

# Cerigo Speleological Project. The cave barn places in Kythera Island, Greece

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**Summary:** Since 2009, the Department of Northern Greece of the Hellenic Speleological Society organizes the Cerigo Speleological Project. The aim of the project is the interdisciplinary research of Kythera Island's caves. During these 3 years of exploration and in the three exploratory expeditions, 56 cave forms have been studied. However, 13 of them were modified to be used as barn places. The modification and the usage of the caves became in a certain way and methodology. The practices, the ethnographic parallels and the analysis of the whole scientific material which came from this research, are the main aims of this paper. Furthermore, a basic point of the research is to indicate the timelessness of these practices in the cave's formation of barn places.

**Key words:** barn places, shepherds, marls, Kythera Island, ethnography.

## Cerigo Speleological Project. A short summary of three years of research

According to historical evidences, Kythera had been initially searched speleologically by Ioannis Petrocheilos himself, the founder of the H.S.S. from the early '30s to 1950 (Grafios, 1961: 3, Ioannou, 2000: 25). The next expedition was conducted by the Department of Crete of the H.S.S. (D. Crete) in 2002. A new speleological project in the island of Kythera began in 2009 under the aegis of the Hellenic Speleological Society, Department of Northern Greece. The aim of this project was the localisation, the recording, the exploration and the interdisciplinary study of the caves and any other cave form of Kythera Island. Valorized scientists and speleologists from the Hellenic Speleological Society, the Aristotle University of Thessaloniki and the University of Crete participated in this project (TRIMMIS & FILIPPATOU, 2011).

Three exploratory expeditions took place on the island during November 2009, April 2010 and April 2011 in order to achieve the goals of the project. More specifically, 34 scientists participated in the researches.

The expedition of 2009 (Cerigo 2009) had an identifying character. In the first part, we intended to control and verify the old cave recordings from the '30s, '50s and '60s. Apart from these, we had to settle all the abeyances from the expedition of the Department of Crete. Finally, the expedition visited 11 caves and mapped seven of them. From the 11 caves, three were new recordings and eight were from I. Petrocheilos. Three caves were mapped by the department of Crete and one by Anna Petrocheilos.

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*The location of the island Kythera, also known as Cerigo*

This expedition showed the uniqueness of the Kythera's speleological wealth and it was decided that a further expedition would take place during Easter of 2010 with the attendance of more speleologists. It was the first time, in the Cerigo 2010 expedition, that not only marine and submarine caves were explored, but also the recordings of the island's potholes began. The expedition lasted seven days and the members visited 25 caves. They mapped 14 of them. Finally, 21 of 25 caves were new recordings.

In the Cerigo 2011 expedition, 15 new caves were recorded and explored while simultaneously the abeyances from the previous expeditions were also completed. These new results are related to geology, archaeology biology, and medieval history.

## Methodology and research technique

The exploration of the caves of this island was an arduous task with several technical and methodological problems that had to be solved.

The first basic matters regarding the movements of exploration groups, stay and provisioning were solved with the tireless help and solidarity of the island's inhabitants.

The next problem was the methodology that would be followed concerning the collection of material and the way cave forms are recorded.

Also, a form of cave's recording had to be created which would be filled by the groups in the area so that all groups would bring to the secretariat of the expedition the clues that the secretariat was asking for and the goals of the research would be achieved.

The form was created using the software Microsoft Excel Vista pro and the first page includes cells that will list the name of the cave, the date of expedition, the type of the cave, the altitude and the exact location of its entrance, if the cave presents palaeontological, archaeological or contemporary remnants, if there are litter, space for a brief description of the cave and eventually a field for the description of speleo-decoration (TRIMMIS & FILIPPATOU, 2011).

The second page includes fields that will list the findings of each cave per country as well as the points of their dependence from the mapping<sup>4</sup>, the names of the members of the exploration group, the names of the members of the mapping group and the mapping instruments. There is also a field for other comments and in the end a field for the listing of the name of the form's compiler (TRIMMIS & FILIPPATOU, 2011).

The listing form was very helpful regarding the organisation, the coordination and the clarity of the elements collected by the groups. However, its final formulation is in progress and many matters are still opened for conversation.

Apart from the listing of the elements of the caves, the same software was used for their mapping. This was done for the reduction of mistakes and deviations, for the uniform listing of the features of the caves among the mappings in each case and eventually for the uniformity in the presentation of designs. This software was the cave mapping programme "Visual Topo", for the management of the measurings, and the designing programme Xara Designer Pro 6 was used for the final designs (TRIMMIS & FILIPPATOU, 2011).

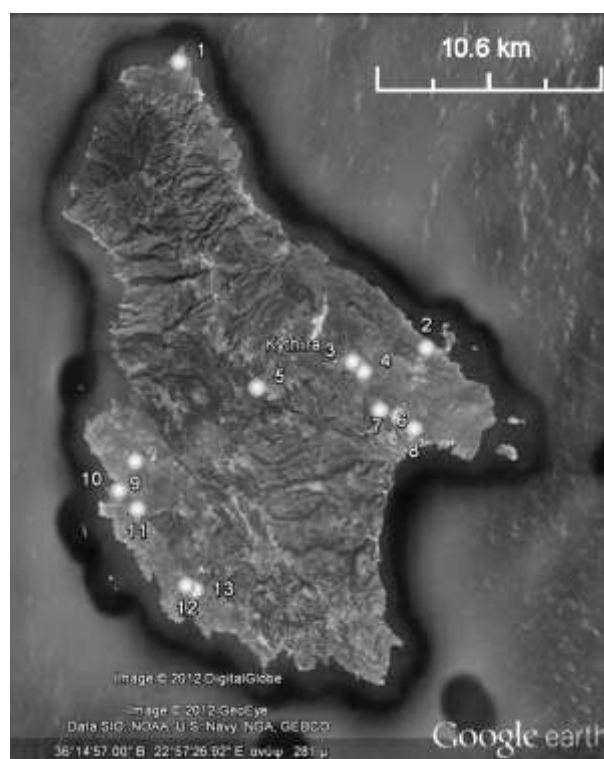
The locations of the caves were collected in a common datum, WGS 84, and georeferred to the programme Google Earth Pro which works with systems applications GIS. Afterwards, the spots were converted to the system HGRS 87. The development of GIS started in the end of 2011 with the gradual creation of the geo-database and the digital ground model (Trimmis & Filippatou, 2012).

<sup>4</sup> This was intended for the future development of a system of quantitation and interpretation for the distribution of the caves within the island. In many cases, the exploration groups neglect this process. The technique has not been improved greatly yet. There were better results during the Cerigo 2011 expedition.

Despite the whole attention to the accurate collection of elements, mistakes and omissions were unfortunately obvious. However, their quantity is negligible and it cannot limit the research or the quality of protogenic elements in any case (TRIMMIS & FILIPPATOU, 2011, 2012).

As it was mentioned above, the research presented an interesting variety of elements in various fields. In the field of the anthropogenic uses of the caves, the findings are separated into two big main categories regarding the use of the caves. These categories include firstly the modification of caves as places of Greek Orthodox worship - churches or chapels - and secondly, their usage as places of temporary or permanent stabling of animals.

In the three years of the project, there were listed 17 caves used as churches or chapels and 13 caves as barns. These caves, their characteristic features and the way the place is modified constitute the main topic of this paper.



Picture 1: The position of the caves, which are formed in barn places on the island.

From North to South:

1. Moudari cave
2. Grias Kakomarienas
3. Mantri tou Papa
4. C- stani
5. Mavri Spilea
6. Niorou
7. Kalogerou
8. Anonymi vrachoskepi
9. Lachnos
10. Charampos tou Cyclope
11. Stavros cave
12. Cyclope's cave
13. Viglas cave.

## The caves and their features

On the island of Kythera 13 caves are used as barns (Picture 1). From these 13 caves, the only ones that have ceased to be used for the stabling of animals are Moudari cave, Kalogerou, Mavri Spilea and Viglas cave.

All these 13 caves have been internally modified by human in order to serve the needs of cattle-breeding. What arises from conversations with shepherds in Kythera Island, who continue to use caves for cattle-breeding activities, is that the division of the available space contributes not only to the easier management of the flock but also to the organisation of cattle-breeding activities such as milking, mating, nursing and more. It also contributes to the stabling of different species in the same place (e.g. sheep with goats) and it leaves free space for the storage of objects and forages or even for the accommodation of the shepherd (only in the case of Lachnos cave).

The modification of the interior is usually achieved with the construction of either dry walls that close down the aperture of rock roof or dry walls and palisades which arrange the interior of the cave. The pile functions complementarily in dry walls and it is never used autonomously. Cement blocks<sup>5</sup> were also used in two caves (Anonymi vrachoskepi and Charampos tou Cyclope) for the closing of the entry.

The shaping of the interior of the cave with piles, rubble masonries and clay floors is a phenomenon which has been observed with safety from the beginning of the Late Neolithic period (LN) in the Aegean Basin (TRANTALIDOU et al., 2010).

All the caves are small cavities in their entirety (the largest does not exceed 40 m in length) and they are lighted by the natural light. They also have a low level of humidity and a minimal decoration. The position of every cave has been carefully chosen since they are close to roads and springs or collectors of water (the longest distance from a water spring is 400 m on the straight and it belongs to the cave Anonymi vrachoskepi).

In Kythera Island, the caves, which are used as barns, are located up mainly in marls. Only the caves of Moudari, Grias Kakomarienas, Stavros and Lachnos are in limestone. There are two reasons why the cavities in marls are preferred. Firstly, the cattle-breeding villages of Kythera par excellence, Mitata, Viaradika, Frilingianika, are in the region where there are the largest accumulations of marl rocks. Secondly, marls as smooth rocks are easier to be dug and reshaped appropriately for the needs of cattle-breeding. Such human "interventions" in natural cavities are observed in the caves of Charampos tou Cyclope, Cyclope's, Niorou, Kalogerou, Mavri Spilea and Lachnos. It is worth being noted that in the greater area of the village of Mitata, there are also undercut barns apart from the modified natural cavities. However, the goal of the project was only the research in the caves and not the cavernous barns in their entirety.

Apart from the elements concerning the modifications of the place, the caves also present permanent constructions that are used in cattle-breeding. Such constructions are the cribs in the caves of Charampos tou Cyclope, Cyclope's, Anonymi vrachoskepi and the watering places in the caves of C- stani and Mantri tou Papa. In the caves

<sup>5</sup> The caves along with the way their interior is modified are cited in the table 1.

of Charampos tou Cyclope and Anonymi vrachoskepi, the crib is carved on the natural rock.

In the caves that are still used for the stabling of animals, there were also detected various moving objects that serve the needs of cattle-breeding. The fragile objects and the objects with a greater value were kept away from animals in order not to be destroyed by them. Cattle-breeders gave us this information. We were also informed by them that ceramic vessels were rarely used in these caves since vessels were broken by animals. The vessels that shepherds usually used in the caves-barns were made constituted a kind of pottery of good quality for some exceptional cases of pastoral life, very little cooking utensils and very little vessels for the storage of oil and water. Woodenware and baskets<sup>6</sup> were preferred. This practice continues to exist in the 21<sup>st</sup> century with the difference that metallic and plastic vessels are now preferred instead of glass and ceramic.

According to shepherds' evidences, these caves were reshaped in their entirety as places for the stabling of animals during the 20<sup>th</sup> century. The cave of Mavri Spilea is the oldest modified cave whereas the cave of Charampos tou Cyclope is the most recent. However, in the interior of five caves (Moudari cave, Lachnos, Stavros cave, Niorou and Kalogerou), there were detected ceramic sherds, which macroscopically date from older periods<sup>7</sup>. It was not possible to collect and study ceramics further because of the license for the research of the project. So, sherds were listed in situ and they are left in the field.



Picture 2: The cave of Mantri tou Papa.

<sup>6</sup> We were provided with the same information about ceramic vessels by the shepherds of the Dimotaki family in Psari peak in Lefka Ori where a research is also conducted for the traditional and contemporary uses of caves under the aegis of D.o.N.G. (Department of Northern Greece) of the H.S.S. (Hellenic Speleological Society), within the framework of the exploration programme that is organised by the Department of Crete of H.S.S.

<sup>7</sup> Most of the detected sherds were from vessels and ceramic vessels of the 16<sup>th</sup> -18<sup>th</sup> century A.D. Very few sherds (3-5) in the caves of Lachnos, Stavros, Niorou and Kalogerou date from the Later Copper period (16<sup>th</sup>-12<sup>th</sup> century B.C.).



Picture 3: The Stavros cave.

## Conclusions

Summarising the research in the caves-barns and their features, a practice is observed which is repeated with the same elements in the whole island. The largest density, which is detected in the eastern side of the island, is due to the fact that the villages of this region traditionally constitute the centre of cattle-breeding in the island. Apart from the 13 caves mentioned here, there are more, smaller, natural and undercut cavities which are used for the same purpose. It is worth being mentioned that cattle-breeding in Kythera is not characterised for its moving pastoralism but for its permanence. So, these caves are used as barns throughout the year and not seasonally or occasionally (with the exception of the cave of Charampos tou Cyclope).

Moreover, it is observed that the caves, which are used as barns, are not used for other activities at the same time such as storage, worship and more. According to shepherds, there are two reasons why they use the caves:

firstly, the mud, the bad smell and the increase of insects because of the animals and secondly the fact that the constructions, which modify the place, do not usually allow its easy adjustment to other activities.

The goal of the research was a systematic listing of the contemporary use of caves by human. What is observed is, that the organisation and use of the caves that are designated for productive activities, differentiated only little from the beginning of the Late Neolithic period (of the Aegean) until today<sup>8</sup>. In other words, it became possible to list the practices for the organisation of the place that present similarities with the excavation data as well as the practices for the use of the place that are impossible to be saved in the archaeological context.

To conclude, there is a listing of the role that the caves played and play in the cattle-breeding activity of Kythera. Tying up this research with respective researching attempts in Crete<sup>9</sup>, Cyclades<sup>10</sup> and Macedonia<sup>11</sup>, which are in progress, we could say that in the whole country the caves, which are used for the stabling of animals, present not only common natural features but also common features in the organisation and use of the place. The gradual publication of these cases will offer important information for the traditional uses of caves and their importance in the productive activities of traditional societies as well as a variety of ethnographic parallels which could possibly contribute to the interpretation of archaeological cases.

## Acknowledgements

We would like to thank the organisation committee of the 6th Eurospeleoforum/Speleodiversity which gave us the opportunity to present this paper. We would also like to thank Effrosyni Chitzou for her tireless help in the editing of this article.

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<sup>8</sup> Regarding the organisation of the place in the caves of the Late Neolithic period of the Aegean: TRANTALIDOU et al., 2010; SAMPSON, 2007.

<sup>9</sup> At Psari peak, Lefka Ori, Chania prefecture and Malaki, Rethymno prefecture by the H.S.S D.o.N.G. and the H.S.S. D. o. Crete.

<sup>10</sup> At the islands of Santorini, Iraklia, Paros, Antiparos and Tinos by the H.S.S D.o.N.G.

<sup>11</sup> At Kastoria prefecture and Serres Prefecture by the H.S.S D.o.N.G.

Table 1: The caves on Kythera Island and their characteristics of spatial organization.

<b>Name of the cave</b>	<b>Space Organisation Technique</b>	<b>Other constructions</b>
1 Niorou	dry walls	
2 Kalogerou	dry walls	
3 Mantri tou Papa	dry walls/pile constructions	water trough
4 C- Stani	dry walls/pile constructions	water trough
5 Cyclopes	dry walls/pile constructions	Crib
6 Charampos tou Cyclope	cement blocks	Crib
7 Anonymi Vrachoskepi	cement blocks	Crib
8 Moudariou	dry walls	
9 Stavros	dry walls	
10 Mavri Spilea	dry walls	
11 Gria Kakomarienas	dry walls	
12 Viglas	dry walls	
13 Lachnos	dry walls/pile constructions	

## **Bibliography**

- IOANNOU I. (2000): To Istoriko tis Ellinikis Spilaiologikis Eterias apo simeiwseis. Bulletin of the Hellenic Speleological Society, vol. 22, p. 25, Athens.
- SAMPSON A. (2007): Proistoriki Archaeologia tis Mesogeiou: 456- 461. Athens.
- TRANTALIDOY K., BELEGRINOY E., ANDREASEN N. (2010): Pastoral societies in southern Balkan peninsula: the evidence from caves occupied during the Neolithic and Chalcolithic era. ANODOS, studies of ancient world 10: 321-334 Tvarna.
- TRIMMIS P. K., FILIPPATOU P. (2011): Spileologiko programma Kythiron 2008- 2011. Prodromi anaphora. Publications of the archives of the H.S.S. D.o.N.G., vol. 1, Thessaloniki.
- TRIMMIS P. K., FILIPPATOU P. (2012) (under publication). Spileologiko Programma Kythiron 2009-2012. Mia sunoptiki parousiasi. Bulletin of the Hellenic Speleological Society, vol. 23, Athens.