

Neretva Valley: from Leprosarium to Nature Park

Wokaunn M, Juric I, Vrbica Z. Between stigma and dawn of medicine: the last leprosarium in Croatia. *Croat Med J.* 2006;47:759-66. [Medline:17042068](#)

To the Editor: We may never learn the exact reason why, of all places in Croatia, the valley of Neretva became in 1905 the home to an institution for isolation and care of persons suffering from leprosy. Nevertheless, the study of Wokaunn et al (1) published in the October issue of the *Croatian Medical Journal* (1) brought forward some helpful insight into this poorly investigated issue (1). A distinctive local epidemiology, with several foci of leprosy in the region, low socio-economical development, and a unique geographical situation were identified as key factors that, a hundred years ago, prompted the construction of the leper house, known as *Gubave kuće*. Today, on the same locality, these three factors have a totally different dimension. The

region advanced economically in the twentieth century, but only recently the socio-economic development has become the primary goal of the management plans for the future Nature Park. In the twentieth century, as the area economically developed, the quality and integrity of the biotope and landscape, including the local flora and fauna, greatly suffered. Intensive agriculture based on regulative interventions in the valley often conflicted with the principles of nature protection. These interventions included, for instance, intense melioration of Neretva, its tributaries, and other rivers in the area. Many of these interventions were later shown to be environmentally and economically unjustified.

The valley of Neretva may be observed from two vantage points: from the perspective of economical and epidemiological deprivation of the local population and from the perspective of its biological diversity. In the past, a number of educated physicians and natural historians chose

the latter perspective. These select few included physician G. Puia-ti (1701-1760), originally from Korčula, Austrian ornithologist C. Feldegg (1780-1845), German entomologist and mineralogist E. F. Germar (1786-1853), German botanist and ornithologist F. Neumayer (1791-1842), Split physician F. Lanza (1808-1892), Podgora priest, writer, and educator Mihovil Pavlinović (1831-1887), zoologist Kolombatović (1843-1908), and others. They wrote about the nature's richness, but few of them understood how to use the natural wealth of the valley to the benefit of its inhabitants. "Ovdje je stožina oko koje se vrti cijela povijesnica dalmatinska!" (This is the axis around which the entire Dalmatian history revolves!) exclaimed Mihovil Pavlinović on September 30, 1873 in his famous speech dedicated to Neretva (2,3). This, we may add, is the axis of the future of the Neretva region, and this future may be realized by putting into practice the modern Nature Park concept. A great challenge

that the Nature Park has to face is how to balance the use of natural resources for the development and protection of nature.

The geographical position of the Neretva valley played a key role in the decision to build the leper house in the area. Today, its position is the vital argument for the establishment of the Nature Park. In comparison with other parts of Dalmatia and continental Croatia, the valley of Neretva has a unique geographical position; marshy ground in the karst landscape, sub-Mediterranean and Mediterranean climate, vegetation, and fauna, rich in migrating birds. The valley's distinctive geography stimulated the development of many endemic, rare, and endangered species. Since antiquity, the valley has been the destination of autumn and spring bird migration on their way to their African winter quarters.

Bird fauna will occupy a significant position in the future Nature Park. Bird hunting has played a key role in the diet and economy, as well as in the traditional culture of the valley. Especially interesting is *čukanje*, a specific method for hunting the coot (4). While lepers, fatigued by the disease and the feeling of isolation, observed the valley from the Gledavac hill, the neighboring hill of Predolac, less than one kilometer of flying distance away, became the site of one of the most violent wetland bird massacres on the territory

of Croatia. Many flocks, mostly ducks, flew daily through the gorge between two forested hills, Predolac and Šibanica on their way between the overnight resting and feeding sites. High concentration of flying flocks in a narrow passage made these birds an easy prey for the hunters. In winter, birds spend the nights in the Neretva mouth, while in the morning they fly to the marshlands in the upper course of Neretva and Hutovo blato in Bosnia and Herzegovina (5), using the shortest route and the lowest section between two hills. In the evening, they fly back using the same way. From the site of the former leper house one can see the Koševo field where birds come for feeding in the morning. In wintertime, not just ducks but also geese, seagulls, and crows, and, in the migration period, snipe, and starlings used this passage, while in sum-

mer-time they were replaced by pigeons, herons, seagulls, and infrequently, ducks. The number of both birds and hunters on the Predolac hill peaked between two world wars and after the World War II (I. Veraja, personal communication). The area became well known for the interception of winter flocks. After the World War II, concrete fences and bunkers were built for hunters' ambush. Other sites of low bird flight in the valley were Klenak and Rovač.

Today the leper house is a ruin that stands as a testimony of hard times endured by the valley inhabitants but concrete shields for bird ambush on the Predolac hill are still in good condition. These shields disturb the natural and aesthetic value of the forest habitat (Figure 1). Since May 23, 1968, the area of Predolac together with Šibanica hill territory, occupying a surface area of



Figure 1. Concrete shields for a bird ambush on the Predolac hill.

67 hectares, has been protected under the category of Park Forest. The main reason for introducing this level of protection was the vegetation diversity, especially since this forest complex includes Aleppo pine and Mediterranean cypress with *macchia* elements. However, this kind of protection does not include birds; even if it did, it would be too late as most of the mass killing occurred immediately after the World War II. The Nature Park, should hence offer a chance for a more adequate level of protection for this part of the Neretva valley.

Why should the medical community learn about the development and challenges facing nature protection in the valley of Neretva? We are increasingly aware of the dramatic consequences that disturbances in natural balance may have for hu-

man health and even for the survival of human species (avian flu, Creutzfeldt-Jakob disease, malaria, and other zoonoses). The State Institute for Nature Protection is about to complete a study that should build the basis for declaring the lower Neretva a Nature Park. The Nature Park Neretva valley should simultaneously protect the nature and safeguard human health by controlling the use of artificial fertilizers and pesticides and purification of waste water. The concept of Nature Park, as an instrument of protection, entails the provision of undisturbed bird nesting and wintering, as well as the preservation of cultural, historical, and traditional heritage. Organization of the life in the valley upon these principles would bring welfare and healthy living along the course of the environmental chain. The awareness

of close connections between nature protection and human health is essential for human survival in the valley and on the entire planet.

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References

- 1 Wokaunn M, Juric I, Vrbica Z. Between stigma and dawn of medicine: the last leprosarium in Croatia. *Croat Med J*. 2006;47:759-66. [Medline:17042068](#)
- 2 Zadro I. Famous speeches [in Croatian]. Zagreb: Naklada Zadro; 2001.
- 3 Mužinić J. Delta. One river, one writer: Neretva and Mihovil Pavlinović [in Croatian]. *Hrvatska Vodoprivreda*. 2005;14:90-1.
- 4 Mužinić J. The Neretva delta: a green pearl of coastal Croatia. *Croat Med J*. 2007;48:127-9.
- 5 Rucner D. Birds of the valley of Neretva [in Croatian]. *Larus* 1954;(6-7):53-138.