

16th INTERNATIONAL CONGRESS OF SPELEOLOGY

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VOLUME 1



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CONGRESS OF SPELEOLOGY



WHERE HISTORY MEETS FUTURE



Edited by
Michal Filippi
Pavel Bosák

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OF SPELEOLOGY**

Czech Republic, Brno

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KATALOGIZACE V KNIZE - NÁRODNÍ KNIHOVNA ČR

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Cover photos (some photos were adjusted/cropped)

Top left – José Bidegain, on his way for the recovery Marcel Loubens' body. Author unknown. For details see the paper by A.A. Cigna.

Top right – "Walking Mammoth" – a prehistoric drawing from the Kapova Cave, Russia. Photo by O. Minnikov. For details see the paper by Y. Lyakhnitsky et al.

Bottom left – "Astronaut" David Saint-Jacques (CSA) collecting microbiological samples for the scientific programme of the ESA CAVES course. Photo by V. Crobu. For details see the paper by Bessone et al.

Bottom right – The long-legged cave centipede *Thereuopoda longicornis* – a typical species of Lao caves. Photo by H. Steiner. For details see the paper by H. Steiner.

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CERIGO SPELEOLOGICAL PROJECT IOANNIS PETROCHEILOS AND SPELEOLOGICAL RESEARCH IN KYTHERA ISLAND, GREECE, FROM 1930 TO 1960

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This paper aims at presenting Ioannis Petrocheilos' "works and days" and the speleological research on the island of Kythera, Greece, from 1930 to 1960. Ioannis Petrocheilos was born on Kythera and conducted the first speleological research in the area in the early 30's. Within 20 years Petrocheilos explored and studied more than 20 caves on the island with a specific and precise methodology. All his notes and data from that period survived in the archives of the Hellenic Speleological Society. Within the framework of the Cerigo Speleological Project we studied the history and the chronicles of that period in order to shed light on the beginning of Greek Speleology.

1. Introduction

As part of the Cerigo Speleological Project from the Local Department of Northern Greece of the Hellenic Speleological Society (H.S.S.), the historical background of the speleological research conducted on the island of Kythera between 1930 and 2008 was studied.

According to the historical evidence, the first speleological research in Kythera was conducted by Ioannis Petrocheilos, the founder of the H.S.S., from the early 1930s to 1960. The H.S.S. Department of Northern Greece continued the research on the island within a new framework until 2008. The speleological project of Kythera (Cerigo Speleological Project) was launched, in which scientists and speleologists

from the Hellenic Speleological Society, the Aristotle University of Thessaloniki and the University of Crete participate. Research conducted between 1930 and 1960 is of great importance not only for the island but for entire Greece as well, because during this period the principles for both the creation of the H.S.S. and the general exploration and research of caves in Greece were established. Furthermore, Ioannis Petrocheilos was the first Greek speleologist who also originated from Kythera.

2. Ioannis Petrocheilos¹

Ioannis Petrocheilos was born in Smyrni (Izmir), Minor Asia, in 1900. His parents were natives from the island of Kythera. Petrocheilos' dream was to be a composer and therefore he studied music. In 1917, he started climbing, painting and drawing landscapes. He enrolled at the Faculty of Mathematical and Physical Sciences of the University of Athens in 1918 and graduated in 1921. Between 1922 and 1926 he worked as a chemistry teacher in public schools.

In 1930, he moved back to Kythera with his wife Anna Minardou, originally from the island of Tinos, to work as a teacher at the school of Potamos village. He stayed on the island for two years. During this period, he explored two caves on the island and familiarized himself with speleology. This new activity enchanted him and he was awarded a scholarship from the Ministry of Education for a special course at the Sorbonne, Paris, in physical geology and anthropological geography (1932–1936).

Petrocheilos then returned to Kythera and continued teaching at the same school as before that, by that time, had become a secondary school. He started working in the field of applied speleology, scouting the island. In the two following years he explored four further caves in a more systematic way this time. In 1937, he published his first paper, bearing the title "Geotectonics". Furthermore, he

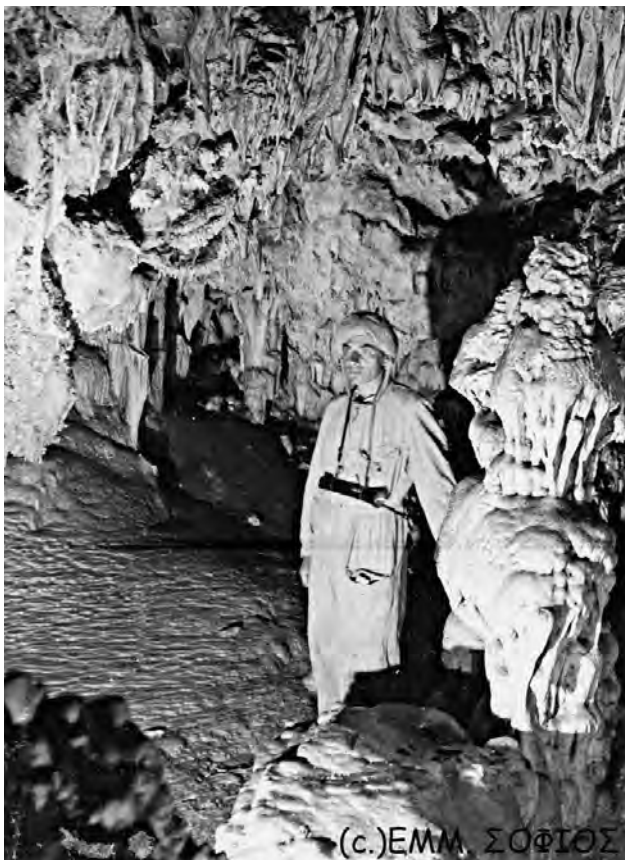


Figure 1. Ioannis Petrocheilos in Ag. Sophias Cave, Kythera, 1936. Photo M. Sophios.

¹Biographical information about Ioannis Petrocheilos was gathered from the following published works: Grafios Nidas 1961, Ioannou 2000, as well as from documents in the archive of the Hellenic Speleological Society.

drew the geological map of the island, published posthumously by the Institute of Geology and Mineral Exploration (1935). He also discovered a fossil skeleton of *Elephas antiquus* in Kythera, a discovery that was even announced at the French Speleological Society. In 1937 he was transferred to the secondary school of Andros, where he taught until 1943.

In that year, during the World War II, the Germans bombed the island, and his residence was burnt to ashes. All his household effects and his scientific archive, his library, his scientific instrument collection as well as the manuscripts he had drafted during his 13-year speleological and geological research were lost. In 1943 he was therefore transferred to Athens where he worked as a teacher at the Evangelical School of Nea Smyrni. In 1948, he published a book on inorganic and organic chemistry which was republished in 1950.

In 1949, he participated with his wife Anna Petrocheilou in the 1st International Speleological Congress in Valance, France. In 1950, he was invited to participate in the 4th Speleological Congress in Bari, Italy. In the same year, he, his wife and a few other intellectuals founded the Hellenic Speleological Society which he served as its president until his death on February 11th, 1960. In 1951, he was appointed geologist at the Ministry of Industry and, later, at the Institute of Geology and Subsurface Research (which later became the Institute of Geology and Mineral Exploration).

In 1954, Petrocheilos returned to Kythera. Together with G. Grafios Nidas, his wife and the photographer Manolis Sophios, he explored 14 caves on the island.



Figure 2. Kuriakoulou cave, Kalamos, 1936. Photo M. Sophios.

In 1957, he participated in the 5th International Congress I.N.Q.U.A. held jointly in Madrid and Barcelona, Spain where he announced the first discovery of an *Ursus spelaeus* canine in Greece (Perama Cave, Ioannina). At the same congress, Gasparis Mistardis, member of the Hellenic Speleological Society, made another announcement regarding the traces of old glaciers in Greece.

Petrocheilos was elected member of the International Committee studying the Quaternary in the Mediterranean. He also participated in marine research using the oceanographic boat *Alcyone*, in order to study the coasts of Southern Peloponnese and Northern Crete. He also

completed a series of studies at the prehistoric cave of Alepotrypa in Diros, Mani.

In 1959, he and his wife explored the cave of Agios Andreas in Kastania (Voion municipality).

At the request of the Institute of Geology and Subsurface Research, he explored and excavated the Kokkines Petres cave in Petralona, Chalkidiki where he discovered traces (bones and teeth) of cave bear, wolf, deer and other animals and he anticipated the discovery of traces of prehistoric man. His hunch proved to be correct when subsequent researchers discovered a human skull, shortly after his death (in 1960).

Between 1950 and 1960, Petrocheilos conducted a series of extensive scientific research which included hydrological research on the water system of 50 communities and the town of Thebes, landslides and settlement displacement; while at the same time he was examining in collaboration with some colleagues the possibility to create a subsurface dam at the bed of river Evinos. Additionally, he conducted drills in Athens (Patision Street, Nea Ionia, Larissis station) in order to examine the subsoil in the Greek capital in view of the construction of the metropolitan railway, known as the Athens Metro, part of which was inaugurated in 2000.

Beginning in 1951 he also published descriptions and studies conducted in caves in the Bulletin of the Hellenic Speleological Society. Alongside with his research since 1925, he published a number of articles in scientific and nature magazines. In 1980, instead of holding a commemoration ceremony, Anna Petrocheilou published a volume with his poems, which she discovered in his archive after his death – to her surprise, since she was not aware of his poetic talent until then. The volume bears the title *Odoiporontas* (foot-walking).

3. Speleological research in Kythera, 1930–1950

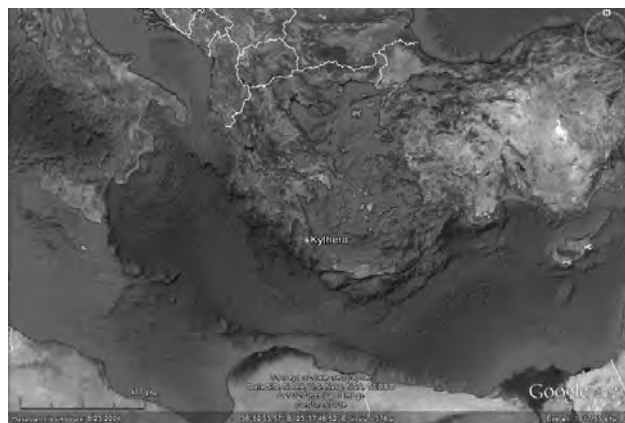


Figure 3. The position of the Island of Kythera in the eastern Mediterranean.

Information on the research conducted in Kythera during this 20-year period of Petrocheilos' studies was gathered from source documents of the Hellenic Speleological Society's archive. The archive maintains a file for each cave, including the cave's registry number as well as all relevant information. We examined 19 files² including

²These are the files (caves) registry numbers present in the archive: 2858, 2859, 2861,466, 2862, 2863, 2864, 2865, 2866, 495, 496, 509, 501, 558, 559, 698, 313, 4146, 314.

50 documents in total. Some files only contained a single document with information on the respective cave (e.g., 2866:Tourkos Cave). Nevertheless, most files included three to five documents. All documents but one had the signature of Ioannis Petrocheilos, while the names of those people who accompanied Petrocheilos in his explorations were not mentioned. The notes were taken in Demotic Greek and used multi-accented (or polytonic) spelling. Spelling rules were not always followed while there was a significant number of abbreviations and end-off-line broken words. The hand-writing was illegible even though some letters were written respecting the principles of calligraphy. In general terms, the hand-writing indicates that the notes were taken hastily, though no significant corrections appear. The paper used is not specific. Notepad sheets with horizontal blue lines and white A5 notepad sheets were mostly used. However, in some cases the writer used rice paper sheets, and in one case he even used the packaging from a pack of cigarettes.

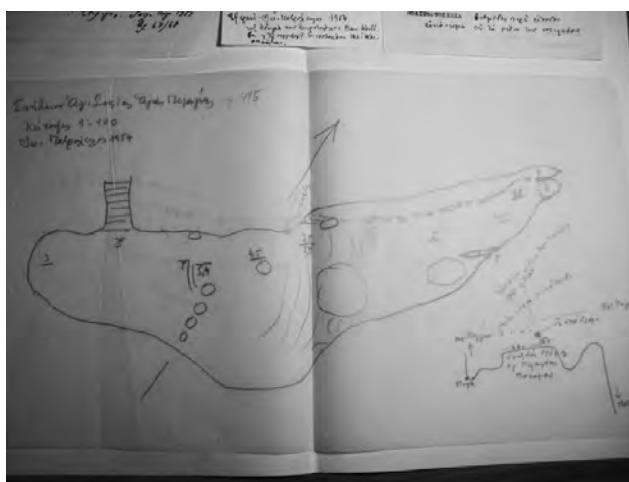


Figure 4. Plan by Io. Petrocheilos of Ag. Sophias Cave Ag. Pelagia, Kythera, 1954. Archive of M. Sophios.

These 19 caves were basically explored between 1930 and 1931 and during 1936, 1952, 1954, and 1955. Most caves were examined during 1954 (14 caves) while in 1930, 1931, 1952, and 1955 only one cave was examined per year. The first cave to be explored was the cave at Cape Moudari, in the north of the island. At first, the cave expeditions were more like excursions and nature trips. Later on, after Petrocheilos returned from France, the cave tracing was done more systematically while at the same time the team started examining the caves geologically.

In 1954, the research was more organized. The caves explored at the time were recorded alongside with a basic sketch of the area, while geological, biological, archaeological, historical, and other observations were also included. Furthermore, numerous pictures from the entrance and the interior of the caves visited during that expedition are present. To summarize, it appears that the 1954 research represented the first organized large field speleological expedition in Greece. Similar expeditions did not occur until the 1980s, when the first organized expeditions in areas such as the plateau of Astraka in Epirus, Kymi in Euboea, and Crete took place.

The notes do not bring to light any specific methodology that might have been followed during the research. They include information regarding the observations of the research team as well as more specific geological observations made by Petrocheilos himself. At the beginning of each document information about the cave's location is given, its accessibility and the interior dimensions. Then, details on the geology of the cave rock follow. Finally, each report concludes with any further details available regarding the cave. Seven out of 19 cave reports were complemented by a basic sketch of the cave.

Table 1. Caves of Kythera and their data.

No of the cave	Name of cave and nearest village	Year of explor.
2858	Ag. Aikaterinis, Kapsali	1954
2859	Theologou, Pitsinades	1954
2861	Klefti, Kalamos	
466	Kuriakoulou, Kalamos	1931
2864	Paliochora, Paliochora	1954
2866	Tourkou, Mulopotamos	1952
495	Ag. Sophia, Ag. Pelagia	1954
496	Panagia Orfani, Mulopotamos	1936/1954
509	Sparagariou, Kapsali	1954
501	Ag. Eleftheriou, Logothetianika	1954
558	Fournoi, Fournoi	1955
559	Spilaio Moudariou	1954
698	Vigla, Drumonas	1954
313	Ag. Ioannis, Kapsali	1936
314	Ag. Pavlos, Kapsali	1936/1954
315	Ag. Pelagia, Felwtis	1954
	Ag. Sophia, Kalamos	1936/1954
	Ag. Sophia, Mylopotamos	1936/1954

4. Summary

Speleology of Greek in Greece was not conducted until the second quarter of the 20th century with the research of Markovitz and Petrocheilos (Merdenisianos 2007). Petrocheilos continued his research until his death in 1960 and can be seen as the founder of scientific and exploratory speleology in Greece. He left behind important speleological publications and data collections and the country's first speleology society as his legacy. The speleological culture of Petrocheilos and his research methods were born and shaped in Kythera during the 1930s. A Kytherian and his small island were determined by fate to give birth to Greek speleology. As a small homage to this great teacher, the Cerigo Speleological Project aims at highlighting his activity and speleological legacy.

Acknowledgments

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- Documents from the archive of the Hellenic Speleological Society.
- Documents and photos from the archive of Manolis Sophios.