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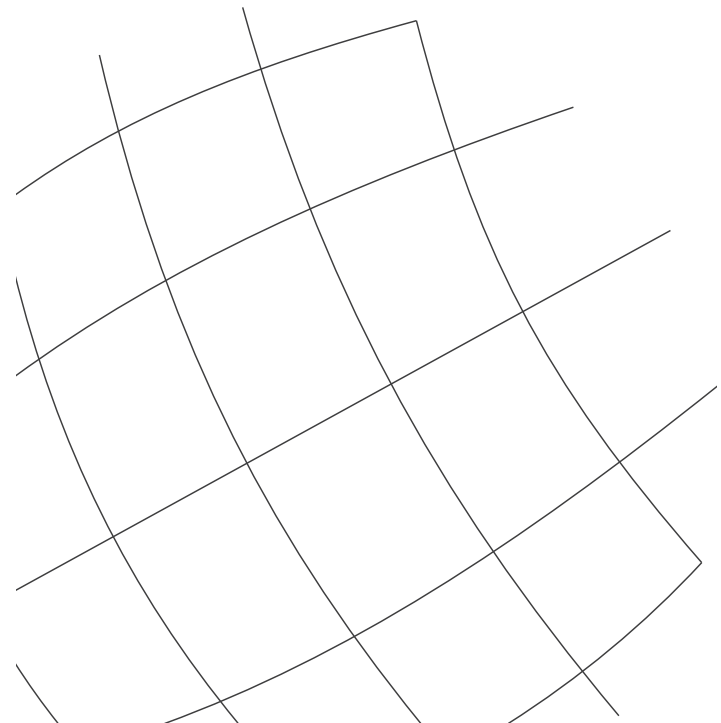

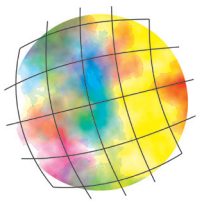

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TOURISM AS AN ECONOMIC ACTIVITY FORM IN COMMUNE OLSZTYN, POLAND

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Abstract: The article describes the tourist aspect of commune Olsztyn situated in the Krakowsko-Czestochowska Upland. The attractiveness of the area and the initiatives aimed at tourism development are emphasised. Also, the investments in the commune's tourism development are discussed. The funds used for the area's revitalisation in 2007-2012 are indicated with the emphasis of the significant role of EU funds contribution in the activities of commune Olsztyn.

Key words: tourism, commune Olsztyn, Krakowsko-Czestochowska Upland

INTRODUCTION

The beginnings of tourism in the Krakowsko-Czestochowska Upland are dated back to the 19th century. In spite of the long lasting tourist traditions in the region, the field of the local tourism development is poorly analysed and rarely discussed in scientific literature. Tourism is a multi-dimensional and dynamic phenomenon. It may be considered as regards the following aspects:[3],[4],[5].

- spatial – tourist migrations, tourist land management and planning,
- economic – tourism market and services, economic effects of tourism development,
- psychological – human needs, tourist travel motives, aims, experiences and behaviour in the target destination,
- social – interpersonal relations, social bonds,
- cultural – tourism as a cultural function, relations between the cultures of the tourist and the local culture.

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[3] Przecławski K., 1994, *Turystyka a świat współczesny, Wyd. Uniwersytetu Warszawskiego, Warszawa (Przeclawski K., 1994, Tourism and Contemporary World, University of Warsaw Publishing, Warsaw)*

[4] Nowakowska A., 2002, „Turystyka jako zjawisko społeczno – gospodarcze", [w:] GołembskiG. (red.), *Kompendium wiedzy o turystyce, Wyd. Naukowe PWN, Warszawa-Poznań*, ss.19-42 (Nowakowska A., 2002, 'Tourism as a social and economic phenomenon', [in:] Golembski G. (ed.), *A Compendium of the Knowledge of Tourism, PWN Scientific Publishing, Warsaw-Poznan, pp. 19-42.*

[5] Gołembski G., 2002, „Wstęp", [w:] Gołembski G. (red.), *Kompendium wiedzy o turystyce,Wyd. Naukowe PWN, Warszawa-Poznań*, ss. 9-12 (Golembski G., 2002, 'Introduction', [in:] Golembski G., (ed.), *A Compendium of the Knowledge of Tourism, PWN Scientific Publishing, Warsaw-Poznan, pp. 9-12.*

However, more and more often particular attention is paid to tourism as global economic force.[6] Thanks to tourism, new vacancies are created and local economy's functioning improves. Tourism is a social and economic growth factor together with such factors as industry, transport, services and trade.[7] In Poland, the influence of tourism on social economic development was researched by, among others, W. Kurek (1990)[8] and M. Drzewiecki (1980)[9].

Both of the researchers noticed that tourism development may significantly influence the improvement of life standards and the economic situation of the tourist area inhabitants. It should be also emphasised that tourism brings invaluable benefits, particularly economical, to the local governments.[10],[11],[12],[13]. They ought to be considered for the following criteria:

- new vacancies in the tourist sector,

[6] Milne S., Ateljevic I., 2001, „Tourism, economic development and the global-local nexus: theory embracing complexity", *Tourism Geographies, 3 (4), ss. 369-393 (Milne S., Ateljevic., 2001, 'Tourism, economic development and the global-local nexus: theory embracing complexity', Tourism Geographies, 3 (4), pp. 369-393)*

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[10] Buczak T., 2000, „Dochody podatkowe budżetu państwa z turystyki". *Problemy turystyki, 3* - 4, rok XXIII, ss. 5-17 (Buczak T., 2000, 'State Budget Tourism Tax Revenue'. *Tourism Issues, 3-4, year XXIII, pp. 5-17)*

[11] Derek M., 2005a, „Turystyka a dochody budżetowe gmin", niepublikowany referat przygotowany na XXII Seminarium Terenowe *Warsztaty Badawcze z Geografii Turyzmu w Szczyrku, organizowane przez Katedr*ęGeografii Miast i Turyzmu, Uniwersytet Łódzki, w dniach 16-18 września 2005 (Derek M., 2005a, 'Tourism and the budget revenue of Gminas', non-published paper prepared for the *XXII Outdoor Research Seminar on Geography of Tourism* in Szczyrk. Organised by the Department of Cities and Tourism Geography, University of Lodz, 16-18 September 2005)

[12] Derek M., 2005b, „Rozwój turystyki na obszarach wiejskich a wpływy budżetowe gmin", w: Sawicki, B., Bergier, J. (red.). *Uwarunkowania rozwoju turystyki związanej z obszarami wiejskimi, Wyd. PWSZ, Biała Podlaska, ss. 26-30 (Derek M., 2005b, 'Development of tourism in the countryside and Gminas' budget revenue', in: Sawicki, B., Bergier, J. (eds.). Conditioning of Tourism Development in the Rural Areas. PWSZ Publishing, Biała Podlaska, pp. 26-30)*

[13] Gaworecki W., 2003, *Turystyka, Wyad. PWE, Warszawa (Gaworecki W., 2003, Tourism, PWE Publishing, Warsaw)*

- improvement of the area's image,
- funds raised by the local subjects dealing with tourism,
- supporting the local financial activities by the EU funds,
- economic diversity allowing for independence from the economy fluctuations,
- infrastructure development.

Polish tourism is an important achievement of the Polish national economy. However, it is necessary to notice that, despite its market character, it requires state, as well as EU financing. Such programmes and obtained funds are used to develop and modernise the local tourist base, such as for instance: accommodation and food infrastructure, public tourist and recreation infrastructure, health resorts infrastructure, tourist information system and tourism promotion.

The country's tourist economy activities are financed from the state's budget by the government administration. Also, the tourism expenses, to a large extent, are incurred by the local government administration.

In 2007-2011, the expenses of the local governments in voivodeships, poviats, cities with the poviat status and gminas increased dynamically. Initially, they equalled 201 mln, to reach the amount of PLN 801 mln in 2011. In 2007-2011, the expenses of the local government units raised by over PLN 599 mln.

The increase of tourism expenditure in 2007-2011 was caused by the developing interest in tourism at the level of the local government units as the sector of economy positively influencing social and economic development of a particular region, as well as by the UE funds contribution. In 2007-2011, at the level of the local government units the process of intensive cooperation with the local and regional tourist organisations took place. It concerned tourism and tourist products development, as well as, the introduction of promotional strategies. However, the decrease of tourism expenses in 2012, resulted from the end of investment programmes preparing Poland for the European Football Championships UEFA EURO 2012™.

In 2007-2011, many new (infrastructure) tourism investments at the level of the local government units were realised. It is worth mentioning that, in the financial perspective EU 2007-2013, all the regions considered tourism development as a significant element of their development – tourism priority was included in all the Regional Operational Programmes (ROP). Due to the fact that investments co-financed by the EU structural funds of ROP were also financed from the particular local governments' budgets, the subjects' total expenses raised.[14] (Table 1)

[14] http://www.msport.gov.pl/statystyka-turystyka/raport-z-badania-krajowego-rynku-turystycznego

Table 1. *Expenses of local governments on voivodeships, poviats, cities with the poviat status and commune for the Tourism division in 2007-2012* (in PLN)*

Specifications	2007	2008	2009	2010	2011	2012
Voivodeship local government (Total)	21 696 749	27 349 177	210 762 625	66 577 393	121 662 727	120 060 515
Poviat local government (Total)	6 422 036	5 695 584	12 139 546	47 743 711	50 334 885	26 371 589
Local government of cities with the poviat status (Total)	31 654 100	31 043 820	74 822 236	145 578 549	148 174 466	137 674 486
commune local government (Total)	142 115 476	130 736 248	167 126 323	460 728 775	480 946 842	362 570 305
Total	201 888 362	194 824 828	464 850 730	720 628 428	801 118 920	646 676 896

Source: http://www.msport.gov.pl/statystyka-turystyka/raport-z-badania-krajowego-rynku-turystycznego[15]

COMMUNE OLSZTYN CHARACTERISTICS

Commune Olsztyn is located in southern Poland in the Silesian Voivodeship, in the southern part of the Poviat of Czestochowa (12 km from the city of Czestochowa). It borders with the following communes: Czestochowa, Mstow, Poraj, Poczesna, Janow, Zarki, Kamienica Polska. Commune Olsztyn comprises 10 towns and villages: Olsztyn, Biskupice, Bukowno, Krasawa, Kusieta, Przymilowice, Skrajnica, Turow, Zrebice Pierwsze and Zrebice Drugie. The biggest town is Olsztyn with the remaining places located concentrically around it.

The commune's area equals 109.13 km^2 and is inhabited by around 7800 citizens. The territory is cut by the national road no. 46 and Czestochowa-Kielce railway.

The first information about Olsztyn come from the 14th century and is related to the castle near Przymilowice. Nearby, a settlement beyond the castle walls was established; it was called Olsztynek. The settlement obtained the town character in 1488 from the king Casimir Jagiellon. Nowadays, with the several-century past, Olsztyn is the seat of the commune's authorities.

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COMMUNE OLSZTYN ATTRACTIVENESS

Commune Olsztyn is a touristy area. It is visited by around a million tourists every year. The main sightseeing highlights are the ruins of the Olsztyn's castle from the 14th century (the castle hill of ca. 16 hectares) and the nature reserve of the Sokole Mountains (planned to become a National Park). The medieval fortified castle was most probably built in the 14th century during the reign of Casimir the Great. After

[15] *http://www.msport.gov.pl*

many invasions and wars, only fragments of fortifications are preserved. Another historically important place is the 18th century parish church dedicated to St. John the Baptist, built in the late Baroque style.

Also a larch church of St. Giles from the end of the 18th century, the belfry in Zrebice and manor in Bukowno are worth mentioning. The vintage street system together with its wooden buildings has been preserved in Olsztyn. The Olsztyn Market Square is on the list of Polish historical monuments for its urban planning.

The commune is situated within the border of the Landscape Park and its buffer zone. It comprises nature reserves of Zielona Gora and Sokole Gory. The features of the natural environment such as inanimate nature elements, variety of biological life and rare plant species make the area of Olsztyn attractive touristically. [16]

Due to the area's landscape beauty, as well as rare flora and fauna preservation, it has been considered particularly valuable touristically. The area is also characterised by white limestone rocks and caves. Such elements of inanimate nature attract tourists. Moreover, it is a perfect place for various sports: rock climbing, speleology, paragliding, walking, Nordic walking, cycling and horse riding. Numerous recreational, sport and cultural events take place here, e.g. Tournament, commune's Cross Country Run and Teetotal Artistic Creativity Exhibition "Zamczysko" etc. A popular walking and cycling tour destination are the Sokole Mountains. Olsztyn has become popular also thanks to the International Pyrotechnics and Lasers Shows among the medieval castle ruins.

For years, the main source of income for most of the commune's inhabitants was work for manufacturers in nearby Czestochowa. However, most of them were closed down in the recent years. The commune is dominated by service companies, small businesses. There are no big manufacturers. The natural environment values and comfortable communication in the gmina encourage for seeking new possibilities of development – with tourism playing one of the main roles.[17] The basis of the area's development must be a rich offer suggested by the accommodation and food services. Moreover, one of the targets should be the longer stay of tourists in the commune, as opposed one-day stays of inhabitants from the neighbouring agglomerations. For many years commune Olsztyn was treated as a one-day recreation resort which did not bring substantial tourism income. It ought to be emphasised that due to the above-mentioned local values, the terrain may be particularly attractive touristically throughout the year.

TOURISM DEVELOPMENT ACTIVITIES

The attractiveness of a particular region is decided, to various extents, by its natural values, its readiness for tourism and recreation and the accessibility, in particular, of its cultural goods and national heritage.[18] An important element is the

[16] www.olsztyn-jurajski.pl

[17] *Lokalny Program Rewitalizcji gminy Olsztyn 2007-2013. (The Gmina Olsztyn Local Revitalisation Programme 2007-2013)*

[18] Kożuchowski K., 2005, *Walory przyrodnicze w turystyce i rekreacji, Wyd. Kurpisz, Poznań* (Kożuchowski K., 2005, *Natural Values in Tourism and Recreation. Kurpisz Publishing, Poznan)*

communication infrastructure, roads network in particular, as the means of road transport are the most often used by tourists.

Therefore, the commune's authorities, developing in 2007 the Local Revitalisation Programme, paid particular attention to the strengths of the area (The SWOT analysis – Strengths, Weaknesses, Opportunities and Threats):

- Very high landscape values,
- Thermal waters reserves in the commune's area,
- Cultural heritage and potential,
- Terrain reserves for garden plots and accommodation construction,
- High afforestation rates,
- Good quality drinkable water reserves,
- Beneficial localisation on the national road 46,
- Well-developed public transport,
- Good quality local food,
- Active social and non-governmental organisations,
- Community and local authorities' involvement with local events.

Also, the weak sides were enumerated, e.g.:

- Lack of plots for construction with technical infrastructure,
- Functional constraints of the public space,
- Unsupervised landfill sites,
- No by-pass around Olsztyn,
- Lack of car parks,
- Variety and fragmentation of land property in the commune,
- Lack of sanitary sewer,
- Poorly developed catering and accommodation services,
- Low level of public safety,
- Internal community conflicts,
- Bad technical state of educational venues and poorly developed sport infrastructure.

However, apart from numerous assets of the commune (social, economic, natural), the variety of touristic development in the following years should be emphasised. Tourism gives opportunities for the natural and cultural values exploration in order to improve the region's attractiveness. It helps to develop through the creation of new vacancies. For this reason, commune received the EU funds for the revitalisation and modernisation of the public space. Apart from the commune's budget:

- Structural funds of the European Union for 2007-2013
- Voivodeship Fund for the Environment and Water Economy Protection

Table 2. *Expenses of the revitalisation in 2007-2013*

Year	Expenses of the revitalisation	The EU fund share in the revitalisation (%)
2007	10 000,00	0
2008	37 746,01	85%
2009	95 000,00	85%
2010	50 940,00	85%
2011	2 460,00	85%
2012	5 947 192,96	85% z kwoty 5 638 859,05
2013	2 000,00	0

Source: own collation based on the sources made available by commune Olsztyn

The data presented in Table 2 show the importance of all the funds obtained apart from the commune's budget for the revitalisation processes. In 2008-2011, the European Union funds constituted as much as 85% of the whole amount paid for the revitalisation.

The obtained funds made various investments and promotional activities possible for direct and indirect tourism development. Commune Olsztyn ranked on the 6th position in the country and the 1st in the Silesian Voivodeship in EU funds raising by the rural gminas.

Table 3. *EU funds obtained for tourism development in commune Olsztyn*

Year	EU Funds (PLN)
2009	600000
2010	1 200000
2011	100000
2012	4 100000
2013	740000

Source: own collation based on the sources made available by commune Olsztyn

The EU donations made it possible for various investors to build and modernise tourist routs and cyclists paths, to create the systems of tourist information, organisation of shows and exhibitions, fairs, outdoor events in order to improve Olsztyn's image (Table 3).

The creation of new vacancies, lifestyle improvement, investors' interest in the area, development of small businesses – all these influence the gmina's revenue too. Certainly, apart from the EU funds, each year, the commune uses a part of its budget for promotion and development of tourism. In 2009-2013 the sums fluctuated between PLN 100 thousand to PLN 300 thousand. Also in 2014, during the public consultations on the strategies of the gmina's development for the years 2014-2020, the importance of tourism was highlighted and its further development was planned. The following development targets were enumerated:

- the use of the commune 's tourist potential, especially the thermal springs,
- tourist and cultural values promotion,
- improvement of the role of the local tourist services market (with the pilgrimage movements and active forms of tourism, e.g. climbing, Nordic walking, cycling)
- exploiting the area for sport, recreation, tourism and culture

EXAMPLES OF INVESTMENTS FOR COMMUNE OLSZTYN TOURISM DEVELOPMENT

Frequently, commune Olsztyn undertakes numerous activities for development and modernisation and creation of tourism infrastructure. Realisation of such projects would not be possible without the EU funds.

Apart from direct expenses on tourism, the gmina finances numerous modernisation projects: roads' reconstruction, sewage system construction etc. Such investments are to be used for years by the tourists and – above all – the local population. The most serious and expensive activities comprise:

- the Olsztyn market square revitalisation,
- complex modernisation of Karlinskiego, Ogrodowa and Napoleona (in part) Streets in Olsztyn,
- a multipurpose sport field and playground construction in Przymilowice,
- development of the rout 'St. Gile's Path'.

Moreover, in 2014 commune Olsztyn finalised a large EU project: 'The tourist development of the forest by the 14th century castle ruins, its link by the cyclists path with the natural reserve of the Sokole Mountains and reconstruction of the car park and the place of tourist services in commune Olsztyn'. (Picture 1)

Figure 1. *Cycling path and leisure site with a car park in*
Source: http://www.olsztyn-jurajski.pl

Within the investment, a park with aisles was created by the castle hill next to the old garner; the site was decorated with four attractive balancing sculptures. Also, four recreational glades and mountain cycling paths were created. Smaller elements of architecture were also included: benches, rubbish bins, lamps and grill stations.

A unanimous tourist signage system was applied. The investment managed to be realised thanks to the EU project: 'The commune Olsztyn Identification System'. All the towns and villages in the gmina are to be equipped in unanimous signage according to the visualisation book of Gmina Olsztyn. Such signage system helps tourist to easily move around the area and facilitates its least well-known values' exploration. Commune Olsztyn focuses its promotional and investment actions on active recreation. A promotional campaign to popularise Nordic walking has been organised. It comprised – among others – a commercial spot on regional TV and in TVN country channel, on the radio, in the country and regional press, on the Internet

and on 400 billboards and banners displayed in main cities of the region. Also, mass public events were organised, promotional materials were produced (folders, maps, leaflets, calendars of events, gadgets). Nordic walking as a new, popular tourist product let the tourists and inhabitants discover the region's values, at the same time, encouraging to active leisure. (Picture 2)

Figure 2. *Nordic walking promotional banner*
Source: http://www.olsztyn-jurajski.pl

In Olsztyn, an outdoor gym has been built. It can be used by the inhabitants and tourists. (Picture 3)

Figure 3. *Outdoor gym.*
Source: http://www.olsztyn-jurajski.pl

The projects also include ideas of attractions for children. A good example is the modernisation project for the area surrounding the playground in Olsztyn. The attractive location of the playground was enriched by the square around the fountain, a walking granite aisle and gravel, sand and wood perception path. There are also new benches and rubbish bins around the playground. (Picture 4)

Figure 4. *Playground in Olsztyn*
Source: http://www.olsztyn-jurajski.pl

Commune has been developing several new projects, e.g. 'Jurassic Thermal Springs – the promotion of the commune Olsztyn investment values'. The main aim of the project is winning new investors from the whole country and from abroad via activities promoting a 5-hectare investment terrain with localised thermal waters, belonging to commune Olsztyn.[19],[20].

CONCLUSIONS

Tourism has become one of the basic economic activity forms in the Krakowsko-Czestochowska Upland. Its development allows for the use of natural and cultural values of the area in order to improve its attractiveness. This, in turn, helps to create new vacancies and increase the tourist economy contribution in GDP growth.[21]

The Krakowsko-Czestochowska Upland is a valuable area with rich landscapes, natural reserves and monuments. Due to this fact, the gminas in the Upland invest in tourism development. It is possible with the public funds' support. Such forms of financing are indispensable to develop the local areas into sport and recreation tourist resorts, as well as to build and modernise infrastructure and undertake promotional activities. Also, the support of entrepreneurs running business activities in tourism is of crucial importance. Thanks to the European Union membership, they can benefit from various funds helping them to develop.

The article presents the initiatives undertaken by commune Olsztyn to develop tourism in the region. It is worth emphasising that in recent years, the use of tourism in the area has been undergoing rapid changes. Their main aim is the creation of favourable conditions for year-round and longer than one-day (holiday) tourist stays in the area. They would influence the tourism dynamics in the region.

The examples of the tourist investments in the area indicate the involvement and operability of the local government for the tourism development. All things considered, commune Olsztyn is a good and interesting example of a region using its potential for modern tourism development.

[19] http://www.olsztyn-jurajski.pl/

[20] Sources obtained from Gmina Olsztyn

[21] Bąk-Filipek E., 2010 „Finansowanie turystyki w Polsce „„Nr 4 (53) , s.204-212. (Bąk-Filipek E., 2010, 'Tourism Financing in Poland', No. 4 (53), p.204-212)

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http://www.olsztyn-jurajski.pl/

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INTERNATIONAL INBOUND TOURISM TO THE POLISH CARPATHIANS - THE MAIN SOURCE MARKETS AND THEIR GROWTH OPPORTUNITIES

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Abstract: *The Carpathians are the largest and most important mountain tourist region in Poland. The origin of tourism development of the Polish Carpathians falls on the 19th century. From the 1950s, the mass tourism was developed - mostly for the domestic market which had significantly changed the image of Carpathian tourism,. Today, the Polish Carpathians account for over 20% of total tourist flows to the country. Still, the region is not so popular among foreign visitors. Only 5-10% of foreign tourists visiting Poland spend there one night or more. The paper presents the current state of international tourism in the Polish Carpathians, indicating the spatial concentration of the foreign tourism, the main source markets and highlighting the opportunities for growth of the Carpathians as an international tourism market.*

Key words: *Polish Carpathians, Tourism development, SWOT analysis*

INTRODUCTION

The Carpathians are the largest mountain range of the Central-Eastern Europe and the second largest, after the Alps, mountain range in Europe. The Carpathians stretch the length of more than 1300 km, from the eastern edges of the arc of Austria by the Czech Republic, Slovakia, Poland, Hungary, Ukraine, Romania to the eastern borders of Serbia. About 10% of the total of the Carpathians is located in Poland. The Polish Carpathians occupy the area of 19.6 thousand square kilometers and run in the southern part of the country (Warszyńska 1995). This region has a very attractive natural environment. More than 70% of the Polish Carpathians is covered by the nature protected areas. There are two UNESCO Biosphere Reserves, six national parks, over 80 nature reserves and 18 landscape parks (Zawilińska 2005). There is also a large percentage of forests, which occupy 40% of these mountains. The high natural values of the Polish Carpathians affect the high tourist attractiveness of the region. Equally important for the tourism development is cultural heritage. Carpathians are one of the most interesting cultural regions in Poland, with well-preserved folklore, religious customs, pastoral traditions, captivating picturesque landscapes of mountain villages and historic wooden buildings (see: Warszyńska 1995).

Polish Carpathians are one of the most important tourist regions in Poland. Tourist tradition dates back to the 19th century. Since the 1950s, the Carpathians were occupied by mass tourism associated with the rapid development of accommodation facilities and skiing ventures. Since the 1990s, tourism in the Carpathians has passed

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through a series of significant changes, particularly in terms of ownership (Faracik et al. 2014). Today, the tourism sector is entirely private and strives to make its tourism offer closely related to the needs of the market. At present, the Carpathians are responsible for approx. 13% of the hotel beds of the country. The standard of accommodation has significantly improved, especially in the hotel sector. Spa and wellness facilities have developed, very popular became the aqua-parks associated with the ski resorts. (Mika, Pawlusiński 2006). Currently, the region is visited by 3 million tourists per year (table 1). Tourist traffic is carried out in two seasons: summer and winter. During the summer, next to the mountain hiking, very popular are recreation, including cycling, and stays in the countryside. In the winter, ski resorts are popular. The spatial distribution is dominated by tourist arrivals to the Tatra Mountains, the Beskid Śląski Mountains, Pieniny and Beskid Sądecki. These four regions concentrate the majority of the tourist traffic. Other regions are much less popular.

Despite the important role of the Carpathians in domestic tourism in Poland, the region is still not so much popular among foreign tourists. The Carpathian Mountains lie in the southern part of the country, close to the Czech Republic and Slovakia. From 5 to 10% of the total number of tourists in the region are foreign tourists (table 1). The key question is whether the small proportion of foreign tourists is typical for the Polish Carpathian region and is it characteristic for all holiday regions of the country. The purpose of this article is to illustrate the state of development of foreign tourism in the Carpathians, indicating the size and structure of the international inbound tourism as well as places of concentration of tourist traffic and main forms of tourism. The study presents the opportunities and barriers for tourism development in the Polish Carpathians on the international arena. For achieving the goal of this study statistical data, including data from the Central Statistical Office (in Polish: GUS), the results of previous research on tourism in the Polish Carpathians and tourism development strategies at national, regional and local level will be used.

INTERNATIONAL INBOUND TOURISM IN POLAND *VERSUS* THE POLISH CARPATHIANS

Poland, from the early 1990s, along with the collapse of the communist bloc, has become an important international tourism destination. In 1997, Poland was listed in the 8th place among the most popular tourist countries in the world (19 million tourists). The development of tourism in the 1990s, however, encountered many obstacles, among which the most important were the following: existing political barriers (location outside of the European Union), poor development of hotel facilities and communications. Most of the guests who visited Poland wanted to see the country from behind the iron curtain (which contributed to the political changes in Europe) associated with Lech Walesa and the Solidarity movement, the country where the Pope was born. In Poland, the guests were mostly from the neighboring countries, especially from Germany, Ukraine, Russia, the Czech Republic and Slovakia. Travel for business or shopping purposes dominated, the transit traffic (especially between Eastern and Western Europe) was also important. Foreign tourist traffic mainly concentrated in main urban areas and border cities. The Polish classic holiday

regions, including the Carpathians and their tourism offer, were outside the circle of the interest to foreign tourists.

Since 2002, the Polish share in the international tourism market has decreased (14 million foreign tourists). This is due to the collapse of tourism after the attack on the World Trade Center in 2001. Small changes to this trend were observed after the entry of Poland to the European Union in 2004 (more than 15 million foreign tourists in 2005). However, the economic crisis in 2008-2009 again hampered the development of international tourism in Poland. In 2009, the country was visited by only 12 million international tourists. The income from tourism decreased significantly. Only in recent years, there has been observed an upward trend. In 2013, 15.8 million foreign tourists visited Poland (Janczak, Patelak 2014). It should be noted, however, that in comparison with 2000, Polish participation in the world of tourism has decreased significantly, from 4.5% to 2.5%. In 2013, Poland was listed on the 18th place among the most popular tourist countries in the world; in Europe –it was in the 10th position (after France, Spain, Italy, the UK, Russia, Austria, Ukraine and Greece).

The experience of the last 20 years indicates that the Polish foreign tourism (inbound) became dependent on the situation in the global tourism markets. In relation to directions of arrivals from the 1990s, a significant change has been observed. With the development of air services, the number of tourists from Western Europe increased, including the British, Dutch, Italians, French, Swedes and Norwegians. In the past 20 years, the spatial distribution of tourism also has changed. The largest urban centers have become most popular. They host more than 65% of all foreign visitors and are responsible for nearly 60% of nights in hotel accommodation facilities. The motivations of tourists to visit Poland have also changed. In addition to business purposes (23% of tourists) and VFR (visiting friends and relatives; 19% of tourists), a growing group of visitors are city-break tourists as well as the guests who stay in a classic tourist regions, during summer and winter season. In total, approx. 22% of foreign tourists are visiting Poland with the *stricte* tourism purposes. Today, in border regions shopping tourism has developed, especially in north-eastern Poland – from the Kaliningrad Oblast and Lithuania and Belarus, as well as in southern Poland – from Slovakia and the Czech Republic. Less important are nowadays the German shopping trips to Poland. One day trips dominate in the commercial tourism. Longer stays are in charge of 12% of foreign tourists (Janczak, Patelak 2014).

The main holiday/summer season area for foreign tourism is the Polish Baltic coast. According to data by GUS, every year this area is visited by 800 thousand international tourists who stay at hotels and similar facilities. These facilities provide about 3.9 million overnight stays. Share of foreign visitors in all tourist traffic to the region is over **24**%. The Baltic Coast is characterized by a relatively long duration of stay. It amounts to more than 5 days in both the domestic and international tourism. Tourism is typically seasonal in nature and is limited to holiday stays. The largest group is made by tourists from Germany who constitute nearly 60% of all international visitors. Guests from Norway (7%), Russians (7%) and Sweden (4%) have also a significant contribution. The Baltic Coast brings together approx. 15% of international tourists and approx. 30% of overnight stays of international visitors with across the country.

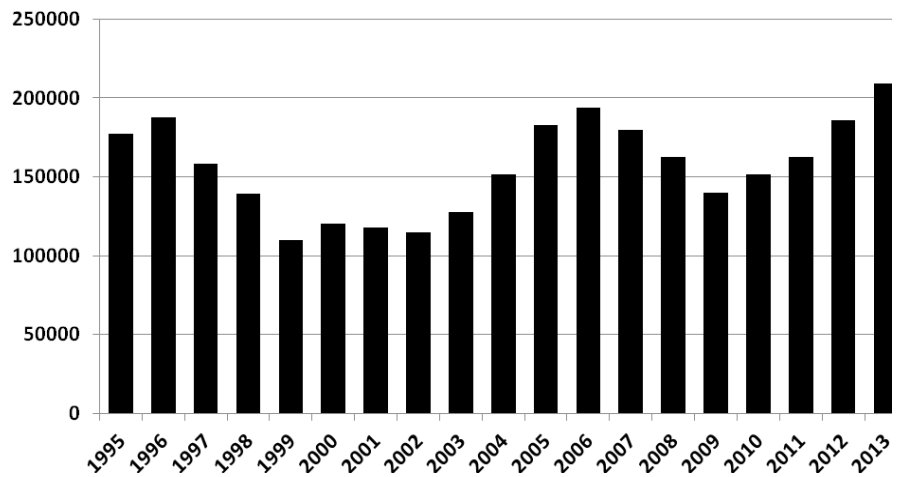

Figure 1. *Foreign inbound tourism to the Polish Carpathians in the years 1995-2013 (number of tourists in hotels and similar facilities)*
Source: Local Data Bank Central Statistical Office (BDL GUS).

Table 1. *The Polish Carpathians compared to other holiday regions in Poland*

	The Carpathians	The Sudetes	The Baltic Coast
Area (`000 km2)	19.6	9.8	4.1
The density of accommodation establishments (number of beds per 1 km2)	4.8	4.2	43.7
Tourists in hotels and similar facilities total (`000)	3120	1114	2459
Foreign tourists in hotels and similar facilities total (`000)	210	164	772
The share of foreign tourists in all tourists	8.5%	14.7%	24.8%
Overnight stays in hotels and similar facilities total (`000)	9086	4013	16136
Overnight stays of foreign tourists in hotels and similar facilities total (`000)	491	519	3894
The share of foreign tourists in all overnight stays	5.4%	3.2%	5.0%
The average length of stay of all tourists	3.69	3.60	5.17
The average length of stay of foreign tourists	2.33	3.16	5.04

Source: own work based on the statistical data of the Local Data Bank Central Statistical Office (BDL GUS).

Among the mountain regions of Poland, the Carpathians record the biggest number of tourists per year (210 thousand). However, considering the number of nights, slightly larger size of foreign tourist traffic had been achieved in the Sudety Mountains. It should be also noted that the Sudetes are smaller, which may indicate a greater density of tourism. The Carpathians are the traditional market for domestic tourism. The region recorded the largest tourist traffic in the country in terms of numbers of tourists. Every year it is visited by approx. 3.1 million tourists, of which more than 90% are domestic visitors. The average length of stay is much shorter than in the region of Pomerania. On average, guests are staying in the Carpathians for

about 3.6 days, while the average length of stay of foreign guests is a little over 2.3 days and is the lowest from all analyzed Polish regions.

Foreign tourism in the Carpathians is characterized by large spatial disparities. The spatial distribution of tourism in the Carpathians is clearly highlighted in the division into regions with high popularity and regions practically without any visits of international tourists. Analyzing the records of engraving in figure 2, it is clear that the majority of tourism is concentrated in two regions. The first is the Podhale and the Tatra Mountains (over 75 thous. international tourists). This is a typical holiday region, with the highest value of the environment (including the Tatra Mountains - the only mountain range in Poland of the alpine character). Particularly all well-developed ski resorts are located in this region. Here, the city Zakopane is called a "tourist mecca", which concentrates 32% of the total international tourism in the Carpathians (62 thous. tourists, 178 thous. of nights). Among other popular regions of the Carpathians are the Podhale and Tatra villages: Białka Tatrzańska and Bukowina Tatrzańska, which have grown recently as ski resorts (Krzesiwo 2014).

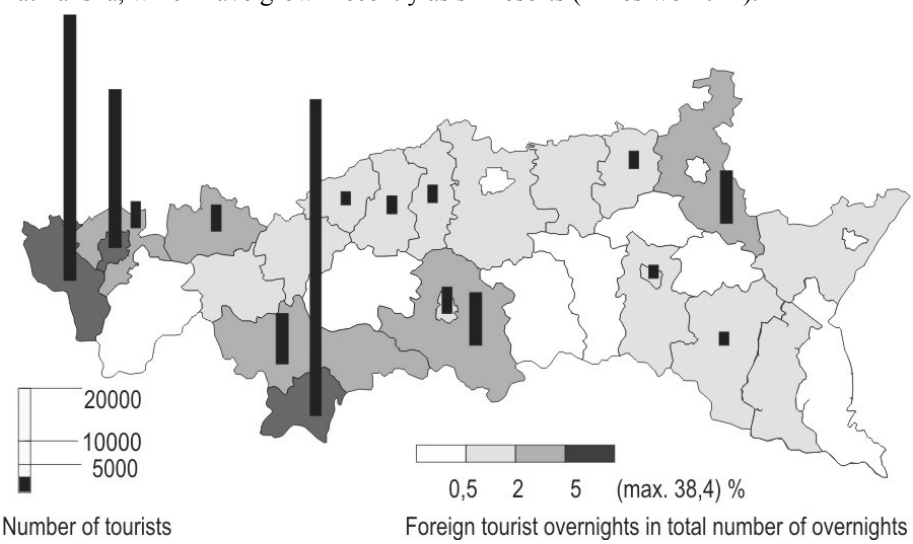

Figure 2. *The spatial distribution of inbound foreign tourism to the Polish Carpathians*

Source: own work based on the statistical data of the Local Data Bank Central Statistical Office (BDL GUS).

The second most popular region of the Carpathians is the Beskid Śląski. Every year this region is visited by more than 80 thous. tourists where the majority (70%) go to Bielsko-Biała and Cieszyn - the two main cities in this part of the Carpathians. In the case of Cieszyn, a significant number of visitors is represented by transit tourism traffic. Cieszyn is a border town between Poland and the Czech Republic which lies on an important communication route between the East and the South of Europe. The city is especially popular as a transit city, providing accommodation facilities for tour groups coming from Russia, Belarus, the Baltic States and Ukraine in the

direction of Italy and France before entering the Czech Republic. Bielsko-Biala is an important economic center in the Carpathians (e.g. it hosts the Fiat factory), which has been for years visited by tourists from Germany and Italy. Wisła, Szczyrk and Ustroń are the cities with a classical recreational character. These three tourist centers hold approx. 30% of the total international tourism in the region. From other regions of the Carpathians, the region of Nowy Sacz (the Beskid Sądecki) is also interesting, with the most popular centers Krynica, Nowy Sącz and Muszyna. Lastly, Wadowice, Kalwaria Zebrzydowska are the most important centers of pilgrimage in the Polish Carpathians, situated in the northern part of the region, between Krakow and Bielsko-Biała.

The spatial distribution of tourism in the Polish Carpathians is characterized by the three areas of concentration of tourist traffic and a transit area. The main areas of concentration of tourist traffic are: the Tatra Mountains, along with the nearby Pieniny Mountains and the Podhale Region, the Beskid Śląski and the Beskid Sądecki. Krakow is the main international tourism center for the Carpathians inbound tourism. Every year, it is visited by more than 2 million foreign visitors (Kurek, Pawlusinski 2009) and some of them pursue one-day trips to the vicinity of Krakow visiting the Carpathians: Wadowice, the birthplace of the Pope John Paul II and the monastery in Kalwaria Zebrzydowska which is part of the UNESCO Heritage List, Zakopane in the Tatra Mountains or rafting in the region of the Dunajec River in the Pieniny. Minor tourism centers are Rzeszów and Katowice. Lower popularity of these cities is due to a much smaller inflow of international tourists to these cities. Tourists from Katowice mainly travel to the Beskid Śląski region, while in the case of Rzeszów – to the Bieszczady Mountains. The main transit area of the Carpathians is located in the northern boundary of this mountain range, between Przemyśl and Krakow (route No. 4). In the villages along this route many accommodation facilities have been developed which primarily focus on transit tourist traffic. Similar process can be observed along the road between Krakow and Cieszyn where tourist traffic has a remarkably transit character. The average length of stay of international guests in Cieszyn is only 1.1 days.

When analyzing the spatial distribution of foreign tourist traffic, it should be noted that a large part of the Carpathian region, especially its eastern part - Bieszczady and the Beskid Niski, and the northern part of the Carpathian foothills are still not visited by any foreign tourists. It is worth mentioning that these areas are characterized by a significantly low level of tourism development, especially in terms of the hotel-type accommodation facilities.

MAIN SOURCE MARKETS

International tourism to the Polish Carpathians can be differentiated according to the 4 main tourism markets. These are:

- the German market
- the East market (Ukraine, Russia, Belarus)
- the - Western European market (UE14 excluding Germany; dominated by three countries: the UK, France and Italy)
- the V4 market (the Czech Republic, Slovakia, Hungary).

These four markets account for over ¾ of international tourism in the Carpathians and ¾ of the number of overnights stays of foreign tourists. Table 2 presents the key characteristics of the markets. One of the goals of this article is to identify the possibilities for further development of these markets.

Table 2. *The main international tourist market in the Polish tourist regions in 2013 (share in %)*

Poland	The Carpathians	The Sudetes	The Baltic Coast
Germany – 24.8%	Ukraine – 15.1%	Germany – 46.5%	Germany – 59.3%
Russia – 7.8%	Russia – 12.2%	Russia – 18.6%	Russia – 7.4%
United Kingdom – 7.3%	Germany - 11.2%	Ukraine – 7.8%	Norway – 7.3%
Ukraine – 5.2%	Latvia – 5.4%	Czech Republic – 2.8%	Sweden - 4.5%
Italy – 4.2%	Slovakia – 4,8%	Lithuania – 2.7%	United Kingdom – 3.1%
Belarus – 3.9%	United Kingdom – 4.7%	Belarus – 2.6%	USA – 1.9%
France – 3.9%	France – 4,5%		Finland - 1.8%
Norway – 2.9%	Belarus – 4,5%		Denmark 1.7%
Spain – 2.9%	Czech Republic – 4,4%		Spain – 1.5%
The Netherlands – 2.3%	Hungary – 4,3%		

Source: own work based on the statistical data of the Local Data Bank Central Statistical Office (BDL GUS).

Table 3. *The main international tourist market in the Polish Carpathians*

	2005	2006	2007	2008	2009	2010	2011	2012	2013
The number of foreign tourists in hotels and similar facilities (`000)									
The German Market	47.4	51.0	40.3	31.1	26.0	24.9	24.3	26.5	**23,4**
The Eastern Market	29.7	36.0	35.9	30.8	32.7	37.9	48.8	64.9	**66.8**
The Western Europe Market	39.4	40.0	38.4	34.6	28.0	29.2	28.3	27.2	**27.1**
The V4 Market	22.4	23.3	24.8	27.8	25.4	25.7	26.3	30.1	**30.8**
Overnight stays of foreign tourists in hotels and similar facilities (`000)									
The German Market	183.0	228.0	174.3	122.2	92.3	81.5	74.9	76.3	**78.2**
The Eastern Market	103.8	120.9	121.2	98.9	93.8	101.8	118.6	142.4	**158.3**
The Western Europe Market	113.9	115.1	112.6	96.6	80.2	78.0	70.8	71.7	**67.2**
The V4 Market	46.5	48.6	53.2	53.8	51.3	52.0	52.8	64.6	**66.3**

Source: own work based on the statistical data of the Local Data Bank Central Statistical Office (BDL GUS).

THE GERMAN MARKET

Germany, over the years, has been the main market of international tourism to Poland, with a sustained upward trend. This segment of the tourism market accounts for 25% of the total foreign visitors to the Polish accommodation facilities, and up to 37% of overnight stays. In total, Poland is visited by 29 million of Germans, of which 5.3 million are tourists (Janczak, Patelak 2014). The German market plays an important role in the western part of the country. In the case of the Baltic Sea coast, Germans account for approx. 60% of all international tourists and in the Sudety Mountains they account close for 50%. However, in the Polish Carpathians, their share is only 11.2%, while the number of overnight stays is 16.8%. The spatial distribution of the German tourist traffic is dominated by the two regions: the Podhale, the Tatra Mountains and the Pieniny with approx. 30% of tourists and overnight stays and the

Beskid Śląski – with 21% of the registered guests in accommodation and 35% of overnight stays. Another 10% of tourist traffic in Germany is associated with stays in Bielsko-Biala (mainly business tourism) which is a major economic center in the Polish Carpathians. The tourist traffic to the eastern part of the region, including the Bieszczady and the Beskid Niski, is almost negligible.

The German tourist market is the market that, in the case of the Polish Carpathians, has recorded the highest decline in the past 8 years. For comparison, in 2006 in the accommodation facilities in the Carpathians there were about 50 thous. German tourists; in 2013 the number went down to only 23 thous. tourist. Similar declines were observed for the number of nights - from 230 thous. in 2006 to approx. 78 thous. in 2013 (Local Bank Data 2013). The decline in popularity of the Polish Carpathians among German tourists can be connected with the global economic crisis. The largest decreases in the case of the German market were observed for stays in health resorts. This is shown by the example of the Ustroń spa where a decline in the number of arrivals of foreign bathers (of 15 thous., in 2006 to 2.5 thous. in 2013) and overnight stays (of 137 thous. in 2006 to 20 thous. in 2013) has been observed for the past 8 years. The poor competitiveness of the Carpathian` spas, not only in relation to the neighboring Slovak or Czech spas, but also in relation to the spas in other parts of the country, and the lack of competing markets for foreign clients can further reduce the outflow of foreign bathers from Carpathian` spas. It is worth mentioning that arrivals for health purposes are declared by approx. 12% of German tourists and this creates the largest declared interest for these purposes among all foreign visitors.

The decline in arrivals from Germany was also observed in the case of mountain resorts such as Zakopane and Wisła. In the case of Zakopane, the number of tourists from Germany has decreased by more than 40% (the number of tourists from 10 thous. to 6 thousand; the number of overnight stays - from 30 thous. to 18 thous.). Similar declines were also observed in the case of Wisła, although the overall size of tourism traffic in this case was smaller. Arrivals for business purposes (mainly to cities) and transit tourist traffic remained at a similar level.

It should be emphasized that the German market is one of the promising tourism markets for the Carpathians. The barriers to its further development are as follows: under-developed infrastructure, particularly in relation to accommodation, as well as the lack of tradition in customer service for Germans (in contrast to other regions of the country). The greater distance from the German market to the region under review is also important. This is in contrast to the Sudety Mountains, which can become a destination for weekend stays or even one- day trips for the residents of the Berlin area. To attract German tourists, the Polish Carpathians authorities should focus on selected market segments for which a modified offer is needed. Particularly large market opportunities exist among so-called silver heads (silver market). The Carpathians can offer not only relaxation stays, but also spa or spa & wellness stays, for this market. They can also develop the field of active recreation, including cycling or farm stays. Equally attractive group of customers may be families with children, interested in holidays in the mountain environment, associated with a stay in the countryside and active recreation. The major tasks facing the Carpathian tourism in relation to this market are as follows: the improvement of the tourism infrastructure,

adapting the offer of tourist farms to the German customer needs, including language specialization, the development of active recreation which would be able to support the German market. Cultural routes can be an interesting niche market for German customers, which in recent years have been developed more dynamically. In this case, promotional activities should be intensified in order to raise the offer to the German market. It is worth mentioning that more than 27% of German tourists declare relaxation and sightseeing as the main arrival purposes (holidays and sightseeing). Hence, this group should not be ignored in the tourism development strategy of the Polish Carpathians.

THE EASTERN MARKET

The Eastern Market is one of the most important tourism markets, also for tourism in the Polish Carpathians. After a period of dynamic growth in the late 90s and 2000s, its development was temporarily stopped by the accession of Poland to the EU and the introduction of visas. However, since 2010, a clear upward trend has been observed. For comparison, in 2008, Poland was visited by 6.7 million visitors from Belarus, Russia and Ukraine, in 2013 the number grew to 14.9 million. The main objectives of visits of tourists from Eastern Europe are: business purposes (40%), shopping (20%), VFR (13%) and holidays and sightseeing - 10%. Overall, the visitors from Eastern Europe account for over 33% of the total international tourism in the Polish Carpathians. In the period of 2008-2013, an increase of over 100% of the number of tourists registered in the accommodation facilities in the Polish Carpathians and approximately 50% of the number of overnights has been observed.

In the case of the Eastern Market, the Carpathian tourism is characterized by a dichotomy. The so-called transit lane (the northern rim of the Carpathians) is visited mostly by transit visitors. Cieszyn and Bielsko-Biala are the most important transit cities for the Eastern Market. These cities are visited by over 50% of the total number of visitors from Belarus, Russia and Ukraine. The average length of stay of these visitors is approx. 1.1 days. The second group consists of tourists who visit Polish mountain resorts for recreational purposes. The most popular city among them is Zakopane and its surroundings - approx. 22% of tourists from Eastern Europe registered in accommodation and 39% of overnight stays fall into this category. The other destinations are - in the Beskid Sądecki area - Krynica and in the Beskid Śląski - Wisła and Ustroń. Tourists from Eastern Europe prefer higher standards of accommodation and visit mostly popular holiday resorts. Most of them arrive at the Carpathian Mountains in the winter, especially during their Christmas and New Year Holidays (i.e. two weeks at the beginning of January).

For this market, the tourist products which combine skiing with spa and wellness tourism and water recreation at water parks can be of interest. It should be noted that this tourist market depends on various organizational and legal factors, among others, issues related to obtaining visas. An increasing competition from the Slovak offer is also important.

The Eastern market is a very demanding tourist market and its expectations revolve around the accommodation base of the highest quality in terms of the standard. Further development of this market requires, on the one hand, the efforts to

improve the quality of services as well as facilitating the international tourist traffic within the European Union (e.g. a visa waiver). The cultural proximity will encourage the influx of Eastern tourists. Nowadays, there is a large barrier in the development of this market because of a tense political situation between Russia and Ukraine which is also reflected in the negative trade relations between the European Union and Russia. All this will certainly lead to a significant inhibition of the influx of tourists from Eastern Europe to the Polish Carpathians. It is assumed that this will be, however, only a short-lived change.

THE WESTERN EUROPE MARKET

An important segment of the tourism market in the Carpathians is represented by the group of established EU members, defined in the literature as the EU15. If Germany is excluded, (as it represents a separate market), this group consists of the 14 EU Member States. The share of this group in tourism to the Carpathians is approx. 22%, which corresponds to the value for the whole country. The growing importance of tourists from these countries in Poland has become visible after the accession of Poland to the European Union. This was mainly due to the appearance of low-cost airlines, which in conjunction with favorable pricing, has intensified the influx of tourists from these countries to Poland. The tourists from 3 countries, which account for over 50% of the Western European market, are particularly important. These are the United Kingdom, France and Italy. The specificity of this market is the lack of direct links between regional tourism offers and aims of tourist visits. This particularly applies to individual tourism. Villages in the Carpathians are visited mostly en route, during city-breaks, especially to Krakow. A few days' stay in Krakow is supplemented with a short trip to the Tatra Mountains, the Podhale, the Pieniny, or the places associated with the Pope John Paul II. Currently, more than half of the West European market is concentrated in Zakopane - the best accessible from Krakow mountain resort. Over 60% of Britons visiting the Carpathians, 50% of French and 20% of Italians stay in Zakopane. In the case of Italy, the visits to Bielsko-Biala and the Beskid Śląski, which are associated mainly with the economic connections (the Fiat factory in Bielsko-Biała), are especially important. In recent years, a significant increase of visitors from Italy to Wadowice and Kalwaria Zebrzydowska has been observed. This is associated with pilgrimage to the places related to the life of the Pope. Wadowice is more and more often included in the programme of one-day trips of western tourists who travel outside the Krakow. Oswiecim and Wieliczka have been the most popular destinations outside of Krakow until now.

West European market should be regarded as the most promising in terms of development for Poland. Although in the case of the Polish Carpathians between 2006 and 2013, as in the case of the German market, there was observed a decline in the number of arrivals from these countries (from 40 thous. in 2006 to 27 thous. in 2013) and overnight stays (from 115 thous. to 67 thous.), the estimates indicate that in the next years a nationwide development trend will be observed. It can therefore be assumed that some visitors to Krakow will travel to the Carpathians. In contrast to other markets in the Carpathians (V4, the German market, the Eastern market), measures targeted towards the West European market should cover – in the first phase

- the preparation of offers, related to the stay in Krakow or other cities with LCC connections, in the South of the country such as Katowice, Rzeszów, or Ostrava (the Czech Republic). This will help attract visitors to the region and better present its tourism offer. Then, return trips might be observed, directed to the Carpathian region.

Adoption of direct promotional activities of the Carpathians for the Western markets does not seem advisable at this time, and according to the author, will not provide adequate relationship between the costs and effects of the promotion. Discussing the possibility of impact on the West European market the power of whisper marketing should also be pointed out. The main medium of this type of marketing can become the Poles who had migrated to work to the countries of Western Europe in the last 10 years. Some of them are now coming back to Poland for holidays; these often take place in traditional tourist areas, including the Carpathians. These groups of tourists can bring to the Carpathians other group of guests from abroad. The strength of this attraction will be directly dependent on reliable air networks. This is confirmed by the fact of the significant share of tourists from the UK, compared to other countries in this group, which is associated with the most extensive network of LCC connections between Poland and the UK.

Of course, the Carpathians can also direct their tourism product to the so-called *niche market*. At this point it is worth pointing out the possibility of preparing a unique offer for ecotourists from the Netherlands or a religious offer for visitors from Italy, Spain and other Catholic countries of Western Europe. However, such action seems to be difficult and can benefit only in the long term.

THE V4 MARKET

Tourists from the Visegrad countries, i.e. The Czech Republic, Slovakia and Hungary are an important target group for the Carpathian tourism. This is due to the proximity as well as the historical and cultural ties, including those from the time of coexistence of these countries in the Habsburg Monarchy. The V4 market has been experiencing a fairly rapid development in recent years. Between 2007 and 2013 the number of visitors from these countries visiting Poland has increased from 11 million to 20.5 million (Janczak, Patelak 2014). Short trips, usually one day, without accommodation dominate. Longer stays of at least 1 overnight are declared by only approx. 2% of the Czechs and Slovaks visiting Poland. However, in the case of Hungarians, dominant tourist arrivals - more than 77% are those with at least 2 days of stay. The main purposes of the V4 arrivals are: classic tourism (over 30%), business tourism (approx. 30%) and VFR (15-18%). While shopping is declared by only 5% of tourists from these countries, the tourism trade has played a significant role in the tourist exchange between Poland and the Czech Republic and Slovakia for many years. In the 1990s and early 20s century, many Poles have organized trips to the Czech Republic, Slovakia and Hungary, mainly to buy food and alcohol products. Cieszyn has become a shopping center for the Czechs and Slovaks, which during one weekend in the 90s of XX century was visited by 20-25 thousand people (Kulczyńska, Mytalowski, Siwek 2011).

The situation has dramatically changed after the accession of Poland and other V4 countries to the European Union. The border trade was no longer profitable. The

re-development of commercial tourism was impossible after the introduction of the euro in Slovakia. Due to the favorable price relations between Slovakia and Poland and the lack of border control, the trips to fairs on the Polish side have become popular with the Slovak: to Nowy Targ, Jabłonka, Jasło or Sanok. The visitors from Slovakia started to visit modern shopping centers in the Carpathian cities, including Bielsko-Biała, Krosno, Nowy Sącz and Nowy Targ. However the tourism trade, clearly visible in the area of the Carpathians, cannot obscure the whole picture of the V4 Carpathian tourism.

Analyzing the Central Statistical Office (GUS) data on tourist accommodation facilities registered in the database, it should be noted that the V4 market for the Polish Carpathians have more than three times greater share than for the whole country. This confirms the importance of the V4 market for tourism in the Polish Carpathians. According to data from the Central Statistical Office, the V4 foreign tourists constitute approx. 14.7% of the total number of tourists using accommodation in the Polish Carpathians and their share in the total of overnight stays in the Carpathians is approx. 13.5%. Guests from the V4 countries are characterized by relatively short stays. On average, they spend a little more than 2 days, mostly in the Tatra Mountains and the Podhale region (approx. 35% of tourist traffic). It is worth emphasizing that the Podhale and the Tatra Mountains are the key destination for more than 50% of Hungarians visiting the Carpathians. The Beskid Śląski is also very popular with the V4 visitors, especially with the Czechs living in the Ostrava agglomeration, as well as the Beskid Sądecki which is visited mostly by the Slovaks.

Travel of the V4 tourists is associated with the well-developed skiing infrastructure in Poland. The decisive factor in this case is the distance between the ski resort and the place of residence. In the Carpathians there are several such strong ties in the area - including the Beskid Sądecki with Kosice and the Prešov region in Slovakia, or Wisła, Ustroń and Istebna in the Beskid Śląski with Karviná-Ostrava agglomeration in the Czech Republic or Žilina agglomeration in Slovakia. Trans boundary tourism also plays an important role, involving a complex offer on both sides of the border. Tourists from the V4 countries often go on the other side for a short time, just only to familiarize themselves with the specifics of the neighboring area. Taking into account the current dynamic development of travel between the V4 countries and Poland one has to assume that this market has distinct developmental character, and may in the future become an important segment of tourism in the Polish Carpathians.

Among the potential directions for development, the following should be indicated: the development of recreational and leisure/sports infrastructure, as well as the spa&wellness centers, where the residents of neighboring Czech and Slovak agglomerations of sub-Carpathian - Košice, Prešov, Žilina - Slovakia or Ostrava and Karviná in the Czech Republic can become customers. Cross-border activities should also be intensified, especially in terms of creating a consistent product of the Carpathian tourism. In addition, the specificity of the individual markets should be taken into account. For Slovaks, pilgrimage centers in the Carpathians, including: Kalwaria Zebrzydowska and Wadowice are still very important; for Catholics from Moravia in the Czech Republic - the pilgrimages to Skoczów are important as well. An

interesting cultural offer may refer to the common tradition and history, for example, the proposal of a common pathway of robber culture or the Vallachian culture trail, linked to the pastoral and Vlachs culture.

CONCLUSIONS

Over the past 20 years, the Carpathian Mountains have gone through significant changes in the function of the tourism market, largely related to the transition from a model of socialist economy to a free market economy model. Transformation in the ownership, both qualitative and quantitative, has led tourism to be more effectively adapted to the needs of a modern traveler. Further development of tourism must respond to constantly changing trends in tourism demand and will lead to the development of new tourism products.

The Carpathians currently exist in the new political environment - no longer as a classical border region, but more as a trans-border area, in which people can quite freely move around. Therefore, the modern model of the development of tourism in the Carpathians must take into account the competitiveness of the offer, not only between localities within the Polish part of the Carpathians, but also between the fragments located outside the Carpathian Mountains, especially in Slovakia and the Czech Republic. Nowadays, competitiveness in tourism has gone beyond national boundaries. The first competitive activities between the Slovak and Polish Carpathians can be easily recognized.

The Carpathians are also important on a European scale. Currently, work is undertaken on establishing similar to the Alpine Convention guidelines for the development of the Carpathian countries - the so-called *Carpathian Convention*. In this document it is assumed that tourism should play a leading role in the economic development of the Carpathians and contribute to maintaining sustainability of this area. Further development of the Carpathian tourism cannot be based only on the domestic tourism market. This article indicates the four main markets of international tourism, which create good opportunities for its development. To make the Carpathians an important tourist destination on an international level, the accommodation facilities need to be improved. The barrier to the development of tourism in the region is under-developed accommodation facilities which are concentrated within a few areas of the Carpathians. Accommodation needs to be spread, including the regions at the Carpathian foothills. The leading problems are still as follows: the under-developed road system, low level of technical infrastructure and high level of air pollution from householdes.

Current tourism development of the Carpathians goes towards the creation of recreational activities for residents of nearby urban areas, mainly skiing, hiking, spa & wellness and aqua parks. International tourism may create an opportunity for the region to emerge as a destination hosting new tourism products. Promotion of agrotourism and ecotourism, as well as developing an offer built in the rural heritage of the Carpathians, for the international tourism markets is worth considering.

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GEOGRAPHICAL INFORMATION SYSTEMS, OPEN SOURCE PHILOSOPHY AND TECHNOLOGY TRANSFER. OPPORTUNITIES AND PERSPECTIVES

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Abstract:
In the presented paper we dedicate opportunities and perspectives of connection among geographical information systems (GIS), open source philosophy and technology transfer in context of triple helix. In the first part of article we focus on the main theoretical principles of GIS, open source philosophy and we try to conceptualize the term of open source GIS technology transfer, which we understand as the process of transferring skills, knowledge, technologies and their methods to ensure that scientific and technological developments are accessible to a wider range of users who can then further develop and exploit the technology into new products, processes, applications, materials or services. Further we see the term as cooperation of university, private sector and government towards to the concept of triple helix. Therefore using this concept we try to suggest a theoretical framework of triple helix geographical space with an emphasis on open source. The last part of article looks more closely at one of the possible application of the proposed framework in practice.

Key words:
geographical information systems, open source, technology transfer, triple helix, THOS, GIS.lab

INTRODUCTION

Geographical Information Systems (GIS) have already completed more than half a century of their existence, during which they have gone through significant changes in technological progress realm as well as changes in target group of users. As states Hofierka (2003, p. 6), formation of GIS and geoinformatics origins go back to the age of so-called quantitative revolution in geography in 1960s, and are closely related to the onset and greater use of information technologies. In the history of GIS development we can distinguish four main stages (edited by Hrubý, 2006). The first stage (beginning of the 1960s to 1975) is characterized by spontaneous development, mainly by influence of important personalities of science and government with an emphasis on digital cartography. In the next second stage (ending early 1980s) it commutes to the gradual unification of intentions of local research centers with central administration (formation of the first local information system – LIS). The third stage (ending early 1990s) is marked by the onset of commercialization

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entailing rapid development oriented to the enforcement of GIS in market. Creating market competition in this sector are beginning to form the first software systems for GIS (ESRI, Intergraph, and others) and systems based on CAD (Computer Aided Drawing/Design), which are still used today. The last (current) period is characterized by orientation on the user (desktop GIS) as well as open systems (open source GIS), where developers are trying to introduce standards and interoperability of solutions. Typical for this period is the development of object-oriented systems, massive linking to databases, different solutions via internet (WebGIS) as well as different network technologies, which drive space-time compression, in which absolute space ceases to play an important role. In the last two stages of the GIS development are manifested impacts of so-called *spatial turn*, which is characterized by a gradual change in man´s perception of space. Pavlovskaya (2009, p. 37) perceives that turn in the growing use of spatial and cartographic expressions, what Lünen (2013, p.vi) sees as a huge potential for development of GIS: *"Geographic information systems welcome the spatial turn with open arms"*. Described turn is constituted serious society-wide shift to the democratization of society known as *cultural turn* leading to actual change of the values of individuals. In this context, we can observe also a change in the target group of users who do not form only experts, but GIS solutions are becoming available also for different users who use at their job the spatial information. With the development of GIS technologies, individuals can be more aware of the space presence. They can perceive, understand, use the space in their favor and especially they learn to represent it, thus the multidimensional ontological view of the world is creating in their minds. From this point of view representation reality via maps becomes an important tool for different user groups from medics (e.g. map of malaria occurrence in the world) through economists (e.g. map of economical dependency in developed countries) to historians (e.g. map of freemason lodges in Austro-Hungarian Empire).

In the indicated context, it is therefore important to find the most effective ways for creating and visualization this kind of data. Since the spatialisation penetrates into all areas of life, we can also consider the fact that tools that allow viewing and creating spatial data can be understood also as the tools for connection of these areas. In the present paper we will try to identify possibilities and perspectives of GIS through the open source philosophy in order to create space for the possible technology transfer based on the triple helix context.

OPEN SOURCE AS BASIS FOR GIS

The idea of open source software as freely available software exists, from which develops the software itself (Neteler and Mitasova, 2004). Stallman (2013) defined the concept of free software with the four freedoms:

0. *The freedom to run program as you wish, for whatever purpose.*
1. *The freedom to study the program's "source code", and change it, so the program does your computing as you wish.*
2. *The freedom to make and distribute exact copies when you wish.*
3. *The freedom to make and distribute copies of your modified versions, when you wish.*

Open source philosophy is thus based on the principle of teamwork on the given solution with condition, which allows the sharing and use of that solution by whole community based on open license (e.g. various versions of the General Public License, BSD License, etc.). Nowadays we have got a personal/physical freedom, which should be reflected in current cyberspace in the form of software freedom (Michalko, 2013). Although it is now significantly dominant proprietary software, they are exactly the open source solutions, which are increasingly developing their stable position among ordinary users. It is also seen in the field of geospatial technology, in which the open source solutions find wide application (Neteler and Mitasova, 2004, Hofierka, 2003, 2010, Hofierka and Mičaník, 2011). Users are able to directly use software tools – operation systems, database solutions or specialized applications such as QGIS, GRASS etc. (Hofierka and Mičaník, 2011). To support these open solutions was founded in 2006 a non-profit organization Open Source Geospatial Foundation (OSGeo), which goal is to support and promote cooperation in the development of open source geospatial technology and data (OSGEO, 2013). Formation of this initiative preceded the establishment of the Open Geospatial Consortium (OGC), which participated in the development and implementation of open standards for geospatial data and services, GIS, processing data and their exchange (OGC, 2013). The latest idea to legitimize open source GIS solutions is the "Geo for All" concept, which is under the auspices of OSGeo and ICA (International Cartographic Association). In 2011 the two organizations signed a memorandum, which aim is the development of cooperation possibilities at global level among academic environment, private and public sector in the field of open source GIS software and data. Memorandum further declares providing expertise and supporting the development of the open source geospatial laboratories and research centers worldwide. At present there are 50 laboratories, while is assumed that number of laboratories double to September 2014 (GFA, 2013). In Slovakia, such a laboratory does not yet exist, and therefore it is our ambition to join into this initiative by our designed concept of open source GIS technology. In recent years there is considerable emphasis on transfer of these technologies into various realms of life, where trend is the efficiency of "production" and cost reduction in general. This transfer can be realized by several ways. For one of the possible mediators of this transfer we consider the concept of triple helix. Due to the above mentioned trends of behavior in socio-economic environment we can see appropriate deployment of triple helix model based on open source.

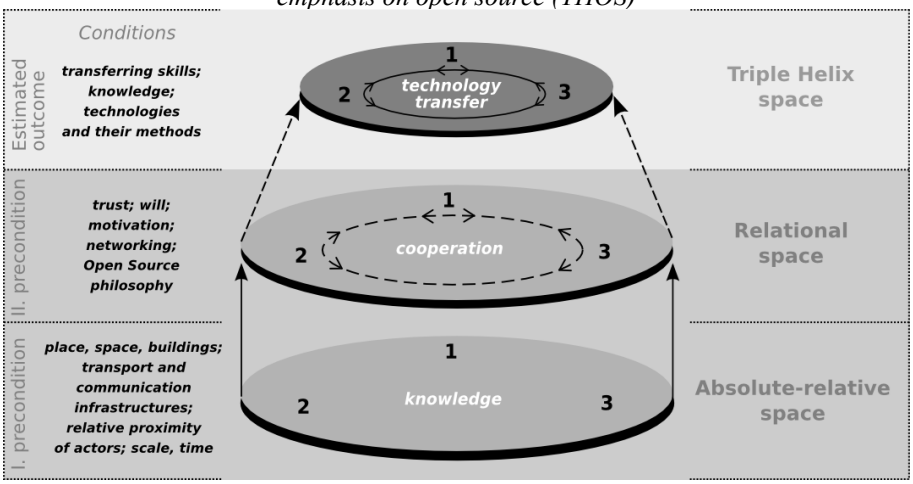
OPEN SOURCE GIS TECHNOLOGY TRANSFER AND TRIPLE HELIX

According to general definition of technology transfer (Grosse, 1996) we understand the term of open source GIS technology transfer as the process of transferring skills, knowledge, technologies and their methods to ensure that scientific and technological developments are accessible to a wider range of users who can then further develop and exploit the technology into new products, processes, applications, materials or services. Further we see the term as cooperation of university, public sector and private sector towards to the concept of triple helix.

In recent decades we have observed a shift from an earlier focus on innovation sources limited to a single institutional sphere (such to new product development in industry, policy making in government or the creation and dissemination of knowledge in academia environment), towards the interaction among these three institutional spheres as the source of new and innovative organizational designs and social interactions. This shift entails not only different mechanisms of institutional restructuring of the sources and development path of innovation, but also a rethinking of our main models for conceptualizing innovation, including innovation systems (national, regional, sectoral, technological, etc.) and the triple helix (Ranga, Etzkowitz, 2013).

The concept of the Triple Helix concernig university - private sector (e.g. industry) - public sector (e.g. government) relationships was initiated in the 1990s by Henry Etzkowitz (1993) and Etzkowitz and Loet Leydesdorff (1995) and it encompassed elements of precursor works by Lowe (1982) and Sábato and Mackenzi (1982) (Ranga, Etzkowitz, 2013). Its developmnet has endeavored Henry Etzkowitz' long-term interest in the study of university-industry relations (e.g. Etzkowitz, 2002) and Leydesdorff's interest in an evolutionary model in which there is an overlay of communications between various and independent spheres of activity (Leydesdorff, 1995 in Leydesdorff, 2012; Smith, Leydesdorff, 2012). The first paper, Etzkowitz a Leydesdorff, (1995), The Triple Helix - University-Industry-Government Relations: A Laboratory for Knowledge-Based Economic Development came about after Etzkowitz' (1994) participation in a workshop in Amsterdam and the metaphor of a triple helix emerged thereafter in discussions about organizing a follow-up conference under this title in Amsterdam in 1996 (Smith, Leydesdorff, 2012). Since then, Hnery Etzkowitz a Loet Leydesdorff further elaborated this concept into a model for studying both knowledge-based and developing economies. Over time the model has evolved, been re-interpreted and critiqued (e.g., Carayannis, Campbell, 2009; Cooke, Leydesdorff, 2006; Lawton Smith, Ho, 2006; Shinn, 2002 in Smith, Leydesdorff, 2012). However it is possible to state that concept of triple helix represents the shift from a dominating industry (private sector)-government (public sector) dyad in the industrial society to a growing triadic relationship between university, industry and government in the knowledge society (Ranga, Etzkowitz, 2013). Main thesis of triple helix is that the potential for innovation and economic development in a knowledge society lies in a more prominent role for the university and in the hybridization of elements from university, private and public sector to generate new institutional and social formats for the production, transfer and application of knowledge (Ranga, Etzkowitz, 2013).

Figure 1: *Theoretical framework of triple helix geographical space with an emphasis on open source (THOS)*



Notes: 1 – Public sector; 2 – Private sector; 3 – University

By definitions of the open source GIS technology transfer and concept of triple helix we aim to their complementary connection in order to create an triple helix theoretical framework embedded into the Harvey´s geographical space conception (Harvey, 2005, 2006; Michalko, 2012) (Figure 1). In the given framework we emphasize a principle of the open source functionality, which becomes the main precondition for fulfillment of our framework (Triple Helix with emphasis on open source – THOS). On the basic of Harvey´s conception of geographical space organization we have divided the mentioned framework into the two main levels of space. The first level represents an absolute-relative space, which is formed by the absolute as well as relative space. The first one is conditional by the Euclid geometry such a container of physical objects in space and the second one represents variable, relative space formed by interpretations, approximations existing in various time and space *(I. precondition)*. At this level are the triple helix actors (university, public sector, private sector) relatively unconnected. The second level represents a relational space, which is conditional by the relations based on trust, will and motivation and networking among universities, public and private sector *(II. precondition)*. In this context, we consider a very important aspect of the functioning of these relations open source approach, which we see in the two views. The first one represents a technological line based on the deployment of open source software and the second one, the more important view, represents a line of the thinking and behavior of involved actors, who start to use a way of thinking community, that contains the main attributes such as trust in common goals, willingness in participation and sharing knowledge. In order to the framework is able to good working, the mentioned preconditions should be fulfilled *(I. and II. precondition)* (Figure 1). At the same time these preconditions respond to qualities of the individual levels of space organization. The expected outcome of the outlined theoretical conception should be a conceptualization of space

for triple helix, by which is possible to achieve the transfer of skills, knowledge, technologies and their methods through building of knowledge base (absolute-relative space) and cooperation of mentioned actors (relational space) based on open source.

Thus proposed theoretical framework of THOS can be applied in the field of open source GIS technologies, while the open source philosophy becomes a base for the technology transfer process. In the next part we will look more closely at one of the possible application of the framework in practice.

CASE STUDY OF GIS.LAB

We have created the theoretical framework by an inductive method of scientific procedure, which initiative was a beginning of cooperation between our academic workplace and the private open source GIS company acting in Prešov city. This cooperation was based on a motivation for the development of open source GIS technologies. Although so far public sector wasn´t involved into the cooperation, we would argue that mentioned cooperation between actors has a potential to achieve the expected outcome of the theoretical framework of THOS.

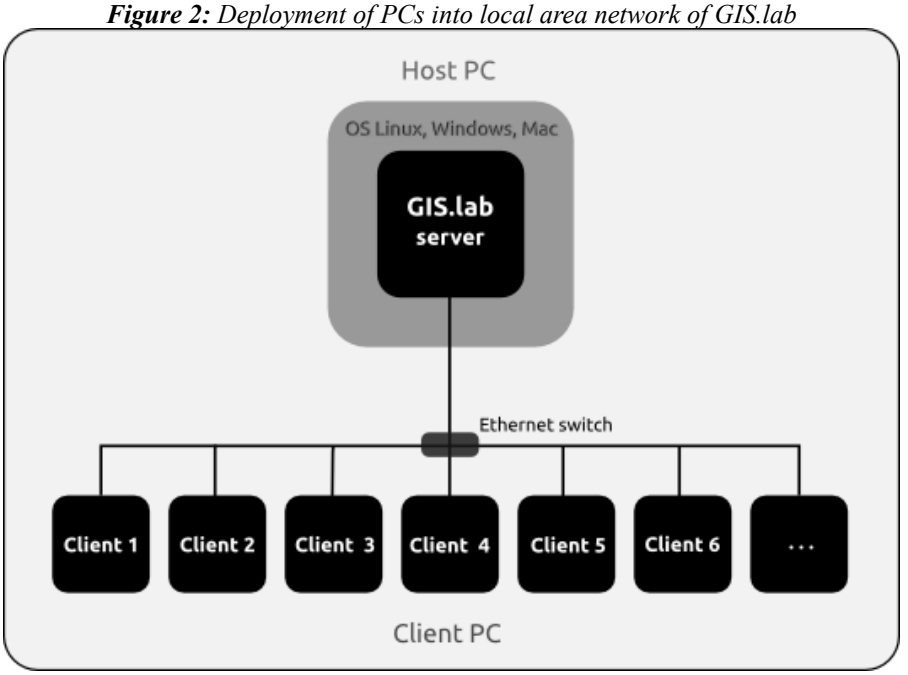
If we look more closely at the first precondition of THOS, we can see that conditions in absolute-relative space were accomplished thus. Knowledge base was built through the relative proximity of actors and through connection on one hand of company´s practical experiences from open source GIS realm and through support of this knowledge by potential of academic environment (open source GIS knowledge, human resources, technical infrastructure) on second hand. The main condition for cooperation of both actors in meaning of relational space was firstly the motivation. For the university it was mainly the sharing information in modern open source technologies realm ranging from Linux and various systemic services, to specialized software aimed at work with open source GIS software (QGIS, GRASS, etc.). In case of the company was motivation especially the university´s support in the development of open source GIS technologies. This bilateral cooperation aims to the main principles of open source philosophy, where the thinking community of actors will contribute to achieve their common goals, from which will rise benefits for the both sides. For "healthy" cooperation working is important the trust between actors, as one of the main conditions of relational space, what aims to the building and strengthening of networking.

The result of cooperation was creation of a GIS.lab project at the end of the year 2013. The project is developed under the license GNU GPL version 3 and is located on the GitHub server[3]. The GIS.lab stands for unique technological solution on the basis of open source which allows automatic creation of completely equipped working environment with geographic information system (GIS), regardless of the location (interior, exterior), and in a very short time (approximately 20-60 minutes). Its advantage, in comparison with standard solutions, is its mobility, indestructibility and especially, a usage without need of maintenance. It is designed for immediate work without the necessity of any set up or more detailed knowledge on the matter, what enables users to focus solely on their work with GIS. The described solution

[3] *https://github.com/imincik/gis-lab*

minimalizes overall expenses for establishment of complex GIS infrastructure, but does not degrade the quality of GIS work and its outputs. Its architecture is based on automatically created and portable GIS.lab server and unlimited number of client computers which can be connected to the server without any required installation (Figure 2).

Figure 2: *Deployment of PCs into local area network of GIS.lab*

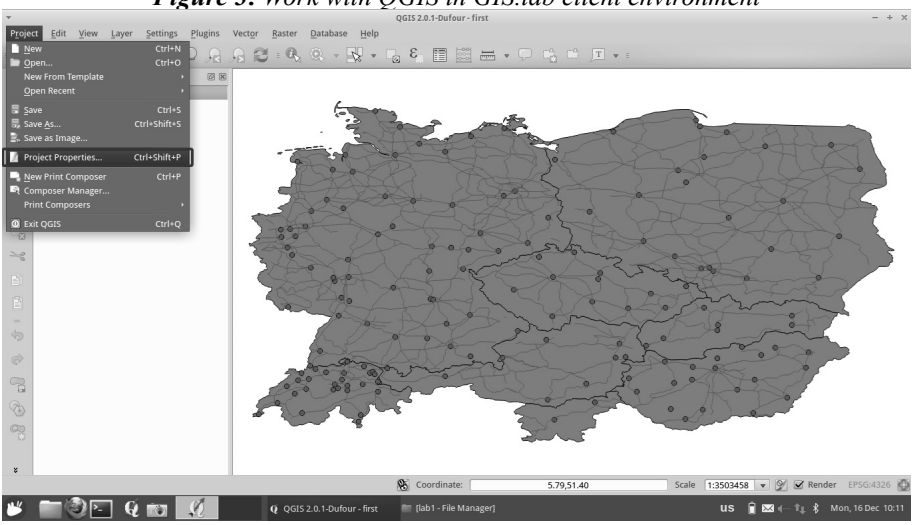


GIS.lab is designed to be used mainly by a target group of users who utilize spatial information in their work. Those may include GIS experts, professional operators using GIS software for analyses and also experts from other areas (ranging from medics – e.g. map of malaria occurrence in the world, economists – e.g. map of economical dependency in developed countries, to historians – e.g. map of freemason lodges in Austro-Hungarian Empire) who will find the presented solution to decrease the technological and financial demands of obtaining and operation of GIS software. However, the target group may also comprise persons who do not require any GIS software, since the GIS.lab is also outfitted for general office work (Figure 3).

GIS.lab offers great possibilities of implementation in private (intradepartmental network, small GIS company, ...), as well as in public sector (local governments, state administration, ...). Above mentioned properties of GIS.lab can be rightly integrated into structure of non-profit organizations because of minimal expanses and unnecessary maintenance. GIS.lab can be also applied in the conditions of crisis management, providing for effective data acquisition and their processing. (e.g. crowdmapping). Proposed solution is particularly appropriate for application in experimental and educational settings, e.g. in the form of effective research

laboratory which can be installed and used in the classroom, as well as directly in the field. Applicative utilization of mentioned technology also includes education of individuals, students of university, employees of different organizations, as well as education and edification in public sector.

Figure 3: *Work with QGIS in GIS.lab client environment*



As indicate the possible scenarios of using the open source technology of GIS. lab in various realms, it can be just the open source philosophy, which has a potential to be an mediator (a bridge) for creation of the right working triple helix space (Figure 1), which is "the living soil" for technology transfer process.

DISCUSSION

In introduction to the paper we have outlined, that spatial turn has changed people´s perception on space therefore has occurred change of understanding and perception of our world. The last years are characterized by the growing number of popular map software as well as the increasing "difficult" technology owned by the ordinary user (smart phones, tablets, GPS) using these programs. This boom reflects also in a slogan of the commercial company ESRI: *"Understanding our world"* (ESRI, 2013). The relatively high performance of IT has become a routine matter of nowadays. All mentioned aspects imply the increased interest in representation reality through software working with spatial information. Demand on this kind of data constantly rises mainly in environment of professional public acting in various realms. In this context, we have indicated in our paper using the open source GIS technologies as well as principles of the very open source philosophy, which has significant advantages in the contemporary information world, in which dominates a monopoly of proprietary software. But on the other hand has open source also few disadvantages, which relate especially with the technical side (still low compatibility of formats, weak service support, lack of awareness). The philosophical side of open source appears in turn idealistically with elements of humanism, altruism

and philosophy of permaculture. These attributes are not valuably very popular in current neoliberal discourse, which is more oriented on profit maximization, what is confirmed by Noam Chomsky´s words (in Fiala, 2014): *"The whole capitalist system is strongly monopolized nowadays. If you buy a computer, you have got there operation system Windows. But not because, that Windows are good operation systems, but that Microsoft has in market a monopoly. Despite this media constantly yell talks about free markets. It is pure propaganda."* Also for this reason is the open source philosophy still "out of game".

The current socio-economic environment vastly emphasizes the inevitability of implementation of acquired knowledge into practice. The frequented notion which constitute the basis of modern economic system and which we have outlined in our paper belongs the technology transfer into practice. In the indicated context, the described GIS.lab technology presents a process of transfer of experience, knowledge, technologies and their methods for securing a widely available scientific and technological development for various users who can further develop and use the technology in their new products, processes, applications or services. Apart from constituting a basis for specific open source GIS laboratory, introduced solution might also create or substitute present info-communicational background in different institutions, organizations and business not using GIS software.

The open source GIS seems as one of the possible tools for creating space for the triple helix aiming to the technology transfer, which could be based on education, testing and development of modern open source GIS technologies with following application using for students of university, organizations as well as for public sector environment. These options of cooperation scheme among individual components of the geographical organization of space is in the present age of significant disparities among regions, their cores and peripheries a challenge for regions and their internal structures.

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FOREIGN TOURISM IN THE REGIONS OF SLOVAKIA WITH A FOCUS ON POLISH VISITORS

Radoslav KLAMÁR[1] – Miroslaw MIKA [2]

Abstract: *Presented paper is devoted to the issue of foreign tourism in the regions of Slovakia with a focus on Polish visitors. In the first part of this paper, we focused on the structure of the visit rate of foreign visitors and the number of overnight stays spent in individual self-governing regions (NUTS 3) of Slovakia in 2012, with emphasis on the enclave of Polish visitors creating the second largest group of visitors (163 754 visitors - 10.7%) after Czech visitors (491 136 visitors - 32.2%). Evaluated state is the result of longer-term processes that were analyzed in the time period of 2001 - 2012. In the second part of the paper, considering the borderland position with Poland as well as the highest number and proportion of Polish visitors, the focus is given to the Žilina and Prešov self-governing regions (together they were visited by 94 515 Polish visitors, i.e. 57.7% share within the Slovak Republic). For more detailed analysis of space-time context, evaluation of the issue was shifted to the district level (NUTS IV) namely 11 districts of the Žilina self-governing region and 13 districts of the Prešov self-governing region. In conclusion, the causes of observed trends are discussed (such as the entry of Slovakia and Poland into the EU, adoption of the Euro in Slovakia, tourism policy in both countries, etc.) and possible future directions in this issue are indicated.*

Key words: *inbound tourism, tourist rate, overnight stay, Slovakia, Poland, Prešov self-governing region, Žilina self-governing region*

INTRODUCTION

The purpose of this paper is to show the numbers, directions, and spatial distribution of Polish tourist arrivals in Slovakia. The analysed period included the years 2001-2012. Source material used for this paper are data published by the Institute of Tourism in Warsaw on tourist trips of Poles as well as Slovak statistics on guests registered at accommodation facilities.

The data on tourism used in the article are secondary and approximate. Polish and Slovak institutions collecting and processing data use different methodologies. It makes the direct comparison of data impossible. However, the data show development trends of the Polish tourism in Slovakia in the analysed period and the impact of

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economic and social macroprocesses as well as the changing characteristics of Polish and Slovak tourist markets on the size and structure of tourism.

It is important to remember that the data on the number of tourists include only persons who have spent at least one night abroad. One-day tourists are not included in these data. It is crucial for analysing tourist traffic between Poland and Slovakia because one day tourists account for an important and perhaps the predominant component of this tourist traffic, especially in the border area (the cross-border region). One-day tourists, however, are not recorded.

MATERIALS AND RESEARCH METHODS

Tourism as an economic industry has great prospects for the future. It significantly enters into the economic balance of many countries. It creates jobs without the need for major investments. Tourism provides significant opportunities for structural changes in the economy of the emerging countries of Central and Southeast Europe. On a global scale, tourism is a major employer. In 2010, according to the International Labour Organization, 235 million people (8% of total employment) worked in tourism, while it contributed 9% to the creation of world GDP. It is expected that by 2019, it will have employed about 296 million people.

According to *Forecasts of tourism for 2020* prepared by the World Tourism Organisation (WTO), by 2020, the world's population will have accomplished about 1.6 billion foreign tourist routes. Tourists will have spent more than $ 2 billion for their routes. These data represent the average annual growth rate of foreign routes by 4.3% and spending on these routes by 6.7%. Unfortunately, WTO states that only 3.5% of the world population will have participated in international tourism. It is assumed that most foreign routes will have aimed to Europe, with the largest annual growth in Central and Eastern Europe (4.9%) and the lowest growth in Western Europe (1.8%).

Development of tourism significantly contributes to the development of the economies of many countries, but on different level. While in 2012, tourism in Slovakia contributed 2.5% to the overall GDP, in neighbouring Austria it was 5.5%. Difference in comparison is more than double; however, Austria and Slovakia are missing only one from 40 criteria that WTO recognizes - the sea. Therefore, more significant support on the Slovak side is necessary, which compared to neighbouring countries such as the Czech Republic, Hungary or Poland is lagging. According to Development strategy of tourism in Slovakia, by 2016, the share of tourism in total GDP should increase to 2.8% and by 2030 to 3.2%.

According to *The Travel and Tourism Competitiveness Report 2011*, Slovakia is increasingly less competitive in tourism. By The Travel & Tourism Competitiveness Index of this report, which includes three sub-indices (T&T Regulatory Framework, T&T business, environmental and infrastructure, T&T human, cultural and natural), the position of Slovakia with the value of 4.35 points is in total 54th place (in 2009 - 49th place) from 139 assessed countries. For comparison, the position of the Czech Republic in 2011 was 32nd place (4.71), Hungary 38th place (4.54) and Poland 49th place (4.38).

Although total income from tourism is made up of about 80% of income from domestic tourism, importance of international tourism is significantly increasing (it is estimated that over the past half century, the number of participants of international tourism has increased from 25 to 612 million and income from 2.1 billion to 444 billion USD).

For the development of individual countries is especially crucial active inbound tourism, as spending of foreign visitors is expressed in the active balance of tourism as part of the balance of payment of the state. The consumption of services produced in their own territory by domestic actors of tourism for products made in another country occurs.

When evaluating inbound tourism in Slovakia attention was focused on the Polish visitors. Basic statistic information was available from Polish sources as well as from the databases of the Statistical Office in Slovakia. While comparing both sources of information, quite significant differences occurred. The fact that in the case of arrival of Polish visitors an economic benefit is on the part of Slovakia, following the number of Polish visitors and their activities is inevitably more under the spotlight of the Slovak statistics, resulting in a clearer and more detailed information. For this reason we focus on the evaluation of resources from the Statistical Office of the Slovak Republic.

The basic data about the visit rate of Polish visitors available in the database of the Statistical Office of SR, were: a) the number of visitors from Poland, b) the number of overnight stays spent by visitors from Poland and c) the average number of overnight stays of visitors from Poland. The advantage of these indicators was their availability on the district level, which was later used in the evaluation of selected districts. Unfortunately, it was not possible to evaluate the economics of the visit rate because the necessary data in the resulting data are not published separately for foreign visitors of the individual countries, but only in the form of aggregate values for all international visitors together (e.g. income from accommodation). Therefore, it is difficult to estimate the share of income from the Polish visitors. According to data from 2012, income for the accommodation of foreign visitors in Slovakia was 129.5 million Euro (i.e. 48% of total income for the accommodation), while Polish visitors accounted by the number represent (163 754 visitors, 10.7% of all visitors) after the Czech tourists - the second largest group. Therefore, it can be estimated that from the above mentioned amounts for revenues Polish visitors created around 10-15% share.

In the evaluation of the visit rate of Slovakia and its individual regions by Polish visitors, we followed two levels of evaluation. The first part of the evaluation was on the level of Slovakia and its individual self-governing regions (NUTS III), the second part pay the attention to two selected self-governing regions (Žilina and Prešov) for their location on the border with Poland and the specific position within the visit rate of Polish guests. For the need of more detailed analysis of the above mentioned regions, it was necessary to differentiate and more closely followed the selected processes associated with tourism and visit rate at lower hierarchical level of districts (NUTS IV). It was specifically the 11 districts of the Žilina self-governing region (Bytča – BY, Čadca – CA, Dolný Kubín – DK, Kysucké Nové Mesto – KM, Liptovský Mikuláš – LM, Martin – MT, Námestovo – NO, Ružomberok – RK,

Turčianske Teplice – TR, Tvrdošín – TS, Žilina – ZA) and the 13 districts of the Prešov self-governing region (Bardejov – BJ, Humenné – HE, Kežmarok – KK, Levoča – LE, Medzilaborce – ML, Poprad – PP, Prešov – PO, Sabinov – SB, Snina – SV, Stará Ľubovňa – SL, Stropkov – SP, Svidník – SK, Vranov nad Topľou – VT).

From a chronological point of view, we selected the period of the years 2001 - 2012 for the needs of evaluation and comparison that encompassed not only the most important events connected with the development of tourism in both countries, but also the processes that were essential for the achievement of an important framework for further development of both countries.

ACHIEVED RESULTS

The current situation of the visit rate in Slovakia by the Polish visitors is the result of the formation of tourism over a longer period, which was significantly affected by economic, political and social transformation in both countries after the changes in the early 1990's. This period was significant in changes in the economy, the privatization process, increase of private sector and changes in the ownership, which was reflected in tourism. Increase in purchasing power of the population, strongly pro-European orientation and efforts to reduce disparities compared to Western European countries started the modernization processes and new trends in tourism, which resulted in an increase in foreign tourism.

The 1990's and the beginning of the 21st century brought a significant increase in tourist activity of Poles. The number of Polish tourist trips abroad in the years 2001-2011 ranged between 6 and 7 million. In 2012, there was a significant increase in the number of tourist trips to 10 million.

Slovakia is traditionally an attractive country for Polish tourists because of its natural and cultural heritage (Faracik 2012). Slovakia is perceived as a country where you can practice different forms of active recreation, such as hiking, mountain biking, cycling, water recreation on water reservoirs and the Carpathian rivers as well as specialised forms of recreation, such as canoeing and caving. Slovakia is also regarded as a wealth of tangible cultural assets in the form of historic cities and districts, attractive landscapes with castles and palaces, as well as caves available to the public.

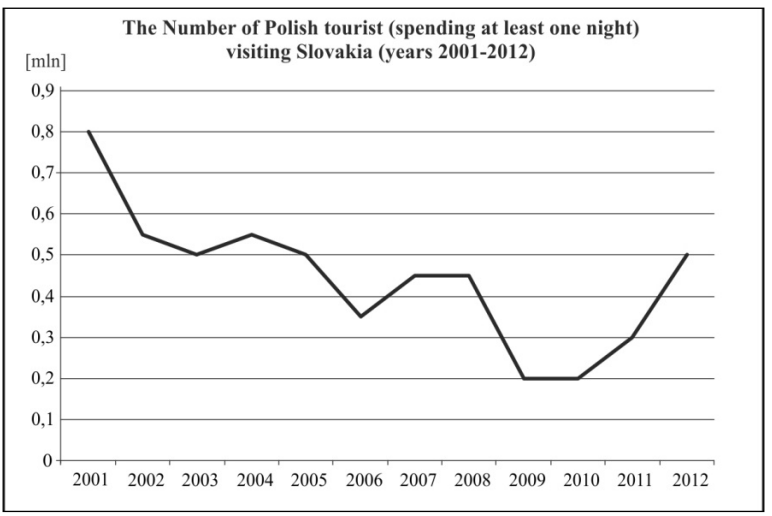
Tourist attractiveness of Slovakia for Polish tourists has increased in the 1990's due to investments in thermal baths facilities, which were implemented in Slovak towns located near the Polish border, as well as investments in the modernisation of ski resorts.

Slovakia is also an important transit country for tourists going to other countries of southern Europe and to Austria and Hungary. In 2012, the border with Slovakia was crossed by 7.6 million Polish citizens, which accounted for approximately 15% of all travel abroad.

A rapid growth in Polish tourist traffic to Slovakia was observed in the mid-1990s. It was caused, among other things, by the growth of wealth and purchasing power of Poles. Another important factor stimulating tourist traffic from Poland to Slovakia was the Slovak crown to the Polish zloty exchange rate that was beneficial to Polish tourists. The data of the Institute of Tourism indicate that at the beginning of

the twenty-first century, the volume of arrivals of Polish tourists in Slovakia reached the highest value – 0.8 million (2001). Since 2002, this number has declined steadily, and in subsequent years it stayed at around 0.4 - 0.5 million (Figure 1). In the years 2000-2011 tourist trips to Slovakia accounted for about 7 - 8% of total Polish tourist trips abroad.

Figure 1: *The number of Polish tourist (spending at least one night) visiting Slovakia (2001 – 2012)*



Source: Instytut Turystyki in Warsaw, 2013

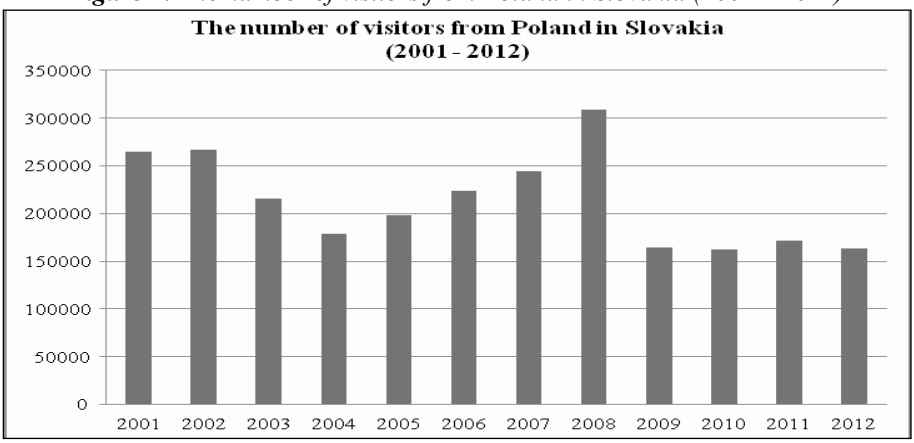
For more detailed assessment of the visit rate of Polish visitors in Slovakia were used statistical data from the Statistical Office of the Slovak Republic. In the analysis, because of the differences in methodology of Slovak and Polish statistics were used just Slovak data, which were more detailed and complex, which results from the fact that it is inbound tourism and its benefits accrue to the Slovak side.

In the first step of analysis, attention was focused on active tourism at Slovakia level and its individual regions.

Analyzing the development of the number of visitors from Poland in Slovakia (Figure 2) during time series from 2001 to 2012, three noticeable trends were evaluated. The first one had a decreasing character. We observe a decrease in the number of Polish visitors since 2001 respectively 2002 to 2004. In 2004, the trend began to turn in the direction of increase. This turnover significantly related to the entry of Slovakia and Poland to the EU and the gradual unification of legislation and the possibility of the use of support programs and EU structural funds for the completion of infrastructure and creation of new products in the field of tourism. In the last five years (since 2009), tourism was significantly affected by the economic crisis, mainly the Slovak inbound foreign tourism and the adoption of the Euro in Slovakia and neighbouring currencies fall, also the Polish zloty, which caused that holidays in Slovakia got more expensive for tourists from traditional countries such

as Poland and the Czech Republic. Decrease in the number of tourists from Poland between 2008 and 2009 was by 46.6%. This stagnation trend with small fluctuations has maintained until nowadays.

Figure 2: *The number of visitors from Poland in Slovakia (2001 – 2012)*



Source: www.statistics.sk

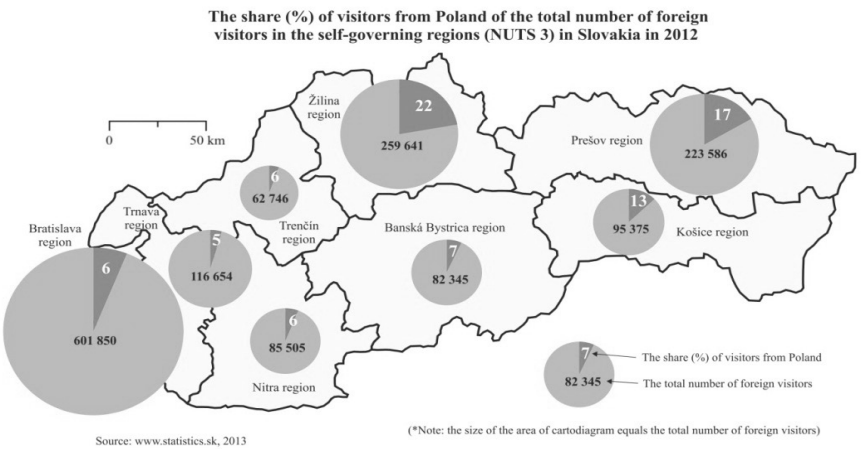
A similar development had values the share of Polish visitors of the total number of foreign visitors (Figure 3). Similarly as overall number of Polish visitors decreased since 2004, their share also declined (from 21.7% to 12.8%). After this year, there was a partial recovery and increase to the level of 17.5% (2008). Consequently, with the outbreak of the economic crisis and the introduction of the Euro in Slovakia, the share decrease during the year to 12.7% (2009), while in 2012 it was only 10.7%.

Figure 3: *The share (%) of visitors from Poland of the total number of foreign visitors in Slovakia (2001 - 2012)*

Source: www.statistics.sk

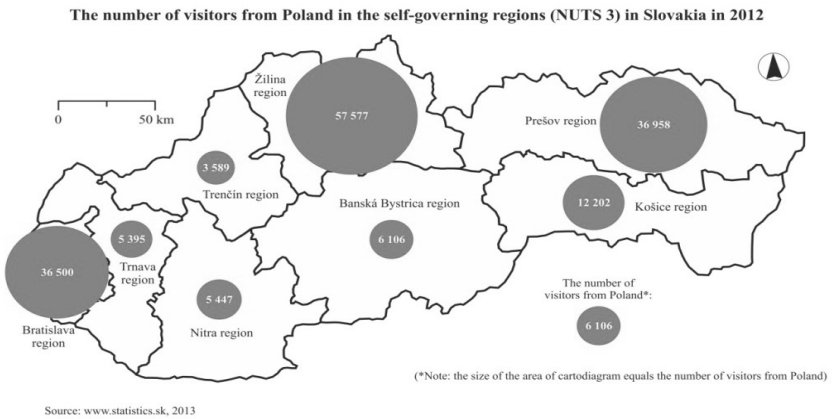
When assessing the situation in 2012, according to available information, most foreign visitors visited the Bratislava self-governing region (601 850 foreign visitors), within which is the capital of the country (Map 1). In this region, similarly as in other regions of south-western Slovakia the share of visitors from Poland was only 6%. The situation is different in the self-governing regions in the north of Slovakia which border with Poland (Žilina and Prešov self-governing regions). Within these two self-governing regions, characterized by natural and cultural tourist values, second respectively third highest number of foreign visitors was recorded (Žilina - 259 641 foreign visitors, Prešov - 223 586 foreign visitors). At the same time, what is important in view of the observed issue, was recorded the highest proportion of Polish visitors in both regions - the Žilina self-governing region (22.2%) and the Prešov self-governing region (16.6%).

Map 1



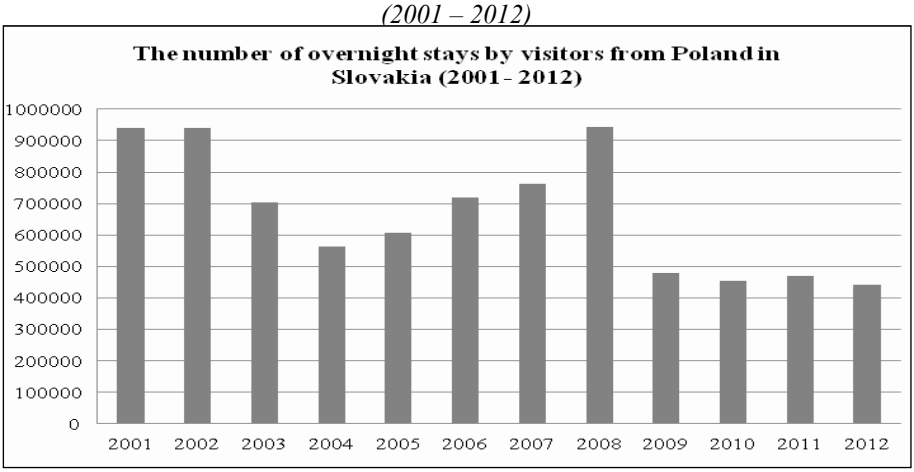
As already indicated in the map 1, higher share of Polish visitors in the Žilina and Prešov self-governing region, in comparing the absolute values which are most significant in the Žilina self-governing region (57 577 Polish visitors), the Prešov self-governing region (36 958 visitors) and the Bratislava self-governing region (36 500 visitors - the higher number of visitors from Poland is unrelated to their higher share, but is related to a higher total number of foreign visitors, also Polish). In other self-governing regions due to the distance from the Polish border, the total number of Polish tourists is significantly lower (3 589 – 12 202).

Map 2



Similar diversity was recorded in the case of number of overnight stays (Figure 4). Years of changes were 2004 and 2008, when in 2004 there was a decline in overnight stays of visitors from Poland, followed by increase in 2008 and finally a significant fall (2008/2009 up to 49.1%), which has maintained at a comparable level in recent years.

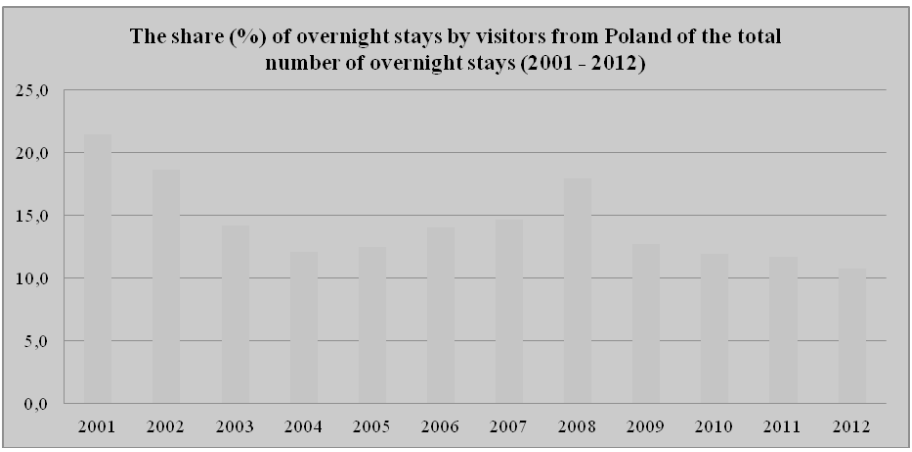
Figure 4: *The number of overnight stays by visitors from Poland in Slovakia (2001 – 2012)*



Source: www.statistics.sk

This trend follows the share of overnight stays of Polish visitors in the total number of foreign visitors stays (Figure 5). While in 2001, the share was listed at 21.5%, in 2004 it dropped to 12.1%. Increase again occurred with the culmination in 2008 (17.9%), while the further development was decreasing to the level of 10.8% in 2012.

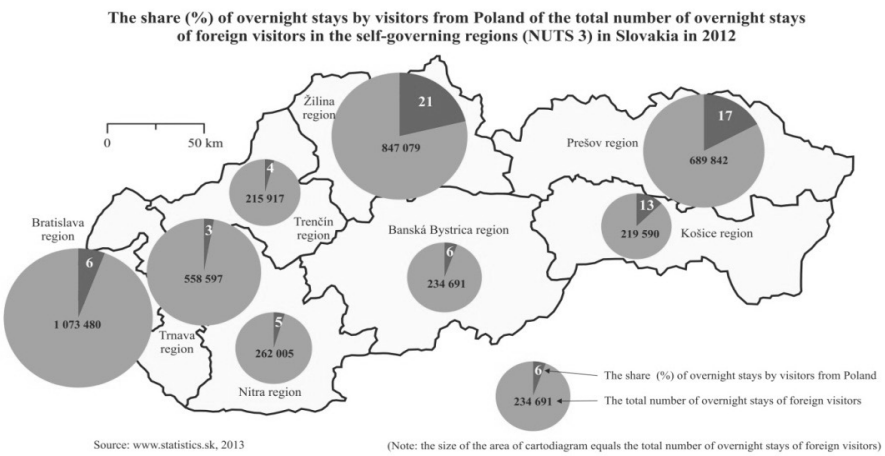
Figure 5: *The share (%) of overnight stays by visitors from Poland of the total number of overnight stays (2001 – 2012)*



Source: www.statistics.sk

Significantly differentiated situation in the case of visitors from Poland in individual regions was also reflected in the case of overnight stays (map 3). The share of the number of overnight stays of Polish visitors in the total number of foreign visitors stays was comparable with the previous indicator – Žilina (21.2%), Prešov (17.2%) and Bratislava (5.8%) self-governing region.

Map 3

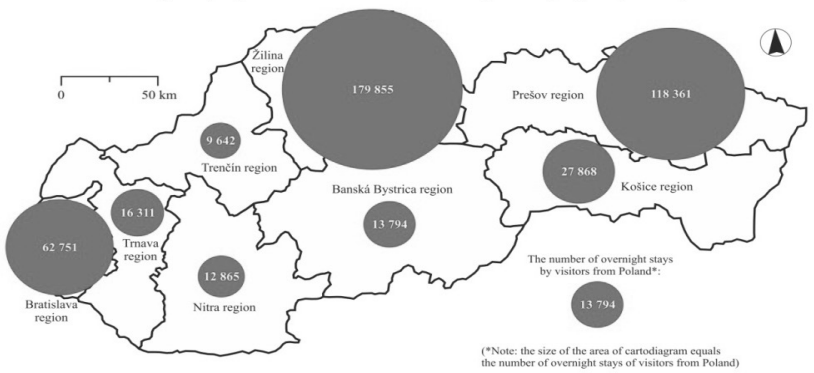


Difference was observed in the absolute number of overnight stays of Polish guests (Map 4). The most overnight stays by visitors from Poland were in the Žilina self-governing region (179 855 overnight stays), followed by the Prešov self-

governing region (118 361 overnight stays) and the Bratislava self-governing region (62 751 overnight stays). It is interesting that in a comparable number of visitors from Poland in the Bratislava (36 500) and Prešov self-governing regions (36 958), the number of overnight stays of Poles in the Prešov self-governing region was higher by 55 610 (46.9%). This is largely due to the short-term stays in the Bratislava self-governing region with an average of only 1.8 overnight stays while in the Prešov self-governing region it was up to 3.2 overnight stays.

Map 4

The number of overnight stays by visitors from Poland in the self-governing regions (NUTS 3) in Slovakia 2012



Source: www.statistics.sk, 2013

From the above analysis, it results that the main locations of visitors from Poland are mainly Žilina and Prešov self-governing regions. These regions contributed to the overall visit rate of Polish clientele in Slovakia by 57.7% (94 535 visitors) and the number of overnight stays of Poles by 67.6% (298 216 overnight stays).

Based on previous evaluations, the next part of the paper is closer devoted to these two regions. For a detailed analysis and evaluation, we selected districts for observational units (NUTS IV). We observed 11 districts of the Žilina self-governing region and 13 districts of the Prešov self-governing region.

Within the Žilina self-governing region, in 2012, the visit rate in individual districts was significantly differentiated (Map 5). The highest visit rate from Poland was within the district of Liptovský Mikuláš (35 856 visitors) and Ružomberok (8 237). According to the regionalization of tourism in Slovakia, these two districts together form Liptov region of tourism, which in the total visit rate in the Žilina self-governing region in terms of visitors from Poland contributed to 76.6%. The overall higher number of Polish visitors was also reflected in their higher percentage share of the total number of foreign visitors (LM - 30% and RK - 22%) (Map 6).

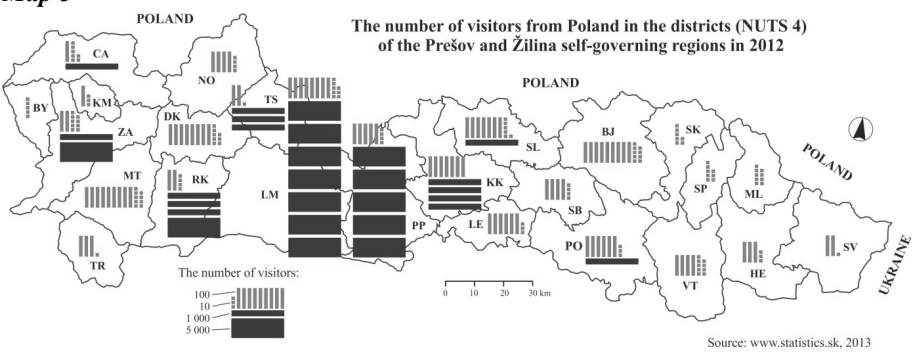
The second destination for Polish visitors was the district of Žilina (6 288 visitors) with the capital district town Žilina, which is also the centre of North-Považie region of tourism. This region includes more districts like Čadca (1 173 visitors from Poland), Bytča and Kysucké Nové Mesto, while in the last two the visit rate was

negligible. Overall, in this region of tourism, the share of Polish visitors moved in the range 11-18%.

The third in the highest number of Polish visitors was the Orava region of tourism - 4 524 visitors with the dominant district of Trstená (70.9% share). In districts of Trstená and Námestovo the share of Polish visitors of the total number of foreign visitors was one of the highest (24% resp. 28%).

The last in the importance was Turčiansky region of tourism where in the districts of Martin (990 visitors) and Turčianske Teplice (312 visitors) the visit rate of the Poles throughout the region was the lowest (only 2.3%). It is the only region of the Žilina self-governing region, which is not adjacent to Poland, which also had significant impact on the values of the visit rate.

Map 5

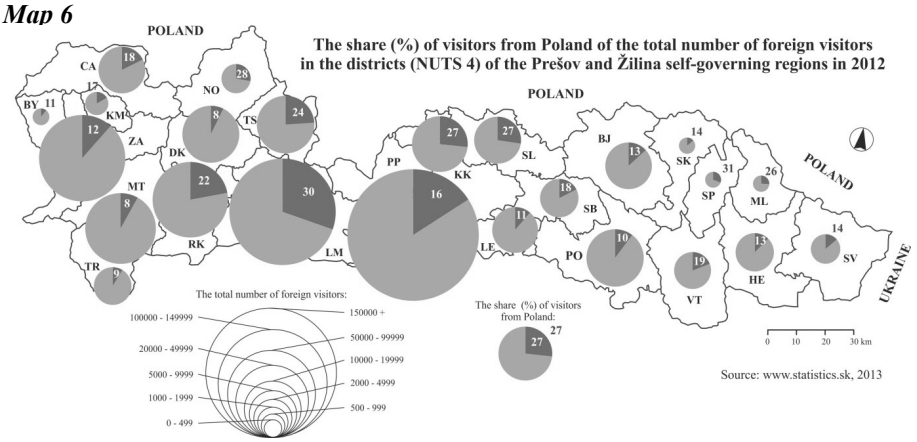


Similarly, significant differentiation in the visit rate of Polish tourists was also in the Prešov self-governing region (Map 5). In the western part of the self-governing region is significantly formed a centre represented by the Tatra region of tourism (31 992 visitors from Poland, 86.6% of the region) - the districts of Poprad (25 535 Polish visitors), Kežmarok (4 695 Polish visitors) and Stará Ľubovňa (1 762 Polish visitors). At the same time, in this region there is the highest share of visitors from Poland (from 16% to 27%) (Map 6).

The second in importance was the Šariš region of tourism (3 131 visitors from Poland, 8.5% of the region) with the centre in the district of Prešov (1 634 Polish visitors). Other districts are represented less (Bardejov - 991 Polish visitors, Sabinov - 441 Polish visitors and Svidník - 65 Polish visitors).

The last in importance was the Upper-Zemplín region of tourism, which is represented by five districts (Humenné, Snina, Medzilaborce, Stropkov and Vranov n/T.), but its share of the visit rate was very low (only 4.9%). Shares of visitors in some districts like Stropkov and Medzilaborce ranged up to 31% respectively 26%, but at such low absolute number of Polish visitors it was negligible. The most Polish visitors were in the districts of Vranov n/T. (486 visitors), Humenné (330 visitors) and Snina (210 visitors).

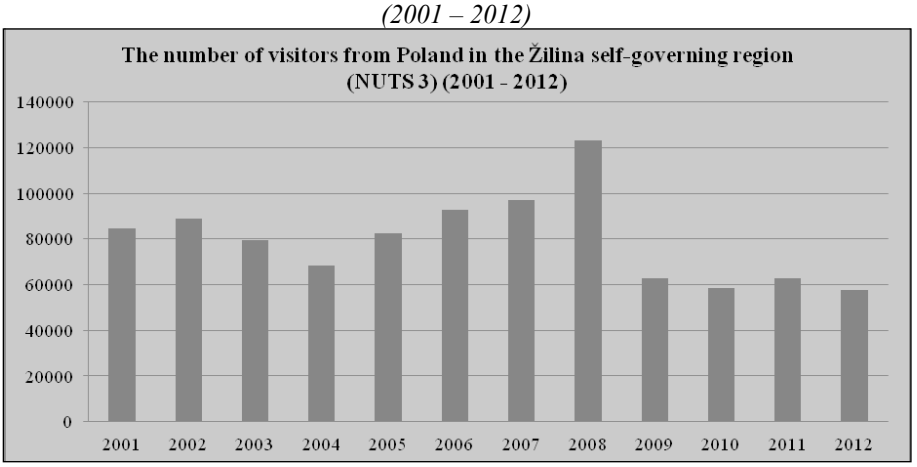
Map 6



In terms of the number of visitors from Poland in the years 2001-2012, the trend in the compared self-governing regions was slightly different.

In the Žilina self-governing region (Figure 6) fluctuations in the number of Polish visitors in the period 2001-2007 were not so noticeable (interval 68 thousand - 97 thousand visitors). Maximum was recorded in 2008 (as already several times in previous comparisons) 123 269 visitors (i.e. 146% of the state in 2001). This was followed by a significant fall in 2009 by 49.1%, while this condition has maintained at around 60 thousand visitors nowadays.

Figure 6: *The number of visitors from Poland in the Žilina self-governing region (2001 – 2012)*

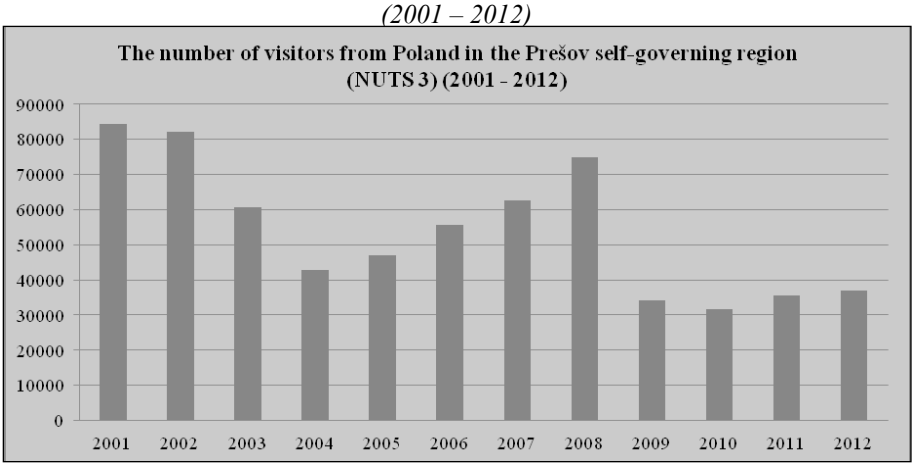


Source: www.statistics.sk

In the Prešov self-governing region (Figure 7), the development of the number of visitors from Poland was more tendentious. The highest values were at the beginning of the evaluation in 2001 84 501 visitors. In the next period, there was a significant decrease to the level of 42 964 visitors (2004, a decrease of almost

50%). Following development period until 2008 is followed by increase of 42.6% to 74 793 visitors from Poland, but compared to the Žilina self-governing region, in the Prešov self-governing region did not reached the value from 2001. Thanks to above mentioned reasons, a significant fall occurred in 2009 by 54.2% to the lowest observed values (34 231 visitors from Poland) for the entire assessment period. This tendency, unfortunately, with only minor fluctuations has maintained to the present. When comparing the visit rate in both self-governing regions, it is clear that the effects of major socio-economic processes significantly displayed within the Prešov self-governing region, especially in 2001-2008.

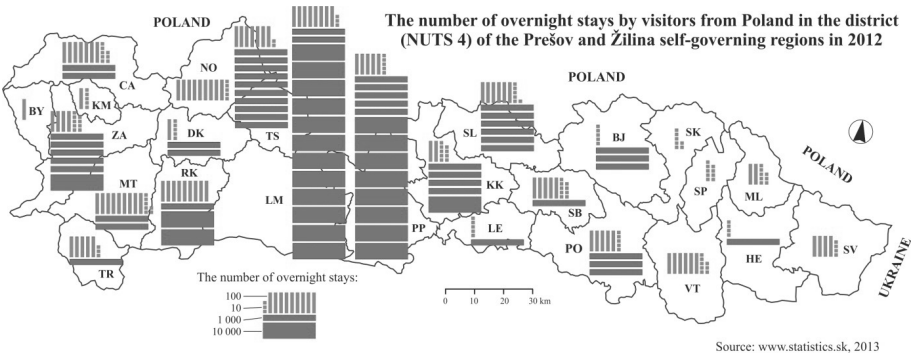
Figure 7: *The number of visitors from Poland in the Prešov self-governing region (2001 – 2012)*



Source: www.statistics.sk

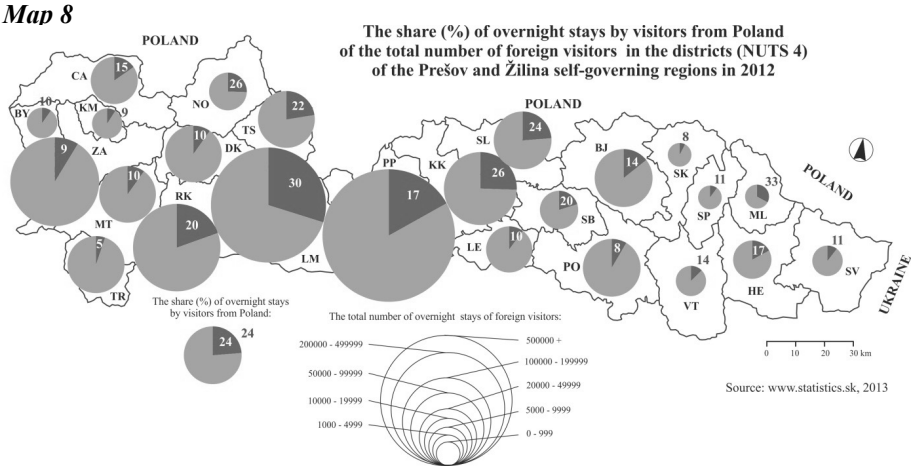
The following evaluated category - the number of overnight stays of Polish visitors (2012) is reflected by the number of Polish tourists. Within evaluated self-governing regions, there are markedly dominant districts (Map 7). In the Žilina self-governing region, it was the district of Liptovský Mikuláš (122 833 overnight stays of visitors from Poland, 68.3% of the self-governing region) and in the Prešov self-governing region, it was the district of Poprad (85 546 overnight stays of visitors from Poland, 72.3% of the self-governing region). In the Žilina self-governing region, there were also dominant the district of Ružomberok (21 189 overnight stays of visitors from Poland), which together with the district of Liptovský Mikuláš formed dominant concentration of Polish overnight stays within the Liptov region of tourism and the district of Žilina (15 486 overnight stays from Poland) and Trstená (9 722 overnight stays from Poland). In above mentioned districts of the Žilina self-governing region (Map 8), except of the district of Žilina, they obtained the highest values of shares of overnight stays of visitors from Poland (from 20% to 30%) of the total number of overnight stays by foreign visitors.

Map 7



In this indicator, the Prešov self-governing region obtained even more inequality (Map 7). The district of Poprad reached far higher values as the district of Kežmarok (14 292 overnight stays of visitors from Poland) and Stará Ľubovňa (6 658 overnight stays of visitors from Poland). These three districts form the dominant core of the Prešov self-governing region in the form of the Tatra region of tourism (together they make up 90.0% of region). Other districts were only incidental to the relatively higher number of overnight stays spent by visitors from Poland only in the district of Prešov (3 551 overnight stays from Poland) and Bardejov (3 054 overnight stays from Poland). Significance of other 8 districts is negligible (together only 4.4%). In case of the share of overnight stays of visitors from Poland of the total number of overnight stays by foreign visitors, a dominant position have the districts of the Tatra region of tourism (Kežmarok - 26%, Stará Ľubovňa - 24% and Poprad - 17%) (Map 8).

Map 8

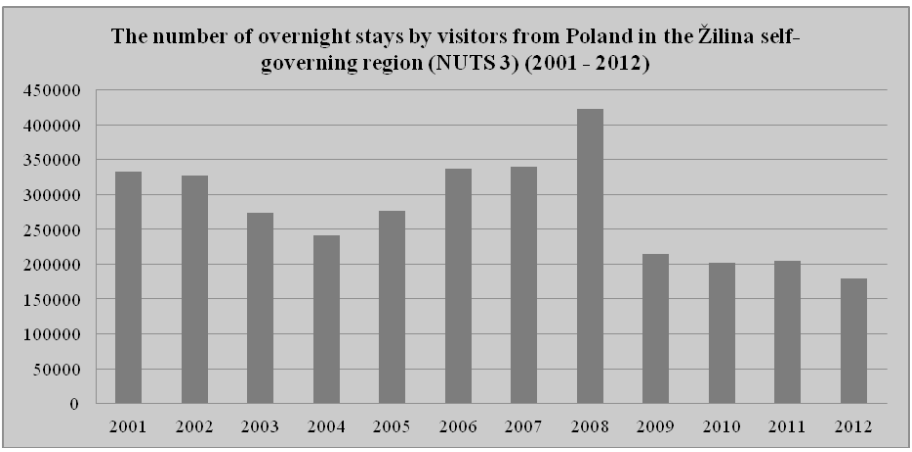


In terms of the number of overnight stays spent by visitors from Poland in years 2001-2012, the trend is slightly different in the compared regions.

In the Žilina self-governing region, the number of overnight stays of Polish visitors in 2001 and 2002 was from 327 540 to 332 152 overnight stays (Figure 8).

Then in 2004, there was a decline at the level of 240 653 visitors. After the opening of the borders and the entry of Slovakia and Poland into EU structures, the number of Polish visitors increased in 2008 to 422 922 visitors. Subsequently, in 2009, due to the adoption of the Euro and the onset of the economic crisis there was a decline by 49.3% to 214 363 visitors. This trend still further deteriorated, and in 2012 it was only 179 855 Polish visitors.

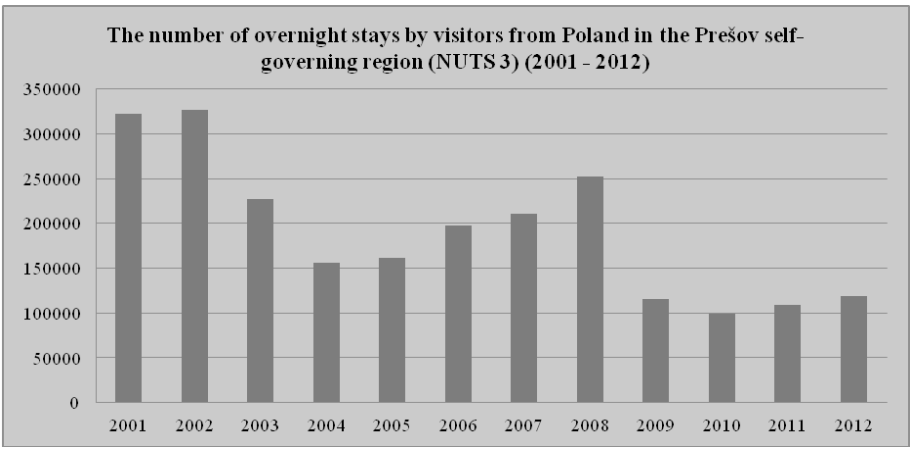
Figure 8: *The number of overnight stays by visitors from Poland in the Žilina self-governing region (2001 – 2012)*



Source: www.statistics.sk

In the Prešov self-governing region, we can observe similar trends, but with some variations (Figure 9). The highest number of overnight stays by visitors from Poland was recorded in 2001 and 2002 (332 365 and 326 996 visitors), which was comparable to the Žilina self-governing region. However, such high values failed to be achieved until the end of the whole period. In the Prešov self-governing region, minimum was recorded in 2004 (155 551 visitors from Poland), but maximum in 2008 was only at the level of 251 915 visitors (i.e. 75.8% of the state from 2001, for comparison - in the Žilina self-governing region it was 127.3%). Similarly like in the Žilina self-governing region, there was recorded a fall in 2009 (by 54.3% compared to 2008) just to 115 100 visitors, which has been maintained up to the present (2012).

Figure 9: *The number of overnight stays by visitors from Poland in the Prešov self-governing region (2001 – 2012)*



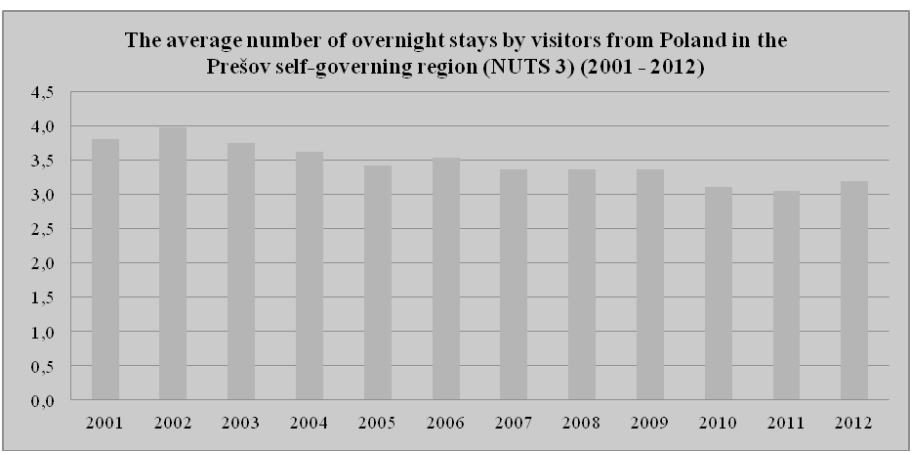
Source: www.statistics.sk

The third compared indicator was the average number of overnight stays spent by Polish visitors. The development of this indicator was in both self-governing regions similar (Figures 10, 11). The highest values were in 2001 (the Žilina self-governing region 3.9 overnight stays) respectively in 2002 in the Prešov self-governing region 4.0 overnight stays. From this period, there is a permanent decline in the number of overnight stays spent by visitors from Poland to 3.1 nights in the Žilina self-governing region and 3.2 in the Prešov self-governing region in 2012. Very specific in both self-governing regions are the spa districts of Bardejov and Turčianske Teplice with a higher average number of overnight stays (Bardejov - 6.3 overnight stays; Turčianske Teplice - 4.9 overnight stays); however, these values were achieved mainly thanks to domestic rather than foreign guests. Considering the general tendency to take several shorter holidays in a year, it can be assumed that neither the average number of overnight stays will increase in the future.

Figure 10: *The average number of overnight stays by visitors from Poland in the Žilina self-governing region (2001 – 2012)*

Source: www.statistics.sk

Figure 11: *The average number of overnight stays by visitors from Poland in the Prešov self-governing region (2001 – 2012)*



Source: www.statistics.sk

CONCLUSIONS

According to the observed trends of evaluated indicators (number of visitors from Poland, the number of overnight stays of visitors from Poland, the average number of overnight stays spent by visitors from Poland), it is possible to specify the particular trends of the visit rate of Polish visitors. During the analyzed period (2001-2012) the significant development in tourists arrivals from Poland was observed in the years 2004 and 2008 respectively 2009.

In the period 2001-2004, all evaluated indicators declared attenuated and degressive tendencies. Year 2004 marked a significant turnaround in connection with Slovakia`s and Poland`s enter to the EU and the gradual elimination of customs and border barriers. The great economic benefit was the use of support programs and EU structural funds for the completion of infrastructure and creation of new tourism products. After the entry into EU, both countries have the possibilities to obtain the latest information and experience, to participate in a variety of educational programs designed to assist the Member States through the development of expertise and acquiring know-how in the field or to influence policy-making of EU tourism. Finally, the promotion and advertising of the regions of Slovakia and mutual information about the range of activities of tourism on both sides of the border have improved. Following years 2005 to 2008 had in this context substantially developmental nature, which was confirmed by the evaluation of indicators as the number of visitors from Poland and the total number of overnight stays at the level of Slovakia and both evaluated self-governing regions (2004/2008 increase in the indicators from 38.3% 44.5%).

The following year 2009 was the year of significant change, which had a significantly negative impact on the visit rate from Poland. In this year, Slovakia entered into the Euro Zone, what had an impact on the exchange rate and the strengthening of the Euro against the Zloty. This effect was more magnified by the outbreak of the global economic crisis in its full extent. Both of these facts affected the values of evaluated indicators (number of visitors from Poland and the number of overnight stays) by a decrease from 46.6% to 54.3% (2008/2009). Decline in the evaluated indicators was so significant that the situation in 2009 was worse than in 2004 and it did not improve until 2012.

Development of the visit rate of Polish guests is also related to its characteristics. According to a survey conducted by SACR (Slovak Tourist Board) among Polish visitors, significantly preferred is winter tourism, which is associated with skiing and spa respectively aquaparks. This unique combination significantly preferred the Liptov region of tourism, the Tatra region of tourism and the Orava region of tourism, which was confirmed by monitored indicators (Maps 5, 6). Dominant attraction for Polish visitors is the combination of year-round tourism within the Tatras (with the peak in the winter months) and the Pieniny and year-round use of aquaparks (Tatralandia, Bešeňová, Oravice, Aquacity Poprad). For the promotion of tourism regions in Slovakia is interesting the finding from the survey, according to which Polish visitors obtain the most information about Slovakia from television (55.8%), catalogues, travel agencies (44.5%), Internet (38.8%), exhibitions of tourism (26.8%) and the recommendations of friends and acquaintances (23.0%). Visitors from Poland make their decisions to spend a holiday in Slovakia not until the last minute, but some time in advance (2-4 months - 36.0% and 5-7 months - 33.3%). Interesting finding of the survey was that 67% of Polish visitors prefers hotels, thus expected image of the Polish visitor searching for cheap accommodation was not confirmed. The last was the claim that although the initial image of Slovakia among Polish visitors was not at a high level, satisfaction prevailed after a visit of Slovakia as well as a willingness to return and recommend Slovakia as an interesting tourist

destination. These results were even better than in the case of visitors from the Czech Republic, who make up the largest share of foreign visitors in Slovakia (in 2012 it was 32.2%).

The main factors affecting inbound tourism from Poland to Slovakia in addition to the above mentioned include:

a) the two countries being direct neighbours and the proximity of large urban complexes on the Polish side to the border with Slovakia, especially the Katowice conurbation and the metropolitan area of Krakow;
b) the high attractiveness of Slovakia for different forms of tourism, which is resulting from its wealth of tourist assets and facilities allowing to practice active forms of recreation in summer and winter;
c) a significant improvement in accessibility of Slovakia for Polish citizens, due to both the development of expressways network in Poland and the improvement of internal accessibility in Slovakia;
d) the development of economic ties between the two countries, which becomes a factor in the development of business tourism;
e) specialisation of the offer of Slovak spas and raising the standards of spa services.

The most important barrier in the development of Polish incoming tourism in Slovakia is the cost of stay in Slovakia. Due to prices in euro, the cost is considered high b y Polish tourists and it is the reason why Slovakia is perceived as a relatively expensive country if compared with Polish tourist resorts.

In terms of future development of the visit rate of Polish guests in Slovakia we cannot expect any significant changes. The values from years 2001, 2002 respectively 2008 will be very difficult to approach. In European regions, competition struggle for the visitor sharpens and quality services are offered by a growing number of regions. The same also fits for Polish regions and the Polish approach to the development of domestic tourism. The economic crisis of recent years have greatly affected the field of tourism and verified the ability of regions and subjects of tourism to adapt to changes and the new situation.

According to Gučik, Petrík (2012), the current trends in tourism include in particular the growth of interest in the comfort and safety of visitors, orientation of visits for relaxation, wellness and spa. Short-term stays as well as individual package holidays focused on culture, art and history will dominate (the growth of interest will be on Central and Eastern Europe). Customer satisfaction expressed by again return will be important as well as increased interest in a more personal approach in providing services (small family businesses) and thus closer specialisation of service providers in the product for selected target group of visitors.

It is still questionable how Slovak regions will deal with the current situation. Gradual improvement can be expected. The year 2012 is considered by many experts as the first year which marked the start of economic development and the first signs of decline of global economic crisis. In the next few years, we will know whether these positive signals will be expressed by the improvement of the economic situation of the population (in Slovakia and abroad) and the possibility of using the part of the income for vacation and thus promote the development of tourism.

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CHANGE IN FUNCTIONAL THE LANDSCAPE STRUCTURE IN TIME HORIZON 1822-2012 IN THE RURAL SETTLEMENT OF JAKUBANY

Eva MICHAELI[1] – Monika IVANOVÁ[2] – Vladimír SOLÁR[3] – Jana JUHAŠČÍKOVÁ[4]

***Abstract**: The structure of cultural landscape is a result of long-lasting process of interaction between of humans and nature in the historical development. In the Slovakia the most intensive changes of the landscape structure were realized over the 40 - 50 years. A new wave of changes in the structure of cultural landscape was originated mainly over the last two decades, predominantly in foothill landscape. These changes are considered as positive from the aspect of ecological stability of landscape. Ecological stability has increased in the last two decade in relation to the stoppage of excessive use of chemical fertilizers, pesticides, herbicides and heavy mechanisms at tillage. Biodiversity and retentive ability of the landscape have increased and erosion of soil has decreased. The negative consequences were reflected into the visual form as abandonment of landscape the man. The aim of this paper is research changes of land cover and functional structure of the landscape in the rural settlement Jakubany in time horizon 1822 – 2012.*

***Key words**: land use, land cover changes, land utilization, rural settlement Jakubany*

INTRODUCTION

The village Jakubany was established on territory manor of Ľubovňa, which gave the administrator of region F. Drugeth in 1322 for the Stephen son of Peter from Lomnička. In this period was the manor of Ľubovňa inhabited by Slovaks and Germans (first written mention is from 1408). Since 1497 the village was populated based on the Wallachian law and from the aspect of the ethnic group it was the Rutheniansand Romanians, which we can characterize by the mode of life on the mountains chalets (salaše) and herding of cattle.Residents of the village dealt mainly with agriculture and pasturage, but had other sources of subsistence, e.g. in 1760 A.

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Probstner built in the village of blast furnace which worked here into 1870. Iron ore it imported from the area of Slovenské rudohorie (Mts.) and the main prerequisite for localization of the blast furnace was ample fuel for iron smelting wood charcoal manufactured in the forests around the Jakubany. In the year 1855 was produced 427 kg of iron.

Cadastral territory of Jakubany are located on contact zone of the Levočské vrchy (Mts.) and Spišsko-šarišské medzihorie (Mts.) in which occupy the western part of Jakubianska brázda (furrov) and small north-western part of Hromoš (Mts.). Greaterpart of the cadastral territory which was in the Levočské vrchy (Mts.) from January 1952 into December 2010 belonged to the former Military district of Javorina. Return of land and property settlement will be in Jakubany conducted end of year 2015. The aim of this paper is the research of land cover and functional structure of the landscape in the current cadastral territory of Jakubany. In this context, we cannot leave out the exceptional work of Michal Luknišabout the village Jakubiany, which was published in 1946. A rehashed term genius loci, which in present in our science is experiencing a kind of renaissance is the leitmotif this work and reached here the remarkable of perfection.

Genius loci - the spirit of the place Jakubany since 1946 have changed considerably in 1953, but not from a naturally, but with artificial intervention, especially the establishment of the Military circuit of Javorina (in 1953) on the most territory cadastre of village (military circuit lastedmore than 60 years, which can be considered much damage from the aspect of scientific researchthis specific place and your spirit). The military circuit was abolished by the Slovak Government in December 2010, but the plots have not yet been returned to the owners. Developments since 1953 can be considered a dramatic, full of contradictions different nature (Fig.1). For comparison we present in table 1 land management in 1946 (Lukniš 1946) and in 1953 and 2004.

Table 1 *Land Management in Jakubany in 1946, 1953, 2004*

Land Management 1946	Are in ha	%	Land Management 1953	Area in ha	%	Land Management 2004	Area in ha	%
Arable land	1 301	19,8	Arable land	1301	80,8	Arable land	138	8,2
Meadows	1709	26,0	Meadows	119	7,4	Meadows	1279	76,3
Pastures	577	8,7	Pastures	80	5,0	Pastures	-	-
Forests	2823	43,0	Forests	23	1,4	Forests	133	8,0
Garden	2	0,03	Garden	2	0,12	Garden	35	2,0
Barren area	165	2,2	Barren area	85	5,3	Barren area	90	5,3
Together	**6577**	100	**Together**	**1610**	100	**Together**	**1675**	100

Source: Lukniš 1946, ŠÚSR 2012

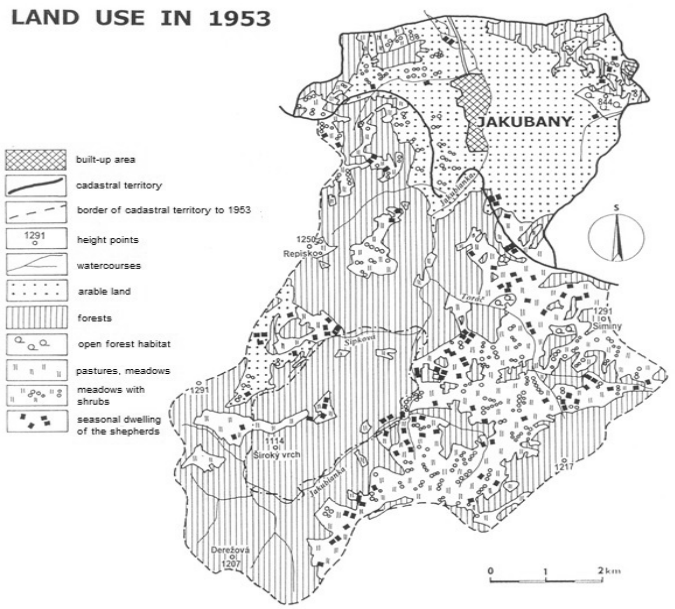

Fig.1 *Land Use within border of cadastral territory to 1953*

DATA AND METHODS

Data preparation was based from the main objective of the research taking on the analysis of land cover we used historical maps for the years 1822, 1979, and orthophotos of 2012. Through vectorization we created maps of the land cover classes for the fourth hierarchical level (Fig. 3, 4, 5). Into the linear elements of land cover classes were included transport communications and watercourses with a minimum width of 1 m. For maintain consistency of analysed documents we used topology control in the ArcMap application of the software of ArcGIS 10, which eliminated overlapping areas or absent areas. We have achieved so final size of investigated territory in all time horizons with the accurate to two decimal places. When identifying the land cover classes was necessary the legend of CORINE Land Cover (CLC) which is used for processing of data layers of the land cover classes for the entire territory of Slovakia (Bossard et al. 2000, Feranec and Oťaheľ 2001) adapt itself so that take account of the specificities of investigated region. From this aspect, we used CLC legend processed for the needs of landscape research in the scale of 1:50 000 for the PHARE countries (Feranec and Oťaheľ1999). On this basis each group classes of the land cover was divided after the fourth hierarchical level which is sufficient to work with the territory in a large map scale.The resulting maps of the identified land cover classes within the three time horizons were the basis to the statistical and spatial analysis land cover of the investigated territory.The land cover was analysed in chronological order from earliest the time horizon 1822 to the present (time horizon 2012). Subsequently were results compared and expressed in the transformation matrix of changes.

INVESTIGATED TERRITORY

The current cadastral territory settlement of Jakubany has an area of 1,675 ha (in year 1946 to 1953 it was 6 577 ha). Built-up area of the village lies at an altitude of 600 m and the lowest point is on the floodplain of river Jakubianka in altitude 590 m and the highest point (hill) is in altitude1064 m in the western part of the territory (Fig.2).

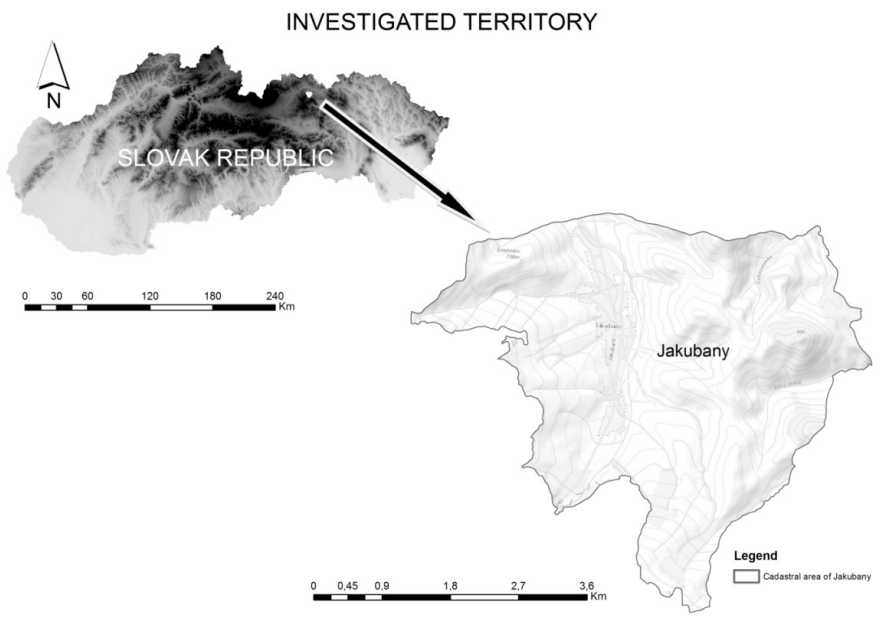

Fig. 2 *Location of the investigated territory*

Part on the footof Levočské vrchy (Mts.) in cadastral territory takes up Jakubianska brázda (furrov) which is closed between Levočskévrchy (Mts.) on the south - west and Hromovec (Mts.) on the north - east. Jakubianska brázda (furrow) is formed from the strata a little resistant claystones Inner-Carpathian Paleogene. The furrow was created in the processes of denudation on thelayers of claystone development. Amplitude of relief of slightly undulating hilly- country does not over 180 m relative height. Altitude is between 620 to 800 meters. Below 600 m altitude is only floodplain and terraces of river Jakubianka.

Territory belongs into the cold climate area district C1 which is slightly cold and very wet with average temperature of July 12 to 16° C (Lapin et al. 2002).

Surface water represents watercourse Jakubianka which from the both sides gaining tributaries,small nameless watercourses.Jakubianka flows into Poprad (river) in Stará Ľubovňa. Average annual flow in the Jakubany is 1.2 $m^3.s^{-1}$.In terms of underground water circulation and its collectors are the claystones layers in the Jakubianska brázda (furrow) rather isolators of underground water. The permeability of cracks binds only the cracks of tectonic origin, but the claystones are more or less plastic rocks, on which do not apply the effects of tectonics cracks conversely by the

breach the owns cracks concludes.The total throughput of layers is very small and the aquifers are weak. Circulation of underground water there is limited and spreading rate of water sources and amounts less than 0.1 l .s^{-1}.In the cover of soils dominated Eutric Cambisols with accompanying Stagni-Eutric Cambisols. On the foot of Levočskévrchy (Mts.) are developed Dystric Cambisols and Cambic Umbrisols. On the floodplain of river Jakubianka are located Litosols and Lithic Leptosols.

The Hromovec (Mts.) culminates in the point of the same name with altitude 895 m. The amplitude of the relief takes the value from 180 to 250 metres. Hromovec (Mts.) is built at Šambron layers of sandstones and calcareous sandstones and conglomerates of Inner-Carpathian Paleogene. Relief is sizeable broken and has typical character of highlands and the valleys of watercourses are deep and narrow, but the backs are shaping smoothly without major height differences. From mineral waters are significant mineral springs in Spa Nová Ľubovňa on the tectonic fault in the western part of Hromovec (Mts.). The soil cover constitute from Rendzinas and Cambisoils (Rendzic Leptosols and Eutric Cambisols).

Approximately three quarters the cadastral territory of village until 1953 was located in the Levočska vysočina (highlands) in the Levočské vrchy (Mts.). It is the highest and largest mountains subassembly of central part Levočskévrchy (Mts.). From the aspect of geological structure it is composed from massive Eocene sandstones Inner-Carpathian Paleogene. It is tectonically raised aligned surface which is disturbed of the tectonic faults with direction NW - SE and NE - SW, which is also reflected in the configuration of the ridges and valleys. Levočské vrchy (Mts.) are typical highlands, where most of ridges have the altitude more as 1100 m. The highest point in Jakubany village is the Siminy (hill) in 1 291 m altitude.Climatically belongs to a cold area, district C1 (as the entire territory). The surface water here represents the upper flow of Jakubianka (river) with four unnamed tributaries from the right and one from the left. Complex Eocene sandstones and conglomerates are characterized by permeability of cracks and pores. Aquifers are moderately significant and spreading rate springs is from 0.1 1to 0.5 l.s^{-1}. In the soil covers predominate Cambic podzols with associated types of Dystric Cambisols and Cambic Umbrisols. Originally vegetation cover accounted acidified beech and fir forests (with *Abies alba*) laced with red spruce (*Larix decidua*), today strongly anthropic modified. On broad mountains ridges are currently the grasslands.

FACTORS AND CONDITIONS WHICH AFFECTED THE CHANGES OF LAND COVER AND FUNCTIONAL STRUCTURE OF THE LANDSCAPE

The land cover changes in the cadastral territory of Jakubany same time indicate also on the changes in the functional structure of the territory i. e. the use of the landscape. In the context of the work Feranec and Oťaheľ (2001) the term the land cover is not identical to the term of land use of the landscape. In the term of land use are two aspects, namely: the character of the land cover and it function - the land utilization (Burley 1961, in: Feranec a Oťaheľ 2001). These two aspects have been in village Jakubany clearly distinguished until year 1953 (Lukniš 1946). Acreage cadastral area (Lukniš 1946) was at that time 6577 ha. According to Lukniš (1946) were divided into two parts, the fields part and mountains part. Division of territory to

that part closely connected with the way of life (pastoral way of life) of the population of the village and from economic activity - land use of the landscape. While in the upper part of the territory dominated forests (2,800 ha) and grasslands (mostly meadows 1,590 ha) and there are a variety of seasonal dwelling of the shepherds different quality (kram, cradle, chalet, chyžka), in the part of fields was prevailingly arable land (1,301 ha) on the cultivation of staple crops for subsistence population.

Fundamental changes in the structure of land use of the landscape caused institutional and political factors and conditions in the year 1953 (creation of the military space Javorina in Levočské vrchy (Mts.). From the cadastral territory into the military space the army took the more than 75% of the area (4967 ha). In the village was declared a build ban (construction without building permits were militarily liquidated and a similar fate befell the seasonal dwelling of the shepherds in Levočské vrchy (Mts.) Aim of communist state power was the liquidated the village and resettlements inhabitants into State flats in the several neighbouring municipality or town settlements. Also the Urbariat (management of local forests) ended their activities in the same year. The area was guarded by the military and the entrance to military area had only the employees of military forests or the persons which had a culverts. The residents of the village the culverts never received. By separating the mountainous part the cadastral territory of Jakubany has been a significant change in land use of landscape. Traditional shepherd-like way of life and land management was violently destroyed.

In the significantly smaller the cadastral territory of Jakubany (1,610 ha) has been predominance of the arable land without vegetation (1,301 ha), the acreage of grasslands was 200 ha and the forests were only marginally represented (23 ha). The areas unsuitable for agriculture (flood plain and gravel benches in the riverbed of Jakubianka) have occupied 85 ha. Despite this situation in the village Jakubany lasted of classic system of private farming until 1979. Sociological factors have played in this period an important role in the formation the structure of the landscape (Genius loci). The people from Jakubany as a social community had a remarkably deep attachment to land ownership. Was considered as an important source of livelihood and important material and spiritual wealth and they wanted to continue - (older generation) in the classic system of private farming on their land but lacked the will to the younger generation.

In 1979 the village was founded agricultural cooperative (JRD, first attempt was the establishment in 1948, but was unsuccessful). Creating a cooperative led to further changes in land use of the landscape. Most of the arable land was converted to grasslands (meadows, but especially pastures). From original acreage arable land (1,301 ha) remained only 138 ha and this proportion decreased further, what was associated with specialization of the cooperative in breeding cattle for milk and the second specialization is cultivation of medicinal plants for export.

The land use of landscape succumbed of significant transformation as a result of natural factors and conditions (climate, soil factors and conditions and geomorphological conditions, e. g. soil erosion and slope deformation). Climatic conditions in Jakubanyare less favourable. In the cover of soils from the aspect of agricultural soils predominate of less productive soils and less productive grasslands.

A large acreage occupies in the area of unsuitable for agricultural production on the flood-plain of Jakubianka in the cadastral territory. Approximately 80% the cover of soils have tendency to erosion and to landslides. The grassing of the territory after 1989 have alleviated soil erosion and to some extent stabilized of creeping subsurface movements and the processes of landslide.

Economic factors and conditions have caused other very notable changes in the land use of the landscape. After 1989, agricultural production from state-controlled and planned was transformed on the market economy. The reduction of agricultural subsidies had brought other changes in the land use of the landscape and its functional structure.

CHANGES OF LAND COVER AND FUNCTIONAL STRUCTURE OF THE LANDSCAPE

In the cadastral territory of Jakubany was in the time horizon 1822 of identified 13 land cover types with the largest surface areas of Grasslands with share of 648.74 ha (pastures and meadows) prevailingly without trees and shrubs.The smallest area was occupied the River banks. In the next time horizon in 1979 were identified 16 types classes of land cover. The largest area was represented of Grasslands (pastures and meadows) prevailingly without trees and shrubs (685.4 hectares). The most significant increase was recorded in broad-leaved forests with continuous canopy, not on mire (73.47 hectares) and Discontinuous built-up areas with family houses with garden (59.22 hectares). These areas were located mainly in the peripheral parts of the territory and the area Discontinuous built-up areas with family houses with garden within the built-up area of Jakubany.This effect is characteristic for the rural settlements in which increased the population and so has been thus extended built-up area at the expense of the surrounding areas. Marginal areas due to their non-use for agricultural purposes, they were either naturally or man-wooded. In the time horizon 2012 from the aspect of land cover we are recorded a large decline in the areas of Grassland (meadows and pastures) with trees and shrubs. As a result of the care about these areas have been increased share in the class of land cover in the category Grassland (meadows and pastures) prevailingly without trees and shrubs.The area of Arable land prevailingly without dispersed vegetation receded particularly for the mosaic structures.Comprehensive overview of the representations of different type classes of land cover in time horizons presents Table 2 and Fig. 3, 4, 5indicate the spatial distribution and abundance of land cover types.

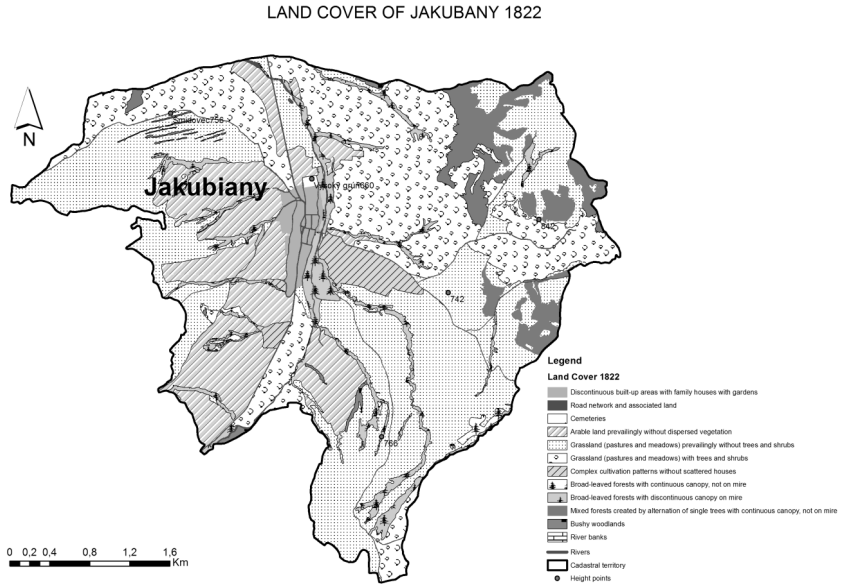

Fig.3 *Land Cover of Jakubany 1822*

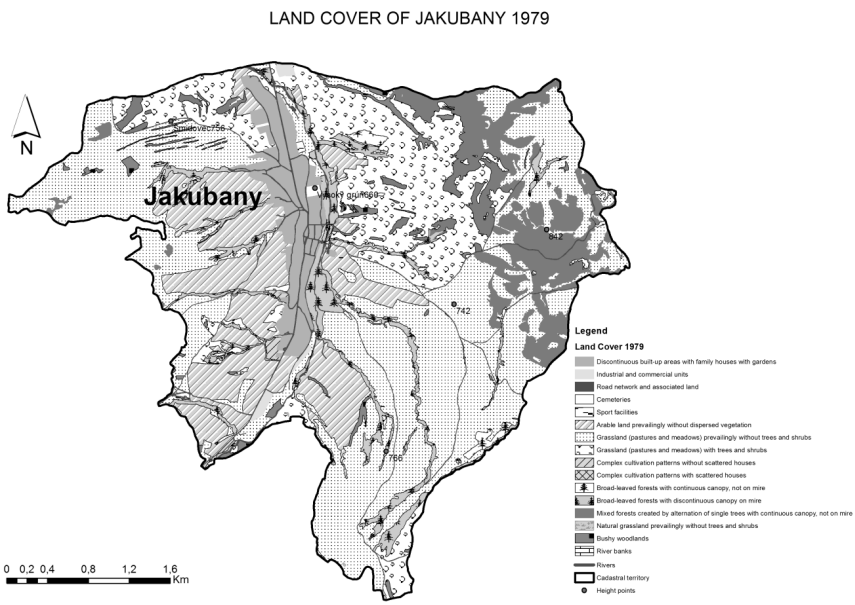

Fig.4 *Land Cover of Jakubany 1979*

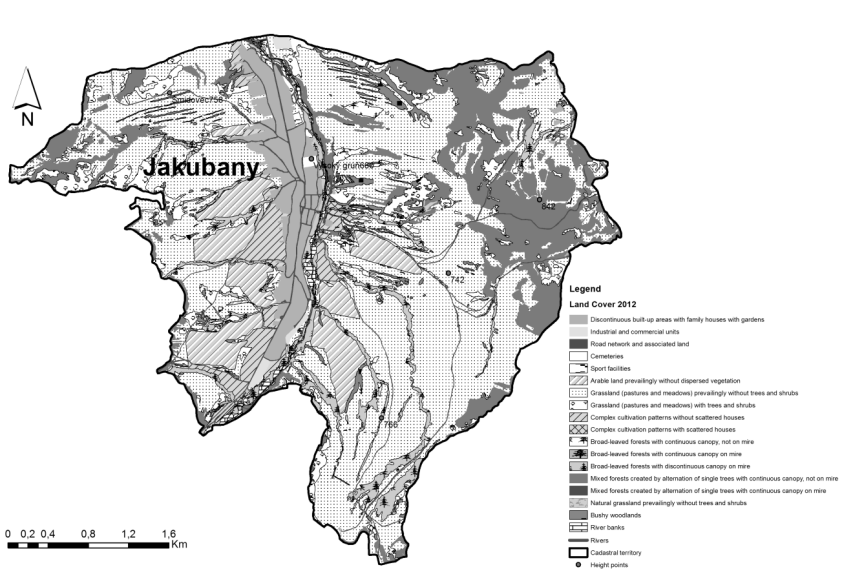

Fig.5 *Land Cover of Jakubany 2012*

Maps from the three time horizons (1822 - 1979 - 2012) were the basis for determination the changes of the land cover in investigated period. Result from a comparison of the individual maps of land cover is Fig. 6, which shows the surfaces without change and changed surfaces within the period under review. The total area of territory without change represents 763 ha. Most stable area from the aspect of land cover is located in the south-eastern part of the cadastral territory of Jakubany, here in after the older part of the built-up area of the village from the year 1822 and north-western and north-eastern slopes covered with forests. On the other side the changes of land cover are most commonly along the line elements (watercourses, roads) and around built-up area of the village. For clarity, changes in the different types of land cover to another type of land cover, we have created a transformation matrix changes between two time horizons, namely the horizon in 1822 and 2012 (Table 3). In this table it is possible to clearly identify any change in the context of land cover types. The amount of the data we choose the most relevant changes:built-up area of the village is expanding more than threefold, mainly at the expense of Arable land prevailingly without dispersed and Grassland vegetation (pastures and meadows) with trees and shrubs.

Table 2 *Spatial rate of the category of Land Cover*

Land Cover of Jakubany in ha	1822	1979	2012
1.1.2.2	28,02	87,24	99
1.2.1.1	0	6,11	6,22
1.2.2.1	12,89	17,17	20,33
1.4.1.2	1,52	1,51	1,51
1.4.2.1	0	0,75	0,75
2.1.1.1	279,81	268,31	122,44
2.3.1.1	648,74	685,4	822,53
2.3.1.2	444,01	290,37	114,58
2.4.2.1	40,3	4,61	56,1
2.4.2.2	0	0	1,5
3.1.1.1	4,82	9,7	9,24
3.1.1.2	0	0	0,81
3.1.1.4	98,61	97,78	94,69
3.1.3.1	104,75	178,22	272,72
3.1.3.2	0	0	0,05
3.2.1.1	0	0,03	0,03
3.2.4.3	8,73	24,65	37,31
3.3.1.3	0,42	0,86	13,15
5.1.1.1	4,3	4,21	3,96
∑	**1676,92**	**1676,92**	**1676,92**

Explanatory notes: 1.1.2.2 Discontinuous built-up areas with family houses with garden; 1.2.1.1. Industrial and commercial units; 1.2.2.1 Road network and associated land; 1.4.1.2 Cemeteries; 1.4.2.1 Sport facilities; 2.1.1.1 Arableland prevailingly without dispersed vegetation; 2.3.1.1 Grassland (pastures and meadows) prevailingly without trees and shrubs; 2.3.1.2 Grassland (pastures and meadows) with trees and shrubs; 2.4.2.1 Complex cultivation patterns without scattered houses; 2.4.2.2 Complex cultivation patterns with scattered houses; 3.1.1.1 Broad-leaved forests with continuous canopy, not on mire; 3.1.1.2 Broad-leaved forests with continuous canopy on mire; 3.1.1.4 Broad-leaved forests with discontinuous canopy on mire; 3.1.3.1 Mixed forest screated by alternation of single trees with continuous canopy, not on mire; 3.1.3.2 Mixed forest screated by alternation of single trees with continuous canopy on mire; 3.2.1.1 Natural grass land prevailingly without trees and shrubs; 3.2.4.3 Bushy woodlands; 3.3.1.3 River banks; 5.1.1.1 Rivers

Most stable type the classes of land cover are the Rivers, Cemeteries and according the acreage areas is largest type especially Arable land prevailingly without dispersed vegetation rowing share of Mixed forests created by the alternation of single trees with continuous canopy, not on mire we file prevailingly on the Grassland (meadows and pastures) without trees and shrubs and on the Grassland (meadows and pastures) with trees and shrubs. According expanse the largest form of conversion one type of land cover to another type is between categories Grasslands (meadows and pastures) prevailingly without trees and shrubs and Grasslands (meadows and pastures) with trees and shrubs (218.33 hectares).

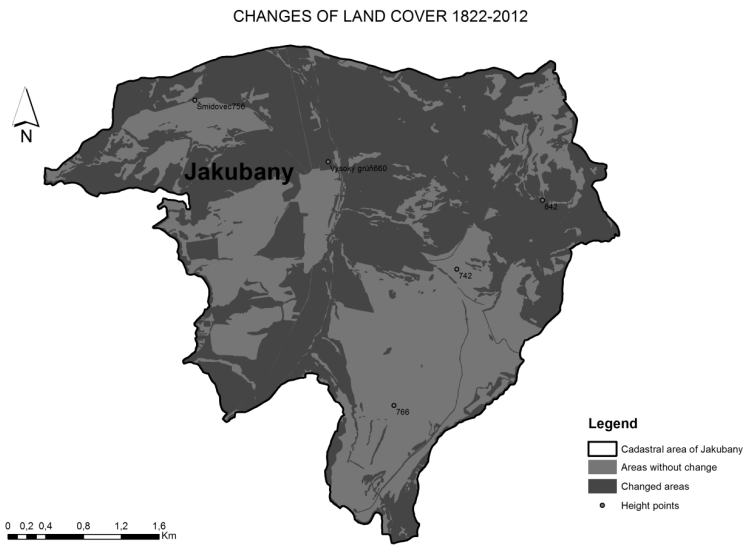

Fig.6 *Changes of Land Cover 1822-2012*

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in ha		Land Cover 1822													
		1.1.2.2	**1.2.2.1**	**1.4.1.2**	**2.1.1.1**	**2.3.1.1**	**2.3.1.2**	**2.4.2.1**	**3.1.1.1**	**3.1.1.4**	**3.1.3.1**	**3.2.4.3**	**3.3.1.3**	**5.1.1.1**	∑
Land Cover 2012	**1.1.2.2**	27,9	0,08	0	29,68	12,18	26,37	2,42	0	0,3	0,07	0	0	0	99
	1.2.1.1	0	0	0	0	0	6,22	0	0	0	0	0	0	0	6,22
	1.2.2.1	0,1	12	0	1,08	3,78	2	0,28	0	0,86	0,22	0	0	0,01	20,34
	1.4.1.2	0	0	1,51	0	0	0	0	0	0	0	0	0	0	1,51
	1.4.2.1	0	0	0	0	0,75	0	0	0	0	0	0	0	0	0,75
	2.1.1.1	0	0	0	94,62	12,98	0	14,76	0	0,08	0	0	0	0	122,44
	2.3.1.1	0,01	0,41	0,02	93,29	495,12	218,33	9,85	0,06	1,88	3,54	0,04	0	0	822,53
	2.3.1.2	0	0	0	8,03	46,26	54,51	1,87	0,03	0,67	2,3	0,92	0	0	114,58
	2.4.2.1	0	0,09	0	36,25	1,24	5,61	7,6	0	5,32	0	0	0	0	56,1
	2.4.2.2	0	0	0	0	0	1,5	0	0	0	0	0	0	0	1,5
	3.1.1.1	0	0	0	0,22	2,41	4,84	0,83	0,19	0,74	0	0	0	0	9,24
	3.1.1.2	0	0	0	0,81	0	0	0	0	0	0	0	0	0	0,81
	3.1.1.4	0,01	0,01	0	10,06	9,6	6,43	0,68	0	67,39	0	0,31	0	0,19	94,69
	3.1.3.1	0	0,27	0	3,01	55,39	99,71	1,03	4,54	9,86	98,62	0,23	0	0,08	272,72
	3.1,3.2	0	0	0	0	0	0,05	0	0	0	0	0	0	0	0,05
	3.2.1.1	0	0	0	0	0	0,03	0	0	0	0	0	0	0	0,03
	3.2.4.3	0	0	0	2,35	7,22	15,35	0,89	0	5,43	0	6,05	0	0,01	37,31
	3.3.1.3	0	0,04	0	0,42	1,74	2,95	0,08	0	6,06	0	1,02	0,42	0,42	13,15
	5.1.1.1	0	0	0	0	0,08	0,1	0	0	0,02	0	0,16	0	3,61	3,96
	∑	**28,02**	**12,89**	**1,52**	**279,81**	**648,74**	**444,01**	**40,3**	**4,82**	**98,61**	**104,75**	**8,73**	**0,42**	**4,31**	**1676,92**

Explanatory notes: 1.1.2.2 Discontinuous built-up areas with family houses with garden; 1.2.1.1. Industrial and commercial units; 1.2.2.1 Road network and associated land; 1.4.1.2 Cemeteries; 1.4.2.1 Sport facilities; 2.1.1.1 Arable land prevailingly without dispersed vegetation; 2.3.1.1 Grassland (pastures and meadows) prevailingly without trees and shrubs; 2.3.1.2 Grassland (pastures and meadows) with trees and shrubs; 2.4.2.1 Complex cultivation patterns without scattered houses; 2.4.2.2 Complex cultivation patterns with scattered houses; 3.1.1.1 Broad-leaved forests with continuous canopy, not on mire; 3.1.1.2 Broad-leaved forests with continuous canopy on mire; 3.1.1.4 Broad-leaved forests with discontinuous canopy on mire; 3.1.3.1 Mixed forests created by alternation of single trees with continuous canopy, not on mire; 3.1.3.2 Mixed forests created by alternation of single trees with continuous canopy on mire; 3.2.1.1 Natural grassland prevailingly without trees and shrubs; 3.2.4.3 Bushy woodlands; 3.3.1.3 River banks; 5.1.1.1 Rivers

Table 3 Transformation matrix of changes

CONCLUSION

From the aspect classes of land cover, we are analysed cadastral area of the municipality Jakubany on the fourth hierarchical level, which corresponds to mapping in the maps of big scale (1:10 000) with using relevant maps documentation. In the studied area we have three time horizons (1822, 1979 and 2012) identified a total of 19 land cover classes. The most widespread types of land cover were throughout the investigation period Grassland (meadows and pastures) prevailingly without trees and shrubs and Grassland (meadows and pastures) with trees and shrubs.The most important changes in the classes of land cover occurred after 1979 which was caused particular processes that had affect management and land use (creation of a unified agricultural cooperative in 1978) as well as a change of ownership after 1989.The built-up area of the village however obtained their character primarily to the year 1979 what related with to population growth and its activities in this area.In the period under were the most stable types of land cover - Cemeteries and Rivers on the other hand were the least stable Grassland (meadows and pastures) prevailingly without trees and shrubs. Areas where changes have occurred have been expressed another type classes of land cover and have been registered mainly along the linear areas and around of built-up area. Areal on which no change has been during the whole investigated period time horizon (1822 - 2012) are located in the south-eastern part of the cadastral territory and also in peripheral mostly wooded areas. The specific features from the aspect of land ownership has acquired land cover in year 2012, when around the built-up area of village has created the Complex of cultivation patterns.

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SYMBOLICAL CEMETERIES AS AN IMPULSE OF TOURISM DEVELOPMENT IN MOUNTAINOUS AREAS OF SLOVAKIA

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Abstract:
The primary aim of this article is to present symbolical cemeteries situated in Slovak mountain areas with an emphasis on the evaluation of their potential for tourism development and alternative form of tourism development – dark tourism. The specific intent is to highlight the social meaning of symbolical cemeteries, perhaps even commemorative sites as a memento, in reflection of the current trends in tourism and the sociological patterns of the modern society behaviour, from the position of demand carrier for tourism and its alternative forms. The benefit of this study is the spatial data analysis in the geographic information system application, namely through the obtaining, processing and evaluation of the available data that are spatially tied to the research area. The article suggests the possibilities of applying geographic information system as a tool for spatial data managing and as a tool for creating conditions for physical - geographic assessment of geosystems in mountainous areas of Slovakia. An expected outcome of mentioned activities is a digital, spatially georeferenced model of surveyed sites, which will be developed upon a vector base in GIS 10 application software that is utilized to process heterogeneous geographical data in a Geoinformatics environment, as well as the knowledge of geographic information system.

Key words*:*
sociology of tourism, dark tourism, geosystem, geographical information system, geomorphology, division of the Carpathians

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INTRODUCTION

Within living memory, the society is confronted with death. Weather it is a real experience or it is mediated through the media and other communication and information devices and sources, death and the idea of dying are a daily part of human life. Cemeteries and burial places have been part of geographical and tourist space not only in the past but also in the present time. They ceased to be a peripheral sites or taboo and became an important destination, respectively a final destination. By the installation of memorial plaques, they are an important source of information and a reference for their visitors.

The aim of the presented paper is to highlight the symbolic mountain cemeteries in Slovakia, which have a specific position in the cultural and spiritual legacy of Slovaks. For much as we have mentioned places with the "symbolic" reference of these who lost their life in mountains, they rather take the form of pious places, respectively memorial places (memento) than real places, where the bodies of the victims lie.

The fact that the mentioned issue has not been discussed so far, the important contribution of the paper is spatial analysis of the objects by evaluating physical-geographical conditions of the chosen area and creating a digital spatially-georeferenced 3D model of the study objects, created in application software GIS 10.

THEORETICAL BASIS

There are various viewpoints on a cemetery. According to *funeral act no. 131 of 2010 C.L. § 2* which defines basic terms, a **cemetery** is a burial ground designed for a burial ceremony, **grave place** is a place on a burial ground, which is designed for building a grave, a tomb or a place to store an urn and a **grave** is a place that was created by digging a hole to place a coffin with human remains into the soil.

Cemetery represents an anthropogenic form of relief, i.e. created by humans for the purpose of burying the deceased. From the genetic-morphological classification they belong to burial (funeral) forms. It is a surface form, which is spatially defined and created by the combination of underground (grave hole) and surface (gravestone, tomb) forms. Burial of the deceased into graves, which are localized in the areas particularly designed for this purpose, is typical for Christians, Jews and Muslims. These places are called cemeteries (Matlovič, 2001).

Cemeteries are often seen only as a special place for burying the deceased. However, for many people they have other functions and significations as well. Hupková (2009, p. 8) mentions that *„cemeteries are a significant part of cultural heritage. Cemeteries merge both material cultural message and historical message, which are presented by tombstones, symbols and epitaph with spiritual message. Thus, the specific atmosphere reflecting the culture of local inhabitants arises"*. Perception of death, way of burying people, rites and burial traditions, the visual aspects of a cemetery, legislative and economic relations, all of them are phenomena changing over time and space. The character of a cemetery is influenced by physical geographical features (relief, hydrometeorologic aspects, fauna and flora) and local socio-historical features (history and culture). If a cemetery has a special distinctive function, it is formed mainly by material objects and spiritual message blending.

A substantial culture is created by cemeteries, particularly through the cemetery's architecture. Graves and cemeteries are sometimes the only source of information about the very long gone past and about the people's way of life. The grave itself is a reflection of a burial rite. Cemeteries are also a significant component in urban planning (development forecast and new suitable areas for cemeteries) (Hupková, 2010).

Cemeteries and burial places have been part of geographical and tourist domain not only in past, but also in present. Cemeteries have become tourist destinations for further education and historical excursions. Tanaś (2004) outlines the functional change of old cemetery from funeral and memorial function towards tourist and symbolic one. Cemeteries ceased to be peripheral areas or taboo zones. They have become an important worth visiting destination, and for some people they represent places where to spend their free time.

Within the framework of a more complex and visual explanation of the symbolic cemeteries in the mountainous areas of Slovakia as a potential impulse of tourism development, the geographic information system (GIS), a tool for managing spatial data and evaluating the physical-geographical aspects of various geosystems, was used. Digital and spatially georeferenced database constituted a means of shapes were created using the GIS 10 application software.

Both location and geomorphological aspects of the area were created by vectorization of surface heterogeneous geographic data layers. We have created map outputs; height to surface area ratio, gradient of relief and cardinal direction orientation and a complex 3D model (see attachment); from input vector maps that were transformed into raster shapes (linked raster data created from line and points measuring data) by using ArcMap through the use of ArcToolbox – spatial analysis and triangulation. The final TIN layout in ArcScene represents coherent surface as a whole. We can work in this surrounding with the newly opened shapes by using different geo-information methods e.g. Spatial analyst (surface aspect; surface slope). These visual outputs form the basis for understanding complex topics of research and its application to the general lay public. They allow easier understanding and visualisation of the issue through sensorial perception.

Classification of cemeteries

As it was already mentioned, cemetery, as a funeral form of relief, is very little explored in terms of theoretical point of view. The complex documentation and classification of cemeteries cannot be found in the literature yet; however we can outline several approaches.

In relation to urbanized area, the classification is as follows:

a. urban cemetery
b. rural cemetery

According to secular and ecclesiastical administration, they are often classified as

a. communal cemetery
b. church cemetery (typical sign of church cemeteries is confessional segregation, they are divided in catholic, evangelic, Jewish etc.)

In relation to military events, we divide them in:

a. civil cemeteries

b. military cemeteries

Of course there are also specific categories of cemetery, such as: national cemetery, symbolic cemetery etc.

In this paper, the main focus is given to **symbolic cemeteries**, which represent a specific category.

Typical features of symbolic cemeteries:

1. The dominant function is not burial (to bury the deceased) but reverent and commemorative. There are no deceased in these cemeteries. The main reason and symbolism of these cemeteries is best characterized by the motto on the oldest one: "In memory of the dead - as a warning to the alive".
2. The linking element is not the place of residence, gender, nationality or religion, but the place of (tragic) death.
3. Symbolic cemeteries are compositionally set in the surrounding nature, thus create one harmonic unit. They do not interfere with the environment, but enrich it.
4. The commemorative function is materially expressed by the presence of crosses and plaques, where the place, date of birth and death and the circumstances of the tragic death are stated.
5. The presence of a chapel and consecration of the place give a **spiritual dimension** to symbolic cemeteries.
6. Symbolic cemeteries as a **tourist attraction.**
7. Symbolic cemetery as a **historic monument.**

GENESIS OF SYMBOLIC CEMETERIES IN SLOVAKIA

The very beginnings of symbolic cemeteries of the victims of the mountains stretch back to the 1930s, when a Prague artist, Otakar Štáfl, presented this idea. As the artist himself said, the ideas of creating a symbolic cemetery in the High Tatras were preceded by a negative experience from the field survey with his explanation: "to concentrate all depressing acting memorial plaques of victims at one accessible and dignified place, because until that time they were spread in different places of the Tatras."

For the first time, on 30 December 1930, Štáfl published his idea of the appearance of a symbolic cemetery in the form of a drawing in the Večer daily. Subsequently, there was a lengthy process of administrative - legal acts, as well as the searching for a suitable place for its location. Initially the location of the symbolic cemetery would have been in the settlement of Štrbské Pleso, in the Trigan part. However the management of national spa Štrbské Pleso rejected this intention and justified its statement by claiming that such object is not suitable, respectively does not fit into the spa environment where visitors are recreating and regenerating. The final decision where to place the symbolic cemetery was made in 1934. Thanks to zealous efforts of a Prague writer Eugénia Vyskočilová to agitate the idea of establishment of a symbolic place, the "place of places" was found – the stone pine wood under the western wall of Ostrva, where Eugénia Vyskočilová presented the memorial sentence:

"Here will be the place for remembrance to the dead and a warning to the alive." The motto was taking over the others symbolic cemeteries and the places of reverence of mountains' victims. Our eldest cemetery of the High Tatra Mountains' victims was officially opened to the public since the 1940.

Table 1: *The symbolic mountain cemeteries in Slovakia*

	1st CATEGORY: SYMBOLIC CEMETERY
1.	Symbolic cemetery of Liptov region, part of Western Tatra Mountains´ Victims, Žiarska dolina (Krásnô), 1995
2.	Symbolic cemetery of victims in Orava region, part of Western Tatra Mountains (Zverovka), 2009
3.	Symbolic cemetery under the edge of Ostrva in High Tatras (Popradské pleso), 1940
4.	Symbolic cemetery of Low Tatra Mountains´ victims, Ostredok (Stodôlky), 1954
5.	Symbolic cemetery of Low Tatra Mountains´ speleologists (Jaskyňa mŕtvych netopierov)
6.	Symbolic cemetery of Malá Fatra Mountains´ victims, Vrátna dolina, 1998
7.	Symbolic cemetery of Veľká Fatra Mountains´ victims (Kráľova studňa), 2011
8.	Symbolic tramp cemetery in Košariská (Malé Karpaty), 2003
9.	Symbolic tramp cemetery of the White cross (Malé Karpaty) – the end of 20th century
10.	Symbolic tramp cemetery in Ružín
11.	Symbolic climber cemetery in Manínska úžina, (Súľovské vrchy), 1960
12.	Symbolic forester cemetery in Vydrovská dolina (Veporské vrchy), 2004
13.	Historical forester cemetery (Čierny Váh forest settlement), 1780
14.	Symbolic cemetery of Tisovec speleologists in Michňová abyss (Muránska planina), 1991
15.	Symbolic cemetery of Slovenský Raj victims (Kláštorisko), 2010

Source: http://hiking.sk

14 years later the next symbolic cemetery was opened – The symbolic cemetery of The Low Tatras´ victims, Stodôlky (Ostredok). In the next period, there was stagnation in establishing these memorial sites for political reasons; they became "unacceptable" for the political apparatus of the then regime. Significant changes have been recorded in the genesis of symbolic objects in the1990s, when their numbers have begun to increase. Especially the last decade represents the period of a significant progress of the establishment of the symbolic cemeteries in mountainous areas (see table 1).

SYMBOLIC MOUNTAIN CEMETERIES

1. The symbolic cemetery under the Mount Ostrva (The High Tatras, Popradské pleso) 1940
2. The symbolic cemetery Stodôlky (The Low Tatras, Demänovská dolina) 1954
3. The symbolic cemetery Krásnô (The Western Tatras, Žiarska dolina) 1995
4. The symbolic cemetery in Vrátna (Malá Fatra, Vrátna dolina) 1998
5. The symbolic cemetery near the Chalet Zverovka (The Western Tatras, Roháče) 2009
6. The symbolic cemetery of Kláštorisko (Slovenský raj) 2010
7. The symbolic cemetery under range of Krížna (Veľká Fatra) 2011

The Stodôlky symbolic cemetery is the oldest symbolic cemetery of mountain victims in the Low Tatras, located in a picturesque area of Demänovska dolina. The installation of a statue of mountain (partisan) pieta in July 1954 is considered an establishment of the cemetery. This place of reverence was officially opened 55 years later, on 26th June 2010, by the delegates of the Demänovská Dolina village, The Mountain Rescue Service, The Seniors' Club of The Mountain Rescue Service. It took name The Symbolic Cemetery of the Low Tatras Victims. In the mentioned year, a six metre high carved wooden cross with a portrayal of mountain pieta representing a statue of a mother and her child (author: academic sculptor Alfonz Groma) was installed. In the same year, a chapel with very accurate inscription *„In memory of the dead - as a warning to the living"*(SME, 2010b) was built within the cemetery. The site of the symbolic cemetery together with all objects is gently set into the natural environment that represents its genius loci.

The symbolic cemetery is localized in the Demänovská dolina, on the Ostredok, ground elevation Stodôlky. Ascent to the cemetery is not difficult and a visit can be done even without using special hiking equipment. The shortest route to the cemetery leads from Jasná, along the ridge of Ostredok and takes approximately 30 minutes. Along the route, tourists can find routing tables with information about direction and remaining time to the destination.

The Symbolic cemetery Krásnô is dedicated to the mountain victims of The High Tatras. This place of reverence located in Žiarská dolina (valley) was made accessible on 22.10.1995 with help of volunteers of The Mountain Rescue Service, the owner of the Žiar chalet, the municipal office in Žiar and territorial-lords (urbárnik) (SME, 2012).

The Symbolical cemetery Krásnô is located in the upper area of the Žiarska dolina in Krásnô, under the Príslop hill, not far away from the Žiar chalet. Tourists need to follow the green tourist sign in direction towards the Šarafiov vodopád (waterfall) (Trstenský, 2013).

In the altitude of 1525 metres, near to Popradské pleso (The Poprad Tarn), under the western side of Ostrva, in stone pine vegetation, a **symbolic cemetery** dedicated to the reverence **of the victims** of mountain disasters **in the High Tatras** is located. Initially, the memorial plaques dedicated to the mountain victims of The High Tatras were placed at the points of mountain disasters (Vysoké Tatry, 2014). For the first time, in 1936, an academic painter Otakar Štáfl expressed an idea to create a memorial place. Later on, Alojz Lutonský (the secretary of the Tatra Comission of The Czechoslovak Tourist Club), Eugénia Vyskočilová (the author of motto: In memory of the dead - as a warning to the living) and many other enthusiasts joined him (Plus 7 dní, 2013). The construction of the symbolic cemetery was finished and officially opened to the public on 11.8.1940. On the symbolic cemetery, apart from the victims of mountain disasters of The High Tatras, there are also plaques dedicated to important Slovak mountain climbers, who died during foreign expeditions, and to important polish "Taterník" (Tatra enthusiast) (Vysoké Tatry, 2014)

The symbolic cemetery is situated in the Mengusovská dolina valley in a stone pine grove on the Limbovec hillock under the western side of Ostrva near the Popradské pleso. Several hiking trails lead to the pious place, the shortest one leads

from the chalet near the Popradské pleso with approximate duration of around 30 minutes (Trstenský, 2013).

Since the 1998, the pious place of the victims of the mountain disasters in The Malá Fatra is located in the Vrátna dolina under the Biele skaly. Establishment of **the symbolic cemetery of the victims of Malá Fatra** has risen from the idea of the members of The Mountain Rescue Service. Thanks to the voluntary financial support of a Mountain Rescue Service member, Jozef Mič, the symbolic cemetery was officially opened to the public on 25.7.1998 (SME, 2010a).

The symbolic cemetery is located in the Vrátna dolina – Stará dolina under the Biele skaly above the valley station of the funicular railway to Snilovské sedlo.

On 8.11.2009, **the symbolic cemetery** dedicated **to the victims of Roháče** (the Orava part of the Western Tatras) was officially accessed near the Zverovka chalet. Around 20 years ago, Ján Jurina (the former chief of the Mountain Rescue Service ZT North) had expressed the idea of establishment of a place of reverence. There were more proposed localities at that time but after all, the locality under Poľana in Zverovka was the most appropriate. The architectural design with the features of Orava architecture was developed by Lucia Maruščinová. With the aid of rescue workers from Roháče in cooperation with the municipal office in Zuberec and with the financial support of sponsors, the effort of the establishment of a place of reverence was accomplished (in) the same year (Roháče, 2014).

The symbolic cemetery is located in the Orava part of The Western Tatras in The Roháčska dolina- poľana Zverovka near the Zverovka chalet.

In the heart of The Slovenský raj, on the Poľana Kláštorisko meadow**, the symbolic cemetery of the Slovenský raj's victims** and a place of reverence for personalities of The Slovenský raj was officially opened on 20.11.2010. The symbolic cemetery is a free-standing object situated next to the partially reconstructed ruins of a Carthusian monastery. The cemetery is an exterior gallery full of wooden works of art of the young artists from the Spiš region. Plaques with the names of victims will be installed on these sculptures. (Slovakia Travel, 2014).

The cemetery is located between the chalet and the ruins of the Carthusian monastery in the Slovenský raj, the Kláštorisko plain.

The latest **symbolic cemetery** is located under the range of The Krížna and is dedicated to the victims of mountain accidents **in The Veľká Fatra**. From 20.8.2011, the place is opened to the public. The central motive of the memorial place is a cross, which was designed by architect, Vladimir Tomala. The cross is a symbol of obeisance to those people who could not come home to their relatives and at the same time it admonishes current visitors not to underestimate the dangerousness of the mountains.

Beside the cross, plaques with the names of the victims have been installed there as well. Not only the members of the Mountain Rescue Service in Slovakia and The Club of Seniors of The Mountain Rescue Service, but also the town of Banská Bystrica, Self-Governing Region, The Club of Slovak Tourists and others helped with the constructing and financing the symbolic cemetery (SME, 2011).

Place of reverence is located near the Kraľova Studňa – The Cliff of Smrekovica, nearby the cairn of the fallen in the World War II., between the Kráľova studňa hill and the Smrekovec hill.

Table 2: *Basic data to symbolic objects*

name of object	year of foundation	GPS	geomorphological area boundary	important tourist object	website
Symbolic cemetery of Low Tatra Mountains´ victims	1940	N49°08.937' E20°04.783'	Vysoké Tatry (Popradské pleso)	Chata pri Popdradskom plese	http://www.popradskepleso.com/sk/titulka/
Symbolic cemetery of High Tatra Mountains´ victims	1954	N48°58.89' E19°35.072'	Nízke Tatry (Demänovská dolina)	Mikulášska chata	http://www.mikulasskachata.sk/sk
Symbolic cemetery of Western Tatra Mountains´ victims	1995	N49°10.963' E19°43.153'	Západné Tatry (Žiarska dolina)	Žiarska chata	http://www.dolinky.szm.com/chata.htm
Symbolic cemetery of Malá Fatra Mountains´ victims	1998	N49°12.431' E19°2.904'	Malá Fatra (Vrátna dolina)	Chata Vrátna	http://www.chatavratna.eu/
Symbolic cemetery of Roháče Mountains´ victims	2009	N 49° 14.951 E 019° 42.721'	Západné Tatry (Roháče)	Chata Zverovka	http://www.chatazverovka.sk/
Symbolic cemetery of Slovenský raj victims	2010	N48°56.619' E20°25.226'	Slovenský raj (Kláštorisko)	Chatová osada a turistická chata Kláštorisko	http://www.slovenskyraj-info.sk/chata_klastorisko.php
Symbolic cemetery of Veľká Fatra Mountains´ victims *	2011	N48°52.977' E19°2.452'	Veľká Fatra (Krížna)	Hotel Kráľová studňa	http://www.kralovastudna.com/

* Symbolic cemetery with the status of place of reverence

PHYSICAL-GEOGRAPHICAL CHARACTERISTIC OF THE STUDY AREA

Symbolical cemeteries are situated in our highest mountains (see table 4 in attachment). All the while, mountains have been well known thanks to unique beauties of nature – peaks, tarns, gorges, clefts, etc.

In terms of geomorphological subdivision (Mazúr - Lukniš 1980), symbolic cemeteries are located in the sub-province of Inner Western Carpathians in the Fatra-Tatra area; the latest cemetery is located in the geomorphological area of the Slovenské rudohorie.

The most (three) of the symbolic cemeteries are located in the highest mountains – Tatra Mountains. Their location is dependent on relatively long historical period of tourism and the attractiveness and uniqueness of Slovak mountains. The other factor is also difficult and "trappy" alpine terrain, which was underestimated by the tourists. That is why, beside all superlatives connected with the Tatras, we also have to allege the highest number of the victims of mountain accidents which have conditioned the creation of the symbolic cemeteries.

As it is noted at the table above, Tatra Mountains are geomorphologically part of Fatra-Tatra area. They are the highest part of Carpathians. They are located in the northern part of Slovakia, where they create a natural boundary with Poland –three quarters of their area are located in Slovakia. Tatry are core mountains. They are built by three significant geological mega units. Tatric is the basement zone formed by crystalline rock and their sedimentary mantle lapped by subtatras nappes – lower križňanský nappe (fatrikum) and upper Choč nappe (hronikum). Nappes are mainly formed by Mesozoic carbonates – limestone and dolomites. At the end of paleogene and pariculary during the Miocene a massive uplift movement had begun. (Nemčok et.al 1993). While the formation of Tatra Mountains, an important role had an iceberg. The motion of the iceberg created the typical glacial forms - moraines, tarns, gorges, cirques, etc. Tatra Mountains are divided into 2 subunits – Western and Eastern Tatras which are separated by Kôprova dolina (Kôprova valley). In the Eastern Tatras, in a part of Vysoké Tatry (Hihg Tatras), the oldest symbolic cemetery in Slovakia is

located. This cemetery is not far from Popradské pleso (Poprad Mountain Lake) under the edge of Ostrva. The altitude of High Tatras is high indeed, because we can find there 29 peaks with the absolute altitude over 2500 meters. The highest, Gerlach Peak (2 655 m) is not only the highest peak of Tatra Mountains but also of the whole Carpathian belt. The western Tatras are formed by Variscan granites and granodiorites. The south part of the area (Liptovské Tatry) is formed by paragneisses, schists and migmatized gneisses with patches of amphibolites from the era between Proterozoic and upper Palaeozoic, and also by orthogneisses and migmatites form the same geological era. Crystalinicum and Mesozoic of the northernmost part are divided by a narrow belt built of slates, claystones and quartzites of lower Triassic. Roháče are well known thanks to their 2 highest peaks resembling of devil's horns. Mountain rescue service took up the activity in Rohače since 15 May 1054.

In addition to the Tatras, „whether High or Low", we can find symbolic cemeteries that are dedicated to the memory of the victims, who died during mountain tragedies, also in our others mountains, namely in Malá and Veľká Fatra.

The latest symbolic cemetery is located in the Hôľna Fatra subunit, which is a part of the geomorphological unit Fatra. It is a relatively widespread **core** mountain. The Granite core rises to the surface only in the area of Smrekovica and Ľubochnianska Valley. The rest is built mainly by Mesozoic sedimentary rocks.

Next to the last cemetery was founded the Symbolic cemetery of Slovenský Raj victims, Kláštorisko. In contrast to the others, this cemetery is located in the area of Slovenské rudohorie. Slovenský raj along with Muránska planina form geomorphological unit of Spišsko-gemerský kras. Slovenský raj is geologically a part of Gemer (Gemericum). The part of Slovenský raj is built by the Northern Gemericum synclinore, the periphery of the synclinore consists of Werfen formations (Lower Triassic), slates of varied layers and approximately 150-300 m thick gutenstein and wetterstein limestones and dolomites. Slovenský raj is very popular among tourists for its unmistakable atmosphere and natural value - karst plains, gorges, waterfalls, etc. Moreover, tourists seek this National Park because of its unique hiking trails. They can find ladders and steps planted directly in the rock, which offer an unforgettable experience. On the other hand, this terrain is difficult and treacherous even if the path is in good condition.

SOCIOLOGICAL ASPECTS OF TOURISM AND ITS REFLECTION IN DARK TOURISM

Technical and technological progress brings innovation, information and communication accessibility, which have their basis in the development and application of information communication technologies and also contribute to the strengthening of globalization and social relations transformation.

In consequence of globalization we can observe the process of generalization in the society, i.e. in such environment the social status of an individual is being transformed. According to (Keller, J.) the phase of modernity, chronologically belonging to the last quarter of the 20th century, is characterized by the effort of a human being to be free of the repression effects of social structures and to assert more expressively in the need for self-identification and self-realization. This sociological

trend can also be observed in the subject of tourism (tourists). Its consumer demand tends largely to such tourism products that allow them (tourists) to confront their own experience and environment. Individualization, as an interpretation scheme of contemporary society guarantees more authenticity and more space for self-fulfillment of an individual. We can observe these trends in travellers' habits, when the participant of tourism, on the base of experience, is more flexible and pragmatic in choosing within the offering standard. Increasingly, consciously or unconsciously, tourist enforces their individual personality. Individual consumption of tourism contributes to the genesis of the alternative forms of tourism, an example of what dark tourism is.

The genesis of dark tourism as a concept has its origins in 1990s. The term, dark tourism, gained ground in 1996, when John Lennon and Malcolm Foley (from Caledonian University, Glasgow) used this term in the academic journal „International Journal of Heritage Studies". Dark tourism is defined by Foley and Lennon (1996) as "the phenomenon which encompasses the presentation and consumption (by visitors) of real and commodified death and disaster sites". Taking the basic definition of dark tourism into account, we can discuss about the motivation, respectively about visitation of the objects (or places) that associate with death, disaster, tragedy, suffering, etc.

DEATH IN THE CONTEXT OF TRAVELLING AND TOURISM

Interest in death is a new social phenomenon. As an example of the early forms of tourism in association with death and dying, which demonstrated some signs of organized activity, we can mention gladiatorial fights from the ancient Roma, pilgrimage and middle-age public executions. Another example is the first registered sightseeing in England – 1838, linked with the train excursion in order to witness the execution of two killers.

Maccannell (1989) noted that Paris sightseeing was preceded by visits of morgues in 19th century, which could be considered as the forerunners of "Body World's exhibitions". Seaton (1999) sticks to the idea that death, suffering and tourism, have been existing in mutual interaction for over centuries. For instance, he shows surviving records of the visits to the battlefield at Waterloo in 1816, where the visitors could directly watch the running of the fightings, moreover the dying of the participants.

There are many other examples that lead to broad categorization of the dark tourism. It should be noted that the following categorization is not definitive.

Table 3: *A categorisation of dark tourism*

Divisions of the dark	
Perilous places Dangerous destinations from the past and present	• towns of horror • dangerous destinations
Houses of horror Buildings associated with death and horror, either actual or represented	• dungeons of death • heinous hotels
Fields of fatality Areas / land commemorating death, fear, fame or infamy	• bloody battlegrounds • the hell of Holocaust • cemeteries for celebrities
Tours of torment Tours / visits to attractions associated with death, murder and mayhem	• mayhem and murder • the now notorious
Themed thanatos Collections / museums themed around death and suffering	• morbid museums • monuments to morality

Source: (Sharpley, Stone, 2009)

No matter how diverse the views on death are, it always contributes to the understanding of the life itself. It points out the goals and possibilities that the life brings and also admits that the life have its own limits (Aries). This idea is reflected in symbolic cemeteries too. On the one hand they present, for their visitors, a kind of a database with names, causes and places of death, i.e. they point at the limitation of human life, and on the other hand, these places are a kind of a message to show the importance of human life and the need to protect it. Cemeteries attract more and more attention, whether the visitors of mountainous areas who seek these objects on purpose or those whose visit of destination was not planned (primary); as well as general and professional public.

CONCLUSION

Since the mid-twentieth century, the building of burial places and cemeteries away from residential areas has started not only in our country but also in the rest of the world. What makes symbolic mountain cemeteries special and unique is their location i.e. their "positioning" in the landscape, the nature environment by using existing materials and resources: forests, rock formations, etc. All of these create space for the application of new architectural principles, genesis of atypical funeral forms but also interdisciplinary approaches to the study of these objects.

These objects can be considered also as an in important sociological phenomenon. They are interesting touristic places for all tourists, who go to mountainous areas knowingly and wilfully or unknowingly (accidentally) with the variability in motivation of their visitation. Symbolic objects are turning into places of passive recreation that allow visitors to identify themselves, respectively to confront their own life with reference to those who lost their lives in the mountains; to understand the meaning of their life and the importance of protecting it.

At the same time, we can perceive these places as an ongoing cultural and religious reference of the Early Slavs to whom the forest represented characteristic

environment for living and also it had an important function during burial ceremonies.

The present society is exposed to daily "consummation" of information mediated by the media. Death itself and the topic of dying are becoming "publicized phenomenon" that contributes to de-taboo death. Here it is appropriate to emphasize the importance of ethics in the way of mediation and interpretation of death and awareness, what is morally acceptable for a human individual or a society, and what is not.

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ATTACHMENTS

Table 4: *The localization of symbolical cemeteries within the geomorphological units (according to Mazúr - Lukniš 1980).*

Subsystem	Province	Subprovince	Area	Unit	Subunit	Part
Carpathian Mountains	Western Carpathians	Inner Western Carpathians	Fatra-Tatra Area	Tatra Mountains	Eastern Tatras	**Vysoké Tatry (High Tatras) 1**
						Belianské Tatry
					Western Tatras	Červené vrchy (Red Mountains)
						Osobitá
						Liptovské kopy
						Liptovské Tatry 2
						Roháče 3
						Sivý vrch (Grey Mountain)
				Low Tatras	Kráľovohoľské Tatry	
					Ďumbierské Tatry 4	
				Malá Fatra (Little Fatra)	Lúčanská Malá Fatra	
					Krivánska Malá Fatra 5	
				Veľká Fatra (Great Fatra)	Bralná Fatra	
					Hôľna Fatra 6	
					Lysec	
					Revúcke podolie	
					Šiprúň	
					Šípska Fatra	
					Zvolen	
			Slovenské Rudohorie (Slovak Ore Mountains)	Spiš-Gemer karst	**Slovenský raj (Slovak paradise) 7**	
					Muránska planina (Muráň Plateau)	

1 The symbolic cemetery under the edge of Ostrva
2 The symbolic cemetery of Krásnô
3 The symbolic cemetery near the Chata Zverovka
4 The symbolic cemetery of Stodôlky
5 The symbolic cemetery near Vrátna
6 The symbolic cemetery under range of Krížna
7 The symbolic cemetery of Kláštorisko

Image 1: *Memorial plaques of Mountains' victims (The Symbolic cemetery under the edge of Ostrva)*

Image 2: *The Symbolic cemetery of Slovenský raj victims (Kláštorisko)*

Image 3: *The Symbolic cemetery of Roháče Mountains' victims (Zverovka chalet)*

Image 4: *Memorial plaque of "heroes of The Slovak National uprising" (Symbolic cemetery of Low Tatra Mountains' victims, Stodôlky)*

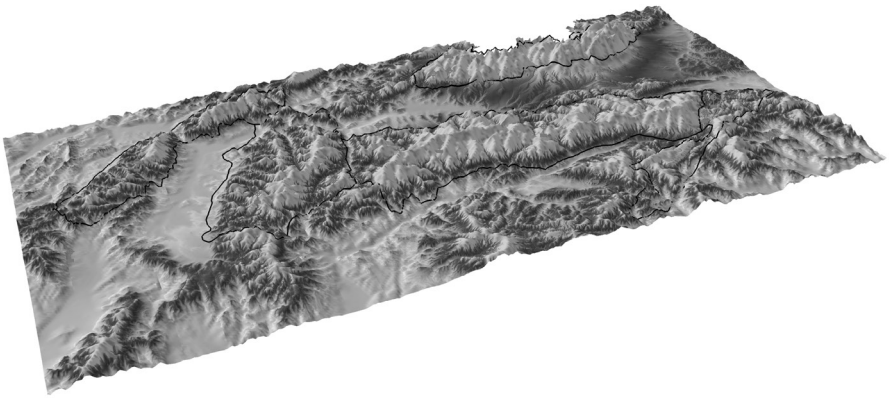

Image 5: *Digital model of the studied area with the localization of symbolic objects*

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