



NATURAL, CULTURAL AND HISTORICAL POTENTIAL FOR TOURISM OF THE 'IRON GATES' NATIONAL PARK

Maria Patroescu

University of Bucharest, Department of Geography

Gabriela Vintila

University of Bucharest, Department of Geography

Abstract

The Danube Defile at the Iron Gates - a constituent part of the 'Iron Gates' National Park - is a valuable natural unit of a character unique along the entire 2,875 km length of the Danube. The natural setting of the Iron Gates National Park has a varied range of resources attractive to tourism. The Danube Defile at the Iron Gates is characterised by a sequence of depression-type basins and narrows, major gorges, whose vertical walls full of calcareous benches and caves have been flooded by the building of the dam at Gura Vaih. The uniqueness of the landscape in the Iron Gates National Park area has been dictated not only by the relationship between the river and the lithology, but also by the climatic factors. The biotic cover enhances the park's aesthetic value and tourism potential, which latter is further strengthened by anthropogenic elements.

Key concepts: national park, tourism potential, natural resources, cultural and historical resources.

The Danube Defile at the 'Iron Gates' - a constituent part of the 'Iron Gates' National Park - is a valuable natural unit of a character unique along the entire 2,875 km length of the Danube. A lithological and morphological variety in the relief, a climate with sub-Mediterranean influences, a complex biotic cover, as well as a multitude of historical, cultural and religious remains, lend the landscape an aspect of originality. Historical relics attest to thousands of years of human habitation on this territory. To the West, the boundary of the park coincides with that of Pescari village, while to the South, the limit follows the Danube watercourse downstream to the dam at Gura Vaih. To the north, the boundary follows the southern flanks of the Locva Mountains, partly includes the Almaj Mountains and almost the entire area of the Mehedinti Mountains.

The natural setting of the Iron Gates National Park has a varied range of resources attractive to tourism. Showing sedimentary, metamorphic and volcanic rock strata, the Danube Defile comprises a natural geological museum, where one can travel - as is also the case in the Grand Canyon of the Colorado River in the USA - from the Palaeozoic Era up to the present. Here, a phenomenon unique in Europe is present, namely, the superposition of an immense volume of older geological formations on top of some newer ones: the thrust sheet thus created is known as the Getic Nappe and lies over the Danubian Autochthone. Between the villages of Pescari and Bucovat, on the left bank of the Danube, the Getic Nappe formations come to light. They are represented by crystalline schists in various degrees of metamorphosis, pierced by intrusive granite massifs and sedimentary formations. These outcrops can be turned into areas of attraction for tourism, as well as serving as genuine natural research laboratories.

Downstream from Ljubcova, the Danube has cut its valley - with a few exceptions - only through Danubian Autochthone formations, composed of crystalline schists pierced by granite massifs (among which that at Iuti is dominant) and basic rocks and sedimentary formations, giving the

landscape a particular beauty. Where Palaeozoic and Mesozoic sedimentary formations prevail (between Cozla and Svinita), the fossil-rich Lyasic deposits at Munteana and the faces of Klausstrata at 'Grebenul romanesc' catch the eye. They are rich in fossilised Jurassic fauna (more than 50 species of ammonites). Jurassic and Cretaceous sedimentary deposits are obvious between Plavisevita and Ogradena villages, the famous area called 'Cazanele Dunarii'. The relief of the Iron Gates' National Park area mirrors its lithological structure. It is dominated by the Danube Defile which is the landscape's most uniquely characteristic element. The major relief units include the Locva Mountains (maximum altitude 735 m at Corhanul Mare), the Almaj Mountains (maximum altitude 1226 m at Svinecea Mare), the Mehedinti Mountains (maximum altitude 1228 m at Coltul Pietrii) and the Mehedinti Plateau (mean altitude 400 m). On the Yugoslavian bank, the defile is flanked by the Dobrianske mountain unit (mean altitude 800 m) and a sector belonging to the Miroc Planina Plateau (mean altitude 550 m).

The Danube Defile at the 'Iron Gates' is characterised by a sequence of depression-type basins and narrows, major gorges, whose vertical walls full of calcareous benches and caves were flooded by the building of the dam at Gura Vaih. In the area of the 'Iron Gates' National Park, from West to East, the following sectors can be distinguished.

The Pescari - Alibeg narrows extend for six kilometres and are only 45-70 m. in width. The slopes here are dominated by shallow karst forms - lapiezes², dolinas², uvalas², karstic valleys, avens² - well-developed near Sf. Elena. These slopes and calcareous plateaux represent biotypes with a favourable ecological potential for thermocalciphile vegetal elements of Mediterranean origin, conferring an exotic aspect to the landscape.

The Liubcova Depression develops along a stretch of eighteen kilometres. Here, the Danube cuts Neogene sedimentary formations deposited in a tectonic basin, as well as the crystalline formations of the Getic Nappe. The agricultural landscape bears witness to the great potential of this area, but also the degree of human intervention on the original natural components.

The Berzasca - Greben narrows are also 18 kilometres in length. Here, the Danube valley is symmetrical, having steep slopes on either side.

The Greben - Plavisevita sector is 25 km in length and composed of two distinct segments. The first is Greben - Iuti (an asymmetrical Neogene depression, which extends along the Yugoslavian bank - the Milanovac Depression - where structural relief is largely developed), and the second is Iuti - Plavisevita where the Danube flows along a fault line.

The Kazan Gorge (Cazanele Dunarii) sector offers the most picturesque landscapes along the entire course of the Danube. This is subdivided into the Cazanele Mare, which extends between Plavisevita and Dubova (a distance of 38 km), overshadowed by the near-vertical calcareous walls of the Ciucaru Mare (316 m high), on Romanian territory, and the Sirbletul Mare (768 m high), on Yugoslavian territory and the Cazanele Mici, dominated by Ciucaru Mic (310 m high) and Sirbletul Mic..

The Ogradena - Orsova depression is an asymmetrical sector of the Danube valley. The Yugoslavian bank is generally steep and covered by thick forest, while the Romanian one is gentle, with arable lands, and a lot of holiday dwellings have been built, especially since 1989.

The Varciorova - Gura Viii narrows develop along 9 km. and are characterised by steep, thickly forested slopes.

Climate, Fauna and Flora

The originality of the landscape in the Iron Gates National Park has been dictated not only by the relationship between the river and the local lithology, but also by characteristics of the climate. Thus, on the general background of a continental climate, typical for Romania, a topoclimate with sub-Mediterranean influences has developed. This has been induced by the prevailing atmospheric circulation, predominantly from the western, and by the characteristics of the active layer. The main atmospheric differences between the area of the park and the rest of Romania can be summarised as lower mean annual temperature values, more intense thermo-convective processes on slopes, more cloud cover, the formation of bora-type air-currents, as well as an earlier spring, more rapid warming and the prolongation of summers into the autumn. The defile sector shares in the local mountain bio-climate which, amplified by the presence of a dense river system, is at once stimulative and restorative.

The biotic cover further enhances the aesthetic and tourist value of the park. The Danube defile shelters a complex flora and fauna, of boreal-mountainous, Central-European and southern-thermophilic origin. The vegetal diversity of the landscape is shown by the 196 vegetal associations, of which 17 are endemic. With regard to the fauna, one can notice the presence in the park area of some animal species of value to hunters (*Capreolus capreolus*, *Sus scrofa*, *Meles meles*, *Vulpes vulpes*, etc.) and of some Mediterranean species which for the rest of Romania are exotic and novel (for instance *Testudo hermanni hermanni*). The unity of the 'Iron Gates' National Park territory, noticeable in all components of the environment, has underlain the establishment of all its natural reserves of scientific and tourist interest (complex, floral, geological, palaeontological, etc.).

Natural, Cultural and Historical Tourist Sights in the Area of the Iron Gates National Park

The value of the park for tourism is raised further by the anthropogenic elements within its bounds. The sheer number and variety of historical and cultural remains, including ancient and medieval monuments and archaeological sites, the 'culele' fortified houses, monasteries, hermitages and churches, not to mention the sculptural and urban architectural heritage, all speak volumes on the importance of this area for tourism. Rural settlements still preserve elements of their traditional way of life, like old crafts and traditional architecture. The intermixture of various ethnic groups - Romanians, Serbs, Czechs, Turks, Germans, Magyars. etc. - in the area of the Iron Gates National Park has produced a rich thesaurus of ethnography and folklore traditions passed from generation to generation. A West-East profile along the defile sector of the 'Iron Gates' National Park would emphasise the area main natural, cultural and historical tourist sights.

The profile begins near Pescari village. Here, on Cula Hill, one can see the 15th century ruins of the medieval fortress of Sf. Ladislau. Nearby, in the village of Sf. Elena, one can admire the karstic lake Vartacul lui Piatra and the Ieskinia, Cicalovit and Ceuca Karstic valleys. Also in this area, one can visit caverns over 30 metres deep, a natural bridge and the 'Ceuca' cave, as well as some smaller caves without sintering formations. The Babocali Rocks (Stancile Babocai) emerge from the waters of the Danube and mark the beginning of the Clisurile Dunairii (clisura, a word of Byzantine origin, designated a fortress built at the entrance of a defile).

Three kilometres downstream from Pescari there is the Gaura cu Musca cave, which has few sintering formations. In the year 1800, this cave was fortified. Starting from kilometre 1,025, several villages are strung along a forest road. These are Gornea, Sichevita and Garnic, which retain some ethnic and folk traditions. West of Sichevita, the remnants of a Roman camp have been discovered, showing that this area was traversed by the Romans on their way to Dacia. The

presence of limestone has created the conditions for deep-karst development to the north-east of Garnic village (the Filipovo-Dira and Teskinia caves).

Further east, the profile crosses Berzasca village, situated by an old Roman settlement. During its history, the village has changed its site several times. The present site was chosen at the end of the 18th century. Here, in 1836, the church of Sf. Arhangheli was built, which is at present the oldest church in the Danube Defile. It is painted in Byzantine style with baroque influences and has been declared a 'monument of architecture'.

In the valley of the Sirinia brook, and within the bounds of the village of Cozla, karstic forms catch the eye. They are represented by steep rocks, waterfalls and smallish caves. Between kilometres 1,008 and 1,010, the Danube is overshadowed by steep slopes offering a wild, beautiful, scenery in the area of the Trescova, Piatra Alba, Piatra Neagra and Piatra Lunga rocks. Downstream, from kilometre 996 to kilometre 941, numerous tourist sights succeed each other along the defile, including old Roman camps guarding particular points. In the area of Svinita village, for example, the remains of a Roman camp have been brought to light. Nearby, in the valleys of the Saraoske and Tiganului brooks, there are fossil-rich areas known for ammonites. The Tri-Kule fortress, erected in the 18th century against Turkish incursions, is a fortification comprising three towers, of which one has been submerged. The three towers originally formed a triangle pointing towards the Danube.

In former times there were many cataracts along the Iuti sector, which hindered navigation. A 1.8 km.- long channel now assists the river traffic. The Cazanele Mari (which evolves between kilometres 970 and 9784) is still the most impressive section of the Danube Defile. It is cut through limestone and one can therefore see here a diversity of karstic forms which enhance the beauty of the landscape. Near Dubova, at the entrance to the Cazanele Mari sector, there is the Veterani cave, now sadly flooded by the waters of the Iron Gates reservoir. About 200 m. higher up there is the Gura Ponicevei (Liliecolor) cave, still accessible either from the road (57) or from the Danube itself. In the small basin-type depression at Dubova, which separates the Cazanele Mari from the Cazanele Mici, the presence of some waterfalls developed on limestone enhances the wildness of the area.

The Cazanele Mici develops into a gorge between kilometres 965 and 969. It is split by the Mraconia valley which passes from the south-east to the north-west and along which a forest road leads into the heart of the Almaj Mountains. The entire Kazan Gorge (Cazanele Dunarii) has been declared an integrated natural reserve. The landscape value of the basic relief is enhanced by the flora and fauna, which have elements of both Mediterranean and Central European origin, including some which are rare and others which are endemic to just this region. *Carpinus orientalis*, *Fraxinus ornus*, *Corylus colurna*, *Syringa vulgaris*, *Fagus tauriga*, *Tulipa hungarica*, *Campanula cressipes*. *Testudo hermanni*, *Vipera ammodytes montadoni* are just a few of the species that catch the eye.

Coming downstream towards Orsova, at kilometre 964.5 on the Yugoslavian bank, the 'Tabula Traiana' can be seen. It was lifted above the present level of the water during the creation of the 'Iron Gates' reservoir. The inscription glorifies the building of the Roman military road along the Danube gorge during the reign of Roman emperor Trajan (98-117 AD).

The city of Orsova is situated near the eastern limit of the park, being in fact its only urban settlement. Within its bounds, the city has developed in a great arc, about 4 km. in length, around the mouth of the Cerna, and bears witness to the massive alterations suffered by the natural landscape of the defile. Archaeological research has revealed that old Orsova (now submerged by the waters) had developed on the site of an ancient Dacian-Roman fortress called 'Dierna'. New Orsova, built three to four kilometres distant from the old city, has both industrial and tourist functions. The latter rely on the city's location in the area of the 'Iron Gates' National Park, as well as on the available facilities (hotel, restaurants, sports grounds, tourist office, etc.). Orsova can also

serve as a starting-point for trips to the 'Domogled' reserve or the other reserves in the Banat Mountains, by following the E 70 Road.

Downstream from Orsova, the Alion and Ada-Kaleh viaducts catch the eye. The island of Ada-Kaleh, which housed a famous fortress, a mosque and a graveyard (Miskini-Baba was buried there), as well as other historical remains, is now submerged. All its tourist sights had been previously removed to Simian island, near the city of Drobeta - Tumu Severin.

In the Vodita valley, downstream from the Bahna gulf, the ruins of the 14th-century Vodita monastery can be seen. This is the oldest monastic establishment within the area of the Iron Gates National Park and also in the historical province of Oltenia. The last sector of the profile traverses the Gura Vaii - Varciorova nature reserve, which shelters rare Mediterranean flora, the Fata Virului reserve, which includes a number of small waterfalls, gorges, Mediterranean elements and unusual plants (*Celtis australis*). The profile then crosses the Virului viaduct where, before the dam was built, the Iron Gates rapids posed their threat to shipping..

Following the E 70 road towards Drobeta Tumu Severin, on the left bank of the Danube, the profile offers a panoramic view of the river and the Iron Gates hydroelectric and navigation system. The flora reserves Cracul Gaiouara. (which contains remains from the Tertiary Period) and Valea Oglanicului (which provides a refuge for floral species such as *Gladiolus illyrius*, *Tulipa hungarica*, *Fraxinus ornus*, *Syringa vulgaris* etc.) are also located in this area.

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