Geosite valorization of Ohrid-Prespa Transboundary Biosphere Reserve

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Ohrid-Prespa Transboundary Biosphere Reserve was declared in 2014 along the border between Albania, Greece and North Macedonia, due to the high natural and cultural heritage values. IUCN protected area categories overlap here international designations such as: World Heritage Site, UNESCO Biosphere Reserve and Ramsar Sites. A great influence on this region's formation has been the early geological aspect and the ongoing processes which are identified in the presence of many geosites. Geosites of this region are a direct resource for promoting geotourism.

The aim of this study is to assess the geosites with the highest potential for geotourism development within the Ohrid-Prespa Biosphere Reserve in order to create a synergy between natural and cultural heritage values in terms of sustainable development. Geosite assessment is based on Knapik (2009), modified by Solarska and Jary (2010). This method allows geosites to be compared based on four criteria (1) accessibility of the monument (2) preservation state (3) scientific value, and (4) educational value. Each criterion has five indicators accompanied by value in points from 1-5 for the first two criteria and from 2-10 for the two other criteria. In the study there are included 23 geosites found in the Albanian part of Biosphere Reserve, while here we present six of them that have the greatest importance in geotourism. The amount of assessment points for each was used to rank them according to their importance for geotourism.

The site with the highest assessment value in the region is Lake Ohrid, divided between Albania and North Macedonia. Lake Ohrid, present continuity since the Pleistocene Epoch when it was formed, has gained the status of "ancient" lake, and is also distinguished for its high endemism (Wagner & Wilke, 2011). The lake is approximately 3 million years old. For its uniqueness, high degree of biodiversity, direct access from land and air from Albania and North Macedonia as well as for the stunning landscape with strong contrasts, it is highly valued in terms of scientific and tourist values. Great and Small Prespa Lakes represent a complex system of lakes linked through a superficial flow of water, while the infiltration of groundwater from Prespa Lake to Ohrid, originates at Zaveri Hole (Popov, et al., 2009). The Prespa lakes are easily accessible, but their preservation status varies. Set at an altitude of 850 m above sea level, these are the highest lakes in the Balkans and form the core of Prespa Park. With a tectonic origin and 2-5 million years old, they are considered as "sister lakes", together with Ohrid Lake (Wagner & Wilke 2011).

Kamja Stone is an erosional residue of conglomerate rocks of high hardness as a result of their sand-silicon cementation with sandstone. The stone has an altitude of 1461 m above sea level, about 100 m long, 80 m wide and 70 m high, and rises above the surroundings as a residue of the Gora-Mokra syncline (Avxhi, et al., 2015). With its view from far as a "ship", while appearing magnificent from close up, this stone has highly aesthetic values and is evaluated as a geomonument with international value (Serjani, et al., 2003). It is reached through the road 36 km from Pogradec, as well as along an interesting trial (3,5 km) that shows the landscape value and other monuments of the area. Similar, is the Capi Stone as an erosional rock form with a composition of Aquitanian conglomerates and sandstones with a length of 25 m, width and height up to 10 m (Qiriazi, 2006). It is located in "Bredhi i Drenovës" National Park and it is reached through a road 8 km from the city of Korça, but also through a trail with interesting landscape and other monuments visible. Both geosites are well preserved and there is no threats to them.

Table 1. Valorization of geo-sites of Biosphere Reserve Ohrid-Prespa

Number of geosite	Criteria				
	Accessibility	State of preservation	Scientific values	Education	Total
1. Ohrid Lake	5	4	10	10	29
2. Prespa Lake	4	4	9	10	27
3. Kamja Stone	4	5	8	8	25
4. Capi Stone	4	5	7	8	24
5. Maligradi Island	4	5	7	8	24
6. Lini Penninsula	5	4	7	8	24

Lini Peninsula is assessed by geologists as a tectonic-structural geomonument, formed as a result of lake withdrawal and transformed from an island to a peninsula. With a surface of 3 km^2, almost flat relief on the west side where the Basilica of Lin (VI century), with mosaics is located and eastern steep slopes, it reveals the stunning landscape over the lake. From the geological viewpoint, it represents a large limestone rock with different colors intertwined with radiolarian siliceous rocks of Triassic geological age (Avxhi, et al., 2015). Maligradi Island, which is 700-800 m long and 180-200 m wide is located in the Great Prespa Lake, 900 m above sea level as an evidence of Prespa graben sinking (Qiriazi, 2006). It is constructed of limestone with well-developed karst, in one of the small caves of which is build the 14th century church of St. Mary. The island has ecological value as well. It is reached through the 30 km Korça-Pustec road and the coast-island distance about 3 miles.

We have found some similarities between geosites of the same type based on their role in tourism. Ohrid and Prespa lakes are the main tourist attraction in the region, but they are basically visited for sun bathing, cultural and culinary features. Lini Peninsula and Maligradi Island are two geosites where geological, cultural and landscape values are combined, the interest for which goes beyond geotouristic aspect. Meanwhile, the marking of trails, placement of interpretive panels and the suitable itinerary for hiking have encouraged geotourism in the two erosional geosites Kamja Stone and Capi Stone. Based on geotourist concept, as a tourist interested in gaining knowledge on geological and geomorphological phenomena, these geosites have promoted deliberate geotourism tours. In addition to scientific, geomorphological and educational values and the very good state of preservation, both geosites have recently been promoted by groups of young people who are passionate about hiking and geotourism. In conclusion, we can say that despite the scientific values of the geosites, their attractive and aesthetic values, accessibility and their combination with the landscape, influence them to become popular geotourist attractions. They promote geology and stimulate young people's desire to know and study it.

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