

Tourism hiking programs as a possibility of involving the public into Earth scientific education

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ABSTRACT

The profile expansion of our programme has been successful. 10 percent of the hikers participated in the guided tour organised as the “geotop’s day” for the first time and half of the hikers visited some of its field attraction. By professional experience, we can say that tourist notoriety of a destination grows by media appearances and the reports about the successful event extend the range of guests (Lee et al. 2005 in: Kozma G. 2007). During last decade the “Nándor Less” Memorial Hiking Race appeared in the state-wide media. This publicity partly contributes to the fact that visitors arrive from all over the country to see the geotouristic attractions of the village, as we are informed through face to face interviews. At the same time participants of the hiking influenced by positive experience often come back as individual visitors to discover the attractions they have seen on “geotop’s day”.

Keywords: tourism, hiking program, Earth education

POSSIBILITIES OF GEO-TOURS

Earth scientific field education became in the last decades more and more popular – not only in international, but even in Hungarian national level. National Parks purposed in last years to organize Geo Parks in the Balaton National Park (Bakony-Balaton Geopark) and in Duna-Ipoly National Park (Nógrád Geopark). Geotour field-guide trainings were organized for the local population by national park directorates. A geo-touristic guide book, published in 2007 (Kiss G.-Benkhard B. 2007) reports about 50 geosites in Hungary. A newly published Geological Map of Hungary for tourists (Budai T.- Gyalog L. 2009) enumerates and describes for the public 64 marked geological nature trails in the country.

Outdoor learning process about geological objects is an important part of

environmental education, and essential to make clear the importance of earth scientific factor’s role on development of local landscape.

The conception of the so called “geotop’s day” (Tag des Geotops) origins from Germany (Pustal, I. 2003, Look, E.-R. – Feldmann, L. 2006), and bases on the fascination of visiting geological objects in the nature. The aim of these programs is to focus public attention on the importance of maintaining valuable geosites, and link already existing earth scientific knowledge to real elements of a landscape, and inspire to learn more about them. First “geotop’s day” was held in Germany 2002 and since then it has been organized in every year on numerous localities. The number of co-organizers and participants has been rising each year. In 2009, 276 localities and programs were involved (www.tag-des-geotops.de).

HIKING RACING HAS TO DO WITH GEO-TOURS

The important issues of the field education in Hungary are how we can make the target group realise the existence of the geo-touristic values. On the other hand how we can increase the number of hikers at the venue. The desire to know and to understand is placed on higher level by the Maslow's hierarchy of needs (Maslow 1943 in: Mill, R. C. - Morrison, A. M. 1985). Thirst of knowledge as a motivation of tourism is only an additional unit upon the needs of physiology, safety, belonging and esteem. That is why the growth of the popularity of the less known attractions is becoming more difficult.

Study trails uploaded to the Internet can be some part of the solution because they are very useful for planning a trip. The first establishment which could be regarded as a study trail in present terms, was developed in the Horotna Valley belonging to the Szalajka Valley Forest Museum in 1972. Initially, it was named "forest walk or learning route", but in the book of Forest Museum (Kovács 1982) the Nature Trail name was the mentioned. In Hungary, the concept of nature trail is not uniform at present. As closely as Kiss (1999) words: "The nature trails primarily set up in order to develop the visitors environmental awareness, a special kind of tourist routes where the field exhibitions realized the assistance of tables or self guide booklets. Present the natural-cultural characteristics and values of the particular area, and their conservation importance and methods."

Basically, these educational trails are special kind of nature trails, but always have a concrete aim to create and can be chosen for various aspects. According to their communication type for the visitors nature trails can be established with as nature trails with information tables or sheet and booklets (brochures) and mixed type. The basis of general characteristic is for two groups - either complex educational or thematic educational nature trails. The main

topic of the thematic trails can be the forestry, geological, botanical, zoological, landscape and cultural-educational values. Based on the used transportation method tourists can be pedestrians, cyclists (or aquatic: Tisza lake). The numbers of trail continue to be growing. The developing and maintaining are connected to national parks, social organizations, forestry and local governments.

The educational presentations are often unclear for the tourists, so they don't know what to see on the attraction. That's why we have to find a form of tourism which is able to attract mass of people at a time while we are able to ensure sufficient number of some competent nature guides. Some increase of the demand of active tourism has made the organised form of mass tourism in the hiking section come out. This process has finally come for the hiking racing form of tourism. This type of hiking means that allotted distance has to be completed by passing checkpoints on a way-marked trail. Hereby the ecotouristic way of hiking has got a new choice acting on the demand of modern competitive and running society.

The favours of the organised hiking racing are as following:

- Yearly calendar connects all scheduled hiking events in Hungary and is published in the beginning of the year (Teljesítménytúrák itthon és külföldön, 2010, <http://ttt.tr.hu/naptar/>),
- The routes are marked by the organisers furthermore and a map and itinerary are given to all participants,
- Routes have different distance - from easy walking (15 km) till racing (50-150 km),
- Checkpoints help the hikers on the way where some refreshments and information are given,
- It can be completed with either a competition or hiking with friends,
- Participants can get small gifts (certificate, pin).

The effects of these that participants are more motivated to visit hiking events (Maslow 1943 in: Mill, R. C. - Morrison, A. M. 1985), and they widely vary from children to students and from organised hikers to families. The number of participants on hiking competitions in Hungary was more than 60 000 in 2007. They are potential target group for combining hiking competitions which also covers geological and geomorphological values with geo-tourism.

GEOTOP'S DAY IN THE "NÁNDOR LESS" MEMORIAL HIKING RACE

The frame of the "Nándor Less" Memorial Hiking Race at the south side of Bükk Mountains which was chosen to host the "geotop's day" has its 13 years history. This tour with its numerous participants was a very good occasion to involve them into the geological education. Families with children, school groups and numerous of young people were motivated to come in the mountains for a hiking. The number of participants was 1660 in 2007 and they arrived from 426 cities of the country (Fig. 1) (Sütő L. 2008). The centre of the race, Cserépfalu is situated at Northern Hungarian Mountains, 20 kilometers northeast of Eger, 57 kilometers southwest of Miskolc, at the border of the Bükk National Park (Fig. 2.). The village in the Valley of Hór Creek lies in the junction zone of medium height limestone mountain (Bükk) and rhyolite tuff pediment hills surface (Eger-Bükkalja). The variety of the geological and geomorphological endowments around the village is represented well by its motto "Stone culture at the south gate of Bükk".

The Devil's tower study trail at the village was developed to present Cserépfalu cultural sights (cave, lime kiln) and Bükkalja and South Bükk geological, biological and historic (Suba-lyuk-hole) values. The trail starting from village center (Fig. 2.) runs toward the Devil's tower

beehive rock ("Little Amerika", Berezdalja row of cellar), after Perpác mountain pasture turn to north through (Ökörütő valley) and goes into southerly direction in the Hór valley. The tour takes 4-4,5 hours walking at a pleasant place.

The characteristic of the landscape of the southern Bükk can be seen from the Berezdalja peak lookout point with its step-like structure. The highest karst plateau (800-900m) falls to 500-600 m with very steep slopes and limestone cliffs. The relief is dissected by deep valleys. At the 2nd step the surface lowered to 200-300 m high southerly directed range of hills but these already consists of volcanic ash flow tuffs (12-15 million years old dacite and rhyolite).

The cone shaped Devil's tower is formed from rhyolite tuff. Based on assumed aim of carved hollows in the stone we have got the beehive stone name. Also small relief forms of the tuff piedmont ranges of Devil's slipway evolved by intense periodic erosion of loose rhyolite surface and the relatively young (1000 year) gorge of Mész-stream incised in a crumbly ash flow tuff. Older Triassic limestones (220-240 million years ago) and the connected karst forms reveal in the Hór valley. The abandoned mine is the locus typicus of Berva Limestone Formation built up with coral reefs in the Triassic era. In the Suba-lyuk cave, the ancient Moustérien Culture of Neanderthal people was developed with animal and human bones.

The vegetation also diversified in the coincided zone of different morphological unites. Almost all botanical associations can be found. Oak – hornbeam and talus slope forest of the Hór valley are the result of varied morphological environments. The mountain pasture (Perpác) is a remnant of original steppe vegetation.

Representing the cultural history the ruins of limekilns can be seen at the entrance of the valley. This traditional manufacturing was unfortunately finished in 1996. The cave houses of poorest villagers were hollowed in the rhyolite tuff and it was

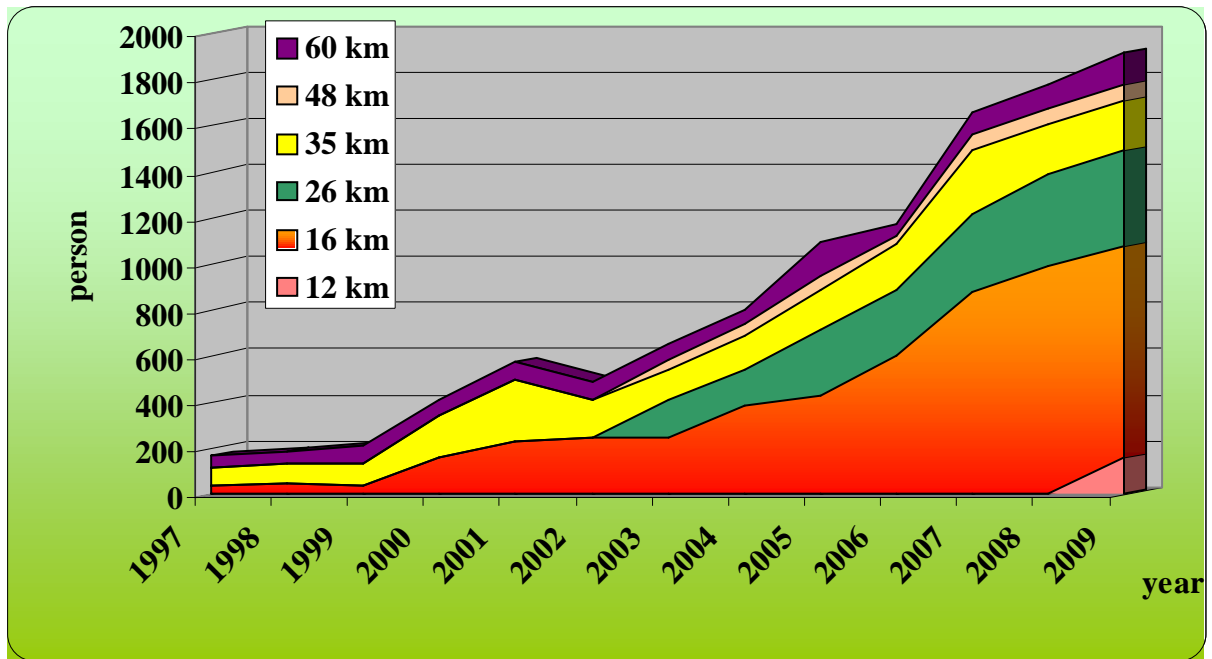


Fig. 1. Indeterminate growth of the number of participants in the “Nándor Less” Memorial Hiking Race
Source: Sütő (2008)

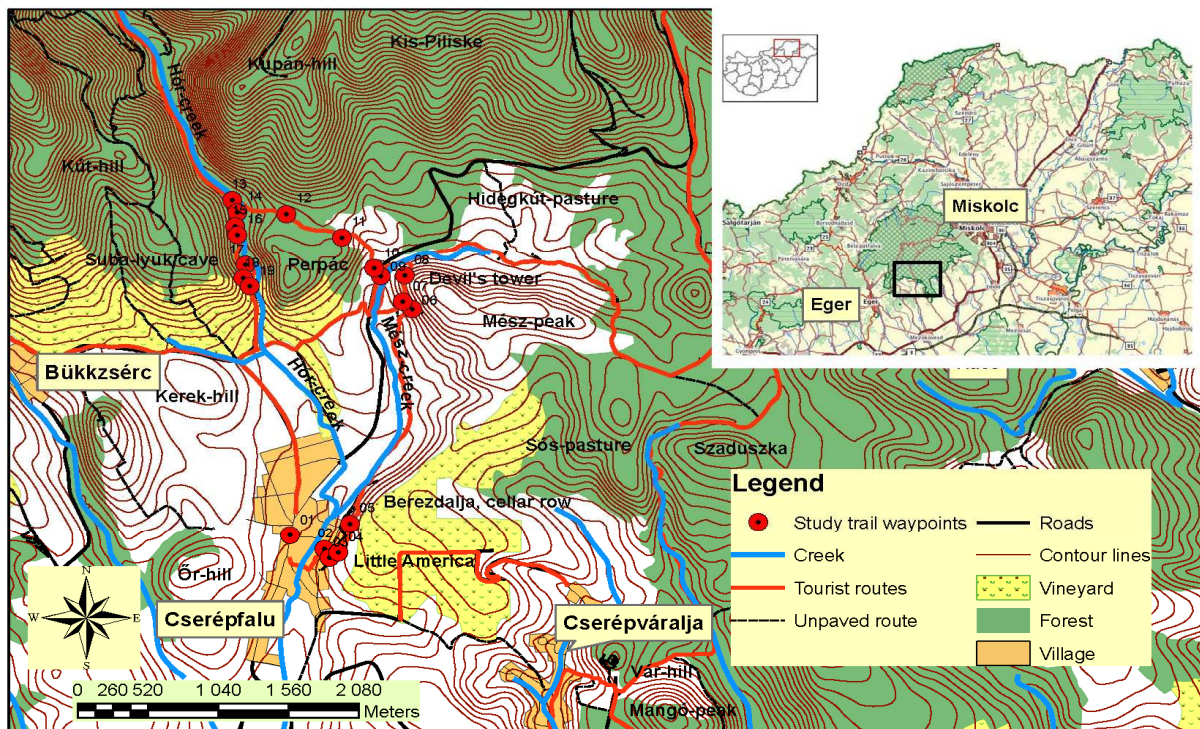


Fig. 2. Topographic map of Cserépfalu and its environs with tourist routes and the stops of Devil’s tower nature trail

called ironically “Little America”. The traditional folk architecture is represented by many older houses.

In 2008 we decided to offer the participants the opportunity to visit an important geological object of the landscape as a supplementary program. Since we agreed with the aims and methods, we imported also the name “geotop” from the germane practice as well, and organized the first Hungarian “geotop’s day” – temporarily in only one locality.

The guided tours started at definite hours 3 times. Besides them also the individual visiting of certain geosites along the hiking path was also organized. The organizers of the programs and tour-guides were geography and geology students and the specialists of the Bükk National Park. In 2009, a special 12 km long route was marked for the aim of the geo-education with 4 geosites. From more than 1900 visitors of the “Nándor Less” Memorial Hiking Race 156 people have chosen this tour. Along this road the geosites were presented by volunteers. For other almost 1000 participants there was given the possibility of visiting 1 geosite within their

16 km hiking trail. The most curious 35 visitors processed the whole marked geological nature trail in frame of 3 times started guided tour. Guiding was made by teachers of the University of Debrecen and a geologist from Bükk National Park as voluntary task.

At the geosites not only geological, mineralogical and geographical information was given about the presented materials and objects, but also on its economical, environmental or cultural importance it was pointed out. For example, the rhyolite tuff stones were used as popular building material for houses and wine cellars in the neighboring villages and on the guided tour also some minerals in stone walls were discovered by the participants. Finding pumice stone lapilli and other volcanic products in a village’s quarry is a good occasion to learn about volcanoes, but there also turns up a question: “why was rhyolite tuff to quarry?” From the components of the parent materials, through surface development processes up to the quality of local building materials and landscape history linkages of geological knowledge could be explained (Fig. 3 and 4).



Fig. 3 II. Hungarian Geosite’s Day – Cserépfalu 2009. Especially children were enthusiastic to improve physical properties of rhyolite tuffs and searching pumice stone lapilli in the village’s old quarry,
Photo by: Tamás Radics



Fig. 4 II. Hungarian Geosite's Day – Cserépfalu 2009;
The pumice is floating on (is'nt sinking in) the water
because of its high porosity. Just try it!
Photo by : Tamás Radics

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