

Slovenia

Škocjan Caves

Brief Description

This exceptional system of limestone caves comprises collapsed dolines, some 6 km of underground passages with a total depth of more than 200 m, many waterfalls and one of the largest known underground chambers. The site, located in the Kras region (literally meaning Karst), is one of the most famous in the world for the study of karstic phenomena.

1. Introduction

Year(s) of Inscription 1986, 1996

Agency responsible for site management:

- Ministry of the Republic of Slovenia of the Environment and Spatial Planning, The Škocjan Caves Park Public Service Agency Dunajska 48, p.p. 653 SI-1000 Ljubljana, Slovenia
Website: <http://www.park-skocjanske-jame.si/>

2. Statement of Significance

Inscription Criteria N (ii), (iii)

Justification provided by the State Party

Le système du bien naturel des grottes de Škocjan offre l'image d'un phénomène karstique naturel très bien conservé sur le Karst d'origine, d'une beauté exceptionnelle et unique dans son genre.

1. Rien que le cañon souterrain de la Reka long de deux kilomètres, aux dimensions impressionnantes et pittoresque peut être qualifié d'exception mondiale. Il peut atteindre la hauteur de 144 mètres et la largeur de 80 mètres à certains endroits. Les entrées dans les grottes sont en fait de pittoresques dolines effondrées. C'est surtout ce côté qui apparaît dans les livres de spéléologie traitant de Karst dans le monde.

Le spéléologue anglais mondialement connu A.C.Waltham parle des grottes de Škocjan dans son célèbre livre « The world of caves » et leur consacre les deux premières pages. Il n'entre autre: « its enormous river galleries make it one of the wonders of [the] world ... » (page 98).

2. La grande importance de cette région pour les recherches fondamentales sur le Karst et sur les

phénomènes karstiques entreprises depuis le XIX^e siècle jusqu'à nos jours confère au territoire des grottes de Škocjan son caractère universel ; c'est de là aussi que proviennent les deux termes géomorphologiques internationaux « karst » et « doline ».

3. Un écosystème extraordinaire a été conservé dans les dolines effondrées de la zone protégée, écosystème dans lequel se côtoient des éléments de la flore méditerranéenne, subméditerranéenne, d'Europe centrale, illyrienne et alpine. La Grande Dolina est un endroit classique où on peut trouver des campanules de Justin endémiques (*Campanula justiniana* Witasek). On trouve dans le système souterrain de la rivière des espèces animales très rares et le *Proteus anguinus* endémique dinarique.

4. Il y a dans la zone protégée de nombreux champs archéologiques explorés et connus. Les lignes des grottes, les lieux d'habitation fixes et les tombes trouvées dans cette zone prouvent que ces lieux étaient déjà habités à l'époque du mésolithique, du néolithique, à l'âge de bronze, de fer, dans l'Antiquité jusqu'à la migration des peuples et jusqu'au début du Moyen-âge. Un héritage architectural typique est décelable dans 3 villages de la zone protégée et c'est la maison de pierre karstique qui en est le meilleur représentant.

As provided in the IUCN evaluation

The map submitted in the nomination does not indicate that the underground chamber of Hanke Canal extending in the direction of Druskovec is a part of the site. This should be corrected to ensure that this Canal is included as a part of the property inscribed.

EVALUATION

Of the many thousands of limestone cave systems in existence the Škocjan group is certainly one of the most unique. Its relatively natural condition and array of underground features have made it one of the most famous study localities for classical karst in the world. It thus meets criteria (ii) for natural sites as it provides an exceptional display of ongoing geological processes. The collapsed dolines and underground caverns and waterfalls also merit its inclusion on the basis of criteria (iii). With regard to its integrity the main concerns are its small size, the need for protection of the surrounding cultural landscape, the reduction of water pollution levels, and careful controls on visitor use.

Committee Decision

Bureau (1986): The evaluation of this site was delayed by IUCN in view of its forthcoming visit to the area in July 1986. The Bureau suggested that IUCN evaluation and recommendations on this site be made directly to the World Heritage Committee at its 10th session.

Session (1986): The Committee noted that the area inscribed on the World Heritage List included the underground chamber of the Hanke Canal extending in the direction of Druskovec. As concerns the integrity of the property, the Committee congratulated the Yugoslav authorities on the recent important measures taken to halt the industrial pollution of the underground Reka River and to strengthen protective measures for controlling land use on the land above the caves and particularly the entrance point.

- Statement of Significance adequately defines the outstanding universal value of the site
- Statement of significance did not exist at time of inscription
- Additional change proposed by State Party: updates to the current official description of the site are suggested, including a more in-depth description of the caves, the park and the activities

Boundaries and Buffer Zone

- Status of boundaries of the site: adequate
- Buffer zone: adequate, the buffer zone was established by the Škocjan Caves Regional Park Law (1996)

Status of Authenticity/Integrity

- World Heritage site values have had significant changes, but changes have been positive and aimed at improving the safety of the site and have never comprised the authenticity

3. Protection**Legislative and Administrative Arrangements**

- Acts: The Nature Conservation Act; The Cultural Heritage Protection Act; The Act Providing Funds for Certain Urgent Programmes of the Republic of Slovenia in Culture; The Promotion of Balanced Regional Development Act
- Laws: The Škocjan Caves Regional Park Act, Decision on the Establishment of the Škocjan Caves Park Public Service Agency
- Other: Ordinance amending the ordinance on spatial components of the long-term and medium-term social plan of the Republic of Slovenia; Ordinance amending the ordinance

on spatial components of the long-term and social plan of the Sežana Municipality for the area of the Divača Municipality; Natura 2000

- The protection arrangements are considered sufficiently effective

Actions taken/proposed

- "The Programme for Protection and Development of the Škocjan Caves Park" is now in the final stages

4. Management**Use of site/property**

- Paid visitor attraction, regional park

Management /Administrative Body

- Steering group: legally constituted in 1996
- Site manager: with responsibilities in addition to an existing job
- Levels of public authority who are primarily involved with the management of the site: national; local
- The current management system is sufficiently effective

Proposed actions:

- To open unopened parts of caves for research and tourist visits; to professionally solve the problem of lamp flora in caves; to construct a natural history centre; to renovate the information centre for visitors; to enrich guiding services around the park; to continue the restoration of existing walkways in the cave for greater safety of employees and visitors; to complete monitoring, improvements within the buffer zone in order to improve the quality of water in Reka

5. Management Plan

- Management plan is being implemented
- Implementation commenced: January 2005
- Very effective
- Responsibility for over-seeing the implementation of the management plan and monitoring its effectiveness: Ministry of the Republic of Slovenia of the Environment, Spatial Planning and Energy; Council of the Škocjan Caves Park Public Service Agency, Slovenia; Expert Council of the Škocjan Caves Park Public Service Agency, Slovenia

6. Financial Resources**Financial situation**

- Budget: funds from national budgets; generating some by performing its own activities; co-financing and donations

- Bi-lateral: International financing from PHARE, INTERREG, and Ramsar Convention
- Funding is considered adequate

7. Staffing Levels

- Number of staff: 18

Rate of access to adequate professional staff across the following disciplines:

- Very good: education
- Good: conservation, promotion, interpretation; education
- Average: management, visitor management

The site also benefits from a substantially large group of volunteers, derived from the local community and conservation specialists

8. Sources of Expertise and Training in Conservation and Management Techniques

- Scientific institutions: a course for trainee speleologists (Joško Žiberna Speleological Society, Divača), karstology (the Karst Research Institute, ZRC SAZU, Postojna), meteorology (the Environmental Agency of the Republic of Slovenia, Ljubljana); agreement on scientific research cooperation with the Faculty of Civil and Geodetic Engineering, University of Ljubljana
- Conservation facilities: hydrology: a course for pond (*kal*) caretakers (Museum of Natural Science, Trieste) and international workshops; nature protection: the Europarc expertise exchange programme (Europarc Federation)
- Training on site management: occupational safety; first aid; rhetoric; foreign languages pedagogical and andragogical training; professional training of mentors; administrative procedure (various institutions)

9. Visitor Management

- Visitor statistics: 80,700 (for the year 2004)
- Visitor facilities: a museum and tourist information centre. In addition to a souvenir shop and brochures, the information centre has parking spaces, sanitary conveniences, a restaurant and a playground for children. The Park has walking and cycling trails as well as a specialized Education Trail
- Visitor needs: renovation of some facilities at the information centre and along the Park trails

10. Scientific Studies

- Risk assessment, studies relating to the value of the site, monitoring exercises, condition surveys, archaeological surveys, visitor management, rural sociology studies, occupational safety studies
- Studies used for management of site: these are the source for expert groundwork for the protection and development of the Park. Formulated within its framework, they will be the contents of international projects aimed at detailed archaeological, hydrological, sociological and educational research. Some hydrological measurements were performed in frames of Slovene programme IHP – UNESCO and IGCP. On the basis of archaeological research the Park, a museum collection was created pertaining to the field of archaeology, which will continue to be supplemented in the future

11. Education, Information and Awareness Building

- There is an adequate number of signs referring to World Heritage site
- World Heritage Convention Emblem used on all publications
- Adequate awareness of World Heritage among: visitors, local communities, businesses, and local authorities
- There is an education strategy in place
- Events: numerous exhibitions and lectures take place in the park. As well, a number of conferences makes excursions to the Park from other parts of Slovenia. There are seasonal and thematic excursions and public events on a regular basis
- Web site available: www.park-skocjanske-jame.si
- Local participation: information from experts is presented regularly to the local community. Local inhabitants also take part in the Park's activities formally through the Skocjan Caves Public Service Agency and selected boards and events

12. Factors affecting the Property (State of Conservation)

Reactive monitoring reports

- World Heritage Bureau sessions: 20th (1996); 22nd (1998)
- World Heritage Committee sessions: 20th (1996); 22nd (1998); 28th (2004); 29th (2005)

Conservation interventions

- Restoration and maintenance of footpaths and the cave's bridge; electrical and telephone systems within the cave; surveillance installed; reconstruction of selected older buildings and walls
- Present state of conservation: good

Threats and Risks to site

- Development pressures, natural disasters (including flooding in particular), visitor pressures
- Specific issues: cave flooding; water accumulation and damage to the barrage system; impact of possible oil and pollutant spills in the nearby Reka River
- Emergency measures taken: legal protection against development; recent hazard assessment (2005); identified objectives for conservation of vulnerable geomorphologic, geological, and hydrological features

international cooperation with various professional institutes and awareness building at the national and international levels were also indicated

- Weaknesses of management: the Škocjan Caves Park should have more permanently employed staff at its disposal for the implementation of the provisions of the Convention Concerning the Protection of the World Cultural and Natural Heritage UNESCO, the Ramsar Convention and the MAB programme. There is also a need to modernise the information centre in the park
- Future actions: adequate presentation of the significance of the UNESCO World Heritage; work activities; Park projects and results would enable us to gain understanding and support from national level ministries and the Office of the Slovene National Commission for UNESCO, in the effort to obtain additional labour force and professional training

13. Monitoring

- A formal monitoring programme exists
- Measures taken: the Škocjan Caves Park cooperates with the Environmental Agency of the Republic of Slovenia and the Karst Research Institute ZRC SAZU in the performance of measurements and analyses of a complex system of ecosystems. The Research and Development Service, which operates within the framework of the Park, aims to establish the Park's infrastructure for the performance of measurements and, in combination with the national monitoring, prepare more detailed inspections and monitoring of the state in the Park
- Key indicators (if applicable): abiotic and biotic indicators are presented, through air, water, land and stone ecosystems
- Future indicators to consider: in future, the plans of the Park's expert services will also comprise the following social indicators which also relate to sustainability indicators and will be presented in correlation with them in the long-term research activities: health, financial status, forest utilization, tourism, land ownership, number of organisations in the protected area and its vicinity, external influence of the biosphere reserve managing authority

14. Conclusions and Recommended Actions

- Main benefits of WH status: conservation, social and management aspects. As well,