

Landscape interpretation based on the example of the Ljubljansko Barje nature park (Slovenia)

Ales Smrekar, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia, ales.smrekar@zrc-sazu.si;

Bojan Erhartic, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia;

Mateja Smid Hribar, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia; **Jernej Tiran**, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia

The Ljubljansko Barje is a large wetland plain spanning 150 km² on the doorstep of Ljubljana, Slovenia's capital city with almost 300,000 inhabitants. The mosaic-like intertwining of different habitats offers shelter to numerous plant and animal species; however the peaceful coexistence of man and nature has been rapidly dissolving in the last few decades.

The relatively fast sinking of the southern-most part of the Ljubljana Basin on the juncture of the Dinaric and Alpine plate thrusts transitioning from the Pliocene to the Pleistocene was key for the formation of Ljubljansko barje. The Sava River deposited large amounts of gravel, which caused the Ljubljanica River to dam and flood the entire marsh basin. Millennia of river alluviums slowly filled the lake and the water drained until a crannog lake dried six thousand years ago, enabling the formation of a large marshland, and a low and high bog later. The special conditions allowed for peat to grow.

The first major interventions on Ljubljansko Barje date back to the Roman times. They only continued in the eighteenth century, when the first extensive melioration works started in the bog. Therefore, Ljubljansko Barje is not a "real" bog in the true sense of the word, as remnants of the high bog only appear here and there and peat covers less than one percent of the surface.

The first conclusions on the need for a protection of the "bog park" was expressed as early as 1920 in the Memorandum, presented to the former landscape government by the Section for Nature Conservation and Conservation of Natural Monuments with the Museum Society of Slovenia. The true worth of Ljubljansko Barje and its natural and cultural values has only started to be recognized in the last few decades. In autumn 2008, the area was declared the Ljubljansko barje Nature Park with a Decree in order to "protect the natural values, preserve the biotic diversity, and strengthen the landscape diversity", and the two sites of prehistoric crannogs near Ig were included on the Unesco world heritage site list in 2011.

One of the purposes of protected areas, especially nature parks, is the interpretation of the natural and cultural values. The term interpretation was scarcely used in Slovenia until recently and has not yet been widely recognized.

However, the road from the protection of the park to realizing its purpose and goals is usually long and winding. For this reason, we have begun to design certain interpretative contents.

The goals we set when creating the interpretative contents were to focus more visitor flows to the less vulnerable areas, to encourage the visitors to take on the responsibility

of caring for nature and the cultural heritage and to increase the amount of sustainable selection in the protected areas, thus increasing the visitors' satisfaction.

The presentation of natural and cultural values in the form of an interpretative trail has proven to be one of the most popular forms of interpretation. Interpretative trails are no rarity in Slovenia, but they rarely follow the principles of interpretation. Sensibly designed interpretation mediums could be beneficial for the protected areas: it would create excitement and pride as well as a feeling that it is necessary to help, to direct visits, increase the public support to the manager, increased influx and revenue. The interpretative trail will therefore not be the objective, but a means, a tool for managing the park. One of the first steps toward the set goals was to design a form, in which we position the area geographically, give a brief description, point out natural and cultural values, inform about the near-by infrastructure, and put special emphasis on the issue, goals, and the interpretation contents. In addition, we include a cartographic display and list of the literature.

We filled the form with a theoretical and field overview of the area and selected 15 areas that were suitable for interpretation. The selected contents range from purely natural science perspectives to cultural ones (zoology, vegetation, geology, relief, hydrology, archaeology, masonry, folk knowledge, and more). The interpretation areas are quite evenly spread throughout the entire nature park; here, we circumvented the most strictly protected areas.

By designing interpretative trails and other interpretation contents on the area of Ljubljansko Barje Nature Park, we do not wish to drastically increase the number of visitors to the protected area, even though we do not necessarily see this as problematic if it is planned well and in accordance with the existing infrastructure. Research namely shows the number of visitors is not the deciding factor in burdening a certain area, but their "quality" or awareness. This quality can only be achieved with education, especially through the interpretation media.

Protecting Ljubljansko Barje as a nature park was undoubtedly a measure in the right direction, but merely protecting it will not suffice. Protection actually means interaction with people to the greatest extent, who need to have the park and nature brought closer to them.

The positive effects of the forming interpretation regulations' effect on the general development of Ljubljansko barje will:

- raise the general culture and the locals' awareness about their environment,
- raise the quality of the recreation space and help the



Figure 1. 15 selected areas suitable for interpretation in Ljubljansko Barje Nature park.

visitors to get acquainted with the area and experience it better,

- raise the locals' and visitors' interest for the area and with that an increased need and care for preserving this area.

Celovit načrt interpretacijske infrastrukture na območju Krajinskega parka Ljubljansko barje. Ljubljana, 2007.

Inventar najpomembnejše naravne dediščine Slovenije. Ljubljana, 1988.

Ogorelec, B. 2004. Zakaj zavarovana območja potrebujejo interpretativne poti? Ljubljana.

Register nepremične kulturne dediščine. Ljubljana, 2012.

Uredba o Krajinskem parku Ljubljansko barje. Uradni list Republike Slovenije I 12/2008. Ljubljana.