## **INFORMACJE**

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## Workshop "Geoheritage management in UNESCO designated sites"

UNESCO celebrates and protects geological heritage in designated areas while simultaneously promoting sustainable development and addressing challenges related to climate change and the loss of biological diversity. Many sites have already received the UNESCO designation for their geological heritage assets, yet effective management of this heritage remains a challenge. Managing institutions often lack knowledge of scientific methods and practices that could be applied in the assessment, monitoring, and management of geodiversity.

To meet these needs, the UNESCO International Geoscience and Geoparks Programme Secretariat, in collaboration with the World Heritage Centre and experts from the International Union for Conservation of Nature (IUCN), organized the workshop "Geoheritage management in UNESCO designated sites" on November 3-5, 2023 in the Azores Archipelago (Portugal). The workshop targeted staff and managers of World Heritage sites, as well as other types of areas designated at the national or international level (biosphere reserves, UNESCO Global Geoparks, national parks, etc.). The choice of the workshop location was not coincidental. The Azores Archipelago holds three UNESCO designations:

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Workshop "Geoheritage management in UNESCO designated sites" Author of the photos: Monika Cychowska-Nowak

- Biosphere Reserves,
- UNESCO Global Geopark, and
- UNESCO World Heritage Sites.

During the workshops, crucial topics of strategic importance for geodiversity management were discussed. It is well-known that an increase in tourist activity in areas designated as World Heritage Sites, as well as in protected areas, can pose a threat to geodiversity. Institutions responsible for managing geodiversity need guidelines to counteract these threats. Moreover, noticeable climate changes in some parts of the world have compelled management institutions to seek new methods for the protection and preservation of geodiversity. Another significant aspect is that geodiversity serves as the foundation for biological diversity. Often, institutions managing geodiversity lack the appropriate tools and methods to protect and manage biodiversity in UNESCO-designated areas.

The workshops took place in two parts – an online session and a workshop component on two islands of the Azores Archipelago (Terceira and Graciosa). Both the online session and the workshop component provided valuable insights.

During the online session, the management of geodiversity, the current state of knowledge, and the methodology of work were presented more extensively. The case studies showcased places around the world that serve as examples of effective geodiversity management, including the Castleton Site of Special Scientific Interest and Peak District National Park in England, as well as Wadi El Hitan, a World Natural Heritage site in Egypt.

In the Azores, representatives from South Africa, Tanzania, Zambia, Saudi Arabia, Iraq, the Philippines, Ecuador, Argentina, Mexico, Canada, Spain, Portugal, Scotland, France, and one person from Poland (Monika Cychowska-Nowak from the aspiring Land of Extinct Volcanoes Geopark), participated in the workshop component. The workshop segment was excellently prepared and conducted by the Portuguese team, demonstrating immense commitment to the preservation of geodiversity, excellent collaboration at the local and regional levels, and, above all, extensive knowledge that they adeptly apply in geodiversity management. During the workshops, the topic of geoconservation, the protection of geodiversity in biosphere reserves, and the principles of managing geosites were discussed. All of this was supported by experience and examples from around the world. A crucial aspect was the segment focusing on communication among various groups involved in geodiversity management – starting with local governments and communities, and extending to tourists visiting the region.

The most important part of the workshops was the exchange of experiences, discussions, and lectures, but one cannot overlook the field trips. Besides show-casing the coherence of actions, collaboration, and commitment, these excursions revealed the incredible nature of the Azores Archipelago.

We visited two islands of the Azores Archipelago. The first one was Terceira. We explored several key geosites, including Serra de Cume, the largest caldera on the island, and Serra do Facho, a clearly visible graben in the terrain. We ventured into the interior of the Algar do Carvão volcano and observed a fumarolic field.

The next day, we spent our time on the island of Graciosa, which is a UNESCO Biosphere Reserve. On the island, we had the opportunity to see, among other things, lava tunnels at the geosite Furna da Maria Encantada. We ventured into the interior of a volcano in the lava cave at the geosite Caldeira and Furna do Enxofre, and we observed a volcanic cone at the geosite Caldeirinha de Pêro Botelho. At every turn, the intertwined geological, biological, historical, and cultural heritage was palpable.

Great infrastructure, guidelines for the protection of geodiversity, coherence of actions, commitment, and also the understanding of what geodiversity is by the local community, local authorities, and managing institutions in the area make the Azores Archipelago an excellent place for learning, drawing inspiration, and serving as an example of well-managed territory.