Opportunities for Greenways in Hungary,
Based on the Example of the BudaVidék Greenway

Judit Bárcziné Kapovits, Attila Csemez, Ágnes Sallay
Corvinus University of Budapest Faculty of Landscape Architecture,
Department of Landscape Planning and Regional Development
Hungary
kapovits.judit@gmail.com, attila.csemez@gmail.com, agnes.sallay@gmail.com

1. Introduction

There is a productive collaboration between the Department of Landscape Planning and Regional Development of Corvinus University and the Budavidék Greenway Alliance. The main goal is to create a greenway network in the Zsámbék Basin based on the model of classic greenways, responding to local conditions and possibilities. We regard this network as a new land-use form in an agricultural and forestry landscape also characterised by powerful processes of suburbanization. We see the Zsámbék Basin as a model region, which – due to its diverse landscape qualities and the support it enjoys within the local community – can serve as a good model for the classification of Hungarian greenways.

The area demarcation was carried out by the civil alliance which initiated the project, aligned to natural geographical borders. The field of demarcation is a geographical domain which encompasses the settlements within the catchment area of the Békás Brook. In the first phase a network of routes for the use of walkers and cyclists has been designated by connecting former cart-tracks. The aim of the work carried out under the Department's direction was to identify landscape design tasks linked to greenway development, then collaboratively to develop landscape design analysis, evaluation and proposals.

2. Landscape capabilities

The Zsámbék Basin has been inhabited since ancient times. The settlement structure and the network of old routes evolved over centuries are illustrated on military surveys from the 18th and 19th centuries. Old main roads and track routes are easily identifiable. Currently the Zsámbék Basin is a part of Budapest's agglomeration. The region has changed significantly over the last twenty years. New residential areas, and new industrial, retail and logistics centres have appeared. The population of the area has increased by an average of two to three thousand people per settlement, and traffic flow continues to increase.

Despite this suburbanisation process, the Zsámbék Basin has to this day preserved its traditional landscape character: fertile arable fields dominate the flat interior of the basin. The forests bordering the basin are parts of nature reserves. The environs of brooks and lakes deserve special attention as ecological systems.

Several types of landscape asset in the Zsámbék Basin date from various ages. Individual cellars, wine pressing houses and rows of cellars linked to the flourishing production of wine in the eighteenth century are still characterful elements in the landscape. Some settlements still preserve their wine-harvesting traditions, and it is encouraging to see the revival of viticulture and a culture of wine in the area. There are many stone- crosses alongside roads and tracks, which also mark the old boundaries of the settlements. Many settlements have old graveyards, where beautifully carved headstones are fitting monuments to the mason’s art.
Various old wells also enrich the image of settlements. The disused granary in the village of Budajenő could eventually serve as the centre for the greenway.

3. "Classic" Greenways

The concept of the ‘greenway’ was first identified by William Whyte, appearing in specialist literature in the 1970s, as a result of the realisation of unregulated urban sprawl and the damaging effects of excessive car use. The word 'greenway' combines ‘parkway’ and ‘greenbelt’, and greenways designed with spatial planning methods primarily ran alongside large rivers, and were multi-functional (principally for walking, cycling and horse riding). Routes suitable for non-motorised transport were also planned on many disused railway lines. The routes were both with hard surfacing and without.

Starting from the end of the twentieth century numerous greenways based on the American model were created in Europe, responding to local conditions and possibilities. Landscape design has played a fundamental role in the creation of greenways, and the involvement of local communities has been influential. Greenways both serve to preserve natural and cultural assets, and provide sustainable settlement development.

The typical cross-section of greenway has horizontal and vertical dimensions which depend on the planned trail types (single-use or multiple-use for pedestrian, bicycle, horse, ski, snowmobile). Trails' surface materials are categorized as either hard or soft. Soft surface materials include earth, grass, hardwood bark and wood decking. Hard surface materials include stone or rock, asphalt, brick and concrete. The most important criterion is that the routes can be used safely.

![Figure 1. Cross-section for greenways](source: Charles A. Flinck and Robert M. Searns (1993))

4. Budavidék Greenway network emerging through the designation of existing routes

The designated Budavidék Greenway is a network of routes suitable for cycling, separated from busy roads and linking the twelve settlements of the Zsámbék Basin. The backbone of the network is formed by a series of historical cart-tracks running between arable fields.

The criteria for choosing the routes of this greenway network were the following:
- formation of a continuous network – in part spontaneously brought into use – of agricultural dirt tracks, gravel forest paths, paths alongside water-courses, low traffic asphalt roads and former main roads separated from existing road traffic

- the linking of outstanding landscape features

- provision of access to landscape features and natural heritage assets reflecting traditional land-use patterns

- connection to centres of settlements, characterful aesthetic assets in settlements and unique cultural heritage features

- the location of intersections between greenways and busy roads within the built-up areas of settlements

- the future acquisition of community buildings and hospitality facilities which can be incorporated as recreational areas and information points.

Figure 2. Opportunity for greenways with designation of existing routes

Source: Author's photos (2010)

5. Budavidék Greenways based on the model of classic greenways

Despite the opportunities presented by the extensive (85-km-long) network of designated greenway lines, there are some appreciable problems: the quality of cart-tracks is affected by rainy periods and the use of greenways creates conflicts in relation with parallel agricultural activities. In the interest of greater amenity, we propose creating independent greenways wherever possible. Our proposals offer a good opportunity to ensure better maintenance and higher quality greenway surfaces. The first one is a proposal of the Budavidék Greenway Alliance: there are some old track-ways which have become overgrown and which can be transformed into independent greenway routes by creating a clear cross-section for walkers and cyclists. The second one is a proposal which we developed in the course of student's projects: lines of trees can separate the wide agricultural routes into two parts, one for agricultural use and other for greenway. The third opportunity is to create new greenway lines along the banks of Békás Brook based on the model of classic greenways, by Robert Searns.
6. Tasks to complete

The agricultural and forest tracks are uneven to a greater or lesser extent. The routes are therefore only usable in favourable weather conditions, and are not yet safe enough. To make routes safer and easier to use, there is a need for gentle landscaping and continuous maintenance. Several bridges along greenways are structurally unsound due to stones missing from their arches, and road surfaces have been heavily eroded by rain. An urgent task is the structural reinforcement of these stone bridges, the replacement of missing stones, and the restoration of their immediate surroundings. The lack of trees in many places causes soil erosion damage, and long treeless sections of greenway are unpleasant to use in the heat of summer. For this reason the greenway project should be linked to a programme of agricultural tree-planting. Unfortunately illegal dumping is a nationwide problem. This is a particular problem for the use of greenways. This waste problem could be solved with the cooperation of local councils or landowners, and with appropriate organisation and increased support.

Just as with the BudaVidék Greenway, it is essential for the continued existence of other Hungarian greenways that they at least appear on local structure plans, and that thus, for example, the junctions between greenways and bypasses relieving traffic pressure on the centre of settlements become a design task. Existing and potential greenway routes can be incorporated into spatial and settlement planning at various levels (regional plans, settlement structure plans).

A primary task in the design regulation of greenways is determination of a usable definition in the design of greenways in Hungary, and of the legal, technical, ecological and financial conditions for formation according to desired modes of use. As a next step one must group greenways according to existing and planned uses (pedestrian, cycling, horse-riding, waterborne, and mixed use), and in combination with various land uses (built-up areas, agricultural, meadow, forest, waterside). Based on findings from further research, the formulation of technical guidelines for greenway design may become necessary.

7. Further potentials for development

An important starting point for the selection of possible greenway routes is the analysis of historical and the topographical maps. Former trading roads, smaller cart-tracks and the routes of railway lines are rationally chosen routes, which are suitable for use by both pedestrians and cyclists. For optimal selection, routes must be agreed with land owners and
managers, with the local councils of settlements and with specialist authorities. Finalisation can be influenced by relations with land owners and managers, planned new area functions and infrastructure elements, agricultural practice, hunting activity and plant protection activity. Our aim is to find the best lines of routes if we have to negotiate about the change of land use or landowner.

Tree planting alongside greenways can have a significant role in the formation of systems of green areas in settlements, connected to tree planting in settlements' inner and outer zones.

We can further see greenways from a landscape design perspective, as valuable linear green space elements in the landscape, with many lines of trees and rest areas, with banks and drinking fountains, with planned drainage systems and trail surfaces. Our students designed some patterns for this.

Greenways can also give a good opportunity for education. Recommendations for several study trails related to greenway routes have been made: students developed designs for study trails facilitating the presentation of landscape history and agricultural cultures on the route of the one-time cart-road between Budajenő and Páty, the presentation of ancient Roman culture on the section between Tők and Páty, and the presentation of water and waterside flora and fauna by the side of Lake Biai.

The greenway programme also has tourist potential. It is important to emphasise that for all types of greenway, wider popularisation for tourism can only occur after resolution of land-use conflicts. Design tasks linked to the tourist use of greenways:

- the marking out and design of central rest and information points (buildings);
- the provision of accommodation facilities;
- provision of organised tours and guide information;
- incorporation of local produce and the goods of local providers.

The disused granary in the village of Budajenő could eventually serve as the tourist centre for the greenway.

8. Conclusion

Due to the diverse features of the Zsâmbék Basin, the appropriate roles and possibilities of certain types can be determined through the classification of proposed greenway routes across the area of the Budavidék Greenway. It is essential for the continued existence of already designated greenways and the creation of new ones that greenways be incorporated into regional planning, and later that a legal and technical regulatory system for greenways be developed. Just as with the Budavidék Greenway, it is essential for the continued existence of other Hungarian greenways that they at least appear on settlement structure plans. The creation of new greenways can be assisted if after the research and identification of routes of historical significance in the landscape they can feature at the various levels of regional planning as valuable elements in the structure of the landscape – even as possible greenway routes.
References

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