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UNLOCKING TOURISM POTENTIAL: MEROŠINA'S GEOSITES THROUGH THE M-GAM METHOD

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Abstract: This study assesses and enhances the geotourism potential of four geosites located in the Municipality of Merošina (Oblačina Lake, Krajkovac Lake, Kulina, and Tatkova Zemunica) by applying the Modified Geosite Assessment Model (M-GAM). The research was conducted to contribute to the regional mapping of geoheritage in southeastern Serbia, an area that has so far remained underinterpreted and undervalued in geotourism research. The M-GAM method, which combines expert evaluations and visitor perception, enabled a multidimensional analysis of the natural, cultural, and tourism-related values of the selected sites. The results indicate that Oblačina Lake possesses the highest potential for tourism development, while Kulina suffers from limited exploration, poor accessibility, and inadequate infrastructure, highlighting the need for further research and promotional activities. The analysis confirmed that accessibility, vulnerability, and interpretation are key factors influencing the perception of geosite tourism value, providing practical implications for local development planning. Based on the findings, several measures for sustainable development and the establishment of a local geotourism network were proposed, aimed at connecting Merošina's natural and cultural assets and strengthening the identity of southeastern Serbia as a geotourism destination.

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1. Introduction

Geotourism is a modern form of tourism niche that emphasises promoting and preserving geoheritage while providing educational and recreational experiences for visitors (Habibi et al., 2018). It is centred on the sustainable use of geodiversity, such as rocks, fossils, caves, lakes, gorges, waterfalls, and other geomorphological features, as key tourist attractions (Suzuki & Takagi, 2018). Unlike mass tourism, geotourism aims to raise awareness about the importance of geodiversity and the need for its protection, while actively involving local communities and supporting economically sustainable development based on natural values (Peppoloni & Di Capua, 2015). The growth of geotourism offers opportunities for conserving natural heritage, educating the public, and improving infrastructure, particularly in rural and less-developed areas (Hose, 2012; Gordon, 2018). In recent years, the concept of geotourism has evolved beyond its initial educational framework and developed into an interdisciplinary field linking geography, environmental sciences, economy and local development planning. This shift has positioned geotourism not only as a tool for environmental protection but also as a mechanism for achieving the Sustainable Development Goals (SDGs), particularly those related to environmental preservation, education, and community resilience.

There are various models for the valorisation of geotourism sites. One of the most commonly used models is the GAM method, developed by Vujičić et al. (2011). However, after extended practical use, this model has started to evolve in different directions, such as the M-GAM (Tomić & Božić, 2014), UGAM (Marjanović et al., 2024), G-GAM (Marković et al., 2025), KGAM (Antić et al., 2025a), SMAM (Antić et al., 2025b) and SCAM models (Antić et al., 2022). The main goal of this paper is to promote and popularise geosites in the municipality of Merošina. For this reason, it was concluded that the most suitable model for the valorisation of this area, as well as the sites represented by lakes and anthropogenic geosites, is the M-GAM method. In recent scientific literature, the M-GAM model has taken a central position within geoheritage research due to its capacity to provide a multidimensional assessment encompassing scientific, aesthetic, and social values of geosites. Its distinctive strength lies in the integration of expert analyses and visitor perceptions, achieving a balanced relationship between objective scientific evaluation and the subjective experience of place. This approach makes M-GAM not only an analytical instrument but also a bridge between geosciences, tourism, and local development. Such methodological versatility enables its application in diverse geographical and socio-economic contexts, from established European geoparks to transitional regions such as the Balkans, where it serves as a practical tool for the identification, planning, and sustainable management of geoheritage.

This study analyses four sites: Lake Oblačina, Lake Krajkovac, Kulina, and Tatkova Zemunica. This paper aims to highlight some already well-known tourist sites, as well as others, such as Kulina and Tatkova Zemunica, that are not widely known to the general public. Ultimately, the main goal is to promote and valorise these geosites from a tourism perspective, present the current state of development, and propose improvements to both their surroundings and the overall tourism offer. Through this approach, the study contributes to a broader understanding of how local geosites can serve as catalysts for sustainable development, education, and community awareness, reaffirming the value of southeastern Serbia's diverse geoheritage as both natural and cultural assets.

2. Materials and Methods

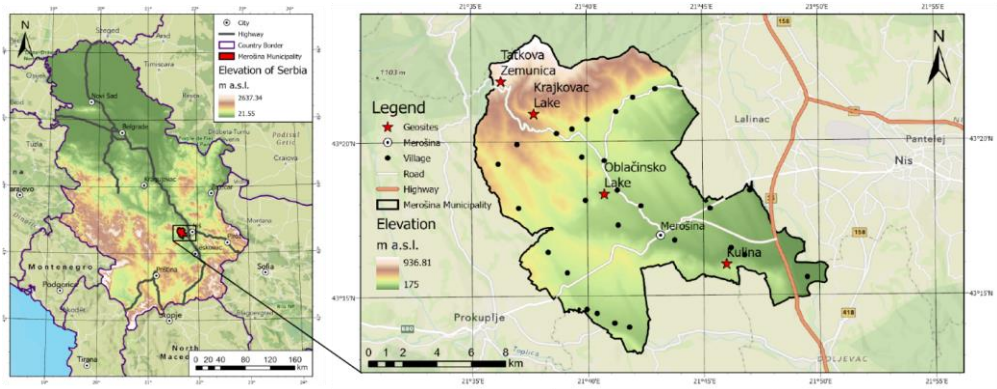
2.1. Study area

The municipality of Merošina is located in the southeastern part of the Republic of Serbia and belongs to the Nišava District. It covers an area of 193 km² and, according to the 2022 census, has a population of 12,050 residents living in 27 rural settlements. Entirely situated in the region of Dobrič, which partially overlaps with Toplica and the western part of the Niš Basin, the hills of Mali Jastrebac border Merošina to the north and northwest, and the South Morava River to the east. The landscape is predominantly hilly and low-mountainous, with the highest point being Kupinjak

peak (946 m a.s.l.) on Mali Jastrebac, and the lowest at the bottom of the South Morava River valley (181 m a.s.l.). The municipality is a transit area along the main Niš–Prokuplje road, connecting it to the Belgrade–Niš highway (Corridor 10). All settlements are rural in nature and gravitate toward the municipal centre, the Merošina Local Community, located 15 km from both Niš and Prokuplje. The proximity of Constantine the Great Airport in Niš, also about 15 km away, offers potential for future international tourism development in the Niš Basin. Key railway routes include the Belgrade–Niš line (route 70) and the Niš–Doljevac–Leskovac–Preševo–North Macedonia border line (route 90) (Pavlović, 2019).

For this study, four geosites were selected for M-GAM evaluation: Oblačina Lake, Krajkovac Lake, Kulina, and Tatkova Zemunica. Figure 1 presents the geographical position of Merošina Municipality and the investigated localities.

Figure 1. Geographical position of Merošina Municipality and investigated geosites



Source: Authors

Oblačina Lake (Figure 2) is located near the village of Oblačina, at an elevation of 275 m a.s.l., approximately 22 km west of Niš and 5 km from Merošina. The original genesis of the lake is of the ravine type (collapse of Neogene sediments), but it was later transformed into a semi-artificial reservoir in the early 1960s through the drainage of a former wetland area. It covers an area of 23 hectares, with a maximum depth of 4.7 meters and an estimated volume of about 10 million m³ of water. The lake is primarily fed by around 90 active underwater springs, contributing to its low transparency and characteristic greenish colour. The shoreline is gently sloping and vegetated, while the lakebed consists of marl clay, indicating its relatively young geological age. Due to the low elevation and high summer air temperatures, surface water can reach up to 25°C. The area has significant ecological, recreational, and cultural value, featuring diverse aquatic and bird species, traditional legends, and a recently revitalised hospitality infrastructure, including a four-star lakeside hotel. Oblačina Lake represents a key geosite in the region, with growing potential for eco-tourism and scientific research.

Figure 2. Oblačina Lake

Source: Authors

Krajkovac Lake (Figure 3) is an artificial reservoir located in the municipality of Merošina, on the southwestern slopes of Mali Jastrebac Mountain, about 450 m a.s.l.. Formed in 1986 by damming the Krajkovac River, a tributary of the South Morava, the lake covers approximately one square kilometre and is shaped like a large letter "L." Although primarily intended for water supply, its natural surroundings, clean water, and serene atmosphere have made it a popular destination among visitors from Niš and the surrounding areas. Despite swimming being officially prohibited, the lake often attracts adventurous swimmers in summer. Krajkovac Lake is rich in aquatic life and surrounded by oak forests, adding to its natural value. However, with the planned construction of a water treatment plant, the lake's future as a tourist site remains uncertain, as it may become primarily a source of drinking water for the region.

Figure 3. Krajkovac Lake

Source: Authors

The archaeological site of *Kulina* (Figure 4), located in the municipality of Merošina, approximately 300 meters west of the village of Gradište, represents a significant early Byzantine fortified settlement. Registered as a cultural monument of great importance since 1983, Kulina has yielded valuable insights into the architecture, urban planning, and material culture of the 6th century. Excavations conducted by the Archaeological Institute in Belgrade in 1969–1970 revealed the remains of a fortification with a basilica, a monumental cistern, and various movable finds, including coins, weapons, and a bronze portrait believed to depict Empress Theodora. The fort, rectangular in layout and encompassing 1.6 hectares, features robust defensive walls with six corner towers and internal structures that suggest both military and civilian functions. Despite its historical and cultural value, the site remains largely unprotected and inaccessible, overgrown and lacking proper signage, which hampers its preservation and wider recognition.

Figure 4. Kulina

Source: Authors

The site known as "*Tatko's Dugout*" (*Tatkova zemunica*) on Mount Mali Jastrebac is a memorial area of exceptional historical and cultural importance. It marks the location where, on August 13, 1942, five partisans of the Toplica Partisan Detachment, including national hero Nikodije Stojanović "Tatko", committed suicide to avoid capture by enemy forces during a major offensive by German troops.The dugout has been preserved and serves as a place of remembrance, visited annually on that date (Figure 5).

Figure 5. Preserved dugout "Tatkova Zemunica"

Source: Authors

A monument (Figure 6) and memorial complex, featuring sculptures by academic sculptor Aleksandar Šakić, was erected in honour of the fallen fighters. "Tatko's Dugout" stands as a powerful symbol of resistance and sacrifice during the liberation struggle in the region.

Figure 6. Monument of Nikodije Stojanović "Tatko"

Source: Authors

The selection of these four geosites was based on their representativeness of different geodiversity types within the Merošina municipality and their potential for

educational, recreational, and cultural interpretation. Each site was documented through systematic field observation, photographic recording, and descriptive analysis, supported by consultations with local residents and available cartographic and geological data. The evaluation applied the Modified Geosite Assessment Model (M-GAM), which allows for a quantitative and qualitative assessment of geoheritage significance (Tomić & Božić, 2014).

2.2. Methods

The M-GAM method used in this research was developed by Tomić and Božić (2014) and is based on a synthesis of several previously established geoheritage assessment methods (e.g., Hose, 1997; Bruschi & Cendrero, 2005; Coratza & Giusti, 2005; Serrano & González-Trueba, 2005; Pereira et al., 2007; Zouros, 2007; Reynard et al., 2007; Reynard, 2008; Tomić, 2011). M-GAM represents a refined version of the Geoheritage Assessment Model (GAM) by Vujičić et al. (2011), enhanced through the integration of the Importance Factor (Im), first introduced by Tomić (2011). This innovation allows visitors to express their subjective impressions regarding the importance of each sub-indicator through structured surveys, thereby incorporating visitor perspectives into the evaluation process (Božić & Tomić, 2015; Antić et al., 2020). M-GAM was conducted on four geosites in the Merošina Municipality: Oblačina Lake, Krajkovac Lake, Kulina, and Tatkova Zemunica.

A key advantage of the M-GAM approach over previous models is its balanced integration of expert and tourist perspectives, avoiding any bias toward either group. This model has been successfully applied in several studies evaluating geoheritage sites in Serbia, Slovenia, the United States, Iran, and Hungary. Applications include assessments of karst geosites in Eastern Serbia (Antić et al., 2020), gorges and canyons in Serbia (Božić & Tomić, 2015) and the U.S. (Tomić et al., 2015), show caves (Tomić et al., 2019), hydrological heritage sites (Miljković et al., 2018), and various other types of geoheritage (Marjanović et al., 2021, 2022a, 2022b; Antić et al., 2022). Despite the growing number of studies, southeastern Serbia remains relatively underrepresented in geoheritage research. The Merošina area, with its combination of natural and anthropogenic features, provides an ideal case for testing the adaptability of the M-GAM model in a local, community-driven geotourism context.

The original Geoheritage Assessment Model (GAM) includes two groups of values: main values (MV), related to the natural characteristics of the sites, and additional values (AV), related to anthropogenic influences. Main values comprise scientific/educational, scenic/aesthetic, and protection indicators, while additional values cover functional and tourism-related indicators. In total, 27 sub-indicators are evaluated, each scored numerically from 0.00 to 1.00. Each sub-indicator reflects a specific dimension of geoheritage value, ranging from scientific importance and

integrity of geological features to accessibility, interpretative potential, and level of tourism infrastructure. Such detailed categorisation allows the model to be applied to a wide range of natural and cultural geosites, ensuring methodological comparability across different environments (Reynard et al., 2007; Tomić, 2011).

Visitors participated in a survey to rate the importance of each sub-indicator, and the average rating across respondents was calculated to determine the importance factor (Im). Independently, experts assessed the current state of each sub-indicator. The final score for each sub-indicator in the M-GAM model is obtained by multiplying the expert score by the visitor-derived importance factor, thus producing a more objective and visitor-informed evaluation. The final results are expressed on a continuous numerical scale, where higher values indicate greater geotourism potential. This makes M-GAM particularly suitable for comparative analyses among geosites and for identifying priorities in geoheritage management and promotion (Marjanović et al., 2022). In their study of seven geosites in the Sokobanja basin, Marjanović et al. (2020) demonstrated that, although the region possesses strong geotourism potential, the improvement of additional values—particularly infrastructure and interpretation—is essential for the full realisation of that potential.

Eq. 1. The overall M-GAM score is computed as the weighted sum of the main and additional values:

$$MGAM = Im * (GAM)\ ;\ Im = \frac{\sum_{k=1 \wedge K} \mathrm{Iv_k}}{\mathrm{K}}\ ;\ GAM = MV + AV$$

3. Results

The M-GAM method for geosite assessment was applied at all four locations, as presented in Table X. The evaluation of geosites was conducted using two groups of indicators: Main Values (MV) and Additional Values (AV). The results reveal notable variations among the assessed sites.

Before implication of Im, Main Values (MV) scores were highest for the Krajkovac Lake (8.75) and Oblačina Lake (7.75). In contrast, Kulina received the lowest MV score (2.25), indicating limited scientific, aesthetic, and protective significance. When Im was conducted to existing scores, the MV scores ranged from 1.54 (Kulina), 4.98 (Tatkova Zemunica), 5.41 (Ovlačina Lake) to 6.03 (Krajkovac Lake).

Scientific/educational values show the highest results for Tatkova zemunica (1.78), based on a better level of interpretation and knowledge of geoscientific issues. While the lowest results were shown for Kulina (0.62)

The geosite with the highest score for MV is Krajkovac Lake (6.03), characterised by notable Scenic/aesthetic (2.96) and Protection (1.83) values. It is followed by Oblačina Lake, with a total MV score of 5.41. Slightly lower is the score of the geosite Tatkova Zemunica (4.98), due to lower ratings of Scenic/aesthetic characteristics (1.66). The geosite with the lowest score for MV is Kulina (1.54), where all three groups (Scientific/educational values, Scenic/aesthetic and protection) are below 0.70.

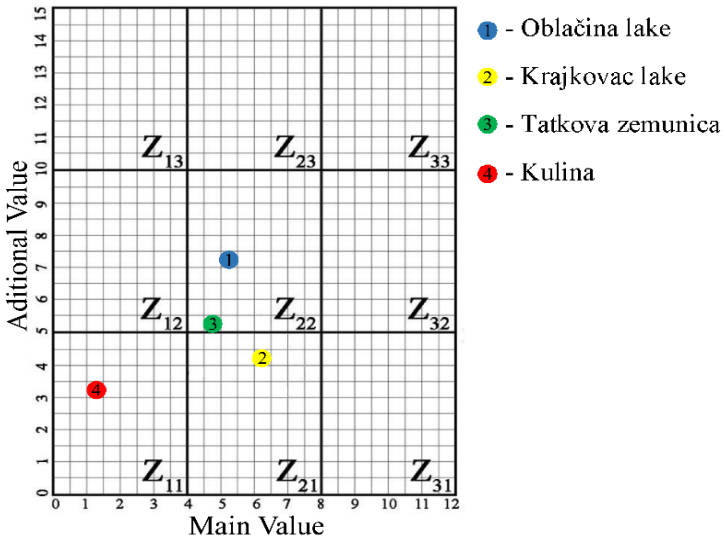
However, Oblačina Lake has the highest score for AV (7.25), primarily due to its accessibility, proximity to major roads, and tourist infrastructure. The geosite Tatkova Zemunica has an additional value score of 5.11. Third in rank is Krajkovac Lake, with a score of 4.62, reflecting low values due to the absence of organized visits, interpretive panels, and guiding services. Again, Kulina has the lowest score (AV = 3.28), showing the lowest scores both in Functional and Touristic values.

Table 1. M-GAM Results for four investigated geosites, with and without importance factor (Im)

Geosites	Oblačina lake	Krajkovac lake	Kulina	Tatkova zemunica	Im M-GAM	Oblačina lake	Krajkovac lake	Kulina	Tatkova zemunica
MV									
1. Rarity	0.50	0.25	0.25	0.25	0.89	0.45	0.22	0.22	0.22
2. Representativeness (SIMV2)	1.00	1.00	0.50	1.00	0.79	0.79	0.79	0.40	0.79
3. Knowledge on geoscientific issues (SIMV3)	0.25	0.50	0.00	0.75	0.45	0.11	0.23	0.00	0.34
4. Level of interpretation (SIMV4)	0.00	0.00	0.00	0.50	0.85	0.00	0.00	0.00	0.43
5. Viewpoints (SIMV5)	1.00	1.00	0.25	0.25	0.79	0.79	0.79	0.20	0.20
6. Surface (SIMV6)	0.75	1.00	0.25	0.00	0.54	0.41	0.54	0.14	0.00
7. Surrounding landscape and nature (SIMV7)	0.75	1.00	0.25	1.00	0.95	0.71	0.95	0.24	0.95
8. Environmental fitting of sites (SIMV8)	1.00	1.00	0.00	0.75	0.68	0.68	0.68	0.00	0.51
9. Current condition (SIMV9)	0.75	1.00	0.00	0.75	0.83	0.62	0.83	0.00	0.62
10. Protection level (SIMV10)	0.00	0.00	0.00	0.50	0.76	0.00	0.00	0.00	0.38
11. Vulnerability (SIMV11)	0.75	1.00	0.25	0.75	0.58	0.44	0.58	0.15	0.44
12. Suitable number of visitors (SIMV12)	1.00	1.00	0.50	0.25	0.42	0.42	0.42	0.21	0.11
AV						0.00	0.00	0.00	0.00
13. Accessibility (SIAV1)	1.00	0.75	0.25	0.50	0.75	0.75	0.56	0.19	0.38
14. Additional natural values (SIAV2)	0.25	0.25	0.00	0.25	0.71	0.18	0.18	0.00	0.18
15. Additional anthropogenic values (SIAV3)	0.50	0.50	0.25	0.50	0.70	0.35	0.35	0.18	0.35

16. Vicinity of emissive centres (SIAV4)	0.75	0.75	0.75	0.75	0.48	0.36	0.36	0.36	0.36
17. Vicinity of important road network (SIAV5)	1.00	1.00	1.00	1.00	0.62	0.62	0.62	0.62	0.62
18. Additional functional values (SIAV6)	1.00	0.50	0.25	0.25	0.59	0.59	0.30	0.15	0.15
19. Promotion (SIAV7)	0.75	0.25	0.00	0.75	0.85	0.64	0.21	0.00	0.64
20. Organised visits (SIAV8)	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
21. Vicinity of visitor centres (SIAV9)	0.75	0.50	0.75	0.50	0.87	0.65	0.44	0.65	0.44
22. Interpretative panels (SIAV10)	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.00
23. Number of visitors (SIAV11)	0.50	0.25	0.00	0.25	0.43	0.22	0.11	0.00	0.11
24. Tourism infrastructure (SIAV12)	1.00	0.25	0.00	0.50	0.73	0.73	0.18	0.00	0.37
25. Tour guide service (SIAV13)	0.75	0.00	0.00	0.25	0.87	0.65	0.00	0.00	0.22
26. Hostelry service (SIAV14)	1.00	1.00	0.75	1.00	0.73	0.73	0.73	0.55	0.73
27. Restaurant service (SIAV15)	1.00	0.75	0.75	0.75	0.78	0.78	0.59	0.59	0.59
SUM MV	7.75	8.75	2.25	6.75		5.41	6.03	1.54	4.98
Scientific/educational values	1.75	1.75	0.75	2.50		1.35	1.24	0.62	1.78
Scenic/aesthetic	3.50	4.00	0.75	2.00		2.59	2.96	0.57	1.66
Protection	2.50	3.00	0.75	2.25		1.48	1.83	0.36	1.54
SUM AV	10.25	6.75	4.75	7.25		7.25	4.62	3.28	5.11
Functional values	4.50	3.75	2.50	3.25		2.85	2.37	1.49	2.03
Touristic values	5.75	3.00	2.25	4.00		4.40	2.25	1.79	3.08

Figure 7. M-GAM Matrix of Tourist Sites in the Municipality of Merošina



Source: Authors

The spatial positioning of the four evaluated geosites according to their Main (MV) and Additional (AV) values is presented in the M-GAM matrix (Figure 7). The matrix visually confirms the numerical results shown in Table X, indicating that Oblačina Lake and Krajkovac Lake occupy the highest positions within the model, while Kulina remains in the lowest zone due to its weak geotouristic valorisation despite its archaeological significance. According to the M-GAM zoning, Kulina belongs to zone Z_{11}, representing sites with both low geoscientific and touristic potential, while Oblačina and Krajkovac lakes are placed within the transitional zones Z_{22} and Z_{32}, indicating higher levels of overall development.

4. Discussion

Municipality of Merošina, in every aspect of social development, including tourism, gravitates toward the largest centre of Southeastern Serbia — the city of Niš. The area of Niš is dominated by karst formations such as gorges and caves (Marjanović et al., 2021), while the municipality of Merošina offers a distinctly different type of tourist potential.

On the other hand, there are clear links between the tourist sites of Niš and Merošina, primarily because both areas host remains of Roman cities. Niš is the birthplace of Constantine the Great. His imperial residence, named Mediana, is assumed to have played a central and dominant role in the Roman history of this region (Ignjatović, 2022). In contrast, the archaeological site of Kulina shows relatively low evaluation values (MV = 1.54; AV = 3.275); however, it abounds in intriguing historical details, such as the discovery of a sculpture believed to depict Empress Theodora. Despite its potential, the Kulina site remains largely underexplored, with no clear access path leading to it, and is almost entirely unknown to the public.

Oblačina Lake stands out with the highest scores, achieving a satisfactory Main Value (MV) of 5.41 and a notably high Additional Value (AV) of 7.25. It represents the site with the greatest overall geotourism potential and also records the largest number of visitors. The lake is particularly suitable for bathing and recreational tourism and is frequented throughout the entire summer season. Here is also annually held the traditional event “Dani Višnje”, representing one of the most significant manifestations within the cultural and tourism offer of the Municipality of Merošina. The event has become a long-standing local tradition, being continuously organised for more than twenty years. It lasts for two days and includes a diverse cultural and artistic program, exhibitions of cherry-based products, and performances by local cultural associations. The event concludes with an open-air concert on the second evening, which typically attracts between three and five thousand visitors. Through its blend of tradition, entertainment, and gastronomy, ‘Dani višnje’ plays an important role in promoting the cultural identity and tourism development of the

region. It is important to mention that Krajkovac Lake has more natural potential (MV=6.03) and open space than Oblačina Lake, with a beautiful forest surrounding. However, for further tourist development, it needs many improvements of tourist infrastructure (AV = 4.62).

The Tourist organisation of Merošina offers an additional attraction, horseback riding tours. This exciting activity is organised by the KK Soko club according to the following plan and program: the first day begins with an introduction to the protocol and training for horseback riding, followed by heading out into the field, a tour around Oblačina Lake and free time that tourists can use for swimming or visiting nearby restaurants. In this beautiful setting, visitors can enjoy both food and music. The second day again starts with horseback riding, including rest breaks and additional free activities. What makes it different from the first day is the visit to the ethno village Čubura, where guests can enjoy lunch in a natural setting, followed by a return on horseback. Etno selo Čubura, in addition to its accommodation capacities, features an outdoor swimming pool, a jacuzzi, a sauna, and an airsoft field designed for recreational and team-building activities. By combining elements of traditional rural architecture with modern leisure infrastructure, the complex contributes to the diversification of the rural tourism offer within the municipality of Merošina. This integration of cultural authenticity and contemporary amenities enhances the attractiveness of the destination and supports the sustainable development of local tourism.

The newest project aims to develop cross-border balloon tourism in the regions of Niš, Bor (Serbia), and Vidin (Bulgaria). By acquiring fully equipped hot-air balloons, recovery vehicles, and trailers, and training new licensed pilots, the initiative will establish sustainable capacity for regular free and tethered flights. Building on the successful experience in Vidin, where balloon festivals attract thousands of visitors, the project will transfer to Serbian partners, making Niš and Bor the first districts in Serbia to offer organised free balloon flights. Key activities also include VR hot-air balloon simulators for tourism fairs, the reconstruction of a Tourist Info Point in Merošina, and joint balloon festivals across all three regions. These measures will ensure long-term visibility, attract international tourists, and generate broader benefits for the local economy. After the project's completion, partners will continue operating the balloons, managing the Info Point, and using the VR simulators, ensuring the durability and sustainability of this cross-border tourism initiative.

5. Conclusion

The municipality of Merošina demonstrates a diverse and evolving tourism potential that complements, rather than competes with, the dominant urban and karst attractions of nearby Niš. The M-GAM analysis revealed significant contrasts among local sites, ranging from the underdeveloped but historically valuable Kulina to the

more dynamic and accessible Oblačina and Krajkovac lakes, and also highlighted the municipality's untapped opportunities for sustainable geotourism. The integration of innovative experiences such as horseback riding and balloon tourism further broadens Merošina's appeal, transforming it from a peripheral to a participatory destination within southeastern Serbia's tourism network.

By fostering cross-border cooperation, investing in infrastructure, and promoting its natural and cultural heritage, Merošina is steadily building the foundation for long-term tourism growth. The combination of traditional rural experiences and modern adventure concepts represents not only a diversification of the local offer but also a strategic step toward a more resilient and competitive regional tourism identity. In conclusion, tourism in Merošina is uniquely multidimensional, unfolding on water, on land, and in the air, while reflecting both the municipality's natural diversity and its innovative approach to regional development.

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OTKLJUČAVANJE TURISTIČKOG POTENCIJALA: GEOLOKALITETI OPŠTINE MEROŠINA KROZ M-GAM METOD

Apstrakt: Ova studija procenjuje i unapređuje geoturistički potencijal četiri geolokaliteta koji se nalaze na teritoriji opštine Merošina (Oblačinsko jezero, Krajkovačko jezero, Kulina i Tatkova zemunica) primenom Modifikovanog modela za procenu geolokaliteta (M-GAM). Istraživanje je sprovedeno sa ciljem da doprinese regionalnom mapiranju geonasleđa u jugoistočnoj Srbiji, oblasti koja je do sada ostala nedovoljno interpretirana i potcenjena u geoturističkim istraživanjima. Metod M-GAM, koji kombinuje ekspertne procene i percepciju posetilaca, omogućio je multidimenzionalnu analizu prirodnih, kulturnih i turističkih vrednosti odabranih lokaliteta. Rezultati ukazuju da Oblačinsko jezero poseduje najveći potencijal za razvoj turizma, dok Kulina pati od ograničene istraženosti, loše pristupačnosti i neadekvatne infrastrukture, što ukazuje na potrebu za dodatnim istraživanjima i promotivnim aktivnostima. Analiza je potvrdila da su pristupačnost, ranjivost i interpretacija ključni faktori koji utiču na percepciju turističke vrednosti geolokaliteta, pružajući praktične implikacije za planiranje lokalnog razvoja. Na osnovu nalaza, predloženo je više mera za održivi razvoj i uspostavljanje lokalne geoturističke mreže, usmerenih na povezivanje prirodnih i kulturnih resursa Merošine i jačanje identiteta jugoistočne Srbije kao geoturističke destinacije.

Ključne reči: geoturizam; M-GAM metod; održivi razvoj; geonasleđe; Oblačinsko jezero; Krajkovačko jezero; Kulina; Tatkova zemunica.

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Rastko Marković was born on September 5, 1997, in Novi Sad, Serbia. He completed his bachelor's and master's studies in Geography at the University of Novi Sad, with an average grade of 9.71 and 10.00, respectively. In 2021/22, he enrolled in PhD studies in Geosciences at the same faculty. Since March 1, 2022, he has been employed as a teaching assistant at the Department of Geography and Tourism, Faculty of Science, University of Niš. During his studies, he was highly active in academic and environmental initiatives, serving as president of the "Branislav Bukurov" Young Researchers' Society and organising numerous field courses. He has led 15 large-scale waste cleanup actions on Mt. Fruška Gora and participated in many recycling and eco-tourism projects. He attended training programs in Xi'an and Beijing, as well as the River Collective camp on the Soča River. He has presented at several international conferences, receiving the Best Student Presentation Award at the US Loess Fest (Eau Claire, Wisconsin, 2016). He is the author or co-author of 35 scientific papers.