

## Nature trails and landscape management in the Great Milic

### Nature Park

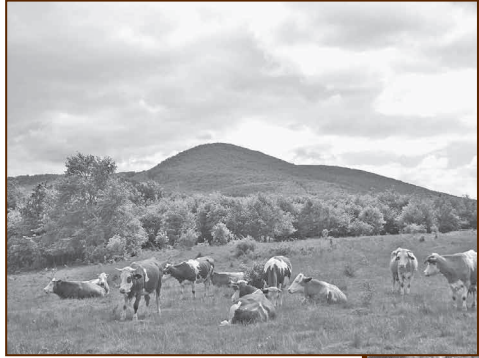
The North Hungarian Mountains are located within the Carpathian Basin. The *Tokaj-Eperjes (Prešov) mountain range* consisting of three mountain units with its 150 km long ridge is located on the eastern side of the region. Its southern part is called Tokaj Mountains, the middle part is the *Szalánc Hills (Slanské vrchy)* and its northern part is the *Eperjes Hills (Prešovské vrchy)*.

The southern part of Szalánc (Slanec) Hills, which form the middle section, is located in Hungary. The Nagy Milic mountain group and the region Hegyköz – with its subsection named Felső-Hegyköz – are situated within these hills.

If you turn towards the region Hegyköz after Sátoraljaújhely, the road turns to the West among the tent-like hills and if you look towards Filkeháza after you have left Pálháza, on the horizon you can catch a sight of the silhouette of the Füzér Castle and the connected dacite cuneiform top. The register of the villages that belonged to the Füzér estate shows a great correspondence from the 13<sup>th</sup> century onwards to the natural and historic landscape that is called Hegyköz.

The topography of the landscape is marked by multi-centre volcanism. In addition, owing to its geographic location, the connection to the ridge of the Carpathian Mountains should also be mentioned because the Tokaj-Eperjes mountain range, which covers the landscape in a north-south direction, stretches down from the wreath of the Carpathian Mountains.

Thus the region is predominantly characterized by mountain-like landscape, which is completed by basin hills in the region of Hegyköz. The villages of Great Milic Nature Park on the Slovakian side (Eszkáros



(Skároš), Szalánc (Slanec), Szalánchuta (Slanská Huta) and Újszállás (Nový Salaš)) correspond to this description of landscape characteristics.

Among the villages on the Hungarian side, Füzér, Füzérkajata, Hollóháza, Pusztafalu also belong to this group. The western border of the Nature Park extends to the Hernád at Kékéd, where the western part of the village border is characterized by the floodplain nature of the river basin.

The slogan of Great Milic Nature Park, “*the world of preserved values*” indicates that perhaps the most important task of nature parks is the preservation of natural values. Our natural values have mostly survived in the regions at medium altitudes, thus several nature parks have been established and are being established in our highlands.

When examining the history of land use, it should be highlighted that from the second half of the 13<sup>th</sup> century, through the establishment of the villages supplying Füzér Castle, the area occupied by communities extended to the region of Felső-Hegyköz as well. 14<sup>th</sup> century sources mention the municipalities built around Regéc Castle in Erdővidék and Boldogkő Castle in Meződülő. 65 out of the present 72 communities of the region had settled by the end of the 14<sup>th</sup> century.

Szalánc (Slanec) settlement was formed around an important fortress, which was represented in 1230 included the first record in the “Castrum Salis’ or “Salt castle” denotation. The castle had built by an ancestor of the Szalánci family, Csama’s son Péter from the Aba clan. Újszállás (Nový Salaš) was first mentioned in 1330 and belonged to the Nagyszalánc (Slanec) castle estate. In 1630 only a quarter landholding payed tax, the local people were serfs and cotters. In the 18<sup>th</sup> century belonged to the Forgách family estate. In 1828, 248 people lived here in 32 houses. The inhabitants used to farming and keeping of animals for living, as well as worked in the nearby glass factory. Many of the inhabitants emigrated to overseas between 1900 and 1910. Szalánchuta’s (Slanská Huta’s) area belonged to the Szalánc (Slanec) castle estate in the Middle Ages. The village came into being on the land of Újszállás (Nový Salaš) in the 18th century. The village holders were the Forgách counts, the lords of the Szalánc (Slanec) manor. The first inhabitants were cotters employed in the (former) local glass foundry. The first written reference was made in 1722, but its independence was won only in 1880. Until then the settlement was controlled as a part of Újszállás (Nový Salaš).

The present structure of the nature park communities is predominantly “pectinate”. It is due to the fact that these villages, located at the foot of the hills, are surrounded by a forest on one side and by farmland on the other. These are villages made up of several streets, built around some kind of centre – usually a church. They characteristically stretch towards



one direction; which results in the so-called comb-like structure. The settlement shows a regular image here. Most of the communities in Hegyköz are characterized by pectinate, comb-like structure. We should also mention the municipalities located in narrow valleys, the one-street villages located on clearings, having a small inner area and a small population size. The land allocation and settlement are irregular here, the distance between



houses is varied; this is the way the community accommodates to the opportunities limited by nature. The structure of these communities is the most valuable. These are: Kishuta, Nagyhuta, Vágáshuta; and Hollóháza also belong to this group by nature, but this latter is a more densely settled and populated industrial community.

Along with the settlement, the attitude towards the forest changed too. In addition to the deforestation carried out for purposes of agricultural expansion, the multi-purpose use of the forest has also become widespread. While previously the forest had almost exclusively been used for hunting, forest grazing, felling of firewood and timber, and collection of forest products became increasingly important. The forest meant the financial basis for the inhabitants of villages built on clearings, which had only limited areas of land. Due to the forest use, the forest image around the villages was different from the image in areas far from them.

The permanently utilized forests covered the daily firewood needs in inhabited areas, and the livestock was also grazed there. These were coppices, or so-called “copses”, which were maintained by cutting at short intervals. In the forests further away from villages, the timber was extracted with the method of select-cutting. These forests were later prohibited, so this latter use did not dramatically change the forest and landscape image. Thanks to this, the beech and hornbeam-oak forests have been relatively intact in the region of Great Milic and the later established “huta” settlements.

Very nice exhibition place is at the boundary of the forest and forest clearings showing an example of the “Big Tree” (Nagy Fa, Vel’ké drevo). The remnant trees – like the 300 year old estimated common oak “Big Tree” become a symbol in the course of time. The spatial order of the present-day land use has been oriented to this natural landmark, which could mark village or estate boundaries. Since an edge of cleared forest area is near – the villages of Szalánchuta (Slanská Huta) and Újszállás (Nový Salaš) in cleared





forest areas – the “Big Tree” could mark the former village boundary of Szalánchuta. The road to Kalsa (Kalša) branches away from there.

Today the 22,000.00 ha periphery of the villages listed in the subregion of Hegyköz is divided into the following cultivation sectors: 61 % forest, 21 % cropland, 10 % pasture, 6.5 % meadow, 1.5 % orchard and vineyard. This means that around 60 % of the region is woodland and 40% is agricultural land. It adapts well to historical processes too, since this ratio is just the opposite in the case of Western European cultural landscapes.

Nature trails are tools for presenting landscape-use processes as well as natural and cultural historical values and are intended to enable self-study and self-knowledge development. They serve to provide information and share knowledge while the participants hike, and this way, in addition to “learning the curriculum”, they come into close contact with the environment.

Several nature trails have been and are being established in the Great Milic Nature Park:

- Bodó Meadow and Maróka (Marovka) Nature Trail
- Great Milic Nature Trail
- Izra Lake Nature Trail
- Forestry-Ecological or Őr Hill (Guard Hill) Nature Trail
- Nature Trail along the Border

On the route of nature trails, the existing values and the tasks, challenges and opportunities to preserve and maintain them are also presented on the basis of the local landscape management approach.

The first challenge to mention is the fact that the processes of past lifetimes were completely different in the so-called “Visegrad countries” from the Western and Central European pattern: the erosion of the rural agricultural structure and especially the human basis operating it led to the disappearance of some traditional land use forms and to the formation of the so-called “after-farming systems”.

Spontaneous succession progresses started within regions. These particularly affected grazing areas, because animal husbandry was always the first to be excluded from rural farming, and the countryside became dominated by the “Green Angel” (Zöld Angyal) of László Nagy poet. It is owing to the fact that in several cases traditional farming, dating back to several centuries even increased the natural values by providing habitats. The so-called clearings should be mentioned here, where farmers established meadows in the place of former forests. In these places populations of several protected orchid species appeared with the insect and butterfly fauna related to them (living in symbiosis with them). At present these natural values have been endangered with the depopulation of the region and the decline of traditional forms of land use.



The abandonment and underuse of meadows are also typical in the Slovakian northern foothill complexes of Milic; they haven't been scythed and grazed over the last few years, which has led to the formation of scrubs with invasive plants (blackthorn, hawthorn, hedge rose).

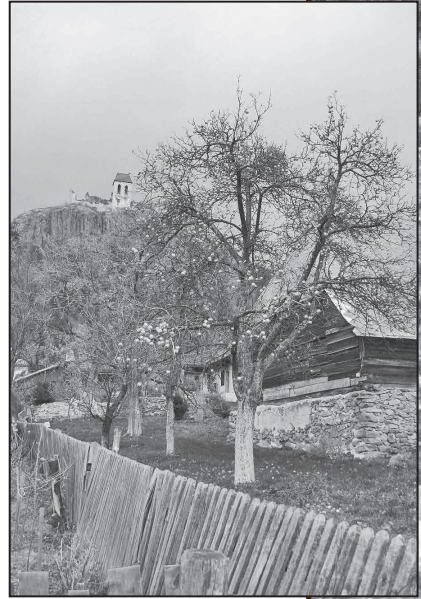
Regarding land use planning however, it should be taken into consideration that in addition to forest management, one of the basic elements in provide a livelihood for the population and thus keeping them, is agriculture. The favorite form of traditional land use is the grassy orchard, most of which have been abandoned by now. The old, rotten fruit trees provide habitat for several species of insects and birds.

The opportunities are the following: planting fruit cultures, grassland management, revitalization of grasslands – restoring grazing animal husbandry, planting indigenous hardwood tree species on weak arable lands, local processing of products (dried fruit, pálinka [traditional fruit brandy], jam) and the spread of labor-intensive bio-cultures.

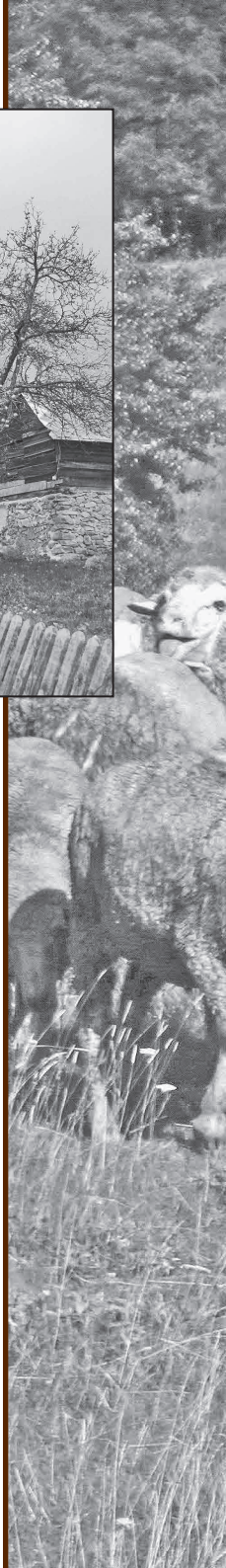
The region of Northern Zemplén and thus the whole Milic mountain group is considered as an ecological optimum habitat in terms of the two main tree species of the forest stand, beech and sessile oak. From a climatic aspect, sub-continental and Carpathian climate effects can be observed, which provide the region with a moderately dry and a moderately cool nature. Considering the soil capabilities, two-and three-level forest soils dominate. The habitat conditions of the region are typically affected by the exposure and the extra-zonal climate conditions, such as canyons and rock streams (stone rivers).

The method of natural regeneration applied in planned forest management is the shelterwood (gradual regeneration cutting), which is based on the growth and crop of indigenous stand, and ensures the preservation of local populations. The advantage lies in its safety because it allows the managers to preserve the genetic material of a forest section regarded as a population that has already adapted to the environment, while the new generation of the stand ensures the continuous forest cover of the area. The method provides particularly high level of security in renewing the stand of the light-demanding sessile oak.

The recently launched method based on cutting holes (small canopy openings) is intended to help farmers achieve a forest structure based on



*Old apple varieties during autumnal ripeness in Füzér.*



the constant distribution of age groups, where all age groups – from a more than 100-year-old single organism to the young sapling – are represented in the same area. This select-cutting method is a proven forestry practice in the mixed beech, spruce and silver fir stands of the European high mountains. The safe use is proven by experience in case of stands with the main tree species of beech, found on the ecological optimum habitats.

The Milic group – not being a calcareous mountain range – is rich in streams, and this topographical feature is very significant due to the landscape-level diversity of the micro climate, the flora and the fauna. Today, the increase in the public welfare role of the forest and the increasing environmental problems justify the analysis and presentation of the hydrological situation of forests more and more.

The forest springs and streams are more and more significant, also due to the increase in the public welfare tourism role of the forest.

For hikers, the importance of springs and streams is twofold:

- in case of a larger trip, these provide the necessary drinking water, which is also good for refreshment,
- these can be the destinations of the walk or trip as well.

It is important to acquire a more detailed knowledge of the environment, water yield and water quality of forest springs also because the environmental and water pollution problems affecting the whole of humankind have been increasingly acute today.

Thus it is important to monitor and present the hydrological processes in a zone so heavily visited by tourists in order to ensure and maintain the biological balance.

The springs are determinate by above-surface catchment area (which can be roughly determined) and the underwater catchment area, i.e. underground streams (which can almost never be determined exactly). The emergence of water has an important role in the affected flora and fauna, and their condition has a major influence on the quality of human environment as well.

The massif of the Great Milic is important for tourism. During the tourist seasons the visitor density is very high in a relatively small area. The forest is protected so that we can learn more about “water management” and if necessary it can be rehabilitated in the context of environmental protection and environmental planning. These may be:

- Hydrological study of forest water resources: springs, creeks, and lakes;
- Hydrological and forest management analysis of landslides;
- Utilization management and methods for preventing erosion;
- The water catchment area should be considered as a management





unit due to the major hydrological effect of tree species and their age distribution;

- Both technical and ecological objectives are taken into account in the control of streams;
- Renovation and maintenance of existing spring catchments;
- Hydrologic sizing of technical facilities (culverts, bridges);
- Maintaining natural and man-made lakes and creating new ones;
- Establishment and maintenance of wetlands;
- Check, maintenance and refurbishment of small water works and bridges.

The infrastructural elements of the landscape, like forest and meadow roads or small bridges mean the traffic veins of the adaptive landscape management. In forest areas these roads ensure the achievement of the “multiple ownership – multi-purpose – close-to-nature” forest management. We have already talked about the closeness to nature when informing about the applied regeneration methods. In addition to farming, the multiple purposes mean the protection of environmental elements and the possibility of playing a public welfare role. A professionally maintained network that is adapted to the region, exploring small forest catchment areas and allowing for safe traffic, is a prerequisite for both cycling and horse-drawn carriage tourism.

In the region of Milic, the forestry road construction has solid traditions. At the established earthwork, the drainage is provided with culverts. The base of the first structured roads was built from dry, large stones found nearby, between the two lines of kerbstones bordering the road surface. The flat part of foot stones were placed on the ground, with their more coarse and sharp part looking upwards. The macadam surface, i.e. the wearing layer was scattered on it and then condensed. The renewal of the wearing layer and the maintenance of road consistency is a road maintenance task.

Several facilities, tasks, challenges and opportunities have been mentioned about the establishment of a grassroots nature park. In the western part of the old continent, a nature park is the framework for the harmonious coexistence of local communities and natural environment. **It is not the tool in the hands of professional authorities to prohibit, punish and waste away, but a grassroots forum where the official, civil and farming actors of the region agree on common goals and tasks.** Keeping this in mind, our goal and task is to ensure the joint, long-term and sustainable preservation of local communities, the natural cultural landscape and the priority areas of natural value in the region of Great Milic. Hopefully the information acquired and the trip taken in these nature trails can help our visitors receive and understand this message.

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