Enhancing Sustainable Cave Tourism Worldwide: The Show Cave Assessment Model (SCAM)

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Geoheritage assessments play a pivotal role in preserving and understanding the natural and cultural attributes of geological sites. These assessments provide a foundation for sustainable land management and responsible tourism practices (Reynard & Brilha, 2017). By systematically evaluating geoheritage, we gain a comprehensive understanding of the ecological and historical significance of sites such as show caves (Cigna & Burri, 2000; Cigna, 2016; Cigna, 2019). This knowledge is essential for developing effective conservation strategies, supporting educational initiatives, and fostering lasting appreciation for the planet's geological phenomena.

This paper introduces the Show Cave Assessment Model (SCAM), a robust methodology designed to assess and improve sustainable cave tourism development. The main aim is to present SCAM as a practical tool applicable to show caves worldwide, with a specific focus on its assessment capabilities. Although initially developed and applied exclusively in Serbian show caves (Antić et al., 2022), SCAM's adaptability makes it suitable for global use. This paper provides insights into the methodology's versatility and its potential for broader application.

SCAM offers a comprehensive approach to identifying shortcomings in the protection of underground ecosystems and evaluating the speleological and tourist values of show caves. An essential aspect of SCAM involves collecting input from experts and tourists regarding the importance of specific value indicators. Authors intending to use the model will need to conduct two surveys—one with experts and another with tourists. The results from these surveys are then integrated into the SCAM matrix, providing a clear overview of speleological and tourist values for each examined show cave.

The vulnerability of karst terrain, which is often home to unique and delicate ecosystems (Daoxian, 2001; Li et al., 2021), underscores the urgency of responsible cave tourism practices. Karst landscapes are susceptible to environmental impacts, and improper tourism can exacerbate these vulnerabilities. Thus, safeguarding and conserving karst environments is not only an ecological imperative but also essential for ensuring the long-term viability of show cave tourism (Antić et al., 2020). By utilizing SCAM as a tool for sustainable development, we can strike a balance between the enjoyment of these natural wonders and their preservation for future generations.

Therefore, this paper advocates for the widespread adoption of SCAM as a pragmatic assessment tool for show caves globally, emphasizing the significance of protecting and preserving karst terrains and the unique underground ecosystems they host. By incorporating insights from experts, tourists, and authors, SCAM empowers stakeholders to implement sustainable practices, ensuring the preservation of speleological geoheritage for future generations.
Figure 1. Structure of the SCAM matrix (Speleological and Tourist values).

REFERENCES