# Arboretum Mlyňany (Slovakia) – what can we learn and experience more?

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## Introduction

Recreational activities are connected with the leisure time of human. They have passive or active form, individual or social mode, organised/regular or occasional way and could be realised in urban, periurban or rural environment. Rural recreation and rural tourism are important for the economic growth of rural areas and contributes to the protection and improvement of environmental values. It is based on the attractiveness of the environment and landscape. It can develop and protect cultural, historical and natural heredity of the site (Flekalová, 2015). In Slovakia, the recreational activities in the protected areas is regulated by The Act. No. 543/2002 on Nature and Landscape Protection. According to the degree of the protection, different activities could be provided on the site. Arboretum Mlyňany belongs to the fourth level of Nature Protection (there is a five degree scale of Nature and Landscape Protection in Slovakia) (Štěpánková et al, 2012). Signs, trails and wayside exhibits are connectors between the site and visitors. They give meaning to the experience of the moment. Effective trails and interpretative sites are important components for telling the story of a site (Gross et al, 2006).

# Material and Methodology

Mlyňany Arboretum manages the largest collection of non-native trees and shrubs in Slovakia, which also happens to be one of the richest collections in Central Europe. Arboretum is a member of Slovak Academy of Sciences. The article presents proposals for the supplementation of existing educational trails in Arboretum Mlyňany. Our proposal has the aim to bring young generation to the protected area and through the unusual information share wide range of knowledge.

The arboretum was founded in 1892 by Dr. Štefan Ambrózy-Migazzi. His plan to create an Evergreen Park on 40 ha of land in original oak-hornbean forest, led to the establishment of one of the first large scale plantings of evergreen trees in Central Europe. During the period 1953-1985 the area of the park was extended to 67 ha and holds a collection of approximately 2000 different trees, mostly varieties of wild species. The trees in the display areas are mainly native to the northern hemisphere with the dendroflora of East Asia predominating.

In the Ambrozy's original 40 ha Evergreen Park the trees were grouped together regardless of their origin and have been carefully preserved. In more recent areas of planting, which includes an East Asian Section (14 ha), a North American Section (7.5 ha), Korean Section (5.5 ha) and Native Slovak section (4 ha) the trees have been grouped on phyto-geographical principals, according to their vegetative types and taking into account their natural distribution world-wide and especially their ecological relationships. Several analyses of the territory have been elaborated, namely: Analyse of the functional zones of the Arboretum, Analyse of the current equipment of the Arboretum, Analyse of the educational boards and interactive elements, Visitors monitoring, Analyse of the attractiveness of the site. According to the results of the analyses thematic trails have been proposed. They will lead visitors through different dendroflora and explain the facts, which are connected with particular continent.

#### Results

In the Arboretum can be pursued dendrology and allied sciences which examine the many facets of the relationship between plants and environment. Collections of trees and shrubs are useful to botany, biology and forestry students and also for students of zoology and landscape architecture (Hoťka, Barta, 2012). There are 16.9% of conifers, 14.1% evergreens (broad leaved) and 69% of deciduous trees and shrubs.

Arboretum Mlyňany is a protected area. There are several educational trails in the site: information boards, name tags (tree name in Latin and Slovak), audio recordings was removed due to bad conditions. There are also guided tours, indoor and outdoor interactive education, art activities organised for students at Primary and High schools, Leisure Centres, Universities and public. According to the visitors' monitoring, there are more than 30 000 visitors every year. The total number of visitors in the year 2007 was 37 655; in the year 2008: 46 613; in the year 2009: 43 250; in the year 2010: 31 943; in the year 2011: 38 896; in the year 2012: 39 356; in the year 2013: 32 172; in the year 2014:37 379 and in the year 2015: 33 019. Categories of the visitors are as follow: 24,1% of students up to 14 years, 13% students up to 25 years, 8,3% families with children, 45,3% adults and 9,3 % Seniors.

According to the site analyses, we have proposed new, modern information boards with QR codes, which will share the facts interested for all aged categories of the public.

Ambrozy's sempervireo park describe the life of comte Ambrózy and history of the Arboretum. Educational boards in East Asian Section inform visitors about the history of this continent, the main representatives of flora and dendroflora and curiosities. The person, who is shown is actor Jackie Chan, his life, most famous movies, stunts, basic of kung fu.

North American Section is represented by President Abraham Lincoln, natural remarkableness of the nature and history of USA, presented dendroflora in arboretum, the most famous presidents of the country.

In the Korean Section visitors could explore woody plants of Korea, history, natural attractions and Korean culture. They will be involved to dance with rapper PSY (Jae Sang) in Gangnam style.

Native Slovak section describe the life of Milan Rastislav Štefánik – Slovak astronomer, photographer, military pilot, French general, diplomatist and politician. There is also presented history of Slovakia, natural attractiveness, native plants and well known researchers.

### Conclusion

The "lesson" for the visitors are not only pure facts, but the significant of the information. Meanings are more important to people than mere facts. Good interpretation helps visitors find personal connections between tangible places, objects and events and their own lives and values (Gross et al, 2006). The aim of our work was to bring as many interesting information as possible and give people the reason to visit Arboretum not only once, but several times again. Exploring the area, you can fine many unique views, architectural buildings, exceptional species, explore fauna, flora and dendroflora. You can observe nature and natural processes, be part of seasonal changes. All unconscious perception can be completed by the knowledge shared through words, movies, experiences.

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- Gross, M., Zimmerman, R., Buchholz, J., 2006. Signs, trails, and wayside exhibits. 3rd ed. P. 161. ISBN 0-932310-48-6
- Flekalová, M., 2015. *Rekreační využití území*. Brno: MENDELU. P.160. ISBN 978-80-7509-211-3
- Hoťka, P., Barta, M., 2012. *Inventory of Living Collections of the Mlyňany Arboretum* SAS, Bratislava: VEDA SAV, 2012. 131 s. ISBN 978-80-224-1252-0
- Kutný, L. 2015. *Proposals of the educational trails in Arboretum Mlyňany*. Slovak University of Agriculture in Nitra.
- Štěpánková, R., Bihuňová, M., Kabai, R., 2012. *Design principles of public and recreational areas in urban environment.* Nitra: SUA, P.120,ISBN 978-80-552-0952-4 www.arboretum.sav.sk



Figure 1. Current division of the paths and educational trails with stops in Arboretum Mlyňany