

# Sustainable Educational Tourism Potential of Djerdap National Park

Lukić DOBRILA<sup>1,\*</sup>, Andjelković SLADJANA<sup>2</sup>, Vračar MAJA<sup>3</sup>

<sup>1</sup> Alfa BK University, Belgrade, Serbia

<sup>2</sup> Faculty of Geography, University of Belgrade, Serbia

<sup>3</sup> Dental School, Belgrade, Serbia

\* Corresponding author. [dobriladjerdap@gmail.com](mailto:dobriladjerdap@gmail.com)

Received on 05-09-2018, reviewed on 25-10-2018, accepted on 30-11-2018

## Abstract

Starting from the new education paradigm, which relies on constructivist and contextual approach, this paper will specify the tourism potential of the Djerdap National Park, which should develop young people's skills for sustainable development. The main objective of this paper is to use the holistic approach, the analysis of tourism resources, their educational potential and types of educational tourism in the Djerdap National Park to emphasize the insufficiently utilized educational potential. This could help children and young people acquire knowledge, skills and develop their personality by promoting learning through experience, direct contact with the things they are learning about, research and project approach.

The results of this study indicate the need to create educational programs for all ages, to improve accommodation capacities as well as educational materials, to better educate the guides on how to conduct ambient learning, project and research activities for all age groups. Emphasizing the importance of educational tourism, which could help education for sustainable development, the paper underlines the need for support from state level with promotion, activities, projects and sharing best practices.

**Keywords:** *Djerdap National Park, educational tourism, education for sustainable development, students' competencies*

## Rezumat. Potențialul turismului educațional durabil al Parcului Național Djerdap

Pornind de la noua paradigmă educațională care se bazează pe abordarea constructivistă și contextuală, această lucrare va specifica potențialul turistic al Parcului Național Djerdap, care ar trebui să dezvolte abilitățile tinerilor pentru dezvoltarea durabilă. Obiectivul principal al acestei lucrări este de a folosi abordarea holistică, analiza resurselor turistice, potențialul lor educațional și tipurile de turism educațional în Parcul Național Djerdap pentru a sublinia potențialul educațional insuficient utilizat. Acesta ar putea ajuta copiii și tinerii să dobândească cunoștințe, să-și dezvolte personalitatea prin promovarea învățării prin experiență, contact direct cu lucrurile pe care le învață, cercetarea și abordarea proiectului.

Rezultatele acestui studiu indică necesitatea de a crea programe educaționale pentru toate vârstele, de a îmbunătăți capacitățile de cazare, precum și materialele educaționale, de a educa mai bine ghizii privind desfășurarea activităților de învățare în mediul ambiant, cercetarea și proiectare activităților pentru toate grupele de vârstă. Confirmând importanța turismului educațional, care ar putea ajuta educația pentru dezvoltarea durabilă, lucrarea subliniază necesitatea sprijinului la nivel de stat pentru promovare și implementare de activități, proiecte și schimb de bune practici.

**Cuvinte-cheie:** *Parcul Național Djerdap, turismul educațional, educația pentru dezvoltarea durabilă, competențele studenților*

***Tell me and I'll forget; show me and I'll remember***  
*Chinese proverb*

## Introduction

Within the globalized society there is a need to improve the quality of education and adapt it to suit the needs of the modern labour market, technological development and multicultural society. The focus on competence approach in education, improvements in education, reorganization of the existing programs and their modification to be in line with the concept of sustainability and lifelong education are significant changes society and individuals are faced with. Key competencies for lifelong learning and sustainable development are specified in the new *Law on the Foundations of the Education System in the Republic of Serbia* (2017). According to this document, the key competencies are knowledge, skills and attitudes that each individual needs for personal satisfaction and development, social inclusion, active civic engagement and employment in a knowledge-based

society. These competencies are not simply automated activities; they carry within them conscious and meta-cognitive components, which imply thinking about one's own competencies and ways to improve them (Frey, 2004, according to: Palekčić, 2008; Čatić, 2012).

The concept of education for sustainable development promotes the acquisition of procedural, contextual and functional knowledge, values and attitudes, as well as a willingness to engage and act in accordance with one's own principles. The concept of sustainability also implies the adoption of "competences that help students observe phenomena, analyse them, make decisions creatively, be active, make judgments and act responsibly towards themselves, others and the environment" (Cvjeticanin et al., 2010, 176). This change is focused on the essential understanding and functionalization of knowledge (Duggan & Gott, 2002), through the co-construction of knowledge and experience, towards the constructivist (Milutinović, 2012) and contextual (Kelley & Kellam, 2009;

Verbitsky & Kalashnikov, 2012) approach to education and teaching.

In order to improve the quality of education, where the importance of learning for life and preparing students for life and various social roles is emphasized, the connection between teaching material and real-life scenarios is a necessity (Anđelković and Stanisavljević Petrović, 2013). Connecting learning material to real-life situations is an important aspect of changes within the education process. It is believed that in this way students develop a more positive attitude and understanding of science (Fensham, 2009; Kessels, Taconis, 2012; Bennett, Lubben, Hogarth, 2007) and they also learn to consider educational materials from different angles, which will make them more prepared and more capable to use it in real life (Nentwig et.al., 2005; Tytler, 2007). Therefore, the role of informal learning contexts (nature, museum, gallery, national park, and laboratory) is becoming more and more important both in formal and informal education (Anđelković, 2018).

### Formal and informal outdoor education

Outdoor education is defined as an interdisciplinary research and educational field characterized by the following elements:

- the learning environment is relocated from a classroom to a natural, cultural and social environment outside the school;
- the interaction between sensory experience and learning from books is emphasized;
- the pedagogical benefits and importance of the location are underlined (National Centre for Environmental and Outdoor Education, 2004).

Direct physical contact with natural and cultural phenomena enhances authenticity in learning and is one of the most important determinants of outdoor education (Szczepanski et al., 2006). When we look at outdoor education in this way, we can see that it is a way of learning (offering alternatives to indoor education), an object of learning (where the landscape and its people become the curriculum) and a process of learning (drawing on experiential approaches to learning) (Szczepanski, 2009: 88). Outdoor education is often referred to as synonymous with adventure education where the focus is mostly on physical activities in nature - kayaking, hiking, camping, orienteering, nature-based learning, in order to acquire life skills.

In addition to physical activities, which are indeed very important for outdoor education, it also includes various types of formal and informal education that take place in the outdoor environment, such as, teaching, projects, research, camps, which are organized by formal and informal organizations and institutions, non-governmental organizations, sport

teams (recreational courses), tourist activities, centres for ecological activities, school clubs. The main characteristic of outdoor education is direct experience (cognitive, emotional, social and practical) with the objects of learning.

Unlike the usual, conventional and traditional school environment, the outdoor environment offers a wide array of natural and social places which, due to their authentic and specific potentials, become outdoor classrooms: in nature (field, forest, lake, plain, orchard, zoo), historic sites (fortresses, archaeological sites, museums, exhibitions, old buildings, houses, ethno villages), cultural and educational institutions (galleries, exhibitions, theatres, health care institutions, homes, craft workshops, etc.), social environments (village, city, suburbs, streets, squares) (Andjelkovic, 2008). In a direct way, in an environment rich in stimuli, among animals and plants, tools, machines, laboratory apparatus, museum exhibits, students actively think by observing, comparing, listening, classifying, discussing, connecting, experimenting.

"Through various educational activities in different environments, students acquire and expand their knowledge from different fields, develop specific skills necessary for certain subjects, for example, they develop the ability to perform simple experiments, develop specific types of behaviour such as environmental protection and preservation, and certain attitudes - love for nature, experimental and scientific spirit, interest in plants and animals, interest in science and research" (Andjelkovic, Stanisavljevic Petrovic, 2013:118).

In addition to activities in schools (through ambient learning, research and project learning outdoors and extracurricular activities), there are more and more organizations in our environment promoting educational activities outside the formal education system, in the open, outdoors, such as scouts, mountaineering clubs, environmental clubs, different camps (educational, tradition and culture oriented, sport camps, recreation camps, health and environmental camps), recreation centres with special programs (canoeing, rafting, skiing, education, healthy lifestyle, environmental camps) which educate children and young people.

Moreover, in the last few decades, concern about the sustainability of natural resources and concern about environmental issues have intensified. There is a large number of organizations, governmental and non-governmental, which are interested in the preservation of the environment and sustainable development. Therefore, the environment is studied from different perspectives, multidisciplinary, and in accordance with the set goals and preferred outcomes. In this regard, educational tourism as a type of outdoor education is becoming increasingly

important and it is also a powerful tool for the education for sustainable development.

### **Education for sustainable development through educational tourism**

The definition of youth tourism used by WYSETC (World Youth Student & Education Travel Confederation) reads: "*Youth travel includes all independent trips for periods of less than one year by people aged 16-29 which are motivated, in part or in full, by a desire to experience other cultures, build life experience and/or benefit from formal and informal learning opportunities outside one's usual environment*" (Moisă, 2010: 575). Educational tourism, as a subset of youth tourism, has developed from the growing need to acquire knowledge, gain experience and values through an experiential, active approach outside formal institutions such as schools, institutes, universities, and to build one's own potentials and gain experience. The term educational tourism refers to any "program in which participants travel to a location as a group with the primary purpose of engaging in a learning experience directly related to the location" (Rodger, 1998, p. 28). It is comprised of several sub-types including ecotourism, heritage tourism, rural/farm tourism, and student exchanges between educational institutions (Ankomah & Larson, 2000; Ritchie, 2003) defines educational tourism as a tourist activity where education and learning are primary part of their journey. In educational tourism, emphasis is not only on getting to know natural and cultural heritage and to acquire knowledge, but also on the application of knowledge acquired through formal and informal education in an authentic environment through direct contact with objects of learning. In this regard, educational tourism is a learning tool, which is based on experience and values (Bhuiyan et al., 2010; Pitman et al., 2010, 2011; Quezada, 2004; Lam et al 2011). The benefits of educational tourism for tourism industry are numerous, including increased number of visitors, cultural, educational, national attractions, tourist destinations, profit growth from tourist accommodation and services, and improved intercultural interaction among tourists themselves, but also between the local population and tourists (Jiyun & Jeonglyeol, 2014; Butcher, 2008).

Educational tourism (primarily children's and youth tourism) which includes heterogeneous groups from three to 30 years of age is not present enough in Serbia. Since 2013, educational tourism in Serbia has developed within the joint United Nations Program "Sustainable Tourism for Rural Development". This regional project for the development of children's and youth tourism in the region aims to connect four countries (Serbia, Croatia, Italy and Slovenia) in the field of children's

and youth educational tourism, and to help in the exchange of knowledge and practices among partners, and among service providers selected by partners. Another goal is to collect publication data to be used to create a guide and information resource in these four countries. Educational tourism is important because it helps children and young people to acquire functional knowledge, develop creativity and establish contacts.

When talking about the importance of educational tourism for formal and informal education, National Parks play a special role as examples of holistic and interdisciplinary tourism and educational resource. National parks have multivalent and numerous benefits. "It is not only the result of their number and size, but also their importance for science, culture, education, schooling, recreation, tourism and the protection of natural ecosystems" (Stanković, 2003: 43). The value of Djerdap National Park goes beyond the boundaries of local and regional, since it is of immense natural, cultural, historical, traffic, energy, ecological and educational importance.

### **Natural, cultural and social potentials of Djerdap National Park for educational tourism**

Djerdap National Park represents the unity between the specific natural and cultural heritage, which is a true example of sustainable development of a region. The "Iron Gate" of the Danube connects two important cultural and economic regions - the Lower and Middle Danube regions, and these have been seen as important natural and strategic regions since the prehistoric age. The area was declared as a National Park in 1974, and it covers an area of about 65 000 ha. It includes parts of the municipalities of Golubac, Kladovo and Majdanpek. It extends for around 100 km along the right bank of the Danube, from Golubac to Karatas, and it is 2 to 8 km wide. The main features of Djerdap National Park are: numerous geomorphological shapes, an abundance of cultural and historical monuments, great diversity of fauna and flora. Djerdap National Park is characterized by a high level of preservation of natural resources due to a low population density, the absence of large industrial plants and insufficiently developed transport infrastructure (Lukic, 2005).

Flora in North-eastern Serbia contains a large number of endemic and relict species. According to the Rulebook on declaration and protection of protected and strictly protected species of plants, animals and fungi (OG RS. No. 5/10 and 47/11), 43 species living in Djerdap National Park have a strictly protected status, while 124 have a protected status. The fact that 1013 species and subspecies belonging to the flora of Djerdap National Park make up more than a quarter of the total Serbia flora points to the

importance of this area not only for exploring the flora of Serbia, but also due to the fact it is considered an area of international significance for plant preservation, the so-called IPA area, due to a great diversity of plant life of different origins. The specific animal habitat (the Danube with its tributaries, forest habitats, gorge meadows and canyons) allow for a diversity of animal species. This area has been declared an area of exceptional importance for the preservation of the entire mammal fauna in Serbia. This provides great opportunities to explore the animal world, in a holistic manner, which also provides a better quality of learning. Mammal species with a strictly protected status that inhabit the Park are otters, marbled polecat, lynx, all bat species, etc. Djerdap National Park area is on the list of the Important Birds Area (IBA).

In the geological sense, the eastern zone of the fold mountains in Serbia is very complex. They were built from rocks of different origins and ages. The earliest rocks which can be found in this zone are Silurian (Paleozoic) slates (shale, sandstone) and limestone. On top of them are thick layers of sandstone and conglomerate from the Devonian period. During the Carboniferous, there was rapid sedimentation and the formation of conglomerates and clay with oil shale in shallow lagoons. Beds of Permian red sandstone cover a wide area of Eastern Serbia from the Danube in the north, to Suva planina and Ruj in the south. During the Mesozoic power, thick layers of Triassic, Jurassic and Cretaceous limestones and dolomites were created. Specific karst formations can be found in this area. Moreover, Cenozoic, Paleogene and Neogene conglomerates, sandstones and clay can be found in the basins in Eastern Serbia. Geoheritage of Djerdap is very rich and diverse, however, we would like to specifically mention Greben (The Ridge) which is 119 m high, as an important source and resource for geological exploration and observation, since it is the best example of the geological history of the Danube Ocean, which was located between Getikum in the west and Mezikum in the east. By using experiential learning, which involves various thinking and practical activities that engage the students in the field, and also by using research techniques and methods, the students get familiar with the terrain and learn about it; they are able to see the sequence of layers, take pictures and videos of them, make reports, work diaries. This allows for a better-quality learning which enables students to acquire functional and procedural knowledge. Moreover, the emotional experience is also present during the process of learning, and students are more motivated for further work and research (Lukić, Anđelković & Deđanski, 2016). Since Greben (The Ridge) is one of the topics in Geography classes, field trips, visits and tours can be used to spot the sequence of layers from different geological

periods and understand the way they were formed, but also to understand its connection with other natural, social, economic and environmental factors in that specific environment.

For educational purposes, that is, in order to get a better picture of the size and position of Djerdap National Park from "a bird's eye view", viewpoints are seen as very good locations to do the research and get a better picture of the connection between different natural and cultural aspects that together create a unity of life. When studying a certain topic in different school subjects, students do not see the whole picture and cannot see the connection between the phenomena and processes. That is why knowledge becomes fragmented and useless, which is one of the disadvantages of our education system. In order to overcome these shortcomings in teaching, interdisciplinary approach and content integration are increasingly emphasized, where the concept of learning outside the classroom becomes even more important. Djerdap National Park is a good example and we can freely say a good educational tool to see the clear and whole picture of the site studied. This is why viewpoints play a significant role in education. For example, Djerdap National Park has a viewpoint called Veliki Štrbac, which is the Miroč mountain peak 768 m high; together with Mali Štrbac peak which is 626 m high, these two peaks overlook the Danube at the location where it is the narrowest and the deepest (Đerdapski kazan). Ploče is a limestone plateau with three viewpoints at a height of 355m, below the Veliki Štrbac. Mali Štrbac offers a view of the coast of Romania, where the largest rock sculpture in Europe called *Decebalus, the last king of Dacia* is located, as well as Mrakonija monastery located at the entrance to the bay bearing the same name. These locations provide exceptional educational opportunities for students to understand the importance and significance of different cultures, traditions and religions existing at the same location, and to recognize how they all depend on nature.

Paths leading to the viewpoints (the most famous footpath is over Ploče plateau) offer a variety of educational challenges (measure the distance walked and walking speed, getting to know plants, orientation in nature, collect material and samples for future research, take pictures, record and later process the recordings using IK technology, make educational films, illustrations, guidebooks. All these can be the product of such field projects and research. Another educational resource is Kovilovo viewpoint (358 m high) which is the habitat of moonshine yarrow (*Achillea clypeolata*), an endemic species. Moreover, this viewpoint offers a view of the Donji Milanovac basin, from Greben to Golubinje, over 25 km long (including Lepenski Vir, Greben, submerged Poreč island, Donji Milanovac, Glavica, Golubinje and Romania). Noticing the changes in the

Danube flow speed, the riverbank terrain and the natural features, which can be seen from various viewpoints, are all valuable sources that allow us to notice the diversity of the Danube flow that can be seen by direct observation. Marked hiking trails with educational and information panels that contain information about the flora, fauna, climate, geological composition of the terrain can greatly assist students in collecting data and get a clear picture of the site they visited. By spending time at natural, historical and cultural sites, students build habits of proper behaviour towards environmental and cultural heritage. Being able to identify and recognize the signs and markers along footpaths is very important for students to gain experience and knowledge how to find direction in nature, and acquire skills that every person needs.

The cultural heritage is conditioned by the natural conditions and factors, which constitute the natural heritage of Djerdap National Park (plants, animals and geoheritage). The construction of the dam and the creation of artificial (man-made) lake have accelerated archaeological research on the banks of the Danube, in the Djerdap Gorge. The archaeological map of the Djerdap area contains 16 prehistoric, 33 Roman and Byzantium, and 8 medieval sites of historical importance (Lukić, 2005). We will mention some of them here. The *Spatial Plan for Special Purpose Area of Djerdap National Park* (2013) lists 4 cultural monuments of exceptional importance, 8 immovable cultural heritage sites, 11 registered sites, six identified sites, 13 registered submerged immovable cultural heritage sites, two registered submerged assets and one registered submerged immovable cultural heritage site. National architectural heritage is of particular importance for educational tourism, especially with regard to formal education (for example: houses in villages, hamlets and salaš-farm, furniture and furnishing; additional buildings such as stables; commerce objects such as watermills; agricultural tools and means of transport).

Archeological site Lepenski Vir is of particular educational value for understanding the life of the ancient inhabitants of this region and seeing how nature and culture were connected in lives of those ancient people. The culture of Lepenski Vir is characterised by the tradition of hunting and gathering communities who lived in the Old Stone Age, and who inhabited Transylvania and the South Carpathians at the end of the Ice Age. Activities of people who lived at that time (making tools), and the first art or hints of it (engraving), as well as its greatest achievement (monumental sculpture) are mostly associated with boulder stone. There were three main phases in the development of this culture: the founding phase (from 7000 to 6500 BC), the rise phase (from 6500 to 6000 BC) and the disintegration phase (from 6000 to 5500 BC) (Srejšević, Babović

1983, Lukić, 2005). Educational films, exhibits and the site itself enable us to get to know the remains of sacred architecture, stone sculptures, jewellery, remains of residential architecture, etc. Visit to the archaeological site and educational activities presented in it allow for the development and application of an integrated and interdisciplinary approach in teaching which is the foundation for the education for sustainable development. Writing essays, reports, newspaper articles about this archaeological site, creating a tourist guide in a foreign language, drawing and painting using ancient techniques, sculpting, making maps and charts, participating in competitions and quizzes, making educational films about the visit are some of the activities that can be practiced at this and other sites within Djerdap National Park. Socializing, sharing experiences and working on some tasks help visitors develop teamwork and communication skills. These trips and visits often become an opportunity to develop intercultural dialogue and to learn about other cultures, religions and customs of different groups of visitors who may even be engaged in the same projects and programs.

Some of the monuments of great educational value are: Tabula Traiana, Trajan's Bridge, Fetislam fortress, The Diana Fortress - one of the largest and best-preserved Roman military fortresses on the Moesia Superior *limes* (border) which is the first stone fortress built in a square shape. In addition to the defensive walls, gates and main communication lines, several more objects that were characteristic of the Roman military camps were discovered inside the fortress: the headquarters of the fortress called *principia*, parts of military barracks, granaries (*horrea*). Besides the communication line which connected the headquarters with the south gate, a large building with a very well-preserved underfloor heating system was discovered (Lukic, 2005).

Golubac Fortress is located at the entrance to the Djerdap gorge. Golubac fortress has nine towers made of stone. Golubac was built for the battle with cold weapons, while the cannon openings can only be found on the tower which was built additionally. This tower was built by the Turks. The fortress is protected and most of it is conserved since it is one of the best preserved and most picturesque medieval fortresses in our country (Lukic, 2005). In recent years, a visitor centre was built next to the fortress and it allows visitors to learn about the artefacts discovered at the site, and about the events related to the fortress through the exhibitions and films. Visitors also have the opportunity to participate in different workshops, lectures, film and photograph shootings related to the fortress itself and to enjoy concerts, literary evenings, art exhibitions, etc.

In addition to natural, cultural and historical potential, Djerdap National Park is also characterised

by the specific life and customs of its population, which adds value to this location. Getting acquainted with the way of life, religion, tradition, spiritual values of these people are just some of the educational potentials that a creative teacher in cooperation with partners from Djerdap National Park can use for teaching purposes. *Bačija* is a type of settlement found in Djerdap region. *Bačija* is a seasonal (summer) sheep farm where several families bring their sheep in, take care of them together, take them grazing on pastures outside the village, and eventually all these families use sheep milk together. This "alpine type" of *bačija* can be found in north-eastern Serbia and in south-eastern Serbia, Macedonia and among Serbian population on the Romanian side of Djerdap (Lukic, 2005).

Customs are numerous and diverse and they are very important for the people living in this region. However, many customs have disappeared due to the effects of the modern life style and the increasing openness of this region to its near and far environment. The beliefs of the people living in the Djerdap region are very interesting, since they are identical in both the Vlachs and Serbs living on opposite banks of the Danube. These people primarily believe in mythical beings but they also worship the nature deities: animals, plants and natural phenomena. The latter is the addition to the once important foundation the existence of this population was based on (Lukic, 2005). National costumes found in this area are not specific to this region only. Actually, such national costumes can also be found in the north-eastern Serbia and they are worn by the people on the Romanian bank of the Danube. Besides some specific details found only on the costumes of the Djerdap population, which are the result of the composition of the population and economic conditions, there are also certain features common to the costumes worn in all these different regions, especially the details, the ornaments and colours. This speaks in favour of the similarity in the ethno-psychological characteristic of this population, and of the interaction among the people living in the Djerdap area.

The entire territory of the Djerdap National Park encompasses in total 31 geoheritage sites, 14 nature reserves and 18 cultural and historic heritage sites.

In Golubac, close to the Danube shore, the dock was renovated, as well as a marina for small boats, concrete walkway was built as well as "Golubacki grad" hotel. The Danube and Djerdap Lake as the most important tourist attractions of the Golubac municipality are not sufficiently exploited. *Donji Milanovac* is located downstream from Lepenski Vir. It is the tourist centre for Djerdap with the "Lepenski Vir" hotel and National park office building. The hotel complex has many shops, restaurants, summer terraces, as well as a swimming pool, sport halls and

outdoor sports court. Captain Miša's konak (Serbian: Kapetan Mišino zdanje) is located on the Danube bank, as well as a promenade, marinas for boatmen and a passenger port, as well as a home appliance factory. Kladovo has two hotels: "Djerdap" and "Aquastar Danube", several restaurants, a promenade along the Danube, a Cultural Centre and the Stara Čaršija whose main functions are trade and tourism. Djerdap has 7 accommodation facilities. The total number of rooms is 880, with 2145 beds - 1962 permanent and 183 additional (Lukić, Petrović & Denda, 2018). The facilities at the Djerdap National Park that are used for educational tourism purposes are: Kovilovo, Ploče, Veliki Štrbac, Mali Štrbac, Greben, Gradašnica, and Zlatno jezero. Moreover, in order to provide services and information for tourists, there is a visitor centre that offers pamphlets and brochures with pictures and text, as well as stuffed wild animals, fish, Lepenski Virsculptures replicas, cultural monuments miniatures, aboard with geological information, tactile exhibition, videos, and maps that show us the natural and cultural heritage of the National Park. All these things, especially when seen for the first time, have an immense value for education, because such an experience motivates and creates an interest in people to get to know and explore the site even further. In this regard, it is necessary to add more educational material that would be written considering visitors' age; moreover, it should include interesting facts that would be compelling to a particular group of students. It is also necessary to add electronic presentations.

In order to be able to use education resources and material outside school, tourist guides and employees in nature centres and museums have to undergo special training. Beside a good knowledge of the localities themselves, these employees need to know the age of visitors, their education level, and curriculum for the given class. They also need to have pedagogical, didactic and methodological knowledge in order to be able to carry out teaching activities outside the classroom, as well as to be creative when organizing workshops, programs and projects that would allow different age groups to fully understand the locality and understand the connection between nature and society, all in accordance with their abilities and educational needs.

### **Types of educational tourism in the Djerdap National Park**

Given its significant natural, cultural and historical potentials, Djerdap is an excellent educational resource, which can be the goal, place and means of formal and informal education. In recent years, under the influence of economic, social and educational changes, educational tourism has been increasingly discussed as a still underdeveloped branch of tourism,

which has great potential regarding the development and sustainability of the National park itself and the whole region.

Educational activities are being carried out in Djerdap National Park for quite some time now, which benefits the development of educational tourism in this region. The cooperation between Djerdap National Park and schools who conduct their teaching and extracurricular activities at the Park is particularly important. The European Day of Parks was celebrated this year (2018) under the slogan "Cultural heritage in our nature", where a workshop on cultural heritage, folk music, beliefs and customs of Djerdap area was organized for younger primary school students. Students were also given the opportunity to try to make traditional handicrafts.

Moreover, the celebration of Nature Conservation Day in Djerdap National Park has already become a tradition – lectures and workshops are organized, teaching materials that introduce students with natural and cultural heritage of the Djerdap area (such as colouring books for younger primary school students). Collection of poems and alphabet book prepared by the Park employees are another proof that they recognize the importance of educational tourism, which has only started to develop in our country. During the World

Water Day observance (March 22<sup>nd</sup>), the National Park organized exhibitions of artwork by students where the theme was "Nature for Water" and a literary evening called "The Danube in My Eyes".

Many schools from this area use the resources of Djerdap National Park to organize teaching and extracurricular activities, one of which being the International Day of Forests, which was celebrated in the Djerdap National Park thanks to the collaboration between the Park educators and teachers. A workshop was organized and its aim was to help students understand why it is important to protect and preserve forest ecosystems.

Many school projects were organized as well, some of which were: "Djerdap National Park Treasure Hunt", which promotes natural and cultural heritage of Djerdap. In collaboration with the Institute of Lowland Forestry and Environment, a lecture on the butterfly fauna was organized. The lecture was given to the students of "Vuk Karadžić" primary school from Donji Milanovac, and its goal was to introduce children with useful, but also potentially harmful insects of this region. Students were also able to watch a film about butterflies and the entomological exhibition at the Visitors Centre.

**Table 1 Types of educational tourism in Djerdap National Park**

Formal education	Informal education
Regular lessons (ambient learning - (preschools, schools, universities)	Workshops (art, science, education,sports, psychology)
Thematic Days	Research
Integrated day	Programs organized by educational institutions and cultural institutions
Projects	Conferences, study tours
Fieldwork (universities, schools)	Sports and recreation programs
School clubs and organizations	Projects by NGOs, local communities; educational projects
Extracurricular activities	Environment and Humanitarian Actions
Field trips	Scouts
Visits	Educational programs
Excursions	Conferences, summits
Nature school	Competitions
Research camps	
Summer and winter holidays	
Visiting scholars (from universities and schools)	

Educational activities that promote direct contact with the objects of learning, as well as a research and project approaches to learning are powerful

tools in acquiring environmental knowledge and developing ecological skills in children and young people. Educating children can help them to develop



environmental awareness, a sense of respect for natural and cultural heritage, and to recognize the importance of their preservation.

The Park also organizes many educational programs and presentations, but we would like to specifically mention the project "Protected areas for nature and people", organized by the first "WWF Nature Academy". This project was started in October 2015 and will last until October 2019, and was designed to improve communication with the local community and involve it in the management of protected areas, to develop educational programs and tourist programs that will increase number of tourists and improve the development of protected areas. This project builds a partnership between students and employees (teambuilding), and allows students to learn about Djerdap National Park while working on projects and research. In order to help children and teachers to better understand the importance of preserving the environment, the Academy's program has covered many topics, including protected areas, their importance for people and nature, the "ecological footprint" (the effect that people have on the environment), as well as the ways how people can actively participate in the preservation of nature.

The project "EKO PULS - Djerdap National Park" is a pilot project aimed at developing a network of environmental education centres in Serbia by organizing environmental education programs which would promote natural richness in Djerdap National Park and emphasize the importance of environmental preservation. This project is even more important due to the fact that the local communities also got a significant share in the project implementation (Kladovo, Majdanpek, Golubac municipalities) in order to improve tourist programs and help the development of rural areas in the Lower Danube region. In addition to numerous educational activities, this project plans to develop and design recognizable tourist routes, with central information centres, souvenir shops and centres for promotion of healthy lifestyles. This project is of importance not only for this region but for the whole country as well, as it serves as an example of good practice and the basis for the development of a network of environmental education centres in Serbia which would promote environmental preservation and the development of rural areas.

Certain international projects were organized in the Djerdap National Park as well, some of which are: Bio REGIO Carpathians, which gathered partners from international organizations, scientific institutions and protected areas from six different countries in order to protect and develop the Carpathian Mountains region; Danube parks step 2.0 – improve river morphology, ecotourism and preservation of the most important Danube species; "Changing Face of

Tourism Space in Lower Danube" project – which will fund the purchase of catamarans, canoes and canoeing equipment, bicycles. The project also involves training of tourist entertainers and local residents; UNDP/GEF project "Ensuring Financial Sustainability of the Protected Area System of Serbia" - which supports the development of ecotourism and sustainable tourism in Djerdap National Park by improving the capacities, products, visibility of the destination using new technologies, by renovating and promoting the educational hiking trail, and the interactive tactile exhibition at the Djerdap Visitor Centre. The plan is to train staff on ecotourism, while a handbook and a smart phone application were also designed (*Support for the development of ecotourism and sustainable tourism in Djerdap National Park, 2018*).

In collaboration with the "Djerdap National Park", "Vuk Karadzic" primary school in Donji Milanovac, formed a student club called Young Guardians of the Preserved Area. These young nature protectors presented their plan of activities to protect nature and promote natural and cultural heritage of the Djerdap National Park. This plan of activities includes workshops, panel discussions, field activities that will help raise environmental awareness and emphasize the importance of preserving the environment.

The traditional small conference called *Culture, education, creativity*, which takes place in Majdanpek and involves cultural organizations, educational organizations, different associations and individuals, is a good example of the exchange and discussion about tourist attractions and the presentation and promotion of Djerdap National Park activities. The aim of this conference, which should become a traditional event, is to provide more space in all types of media for the Djerdap National Park as an important educational, cultural and tourist destination.

When talking about the educational programs offered by the Djerdap National Park, we should mention the activities of the Youth Sports Camp "Djerdap", who organize sports activities as well as various cultural and educational programs for children, youth and adults. The Camp also organizes children and youth sports schools, sports camps and sports teams' preparations, sports competitions, workers' sports games, creative workshops, art colonies, ecological schools and environmental programs, recreational activities and schools in nature. The Camp has met all organizational and financial prerequisites for the implementation of various projects related to the above-mentioned activities. It also provides nautical, hunting and fishing tourism services and complete logistics. In addition to the main accommodation facilities, the Camp also provides 8 eight-bed bungalows, extremely functional and above all stylishly furnished. They were built follow the style of the old Vlach



houses, so their architecture fits into the cultural heritage of this region. Youth Sports Camp "Djerdap" has seven pavilions that are specially adapted to accommodate young sports teams. Each entrance contains rooms and socializing areas that are ideal for theoretical instruction. These rooms are equipped with school benches, school boards and TVs.

The camp "My super school break" organized children's stay in nature during the summer holiday, in the immediate vicinity of one of the most famous archaeological sites - Lepenski Vir. The camp was designed to engage children in extra-curricular activities in nature, to develop their creativity, resourcefulness, team spirit and competitive spirit, and to help them acquire work habits. Children spend their free time creatively and safely, in facilities that are adapted to their needs and they are under the constant supervision of professionals with rich professional experience in working with children. During their stay in "Lepenski Vir" hotel in Donji Milanovac, children will be able to use the indoor swimming pool located within the hotel, while all the necessary sports facilities are close to the hotel. Children are also provided with a complete infrastructure required for all planned activities, and with indoor and outdoor classrooms.

The plan is to reconstruct the area called Rajkove livade in Majdanpek municipality and use it for children and youth tourism, nature schools, sports teams' preparations, accommodation of visitors, group visits, skiers in winter or for conditional training of athletes. This area includes an abandoned settlement that was used for Youth work actions in the past, and is located not far from Rajko's Cave. A slightly steeper field southeast from Rajkove livade is intended to be used as a camping area for scouts.

## Conclusion

Today, tourism faces many challenges, including the need to create a new position in the market, to improve quality, to provide destination differentiation, to modernize accommodation supra-structure and infrastructure, and to diversify the existing offers. Under the influence of the sustainable development concept and fluctuations in economic activity, there has also been a change in tourist demand and a tourist population due to a growth of youth and educational tourism, with the emphasis on educational holidays and active recreation.

The growing level of environmental awareness has brought an increasing interest in programs and projects, which take place in national parks through various types of educational activities, such as adventure education where the focus is mostly on physical activities in nature - kayaking, hiking, camping, orienteering, nature-based learning, in

order to acquire life skills. In addition to physical activities, which are indeed very much present, educational tourism also includes various types of formal education (teaching and extracurricular activities) and informal education that take place in the outdoor environment, such as project and research camps organized by formal and informal organizations and institutions, non-governmental organizations, also including courses and tourist activities which involve direct experience (cognitive, emotional, social and practical).

Although the importance and potential of Djerdap National Park for the growth of educational tourism has been recognized, there are still many problems impeding its implementation, such as: limited financial resources, technical and material support, lack of qualified staff that will be trained and educated to design and conduct different educational programs in accordance with the educational needs of visitors and their age, as well as the lack of public awareness about the importance of this type of tourism. We have ahead of us a period of analysis and further work that should improve the quality and diversity of educational tourism in Djerdap National Park.

By emphasizing the pedagogical and educational potentials of Djerdap National Park which should be used for the purposes of educational tourism, we wanted to draw attention to the insufficient use of these resources for educational purposes; if these were used more, that would improve and develop research-based and contextual learning of visitors, diversify visitors' activities by engaging them in their own thinking and practical activities, in rebuilding their own knowledge, skills and attitudes in order to eventually be able to manage the learning process and become active participants in the creation of a sustainable society.

## Acknowledgements

This paper is a part of the project *Assessment Models and Strategies for Education Quality Improvement in Serbia* (179060), funded by the Ministry of Education, Science and Technological Development of Serbia.

## References

- Anđelković, S. (2018). *Vaspitanje i obrazovanje za održivi razvoj – učenje i poučavanje van učionice*. Beograd: Univerzitet u Beogradu, Geografski fakultet.
- Anđelković, S. & Stanisavljević Pešić, Z. (2013). *Škola i neformalni obrazovni konteksti*. Beograd: Univerzitet u Beogradu, Geografski fakultet.

- Anđelković, S. & Stanisavljević Pešić, Z. (2013 a). Učenje i poučavanje izvan učionice – Ambijentalna nastava. *Nastava i vaspitanje*, 62 (1), 39-52.
- Anđelković, S. (2008). Integrated environmental tuition an example of holistic approach to education. U: N. Ognenska (ur.), *II Balkan Scientific Conference - The Science, the Education and the Art in 21 Century*, Vol. 2(114-120). Blagoevgrad, Bulgaria: Съюз на Учените в България клон Благоевград, Југозападни универзитет „Неofil Rilski“, Blagoevgrad.
- Ankomah, P. K. & Larson, R. T. (2000). Education Tourism: A Strategy to Sustainable Tourism Development in Sub-Saharan Afrika. *DPMN Bulletin*, 7(1), 19-24.
- Bennett, J., Lubben, F., Hogarth, S. (2007). Bringing science to life: A synthesis of the research evidence on the effects of context-based and STS approaches to science teaching. *Science Education*, 91, (3) 347-370.
- Bhuiyan, M. A. H., Islam, R., Siwar, Ch. & Ismail, Ch. M. (2010). Educational Tourism and Forest Conservation: Diversification for Child Education. *Procedia Social and Behavioral Sciences*, 7(C), 19–23.
- Butcher, J. (2008). Good tourist, bad tourist. *Times higher education supplement*, (1826). Retrieved August 25, 2014 from Times Higher Education database.
- Ćatić, I. (2012). Kompetencije i kompetencijski pristup obrazovanju. *Pedagogijska istraživanja*, 9 (1–2), 175 – 189.
- Cvjetičanin, S, Segedinac, M. & Halaši, T. (2010). Značaj primene metode eksperimenta u razrednoj nastavi, *Nastava i vaspitanje*, 59 (2), 173 – 189.
- Duggan, S. & Gott, R. (2002). What sort of science education do we really need? *International Journal of Science Education*, 24, 661– 679.
- Fensham, P. J. (2009). Real world contexts in PISA science: Implications for context-based science education. *Journal of Research in Science Teaching*, 46 (8), 884-896.
- Jiyun, Y. & Jeonglyeol, L. (2014). Impact of tourists' intercultural interactions. *Journal of Travel Research*, 53(2), 225-238.
- Kelley, T. & Kellam, N. (2009). A Theoretical Framework to Guide the ReEngineering of Technology Education, *Journal of Technology Education*, 20 (2) 37-49.
- Kessels, U., Taconis, R. (2012). Alien or alike? How the perceived similarity between the typical science teacher and a student's self-image correlates with choosing science at school. *Research in Science Education*, 42 (6), 1049-1071.
- Lam, J., Ariffin, A. A. M., & Ahmad, A. H. (2011). Edutourism: exploring the push-pull factors in selecting a university. *International Journal of Business & Society*, 12 (1), 63-78.
- Lukic, D., Andjelkovic, S. & Dedjanski V. (2016). Geodiversity and Geoheritage in Geography Teaching for the Purpose of Improving Students' Competences in Education for Sustainable Development. *Forum geographic* 15(2), 210-217.
- Lukić D, Petrović M. D. & Denda S. (2018). Cultural Indicators of Sustainable Regional Development (The Case of Serbian National Park). *R-ECONOMY* 4 (2), 44-48.
- Lukić, D. (2005). *Đerdapska klisura*. Beograd: Srpsko geografsko društvo.
- Milutinović, J. (2012). Kritički konstruktivizam - uspostavljanje otvorenog i kritičkog diskursa u nastavi. *Zbornik Matice srpske za društvene nauke*, 141, (4), 583-594.
- Moisă, C. O. (2010). Aspects of the Youth Tourism Demand, *Annales Universitatis Apulensis. Series Oeconomica*, 12(2): 575
- Nentwig, P., Parchmann, I., Demuth, R., Gräsel, C., Ralle, B. (2005). Chemie im Kontext – From situated learning in relevant contexts to a systematic development of basic chemical concepts. In: P. Nentwig, D. Waddington (Eds.), *Making it relevant* (121-153). Munich, Germany: Waxmann.
- Palekić, M. (2008), Uspješnost i/ili učinkovitost obrazovanja nastavnika. *Odgojne znanosti*, 10 (2), 403-423.
- Pitman T., Broomhall S., McEwan J. & Majocha E. (2010). Adult learning in educational tourism. *Australian Journal of Adult Learning*, 50 (2), 219-238.
- Prostorni plan područja posebne namene NP Đerdap* (2013).
- Pravilnik o proglašenju i zaštiti strogo zaštićenih i zaštićenih divljih vrsta biljaka, životinja i gljiva* („Sl. glasnik RS“, br 5/10 i 47/11).
- Quezada, R. L. (2004). Beyond educational tourism: lessons learned while student teaching abroad. *International Education Journal*, 5 (4), 458-465.
- Ritchie, B. W., Carr, N., & Cooper, C. P. (2003). *Managing educational tourism* (Vol. 10). Channel View Publications.
- Rodger, D. (1998). Leisure, learning and travel, *Journal of Physical Education, Research and Dance*, 69(4), pp. 28-31.
- Srejović, D. & Babović L. J. (1983). *Umetnost Lepenskog vira*. Beograd: Izdavački zavod Jugoslavija.
- Stanković, S. (2003). Nacionalni park Đerdap – polifunkcionalna turistička regija. *Glasnik srpskog geografskog društva*, LXXXIII, (1), 43-56.
- Szczpanski, Anders. (2009). Outdoor education-authentic learning in the context of urban and rural landscape – A way of connecting environmental education and health to sustainable learning-literary education and sensory experience. Perspective of the where, what, why and when of learning. [https://ci.nii.ac.jp/els/contentscii\\_20190325040110.pdf?id=ART0009434656](https://ci.nii.ac.jp/els/contentscii_20190325040110.pdf?id=ART0009434656)

- Szczepanski, A. (2006). The distinctive nature and potential of outdoor education from a teacher perspective. *Outdoor Education - Authentic Learning in the Context of Landscape Literary education and sensory experience. Perspective of Where, What, Why, How and When of learning environments. Interdisciplinary Context and the Outdoor and Indoor Dilemma.* 1-18.
- Tytler, R. (2007). *Re-imagining science education: Engaging students in science for Australia's future.* Melbourne: Australian Council for Educational Research.
- Quezada, R. L. (2004). Beyond educational tourism: lessons learned while student teaching abroad. *International Education Journal*, 5 (4), 458-465.
- Verbitsky, A. A. & Kalashnikov, V. G. (2012). Category of »Context« and Contextual Approach in Psychology. *Psychology in Russia, State of the Art* 5, 117-130.  
[http://www.npdjerdap.org/novi/?page\\_id=785](http://www.npdjerdap.org/novi/?page_id=785)  
<http://www.npdjerdap.org/novi/?p=5564>  
[http://www.srbija.travel/download/projekti/JJI\\_srpski\\_small.pdf](http://www.srbija.travel/download/projekti/JJI_srpski_small.pdf)