

---

## THE ROLE OF LANDSCAPE ARCHITECTURE IN RURAL DEVELOPMENT

**Tóth A., Feriancová E.**

Department of Garden and Landscape Architecture, Faculty of Horticulture and Landscape Engineering, Slovak University of Agriculture, Tulipánová 7, 949 76 Nitra, Slovak Republic

E-mail: at.attilatoth@gmail.com

---

### ABSTRACT

Development of the countryside consisting of rural settlements and landscapes stands for an integrated transdisciplinary issue. To make rural development efficient, it is important to encourage and support sustainability concerning both, economic and environmental aspects. Regarding environmental sustainability, an important role is played by landscape architecture. Within the urban area, the emphasis should be put especially on public and semi-public space design in order to enhance social interaction and community life. Besides economic productivity of the open agricultural land surrounding rural settlements, the social utilization of these areas should be also considered and improved. Relevant tools for restoration and further smart and sustainable development of rural spaces are provided by landscape architecture. They consist in improving the green infrastructure (GI) of rural spaces. In this paper, we will introduce the approach of GI improvement by the 3-level planning concept as a design tool.

**Key words:** countryside, green infrastructure, landscape architecture, rural development

**Acknowledgments:** This paper has been elaborated within the research projects of the Ministry of Education, Science, Research and Sport of the Slovak Republic VEGA No. 1/0769/12 and KEGA No. 019SPU-4/2011.

## INTRODUCTION

Landscape architecture has a significant potential to contribute to a smart and sustainable rural development. As Supuka (2012) states, the Slovak countryside has a great potential in natural and human resources and knowledge for a progressive development. It has a strong cultural and historic background and potential for restoration, ecological alternatives, modern agritourism, cultural heritage protection and improvement of its aesthetic appearance.

Rural development has several priorities. According to Feriancová, Kuczman and Tóth (2012), one of them is the improvement of the rural town image that is significantly impacted by the visual appearance of its public spaces. Making them more attractive for inhabitants and visitors is one of the main intentions. It is also important to respond to the deficiency emphasised by Jančovičová and Štěpánková (2012) who state, that local communications as a specific public space category are underrated in the context of public space design. The task of village development is to adjust the needs of inhabitants to the ecological stability of the landscape. Salašová (2012) states, that restoration of the organic linkage between rural settlements and landscapes including the specific character of rural architecture and its natural and unique impact on the rural town and the surrounding landscape belongs to the priorities of rural development. The rural public (green) space design has to respond to specific design criteria and requirements including vegetation characteristics. In terms of landscape architecture, it means to utilise once again autochthonous and local traditional plants like old regional fruit-tree species, solitary trees typical for central green spaces, traditional flowers, shrubs and herbs.

Village restoration stands for an integrated part of rural development in Slovakia. The implementation of the local governments' manifest to design the rural environment in thoughts of the countryside peculiarity is its principal idea. The village restoration does not aim at returning to past structures but at finding the traditional in modern, even in the image of the contemporary village. The village should remain spatially compact and united with the landscape panorama. The future of the countryside should be accompanied by positive changes including humanisation and cultivation of the rural environment. It includes a more efficient utilisation of empty or unutilised spaces in the urban environment of the village. There is a great potential in public spaces concerning socially viable future communities. By cultivation of the environment, public spaces will enhance the aesthetic and attractiveness of future villages. Preservation of the 'rurality' should be considered as a precondition for village restoration and rural development (Šarařín, 2012).

Rural tourism and agritourism represent an important contribution to rural development mainly in terms of local economy (Babinský and others, 2012). As Bihuňová and Štěpánková (2012) state, Slovakia has a range of natural, geographic and cultural potentials for rural tourism and agritourism development. These are tools providing an interaction between rural and urban inhabitants and an opportunity for economic activities of rural residents. They belong to sustainable forms of tourism with economic, health, recreational, cultural, cognitive, scientific and social functions. Therefore, they can be considered as tools supporting a sustainable rural development.

## MATERIAL AND METHODS

Our work bases on a detailed analysis of historic landscape and settlement structures of the rural settlement Tvrdošovce and its spatial development. We applied GIS analyses of historic maps from different time periods, visual interpretation of historic photographs and analysis of geographic and natural conditions. We developed and applied the 3-level planning concept, *see fig. 1*.

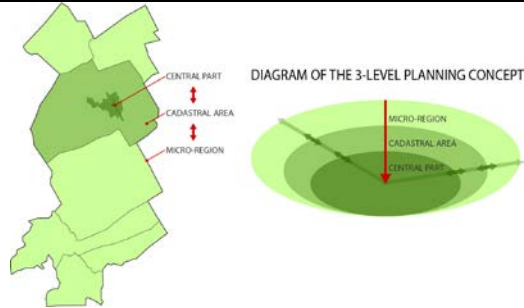


Fig. 1. The 3-level planning concept (micro-region - cadastral area - central part of the town)

At micro-regional and cadastral level, we applied the method of visual interpretation and GIS analyses of topographical and orthophoto maps. At cadastral level, we used GIS to create landscape planning schemes analysing different layers of landscape structures. These schemes were used as a basis to elaborate a GI concept. Within the public space design concept for the town centre, we tried to enhance the local identity and preserve the 'rurality' of the town. We zoned the designed area into four main parts: 1) sport and recreational areas, 2) town centre, 3) promenade at the historic streetscape 4) living street at the boundary between the urban area and the open land.

## RESULT AND DISCUSSION

The results of our work are represented by GI concepts at three planning levels and scales: micro-region, cadastral area, central part of the town. The micro-regional GI concept contains primary greenways structures (watercourses with their accompanying vegetation) and secondary greenways structures (field routes sustaining the permeability of the landscape and its recreational potential). One of its main goals is to restore the linkages in the countryside. There is a range of services provided by the GI that can be summarised into three main groups or dimensions: environmental, social and economic. The micro-regional GI concept includes common strategies aiming at a sustainable rural development.

A more detailed GI concept has been elaborated for the cadastral area of the rural settlement Tvrdšovce. Its main goal is to define and improve linkages between the urban area and the open land. At the central part of the town, there is a public space design concept for the historic streetscape and the town centre, see fig. 2.



Fig. 2. Green Infrastructure of the cadastral area and the central part of the rural settlement

The 3-level planning and the green infrastructure concepts provide a better integration of the town Tvrdošovce to the micro-region Cergát-Váh and bring onto the scene of rural development new progressive tools. The micro-regional GI concept has the potential to intensify the currently stagnating cooperation between settlements. At the cadastral level, the GI concept should be implemented as a thematic and content extension of the Territorial System of Ecological Stability (TSES) elaborated within the master plan of the town. The GI concept should be understood as a landscape planning tool to restore linkages and their cultural legacy in the rural landscape. Our public space design aims at responding to deficiencies of the project Revitalisation of the central zone of the town Tvrdošovce from 2010/2011 which focused only on traffic structures and neglected a complex urban and landscape architectural solution. The revitalisation project did not respond to the cultural legacy of the village centre. Within our planning and design concepts, we aimed at sustaining and enhancing the local identity and the cultural legacy of the rural settlement and landscape.

## CONCLUSIONS

The GI concept at micro-regional level aims at being a contribution to a sustainable development of the micro-region as a coherent whole. It is a tool to strengthen the ecological stability and to serve as an improvement of TSES concepts. The GI concept at cadastral level supports creation of a unified and harmonic image of the urban area and the open land. It is a relevant supplement to the current master plan. By improvement of the secondary greenways structure, the historical legacy of linkages in the countryside landscape will be renewed and the accessibility and permeability of the landscape will increase. In the central part of the town, our design concept aims at unifying the historic streetscape and town centre. It stands for a methodical manual for the local government to be able to develop a new compositional arrangement of the town centre which will respond to its cultural and historical legacy and at the same time to the current needs of inhabitants.

We propose to elaborate GI concepts also for the other municipalities of the micro-region. Within the urban area of the town, we propose to improve the GI by developing design projects for other public green spaces as well.

## REFERENCES

- BABINSKÝ, Ján and others. 2012. *Dovolenka na vidieku - Poradca podnikateľa vo vidieckej turistike a agroturistike*. Bratislava : VEDA, vydavateľstvo SAV. 650 p. ISBN: 978-80-224-1273-5.
- BIHUŇOVÁ, Mária - ŠTĚPÁNKOVÁ, Roberta. 2012. Trendy a prístupy v podpore a rozvoji vidieckeho cestovného ruchu. In *Životné prostredie - Revue pre teóriu a starostlivosť o životné prostredie*, vol. 46, no. 4, pp. 204-208. ISSN 0044-4863.
- FERIANCOVÁ, Ľubica - KUCZMAN, Gabriel - TÓTH, Attila. 2012. Prístupy a príklady riešenia verejných priestranstiev dedín. In *Životné prostredie - Revue pre teóriu a starostlivosť o životné prostredie*, vol. 46, no. 4, pp. 209-213. ISSN 0044-4863.
- JANČOVIČOVÁ, Monika - ŠTĚPÁNKOVÁ, Roberta. 2012. Metódy tvorby verejných priestorov na vidieku. In *Acta horticultrae et regioteecturae*, vol. 15, no. 2, pp. 44-49. ISSN 1335-2563.
- SALAŠOVÁ, Alena. 2012. Princípy obnovy a rozvoja vidieka v Českej republike. In *Životné prostredie - Revue pre teóriu a starostlivosť o životné prostredie*, vol. 46, no. 4, pp. 186-192. ISSN 0044-4863.
- SUPUKA, Ján. 2012. Tradície, prístupy a možnosti obnovy a rozvoja vidieka. In *Životné prostredie - Revue pre teóriu a starostlivosť o životné prostredie*, vol. 46, no. 4, pp. 171-175. ISSN 0044-4863.

---

ŠARAFÍN, Michal. 2012. Budúcnosť vidieka v spektre architektúry - dedina verzus mesto. In *Životné prostredie - Revue pre teóriu a starostlivosť o životné prostredie*, vol. 46, no. 4, pp. 199-203. ISSN 0044-4863.