

Research Paper

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SOCIAL IMPACT AND INTERPRETATION OF THE GEOLOGICAL COLLECTIONS OF HELMIS NATURAL HISTORY MUSEUM OF ZAKYNTHOS

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Abstract

The Helmis Natural History Museum is located in Zakynthos, in the village of Agia Marina Fagia, only twenty minutes distance from the centre of the city of Zakynthos. The enlargement of the private collection of Panagiotis Helmis, a collection of natural history that originally included natural history exhibits acquired by the collector to meet his needs, was a challenge for the exhibition of this collection in a museum environment. Moreover, the museum was founded to introduce to the visitors the value of nature, to present information on lesser known fauna and flora species of the island and to focus on geology exhibits.

Keywords: Museum Education, Minerals, Geology, Zakynthos, Natural History.

Περίληψη

Η ανακοίνωση εστιάζει στο κοινωνικό αντίκτυπο της μουσειακής συλλογής των συλλογών γεωλογίας στο Μουσείο Χέλμη στη Ζάκυνθο. Το μουσείο βρίσκεται στο χωριό «Αγία Μαρίνα του Φαγιά» σε ορεινή θέση, είκοσι λεπτά από το

κέντρο της χώρας της Ζακύνθου. Ειδικότερα, πρόκειται για μία προσωπική συλλογή εκθεμάτων φυσικής ιστορίας που με την πάροδο του χρόνου διευρύνθηκε. Η συλλογή οργανώθηκε μουσειολογικά και μουσειογραφικά ώστε να συμβάλλει στην επιμόρφωση της τοπικής κοινότητας, την εκπαίδευση και ψυχαγωγία των μαθητών αλλά και των ποικίλων ομάδων επισκεπτών. Με σκοπό να πραγματοποιηθούν εκπαιδευτικές δράσεις, να αναδειχθεί η τοπική αλλά και παγκόσμια φυσική κληρονομιά (χλωρίδα/πανίδα) και να αποτελέσει το μουσείο, αρωγό γνώσης και μέσο ψυχαγωγίας. Η συλλογή ορυκτών του Παναγιώτη Χέλμη περιελάμβανε αρχικά είδη πετρωμάτων που συνέλεγε ο συλλέκτης από διάφορες γεωγραφικές περιοχές στη Ζάκυνθο και εμπλουτίστηκε αργότερα με διάφορα είδη εκθεμάτων γεωλογίας και απολιθωμάτων που προέκυψαν από ιδιωτικές αγορές. Το μουσείο πραγματοποιεί εκπαιδευτικά προγράμματα στο γνωστικό αντικείμενο της γεωλογίας με τρόπο προσιτό αλλά και εύπεπτο και συνεχώς επαναπροσδιορίζει τον ρόλο του κοινωνικά.

Λέξειςκλειδιά: Μουσειακή Εκπαίδευση, Ορυκτά, Γεωλογία, Ζάκυνθος, Φυσική Ιστορία.

1. Introduction

The Helmis Natural History Museum is the only natural history museum in Zakynthos (Fig.1). The museum opened in the village of Agia Marina, in November 2000, and it is housed in a beautiful traditional building. Its collections include objects and specimen of flora and fauna of Zakynthos and of the world. The museum is operated based, exclusively, on a private initiative and its purpose is to emphasize the importance of the Zakynthian nature not only for Greece but also for the entire world. Since its establishment, the museum has never stopped having a social impact, and today is an institution that offers high-quality content.



Fig.1: Helmi's Museum is located at the village of Agia Marina Fagia, 2014.
Source: Helmis Museum.

2. The objectives of the establishment of the museum and the expectations of the founder

One of the main objectives of the establishment of this museum was to improve the management of the private collection of the founder, namely documentation, research, classification and preservation of the objects. The point was to make the most out of the collection through activities and organization of exhibitions. The idea was not only to exhibit the material but also to use it for the provision of information regarding, especially the geology collections coming from Zakynthos. (Fig. 2). The collection was supplemented

with natural history specimens from around the world, and it is open to interpretation.



Fig. 2: One of the showcases containing geological collections, 2005. Source: Helmis Museum.

The Helmis Museum presents its mineral collections, coming from Zakynthos, the rest of the Ionian islands and all around the world and provides information about the minerals. In addition to its showrooms, the museum has a place of special activities, a library and a projection room. The creation of the museum was based on the need to develop and encourage “visitors’ engagement with the museum exhibits” (Stoupathis, 2010) particularly those who have no prior knowledge of geology.

3. Museological context and exhibition philosophy

The philosophy was that of a modern museum that trains, educates, entertains and exerts a strong social influence and impact; a museum which is open not only to the local community but also to foreign visitors who can examine and identify certain kinds of minerals existing, as part of the ecosystem, in Zakynthos.

During the planning stage, emphasis was placed on setting the exhibits in a way that helps the visitor to interpret the collections, experience feelings (Falk and Dierking, 2000) and get information through the geological heritage, as an integral part of natural heritage, of Zakynthos.

More specifically, the museum emphasizes:

- 1) The great variety of ecosystems (from mountains to wetlands),
- 2) The designation of protected areas, and geological landscapes of beauty (e.g. salt marshes in Zakynthos),
- 3) Endangered species.

The above highlight the bonds between Man and Ecosystem and encourage people to adopt a more positive attitude towards nature. And this, is not only a challenge but also an obligation of the museum. The exhibits are not just presented in their showcases. The purpose is to motivate visitors to discover more things. Most museum visitors have only a basic knowledge, so the museum helps them to get a more specific knowledge. The museum informs on ecology issues following the principles of environmental education (Dalakoura, 2010), being always aware of the serious environmental problems, contributing to finding possible solutions. Through its actions the museum expands the idea of environmental education.

4. Means of interpretation in Helmis Museum.

Exhibit interpretation is based on the development of critical mind and the ability of visitors to use their knowledge and their senses as effectively as possible. The items are exhibited thematically. After all. The museum was originally created to show the local mineral specimens, e.g. the Zakynthos gypsum, sedimentary rocks, classical/conglomerates, coral reef complexes, kaolinite and calcite. The visitors have the opportunity to read the local as well as the scientific name of an exhibit. For example, gypsum is called in Greek “**ουρά χελιδώνας**”. Additionally, groups of visitors can interact (Mc Manus, 1991) and exchange views local names of the exhibits.

More importantly, students visiting the museum have the unique opportunity to practice on geology subjects. The minerals and the rocks can be seen and described in various ways, depending on the structure, the colour, the texture or even the way they are used in everyday life. The museum has thematic units, such as crystallinity, natural qualities, classification, or the process of extraction and elaboration by man (e.g., structure of raw material) Other information, such as geological data, morphology of the terrain and geographic data, are tools of the educational process and encourage various school activities (presentations in class after visiting the museum, chemistry experiments etc.).

5. Helmis Museum responds as follows:

- 1) The material is classified, so that scientists, geology researchers, tourists, nature lovers etc., can get the best knowledge. Next to the exhibits there are annotation signs with texts that explain and inform. It goes without saying that there is an English translation.
- 2) Since it could be difficult for children and teenagers to understand, the use of difficult terms such as *minerals*, *chemical compounds*, *symmetry*, *crystal structures*, *salts and sediments* is avoided.

The need for an effective interaction provides a unique experience considering those studied at school. Learning about the past through the collections of the museum differs, significantly, from the academic approach and the teaching at school. Observation in a museum plays the most important role, given that museologists and educators provide the means of interpreting the exhibits and familiarizing with the relevant principles. The proper designation of these means makes them an effective tool for learning and educating. The museum gives visitors the opportunity to draw information about the historical, social and cultural impact of the collections. There are several ways to exhibit a mineral. Regarding, for instance, a certain kind of marble, the museum gives emphasis to several aspects, such as its geographic expansion, its use in the present as well as in the past, its aesthetic or its value. Geographic references provided by maps, aerial photos or microscopic/stratigraphic pictures, regarding a mineral can facilitate the interpretation of the exhibits. (Fig. 3)



Fig. 3: The educational programme “Come and learn about the nature of Zakynthos”, 2014, Source: Helmis Museum.

5a. The social impact through the educational programmes

Helmis Natural History Museum is always present, organizing activities and spreading messages. But, most importantly, it widens the ring of friends through management and educational actions. The educational programmes of the museum are based on the quality rather than the quantity of the provided knowledge, which results after meticulous research and evaluation of the existing literature. This knowledge has to do with the quality, the structure and the aesthetic value of the minerals, which are referred to as “objects of curiosity”; similar to those seen in the first museums, the Cabinets of Curiosities (Pearce, 1994). Nevertheless, the intention still is to make people aware of the need to protect our environment, and this is where the programme focuses on.

One of the educational programmes called “**Come and learn about the nature of Zakynthos**”, aimed at children from six to twelve years old, dealing mostly with the minerals of the island and the science of Geology. As already mentioned above, the museum promotes the visitors’ active participation

through interactive digital exhibits and workshops. The method of approaching the programme differs according to age: narration, educational games, fairy tales, artistic practices, etc. (Fig. 4)



Fig. 4: The interpretation process is a result arising from the dialogue between the original exhibit (geological collection) and the framework in which it is presented. 2014, Source: Helmis Museum.

An interesting activity is the completion of worksheets with open or true–false questions by groups of students. The questions could be like the following:

A) First stage questions

These questions **focus on the discovery the collections:**

- 1) *What kind of rock collections do we see in the museum showcases?*
- 2) *What is geology, and how do we relate it to a certain stone/mineral we see?*
- 3) *How many parts can we see in this rock/stone? Are there any impurities?*
- 4) *What is its (scientific) name? What is its shape? What color is it?*
- 5) *Is it heavy or light? What do we feel when we see or touch the mineral?*
- 6) *How is it formed? Where can we find it in Zakynthos?*
- 7) *Where can we find it in nature? Have we heard about this mineral? Does this mineral have a local or a scientific name?*

8) *Where can this mineral be used? Have we learned anything about it at school?*

9) *How old is it? How do we accept the term “value” regarding a marble or a geological collection?*

10) *How would it look like abroad, in different types of terrain and under different climatic conditions?*

11) *Is there a close relationship between its name and its properties?*

B) Secondary questions

These questions **focus on students’ abilities**, according to the teacher/educator.

1) *How did the kids respond to the collection? Was it familiar to them?*

2) *How else could we describe the collection?*

3) *What is the history of the collection and how is it connected to the collector’s life? What was Panayiotis Helmis thinking when he started collecting stones, rocks, minerals etc.? How did the children react to his answers?*

4) *Did the visit to the Museum change the students’ opinion about geology?*

5) *What kind of information did the students get working together? Was that a new experience for them?*

6) *Did the students conduct an experiment? Did they use a microscope to examine the inner parts of a mineral? Was that an experience for them?*

C) Visitors’ engagement and methods of classification.

Questions which develop the relationship between **geological collections and visitors’ memory**.

1) *Observe different kinds of rocky specimens and think how they are connected to each other. Then, categorize them into groups, according to certain criteria and create a story that links these objects. What were you told at school about these objects?*

2) *What is the origin and the use of the objects?*

3) *Has anyone in your family told you about a collection or have you ever seen a geological collection like this one in other museums of natural history? Did you ever have a geological collection in your house?*

4) *Have you ever been to areas of geological interest, where these specimens can be seen?*

5b. The social impact on adults after visiting the museum.

In addition to the visit to Helmis Natural History Museum, the visitors:

- a) can make a tour of geological interest, in Zakynthos, to identify certain minerals,
- b) devote their free time in Geology, by developing skills and competencies through lifelong learning.

6. Conclusions

Since 2000, it has been obvious that learning in Helmis Museum through social interaction (Janes and Conaty, 2005) and mainly from people who have special knowledge or skills enhances further knowledge, especially when a collection is presented at school in an educational way. Interactions with children or adults with skilled museum staff and professionals (museum educators, guides, museologists, the collector, volunteers) may enhance visitors' experience. For example, it is clear that during the educational programmes arise questions on specific matters, so only an expert, such as a geologist can answer. Highly trained museum animators, also enhance visitors' experience.

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