pottery finds date back to 16th-18th c.



Figs. 8a-b Buildings of Skaros Castle
(EFAKYK Archive, 8a Photographer: Thanos Kartsoglou)



Certain areas of the castle were neither possible to reach without danger, nor to execute restoration works, due to huge layers of destruction in combination with the steep morphology of the ground. One of these places was the north side of the “Kato Kastro”, where according to Fauvel’s drawing two churches, probably, Panagia of Maroulas and Hagia Eirini, were located.

As the last part of the project, the Ephorate is carrying out small scale restoration works that when completed, will ensure the preservation of the architectural remains of the castle that came to light through the excavation trenches of this project.

The archaeological works expanded also in the complex of the two ruined churches outside the gate of the castle, **Hagia Theodosia**, the protector of the castle and **Panagia Xeportiani**. The oldest of the two barrel- vaulted single-nave churches, according to some scholars Hagia Theodosia or according to others Panagia Xeportiani, was larger in dimensions. The fieldwork re-

vealed the monument, (figs. 9a-b, 10) and brought to light an arc-solium with two burials in the northern wall, which can be dated according to pottery finds back to the 17th-18thc. An unknown funerary inscription from a Roman period grave was located in second use as a base for the Hagia Trapeza. Finally, of particular interest among the new findings is an ancient funerary stele with the Venetian Crispi coat of arms engraved in second use, probably placed on the lintel of the entrance.

Of special interest were also the fieldworks in the framework of the project at the sites of Palaiokastros and Prophetes Elias in Therasia, as they offered for the first time, the opportunity to document their architectural remains. Furthermore, the works of enhancement at the ancient settlement at Prophetes Elias, added a new attraction in Therasia accessible to the visitors, and indeed the first in Therasia with remains from antiquity.

Fig. 9a Skaros. Church of Hagia Theodosia- view from the west (EFAKYK Archive, Photographer: Thanos Kartsoglou)



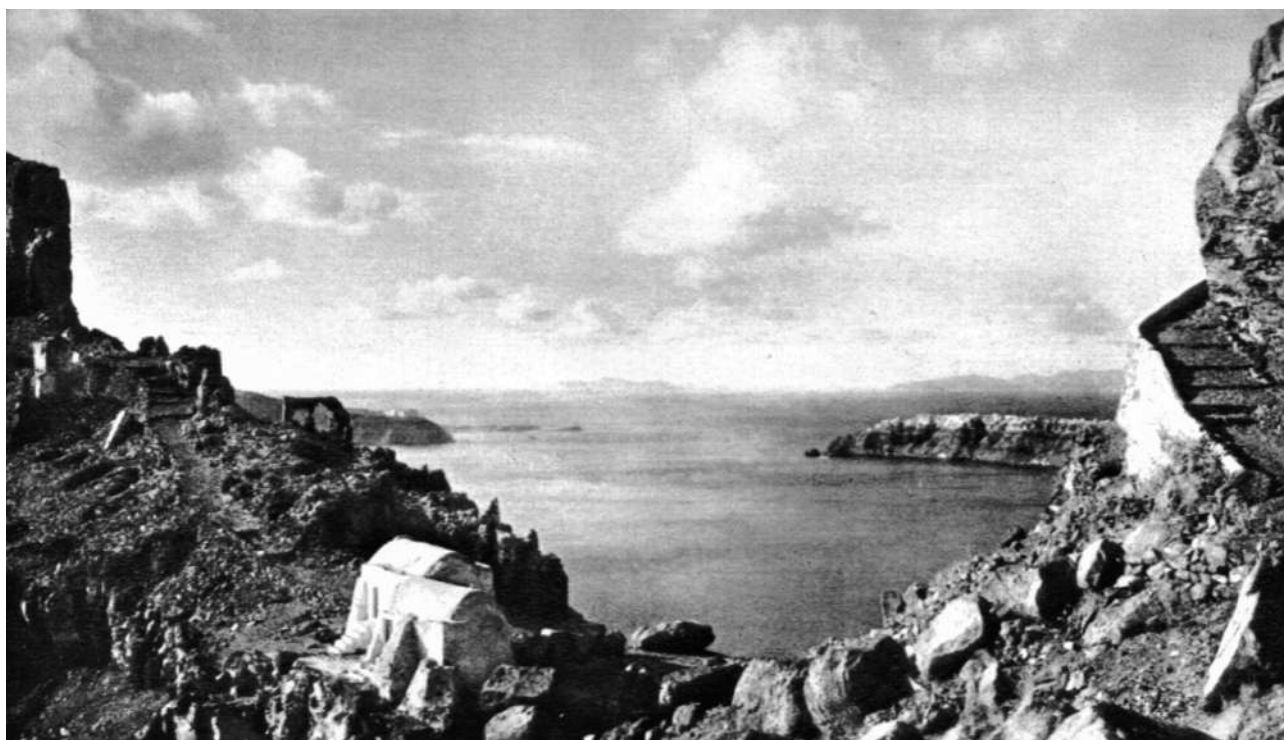


Fig. 9b Xeportiani and Hagia Theodosia churches. 1917, Marco's and Mena's Damigos archive

Fig. 10 Skaros. Church of Hagia Theodosia -view from the east (EFAKYK Archive)



Today, the summit of the hill is occupied by the late post-byzantine monastery of Prophetes Elias. Its church used to be the funerary chapel of the nowadays abandoned Kera settlement. Around the monastery, on the summit of the hill and its slopes, there are remains of ancient buildings, witnessing along with the pottery sherds found in the area that the hill was inhabited in antiquity. Although the site is unexcavated, existing evidence suggests that the settlement, probably founded by the end of the Geometric period (8thc.BC), was active throughout Antiquity as the main residential centre of Therasia.

Cleaning works during the Mo.Na Project revealed for the first time, building remains arranged in three steeped terraces at the north side of the hill. (figs. 11a-b) They belong to rectangular rooms with their facades at the north or west. At the top of the hill, in a small circular room, a black-glazed Hellenistic vase was found. A rectangular room most probably belonged to the late post-byzantine use of the site.

A small, so far unidentified byzantine settlement was recently located in the site known as "Kastro" or "Palaiokastros". It is built on a steep, rocky and naturally fortified hill, accessible only

Fig. 11a Therasia, Palaiokastros- view from the west
(EFAKYK Archive, Photographer: Thanos Kartsoglou)



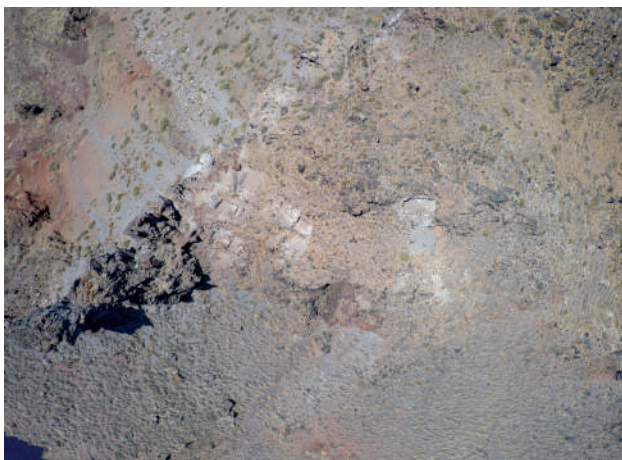


Fig. 11b Therasia, Palaiokastro-view from the north
(the architectural remnants)
(EFAKYK Archive, Photographer: Thanos Kartsoglou)



Fig. 12 Therasia, Palaiokastro – the remains of a cistern
of the byzantine settlement
(EFAKYK Archive, Photographer: Thanos Kartsoglou)

from the west. (fig. 12) It occupies a strategic position with immediate visual contact with the castles of Hagios Nikolaos and Skaros at Thera. Furthermore, it supervises the maritime route from Constantinople to Crete. On the hilltop, several remnants of the settlement are preserved in situ: a vaulted cistern with traces of hydraulic plaster on the walls (nowadays its vault is collapsed) and some architectural remains of buildings south of the cistern. On the east, part of the settlement has collapsed into the Caldera.

Cleaning works that took place at the top and at the eastern slope of Kastro, brought to light a densely populated settlement that dates from 7th to 11th c. The settlement seems to be developing only on the east side of Caldera, and not on the vulnerable, easily accessible, west side. At the plateau on top of the hill an elongated vaulted cistern for water supply was investigated. (fig. 13) On the east and southeast slope of the hill, a multitude of architectural ruins were discovered. The walls are of rubblework bound with mud, while most of them were covered with plaster. There are also some walls bound with lime mortar.

Trial trenches have brought to light, a variety of pottery, such as an open bowl of Central Greek Painted Ware dating to 8th- 9th c. which is decorated with birds and is considered a local production of Gortyn of Crete, sherds from amphorae, cooking pots and jars of the same period and a sherd from the rim of a Glazed White Ware that can be dated to the 11th c. The research in the castle confirms the initial hypothesis that the location is probably identified with the station of the byzantine fleet in Crete in 949 which is mentioned in the text "Stadiodromikon" of Constantine VII Porphyrogenitus.

Managing the Caldera's monuments, in combination with the flows of visitors, eight (8) cultural routes, six in Thera and two in Therasia, were compiled, based on the existing data, as documented by the relevant autopsies that took place within the project. These routes are: **Oia Route** (Hagia Aikaterini, Hagia Paraskevi, Kastelli of Apanomeria, Hagia Triada, Hagioi Pantes, Hagios Nikolaos, Metochi Hozoviotissa, Nautical Museum, Kapetanospita, Anastasi-Resurrection, Hagios Spyridon), **Imerovigli, the North Route** (Hagios Antonios, Prophet Elias), **Imerovigli Route** (Monastery of Hagios Nikolaos, Timios Stavros, Anastasi, Panagia Malteza, Hagios Georgios, Hagio Pneuma, Hagios Ioannis Katiforis), **Skaros Route** (Hagia Theodosia, Xeportiani, the promontory and the Castle of Skaros, Panagia Theoskepasti), **Fira Route** (church of Panagia Katholiki, catholic church of Hagios Stylianos, Cathedral of Hagios Ioannis the Baptist, Archaeological Museum of Thera, stop-view of Fira Bay, church of Hagia Eirini, church of Hagios Ioannis Theologos, church of Hagios Minas, church of Transfiguration of Christ, view of Fira quarries, Metropolitan Church of Hypapanti, Museum of Prehistoric Thera), **Megalochori-Akrotiri Route** (Agia Marina, churches in the Megalochori quarries, Panagia of Balos, Agios Nikoalos of Balos, Old Port of Akrotiri, Raos), **the Route from Riva to Manola** (church of Hagia Eirini, the Phaneromeni Church, church of Hagios Ioannis o Palaios, church of Hagios Ioannis, Palaiokastro, church of Analepsi, church of Hagios Konstantinos) and finally, **the Route from Manolas to the millennia-long site of Koimisis** (hill of Prophetes Elias, settlement of Kera, millennia-long site of Koimisis).



These cultural routes run through the Caldera, both of Thera and Therasia, from North to South and they include characteristic monuments. One of the most important criteria when planning the cultural routes was the accessibility of the monuments or sites. Although most of the cases consider hiking cultural routes, it was ensured that there were ways of transportation at their beginning and end. In few cases the routes include monuments or sites that are not quite accessible, however in those cases the visitors have the opportunity to experience the view of the natural beauty in combination with the monument or site. Cases like these are characteristic landmarks or important monuments of the cultural heritage.

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Fig. 13 Therasia. Ancient site at the hill of Prophetes Elias (EFAKYK Archive)