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POTENTIAL GEOMORPHOSITES AS LOCALS OF GEOTOURISTIC INTEREST: CASE OF MUNICIPALITY OF JOÃO PESSOA, PARAÍBA STATE (BRAZILIAN NE)

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Abstract: The objective of this paper is to present a view of the geomorphological heritage of the municipality of João Pessoa, northern Brazil, in order to insert potential geomorphosites in urban geotouristic routes. This city is part of a sedimentary basin that developed on a failed crystalline basement, whose Plio-Pleistocene reactivation resulted in a stepped substrate, and the terrain has urban geotouristic potential from the point of view of its geomorphological heritage. The relief was fragmented into three major morphosculptural units: coastal plains and tablelands, limited by the slopes, all with their potential geomorphosites, developed at various scales and presented here in.

Keywords: Geomorphological Heritage, Potential Geomorphosites, Locals of Geotouristic Interest, João Pessoa, Urban Geotourism.

* * * * *

INTRODUCTION

Valuing natural diversity has been commonly and more evidently accepted in Biology, where concerns about the extinction of species and habitat loss have led scientists, public administrators, NGOs and others to conduct conferences and environmental policy agreements. In this light, the municipality of Joao Pessoa, capital of Paraíba state, stands out with a unique natural biotic heritage, like one of the largest tropical forests in the planet's urban area with 535 ha, the Botanical Gardens Benjamin Maranhão, known as 'Mata do Buraquinho'. However, its abiotic heritage, as support of biodiversity, has been relegated to the background, especially taking into account the bias of conservation or, in this case, geoconservation and even geotourism. The municipality of João Pessoa has an extremely interesting geodiversity, interlacing river elements, marine and fluvio-marine elements as well, seated on a sedimentary basin, considering, as part of this work, its geomorphological aspects, namely its landforms and deposits at different scales. Thus, when the human perception values a set of landforms (and correlative deposits), or geomorphosites, with scientific, ecological, economic, cultural or aesthetic interest, have the definition of geomorphological heritage (Panizza & Piacente, 1993; Panizza, 2001; Reynard, 2005; Reynard & Panizza, 2005) which, by its meaning, deserves

* Corresponding author

to be studied, preserved and valued. It should be noted that in this work, geomorphological heritage was dissociated from the geological heritage, we consider complementary concepts but distinct both belonging to the abiotic Natural Heritage.

Furthermore, the identification, classification, evaluation, mapping, protection and promotion (Panizza, 2001; 2003; Pereira et al., 2007) of this type of heritage adds an asset for tourism activities in the scope of geotourism, through interaction between cultural and natural aspects of the landscape (Panizza & Piacente, 2003, Rodrigues et al., 2011). The goal of this paper is to present a vision of geomorphological heritage of João Pessoa, northeastern Brazil, in order to insert potential geomorphosites in geotouristic routes. The production of this information, brought to a wide range of researchers, scientists, students, tourists, among others, is important for the construction of an urban culture that is able to understand that the city we live in is a much more complex piece than that of our ancestors, and that the geomorphological heritage have an important role in consolidating this achievement, serving as a builder element of the dialectical relationship between natural history and human history of the municipality of João Pessoa.

METHODOLOGY

The proposed work involves seven sequential stages. They are:

1. Bibliographical Reference: at this stage, any scientific studies involving history, geomorphology and geology, including tectonics, of the municipality of João Pessoa will be analyzed, to increase the knowledge involving the genesis of the landscape, as well as the understanding of cultural and functional value of geodiversity, when related to the setting and urban development of the municipality;

2. Field Work: to recognize up to potential sites of geomorphological interest in the field, in order to identify geotouristic use values, which will help in the selection of those to be inserted in later stages of the project. To this end, topographic maps were used, such as João Pessoa chart, scale 1: 100.000 and the Joao Pessoa chart SB.25-YC-III-1-NE, scale 1: 25.000, as well as aerial photographs, scale 1: 8000 and satellite images, as images of the sensor ASTER/ TERRA, VNIR bands, spatial resolution 15m;

3. Inventory: a database is created with potential geomorphosites that have geotouristic use value, due to its logistic facilities, scenic beauty, cultural value, among others, by filling out assessment files that include the absolute and relative location, photography, access ways, description of the physical characteristics, etc., based partially in Rodrigues (2009), considering the analyzed scale, from the outcrop (meters) to landscape (km; according Carvalho, 1999).

2. Semiquantitative Assessment: in this stage, the potential geomorphosite has to be re-assessed, in order to define the sites of greater or lesser geotouristic interest and, according Pereira & Nogueira (2015).

3. Conservation: at this stage, it analyzes the potential risk, inserted by natural or human activities, in the assessed geomorphological site. So, according to the relevance in this matter, sites that should be preserved, either from contact with humans or the nature of the dynamics of action in the case of certain outcrops, will be preserved, for example, significant elements as fossils or minerals that can be destroyed by erosion. This level of vulnerability and risks of degradation will be assessed of the semiquantitative point of view, through a methodology proposed by Pereira & Nogueira (op. cit.).

4. Regulation: since by knowing the most vulnerable locations of geotouristic interest, this step consists in the insertion of the potential geomorphosite into the current environmental legislation, with the transfer to the government of information about the level of protection that each site requires, aiming geoconservation strategies, since geotouristic activities increase human pressure on the natural environment.

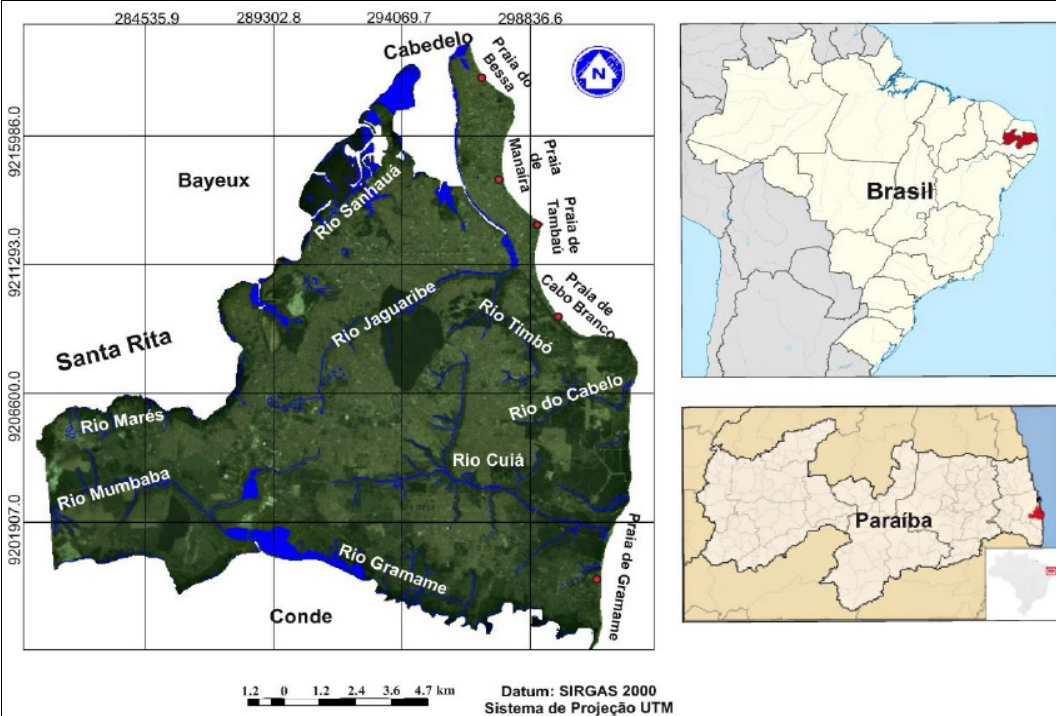


Figure 1. Location of João Pessoa, Paraíba, Brazil NE (Source: Barbosa, 2015)

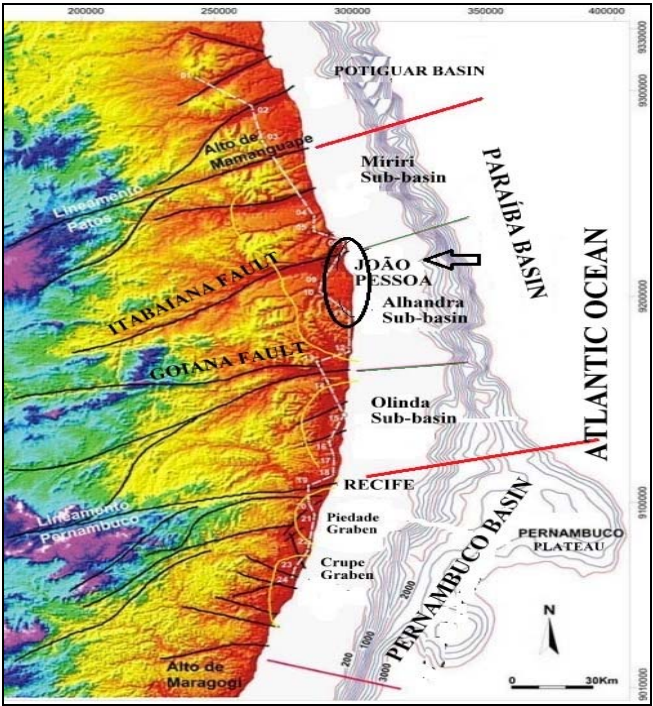


Figure 2. Location Area (circle) of the sedimentary basins of the Northeast (Source: modified from Barbosa & Lima Filho, 2005)

5. Disclosure: will be done by preparing a Geotouristic Guide of João Pessoa, which will enable to propose guided geotrails. Furthermore, it proposes the development of panels in those places of greatest geotouristic value, concerning its formation and characteristics, richly illustrated. Thus, the sites will be valued and exposed, as well as the local geodiversity and, indirectly, the geosciences.

This project is part of a geoheritage mapping to be developed in the long term, culminating with the publication of the Geotouristic Guide. Thus, it is presented in a stage, in which the sites are being identified by their culture, ecologic, scientific and, mainly aesthetic values, and inventoried to future geotouristic use.

Geological and geomorphological context of the area

The municipality of João Pessoa is located in the topographic chart of João Pessoa plane (SB-25-YC-3), scale 1: 100,000 (Figure 1), elaborated by the Army Ministry. The geology of the research area is associated with Paraíba sedimentary basin. Such sediments were deposited as the South American continent withdrew from the African continent (Françolin & Szatmari, 1987), over a crystalline basement deformed by shear zones (Jardim de Sá, 1994). This basin can be subdivided into three sub-basins (Figure 2): Olinda, Alhandra and Miriri sub-basins. The study area is part of the Alhandra sub-basin, border to the north by Itabaiana fault and to the south by Goiana fault.

The sedimentary deposit events of the Paraíba Basin are dated from the late Turonian, when the the lands both to the North and to the South of the Pernambuco Shear Zone were reactivated (Petri, 1987), as the South American continent moved away from Africa, starting the land subsidence of the Paraíba Basin, later regarding the basins to the north and to the south, Potiguar and Pernambuco, respectively, wich have already demonstrated sedimentary deposits from the Barremian/ Aptian (Petri, 1987; Barbosa & Lima Filho, 2006). In this period (between the Coniacian and lower Campanian), the basin's sedimentation has begun (Barbosa et al., 2003), even in continental conditions, depositing sandstones and conglomerates of Beberibe Formation, 360 m- thick (Barbosa et al., 2003), representative of a high-energy river environment (Barbosa & Lima Filho, 2006), resting unconformably on the bottom. This includes the Alto Moxotó Terrain, composed of granodioritic and granithic orthogneiss and metamorphosed volcanic rocks on amphibolite facies (biotite schist, biotite-gneisses and graywackes) of the Paleoproterozoic age (Brito Neves et al., 2004). The Paraíba Basin resisted the rifting process until the Late Cretaceous (Mabesoone & Alheiros, 1988), being the last link with Africa.

With this subsidence, forming a gentle slope inclined to the east-type homocline (Asmus, 1975) and subsequent disruption of the link between South America and Africa, the terrain begins to be invaded by the sea, gradually depositing marine carbonate sediments from the Itamaracá Formation, 70 m thick, dating from the Upper Campanian, indicative of a transgressive stage that will continue throughout the Maastrichtian, under hot and dry climatic conditions (Petri, 1987). The maximum drowning of the basin, whose marine waters hamper the deposition of clastic to its interior, is represented by a phosphatic level dating from the Campanian (Lima Filho & Souza, 2001), which limits the Itamaracá Formation of the posterior formation, 70 m-thick, representative of a tract of high sea already with calm and shallow water, whose carbonate deposition is represented by several facies of the limestone from the Gramame Formation, occurring initially in the Upper Campanian (Tinoco, 1971; Lima et al., 2006), and extending around all Maastrichtian. In João Pessoa, this formation outcrops on the Ilha do Bispo, on the right margin of the Sanhauá River, being exploited by a cement industry for almost 100 years. At the end of Maastrichtian, the ocean floor expands, starting a regressive marine event, meaning the marine platform begins to be exposed and weathered (Barbosa et al., 2003). During the Paleocene, this regressive stage is

characterized by highly fossilized carbonate deposition from the Maria Farinha Formation, representing a low and open marine environment (Tinoco, 1971; Cordoba et al., 2007; Barbosa et al., 2003) in more humid climatic condition (Petri, 1987). This formation outcrops abundantly in the form of dolomitic limestones on the southern coast of the area, especially in the municipality of Conde.

The Barreiras Formation, from the upper-Plio-Pleistocene age, is considered a platform coverage of the Paraíba Basin, which sediments are the result of weathering from the outcropping crystalline shield in Borborema Plateau (Gopinath et al., 1993), distant about 30 km from the coast and were deposited in a braided river environment (represented by gravel and coarse to fine sand) on alluvial fans (intercalated conglomerates intercalated a thinner silty-clay layer, according Alheiros et al., 1988), under an arid climate. Its average thickness is 40 m, reaching 80 m (Leal E Sá, 1998).

Above the Barreiras Formation were deposited quaternary sediments, representative of a marine/ transitional environment (Pleistocene and Holocene marine terraces, rocky and algalic-coralineous reefs, mangroves and beach sands named 'beachrocks') and of a continental environment (colluvial deposits, cones of dejection, inactive dunes and alluvial deposits), through new spaces created by faults reactivated in the Neogene and Quaternary ages (Bezerra & Vita-Finzi, 2000; Rossetti et al., 2008, among others). From the Pliocene, as a result of the establishment of a stress field in the South American plate, with compression oriented E-W and N-S extension, a series of faults that hit the overlapping sediments were reactivated, having a crucial role in coastal morphology and tracing of the hydrographic network (Bezerra et al., 2001), as it will be seen below. The study area belongs to the geomorphologic unit of Plains and Coastal Tablelands, according to Ross (1985), having direct relation with ancient tectonic movements, generated during the drift of the South American and African plates (Asmus, 1975), added to Cenozoic tectonic events (Bezerra et al., 2001; Bezerra & Vita Finzi, 2000, among others).

We can identify three subunits to the urban site of João Pessoa and the south coast: the coastal plain, low coastal upland ('Coastal Tablelands') and floodplains, which can be still subdivided into fluvial and fluvial-marine floodplains (Rodriguez, 2002). The top of the tablelands is linked to the plains in relatively steep slopes, in form of clefs, with great scenic beauty, in the shore. The coastal lowlands are in direct contact with the sea, have altitudes between 0 and 10 m, which quaternary sedimentation of river, marine and rivermarine origin filled the coastal plain, resulting in numerous geomorphological features that can be considered potential geomorphosite for its scenic beauty and / or relevant geological/ geomorphological history.

On the margin of the Rio Paraíba, floodplains occur on higher altitudes, whose presence of mangroves, away up to 12 Km of the coastline denote its ecological importance. In the northern portion of the study area, the sandbank of Cabedelo ('Restinga de Cabedelo') separates the Paraíba River from the Atlantic Ocean. The low coastal uplands, also known as 'Coastal Tablelands', correspond to a higher, gently sloping portion of the land, with flat top, generally inclined to the east, result from the action of exogenous agents that carved the Barreiras Formation, including marine abrasion on cliffs, another outcrop form of this formation on the coast, at its eastern portion. Most of the urban site of João Pessoa sits on this geomorphological unit.

According Brito Neves et al., (2004), these low coastal uplands were results of large arching and a succession of steeped pediplains to inland, subordinated to paleoclimate, whose graben- horst type structure controlled its morphology. Reactivation of basement shear zones with E- W and NE- SW direction, from the Early Cretaceous (Nóbrega et al., 2005), reach the sediments of the Barreiras Formation, forming fault scarps that are capped by alluvial terraces, sandstone dunes, debris slopes, soil and vegetation, and which serve as

bounds of the river valleys, while the upraised portions were dissected (Lima et al.,1990). Thus, the altimetric quotes of the urban compartment of tablelands show uplifted portions (west, whose elevations reach 70 m) and lowered portions (between Mumbaba River and Sanhauá River, a tributary of the Rio Paraíba, where altitudes do not exceed 40 m), rising again (in the upper course of the Rio Cuiá), decreasing toward the east, and denoting the structural behavior of the graben-horst type, bounded by normal faults (Bezerra et al., 2001). The substrate of municipality is represented by a Graben, called Gráben da Grande João Pessoa, according Brito Neves et al., (2004, 2009), whose sediments reach 300 m thick, when they reach the basement (Figure 3).

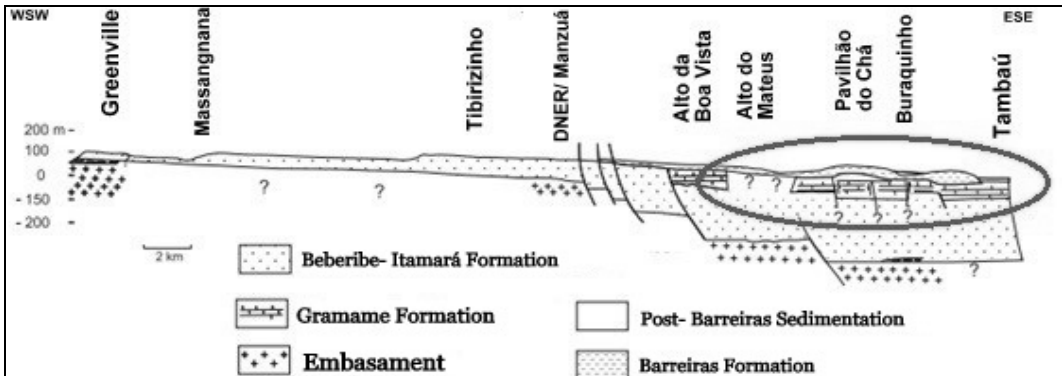


Figure 3. ESE- WSW profile showing the behavior of basement, forming the Graben of Grande João Pessoa, on east and their overlapping sediments, drawn from dozens of pit datas, with the delimitation of João Pessoa area in circle area (Source: modified from Brito Neves et al., 2009)

Away from the urban area grew the sugar production in the presence of fertile black clay soil, named 'massapê', extending away dozens of miles from shoreline. The limit of the coastal plain can be viewed along the San José Community, a district with serious infrastructural problems, which sat at the feet of a dead Cliff, tangent the lower course of the Rio Jaguaribe and through a wide range of inactive cliffs, further south where, on the other hand, the Altiplano District formed, with a concentration of high-income population (Figure 4). In this figure, the Lagoa dos Irerês, a doline near the historical center of the city, represents the exhumation of the Barreiras Formation sediments and the outcrop of the juxtaposed limestone; in the lower portion, the Cabo Branco Lighthouse and Ponta do Seixas, representing the eastern tip of the Americas and to the northwest, the mangroves of the Paraíba River and its tributaries; in the western sector, Intercement's quarry, that exploits the limestone of Gramame Formation for decades; in the central inferior portion, the Botanical Garden Benjamin Maranhão, known as Mata do Buraquinho, one of the biggest urban forests in the world, with 535 ha of Atlantic Rainforest biota; in the higher portion, the Holocene terraces that originated the Restinga- sandbank- of Cabedelo. In the marine portion, algalic-coralineous reefs that originated Picãozinho, known point of tourist attraction of the capital.

Geomorphological sites of geotouristic use interest

The geomorphosites of geotouristic use interest proposed here, as referenced above, are the result of a thorough literature that deals with the issue not only in the municipality of João Pessoa, but in the Paraíba Basin as a whole. These geomorphosites are inserted in one of three morphosculptural compartments, named coastal plains, flood plains and low coastal uplands, besides the slopes that limit the low plains of the coastal plains, and can be seen in Figure 5.



Figure 4. Satellite photo showing some geomorphological, geological and biotic elements of the coast of João Pessoa: the contact of the coastal plain (delimited with the dashed black line) with the coastal tablelands, bounded by a range of dead- or inactive- cliffs (dashed red line) and the Rio Jaguaribe (Source: modified from Google Earth)



Figura 5. Orbital image of the municipality of João Pessoa, circumscribed in the red line, with the location of potential geomorphosites of geotouristic interest (Source: modified from Google Earth)
1) Coastal Plain (PC):

* Restinga of Cabedelo (PC01, in Figure 5): coastal landform representing the extreme northeast of the study area of the Holocene marine terraces that extend

throughout the Paraíba coast. Corresponds to a sandbank, parallel to the coastline, which separates the sea to the east from the Paraíba River in the west. These sand deposits, with no more than four meters above the current high tide, were formed during the marine regression subsequent to the Last Transgression. In the portion exposed to the effect of waves and tides is given the name of the 'beach', with variable width in the Paraíba coastline. The Holocene terraces, with average variable widths between 0.5 and 1 Km, and may or may not have crests of coastal ridges on the surface, depending on the level of urban occupation, being more extensive and continuous than the Pleistocene ones, that outcrop on the south coast, out of this research area.

The Holocene terraces are represented by unconsolidated quartz sands, light-colored, medium to coarse grain and medium selected (Alheiros et al., 1990), with parallel-plan stratification. In the C-14 dating method, which occurred in lagoon sediments on the northern coast of Sergipe state, resulted in 7.2 ± 200 ka years BP age (Bittencourt et al., 1983), while shells included in these terraces resulted, in Alagoas coast, resulted in ages between 2.57 ± 170 ka years BP and 3.69 ± 180 ka years BP (Barbosa et al., 1986).

* Headland bay beaches of Tambaú/ Cabo Branco and Manaíra/ Cabo (PC02, in Figure 5): coastal landform with arc-shaped, in which sandy spit, that separates the Tambaú- Cabo Branco Beach from Manaíra Beach was built the Hotel Tambaú, in 1971, who has served as a gigantic jetty, depositing beachy sediments from landshore drifting in the southern portion and facilitating erosion in the northern portion. In the field work was conducted beach profiles along the area, concluding that the Tambaú- Cabo Branco beach not recorded evidence of coastal erosion, with a relatively wide beach and backshore, the latter covered by berm vegetation. On the beach of Manaíra, this backshore is narrow, and at high tide the waves undermine the wall that separates the beach from the boardwalk, near the Hotel Tambaú.

* Marine abrasion on the Beach of Bessa (PC03, in Figure 5): with double headland bay shape, separated by a sandy cusp, the Beach of Bessa is a northern continuation of Beach of Manaíra, whose limit is the beginning of 'Restinga of Cabedelo'. In this cusp, there is an intense marine erosion that caused the demolition of several residences located there. It is the last north urban beach of João Pessoa, whose boundary with the municipality of Cabedelo corresponds to a 'maceió', regional name given to small lagoons that have become isolated by sand bars deposited by marine action. This 'maceió' corresponds to the former mouth of the Jaguaribe River, that in the 1940s, was deviated towards the Rio Mandacarú. From this deviation, about 4 km length, remains a channel passing under and next to the shopping district of the Bessa, represented by Shopping Manaíra, Hiperbompreço and Carrefour, channel that plays a key role to drain the Bessa neighborhood and serves like natural border between the municipalities of João Pessoa and Cabedelo.

* Stone blocks at the foot of the cliff (PC04, in Figure 5): at the foot of the active beach cliffs of Jacarapé occurs blocks of rock from 'rock falls'. This fall is a result of chemical weathering along the weak zones of the cliffs, associated with the marine undermining at its base, which ultimately break down huge portions of boulders, which are deposited by gravity at the foot of the cliffs, forming talus deposits talus.

* Ponta do Seixas (PC05, in Figure 5): located at the Beach of Seixas, corresponds to a sandy cord, with metric dimensions, which is the easternmost point of the Americas, that is, the point at Brazil closer to Africa, which gave it a tourist value of undeniable importance (Figure 6).

* Cones of dejection (PC06, in Figure 5): synonymous of 'alluvial fans', they are at the foot of the inactive cliffs at the Beach of Gramame, being predominantly sandy to

conglomeratic, poorly selected, and they are witnessing a period of drought. They have altitudes between 10 and 20 m, with the slightly sloped surface to the coastal plain. Bittencourt et al., (1983, p. 95) suggests that these deposits have been previously deposited the Penultimate Transgression, since the Pleistocene marine terraces on the south coast of the state and outside the area of this project, lean on these deposits and were the last to suffer erosion at the referred transgressive event.

* Reefs: it appears as algalic- coralinous and rocky reefs, can be seen in Figure 4. The algalic- coralinous reefs, along the city's coast, present elongated and discontinuous shapes, parallel to the coastline, and can reach to 4 Km. The elongated bodies have tens of meters wide while the irregular can reach hundreds of meters. The main example of this kind of deposit is Picãozinho (PC07, in Figure 5), visited daily by hundreds of tourists. They settled and grew on banks of submerged sandstones (Laborel, 1969). The rocky reefs, named 'beach rocks', outcrop along the coast, in front of the Restinga of Cabedelo (PC08, in Figure 5), sometimes directly on the beach, forming continuously or not linear features, for up to several kilometers, commonly parallel to the coast. Normally submerged, may outcrop at low tide or, keeps emerged the average sea level, when has larger proportions.

2) Flood plains (FP):

* Basin of Paraíba River- lower course (FP01, in Figure 5): Paraíba River, also known as North Paraíba River, is the main river of the homonymous basin and the longest river totally located in Paraíba State. It is the second largest basin of Paraíba State, lower than the Piranhas River Basin, being composed by the sub-basin of the Rio Taperoá and geographically subdivided into Upper, Middle and Lower Course¹. It is your lower course which bathes the municipality of João Pessoa, inserted in the area of this article. Thus, by also bathe the municipality of Campina Grande, the second most populous city in the state, this basin has the highest population density of the state, entering more than half the population of Paraíba.

As it approaches its mouth, the Paraíba River widens, forming an estuarine complex with a valley bottom that gives rise to fluvio-marine plain of the Paraíba River, with its river terraces and extending up to 12 km river inside, filled by a dense network of anastomosing drainage that flows into the river. This accumulation of sediment, especially fine one, plus the action of periodic tidal, formed a large mangrove ecosystem, reaching almost most of the tributaries of the river Paraíba. Moreover, the high population density in its estuary is generating a mischaracterization of your landscape by human occupation and the works necessary for their attachment, the shrimp farming and emission of daily tons of pollution in its waters and mangroves, whose contamination can become irreversible.

The linearity of the Paraíba River, along its upper and middle course mainly, allows us to infer that its evolution is indicative of structural expression, where it valley is embedded in Itabaiana Fault, which crosses the municipality of João Pessoa, in a SW- NE direction. However, when approaching the shore, the channel suffers a sharp inflection to north, when it reaches the Atlantic Ocean. Whereas there is no lithological variation to justify this deviation, it may be related to the valley groove in a normal type faulting, corroborated by the abundant outcrops of limestones from the Gramame Formation, especially those faced to the Paraíba River. The east land portion of this fault plane uplifted, which is located the upper town's João Pessoa historic downtown.

* Sub-basin of Jaguaribe River (FP02, in Figure 5): Jaguaribe River is the main river inserted in the urban area of the city of João Pessoa. Its springs located in the southern portion of the municipality, near the Conjunto Esplanada district, in a lake currently

¹ AESA. Comitê Rio Paraíba. Extracted from <http://www.aesa.pb.gov.br/comites/paraiba/> Access at 15 feb 2015

grounded, associated with a set of ponds with Karst origin called Açude das Três Lagoas de Oitizeiro (TL03), at an altitude of about 22 m. Its initial length was 21 kilometers to desembogue into the Atlantic Ocean. However, in the 1940s, promoted by former DNOS (National Department of Sanitation Works), it was diverted, as mentioned earlier, near of where is currently the Shopping Manaira, eventually desemboguing into the Mandacará River (Christiano, 2007), like referred before. It bathes 25 districts, having like the main tributary of the right margin, the Timbo River and the left margin, the Riacho dos Macacos, and practically disappeared with the real estate expansion of Torre and Jaguaribe districts, as well resurgences in its upper course and the dam in the Mata do Buraquinho (PAC, 2007). Both the Jaguaribe River and the Timbo River exhume the Barreiras Formation sediments, which in the urban area of Joao Pessoa are slightly inclined. In the upper course, Jaguaribe River carves the tablelands deeply, generating large amphitheatres, though, in general, tablelands are relatively soft and low slopes in urban area of João Pessoa (Furrier, 2007). Upon reaching the line of retreated inactive cliffs, it sharply deflects to the north (Figure 5), tangential to the inactive cliff Joao Agripino district.

At this point, probably, was the mouth of the river, before the deposition of holocene sedimentation that formed the marine terrace, aged approximately between 3 and 7 Ka years BP (FP03, in Figure 5). This typological difference between the sandstone barriers and beachy sediments, combined with the low slope in the newly formed coastal plain is the justification for the deviation that occurs, so the river breaks through inactive cliffs line.

3) Tablelands (TL)

* Inactive dunes of Altiplane District (TL01, in Figure 5): the aeolian deposits extend over the entire Paraíba basin in the form of mobile (active) dunes and fixed (inactive) dunes, being important paleogeographic and paleoclimatic Quaternary indicators. The supply of sediment from the dunes, which contributes to extending or shortening the beach range, makes important the activity of this dune sediment budget. The mobile dunes are more recent, overlapping the sediment of the Holocene marine terraces, so have later ages to 5.1 ka years BP. The fixed ones, also called paleodunes, can be internal or external dunes, are covered by vegetation that prevent their progradation.

The inner dunes, older, are found on the tablelands of the Barreiras Formation, and were formed by sediments of own coastal plain, while the outer dunes are on the Pleistocene marine terraces (Bittencourt et al., 1983; Furrier, 2007), occurring in Jacarapé Beach (PC05, in Figure 5). Much of the vegetation covering the dunes inactive in João Pessoa were removed for further urbanization, as is the case with the proposed site of geomorphological interest area in the Altiplano District, where lives a population of high income. On the north coast of the Paraíba State, Barreto et al., (2002) dated sediment samples collected in inactive dunes at different levels of depth, resulting in ages between 27.2 ka years BP, for the most shallow (1.8 m) to 61.6 ka years BP to the deeper ones (3.8 m). The authors suggest, considering the height of the dunes around 30 meters, that the eustatic level was much lower than the current when the dunes were fixed.

* Karstic features: in various portions of the study area, karst landforms are present, being most common the dissolution features, such as sinkholes and karren. The latter outcrops on the western side of the tablelands, associated with the slopes, therefore will be described in another morphosculptural compartment. Regarding the sinkholes, based on aerial photographs analysis and planaltimetrics charts, we can identify various portions of the city of João Pessoa who own the land subsidence by dissolving limestone of Gramame Formation, along fault planes that serve as a conduit for percolation of surface water, such as the Dolina of Irerês (TL02), renamed to Solon de Lucena Park, in the city's Historical Center and Açude das Três Lagoas do Oitizeiro (TL03), with the depression of Barreiras sediments and subsequent occupation of the latter by the low income population and, as a

topographically depressed area, is susceptible to flooding in heavy rains seasons. Furrier & Vital (2011), through field and office work, with SRTM radar images, produced a Digital Model of Terrain of Cruz das Armas district, confirming the existence of a closed and circular depression, soft feature on local, a landscape like sinkhole (TL04, in Figure 5).

* CIMPOR quarry (TL05, in Figure 5): since 1933, the limestone of Gramame Formation has been exploited for a cement factory at Ilha do Bispo, where today a huge scar marks the ground in the form of a quarry, located in an drain bedside amphitheater that exhumed the sediments of Barreiras Formation. This quarry, which partly formed a pond, has cultural importance because in its limits would be the place where settled at the time the city was founded, the village of the Indian Piragibe and later was erected the Engenho da Graça Chapel, in the late seventeenth or eighteenth century probably, currently only remnants. In the nineteenth century, the place was transformed into a farm, and new elements were built as a large house and slave quarters, currently ruined as well. The entire collection was listed by IPHAN (Heritage Institute) in 1938.

* Cave of Onça (TL06, in Figure 5): the cave is a form of pseudokarstic relief, which probably was originated by percolation of water into the subsurface in the bedding planes of the Barreiras Formation sediments. The sediments representing the tablelands representing interfluvial and slopes of the Mumbaba river valley and Mussurê river valley and its tributaries. The water weathers and transports the sediments to form galleries along the stratification layers. In the area, the temporary runoff became underground one after the formation of a sink due to good porosity of the rock, associated with greater resistance sandy-loamy soil, at the bottom, hardened by a cementation process, called fragipan by the soil scientists, of which has formed fractures by plants.

The flow was responsible for the formation of an underground valley on the surface, temporarily flooded in the rainy winter, through which flows the water to rise in surface as waterfall, with a height of 18 meters. It has a wide entrance with 9 meters square, whose interior, with 302 meters long, is divided into several small galleries, some with less than a meter high, whose roof has openings ranging from a few centimeters to several meters, enabling serve as entrance to a human. The presence of blocks inside the cave configures its situation of instability, with the possible rupture of the walls and the ceiling collapse. The existence of lateral cavities further worsens the situation, consequence of the collapse and expansion of fractures.

4) Slopes (S)

* Upper/ Lower Downtown (S01): according Araújo (2012), this setting of the historic center ground is the result of a normal fault that crosses the western sector of tablelands, with northeastern direction, as previously reported. This faulting, proposed after studies using a geological map prepared from SRTM images and field work, embebed the lower course of the Paraíba river and, further south, its tributary Marés river and Sanhauá river, as the intermediate portion of the Gramame river. The karren outcrops on the western side of the tableland along this fault plane, which are faced the plain of Sanhauá river. The outcrop of these limestones of Gramame Formation was responsible for the punctual appearance of a number of exurgencies at a certain level this slope who served as sources of supply for the population of nascent Nossa Senhora das Neves, the first name given to the municipality Joao Pessoa, the date of its inauguration (August 5, 1585).

* Clefs: as already mentioned, the cliffs are landforms that represent the face of the horst ending abruptly towards the sea, which may or may not have contact with the ocean, and are bordering of tablelands with the coastal plain. A line of inactive cliffs, with colluvium deposits at the base, are good examples of geomorphosites as they represent the paleogeography of the area with regard to the former coastline position in past times (Figure 4 and s02, in Figure 5).

The most famous active cleef is the 'Cabo Branco Cliff' (S03, in Figure 5), about 40 meters high, with its lighthouse demarcation of 'most eastern point of the Americas' (Figure 6). In fact, besides a beautiful view of the city from the belvedere in the top of this cliff, we can see the Ponta do Seixas, a sandy strand entering the ocean in Praia do Seixas, south of the cliff, which is, rather the extreme easterly point. Recently, in 2008, a Science Station was built, near the Cabo Branco lighthouse, a center for science, culture and arts. The design, signed by renowned architect Oscar Niemeyer, was a reason for intense controversy for environmental problems, due to the proximity of the cliff, which suffers constant marine abrasion. In the beginning of 2015, the cliff collapsed.



Figure 6. Aerial view of Cabo Branco Lighthouse Area, with Ponta do Seixas in the background and the Science Station in the foreground (Source: Felipe Gesteira)

At the foot of Cabo Branco cliff, as occurs intense process of coastal erosion, there is the presence of a darker material and a few blocks of the same color detached meters ahead of the cliff, showing the distance the same retreated. Furrier (2007) explains that it is very common in this area, the precipitation of iron and aluminum oxy-hydroxide in the sediments of the Barreiras Formation, commonly observed on the cliffs. These concentrations form hard ferricretes levels (concretions of iron) at various levels and, especially, at the base thereof. The ferricretes, because they have greater resistance to erosion, in some cases, form marine terraces of abrasion and rocky banks, witness to the erosive retreat of the cliffs by wave action.

Many of these sites are currently affected by various tour packages, but without a connection, systematization or even an interpretation that properly explores its geoheritage importance. For example, every day, dozens of buggies, depart for the south coast taking eager tourists for landscape appreciation, but at the return ride, eight hours later, with the full mind and camera of gorgeous images, they do not have the scientific understanding on how this landscape connects to the Earth's formation.

With this, one realizes the importance of mapping the sites of the area that, when inserted into a geotouristic guide designed to be covered in one or two days- a weekend, for example, result in the disclosure of this basin's geodiversity and geosciences as a whole, adding value to tourism, generating direct and indirect jobs, boosting the economy and promoting other positive consequences, without forgetting that, in the end, the sites' geoconservation must be the main focus.

CONCLUSION

The relief forms the northeastern coast are the result of the action of endogenous and exogenous agents who acted together but with different proportions. The tectonic and especially the neotectonics played a key role in the coastal relief configuration, while the exogenous agents, such as regressions and sea transgressions, wind, current and past climates, rivers, biological and anthropogenic agents, etc., shaped and formed the beautiful existing forms of relief. By the time the human being evaluates geomorphosites of geotouristic use interest, these sites now have heritage value and deserves to be safeguarded for future generations, which is one of the principles of geoconservation.

From previous studies about the history, geomorphology and geology of the area and pre-established criteria, such as scientific, educational, aesthetic values, among others, and especially tourism value, a number of geomorphosites were identified at various scales, inserted into morphosculptural units of land. This work aimed a disclosure of this geomorphological heritage, which will be subsequently added other geoheritage elements, such as geological, hydrological and pedological, besides the Cultural Heritage of Historical Center, with regard to geomaterials that built, in order to insert them in urban geotouristic routes. João Pessoa is a known tourist destination in Brazil, from the sun and sea tourism's point of view. It is pertinent, therefore, interlacing this abiotic heritage to tourism in João Pessoa, to awake another motivation to the interest of tourists.

Thus, if the role of geotourism is promoting geodiversity and its geoheritage through the geomorphosites, the implementation of projects it is necessary for scientific, educational and interpretive purposes to promote tourism in the area. The alliance between public-private partners is necessary in order to minimize conflicts, solve problems and capacitate the processes that enable the insertion of geotouristic activity in the study area and the popularization of the term. Although not the scope of this project, to its effectiveness is maximized, it is suggested the fulfillment of certain conditions, the State responsibility and / or academia, through a collaborative alliance that results in consensual agreements on common goals that legitimizes policy decisions.

We conclude that the municipality has geomorphological heritage potential, and the following phases of the project will enable the development of a urban geotouristic map of João Pessoa. The development of urban tourism in João Pessoa is a dynamic way to publicize this geoheritage to a maximum number of people, whether tourists or not, for its geoconservation. This practice still keeps incipient, and the inventory this heritage, first step in a long process, with the intention to disclose the geosciences, it is necessary and it is important to the management and urban planning.

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DARK TOURISM AND ITS REFLECTION IN POST-CONFLICT DESTINATIONS OF SLOVAKIA AND CROATIA

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Abstract: The primary objective of this article is to highlight the importance and the potential for the development of special interest tourism, in the example of two post-conflict target destinations within the territories of Croatia and Slovakia. The basic ideological platform of the article is to define sociological and psychological aspects of special interest tourism, and dark tourism as a reflection of the current society, in the trend of increasing demand for places from the distant or recent past, in which some tragedy or misfortune took place.

Key words: Tourism region, Dark tourism, Tokajík, Ovčara, Special interest tourism

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INTRODUCTION

The current society is subject to dynamic change, as a result of the integration process known as globalization. The process of globalization affects everything in the life of human beings, the interface of modern society. A tourist, as a synonym of social modernity is more flexible, more experienced in his travel habit and at the same time more challenging, when choosing an offered standard. Not infrequently, he participates in creating the bidding standard, by which he consciously or unconsciously promotes his individualism, in the process of increasing globalization. Private consumption of tourism contributes to the genesis of alternative forms of tourism or special interest tourism, or often times reflects the sociological and psychological aspects of added value of strengthened emotion (emotionality), authenticity and identity with a particular place. Location, more accurately target location carries its significant characteristic on the basis of these aspects. It is the result of mutual interaction, in which on one side, a pragmatic and experienced officer of the tourism demand stands, on the other hand, there is the undeniable influence of the media and of information availability, which significantly shape individuals, the set of values and the needs of a human being. Changes in consumer behavior fundamentally affect the choice and range of destinations, many of them are "niche" destinations. Among them are so called post-conflict destinations (Hollinshead, 1999; Novelli, 2005).

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MODERNITY AND THE CONTEMPORARY SOCIETY

According to (Keller, 2004), the advent of modernity means the radical separation of the society from pre-modern, traditional societies. Extremeness of changes is the result of what is called "*the chain*"-a series of revolutions in economic and social terms, but also in terms of the governmental and political organization of the society. Technical and technological progress has brought innovation and the wider information and communication platform based on the principle of promoting the development and application of information-communication technologies, as well as globalization and the transformation of social relations. Globalization as a world-wide phenomenon is accompanied by processes of social generalization. In this environment, there is a significant change in social status – the status of the individual in society.

Keller (2004) defines the phase of modernity as "criticism of bureaucratic modernity", which is chronologically classified into the last quarter of the 20th century and characterizes it as an effort to free ourselves from the repressing action of social structures. An individual is sprung from traditional social ties and stronger advocates the need for self-identification. This sociological trend we can trace in consumer behavior of tourism. Modern society mirrors in two antipoles, or interpretative schemes of the society - in generalization and individualization. Individualization entails for human beings more space and authenticity, while generalization pushes some form of social stratification, a higher degree of rationality and effectiveness of the organization of the society. The current society, also known as a consumer society, and its consumer dimension inclines, to a large extent, to tourism product, which enables it to cope with its own environment and experiences. These tendencies contribute to mobility - transcend geographic and symbolic borders and contact with others, such as the ethnic borders (Bauman, 2002).

Bauman (2002) characterizes the current period as "*liquid*", because its features are chaos, ambivalence, uncertainty, randomness, and the continuous change of the rules. The current folk, according to (Appadurai, 1996), thanks to information and communication technologies, has access to vast amounts of semiotic material, which allows him to imagine, or modify his real life based on imagination. This paraphrasing of living can be considered a kind of cultural practice, which has its conceptual basis in five dimensions of global cultural flow: ethnoscap (land of ethnicity), mediascap (land of media), financescap (land of finance), technoscap (land of technologies) and ideascap (land of ideas). The term scapes can be interpreted in terms of "*images*".

A SENSE OF PLACE IN POST-CONFLICT DESTINATION

In traditional cultures the past and valuable cultural symbols are treasured because they reflect and develop knowledge of generations. As claimed by (Giddens, 2003), the tradition is not completely static, each new generation must be recreated by that the new generation takes over the cultural heritage from the previous one. Identity in the sense of (Giddens, 2003), represents a kind of reflexive project, elemental part of modernity, in which the human individual seeks its identity between the strategies and options provided by abstract (impersonal) systems of knowledge and technologies of the current times. Further (Giddens, 2003) sees identity as self-fulfillment care, which is not only a narcissistic defense against the outside world, over which individuals have little control, but in part, it is also a positive learning circumstance, in which global impacts affect the daily life of human beings. The current period confirms that interpretation of the target sites in the travel and tourism industry is very difficult. One possible cause is diminishing of contact connexities between the given place and the local community, or between local identities and virtually created places. Post-conflict destinations are more and more connected with activities related to travel, gaining the image of the target sites and

features that are reported, in particular, by consumers of tourism, not just producers. With tourist's growth - an individual, the necessity of securing the authenticity and identity grows significantly with the given place, which can be classified as the current sociological trend in the field of tourism. It is paramount to integrate target destinations into the standard offer, which will represent features of the territory, a way of life of the local community as the most reliable (authentically), in the place of their original location (in situ) and assuming the preservation of regional identity (genius loci). A major factor is the local community, as a bearer of cultural symbols and regional identity.

Regional identity, or genius loci (the soul of the place) is a human construct, which is the essence of the person's existence, phenomenon, object or anything else, by which the bearer differs from others. *Today, almost every community and nation, big or small, developed or developing, is to a certain extent influenced by tourism* (Fialova et al., 2010). Tourism is an extremely thought-provoking social phenomenon, which provided the right of the selected application in the theoretical and practical approach, can offer the key to understanding and consolidation of the problems of modern society, in particular in the case of development of the post-conflict destinations. In the basic diameter, post-conflict destinations associate with tension, violence and death of individuals or groups as a result of the political, governmental, ethnic, religious and other conflicting backgrounds. Following the nature and the form of these places, we follow in the genesis of special interest tourism, alternative forms of representation, reflecting the phenomenon of death, misery, suffering, etc.. An example of this is dark tourism, defined as the act of travel to sites associated with death, suffering and the seemingly macabre (Sharpley & Stone, 2009).

The concept of dark tourism broke through as the first (Lennon & Foley, 2000) in a special issue of the International Journal of Heritage Studies, who discuss that, *...there has been significant growth in tourism associated with sites of death, disaster, and depravity* (Lennon & Foley, 2000). Tony Seaton coined a similar label in his article, *From Thanatopsis to Thanatourism: Guided by the Dark*. He describes thanatourism as being, *... travel to a location wholly, or partially, motivated by the desire for actual or symbolic encounters with death, particularly, but not exclusively, violent death, which may, to a varying degree be activated by the person - specific features of those deaths are its focal objects* (Seaton, 1996a).

Finally, Rojek coined a third term affiliated with the concept of dark tourism - Black Spots. The black spots refers to the "... commercial developments of grave sites and sites in which celebrities or large numbers of peoples have met with sudden and violent deaths" (Rojek & Urry, 1997; Rojek, 1993). Taking into account the primary interpretation of the concept of dark tourism, thanatourism or dark or black spot tourism, in association with death, violence, fear, grief and stress etc., these alternative forms of tourism, special interest tourism, or "*niche*" of tourism, are mirrored in joint interpretive diameter with special features of post-conflict destinations.

SPECIAL INTEREST TOURISM AS AN "EMOTIONAL MEDIUM"

The uniqueness of man lies, above all, in his emotionality. In this regard, the human emotionality is course setting, and the one, that significantly determines the way of thinking, behavior and subsequently even proceedings of human beings. Boros (1995) in his work *the motivation and emotionality of man* shows that the concept of motivation we use for naming everything we experience, what some authors refer to the term: instinct, the need, interest, value, feeling, emotions. In general, the term motivation means all individual or group attributed pathways that explain or make clear his behavior. Motivation is derived from changes in the behavior of a human being. A man is never

motivated by only one motive, but by complex motives, which are chained together and exist in mutual interaction. On the basis of this psychological indicator, special interest tourism presents a suitable alternative, which widely reflects specific interests and needs of an individual or group, more precisely referred to as the target group. Douglas et al., (2001) describe special interest tourism as an alternative to mass tourism. They suggest that it is *the provision of customized leisure and recreational experiences driven by the specific expressed interests of individuals and groups. A special interest tourist chooses to engage with a product or service that satisfies particular interests and needs, so special interest tourism is tourism undertaken for a distinct and specific reason.*

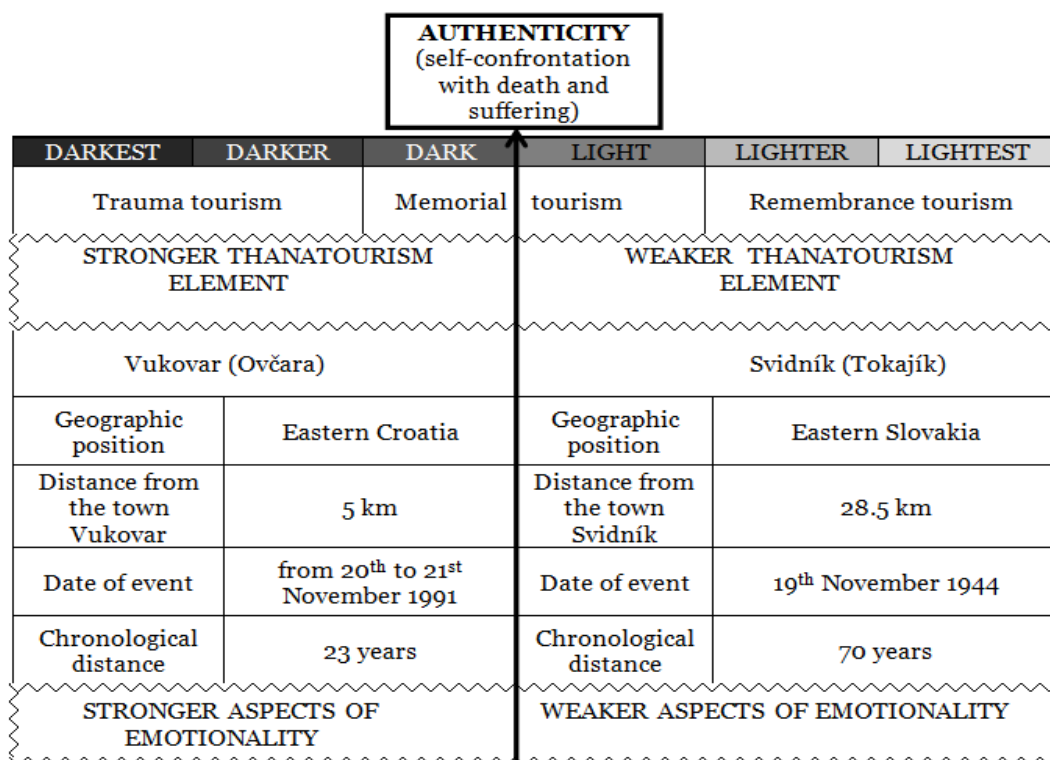


Figure 1. Emotional range of dark tourism

Dark tourism and his conceptual equivalence (NB in EN labels), for example: thanatourism, black spot tourism, war tourism, military tourism, trauma tourism, memorial tourism, remembrance tourism, grief tourism, fright tourism, disaster tourism, morbid tourism etc., have their origins in the words: disaster, suffering, violence, atrocity, macabre, torment, grief, fright, fear et. al., many of them mirror the emotionality of a man. The intensity of the experience, especially for those individuals that could be, but also did not have to be immediately affected by an event associated with death, violence, grief, enhances self- confrontation with death or suffering etc., searched by a conscious activity and participation in the alternative forms of tourism, or in those of the target places that this confrontation allows. Last but not least is the timing of the events, which substantially affects the human psyche. An example of such destinations, with a post-conflict place attribute is in the territory of the former Yugoslavia, Croatian City of Vukovar with the memorial complex of monuments linked

to the events of the civil war period in the adjacent village of Ovčara, and Slovak town of Svidník with large complex of military objects from the period of World War II, located on the campus of National cultural monument Natural Ducal battlefield with adjacent village of Tokajík - memento village of Nazi reprisals in Eastern Slovakia. In drafting the figure we had in mind the theoretical - methodological concept of authors' work (Seaton, 1996b, 1999, 2000; Stone, 2006; Messham-Muir, 2004; Miles, 2002). In our mind tendency we have created some kind of an emotional range of dark tourism, to which we incorporated conceptual equivalents of dark tourism, more specifically trauma tourism, memorial tourism and remembrance tourism, which takes into account psychological and chronological view, based on human emotion.

On the basis of the contribution presented, it is our primary goal to create appropriate conditions for the effective cross-border cooperation, which would bring the expected results in the direction of building a positive image of the presented target destinations (post-conflict destinations), on the territory of the States of Croatia and Slovakia, on the principle of the creation and formation of the brand (branding) in the region. The special intention is to carry out a field survey on the territory of the two municipalities and to make a comparative study, which would evaluate the indicators of the psychological and sociological aspects of the special interest tourism, in the precise specification of dark tourism, building on the emotional range of dark tourism.

CHARACTERISTICS OF THE PLACE AND NATURE OF THE CONFLICT IN THE TERRITORY OF SLOVAKIA. CASE STUDY TOKAJÍK

II. World War, in the period of its duration, resulted in huge material and, in particular human loss. More than 50 million of human lives, of which more than 27 million fell on the fronts and about 35 million was wounded. The war period was characterized by extensive strategic-tactical operations, but also a contact terror, of which an example is the Nazi repression on civilians. Terror and repression culminated in the territory of Slovakia in the Slovak national uprising, in particular at the stage of the transition of rebels into the mountains. The destructive power of aggressors was manifested in the looting and burning of villages and civilian annihilation.

In Slovakia more than 5,000 civilians were tortured and murdered, 90 villages and settlements, were burned down and after the war, 211 mass graves were uncovered. One of the most important and most representative regions in Slovakia, marked by the events of the I and II. World War, is Poddukliansky region. Its geographical name bears one of the strategically important mountain passes of the Carpathians - the Dukla pass. On the territory of the region two micro-regions are included: Poddukliansky microregion "*Valley of death*" and microregion "*Under Dukla*". The town of Svidník performs in the role of "gateway" into the territory of the region. Institutional background and part of the infrastructure of tourism, conducting a military history of the region is represented in Svidník Museum Department of the military history museum. Museum Department documents military history in Eastern Slovakia in the years 1914-1945, through internal exposition, but also external expositions of memorable places, cemeteries, monuments, restoration of the battles, installation of military objects and fighting equipment from I and II. World War located in open areas, within the framework of the national cultural monument - Natural Dukla battlefield. The national monument is in the management and vocational care of the Museum Department in Svidník and Dukla. Part of the national monument is the Memorial of Cs. Army Corps with the war cemetery. It was built in 1949.

Bronze plaques with the names of 1 256 members of the 1st Cs. Army Corps are installed on the colonnade next to the memorial. 565 members of the 1st Cs. Army Corps who perished during the Carpathian - Dukla battle are buried at the war cemetery. In the area of

Dukla battlefield from the crossroads in the direction of the village Kapišová, as far as Slovak-Polish border crossing Dukla, the natural exposition of fighting equipment is installed. In the direction of the village Kapišová, tanks T - 34/85 a Pz IV G are placed (Rodak, 2006).



Figure 2. Burn villages and Mass graves in Eastern Slovakia

Prior to entering the village Hunkovce, next to the road, there is a war cemetery, where there are approximately 3 100 German soldiers buried. In cadastral territory of the village Vyšný Komárnik the bunkers (zemľanky) of 3rd Cs. Brigade staff are constructed. In the management of the Museum Department is an observation tower at Dukla and exhibition information pavilion, with exposition focused on the reconstruction of war devastated region in Dukla. Village of Tokajík is located in the hinterland of the town Svidník, at a distance of approximately 28 km away. Tokajík tragedy or massacre in Tokajík is one of the most important mementos of Nazi reprisals in Eastern Slovakia. The local population, as well as residents of other Slovak villages, expressed the initiative and a willingness to help the insurgent troops - partisan commandoes, which operated here since the summer of 1944.

During the war, approximately 185 people lived in the village. The unit Kommando ZbV 27 (zur besonderen Verwendung -ZbV is a German acronym for special purpose) falling under the Einsatzgruppe H, was entrusted with the pacification of the village. On the night of 18th to 19th November 1944 the German units on with the strength of about 200 men led by oberfeldwebel Kumanna, encircled the village and Sunday morning descended from forests into the village. They started to search individual houses and

arrest men, whom they tied up and gathered in the garden next to the church. Subsequently, they issued an order to their relatives to provide warm clothing and food for 3 days. Around eleven o'clock men in rows of three, in the company of German soldiers, left in the direction to the north, through the stream's valley. The men walked in the belief that the German unit is leading them on field work building trenches. About 1 km from the village the Commander of the German troops stopped and ordered to read the judgment, which, for their help to partisans, sentenced them to death with immediate effect. Subsequently, the Nazi unit launched a barrage. Some of the arrested men tried to escape, but virtually all of them were shot to death. Of those, who still showed signs of life were shot from a pistol. The two wounded men who were left alive, were both unconscious and did not wake up until after the departure of German troops. Those men were Andrej Stropkovský a Michal Medvedz, who laid under the body of his dead Brother.

After they woke up, they took the food that laid on the site of the massacre and hid in the nearby forest for 10 days. The next day the Germans scattered from the village the elders, women and children, plundered and burned it. 27 homes and 28 farm buildings burned down. Only the local church and one damaged house were left standing. Dead bodies of the 32 shot men were lying on the ground of mass execution to the north of the village, until December 12th, 1944.

On November 28th, 1944 Soviet troops of the 4th Ukrainian front liberated the village. On December 12th, with the help of inhabitants of the neighboring villages, the shot men were buried in the mass grave on the site of their execution. After the return of the village inhabitants were their bodies disinterred and on 4th April 1945, buried in the local cemetery in separate graves. The surviving inhabitants lived in humble conditions until 1946, when the State contributed to the reconstruction of the village. In 1959, on the site of the execution a stone obelisk and monument at the local cemetery was revealed. Its author is František Gibala. In 1969 a memorial room was installed in the village. Later, even a museum, which was moved to Svidník in 1955. After the reconstruction the museum started its operation in Tokajik in May 2009 (Gojdic, 2009).

CHARACTERISTIC OF THE PLACE AND THE NATURE OF THE WAR CONFLICT ON THE TERRITORY OF CROATIA. CASE STUDY OVČARA

In a picturesque village near Vukovar, there was an animal farm which was managed by the local cooperative VUPIK. In the cooperative's care were also hangars serving as a cooperative's storage of the material. This complex was an ideal space for the localization of a concentration camp, as it was closed from all sides and could be easily controlled. The concentration camp's operation began in October 1991, and in this camp 3000 - 4000 prisoners were involuntarily counterchanged. Brick hangars had a front sliding gate and also side doors for people's entrance.

During the occupation various war crimes were committed in these places as there were lots of Serbian villages, which with their volunteers contributed to the genocide reinforcement. After the fall of Vukovar, Croatian civilians as well as injured soldiers found their last refuge in the nearby city hospital. Together with the other patients who survived a three-month bombardment of the city, they believed that a humanitarian corridor under the auspices of the international peacekeepers will be created. Chaotic situation occurred after the arrival of the Serbian army to the hospital, who did not respect patients' rights or doctors' request for the humanitarian treatment of the wounded and hospital staff. All patients and doctors were suspected of organizing illegal militant operations against Serbian army. Unsuccessful negotiations of hospital doctors with commanders of the Serbian Army had resulted in the subsequent deportation of more than 400 hospital patients by local buses into the already prepared concentration camp in Ovčara.

Encouraged by alcohol, army members together with the paramilitary formations of the Serbian militia, without any tangible evidence, humiliated, beat and terrorized prisoners in the camp. Prior to the execution wounded prisoners were beaten with baseball bats, iron bars and tied up with steel chains. In these crimes against humanity, the former Mayor of the city of Vukovar - Slavko Dokmanović, who was the Serbian nationality, was also involved (United Nations, 2011).



Figure 3. Memorials mass graves in Vukovarsko-Srijemska county, Croatia
Source: <http://www.vusz.hr/info/domovinski-rat>

We cannot say with certainty how interrogations of prisoners were conducted as the person that was taken to be interrogated never returned. Four prisoners have succumbed to their injuries in the camp (Kemo, Damian, Željko and Siniša). The rest of the prisoners were transported in groups of 10 to 20 people to the prepared mass grave, which was situated 900 meters in the direction of Ovčar - Grabovo. The execution itself, of which the participants were mostly wounded prisoners and hospital staff, took place on November 1991. Memorial complex of Ovčara was inaugurated 15 years after the massacre in Vukovar, i.e. 20. November 2006 (Naef, 2013).

AN ATTEMPT TO RESTRUCTURE AND REVITALIZE THE SOCIO-POLITICAL TIES IN THE POST-CONFLICT PERIOD. THE EXAMPLE OF EASTERN SLAVONIA REGION

The diversity of the cultural heritage can contribute to the consolidation of regional disparities, to assist in the promotion of cultural symbols and to promote the development of domestic and foreign travel. Cultural symbols play an important role in the post conflict arrangement of the region, since, as (Baker, 2009) claims, they help to mitigate the trauma of victims, who were the direct participants in the conflict, and they

also reinforce a sense of national pride in them. Cultural objects referring to the recent conflict in the former Yugoslavia contribute to the process of reconciliation, perhaps, if the right conditions were created, they would eliminate disputes between two or more groups of people, who had been participants of the war in the region.

National and international cultural institutions play a key role in the process of revitalization of the cultural heritage. Due to their financial and technological abilities they are able to contribute to the reconstruction of war-devastated territory.

Franovic (2008) claims that the transformation of the group identity in the region of former Yugoslavia contributes to its stabilization. It's widely known, that culture plays an important role in shaping the multicultural and pluralistic society. In the society affected by conflict, the change of the population's ethnic or religious structure is inevitable. The population (Serbs and Croats) is split due to the past events, the mutual interactions occur only in necessary cases (work, public spaces and institutions). Divided society, such as this, sees its neighbor as an enemy, and creates their own, often subjective perception of reality, which in the future may lead to other conflicts. The Croatian Parliament's law approval, according to which November 18th represents Vukovar Memorial Day, also furthered hatred and alienation. Every year on this day a remembrance pilgrimage from Vukovar Hospital to the cemetery of fallen Vukovar heroes is held, which is supported not only by local but also by national institutions. The Serbian population doesn't participate at these celebrations; on the contrary, they honor their loved ones who have become victims of war on November 17 in a silent remembrance.

Vukovar symbolizes the reverent place, which in the future can bring its visitors closer look at the reverse side of the recent history linked to the war in the former Yugoslavia. A known travel guide Lonely Planet put Slavonia into the regions with a significant potential for remembrance (dark) tourism. In addition to the traditional forms of tourism such as a visit to the wine cellars in Ilok, or the National Park Kopački rit, the visitor's guide recommends an optional trip around the most significant pious places, which refer to the recent military conflict. The city of Vukovar and its surroundings has the ideal prerequisites for non-traditional forms of tourism, which will certainly include the already mentioned remembrance (dark) tourism. Promotion of the city as the main pious place in the region can initiate the process of reconstruction of the reverent identity of local people, as well as their pride to war events, which contributed to the independence of Croatia. The basic aim of war memorials is to remember the civil war for Croatia's independence, by honoring the victims and their suffering during the war in a silent tribute. Indirectly, these monuments embody a relationship between the war victims and its aggressor. Rivera (2005) in his study dedicated to Croatian tourism, localized spatial layout of monuments on its territory, which overlaps with the boundaries of major military operations during the civil war. The largest number of them is located in the Eastern and South-Eastern part of the territory that copies the border line between Bosnia and Herzegovina, Croatia and Serbia. Tourists visiting this region hardly spot any hint of instabilities, or the country's devastation caused by the recent conflict thanks to an active reconstruction of war stricken places. If we visit Dubrovnik, which was after the war completely renovated, its counterpart is Vukovar. The physical devastation here was much stronger compared to Dubrovnik. Therefore, even at present, when visiting Vukovar and its surroundings, the stigmatizing symbols the war left behind can be observed here in the form of pious memorials and living memories of participants of this conflict.

Baillie (2013a; 2013b) notices that the memorials built after a conflict are a significant generator and product of domestic tourism. Vukovar represents a symbol of memorial (dark) tourism, as every year, there is an increase of visitors and growing interest of native tourists of all ages who want to learn about their country's latest history,

or to honour the final resting place of the conflict's victims. The Ministry of Education also supports these forms of tourism and financially assists in organizing educational trips for pupils in primary and secondary schools within the curriculum of history and geography. Although on the other hand, in the future we can assume the latent decrease of interest from native tourists, with the benefit of hindsight, this conflict, as well as other conflicts (I. or II. World War) will become part of the history, the international image of Vukovar as a symbol of a post-conflict tourism will increase.

The Agency Danubium Tours which was established to promote local potential of the region is also participating in supporting the local tourism. One of the products of the said travel agency is a tour named „*the Path of the Vukovar Defenders*”.

Vukovar, in spite of the recent troubled history, is gradually activating its inner potential for tourism development. Promotion of the region is based on objects symbolizing recent military conflicts connected with the independence of Croatia. The current Patriotic War Memorials refer to the collective identity of the Croats as victims and winners of war, contrary to the Serbian aggressors. In the opinion of the Director of the Memorial Complex Ovčara, memorials dedicated to the events of the civil war probably won't become a symbol of peace between Croats and Serbs in the near future. According to his words, there would be reconciliation only if Serbs admitted and accepted Croatia as their native homeland. Tourism related to visiting war memorials is often perceived as inherently *nationalistic*, intrinsically linked with the events in the region during the war. Monopolization and usurping of all the privileges and rights to war events by a group of people connected to the political power structure is often being discussed.

A significant change in the process of reintegration and reconciliation was a law, recently adopted by the Croatian Government, on the establishment of a public law institution, *Memorial Center Vukovar* as the symbol of the civil war, which is primarily dedicated to its victims. The founder of the, *Patriotic War Memorial in Vukovar*, is the Government of the Republic of Croatia under the authority of the Ministry of Defence. The centre portrays a legal entity, which is seated in the city of Vukovar. The complex serves for the scientific, cultural and historical research of the Patriotic war and battles for the city of Vukovar. The Centre itself has accommodation and catering capacities for visitors, and is also responsible for the maintenance and operation of the individual monuments that fall under its administration. In its competence are the following objects:

- Memorial House "Ovčara";
- Memorial complex referring to a mass grave of the civil war victims in "Ovčara";
- Memorial Cemetery for victims of the civil war;
- Hangar "Veleprometa";
- Vukovar General Hospital and its spaces dedicated to the civil war;
- Vukovar water tower;
- Central Cross on the shores of the river Danube;
- "Trpinjska path" symbolizing the heroic effort of outnumbered militia against the military aggressor;
- Military House "Lužac".

An important role in encouraging and promoting memorial tourism plays a multilevel financing whose premise is the reallocation of co-financed funding between the various actors, in our case it is the Ministry of Education, Ministry of Culture, Ministry of Tourism and Ministry of Regional Development and EU funds. At the regional and local level, the initiative is supported by the Vukovar-srijemska self-governing County and the city of Vukovar. The issue of the civil war, thanks to this law, will be transferred from the school benches directly onto the terrain, where the pupils of primary schools will be able to check directly in each of the locations the theoretical knowledge they acquired. The

patronage over the project has been taken over by Memorial Center in Vukovar, whose main objective will be to provide enough relevant information connected to the civil war on the territory of Croatia. It is anticipated that every year the 8th grade students from all over Croatia will attend a two- day practicum in the terrain, where they will in detail acquaint themselves with the course of the battle for the city of Vukovar. The Ministry of Education wants to push through a proposal that this excursion be mandatory for all eight graders. The first months of the school year (September and October) will be reserved for just mentioned group of visitors. The law also mentions that each primary school will organize, at least once a year, a field trip to the nearest place from the school, in which battles or genocide during the recent civil war took place. All the objectives outlined above could be already carried out during the following school year 2014/2015. Of course, the approval process of the law should precede a wide debate, in which the Ministry of Education, the Association of Militants in the civil war, non-governmental organizations, as well as the general public will play an essential role. The estimated costs of the parents to one child is 100 KN (Kuna), which is the equivalent of around 15 Euros, the remainder shall be borne by the Ministry of Education.

With respect to the rest of Croatia, Vukovarsko-Srijemska district belongs among underpowered regions. The potential boost to regional development can bring just mentioned student excursion project. It is assumed that in the „Memorial Centre“ a few dozen employees will find jobs, indirectly leading to subsequent creation of jobs in accommodation and catering establishments. Each group of pupils will sleep in a different location, which will result in the equal distribution of income between the various operators in the accommodation and catering facilities. Such redistribution of income associated with the creation of jobs will bring additional financial resources and employment not only in the region but also to the wider surroundings.

For other domestic, foreign tourists a variety of optional tours are offered by local travel agencies, which are associated not only with traditional forms of tourism, but also with the memorial tourism, which indirectly refers to the recent conflict. As an example, we present travel agency Danubiumtours, which specializes in cultural, historical and natural attractions of the local region. In its menu it also has an optional trip under the name - In the Footsteps of Croatian Defenders. The excursion begins with a visit to the local hospital, which was a direct witness to the aggressor. The next stop is the graveyard of tanks on "Trpinjska road", the House of Engineering, which during the war represented the border line between the militia and aggressor forces. The trip ends with a visit to the former concentration camp and reverent place of victims of the civil war in the hinterland of the town of Vukovar. Ovčara (village) represents the largest mass grave in postwar Europe. This package contains the menu of 1 – 3 day facultative trips. When a three-day trip is booked, the 1st to 3 rd. day activities are done around towns of Vukovar, Vinkovec and Ilok. The package of services is available throughout the year for groups of 2 to 100 people.

CONCLUSION

Why couldn't the said places carry *"the spirit of the trademark"*, which would serve as an effective means to differentiate from other competing products offered in the dark, respectively (post conflict) travel industry? Commercial use of these territories in the tourism industry with regard to the position of both regions plays a key role in keeping the sustainable development. Both regions belong among the economically and socially under designed, resulting in a lack of employment opportunities, high unemployment rate and the outflow of productive part of the population, causing structural changes of age categories of the population which leads to a disadvantaged younger generation. According to the (Matlovicova & Kolesarova, 2012; Matlovicova,

2010; Pike, 2011), effective *"branding of the region"* undoubtedly contributes positively to the good brand and the reputation of the territory, thereby helping to fulfill its objectives in mobilizing tourists, in stimulating investments and raising awareness among the domestic population. Dark tourism is probably a product of the post-modern period, when the society is moving away from mass tourism and is rather searching for new destinations associated with the possibility of educating oneself and connected with the internal feeling of the place visited. The problem of the Slovak Republic, as a potentially attractive country in the market of forms and types of tourism, is that local business operators remain passive in showing active interest, the respect and the willingness to invest funds in the promotion of leisure in this country.

Slovakia in comparison with other countries is, with its passivity, lagging behind in the concept of clear ideas about how to rationally and ecologically use the cultural heritage of the country in order to attract domestic and foreign tourists to actively explore non-traditional forms of tourism that are connected to visits of objects, such as sites of conflict, prison, torture, killing, but also places affected by natural disasters. They do not need to be explicitly *"dark tourists"*, whereas places of the human tragedy or misfortune could serve, in particular, for educational and cognitive purposes in deepening the curriculum for pupils in primary and secondary schools in the field of history and geography and other subjects.

For this reason, it is necessary to develop an effective strategy and succession with which we get from the current to the future state. The strategy for sustainable tourism in Slovakia should be diversification in space, i.e. not to offer the same product to all foreign tourists (the High Tatras and Bratislava); the territory of Slovakia is a natural and cultural site of the heterogeneous landscape, which has something to offer in the other, lesser-known regions. The strategy for the development of tourism in Slovakia should be focused primarily on marginal regions and specific forms of tourism. The region of Eastern Slovakia can serve as a model territory. An essential part of future success in the promotion of domestic tourism is the institutional background, which means a horizontal line of cooperation by the form of learning clusters of all stakeholders in the region. The legislative support for the development of tourism in the regions of Slovakia will enhance the effectiveness of this cooperation.

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TOURISM AND POLYCENTRIC DEVELOPMENT BASED ON HEALTH AND RECREATIONAL TOURISM SUPPLY

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Abstract: This article outlined a polycentric development scenario through tourism within the balneary area of Bacău County and the rural-mountain area of Cluj County. Using research methods like analysis, comparison, cartographic, graphic techniques, the results concluded that within Bacău's balneary area, Moineşti could specialise in climatotherapy, Târgu Ocna in saline microclimate, and Slănic Moldova in hydrotherapy; whereas within Cluj's rural-mountain area, Muntele Băişorii should continue to rely on winter sports tourism, Beliş-Fântânele on water-based tourism, and Răchiţele on nature-based tourism. Thus, the participation of each centre to the general supply enabled the pursued tourist-functional cooperation, following the principles of polycentric development.

Key words: polycentricity, compatibility, Moineşti, Băişoara, cooperation

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INTRODUCTION

Many regions of the world face uneven development, whether this situation is encountered at a local level or at a national one, such as in the case of all former communist countries within which the development process was apparently misunderstood and the attention was focused on a centralised development, rather than on a integrated one. The lack of an effective planning led to polarisation phenomenon, that solely encouraged the evolution of the urban centres that had already held influence on adjacent areas. Therefore, economic flows were only oriented towards polarising centres and, once again, the rest of territory did not receive the adequate amount of attention. However, the specialised literature came up with a solution for combating the

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territory disparities, defining it as polycentric development, that is opposed to monocentricity. Targeting urban centres, polycentricity aims at territorial cohesion and economic performance improving through establishment of functional urban cooperation, taking into account the territory spreading and socio-economic relations between those settlements. Thus, the actual study attempts to outline a new concept both related to tourism and polycentricity, in order to elaborate development scenarios for each case study. For achieving this goal, several objectives were engaged. Firstly, a series of concepts like polycentric development, tourist cluster and system theory were taken into consideration by adopting a theoretical analysis of those within which both common attributes and specificities were revealed.

Subsequently, a detailed look into the situation of tourist heritage, tourism infrastructure and tourism related services belonging to the examined settlements/resorts was presented, aiming to highlight the common and authentic aspects of each case study. Taking into account the tourism phenomenon analysis, a series of proposals were made to support tourist cooperation regarding tourist planning and the interrelations between accommodation units, catering units, travel agencies, tourist information centres, transport services, tourist attraction events, and promotion activities that concern the destinations' triad of each case study. We decided to center our attention on polycentric development theory on this paper because it is seen as one of the most realistic and promising solutions for solving the lack of diversified tourist offer among Romanian resorts. In case of the absence of a diversified tourism supply that is not capable to satisfy tourist needs, the polycentric development could be seen as a solution, if each settlement specialised itself from tourism point of view, in order to materialise a tourist cooperation and to initiate a general supply that comprised the sub-supplies of several centres, characterised by service diversity, hence being revealed the importance of discussed subject. Moreover, collaboration in the area of tourism based on polycentric development is an under researched topic, reason for why this study has been designed in such a way to establish the necessary conditions for marketing all destinations into a single one.

The same situation can be extrapolated on the settlements/resorts taken into study, which presents two development scenarios, an urban one for three localities situated in the eastern part of Romania, more precisely in the balneary area of Bacău County; and a rural one, for three other territorial-administrative units located in the northwestern part of Romania, in the mountain area of Cluj County.

LITERATURE REVIEW

The polycentricity concept has its beginning in 1933, when Walter Christaller formulated the Central Place Theory. The next step was the appearance of development and growth poles theory, outlined by François Perroux in 1995. The polycentric development concept took shape thanks to scholars like Higgings (1963), Hanssen (1967), A. Kuklinski (1970), Hermanssen (1972), Faludi & Waterhout (2002), Faludi (2005), Hague & Kirk (2003). The polycentricity particularly occurs in those cases where certain urban settlements are willing to cooperate in order to beat the competition, through a functional relation, relying on their prevailing functions, their strengths and their specific elements (Beaujeu-Garnier & Chabot, 1971).

This attempt can be possible only in urban balanced development conditions, which can be considered, more or less, relative synonymous to territorial development (Krister & Meijers, 2006). In general, the polycentric development is favourable when two or more urban centres hold certain functions that complement each other (Olsson & Cars, 2011). The system concept was elaborated in 1950 by Ludwing von Bertalanffy, being defined as an ensemble formed by several components that are in interaction.

The next research step referred to the system as a set of specific objects through their attributes, but characterised by an interaction relationship (Hall & Fagen, 1956), which were associated with a structural functionalism (Parsons, 1951). In 1973, the system concept received the characteristic of feed-back, considering that a system development consisted of several stages of receiving and releasing substance (Forrester, 1973) and in 1981, the main features of a system were established: each element has an effect on the performance of whole system, each element is affected by at least one other element in the system, all possible subgroups of elements also have the first two properties (Ackoff, 1981). The most basic definition of system concept refers to a group of interacting components that conserves an identifiable set of relations, "whose sum of components along with their relations, conserving some identifiable set of relations to other entities" (Macy, 1991, p. 72). An eloquent definition which holds useful key words for outlining the proposed concept, associates the system with a functional ensemble which is composed of different elements, but whose relational character move them toward a common goal (Ianoş, 2000). The cluster theory was developed by Porter in 1990, although the concept of agglomerations economies - local industry concentrations was elaborated by Marshall, 70 years earlier, in 1920. Initially, clusters represented groups of companies within an industry inside a geographical area (Swann & Prevezer, 1996), where their concentration worked as a synergy producer, through their geographical proximity and their interdependence (Rosenfeld, 1997). These companies coincide with competitive industries and institutions (Feser, 1998) that act in a particular activity sector, whose interrelationships empowers the competitive advantage (Porter, 1994, 1998).

In 1999 the innovative clusters appeared, being associated with a large number of interrelated industries that operate in the same market with the same characteristics (Simmie & Sennet, 1999). Clusters are synonymous to competitiveness, given that they contribute to innovative processes, facilitate relations with other institutions, canalising knowledge and information need for technology development (Poter, 2000, 2003).

A more complete definition denotes cluster as a closed or interconnected group of companies, service providers, associated institutions in a certain domain, linked through analogy and complementarity (Porter, 2003). The cluster theory is based on two characteristics: *agglomeration* (geographic concentration of an industry or related activities) (Gordon & McCann, 2000), and *interconnection* (competitive/cooperative relationship which is established between local actors) (Simmie, 2004). Later on, the cluster concept is associated with system theory, being defined as an interconnected system of companies and institutions whose values are larger than the sum of their components (Flowers & Easterling, 2006). Concerning the literature that implied these case study areas, in comparison with the balneary area of Bacău County, the mountain area of Cluj County benefited by many studies that gave attention to resources of relief (Ciorogariu, 2009), climate (Gaceu, 2009) and their role in the practice of touristic activities.

THEORY AND METHODOLOGY

Moineşti Municipality, Târgu Ocna and Slănic Moldova health resorts are situated in the western part of Bacău County, inside Subcarpathian zone. The tourism supply of each destination is based on the curative type because all of them possess resources with high therapeutic values. Furthermore Moineşti Municipality is also recognised for Tristan Tzara, for the Jewish spirit and for the oil extraction. On the other hand, while Târgu Ocna is also known for its salt mine (the deepest salt church in Europe), Slănic Moldova won its notoriety due to the presence of 21 mineral water springs and SPA Sanatorium services. An important detail that needs to be discussed in order to implement a polycentric development through tourism is the transportation connection that within

this case study is only ensured by National Roads (figure 1). The second case study, which also targets a triple-pole proposal, focuses on Cluj's rural-mountain area, situated in the central-southwestern part of the county. From a physical-geographical point of view, Băișoara Mountain Resort, Beliș-Fântânele Resort, and Răchițele village are located in the northeastern part of Apuseni Mountains (Western Carpathians), more precisely, in Muntele Mare Massif, Gilău Mountains, and Vlădeasa Mountains.

Territorial-administratively speaking, they are incorporated within three communes (Băișoara, Râșca, Mărgău), where although other localities hold the residence function, none of them attracts so many tourists as Băișoara Mountain, Beliș-Fântânele, or Răchițele do, due to their tourism supply relying on the recreational type. What made Băișoara Mountain famous was the homonymous tourist resort, mainly appreciated for the possibilities of practicing winter sports. Favourable conditions determined the emergence of sports competitions and events, not only ski-related, but also running, mountain biking and off-road competitions (Răcășan, 2015).

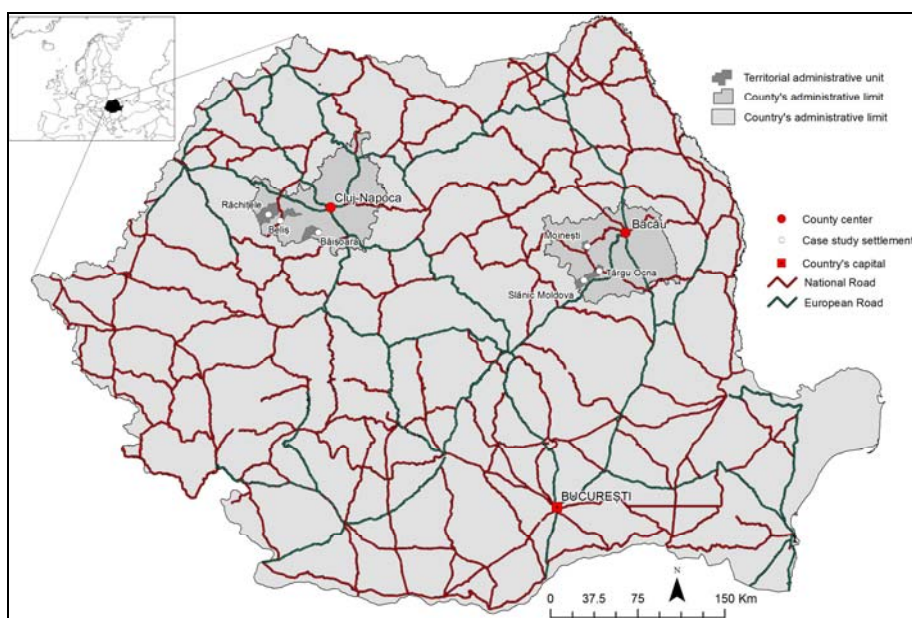


Figure 1. Country level contextualization of case study settlements

On the other hand, Beliș-Fântânele Resort became popular first because its location, on the shores of the homonymous water storage reservoir (Fântânele Lake), secondly due to the therapeutic benefits of the climate that mediated achievement of the „balneoclimateric resort” status (Ciangă, 2007), and thirdly because of the recreational activities and sports, mostly water-based (e.g. nautical sports, fishing). Răchițele village owes its notoriety to the homonymous waterfall (also known as Bride's Veil), measuring 50 metres in height (Pop, 2007), tall enough to climb on it during the winter season and to organise a National Championship of Ice Climbing in situ. It is worth mentioning the fact that every tourist resource that the three localities are valued for, namely Muntele Mare Massif, Fântânele Lake and Răchițele Waterfall, have all been declared protected natural areas of county interest, encouraging environmentally friendly activities such as hiking and trekking, cyclotourism, sightseeing. The transportation connection is enabled on both County and Commune Roads. Referring to the analysed concepts, the polycentric development is clearly

defined by the ESPON project as the situation in which two or more cities can complement each other, functionally speaking, by providing citizens and companies in their conjoined hinterlands access to urban functions that would usually only be offered by higher-ranking cities; cities should cooperate by joining existing assets, but not just any type of assets, but complementary ones (Nordic Centre for Spatial Development, 2005). Related examples are given by several studies, such as *"POLYCE- Metropolisation and Polycentric Development in Central Europe"*, elaborated by ESPON in 2012, which brings into question five European capitals: Bratislava, Budapest, Ljubljana, Prague and Vienna. The essential elements worth mentioning are the measures taken for polycentric development deployment, which influence tourism as well: the development and protection of recreational areas' quality, the improvement of public transport, the expansion of airports, the improvement of suburban railway service, the conservation of natural and cultural heritage, the improvement of tourism promotion techniques.

The European Metropolitan Network Institute, in *"A Strategic Knowledge and Research Agenda on Polycentric Metropolitan Areas"* study, examines six metropolitan areas: Linköping-Norrköping (Sweden), Gdańsk-Gdynia-Sopot (Poland), Leipzig-Halle-Dresden (Germany), Rotterdam-The Hague (Holland), Porto (Portugal), Milan (Italy). The main objectives were related to the main challenges that appeared within monocentric-polycentric transition and to the measures that concern the materialisation of the urban polycentric structure. Another study that discusses the polycentric development issue is the *"Tri-City Region"* which investigates the case of a famous academic centre in Poland, where the three cities - Gdańsk, Gdynia and Sopot – are situated. Although, Gdańsk tends to detach itself, from an economic and demographic point of view, Gdynia remains a strong competitor, whereas Sopot distinguishes itself from the rest through its tourist value, provided by its status of traditional health resort.

Another study examines the metropolitan region of Mitteldeutschland (Germany), integrating Dresden, Leipzig, Halle, Chemnitz and Zwickau cities. In this case, the impediment to polycentric development is represented by the fact that all these urban settlements are more in a competition than in a cooperation process. Another metropolitan region that has favourable conditions for polycentric development is Rotterdam–The Hague. Being located at short distance one from another, Rotterdam and The Hague cooperate especially by integrating public transportation systems (networks). Besides transportation infrastructure development measures, the attention also focused on economy (economic activities diversification and cooperation encouragement between Rotterdam harbour and The Hague enterprises), on science and innovation (universities collaboration), on culture and sports (Rotterdam supports The Hague to become the European Cultural Capital in 2018 and The Hague assists Rotterdam to become the host of Olympic Games in 2028). An eloquent study made by ESPON brings into question the metropolitan zone of Lyon and Rhone-Alps region, which aims to reunite all urban settlements around sectors of excellence through the cooperation of famous companies. Thereby both complementarity and collaboration are encouraged, a relevant example being Lyon-Grenoble team that complement each other within bio and nano technology (*The case for agglomeration economies in Europe*).

On the subject of clusters, most studies focus on the manufacturing industry, despite the growth of the service sector. In a typical tourism cluster the quality of a visitor's experience depends on the primary attraction but also on the quality and efficiency of complementary businesses such as hotels, restaurants, shopping outlets, and transportation facilities (Poter, 1998). Similar to usual clusters, the tourism ones are characterised by interrelated companies, promoting joint actions, agglomeration formation (Jackson & Murphy, 2002), and they represent a geographical concentration of

interconnected institutions and companies in tourism activities (Capone, 2004). In other words, tourist clusters are differentiated sets of tourist attractions which are concentrated in a certain geographic area equipped with qualitative services and facilities, collective efficiency, social and political cohesion, network companies management that generate competitive and comparative benefits (Beni, 2003).

The tourist services should include static elements (accommodation, catering), mobility elements (transportation, travel agencies, rent-a-car services), dynamic elements (recreational, cultural services). However, a tourism cluster is associated with tourist product and destination (Costa, 2005). The objective of a tourism cluster is to bring together companies that usually act alone, in order to create a successful tourism product in a certain region. Besides, in order to develop a tourism cluster requires the existence of competitive companies, favorable geographic location, natural potential, cultural traditions, gastronomy, favorable hospitality, various partners among which formal and informal links are established (Novelli et al., 2006). Nevertheless, an efficient tourism cluster also depends on the participation of other actors such as; consulting firms, entire transportation infrastructure etc. (Brown & Geddes, 2007).

A proper definition that semantically approaches the proposed concept states that tourism clusters are geographic concentration of companies and institutions interconnected in tourism activities, whose value as a whole is greater than the sum of its parts, so that they can produce synergy, through their geographical proximity and their interdependence (Flower & Easterling, 2006). An illustrative Romanian example is represented by Carpathian Tourism Cluster Romania which is an independent network of regional and national tourism stakeholders in Romania. It is the first supra-regional tourism cluster of national interest that includes among target group and members, tourism development associations and related NGOs, local and national authorities, tour-operators, travel agencies, tourism guides, event agencies, accommodation providers, suppliers of the tourism industry, leisure and entertainment industry, transportation companies, service and consulting companies, universities, training institutes (www.tourism-cluster-romania.com). Regarding the methodology that mediated the achievement of our research objectives, several methods were employed, among which are worth noting analysis, comparison, observation, as well as graphic and cartographic methods. The analysis method was mainly engaged within the theoretical framework establishment, from presenting both evolution and common features of the examined terms, to outlining a definition and characteristics for the proposed new concept of polycentric development through tourism.

Furthermore, this method also served for data procurement and interpretation process related to both urban and rural triple-pole destination case studies, where the transportation connection situation (links and distances) along with the tourist resources and infrastructure elements were equally analysed. The comparison method focused more on revealing the results of the two case studies, illustrating quantitative and qualitative aspects of the natural and anthropic tourist resources, elements of secondary tourism supply and tourist flows. Both common and specific features of the level of tourism development were examined inside each settlement in order to establish tourist hierarchies and to formulate possible proposals and recommendations, on the basis of the current reality, aiming to obtain a balanced tourism development inside each study area.

In order to achieve a better perspective of tourism present and future status, graphic and cartographic representations were equally used. While the graphic method materialised into tables and charts edited in Microsoft Excel 2011, the cartographic method employed ArcGis 9.3 instrument within the maps elaboration process. Thus, the contextualisation of the triple-pole destination proposals within the borders of Bacău and

Cluj counties was acquired. Thus, by means of the employed research methods, which brought their contribution to the identification of specific tourist elements and proposals for each examined destination, a general tourism supply integrating three compatible sub-supplies was finally configured. Worth noting that each sub-supply was carefully selected to participate with different tourism products, at least in terms of tourist resources, so that each of them could enter the tourism market, without having its existence threatened by unloyal competition. Considering the dominant type of tourism unfolded within each destination, on the subject of polycentric development through tourism, the balneary area of Bacău County should definitely rely on a general health supply specialised in a particular therapeutic factor (local bioclimate, salt mine, mineral water spring), whereas the rural-mountain area of Cluj County should count on a general recreational supply valuing specific activities tributary to winter sports tourism, water-based tourism, and nature-based tourism.

Thus, through these research methods was aimed to create a general tourist supply at the level of each study case, where was tried to form a compatibility inside tourist phenomenon components. Subsequently, specific elements of the tourism potential of each settlement were identified or proposed in order to create a compatible supply of a case study. Each urban or rural center must participate in general supply level with different primary tourism products. Otherwise, one of them will fail because two similar supplies will not survive inside a tourist triade presented in each case study. Taking into account the dominant type of tourism, for ensuring an efficient polycentric development by tourism, it is necessary for each settlement to specialize in a particular therapeutic factor in the first case study's situation (local bioclimate, salt mine, mineral water spring) or in a specific activity belonging to one tourism type, in case of the secondary settlements triad proposed (watersports, winter sports, nature based activities).

RESULTS AND DISCUSSIONS

Concept definition

The proposed concept refers to an ensemble of two or more settlements that through connectivity, ensured by transport infrastructure, complementarity, compatibility of individual tourism heritage, and through cooperation between main stakeholders could form a general tourism supply composed of different tourist contributions of all settlements involved, in order to market them into a single destination.

Features clarifications

A notable feature of the concept of polycentric development through tourism concept concerns the existence of at least two settlements/resorts, which are characterised by a relatively high tourist value, a uniform distribution across a territory and a good accessibility. Tourism phenomenon must be seen as one of the most prolific economic branches in present and future, and for an efficient polycentric development to be achieved, only small differences in both distances and travel times between the examined settlements/resorts are allowed. Consequently, the tourists' options of benefiting from the services of a destination or another, should not be conditioned by these variables, or by a low level of transportation accessibility. All settlements/resorts, or at least most of them, possess similar tourist attractiveness levels and benefit from specific conditions of tourism development. As in the previous case, settlements/resorts whose tourist attractiveness values display major differences, must be avoided if a proper unfolding of polycentric development process is aimed. Though, minor inadvertences could and should be eliminated – through proposal sessions for instance – so that tourists who choose destinations solely based on the quality of tourist services continue doing it without having to compromise. All settlements / resorts taken into

account form a general tourism supply based on a single type of tourism (health tourism, recreational tourism etc), but in order to display a pertinent case study the sub-supplies must be different. For example, if we were to imagine a scenario within which the general supply of three settlements relies on event tourism, then each of the examined settlements should specialise in one of the following forms: cultural, scientific, or sports events. In order to complement each other, all settlements/resorts involved in a polycentric development process should equally bring their contribution to the configuration of the general tourism supply, by means of their tourist services.

For instance, if a triple-pole health resort integrates destinations specialised in climatotherapy, salt mine microclimate therapy, and hydrotherapy, the infrastructure elements and related services should be numerous enough in order to provide a diversified experience (e.g. recreational activities, tourist events) for a tourist patient who seeks treatment. All tourist destinations involved within a polycentric development tourism process act like a system whose interacting parts aim to create and develop a general tourism supply. These destinations are not only interrelated, sharing common goals, but they are marketed into a single destination. In this train of thought, the informational materials promote the entire area where these settlements/resorts are located, presenting them as a unitary concept of destination, not separately.

Other advantages of the implementation of polycentric tourism development retrospects to the fact that during a single stay one could benefit from tourist services in all the settlement/resort. Exemplifying the case of a health resort, the tourist-patient could take advantage of several treatment methods belonging to a destination, or could simply use one type of treatment, depending on the medical prescription, and enjoy the tourist facilities provided by another destination. In another train of thoughts the distance factor should be the last concern while travelling between settlements/resorts. Thus, given a general tourism supply integrating several destinations, whose tourist services appeal to a tourist, he should feel free to travel between destinations, without worrying about comfort and time spent on his way from a place to another. In order to build an operational general supply, several interrelations must be established between the elements of the tourism infrastructure belonging to each settlement/resort. The interaction process between the triple-pole destinations within the two case studies is not achieved on the basis of natural and anthropic attractions, but on the basis of the tourism material base related components such as accommodation, catering, recreational, treatment, information and promotion units, thus aiming for a functional polycentric development gained through tourism.

Interrelations assignation between elements of tourist infrastructure

Acknowledging the fact that interrationship is the key to a sustainable polycentric tourism development, all elements belonging to the material and technical base of tourism should be interrelated, not only inside a settlement but also in-between destinations. In these circumstances, all types of accommodation units (hotels, villas, guesthouses, campings, chalets, bungalows etc.) should be interconnected, holding and providing information about the status of each structure integrated within the destination, so that tourists continue to benefit from services that the accommodation unit finds itself in a position of impossibility to offer. The most efficient solution for ensuring the connection between all accommodation units situated in the addressed settlements/resorts is to implement a software program that links them all together to form a network (Gaman, 2014). Through this software, each accommodation unit is supposed to be aware of the global situation regarding the occupancy rate, number of clean rooms, number of tourists, personal information about the clients (age, nationality etc.), current and future booking situation, and other general information about other units (comfort level, number and type

of rooms, number of beds in each room) along with details concerning catering services, recreational facilities, auxiliary services (conference room, laundry facilities) and other useful information that tourist might need (parking places, wireless etc.). According to the interrelationship principle, accommodation units that cannot provide services that other units can, are expected to recommend those accommodation structures that can satisfy the tourist's needs, regardless of their location (in the same or in other co-destination), as long as they are compatible with the tourists preferences.

Other type of interrelations should be established between travel agencies and tourist information centres, that should constantly provide for mutual promotion. For example, a travel agency situated in Slănic Moldova should be able to provide informational and promotional materials related to all co-destinations (general characteristics, natural and athropic tourist attractions, accommodation, catering, recreational, treatment base) (Gaman, 2014). Beyond clasic services, each travel agency should hold a specialised staff, from reception officer to tourist guide and entertainer, willing to offer assistance not only inside one destination, but within all settlements/resorts involved in the tourist cooperation team.

Interrelationships can also be developed between travel agencies and local accommodation units (e.g. reception officers, members of the travel agency staff escorting tourist to the accommodation units), as well as between travel agencies and transportation companies (e.g. tourist guides working for travel agencies being hired by transportation companies on routes between destinations). Concurrently, tourist information centres in all tourist destinations should provide information regarding the tourist attractions and routes, accommodation units, catering units, treatment units, tourist events and other services that a settlement/resort can offer, either in a verbal form, or in a written one (tourist maps and guidebooks of each destination), preferably edited in several international languages, shared for free. Regarding transportation connection, which is definitely the most important element in polycentric development, the global trend that affects these services by enhancing their role within tourist product gets to reflect in the collaboration between settlements/resorts engaged in a polycentric tourism development process. Thus, a functional transportation system is required in order to allow tourists to travel from a destination to another whenever they are willing to do it. In this line, links between destinations must be ensured, by minibuses and buses (especially during summer when a higher number of tourists exists) at least at 30 minutes intervals, to effectively direct tourist flows and to keep a fluency of tourist's stay (Gaman, 2014).

Concerning events endowed with tourist attractiveness and related connections, the most effective measure should consider instaling display panels in public locations in order to communicate essential information such as type of event (cultural, sports, scientific), significance (local, national, international), periodicity (daily/monthly) (Gaman, 2014). Prior this action a common calendar of events should be outlined so that no event hosted by a destination involved in a polycentric development process would take place at the same time an international or national one unfolds.

Given the fact that promotional activities address both tourists and scientists (in the case of a health resort), the information provided should be consequently presented. Thus, for doctors, medical science associations, researchers from related fields of study, the promotion materials should contain scientific information regarding the therapeutic values of different natural sources such as mineral water springs, local bioclimate, salt mine microclimate and other natural resources; whereas for non-academic tourists, they should incorporate less-specialised information, using common language and focusing on tourist attractions and activities (Gaman, 2014). Irrespective of their form, contents and users, all promotional materials should follow the "all in one" principle and should be published in

national and international languages such as English, French, German, Spanish, Norwegian, and Swedish. They should definitely include posters, brochures, video presentations, tourist guide books, tourist maps, albums. On the other hand, local authorities should participate at national and international conferences, medical reunions (health resorts case), and they should also regularly organise local conferences where international medical personalities, travel agencies, foreign journalists would be invited (Gaman, 2014). Taking everything into account, both features and aforementioned interrelationships that concern the polycentric tourism development process, two case studies are about to be illustrated, presenting an urban triple-pole destination and a rural one, within which a proper collaboration within settlements/resorts was targeted, on the basis of the elements of the tourism supply corroborated with several related future proposals aiming to reduce the current qualitative and quantitative disparities of tourism.

Moinești - Târgu Ocna - Slănic Moldova case study

On the strength of the main features related to tourism sector, transport connection, and territorial distribution of destinations in the balneary area of Bacău County (figure 2), the idea of developing a general tourism supply based on the contribution of all settlements/resorts involved, encountered favourable circumstances. Hence, by having in common the possession of mineral water springs, the three destinations within this case study brings into question health tourism, as a dominant tourism type. While Târgu Ocna detaches itself through the saline equipped with a treatment base, Slănic Moldova stands out due to the internationally recognised therapeutic value of mineral water springs. Implementing the proposed concept, would imply that each destination creates a health-based supply relying on different therapeutic factors.

Concurrently, although the mineral water springs from Moinești are recommended for the treatment of numerous affections, due to their high concentration of sulphur, compared to the mineral water springs in Slănic Moldova, they are not competitive enough to stand out. Therefore, Moinești should create a health supply based on climatotherapy, the more so as both the hypsometric level and the local bioclimate provide proper conditions. Regarding the proposals for the balneary area of Bacău, most of them refer to the tourism infrastructure, where the largest gaps exist. According to a comparative quantitative analysis, Slănic Moldova has a leading position within both accommodation and catering sector, while within the treatment one.

Târgu Ocna comes first because of the two units. Despite the fact that Moinești Municipality holds the largest number of recreational units, Târgu Ocna has a higher level of notoriety—conferred by supplementary swimming pools with saltwater and freshwater, along with the recreational base inside the salt mine. In the same train of thought Slănic Moldova's recreational infrastructure also incorporates a ski slope, but its notoriety is quite low due to high seasonality level. Moinești Municipality hosts the largest number of tourist events, generated by: settlement's status of first locality where oil extraction was documentary attested, Tristan Tzara's local spirit, local crafts, rallies and bike competitions supported by an optimal territory planning, local winter customs and traditions.

Beliș-Fântânele - Băișoara Mountain Zone - Răchițele case study

The central core of the three tourism supplies, which brought fame to Băișoara Mountain, Beliș-Fântânele and Răchițele (figure 3), was the primary resource: mountain, water storage reservoir, and waterfall. At first glimpse, they do not seem to have something in common, but in terms of tourist valorisation, sports tourism, adventure tourism, and even ecotourism – as subcomponents of the general recreational supply – could be practiced within destinations that have this kind of attractive resources. Not to mention the fact that all three of them gained the status of protected natural area of county interest, which represents a further guarantee of their value, at least from a landscape perspective.

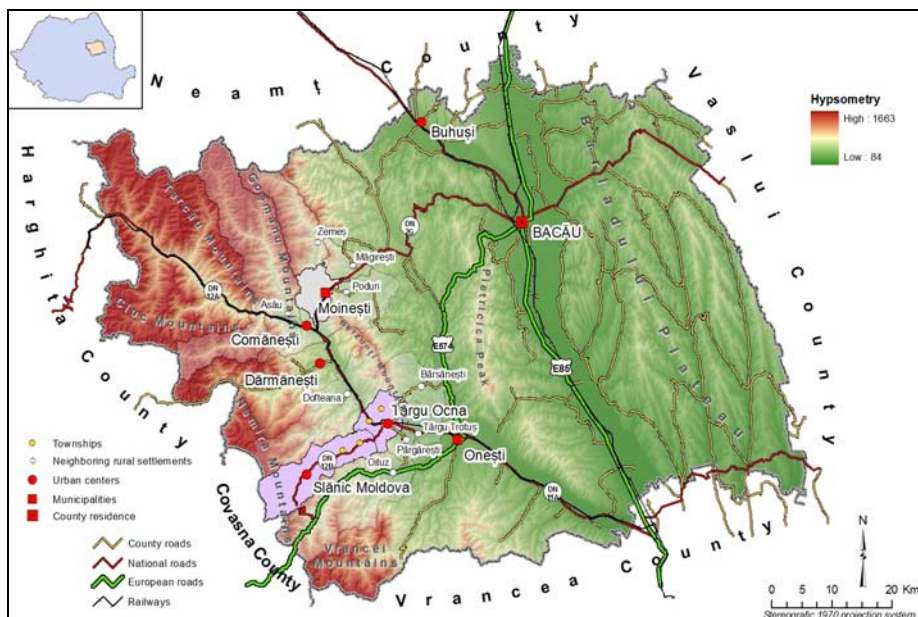


Figure 2. County level contextualization of Moinești, Târgu Ocna and Slănic Moldova

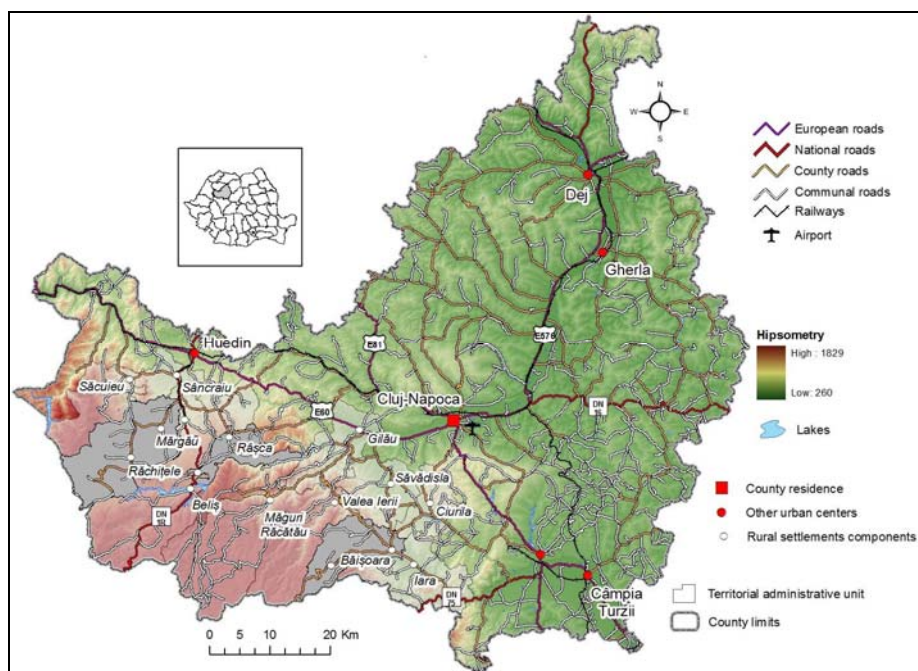


Figure 3. County level contextualization of Beliș-Fântânele - Băișoara Mountain Zone - Răchițele

However, in order to apply the concept of polycentric development, even in the case of rural localities, they should specialise their tourism sub-supply within the same tourism type, which in this situation is the recreational one, and even more specific, within the sports tourism one. Thus, by associating the aforementioned tourist

resources with sports, three tourist-related categories emerge: winter-based activities in Băișoara Mountain Resort, water-based activities in Beliș-Fântânele Resort, and nature-based activities in Răchițele village. Although predictable, the locality-activity relationship becomes more nuanced when the variable called „season” interferes. Hence, during winter months, Băișoara should focalise on downhill skiing (alpine skiing) and related competitions due to the fact that the area benefits from favourable natural support in terms of relief and climate, which also led to the creation of both ski runs and resort. Conversely, Beliș’s contribution to the general tourism supply, in the same hibernal-recreational manner, should concern cross-country skiing (nordic skiing) and associated contests. By contrast, Răchițele could put itself on the map of sports supply through an extreme winter activity that depends on the waterfall’s freezing process: ice climbing. For the rest of the year, the general tourism supply, which joins together the three destination from Cluj County’s mountain sector, could consider other sports that would eventually customise each of the three component sub-supplies.

In order to implement the above-mentioned proposals of tourism sub-supplies as part of a general one which would valorise the attractive potential from the rural-mountain area of Cluj County, the current situation of the related infrastructure must be reviewed as well. As shown below, Băișoara holds supremacy in every aspect of the material and technical base of tourism, being constantly followed by Răchițele, referred to as Mărgău, the name of the commune where this village is situated. One can observe that this pattern in which Băișoara Mountain Resort always comes first in line and Beliș-Fântânele Resort (located in Râșca commune) always comes last, applies inside each tourism sector. As for the accommodation, Băișoara stands out through a prevailing guesthouses supply (seconded by bungalows), similar to Mărgău whose structure is, however, individualised by the presence of hostels, and different from Râșca’s supply where the predominant accomodation units are chalets.

Proposals

First proposal for balneary area of Bacău County reffers to the specialisation of Moinești Municipality on climatotherapy in order to complement the general health tourism supply within this case study. The main reason in shaping this proposal is represented by the existence of hills bioclimate, the only one known for lacking contraindications, recommended for both healthy and sick people. In this line, the related objectives dealt with the identification of suitable areas for climatotherapy, followed by the planning process of paths, terraces, solariums that enables terrain cures, aerotherapy, and heliotherapy. The second proposal concerns the diversification of the accommodation sector in Moinești Municipality, where hotels are missing.

The next proposal is centred upon recreational base, the element that has the largest influence on the diversity level of a tourist stay, targeting all destinations from this case study. In these circumstances, not only the planning of multipurpose halls that allow different sports activities (football, handball, basketball, table tennis, field tennis, billiards etc) is recommended, but also the planning of outdoor units. The most favourable situation coincides with the largest level of activities diversification. The fourth proposal recommends the planning of specialised catering units providing specific food and beverage, health catering units, in all destinations. This can be very usefull especially for those patient tourists who have medical prescription and need to combine their treatment based on natural factors with dietary restrictions. An evidence of cooperation, compatibility and interdependence between Moinești, Târgu Ocna and Slănic Moldova is a five-day program of a pacient-tourist’s usual stay that includes a chronological progress in a logical meaning of medical and tourist services from each destination. Also noteworthy is the fact that although Moinești is specialised on climatotherapy, Târgu

Ocna on salt mine microclimate therapy and Slănic Moldova on hydrotherapy, the tourism supply must be composed of other types of treatment too. For example, besides climatotherapy, Moinești can offer hydrotherapy as well, even though the quality level would not be the same as the one that Slănic Moldova provides.

Regarding the rural-mountain area of Cluj County, as concerns the accommodation sector, although all localities would require additional lodging places, the situation in Beliș-Fântânele (Râșca commune) appears to be needing more attention. However, the 15 accommodation units in Beliș commune should provide enough rooms for tourists who spend their weekend or holiday in Beliș-Fântânele. Therefore a more suitable proposal should aim to adapt the accommodation's structural and functional features to the specifics of the tourism sub-supply. This proposal anticipates the following one, related to the recreational infrastructure within which equipment rental centres are regarded. In this line, the three examined localities should provide the possibility of renting ski and snowboard equipment, depending on the dominant winter sport activity unfolded during the hibernal season; both nautical and fishing equipment (in Beliș-Fântânele); off-road and bikes rentals, for hard activities (e.g. mountain biking, enduro etc.) and for soft ones (i.e. cyclotourism).

The aforementioned link to the accommodation refers to another proposal which requires all lodging units to provide a minimal equipment for the prevailing activity in the area, such as fishing accessories in the case of Beliș-Fântânele Resort. In order to fully enjoy their experience, tourists should be constantly informed of new opportunities to spend their vacation, inside and outside the destination, reason for why, the existence of a tourist information centre in each of the three locations is a must. Beside information, these centres should be permanently aware of the existing number of tourists who spend the night inside the resorts and village, not only for establishing the occupancy rate of each accommodation unit, but also to facilitate the booking process for the new arrivals which seek for accommodation. The other proposal that aims to improve the quality of the conditions in which sports are practiced involves reviewing the current status of all marked trails and paths in order to make them more visible or to complement them where needed.

Yet another important proposal refers to the events' calendar belonging to Băișoara, Beliș-Fântânele, and Răchițele, which should be updated accordingly to the last proposals within the recreational tourism supply. Given the fact that most activities already benefit from an event, more precisely from a sports competition, what they all should do is to focus on promotional campaigns and to invest more in the marketing policy in order to attract more tourists and participants (Răcășan, 2015). Worth noting that this is only an example of how a tourism product of medium-length time interval could be created, although more complex and long-lasting ones, could be proposed, such as thematic camps, as well as less complicated ones, in terms of activities, within which tourists spend a weekend enjoying one or maximum two soft sports. In spite of being specialised in one tourism form or another, each destination integrates within its general supply, the possibility of practicing complementary activities. Some of them are common to all resorts/villages, such as hiking and trekking, cyclotourism, sightseeing and photo-tours, rural tourism, event tourism, or winter sports that do not require special infrastructure; and others join together the two resorts or the village and one resort.

The former situation reveals the link between Beliș-Fântânele and Băișoara Mountain whose therapeutic effect induced by climatic conditions put them on the map of climatic resorts. Furthermore, both of them host events such as winter sports competitions inside or within their surroundings which bring into prominence skiing and/or sledging (i.e. Dog Sled Racing Contest in Beliș), and cultural manifestations such as traditional celebrations (Răcășan, 2015). The latter case is illustrated by Răchițele and Băișoara Mountain Resort,

which share running competitions and winter sports that depend on the existing natural tourist resources (ski slopes in Băișoara and Bride's Veil Waterfall in Răchitele) and special equipment; along with local cultural events linked to the rural lifestyle and traditions.

CONCLUSIONS

The polycentric development through tourism is useful in tourism development practice, given that each destination should adapt its tourism supply to the preferences of modern tourists who look for continuity, diversity and quality services inside of their stay. This applies even more to the developing countries where the low number of destinations is a minor problem compared to the situation of the tourism infrastructure, which needs serious improvements, and tourist services, which require diversification in order to fully satisfy the tourist. Thereby, the proposed concept promotes tourist cooperation between two or more destinations in order to create a general tourism supply, that would eventually integrate the sub-supplies of each co-destination.

A prerequisite for creating a general tourism supply consists in a pre-existing compatibility between a destination's tourist services, which lies in the specificity of each destination's sub-supply, ensuring a functional tourist cooperation. Antithetically, the tourist coherence disappears because when two settlements/resorts offer identic services or services that do not belong to a common tourism type, one destination will end by facing a considerable recession, influenced by the services quality level previously offered.

When polycentric development through tourism becomes functional, the quality, quantity, diversity, interrelations and inter-dependence of tourist services are stimulated.

This study aimed to highlight the fact that polycentric development through tourism could be implemented both in urban and rural areas. Although the first case study proves that urban areas hold an enormous potential of qualitative and diversified services making them more suitable for this type of development, its implementation in rural areas can also turn into a success in the presence of all aforementioned conditions.

Certainly, a general tourism supply can be based on all tourism types and forms, but the present study attempted to reveal development scenarios for health and recreational (sports) tourism, being quite complicated to ensure a compatibility between destinations. The health tourism needs natural therapeutic factors so polycentric development through tourism depends both on the location and compatibility of these natural factors. On the other hand, recreational tourism also depends on a destination's tourist resources which, similar to the previous situation, are quite hard to find jointly in the circumstances under which a certain compatibility between settlements/resorts that are located near each other is being discussed.

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LIMESTONE-GRANITE CONTACT ZONE IN THE DAYANG BUNTING & TUBA ISLANDS, MALAYSIA: AN EDUCATIONAL OUTDOOR GEOTOURISM LABORATORY

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Abstract: This paper discusses a research conducted in Dayang Bunting and Tuba Islands, Langkawi, Malaysia, in an effort to promote these islands as educational geosites to explain the process and impact of contact metamorphism to the public. The research activities involves evaluation of microscopic rock samples from the closest to the farthest distance from the metamorphism contact zone. The evaluation involves examining grain size, zonation, shape, and fabric of minerals in rock samples. Pronounced changes were observed from different distances from the contact zone as indicated by the change in grain size, grain shape and zoning in the mineral. These informations are stored in a database that is accessible to the public in the future.

Key words: Dayang Bunting Island, Tuba Island, Langkawi Geopark, contact metamorphism, educational geosites

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INTRODUCTION

The Dayang Bunting and Tuba Islands located at the southern part of the Langkawi main island are rich in geological marvels. These two islands have many areas with exposed rock outcrops that enable studies in different aspects such as engineering geology, geomorphology to geotourism. Being part of the Langkawi archipelago, these islands are not only rich in geological history but are also well-known tourist spots, thanks to the duty free status bestowed on the Langkawi Island which is also listed as

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Global Geopark by UNESCO in 2007. However, some sections of these islands are secluded, hence, their natural settings are still left intact. Apart from offering numerous attractions to tourists, geoheritage conservation practices should have an educational aim (Brocx & Semeniuk, 2007; Palacios et al., 2012) that includes important geological processes with great scientific, aesthetic, and educational values (De Carvalho & Rodriques, 2009). There are several established geosites that have been used for educational purposes elsewhere. The few examples are Ordovician Ichnofossils in Arouca Geopark (Artur, 2009), lava delta geosite (Nunes & Lima, 2009), and river features in Tiete Headwaters Park demarcated by the Brazilian Geography Society (Velaquez et al., 2013). These examples of geosites, can have high potential for scientific studies, use as outdoor classrooms, enhancing public understanding of science, recreational use, and economic support to local communities (Kepalaitè, 2015).

The presence of the contact zone between limestone and granite in these two islands provides an opportunity to the authors to study how this feature can be used to reach out and educated the public on the importance of geology not only locally but also regionally. In this study, an initiative has been taken to explore the possibility of making these two islands a field laboratory for geological studies by examining changes in rock micro-features at various distances from the contact zone. Thus, to achieve the aim mentioned above, two objectives have been designed; the first objective is to determine the type of rocks that are present in both islands and subsequently, analyzes the changes of rock micro-features in terms of grain size, mineral composition, mineral shapes, and rock texture at varying distance from the contact zone. These changes will indicate the intensity level of metamorphism at various distances. This study hopes that by instilling sense of wonders and curiosity, visitors will be motivated to revisit this geosite (Allan et al., 2015).

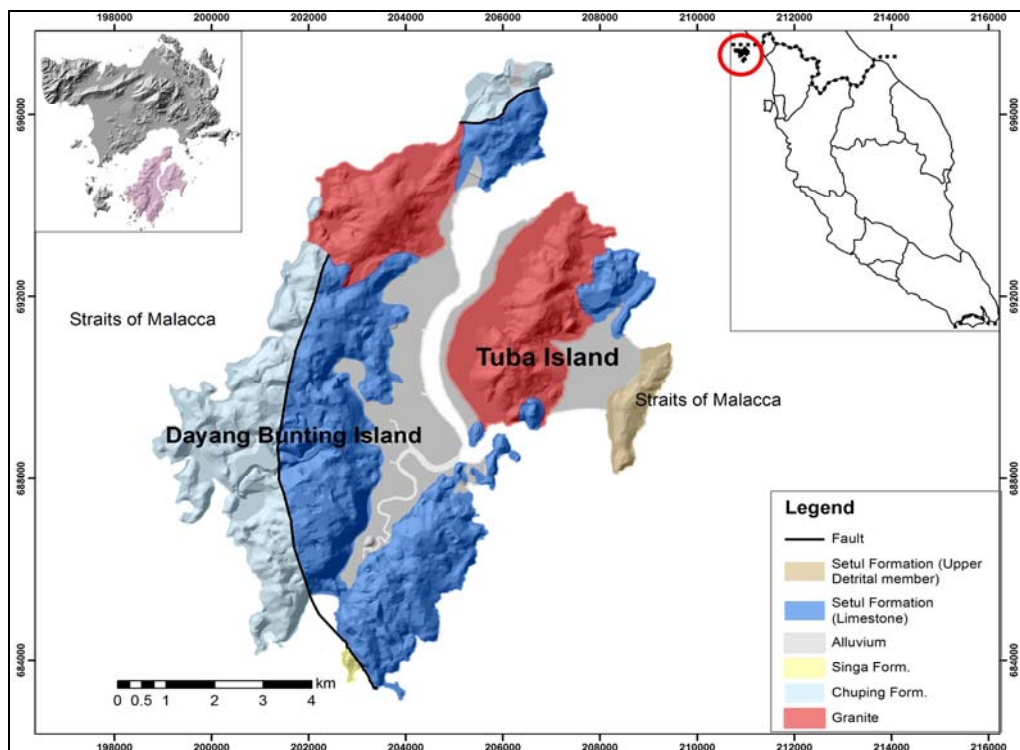


Figure 1. The location of the study area with geological information

GEOLOGY OF THE STUDY AREA

In general, the Dayang Bunting and Tuba Islands are underlain by two main rock formations known as Chuping and Setul Formations, granite bodies and alluvium which covers the coastal plain.

a) Setul Formation

The Setul Formation was named after the Setul Range bordering Malaysia (west of Perlis) and south of Thailand (Jones, 1981). The rock unit was formed in middle Ordovician to Early-Devonian, around 450 million to 410 million years based on the findings of gastropod and cephalopods fossils (Jones, 1978). It consists of two lithologies; limestone and detrital components (Jones, 1981; Jantan et al., 1989) which can be divided into four members, i.e., lower Setul limestone member, lower detrital member, upper Setul limestone, and upper detrital member.

The upper detrital member composed of quartzite and gray subgreywacke, gray, brown and black carbonaceous shale and red shale (Harun et al., 1998), while the lower-detrital member consists of quartzite, limestone, pyhllite, slate, and siliceous mudstone (Jones, 1978). The lower-detrital member also contains fossils of graptolites, trilobites and other old Llandonvery fossils (Harun et al., 1998). Jones (1981) have interpreted that the Setul Formation Setul was deposited in a shallow continental shelf.

b) Chuping Formation

The Chuping Formation which got its name from Chuping hill in Perlis consists of a sedimentary rock sequence that overlain conformably on the Singa Formation. In the Langkawi archipelago, the Chuping Formation is distributed in Dayang Bunting Island, and in the Langkawi main island (Kg Belanga Pecah & Kg Kisap). Chuping Formation consists of white to light gray limestone. At some places, it has undergone metamorphism and turned into marble.

c) Granite Body

Massive granite bodies are found at the northwestern part of the Dayang Bunting Island and in the center of the Tuba Island. These granite bodies are related to the two large granite batoliths known as Gunung Raya and Bukit Sawar in the main island of Langkawi. These granites can also be observed at several other localities such as Kuah and Teluk Apau. The age of these granites ranges from 217 m.a to 209 m.a. (Triassic period) based on radiometric dating done by Bignell & Snelling (1977).

d) Alluvium

Quaternary sediments cover a large area on the island of Langkawi. These deposits were mostly concentrated in the western part of the island and consist of marine and fluvial sediments. They are found mostly at the east on the eastern part of Dayang Bunting and Tuba Islands and with small occurrences along the western coast of the Tuba Island.

METHODOLOGY

Petrographic analysis was conducted to examine changes in composition, grain size and rock fabric from rock samples taken in every station. The analysis involves 50 rock samples collected from various locations around the Dayang Bunting and Tuba Islands. These rock samples were cut into rectangular shape with a dimenstion of 5cm x 2cm x2cm (length x width x height). Subsequently, the samples were placed on a heating element and heated with a temperature of 400°C for an hour and Canada Balsam was applied on each of the samples surface. These samples were left overnight to cool. The surface with Canada Balsam was later affixed to a glass slide with a glue and left for several days so that the glass slide will attached firmly on the samples.

After several days, the samples were polished with carborundum powder until they are translucent with 0.03mm thickness. In the final stage of the preparation, the

samples were left to dry overnight before they were washed and cleaned with soapy water and acetone. After these processes, the samples are ready for the next stage of preparation, which is known as 'staining.' Staining is a colouring process used to identify types of minerals or grains in a rock. In this study, the staining process was conducted to distinguish carbonate cement in the rock and to categorize them into calcite, fero-calcite, or dolomite. The colouring process involve mixing two types of solution known as Alizarin Red S and Potassium Ferrycyanide.

PETROGRAPHIC ANALYSIS

A petrographic analysis of rock samples taken from various locations (Figure 2) in the study area were conducted to examine the characteristics of rocks in the Setul and Chuping Formations. These petrographic studies were also used to examine changes of rock micro-features brought about by contact metamorphism during the granite intrusion. The microscopic descriptions based on petrographic analysis of selected of rocks samples are as follows.

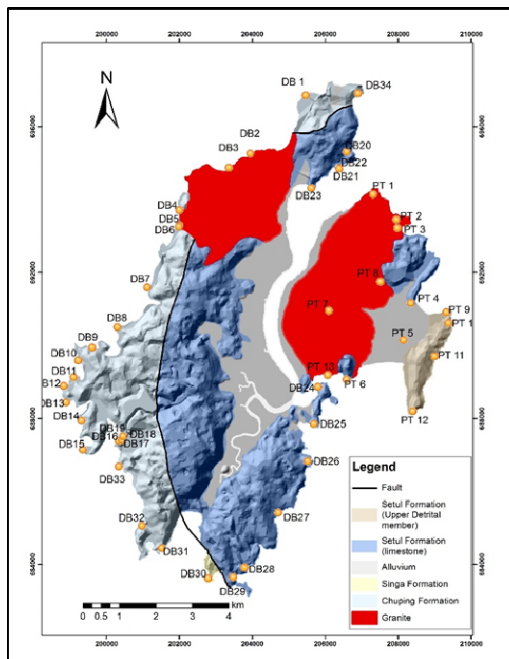
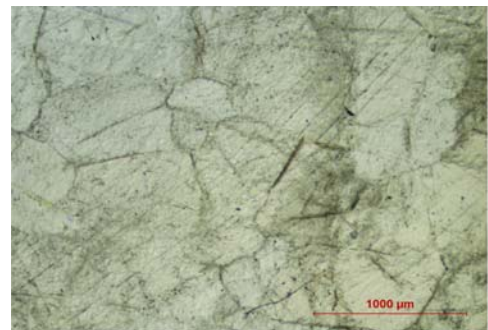
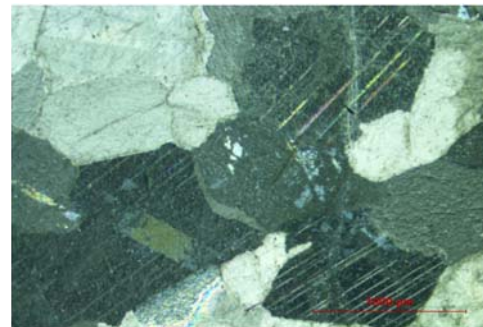


Figure 2. Sampling locations around the Dayang Bunting and Tuba Islands



(a) Plain light



(b) Crossed polarized light

Figure 3. Microscope view of marble (sample DB4) collected next to granite intrusion in the Dayang Bunting Island consists almost entirely of calcite

a) Calcite Marble

Samples of this rock were collected adjacent to the granite intrusion. Based on petrographic observation, the rock has very coarse grain size indicating that recrystallization has occurred. The sample consists of almost 95% calcite showing anhedral texture (Figure 3). Evidently, the presence of granoblast texture is obvious observed in the sample which again shows that the sample rock has has undergone recrystallization from limestone to marble.

Dolomite Marble

This rock is well exposed in the western part of Pulau Dayang Bunting and southwestern tip of Tuba Island. The rock consisting of 95% dolomite. The presence of granoblastic texture in this rock indicates that the parent rock has undergone metamorphism. Figure 4 shows the sample of this rock type taken from Pulau Tuba under a microscopic view. Medium to coarse grain dolomites with xenotopic texture are distributed unevenly in the sample. Zoning-like appearance was also observed in other sample taken from other locations (Figure 5).

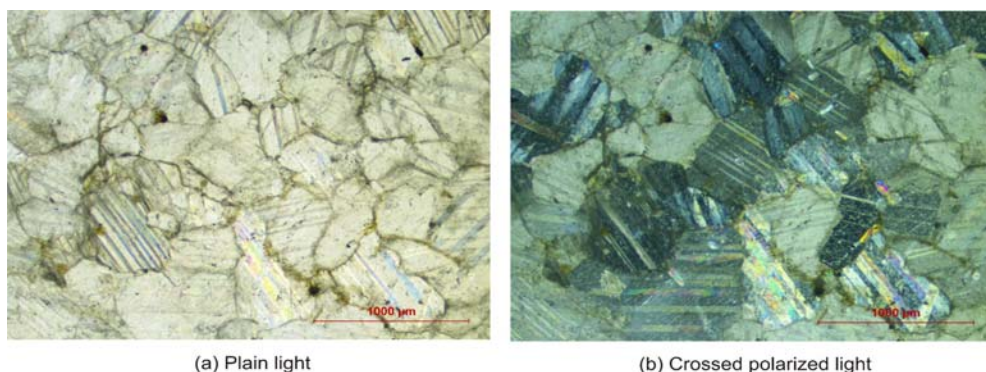


Figure 4. Dolomite marble (sample PT13) collected from Tuba Island showing xenotopic texture

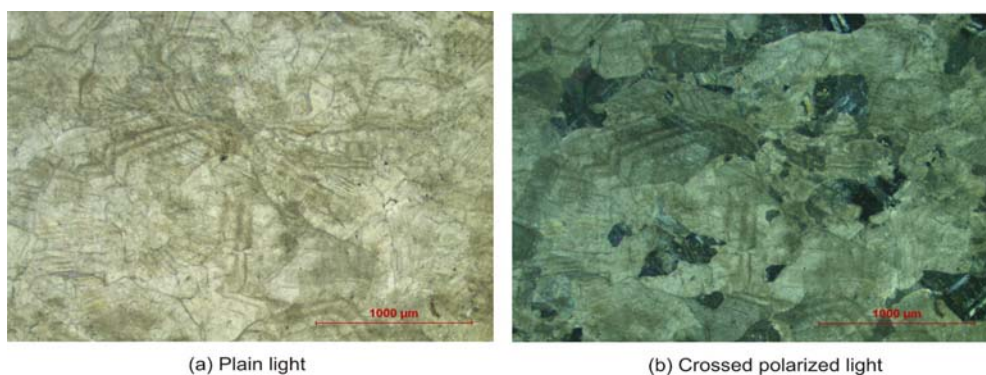


Figure 5. Dolomite marble (sample DB12) collected from Dayang Bunting Island shows zoning in crystals

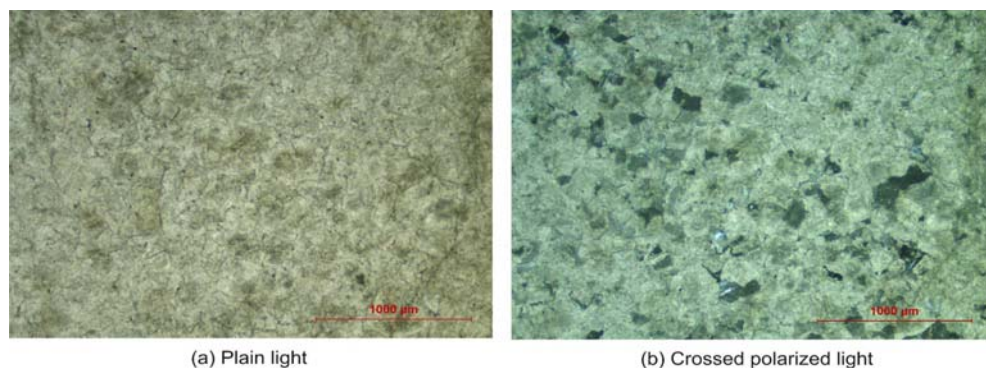


Figure 6. Microscope view of fine grain dolomicrite rock (sample DB17) collected from Dayang Bunting Island

a) Dolomitic Mudstone

This rock is characterized by the presence of 80 % micrite and mainly distributed in the southern part of Dayang Bunting Island. Its matrix comprises mainly of dolomicrite. The distribution of dolomite minerals in the sample are random and have no specific arrangement and fabric (Figure 7).

b) Ferroan Dolomite Marble

This lithology is part of the Setul Formation and widely exposed in the northern part of the Dayang Bunting Island. Staining method using Alizarin Red S and potassium ferricyanide produces blue colour, due to the presence of ferrum in the rock samples. The sample observed consists of 85% to 90% dolomite and 3% to 10% calcite with grain size ranges from medium to fine (Figure 8). In addition, the rock shows anhedral minerals with xenotopic texture, which could be associated with metamorphism.

c) Type of lithologies

Based on field observation and petrographic investigation, the distribution of rock types in the Dayang Bunting and Tuba Islands can be identified (Figure 9). The type of lithologies observed in both islands are dolomitic marble, dolomicrite, dolomitic mudstone, calcitic marble, dolomitic ferum marble, biotite granite, quartzite, slate, and phyllite.

METAMORPHIC GRADE

Petrographic studies were conducted to examine changes in the micro-features of limestone due to the effect of different metamorphism intensity experienced by both the Chuping and Setul Formations. In order for a rock to adapt to temperatures and pressures that are relatively higher than its initial formation, changes in minerals, texture and structure need to occur. Its microphysical features will be altered at different levels in accordance to the different metamorphism intensity the rock is exposed to. Petrographic studies show that the limestone in the study area has experienced contact metamorphism from granite intrusion with high heat from this intrusion has metamorphosed its surrounding rocks. To examine changes in microphysical appearance of these limestones, the changes in mineral composition and size, texture and crystal arrangement of limestones taken from various distances from the granite intrusion have been analyzed. This study found that there are significant differences of rock microphysical features from farthest to the closest distance to the boundary of the granite intrusion. The metamorphism grades were determined based on field observation and through detail petrographic studies. For the purpose of discussion, this section divides the metamorphic grade into three level; high, medium, and low.

a) High Grade Metamorphism

Samples representing rocks with high grade metamorphism were collected at very close proximity to the granite intrusion, which is around the contact between limestone and the granite body (Figure 10). These rock samples display clean polished white color marble. One of the sampling area was a former marble quarry where marbles with the aforementioned feature is abundant. In addition, limestones from the Chuping Formation that are located around the border of the limestone-granite contact zone contain a subtle greenish colour mineral, which is identified as wolastonite. This mineral was formed as a result of chemical interaction between calcite and silica at high temperatures. Jones (1981) recorded an almost 3 inches wide of this mineral in the study area. Based on the petrographic examination, the grain size of the mineral is around 1000 μm in average, which indicate that the rock forming minerals; dolomite & calcite had undergone high level of recrystallization.

b) Medium Grade Metamorphism

Samples to represent this group were collected approximately 3 to 6 km from the granite intrusions. The field samples display white to bright greyish colour. From

the petrographic analysis, sample with medium-grade metamorphism show finer grain size than the high-grade metamorphic rock, which shows the intensity of the process occurred at a lower temperature than the rock in high-grade metamorphism group. Based on the composition, dolomite crystal with anhedral shape and xenotopic texture is also present in the sample. The crystals size are finer as compared to the high grade metamorphism rock (Figure 11).

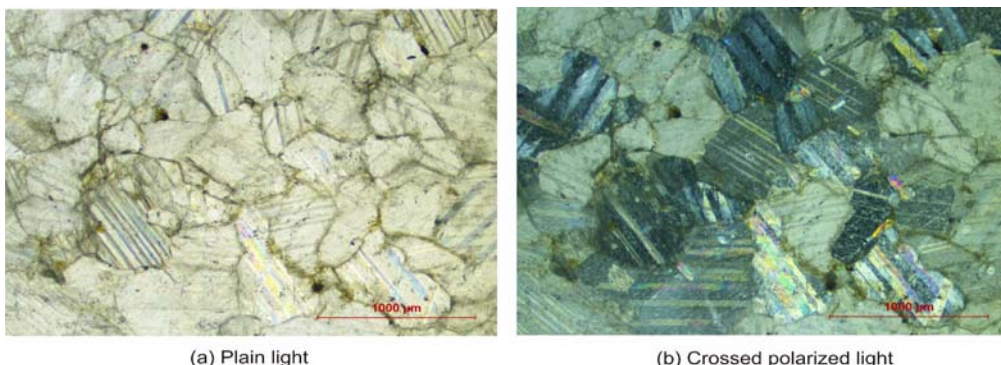


Figure 10. Microscopic view of calcite and dolomite marble with coarse-grained mineral due to recrystallization. Sample was collected at station PT13

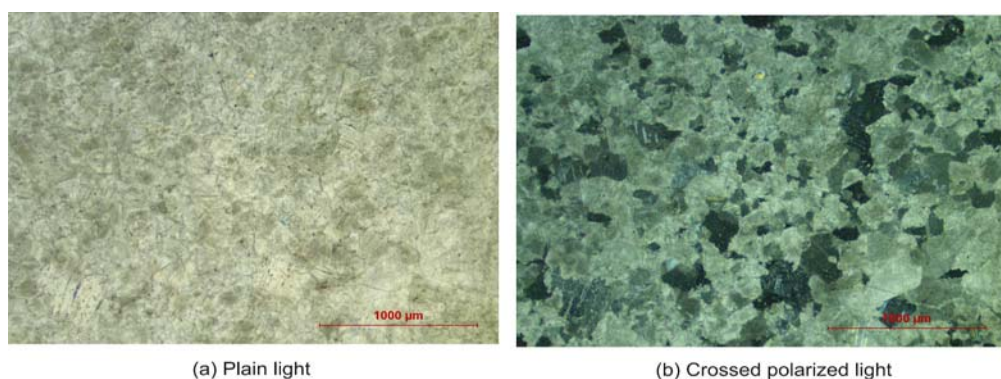


Figure 11. Microscopic view of medium-grained with anhedral crystal shape metamorphic rock in DB19

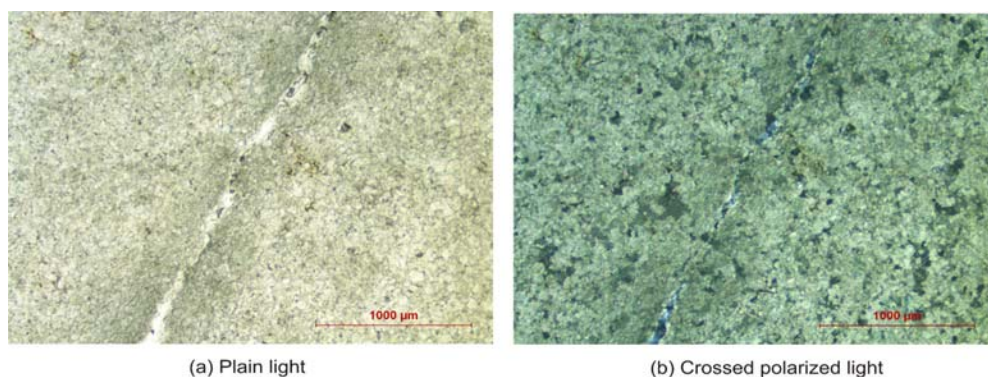


Figure 12. Fine-grained low-grade metamorphic rock collected at station DB31 in the Dayang Bunting Island

c) Low-grade Metamorphism

The samples representing low-grade metamorphic rocks was collected around 6 to 8 km from the limestone-granite contact zone. The samples are characterized by bright to dark gray in colour. At this distance, the rocks also show clear characteristics of carbonate sediment layers. Based on petrographic studies, the low-grade metamorphic rocks consist of very fine-grained crystals compared to the medium and high-grade metamorphic rocks (Figure 12). The result also shows that the limestone characteristics are still pronounced.

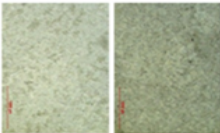
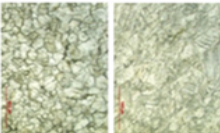
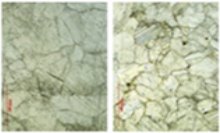
Metamorphism	Low-grade	Medium-grade	High-grade
Microscopic view			
Grain size	Fine	Medium	Coarse
Crystal form	Not clear	Subhedral to anhedral	Anhedral
Fabric	Fabric is unclear and minerals are in random arrangement	Xenotopic and hidiotopic	Xenotopic & compact
Mineral composition	Fine-grain dolomite	Dolomite & calcite	Dolomite & calcite
Rock type	Dolomitic mudstone & dolomicrite	Dolomitic marble	Calcitic & dolomitic marble

Figure 13. Fine-grained low-grade metamorphic rock collected at station DB31 in the Dayang Bunting Island

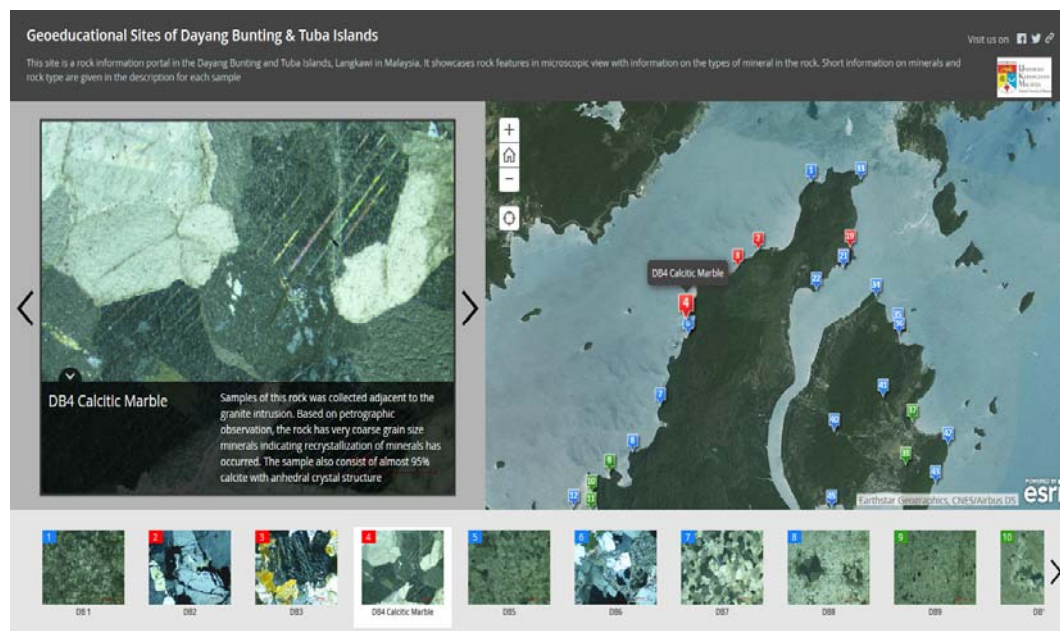


Figure 14. The findings of this research are stored in a database which can be viewed by the public once the website for the geosites completed

COMPARISON OF ROCK MICRO-FEATURES IN DIFFERENT GRADE OF METAMORPHISM

The micro-features of the three different grade metamorphic rocks are summarized in Figure 13. It is evident that the grain size of minerals found in the high-grade metamorphic rock is coarser than the low to medium-grade metamorphic rocks.

The crystal form is not visible in the low-grade metamorphic rock due to its fine-grained size mineral, however, minerals in the medium-grade metamorphic rock display subhedral to anhedral shapes, while in the high-grade group, anhedral crystals are evident.

In terms of fabric, the arrangement in the low-grade group is indistinct, while the medium-grade display xenotopic and idioblastic textures. The high-grade rock exhibits xenotopic and compact mineral texture. The dominant minerals presence in all groups are similar; namely dolomite and calcite with impurities such as mud can be found in the low-grade metamorphic rock. Apart from the differences shown in Figure 13, the minerals in the high-grade metamorphic rocks appear to be much brighter and have smoother border between minerals than other metamorphism grade rocks.

Based on the petrographic analysis, the lithologies for the low-, medium-, and high-grade metamorphic rocks are dolomitic mudstone & dolomicrite, calcite marble, and dolomite marble accordingly.

DATABASE ON GEOEDUCATIONAL SITES OF DAYANG BUNTING & TUBA ISLANDS

The geoeducational sites consisting of the study samples and their locations were plotted on a satellite image, described and displayed to the public using ESRI services 'map tour' (Figure 14). This is one of the efforts that can be employed to provide an appropriate educational settings to raise awareness of the importance of geological conservation and also as one of a special form of tourism for tourists seeking new destinations (Bâca, 2015; Mrkša, 2015). Currently, information on locations and descriptions of rock micro-features are still under construction. Efforts to gather information on the geomorphology and some other sites that can be used as geoeducational sites are still on-going and will be uploaded to the website once completed. The partially function website is shown in Figure 14.

CONCLUSION

Based on the field observation and petrographic analyses of rock samples from various locations and distances from the limestone-granite contact zone, it can be summarized that the limestones in the study area display significant changes in terms of texture, types and conditions of mineral and grain size when the distance to the contact zone differ. The limestone member of the Chuping Formation demonstrates changes in terms of grain size, shape of the crystal structure and composition when it gets closer to the contact zone. Similarly, whilst the limestone in the Setul Formation shows changes in grain size, shape and mineral compositions at varying distance from the contact zone found in Pulau Tuba.

From the overall result, it can be concluded that the limestone in the study area has undergone a process of contact metamorphism as a result of granite intrusion. However, the level of metamorphism intensity experienced by the surrounding rocks is influenced by the distance of the rock from the contact zone. This is evident based on the changes of grain size and shape, mineral composition and the characteristics of the minerals under the microscope.

Apart from the effort to make the Dayang Bunting and Tuba Islands as field laboratory based on scientific finding, the authors hope that the effort and results from

this study will benefit not just the scientific communities, but also to authorities and the public on sustainable development in the future for both islands so that areas identified as suitable for geosites in these islands can be conserved.

Acknowledgement

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BRANDING STRATEGY OF THE COUNTRIES IN THE BALKAN REGION – FOCUSING ON HEALTH TOURISM

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Abstract : Countries of the Balkan region possess great endowed resources in health tourism, mainly in the area of natural resources, and Mediterranean diet in some countries. The question is whether these countries have already realized their uniqueness in this area? Conscious brand building starting at the so called brand positioning is crucial in the fierce competition of tourism, particularly on online platforms assuring the possibility of easy comparison. The main objective of the paper is to analyze by structured content analysis the issue how consciously Balkan countries build their brands in health tourism through their online communication.

Keywords: Health tourism, well-being, branding, destination branding, Balkan

* * * * *

INTRODUCTION

The Balkan term is often linked to negative stereotypes as fragmentation and the association of dubious transactions. It should be cleared that the word Balkan itself mean mountain in Ottoman languages and in Turkish language it is derived from the phrase mud or sludge (“balk”). However, the most widely accepted definition is that the origin of

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its name comes from the Balkan Mountains, which was referred to as an Stara-Planina (Old Mountains) on Slavic area (Todorova, 1997). The geographical location of the Balkan Peninsula is not so simple to define, because politically it was always homogeneous and still had some power sphere of influence. Therefore regionally it was not an entity and this is true for the nations. So a lot of confusion and overlap characterize this area, which also makes it very colorful. The Balkan Peninsula is located in Southeastern Europe, on the east, south and west bordered seas (Black Sea, Marmara Sea, Aegean Sea, Mediterranean Sea, Ionian Sea, and Adriatic Sea). The northern border is problematic, Jovan Cvijic's (2008) opinion is that neither country nor ethnic boundaries are not necessary to the geographical location, because they are always changing. His opinion that Krajina and so called Partium (Gorizia, Gradiska, Istria) were parts of Balkans.

Currently Gradiska belongs to Croatia, Istria is shared between Slovenia and Croatia and Gorizia is part of Italy from 1945 (Cvijic, 2008). From the late 19th century the state border shows the Balkan's boundaries rather than geographic boundaries (Bidwlux & Taylor, 1996). After the conflict, the following area is generally accepted to be countries belonging to the Balkans: Albania, Bosnia and Herzegovina, Bulgaria, Greece, Macedonia, Montenegro, Serbia, Croatia, Romania, Slovenia, and Turkey. In particular, the perspective of the Western Balkans and the separation of Eastern Balkan regions exist, which makes it one of the successor states of former Yugoslavia in the western region. Previous research and comprehensive surveys drew attention to a spectacular deviation and falling behind in the quality of life in the Balkans and they show that compared to the European average only Slovenia is in a better position (relative) (Michalkó et al., 2014). The Balkan countries will be the focus of attention at the research questions: how to develop health tourism services in order to increase in the one hand the tourism income-generating impact on the welfare of the area, on the other hand the use of services by enhancing the well-being of local people. The article focus on the supply-side of the health tourism market, especially in communication and branding of the region. The purpose of the article is to examine how is the branding policy of the Balkan countries policies particularly in the health tourism market: how do they develop their services (if they do that) and how they communicate them on their internet site, because internet is the most important platform of communication mainly regarding the international tourism flow of the region. To reach the research objectives, we studied the different approaches of health tourism, especially the well-being tourism as well as the brand and branding process. Building on this literature background we determined key dimensions and questions, which are the following:

- What appears on the official website of the states about health tourism?
- How are these web contents related to the well-being tourism?
- What target groups could be identified for health tourism services?
- How can the brand policy be accomplished in the text and multimedia content of the websites?
- How does the content varies regarding domestic and international travelers?

The last question we found particularly important, because domestic and international travelers travel with different needs and ability to pay, so the differentiated content for the two target groups can be substantial. To answer this question it is essential the know the country's language. We researched health tourism in the following Balkan countries: Albania, Bosnia and Herzegovina, Bulgaria, Greece, Macedonia, Montenegro, Serbia, Croatia, Romania, Slovenia, and Turkey.

HEALTH TOURISM AND WELL-BEING TOURISM

Health tourism is one of the fastest developing areas for tourism. The health tourism trip is characterized by relatively diverse and growing travel motivations which are

supported by global demographic and social trends. The "graying" welfare societies hold growing, active years of the older generation, which is a considerable growing demand for health tourism services. On the other hand, the pension and health care systems of these welfare states face structural difficulties and are overburdened, with high waiting time, which increases the importance of self-financing. In addition to the health motivations focusing on prevention and health-conscious lifestyle became a trend, especially among the younger generation. In Far-Eastern cultures, it is part of everyday life and is considered as a healthy lifestyle in "advanced" societies of the world, as a response to the diseases of civilization. The scope and methods of health-related therapies has been growing and reaching embarrassingly colorful concepts, in which the wellness, selfness, spa, medical wellness, clinical tourism are the highlighted terms (Sziva, 2009).

Definition of health tourism

There is no consensus regarding the definition of health tourism in the literature, which is based on the reasoning that during travels to health-related areas, the emphasis is placed on different areas of each culture, or nations. Health tourism can be defined as follows: "Health tourism is a broad concept of medical and wellness tourism, it is part of the field of tourism, when tourists travel with the main motivation of the improvement of their health status and / or preservation, and use services for healing and / or prevention, and stay minimum one night in the area (Ministry of Local Government, 2007, p.10). The two basic aspects of health tourism can be defined as medical and wellness tourism, which serve different needs and motivations: the medical tourism is about healing, while wellness tourism is about prevention, and reaching a healthy state in a holistic meaning. Based on the new trends there is a blurring between the areas (Sziva, 2010).

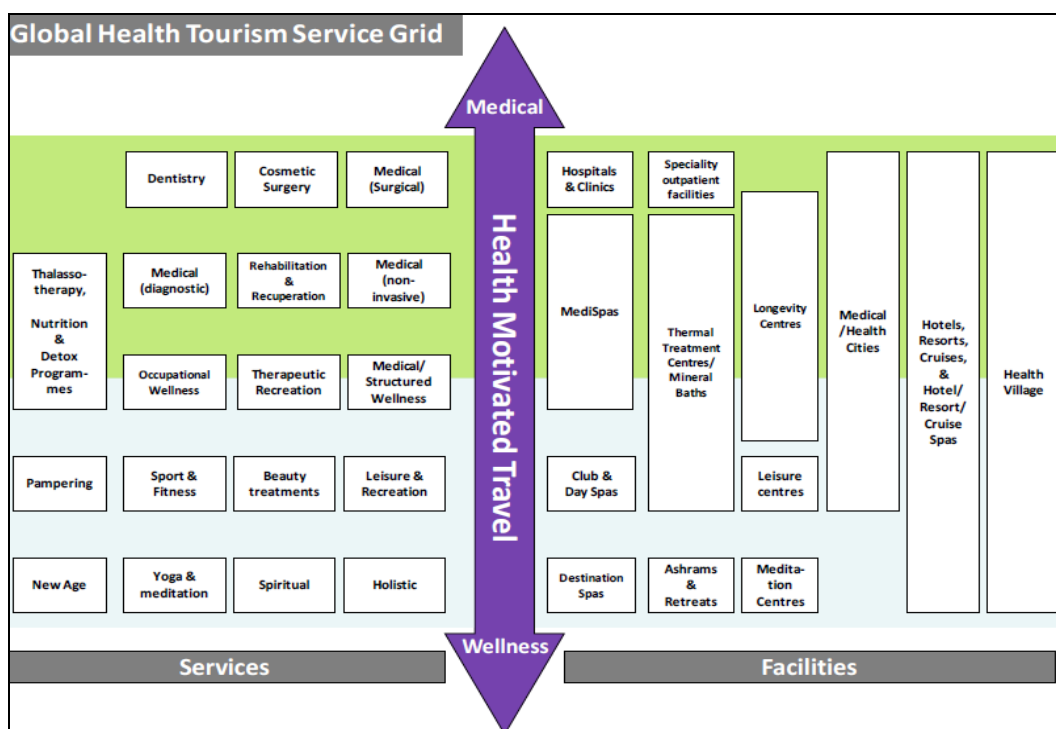


Figure 1: Structured model of global health tourism (Source: Puczkó,& Smith, 2013, p.26.)

The health and wellness concepts have different meanings in different cultures. While in Central and Eastern Europe, services connected to health focus on the physical and medical treatments, in the Western-European countries people are already familiar with the traditional thermal tourism and thalassotherapy (healing treatments based on the benefits of the sea). In Southern-Europe seaside spa treatments are in the focus of health tourism. In Asian countries, the spiritual activities (meditation, yoga, massage) are part of everyday life, and they are accepted as the method of healing. But these traditions are increasingly used in the Western world as well, as wellness tourism offers more and more spiritual activities (Puczkó & Smith, 2008).

Figure 1 shows a summary of the different products of health tourism showing the connected services and facilities. The chart above shows the two main directions of health tourism, the medical and wellness tourism, which increasingly overlap, as the body, mind and soul (in the holistic sense) is getting more and more important. Even the traditional western medicine, lifestyle-related wellness treatments play a significant role in the holistic healing. This direction can be seen in the central dimension of so called medical / structured wellness, which is also known as medical wellness (the health check is an important part of the medical wellness, followed by the doctor suggested treatments and procedures). In the process there is an important role of doctors, therapists, dietary and lifestyle counselors, sports instructors, masseurs, beauticians, psychologists and other representatives of complementary medicine.

One of the important directions of wellness is the holistic dimension, with particular emphasis on the psychological balance and the question of spirituality, and most important locations of these services may include a huge stretch of area, offering numerous services, as destination spas, or retreating centers. The wellness trend has a traditional arm, which is leisure recreation: a well-known part of this is fitness, which typically appears in club and day spa. The traditional therapeutic medicinal tourism is part of the medical tourism (during non-invasive therapies) which includes medicinal treatments based on medical water and other natural healing factors (sludge, sea water, micro-climatic conditions). Special, but dynamically growing branch is the clinical (or health-care) health tourism, during which the traveler takes part in health interventions (such as orthopedics, cardiology treatment) by its own decision. The health interventions are primarily in traditional medicine which may be supplemented by alternative and therapeutic medicinal methods (eg. Ayurveda in India, or balneology treatment in Hungary).

As a summary it can be said that clinical tourism includes trips to abroad with the voluntary (main or part) motivation of obtaining medical health services based on particularly Western medicine, which might include alternative healing methods as well as outpatient surgeries, but excludes treatments for expatriates and emergency cases (Sziva, 2010).

Definition of wellness tourism

The concept of wellness tourism is linked to lifestyle change, not the cure of the disease. The main point is physical, mental and spiritual health and the services they typically servereaching this holistic wellbeing, and prevention of health. It includes exercise and healthy eating, relaxation and indulging, as well as various lifestyle programs. These can be seen on the basis that participation in wellness tourism requires a conscious decision, being thus regarded as a component of health awareness.

According to Puczkó-Smith's definition: "The wellness tourism is a form of tourism which aims harmonization and balancing of some dimensions of individual life, including physical, mental, emotional, employment, intellectual, and spiritual dimensions. The wellness tourism is more about prevention than healing, but a number of items are used to the lifestyle-based therapies (Puczkó & Smith, 2013, 25 p.). The wellness tourism sub-

categories are very broad and include all activities which are suitable of balancing the body and mind, so often also includes the retreat tourism (especially what is the purpose of the retreat, holistic travel), just like spa tourism (Puczkó & Smith, 2013).

Well-being and well-being tourism

The welfare, quality of life and well-being concepts appear increasingly to tourism and health tourism researches, seeking answers to the question on how does the journey effect the traveler's life and satisfaction. Clarifying these concepts is important: "As long as the welfare focus on the quality of life belong to objective factors (income, health, technical infrastructure, school care public safety etc), the well-being to alludes to subjective factors (pleasure, esteem, affection, etc.)" (Michalkó, 2010, 19 p.).

The full sense of well-being increased focus in many countries around the world (eg. Australia, Finland) is not new, because in many places one uses the term well-being instead of 'wellness' terminology, referring to the health-conscious lifestyle in everyday life. "The well-being is more than happiness. This means that we are satisfied and developing from human point of view, as well as in belonging in to a community" (Shah & Marks, 2004, 2 p.). Based on these approaches the so called welfare tourism can be defined as a form of tourism that improves the individual's satisfaction of life by physical activity, harmony of job-private life, and by developing and improving the relationship with others and with him/herself. In this regard, many forms of wellness tourism can be included, such as the retreat, occupational wellness and spa tourism, which in addition includes healthy meals and beauty treatments (Puczkó & Smith, 2013).

Concept and process of brand and branding

In the competition of tourism market the role of brands not only has become a top priority for multinational tourism companies, airlines and hotels, but also for the tourism destinations. The brand as one of the most important concept of marketing theories got a lot of approaches, models and terms. In this article, we focus on destination branding from the practical approach of tourism marketing, and branding. American Marketing Associations' definition highlights the key benefits of the characteristics of branding: "A brand is defined as a name, term, symbol or a combination of these that identifies the product or service and distinguishes them from the competition" (Kotler, 1998, 491 p.).

It is also important to see that in the fierce competition the brand itself can reach its objective if it gives a so called emotional surplus to the customers, and it is particularly in the case of services where we buy first of all a promise. This is especially important according to the following definition: "The brand is a person's visceral feeling about a product, service, or company" (Neumeier, 2005 In: Papp-Váry, 2009, 5p.). The emotional level of outstanding importance was highlighted by Sulyok Judit (2014) in connection with the tourism brands. Continuing analysis of the central role of the consumer it is logical that visceral feeling is actually a picture, the so called image, which was established in the consumer's mind. In this regard, we agree with those approaches (Ilies & Ilies, 2015; Papp-Váry, 2005; Keeble, 1991) that the image is a brand of the customer side, the picture, which is in the consumer's mind, in terms of the brand. In fact, the same advantages and features can be identified in the case of tourism destination branding as well.

The destination brand is actually synonymous with the "spirit of place", the local atmosphere and the central value of the tourism experience that differentiates the destination from its competitors. So the destination brand refers to the totality perceptions of a place (based on experience or beliefs) that affect the traveler's attitude towards the destination, on an emotional level (Anholt, 2011). The destination branding, as a branding fundamentally is, more than a logo and a slogan: is based on brand positioning, which identifies the unique added value, which holds the uniqueness of the

place (Northover, 2011). The so called integrated marketing activities can be built on this, which co-ordinate the strategic messages linked to the brand position at the level of all target groups based on well-developed products and experiences. So the branding of the destination should focus on the integrated marketing activities so that such products could be established for the target groups, which support the values of uniqueness.

THE RESEARCH AND ITS RESULTS

The diverse culture, the life-affirming attitude of the people on the Balkan hold a great base on which health tourism products can be developed, furthermore health tourism-focused brands can be created, according to our presumptions. The main research question is how the Balkan countries brand themselves in the tourism market how they focus on health tourism, particularly wellness services. Structured content analysis was used as research methodology. The platform of the analysis was the internet, as the main channel for communication in the tourism industry nowadays, as stated by several authors (Law et al., 2015; UNWTO, 2014; Digital Think Tank, 2013). The analysis was carried on in the spring of 2015. The analyses of the sites have been set up on a uniform system of analyzed dimensions below, based on a dimension creating process, during which experts were involved in an iterative process.

The results were double-checked by the researchers to avoid the subjective interpretations. Though it should be highlighted because of the nature of the qualitative research methods, minimal subjectivity should be named as the limits of the research. Hereby the questions and the concrete method of the analysis are introduced to make the steps explicit and followable in the future researches.

- How does health tourism appear on the main site of the official tourism website of the country? – Operationalization: Analyzing photos, messages to see whether there is content of health tourism.

- How does the content of the main site (text, photos) refer to that direction, that the wellbeing of the travelers arrive to the country will be improved during the travel? – Operationalization: Analyzing photos, messages on the main page to see whether there are references to the improvement of happiness, satisfaction of life of tourists during travelling.

- Are there specific subpages for health tourism, and /or wellness tourism? – Operationalization: Checking the dedicated sub website pages of health tourism, and /or wellness tourism.

- How does the content (text, photos) of the subpages of health and wellness tourism refer to that direction, that the wellbeing of the travelers arrive to the country will be improved during the travel? - Operationalization: Analyzing photos, messages on the sub pages to see whether there are references to the improvement of happiness, satisfaction of life of tourists during travelling.

- How does segmentation appear on the website (based on offered services, packages) Operationalization: Checking the segmented offers, packages (e.g. offers for families, couples).

- What kind of services and destinations appear among the wellness tourism offers? Operationalization: Checking the wellness service suppliers (e.g. spas, spa hotels) on the webpage.

- Is there a specific slogan for health and wellness tourism, and if there is, what is it? - Operationalization: Checking whether the slogans contains reference to wellness or / and health tourism.

- What kind of services, atmosphere do the multimedia content show about the country? - Operationalization: Analyzing photos, messages on the sub pages to see whether there are references to health and wellness tourism.

- What kind of fundamental differences can be realized between the pages in English and in native language? Operationalization: Checking the contents in English and native language to see the nature of differences, whether there are different offers with special focus on domestic tourists.

In terms of results, we can say that health and wellness tourism appear on the websites of the countries with great endowed natural resources, but they do not get enough attention. Regarding the content of the main site, health tourism appears only at one place: Slovenia's website, but only in the form of images. The health tourism websites can be seen in the case of 8 countries: Bulgaria, Greece, Montenegro, Serbia, Croatia, Romania, Slovenia, and Turkey, and can be easily found in the case of Albania, Bulgaria, and Romania. The issue of improvement of wellbeing through tourism can be seen on the main website in the case of Croatia, Slovenia and Romania, but mainly through photos showing this, while in the other cases photos of landscapes, historical and cultural memorials can be seen on the main site. Regarding the text, there can be seen messages that the wellbeing of the tourists will be improved through traveling to the given country in the case of Serbia, Montenegro, Romania, Turkey and Greece. Serbia proclaims himself to be the place which offers relaxation, pleasure and recreation, Montenegro has promised a full rebirth. On Greece's website the improvement of wellbeing of tourists can be clearly seen, and health tourism services are built around it, mainly in the area of wellness, though medical tourism offers can be seen as well. On the site of Turkey, there is a message about giving new hope to patients by exceptional health care services.

Table 1. Summary of responses to specific questions of content analysis 1

Dimension/Countries	Slovenia	Croatia	Serbia	Montenegro	Bosnia and Herzegovina
Health tourism appearance of the main page	Appear	X	X	X	X
The content shows that the tourists wellbeing increasing	The atmosphere of the photos refers to it	The atmosphere of the photos refers to it	X	X	X
Health tourism and spa tourism appearance as sub-page	Appear	X	Appear	Appear	X
The well-being of tourists appearance of subpage	X	X	Appear	Appear	X
Target group to whom recommends the product	Health-conscious segment	X	Health-conscious segment	Wellness tourist	X
Services and main destinations appearance	Appear	X	Appear	X	X
	Appear	X	X	Appear	X
Health and wellness specific slogan	X	X	X	X	X
The messages of the pictures	Health tourism appear	X	X	X	X
The difference of content analysis between native and English page	Same	Same	Same	Not exactly the same	Same

Considering segmentation, offers specialized for target segments can be seen on the site of Romania, Turkey, Slovenia, Montenegro and Greece, in other cases there is no specific targeting and only the list of service providers can be seen. There is no health

tourism-specific slogan in the analyzed countries of Balkan region. It is relatively general that the countries have overall slogans for tourism, and there is a lack of touristic slogan only in the case of Serbia, Macedonia and Albania. The images of the health tourism subpages show topics of health tourism in the case of Slovenia, Croatia and Greece, while on the sites of Serbia and Montenegro photos are about nature. The messages of pictures on Greece's website are luxury, wellbeing, calm and purity, in harmony with the textual content. In case of Albania, Bulgaria and Turkey the photos illustrate mostly coastline experiences, with a promise of a pleasant rest and relaxation. Macedonia and Romania's pictures focus on active tourism, hiking and other sporting activities. The English- and native language content is in harmony in the case of the rest of the analyzed countries, with the exception of two countries. On Bulgaria's native language website, there are other images, than on that one of native language. In the case of Greece, the same content but shorter texts can be read in the English-language website. The summary of the analysis can be seen on the table 1, 2 illustrating the results of each dimensions.

Table 2. Summary of responses to specific questions of content analysis 2

Dimension/Countries	Greece	Macedonia	Albania	Bulgaria	Romania	Turkey
Health tourism appearance of the main page	X	X	X	X	X	X
The content shows that the tourists wellbeing increasing	X	X	X	X	On the images it appears	X
Health tourism and spa tourism appearance as sub-page	Appear at 2 times	X	X	Appear	Appear	Appear
The well-being of tourists appearance of subpage	Appear	X	X	X	Appear	Appear
Target group to whom recommends the product	Health and wellness tourist	X	X	X	Health and wellness tourist	Health and wellness tourist
Services and main destinations appearance	Appear	X	X	X	X	X
	Appear	X	X	X	X	X
Health and wellness-specific slogan	X	X	X	X	X	X
The messages of the pictures	Health tourism appear	Health tourism appear	X	X	X	X
The difference of content analysis between native and English page	Not exactly the same	Same	Same	Difference between the pictures	Only in one language	Same

CONCLUSION

During the research it became clear that most of the analyzed countries - despite the excellent resources - do not take advantage of health tourism potential and not (yet) take advantage of the increasingly important trends today. All of this was seen in the fact that there are no concrete sophisticated content, and customized offers for lifestyle, interest.

In case of Slovenia, Serbia, Montenegro and Greece, the content roughly include services, but none of them provides detailed information. Further problem is that the service providers do not focus on differentiation and uniqueness. There is one exception: in Greece a certain complexity can be seen, because the wellness and spa services are built around the well-being and luxury, which seems to be unique illustrated by photos. For other countries, health tourism appears on the images, however, do not reflect uniqueness, as the pictures do

not provide information about health tourism in the given country. Overly it can be said, that the country's tourism brand building needs significant improvement, and through the online appearance more emphasis should be placed on both branding and tactical communications. All this is essential for the conscious brand positioning process, which includes identifying values of uniqueness. Therefore these countries may draw values from the area of holistic health tourism and focus on the target group-related product development, and on the conscious brand building process from brand positioning to segment-based communication.

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THE SOCIO – ECONOMICAL IMPACT OF THE LARGE DEVELOPMENT PROJECT UPON TERRITORIAL SYSTEMS. CASE STUDY: COMANA COMMUNE – GIURGIU DISTRICT, ROMANIA

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Abstract. The objective of this study is to quantify the impact of the insertion of large development projects upon the local economies. There has been analyzed the territorial system of Comana where the construction of the Adventure Park has lead to re-structuring the economical profile and to important changes upon the locals' perception regarding the development of tourism. The research has been founded on an economical data basis, at CAEN (National Economy Activity Classification) level, concerning the stock capital, profit value, number of employees and number of companies, as well as data collected by having consulted a representative sample. The results obtained underline the outstanding impact of this development project, which contributed to the increase of the functional complexity of this territorial system. Comana Adventure Park has contributed to the apparition of some multiplication effects represented by economical activities supporting the activities specific to the park.

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Key-words: economical re-structuring, tourism, territorial system, adventure park, demography, local economy

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INTRODUCTION

The economical crisis, as well as the desire to increase life quality level, influence the entrepreneurial initiatives in new directions as to the economical profile already existing in a certain geographical space (Ahmad & Abu Talib, 2015; Gómez et al., 2009). Rural communities inevitably are being influenced by a series of factors, among which the natural environment, the endemic particularities specific to the private environment, climatic and demographical changes and economical changes made (Steenber et al., 2014). The development of the entrepreneurial field is a necessity and, at the same time, may be also considered a natural consequence of dwelling upon it, as to the desire of individual expression of the capacities of administration of the resources it benefits (Popescu & State, 2015). The long - lasting durability of the initiatives and especially of the capacity of administrating the resources is conditioned by the way in which the business environment influences population's education and mentality of being willing to and daring to initiate and develop measures of performance in a business environment in continual change and quite un –predictable (Kamga et al., 2014). The need to implement some economical projects may outcome the improvement of the traditional rural community's ability (Xue et al., 2015), as well as of the life – style quality by increasing the value of incomes – direct, on the first hand, and economical and social sustainability - on the other hand (Fernandes de Santana et al., 2015). In evaluating the life-style quality in rural societies, the sustainable means of living (Monterrubio & Andriotis, 2014) appear as necessary within the economical development (Istudor et al., 2014). Finding viable economical solutions is not really simple, while the idea of interconnecting the economical sectors within the economical crisis may be the only solution or at least one of the solutions which might help keeping incomes at optimum level for a society (Egedy, 2010). Among the most well-known and most benefic interconnections, one seems to be the one existing between agriculture as main activity during a long period and tourism, as as a newly appeared activity. Within rural development there are challenges arisen once with the tourist activity (Jenkins et al., 2013).

The implication of tourism may have a social impact, but may also raise some issues regarding natural environment (Xue et al., 2015; Marot et al., 2014). Any arrangement as tourist destination can have an impact upon the community in general, or on certain groups of locals, impact that can either be negative, or positive. However, local people's support is essential to ensure long-term success in tourism development. This is important to support general economic or social sustainability and, why not, cultural one (Awang et al., 2015; Popescu & State, 2015, Herman & Varnav, 2014). The community's participation at the active entrepreneurial life can be also considered nowadays as a means to increase responsibility, as well as a means to build local capacities for life quality improvement, poverty reduction, individual growth and life – standard development (Ahmad & Abu Talib, 2015; Travis, 2011). In this context the study of the dynamics of the economic profile of human settlements plays an important role in developing and implementing such projects and programs, which are meant to provide more economic stability and quality of life in the optimum value system (Harterter et al., 2014; Kamga et al., 2014; Bodea, 2014).

METHODOLOGY

The research on the impact of major development project insertion within local economies has started from the achievement of detailed data-bases concerning the

dynamics of economic activities before and after building the Adventure Park. The database includes all economical assets existing in the territorial system of Comana at CAEN code-level (National Classification of Economic Activities), structured on the following parameters: number of companies, number of employees, turnover and profit of the companies in Comana. The database was made as to the years 2000-2012 and regards 49 types of economic activity (Table 1).

Table 1. All economical assets existing in the territorial system of Comana at CAEN code-level (National Classification of Economic Activities) (Source: UB1375/BorgDesign project)

Code CAEN		Code CAEN	
111	Growing of cereals (except rice), leguminous crops and oil seeds plant	4391	Works of roof covering and building terraces
113	Growing of vegetables and melons, roots and tubers	4520	Maintenance and repair of motor vehicles
141	Raising of dairy cattle	4532	Retail trade of motor vehicle parts and accessories
161	Support activities for crop production	4661	Wholesale of agricultural machinery, equipment and supplies
210	Silviculture and other forestry activities	4673	Wholesale of wood and construction materials and sanitary equipment
812	Gravel and sand, gravel and sand pits	4677	Wholesale of waste and scrap
1041	Manufacture of oils and fats	4690	Wholesale trade
1061	Manufacture of grain mill products	4711	Retail sale in non-specialized stores with predominant sale of food, beverages and tobacco
1071	Manufacture of bread, cakes and manufacture of fresh pastry goods	4719	Retail sale in non-specialized stores with predominant sale of food products
1330	Finishing of textiles	4771	Retail sale of clothing in specialized stores
1419	Manufacture of other wearing apparel and accessories n.e.c.	4941	Freight transport by road
1623	Manufacture of other builders' carpentry and joinery	5320	Other activities Postal and curie
1721	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	5510	Hotels and other similar accommodation facilities
2363	Manufacture of concrete	5610	Restaurants
2370	Cutting, shaping and finishing of stone	5630	Bars and beverage serving activities
2512	Manufacture of doors and windows of metal	6110	Telecommunications activities cable networks
2731	Manufacture of fiber optic cables	6820	Renting and operating of own or leased real estate
3312	Repair of machinery	6831	Real Estate Agencies
3811	Collection of non-hazardous waste	7022	Activities of business and management consulting
4120	Construction of residential and non-residential	7112	Engineering activities and related technical consultancy these
4211	Construction of roads and motorways	7312	Media representation
4312	Land preparation work	7830	Supply services and labor management
4332	Joinery and carpentry	8130	Investigation activities
8299	Other business support service activities n.e.c.	9329	Other amusement and recreation activities
9522	Repair of household appliances and equipment for house and garden		

The perception of the profound changes caused by insertion of the ample economical activities has been quantified by means of a questionnaire that aimed: to examine the benefits of the villagers with the launching of the tourist activity in the neighborhood of their household; to assess villagers' views upon the resources the tourist services offer

(Dincă et al., 2012); to examine the reactions of the residents relative to the changes that will take place in community life; to determine the perception residents have regarding local landscape (Dincă, 2009; Dincă & Teodorescu, 2015), the development of the cultural life, to create a sense of utility and to determine the factors that influence villagers' satisfaction upon revenues (Ahmad & Abu Talib, 2015; Teodorescu et al., 2016). The research was fulfilled within Comana commune (Figure 1) located in the southern part of Romania, in the Romanian Plain, Burnazului Plain subdivision, between the cities of Bucharest and Giurgiu, in the Metropolitan Area of Bucharest revitalised through sports and leisure time tourism (Pintilii et al., 2011), at about 30 kilometers distance front each of them, with a population of 7222 habitants, with an initial economic profile based on agriculture.

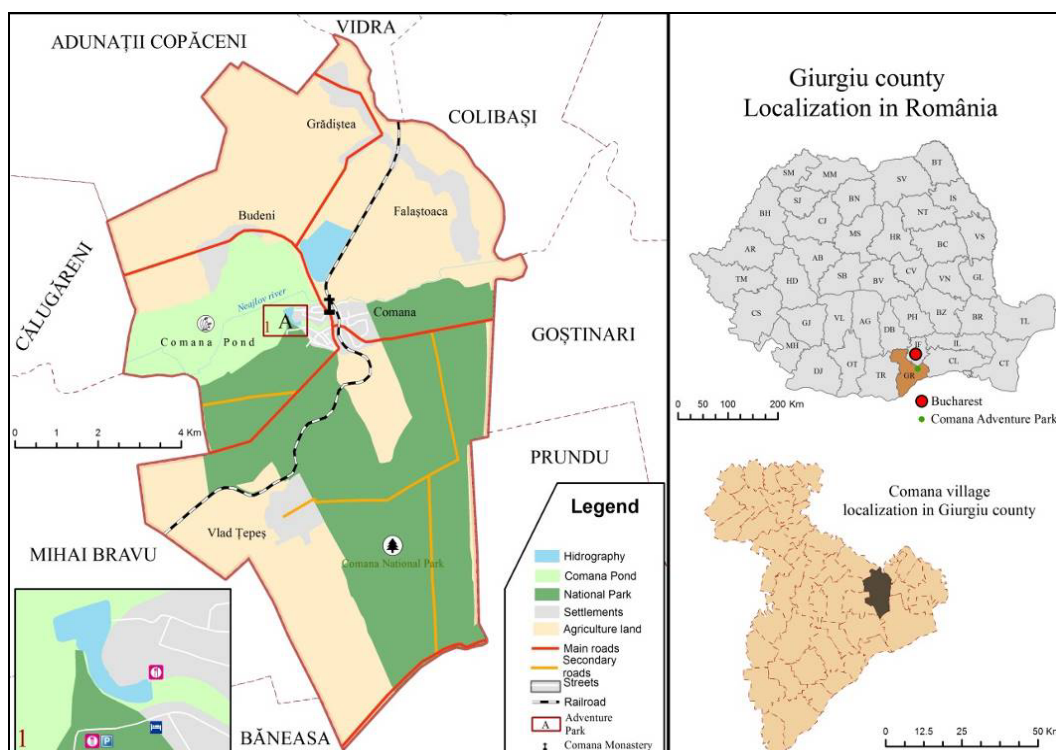


Figure 1. Localization Comana commune and Adventure Park in Giurgiu county and in Romania

Field data has been obtained by the means of a questionnaire, which highlighted some of the issues that might lead to difference of opinions about the use of the space of the natural and of the "Adventure Park" fun park. Some notions have been related to the understanding of the local importance of the natural park and what it really means for the environment and community. The sample of surveyed people reached 511 persons, out of which there were 450 valid. In terms of age distribution of the disk there is a representative structure for analysed medium, so that the age 6-18 is represented by 45 people, or 10% of those surveyed, the age group of 18-45 years reached 112 people or 24.8%, the age group of 45-65 years harrows 158, representing 35.2%, while the age group of over 65 ranked 129 people, 30% of the total. The problem surveyed had five topics (Table 2), which were addressed to the residents of Comana. Considering the harrows age structure, there were taken into account four groups that were analyzed on activity domains, where structure is slightly different from one age to another harrow, falling into 3-6 categories:

- Economic revenue from the sale of local products;
- Landscape improvements (household cleaning);
- Development of cultural life;
- Diversification of its products for sale;
- Better roads and urban endowments.

Regarding the fields structure there has been kept the sample to 450 people, there was applied a questioning related to the belongfulness to the parks and especially to the fun one as belonging to the locality and the local people, it was applied structurally upon 69 employed people, 8 employers, 158 unemployed people and 215 retired people. An interesting perception linked to these questions belonged to people with different education background, or linked to the issue of acceptance/inacceptance of the change of ownership or maintenance, all for a valid sample of 450 people that show people with primary training in a number of 73 people trained on a total of 214 secondary school trained persons on a total of 102 secondary school and higher education person on a sample of 32 people. People without education account for 29 people, all of them belonging to the fourth age category. Each question has pursued awareness of that space as part of the community. This can lead to better management, to better organize many other activities, including the educational and emotional involvement.

RESULTS AND DISCUSSION

Impact of the Adventure park upon the economic profile

The analysis of the economic and social profile requires an analysis of the total of companies functioning locally (Figure 2) and highlighting the dominating economic profile (Figure 3). This way one can properly understand the predominant activity of the area. Tourism comes in this case as an alternative source of income and activity. The population responded quite well, as evidenced by the empirical analysis, being obviously interested in the existence- in good conditions- of the Adventure Park and of other activities with tourist profile, or rather, with any other activity besides farming. The other activities are not regarded as activities that could mitigate the results from agriculture but, on the contrary, they are the ones that can maintain and develop its local vegetable production and sale. After 2007 there is evidenced an increase of the number of tourists or people who come to visit the "Adventure Park".

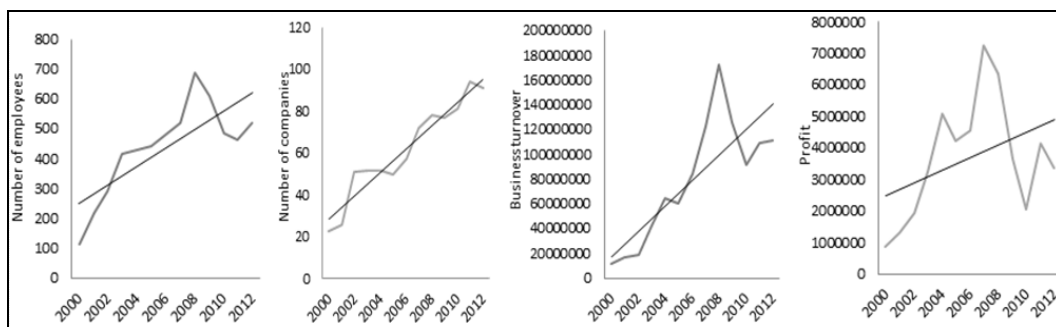


Figure 2. The evolution of the main economic indices within Comana commune: a. The evolution of the number of companies; b. The evolution of the business turnover; c. The evolution of the profit; d. The evolution of the number of employees (Source: UB1375/BorgDesign project)

It is registered an increase in agricultural activity (taking into account that not all vegetable production is sold through agricultural firms, but directly from the manufacturers, and this is quite difficult to be captured in statistics, but the level is certainly

higher than that proved in the official data bases), phenomenon which had a period of stagnation in the year interval 2003-2005, weather conditions negatively influencing the production of vegetables. Against this background of agricultural production and consequently the reduction of the income residents score in agriculture, the emergence of an alternative source was due to the hope in psychological wellbeing of these people.

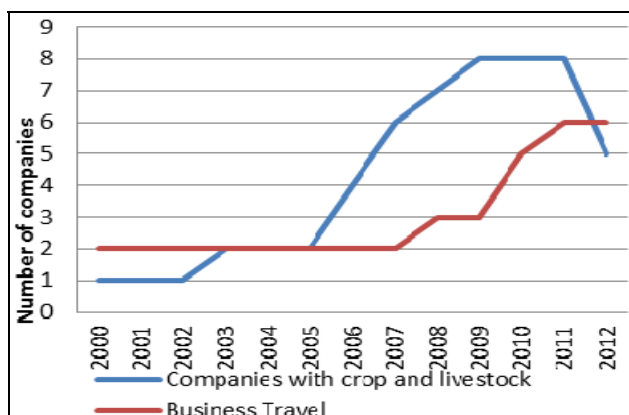


Figure 3. Dynamics of core activities from companies (Source: UB1375/BorgDesign project)

Perception upon the restructuring of the economic profile

Residents' perception is one of the most important factors of economic development or involution in a certain period. What is important in this case is the perception about the existence of a tourist attraction, not directly through what it offers (some consumers are not interested in adventure offers), but a much larger issue, that of creating long-lasting goods they may benefit of and which they could have not otherwise benefited of if this objective had not been created. In the empirical analysis there was considered as necessary to create a general picture of perception, the extent to which the park adventure really contributed to community services, to the development of public transport to proximity cities, the development of good roads, to increase the local economic diversity and, not least, how much has it participated to the increase of job opportunity. The results of the study are interesting, considering that it is a geographical area where tourism activity is very weak. This however should not be treated with so much indifference and especially considering the positioning near a large city as Bucharest, the attraction towards the Adventure Park and towards its "bio" or "eco" food offer seems to be increasingly higher. You must follow the indicators extracted from analyzing the questionnaires:

1. The involvement of local people in customer satisfaction;
2. Awareness of the residents on what concerns social and economic benefits as result of local economic and tourist objective development;
3. Motivations of the local people's behavior in satisfactorily meeting local tourists / guests' needs';
4. Cultural and economic benefits / local impact, changes in community life;
5. Tourists behavioral particularities and motivations.

As result of tourism analysis, each time there was taken into account the residents' perception, but tourists' perception is very important as well. This may lead in time to the creation of tourism skills that are accumulated here in quite a large type number. Under the conditions of creating a feeling of comfort and cosiness of being in a new environment people may feel great a feeling of comfort and cosiness of being in a new environment in which people may feel great and know how to behave on the putrpose of obtainig what they desire and to

reduce any effort of facing un-known situations, may also represent an important factor for explaining repeated visiting of this area. In case of the "Adventure Park", tourists can be classified according to the way they behave with the local people and their service offer:

a. Tourists willing for adventure, for walking down the higher or lower difficulty level trails/ routes, are really looking to have fun. Their age has a dominant average, of over 85%, 18-25 years, but can be supplemented with 7.9% of people with ages between 25-45 years, the remaining 7.1% being persons over 45 years old. Contact with the local population is reduced only to the employees and services functioning in the immediate neighborhood. On what the residents are concerned, their perception related to these tourists is quite poor as impression. Tourists of this type are considered in residents' as "tourists", as those people who only help maintain the park;

b. "Family man" type of tourists represents significant percentage reflected in recent surveys, of over 57%, who are in locals' opinion the largest segment of tourists. They come into contact with local people, community and appeal to their property, fulfilling some activities which are complementary to having fun. The most important thing is related to buying local products and sustainable recovery/ returning, from time to time, not necessarily for fun, but for the agricultural products offered by locals. As a particular form of returning in here, most of them are those who come in groups that are composed, in a proportion of 70%, of a total of 10-15 people;

c. Organized young tourists, including children institutionalized into special centers and school trips. Here are young people whose purchasing power is reduced. Elderly residents over 65 years, and adults as well, behave largely welcoming, hospitable, meeting them with free food.

d. Senior coach tour tourists come here due to the fact that Comana has started to be included in the list of the tourists' preference, including those of this age segment. For the economic perception of its residents, this is the second category as significance. Consume and supplies from local farms is a major tourism attraction. Relational reciprocity is given by age, since Comana's population number is pretty high, and those active in the market for fresh local products are predominantly elder people.

Awareness of social and economic benefits to residents as a result of economic and tourism objectives development, is questioned and subjected to the thorough analysis in this case (Table 2). They highlighted the positive responses of residents, depending on age, occupation, education and the sub-themes related to economic income growth from the sale of local products, landscape improvements (household cleaning), cultural life development, diversifying own products to be sold and improving quality of roads and facilities administrated. Economic and social needs were analyzed from two points of view: the needs of locals and tourists' needs. The two types of needs must be satisfied for the largest overall results to be raised, or at least satisfactory.

a. *The economic needs of local people* are reduced to the mere production of incomes. These can be obtained from selling their products - vegetables, fruit canned food, dairy products, while on the other hand, from the salary incomes from the newly emerging services. The needs of the inhabitants are not only the economic, but important is the relationship with tourists, while essentially important is the idea of natural resource management. From the questionnaire applied, the most involved in the process of socialization seem to be people 18-45 years (76.8%) and people over 65 (68.3%). Regarding the level of education of the two age categories, those with higher education or higher education involved in relational process are seeking development in more than 90%.

b. *The economic needs of tourists* come down to getting the best possible service and low prices for to all that means services provided within The Adventure Park, which represent the mainly attractive point in this geographical space and, as alternative, the

sale of "bio" food or high-quality products directly from the locals, from their farms and households for very attractive prices. Regarding social needs, they are not much represented for tourists. Of all those surveyed, the percentage is much lower, reaching 45%. This is explained by the appearance of other needs, as would be the mental, or the thirst for knowledge, discovery of new things and the need to experiment new sensations. Tourists visit the adventure park on the purpose of testing their personal limits and discover local specific elements of the rural area in a dominant atmosphere of vivid emotions and novelties related to lifestyle, local culture, customs and language in use, the entire system of activities, with quite strict rules sometimes.

Table 2*. Implication of the interviewed persons regarding the issues being questioned

Number of persons (%) with positive answers													
Age category years	Total number of persons			Increase of economical incomes obtained from the sale of local products		Landscape improvement (household cleaning)		Cultural life improvement		Diversification of own products for sale		Improvement of road and facility quality	
	Occupation and education level												
	Occupation / Education	Nr pers	Nr pers	%	Nr pers	%	Nr pers	%	Nr pers	%	Nr pers	%	
6-18 years	Pupils	45	41	91.1	43	95.5	34	75.5	40	88.8	39	86.6	
18-45 years	Employees	Studies	57	42	73.6	38	66.6	39	68.4	51	89.4	50	87.7
		Primary	14	7	50	8	57.1	8	57.1	13	92.8	11	78.5
		Secondary	18	12	66,6	9	50	11	61.1	14	77.7	17	94.4
		Highschool	15	14	93.3	12	80	10	66.6	14	93.3	13	86.6
		University	10	9	90	9	90	10	100	8	80	9	90
	Entrepreneurs	Studies	3	3	100	2	66.6	2	66.6	3	100	3	100
		Primary	-	-	-	-	-	-	-	-	-	-	-
		Secondary	-	-	-	-	-	-	-	-	-	-	-
		Highschool	1	1	100	0	0	1	100	1	100	1	100
		University	2	2	100	2	66.6	1	50	2	100	2	100
	Unemployed	Studies	11	4	36.3	4	36.3	6	54.5	6	54.5	8	72.7
		Primary	2	-	0	1	50	2	100	2	100	2	100
		Secondary	4	1	25	1	25	1	25	2	50	2	50
		Highschool	4	3	75	2	50	2	50	2	50	3	75
		University	1	-	0	-	0	1	100	-	0	1	100
	No occupation	Studies	17	11	64.7	9	52.94	11	64.7	16	94.11	15	88.2
		Primary	1	-	0	1	100	1	100	1	100	1	100
		Secondary	5	4	80	2	40	2	40	4	80	4	80
		Highschool	4	4	100	2	50	2	50	4	100	4	100
		University	4	2	50	1	25	4	100	4	100	3	75
	Other categories (have not declared their occupation)	Uneducated	3	1	33.3	3	100	2	66.6	3	100	3	100
		Studies	18	12	66.6	15	83.3	13	72.2	16	88.8	13	72.2
		Primary	1	1	100	1	100	1	100	1	100	1	100
		Secondary	9	5	55.5	6	66.6	6	66.6	7	77.7	9	100
		Highschool	4	3	75	4	100	3	75	4	100	2	50
45-65 years	Employees	University	1	1	100	1	100	1	100	1	100	-	0
		Uneducated	3	2	66.6	3	100	2	66.6	3	100	1	33.3
		Studies	58	43	74.1	33	56.8	36	62	50	86.2	46	79.3
		Primary	6	3	50	2	33.3	2	33.3	4	66.6	5	83.3
		Secondary	17	16	94.1	15	88.2	14	82.3	14	82.3	16	94.1
	Entrepreneurs	Highschool	27	21	77.7	15	55.5	17	62.9	25	92.5	21	77.7
		University	8	3	37.5	1	12.5	4	50	7	87.5	4	50
		Studies	3	3	100	2	66.6	2	66.6	3	100	2	66.6
		Primary	-	-	-	-	-	-	-	-	-	-	-
		Secondary	-	-	-	-	-	-	-	-	-	-	-
		Highschool	3	3	100	2	66.6	2	66.6	3	100	2	66.6
		University	-	-	-	-	-	-	-	-	-	-	-

	Unemployed	Studies	17	11	64.7	10	58.8	4	23.5	10	58.8	11	64.7
		Primary	-	-	-	-	-	-	-	-	-	-	-
		Secondary	8	6	75	5	62.5	3	37.5	4	50	6	75
		Highschool	9	5	55.5	5	55.5	1	11.1	6	66.6	5	55.5
	No occupation	University	-	-	-	-	-	-	-	-	-	-	-
		Studies	17	11	64.7	10	58.8	6	35.3	11	64.7	12	70.5
		Primary	8	5	62.2	5	62.2	-	0	3	37.5	7	87.5
		Secondary	7	4	57.1	4	57.1	5	71.4	6	85.7	3	42.8
		Highschool	1	1	100	1	100	1	100	1	100	1	100
		University	-	-	-	-	-	-	-	-	-	-	-
	Retired	Uneducated	1	1	100	-	0	-	0	1	100	1	100
		Studies	13	10	76.9	9	69.2	5	38.4	10	76.9	12	92.3
		Primary	2	2	100	1	50	1	50	1	50	2	100
		Secondary	2	1	50	2	100	2	100	1	50	2	100
		Highschool	1	1	100	1	100	1	100	1	100	1	100
		University	1	0	0	1	100	1	100	1	100	1	100
	Other categories (have not declared their occupation)	Uneducated	7	6	85.7	5	71.4	-	0	6	85.7	6	85.7
		Studies	40	36	90	28	66.6	19	45.2	39	92.8	37	88
		Primary	6	5	83.3	4	66.6	2	33.3	6	100	6	100
		Secondary	21	19	90.4	17	80.9	7	33.3	20	95.2	18	85.7
		Highschool	10	9	90	5	50	9	90	10	100	10	100
		University	1	1	100	1	100	1	100	1	100	1	100
Over 65 years	Entrepreneurs	Uneducated	2	2	100	1	50	-	0	2	100	2	100
		Studies	2	2	100	2	100	1	50	2	100	2	100
		Primary	-	-	-	-	-	-	-	-	-	-	-
		Secondary	-	-	-	-	-	-	-	-	-	-	-
		Highschool	2	2	100	2	100	1	50	2	100	2	100
	Retired	University	-	-	-	-	-	-	-	-	-	-	-
		Studies	79	77	97.4	71	89.8	42	53.1	69	87.3	70	88.6
		Primary	31	30	96.7	29	93.5	11	35.4	31	100	30	96.7
		Secondary	24	23	95.8	23	95.8	19	79.1	22	91.6	22	91.6
		High school	9	9	100	7	77.7	7	77.7	8	88.8	8	88.8
		University	7	7	100	5	71.4	4	57.1	4	57.1	4	57.1
	Other categories (individual agricultors)	Uneducated	8	8	100	7	87.5	1	12.5	4	50	4	50
		Studies	22	17	77.2	13	59	11	50	19	86.3	20	90.9
		Primary	10	7	70	4	40	4	40	9	90	10	100
		Secondary	7	7	100	3	42.8	5	71.4	5	71.4	6	85.7
		Highschool	1	1	100	1	100	1	100	1	100	1	100
		University	-	-	0	-	0	-	0	-	0	-	0
		Uneducated	5	2	40	5	100	1	20	4	80	4	80

*There have been applied 511 questionnaires, out of which there have been valid 450, in the year 2014

Perception of local people in the development of tourism activities and especially adventure park is influenced by the behavior of tourists, by the fear of being destroyed the natural vegetation, by the economic benefits of the possibilities of marketing. Adventure and natural parks can have significant effects on the community, providing a long-term economic sustainability, but this can be possible only through good management thereof. There are thus two aspects, one positive and one negative perception about the conservation of the park, but after surveying on the perception of the inhabitants of Comana, proper management of this green heritage seems to eliminate fears.

One of the behavioral problems ultimately accepted by residents was related to admitting the clothing-style of the tourists. Romanian Community in general and therefore the one in Comana, which is a rural community and rural mentality has "limits" that provide a certain behavior and a certain moral conduct, which includes dressing appropriately. After 1990 and the following years, medium-sized cities neighbouring Bucharest, as well as the capital-city, exhibit new ways of behavioral expression, thus there is an open-mindedness to an urban culture that eases the situation after 2007, when

the number of tourists increases in this geographic area. Residents' trips on the purpose of transactioning their products in neighboring urban areas bring psychological comfort determined by observation and repeatability of living habit and certain behavioral situations, urban influences being felt here quite early, with no shock today, everything being mingled in the end in a fashion amalgam widely-accepted.

The contact of rural residents with the urban population has beneficial effects, but also some delays, especially related to the influences on youth behaviour. Among the benefits there are all those elements related to urban civilization, as a means of communication, the use of modern means like internet and high-technology work means, the ease of communication in several international languages, belonging to certain groups with cultural concerns, etc. There is also a negative influence, manifested in the attitude of parents and grandparents who lived only in rural areas of Comana, more like a fear of young people taking behavioral elements of suburban civilization. This period through which Romania passed from a centralized economy to a market economy, from a communist culture, to one centralized and controlled with full freedom, faces an active influence upon young people, and this fearful attitude found in adults and elder people seems to be often perfectly justified. However, positive influences appear to be superior, family culture, education, self-control, the selection of the groups of friends and the influence and communication with family members are able to resolve all the shortcomings or risks suburban culture produce (Teodorescu & Porojan, 2013).

After 2007, when the "Adventure Park" becomes an attraction for those living in Bucharest or medium-sized cities in the proximity, traffic on weekends seems to be much changed from the period in which it did not exist. Comana inhabitants today are familiar with the traffic and increasingly more traffic, and they want this to be in their benefit through additional or ancillary services which they are providing to anyone crossing their town. From the analysis, one day traffic is represented by about 350-400 cars. Residents perceive this possibility as sales of certain products or services aiming precisely these cars (fuel stations, car accessories, auto supplies, etc). Comana residents' perception is not one of worrying about the increasing traffic at weekends, but on the contrary, there is felt a positive attitude regarding enlarged communication opportunity and goods and services sale prospect (Wendt et al., 2016). Tourism activity has always needed coordination or even a mentoring within a geographic area in which the economic profile has been different. Comana is no exception to these rules and, for the management of space, time and recreational activities there was used the development of thematic panels and signs. Also, inclusion and announcement boards for certain "rules", locally maps to throw garbage, of not honking between certain hours, not including the mandatory driving or riding rules on streets, so well-known by anyone. Equally, informative ones are needed, regarding brief documentation, connected to the touristic objectives located inside the village, including the amusement park "Adventure Park".

CONCLUSIONS

Developing an asset must take account existing activities, the economic profile of the area and people's needs, plus the help in managing natural resources (Dragoș et al., 2007). In this case, the development of an adventure park as leisure activity took into account the existence of physical possibilities of development of this center, of this agricultural profile of the area and the need to diversify economic activity to satisfy people's demands, raising the quality of life by offering the alternative of performing the predominant agricultural activity. Interesting could be as well the prospect of future economic development based on the union of agricultural producers in associations or even working groups so that they become eco-efficient (Neamțu, 2011). It is also interesting the desire to develop a theme fun park,

proposed by a population aged 45 years old, because of the empirical analysis results that the most interested in developing and maintaining the park's functionality age groups is that of 45-65 years and over 65 year-old people. At first look, it seems to be non-sense, or at least an answer proving an inner disfunctionality somewhere. It seems still that this perspective is really possible and it is these age groups, who on the labor market prove difficult to insert, that may really be interested in developing such activity with their own household. This is agricultural activity and its result is materialized in the amount of vegetables produced. The link between this activity and the amusement park is the existence of "family man" tourists and senior tourists, to which we may add in a lesser extent others who absorb all this quantity of vegetables and quite big amount of other agricultural products when they come to visit and dwell temporarily in this area. This way, in a rural area there can be satisfied, at the same time with the advent of tourism activities for young people, the social, intellectual or communicational needs of the needs of the residents in Comana.

The analysis of this situation is made in three respects: firstly-it comes to economic sustainability, secondly, social sustainability, and thirdly, tourism sustainability. All three are differentiated analysis to better understanding of how local analysis should be done, as well as of the mutual influences that are present and the co-working is required. Marketing of farm products was the dominant activity of the villages near Bucharest. At the same time with the increasing need for food, there increased the crop production of vegetables, but after the period 1990-2000 there is observed a decrease in local sales opportunities, due- on the one hand- to imports at more advantageous prices, to the detriment of the acquisition on the local market, and on the other hand, due to the fact that the population is declining (due to the attraction of young people to urban areas) and less involvement of those remained in agriculture (Teodorescu et al., 2004; Kamga et al., 2014). The aim of this study is to obtain data base regarding all that means tourism activity as a direct source of income for the population of Comana, but as indirect sources through the development of local agricultural product sales to those who visit the Adventure Park. Farmers sell fresh vegetables, fruits or canned products. Sales of such products have increased annually by 3% in 2013 compared to 2012 and by 4% in 2014 over the previous year. At the same time, there is a growth in the number of open stores where one can buy agricultural products of the season. The local population is excited by the idea of developing tourism (Terzić et al., 2014) as a result of opportunities for economic growth and the possibility of selling local products. The increasing number of visitors of the adventure park determine the appearance and growth of the catering and accommodation structures (Travis, 2011). In general, the villagers were content by the newly emerging job opportunities and their related ones, but revenues were still considered insufficient, but it is a start in raising the quality of the income level, especially during the current economic crisis (Egedy, 2010). Specific territorial management strategies must aim primarily the decision-making by a reorganization, so that decisions be made effective (Peptenatu et al., 2012).

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THE SPECIFICS OF ARHITECTORAL WATER INFRASTRUCTURE IN HERZEGOVINA KARST AND THE NEED FOR ITS PROTECTION

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Abstract: As well as hunger, thirst is today, and throughout the history of the environment, a huge problem in many parts of the world. The thirst is conditioned by physical and physiological elements of the water body. In the area of Herzegovina thirst is the result of geological and geomorphologic frame. In fact, there is cca 1700 mm of rain per year, but very little is retained on the surface as a surface stream flow. This is Herzegovina karst, where the circulation of water is released into the underworld by numerous fracture systems, abyss, caves, estavela, etc. Humans and sometimes state built cisterns, wells and troughs for keeping this precious liquid. However, poverty of surface water is resulting in poverty and constant emigration of the population from these areas. Those who remained had to adapt to the natural features. Because of that, numerous elements are made for water collection, accumulation and use of water in Herzegovina karst. Today they are mostly abandoned. Their presence in the landscape makes it specific, and therefore, these objects have become our heritage. Unfortunately, in Herzegovina karst many of these objects are overgrown with weeds, and the water tanks themselves are damaged or even buried. It is necessary to do a project for their conservation as an element of national heritage. And habilitate at least some cisterns, which were built by the Austro-Hungary for the needs of herding in this area.

Key words: karst, čatrnje, cisterns, wells, heritage, Herzegovina

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INTRODUCTION

Only a small number of scientific institutions is engaged with karst over a wide area of Eastern Adriatic coast, where it is best developed. One of the oldest is the Karst Research Institute SAZU - Postojna, founded in 1929. In Croatia, the oldest institution has been the Institute for Adriatic Crops and Karst Reclamation in Split, which was founded in 1894, and it bears the name since 1964, and has an impact on the tradition with a variety of programs and intensity. Here is also founded the Center for karst in

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Gospić, which has been designed as an institution that is supposed to bind all karst-related activities in Croatia. Also in 2007 was established Karst Centre of The University in Zadar. In Bosnia and Herzegovina, which has the largest area under the karst, there are no institutions that deal with karst. It should be noted that in the 2007 was established Center for karstology at Academy of Sciences in Sarajevo, but, for now, it is still only a declarative institution. Burden that is upon karst, which is influenced by exploitation of resources, is already extremely high, awareness of geo-ecological problems is at low level, but the need for new investment is growing and is increasingly demanding. Scientific and educational institutions in our universities are engaged with karst, but that work is limited to occasional research. The problem of water supply in Dinarides karst shaped the specific architectural aquati water infrastructure, which today represents our heritage.

THE BORDERS OF BOSNIA AND HERZEGOVINAS KARST

Dinaric karst covers an area that stretches from the Alps, along the eastern shores of the Adriatic Sea to the Drina river. Its heritage is shared among four states but the internal administrative and political division are the most complex in Bosnia and Herzegovina. Karst is a specific space for its petrological structure, by forms of relief that arise on and inside them, by water circulation and so on. Those are carbonate rocks, dominated by calcium or magnesium carbonate. Their solubility in water, especially one that contains carbon dioxide, is large. This, together with tectonics, is the reason for their cracking, porosity and the emergence of numerous forms of relief on the surface, but also in their interior (Oprea et al., 2012). In tectonic texture dominant role have reverse faults, and they have shaped relief scenes with many beams, ridges, plateaus and karst fields.

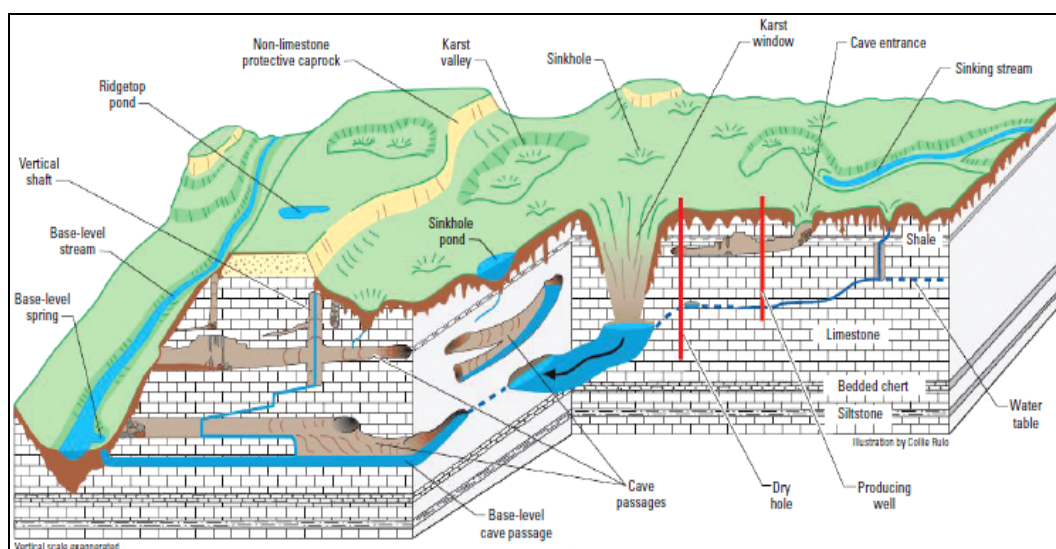


Figure 1. Physiographic and hydrologic features typical of a well-developed karst terrain (Source: Currens, 2001)

The egzogeomorphological forms include sinkholes, cracks, muzge, kamenice, doci, dolina, canyons, gorges, underground rivers, dry valleys, and in the underground caves and grottos. Many of these terms are entered into the world karst terminology (Figure 1). The area of karst in Bosnia and Herzegovina is defined by several authors, and no single point of view is the same: from 28% (Ostojić et al., 1979), then approximately 50% (Rzehak, 1965), followed by about 60% (Jovanović & Avdagić, 1981), and to 65% (Čičić, 1998) (Figure 2).

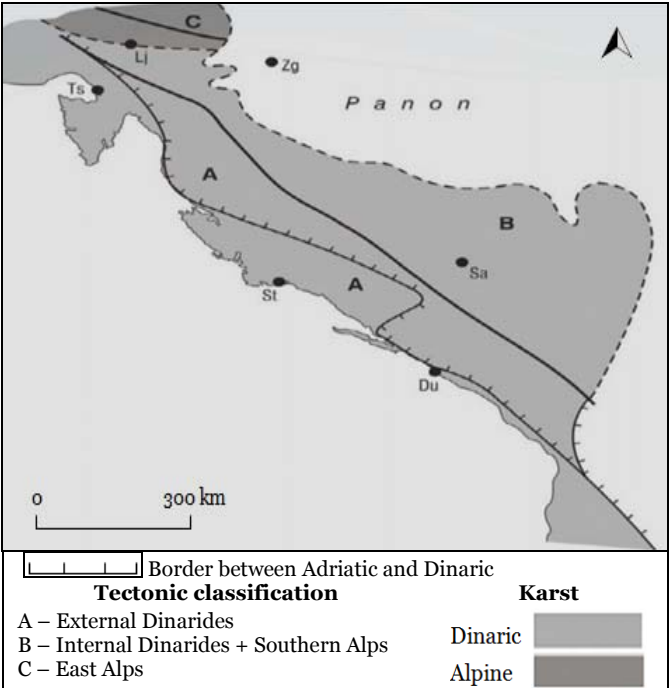


Figure 2. Tectonic relations in Dinarides (Source: Herak, 1957)



Figure 3. Characteristic coulis relief



Figure 4. a) Karst plateau of Brotnjo and Dubrave b) Popovo polje – karst field in B&H

Dinaric karst is considered the largest unique natural value of Bosnia and Herzegovina. As a whole it contains significant elements of the world's natural heritage. Geological and geomorphological framework has determined the specificity of hydrological relationships. Water in these areas are rare occurrence. The hydrological network is moved underground. It caused the man to adapt to those, not exactly hospitable, conditions of life. This is confirmed by the data on the largest emigration population precisely in the area of Mediterranean countries in which karst covers large area: Portugal, Spain, Italy and Croatia (especially Dalmatia and Dalmatian Zagora) and in Bosnia and Herzegovina (particularly Herzegovina), Greece... (Melelli, 2014). However, the values of Dinaric Karst are multiple: natural, economic, cultural, scientific, educational, recreational, etc. In previous geographic papers concerning karst in Bosnia and Herzegovina there were many explorations including those of Katzer, Cvijić, B. Ž. Milojević, Dediđer, Roglić, Gašparović, Bušatlija, Bognar and many others (Bašagić, 1997), but it is still poorly researched. This particular concern is related to the underworld, which is the least explored of complete Dinarides.

Today the situation with the study of the underground karst is even worse, because the state, entity and cantonal borders led to the division both of the territory and financial funds for research. Lack of money and personnel for research were logical consequences and karst by its nature does not tolerate and does not recognize political boundaries. Today, Dinarides karst is being explored by country, so that every researcher is engaged in karst in their political determined borders. Knowing the structure of karst, it is clear that only an interactive approach to the problem and research in karst can result in prosperity. Geological boundaries of karst and still are not strictly investigated and it is a problem that has yet to be resolved (Figure 3 and 4).

THE USE OF WATER RESOURCES THROUGHOUT HISTORY

According to Sarvan (2013), the history of human society, in relation to the use of water resources, can be divided into three periods. *The first period* begins from the appearance of the human species about 14,000 years BC in which people used drinking water found in nature - in rivers, lakes and springs, and later they dug wells and collected rainwater cisterns, when the water was often missing and always a valuable resource, so valuable that it was holy to almost every human community. *The second period* began about the year 5000 BC when people are first starting to use primitive methods of irrigation of agricultural land on the plain of Mesopotamia. Subsequent advances in natural sciences, engineering and technology, around the year 1000 BC has allowed the abstraction of water from nature and the construction of artificial irrigation channels (Dugandžić, 2010). Later still, there are in use gravity and gravity-pressure water supply (Ancient Greece and Rome). This is the period of the Middle Ages, and new momentum continues during the industrial revolution in the 19th century.

Then, thanks to the new progress of science and technology, was developed technology of iron pipes, hydraulic pressure water supply and pumps for pumping ground water from great depths. Offset also brought chemical treatment of water, enabling access and enjoyment of water to a large number of households. In the late 20th and early 21st century began *the third period* dominated by the global water crisis. To the crisis contributed changed natural and social circumstances in the world (Fagan, 2011) as well as the appearance of discrimination against certain social groups (especially the poor) in the supply of drinking water in some countries (urban-rural population, the population of informal settlements, indigenous communities, minority communities, marginalized and vulnerable social groups). This period marks the beginning of the perception of water as an exhaustible and scarce natural resource.

SPECIFICS OF ARCHITECTURAL WATER INFRASTRUCTURE IN KARST OF HERZEGOVINA

Collecting rainwater is one of the ways of ensuring drinking water used by communities throughout the world. It is widespread especially in arid areas. The simplest form of collecting rain apply Nuer communities in Sudan in the way to collect water from rain in simple dug holes in the ground, which after the end of the rainy season is over are covered with a roof made of vegetation to prevent evaporation and contamination of the water. In Mediterranean basin, generally, collecting rainwater from roofs and its storage in stone cisterns is the usual way of providing enough water for drinking, but also in China and New Zealand and in other parts of the world (Robins, 1946). Lack of water in Bosnia and Herzegovina karst is linked to an area from Bihac to the Montenegrin border. There are mountains and fields with least water that are in winter turned to lakes and in summer they represent dry moonscape. In this area there were always strong emigration currents which is the reason that even today this area is in a way a demographic desert. Karst area has a very sensitive ecological habitus, and its protection is essential.

This problem in Bosnia and Herzegovina was recognized as far back as 1900 when the Law on the protection of karst underground was passed. But its implementation on the field is not so effective: pits and caves are dumps as well as riverbanks, field in karst Glamocko polje became polygon of federal army "Daring Barbara", where it destroys the tools and weapons together with supporting objects from the last war. How it manifests in the karst underground is a big question mark! The connection of natural and cultural artifacts in heritage is reflected in numerous elements. This paper analyzes the adaptation of man from the beginning of life in semi-arid conditions in karst Herzegovina. It is an area in the hinterland of the Adriatic Sea. Its function throughout history has been changed, but the conditions are mostly favorable for agriculture. Agricultural landscape is divided into two regions: Northern so-called The Region of High Karst for the substrate has deep karst. Its main feature is the lack of surface water. Under these conditions rotational herding is the dominant form of management. The southern part of the province is called Low Herzegovina. Fields in karst, underground rivers and the only river that from the source to the confluence is flowing on surface - Neretva, shaped the predisposition for agricultural relations. Coupling of these two regions has always been a transhumance-summer expulsion of cattle on the mountain.

Aside from the watersupplying facilities in the valley, history has shown that farmers made a number of objects for the collection of water, particularly with precipitation, in a wide area of the High Karst of Bosnia and Herzegovina. Stocks of rainwater, collected in a short rainy season, were to last a long period to the next abundant rain. Heritage is our life through history painted with artifacts. It is divided into natural and cultural. One without the other can not exist. Natural is presented with relief, climate, waters, flora and fauna. All processes and forms of natural heritage would not be threatened if there is no man who adapts them for life on this earth (Adriansyah et al., 2015). Since in many societies cultural development known as one of the drivers in the development of tourism, both to increase the motivation for the research and preservation of the same. People from the earliest times of human development came together in reciprocal social relations related to the use of water for personal use and these social relations from the beginning demanded certain rules to ensure fair distribution of drinking water to all members of the community - the first rules on the use of water as customs and religious norms. Forms of architectural heritage for the collection of water are wells, pelvis (cisterns, reservoirs, tanks), kamenice and puddles (Figure 5).

Their existence is an essential source of information for the history of nations and regions, but also for the history of the language of the region. Unfortunately, washed up

areas as a surface to collect water many public wells, cistern and ponds are abandoned or overgrown with weeds, and the containers are damaged or partially buried. Pelvis and ponds should be trained not only the cultural and historical reasons, and the pleasure of attraction, but from the need to preserve drinking water.

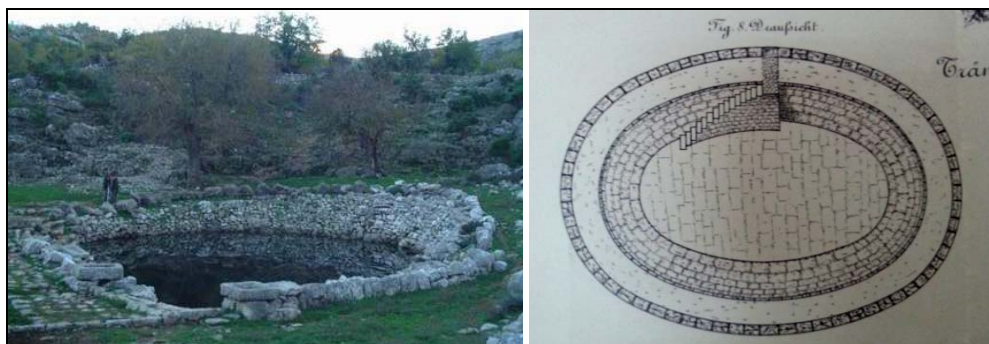


Figure 5. a) Well for collecting rainwater b) Scheme of well (Source: a) Author, 2011; b) Ballif, 1896)



Figure 6. Joint čatrnja from 1934 build by the state for population and cattle needs, Ošanići near Stolac (Source: a) Author, 2011; b) Ballif, 1896)



Figure 7. Ballif's map with topographic symbols for čatrnje and watter mills in Herzegovina (Source: Ballif, 1896)

Inventories of rainwater, collected in short rainy season, should be used until the following abundant rain. The first written mention of the cistern is located on pillar of Moab King Mesha, which dates from the year 865 BC (Franić, 1997). The text that contains thirty-four lines is one of the most beautiful examples of the use of Hebrew-Phoenician letters that have been used previously. However, cisterns were invented thousands of years before that. The secret cistern was found in Mycenae, in the fort, beneath the royal palace. The ancient Romans were great builders of cisterns, all the more because they already knew about the cement, similar to what we use today. In Herzegovina, the population is first used water for drinking and other needs from natural sources, which were gradually fenced and on them build common wells for one or more settlements, where more water could be gathered. For domestic use, people have dug cisterns for water (čatrnje). Their size depended on the type of country where it was dug and from the possibility of excavation. Everything was done manually, so it took a lot of manpower. At first it was filled with rainwater, which is collected with slanting slopes, and later from the grooves from the roofs of houses. Over the centuries the cisterns have enabled human survival on karst.

KARST CISTERNS, WATER TANKS OR ČATRNJE

In our region since ancient times, the water tank or cistern (čatrnja, gustirna, cisterna, nakapnica,... are the most common in waterless areas of karst (eastern coast of the Adriatic Sea to the hinterland). Originally, the tanks were (water tanks or čatrnje) hollowed out in stone and not beneath the building but the location was conditioned by any possibility of adding water or impermeability of the field. Elaboration of this is the idea that people get by looking at the various natural reservoirs: ponds, small periodic lakes and similar. Word čatrnja (*cistern*) is of Hungarian origin and originally it represented a pit that is dug in ground where water from rain and snow was collected and kept. In Herzegovina region there are tens of thousands of water cisterns which commoners, with a lot of effort, dug and established in the nerve of the stone over a hundred and more years. Since it is an area that is characterized by dry periods during the year, and where natural sources waters are limited and a long distance away from home, regular water supply has been resolved with these cisterns. The oldest tanks were in Herzegovina rarely near the house, and almost never inside it. „Gustirna“ was eroded in stone. The invention of cement and other civil engineering materials, led to the construction of public cisterns, of bigger displacement in the villages and towns. At that time washed up areas of such tanks (slanted collector surface of each well-connected smooth stone slabs, surrounded by a wall) often covers a very large area, sometimes a considerable part of the hill, for example in Stolac, Buna, on Bjelašnica (Figure 6).

Scientific research and importance of the tanks is not only related to the heritage. For thirty years in Croatia there is an on-going investigation of radioactivity in tank waters (Franić & Petrinc, 2006). Tank waters are great cumulative collectors of the so-called radioactive fallout. This concerns radioactive material either of natural or artificial fission which has been, through human activity, entered into the atmosphere (atmospheric nuclear testing activities or nuclear installations). Fine particles of that material for years remain blocked in the stratosphere, and continuously, in small amounts, are deposited over the entire globe. These are very, very small activities that can not be detected without extremely precise instruments. For human health, such small activities are harmless, but they are extremely interesting to scientists. Such data helps in mathematical modeling of water circulation in nature, as well as the determination of various atmospheric parameters. Immediately after the nuclear catastrophe in Chernobyl, dozens, even hundreds of samples of tank waters along the Adriatic coast were taken. And exactly these samples showed that

the eastern coast of the Adriatic Sea was not directly affected by any of the three radioactive plume which spread through Europe as a result of the explosion and fire that raged for nearly two weeks in a graphite moderator of ill-fated reactor. The reason behind that is that the former meteorological conditions went in favor of east coast of the Adriatic Sea.

Samples of tank waters have, in addition, helped that Croatian scientists establish the approximate composition of the Chernobyl reactor before the official statements of the then Soviet Union and the United Nations (namely the International Atomic Energy Agency - IAEA). Today it should be initiated a research to determine the changes caused by uncontrolled interventions of water from deep bores with strong pumps and their consumption. Originally, gustirna (tank or cister were chiseled in stone instead of beneath the building but the location was conditioned by the possibility of adding water or impermeability of the field. Oldest cisterns are rarely near the house, and almost never in it. „Čatrnja“ can be positioned in the yard or on the terrace, and often behind the house. Their size is dependent on the type of land and the possibility of excavation. Everything was done manually and it took a lot of people and passion to dig it up. At first it was filled with rainwater, which was collected with slanting slopes, and after from the troughs of the house. The oldest of such and with the best water are those in the courtyard or garden, or where there is the smallest exposure to the sun (Ostojić, et al., 1979). Often its upper surface that turns into a lovely terrace covered in trellis, which provided additional protection from the sun.

Joint cisterns (čatrnja)

A special form of cisterns (čatrnje) in karst are joint cisterns. A special form of čatrnja in karst are joint čatrnje. They are a result of the need for watering livestock. They appeared along with modernization of construction in Herzegovina villages, and they had a larger volume. Therefore, the washed up area of such cistern „čatrnje“, cupied a large surface, often even a considerable part of the hill. That is how „čatrnje“ were no longer related to the 'alive' stone, but preference is given to practicality. But building čatrnja in modern age of Herzegovina karst is very expensive. That is why people repair and maintain the old čatrnjas built in solid stone. Some of the čatrnja in the old Herzegovina are more than a century old and are originally a folk treasure. In the old times they had to be locked and well kept, because water loss would mean the end of life. Today, the old čatrnje are a symbol and testimony of an era and life in it. How great was the importance of collecting these waters is evident on the basis of cartographic documents. As one example there is a map of Ballif (1896) in which he lays particular emphasis on čatrnje and a water mill as well as on the irrigation systems (Figure 7). In the medieval town of Ljubuški, in internal, northwestern part behind the entrance, two defensive towers and čatrnja were built. Unlike the karst lowland areas (karst fields or some of the karst river valleys), where larger number of karst springs of higher yields appear and where there is water even for irrigation and other uses, in karst mountainous areas water is a scarce and precious resource. Bjelašnica is a part of Dinaric mountain range and falls under a group of anhydrous mountains of Dinarides. On Bjelašnica there are villages that are located primarily in the southeast, southern and southwestern slopes, and together they are called "Zabjelašnica" or "zabjelašnička villages". The western part of Bjelasnica is rich with relief karst shapes: škrape, ponikve and uvale on the limestone and dolomite base, and that is the typical karst. Even on Bjelasnica in the beginning the stone was a building material for the tank. Area for capturing rainwater was being built on the soil surface and immediately adjacent to the reservoir. It was paved, crammed with soil or in later years concreted, and set slightly tilted to the tank of čatrnje. Čatrnje were built in settlements along the roofs of buildings, in the fields for watering of livestock. Often the whole village had a major central čatrnja, like for example village Čuhovići, where today there is central rural čatrnja, but it is not in use. There is visible an engraved year of construction – 1937. The diameter of annular area for

collecting rainwater is about 30 meters. What was in settlements with spring water a sink / faucet in the village center, in anhydrous settlements it was the central čatrnja. In addition to this central čatrnja usually every household had one of its own. The main characteristics (determinants) on the basis of which we can make classification čatrnja, is the way in which rainwater is collected, ie the difference in the construction of area for the collection of rainwater. On the Bjelašnica mountain was developed a specific way of collecting water: in a pit is placed a kind of wooden pipes, such as hollow oak trunk which accumulates the water. According to the method of capturing rainwater čatrnje are divided into five types:

- Čatrnje which have small space area for capturing rainwater. This area was once impaled with soil, and later paved and slightly tilted toward the tank. This type of Čatrnja has no walls around the area for capturing rainwater.

- Čatrnje that used as the surface to collect rainwater the roof of the house, summer pasture and cattle stables. The roof of the house with an open hearth or home that has a brick chimney were never used, because the smoke from the fire would give water / rainwater in the čatrnja bad taste. The rain water was not potable.

- Čatrnje whose surface for collection and accumulation of rainwater and snow is paved and walled around (pool). Such cistern still exist on the southern edge of Šišanj fields and on the plateau of Dubrava near Stolac on Ošanići.

- Čatrnje that do have no or have very little area to collect rainwater, and some čatrnje have only a tank (buried part) with an opening.

- Brick čatrnje ("kameni ćemer") - method of building ćemer: stone masonry has conical or pyramidal shape, and during building the "stone to stone" is reduced (tapered) to the top and when it's "reduced to plug" at the end it is fitted with capstone that called "cap". On the interior walls then goes a syringe, a formulated binder of lime and fine river sand (from the Neretva or Canyon), so she gave the hardness to walls. On the whole area we found only one such brick čatrnje, on the way from Vrdolje to Lukomir. Often among people there are stories on how the natives closed sources of water, cisterns, and wells with ox hides, and the water was carried in barrels on donkeys or even on humans (Figure 8).

Wells or well springs

Wells are actually water traps that were dug in the ground. Well that was dug is coated or built of stone blocks to prevent the landslide and backfill of the well. By construction technique, it can be determined to which period the well belongs. The most beautiful are those from ancient times. The faces of the walls were made of the proper and orderly carved stone blocks, and an empty core wall is piled with stones mixed with lime mortar. According to the method of construction, the oldest wells are attributed to the Greek and Roman builders, and most of them are from antiquity and late antiquity. On the territory of Bosnia and Herzegovina technical achievements came from the south and from the north. They came from the area of the Mediterranean, Arabian, Far East and Turkey, and then through ancient Greeks, the Romans, Venice till the late Middle Ages. Since then to the bourgeois revolution, technological progress comes from the north, and that in this area means the Austro-Hungarian. One of the oldest archaeological finds is related to hydro facilities on the territory of Bosnia and Herzegovina is related to the region of Ljubuški for Roman camp Gračine. There namely, archaeologists have found the so-called Archimedes screw with which water is pulled in the inner basins. It is very interesting position of the well-čatrnje, in the Illyrian city of Daorson. Daorson was the capital of the Hellenized Illyrian tribe Daors who lived from 300th to 50th BC in the valley of the Neretva River. The remains of this once the most powerful city in the wider area are located in Ošanići, near Stolac in Herzegovina. It was composed of three parts, of which the central one was the fortress - acropolis, which was surrounded with "Cyclopean" walls of huge stone blocks (similar to those in Mycenae in Greece).



Figure 8. Making friendship on čatrnja in Herzegovina
(Source: Kahn, 1912 ; [http://4.bp.blogspot.com/-4HB A4 sxSWno/UoJcyLrtUxI/AAAAAAAAAE/tY-_RBu_Nb4 /s1600/Buna,+čatrnja+\(Albert+Kahn\)+21.10.1912..jpg](http://4.bp.blogspot.com/-4HB A4 sxSWno/UoJcyLrtUxI/AAAAAAAAAE/tY-_RBu_Nb4 /s1600/Buna,+čatrnja+(Albert+Kahn)+21.10.1912..jpg))



Figure 9. Batismal well in Livno, the archaeological site Lištani
(Source: Commission to preserve national monuments)



Figure 10. Joint pond and dry stone wall as a boundary plot in Duvanjsko polje (Source: Misilo, 2009)



Figure 11. Through
(Source: Author, 2011)

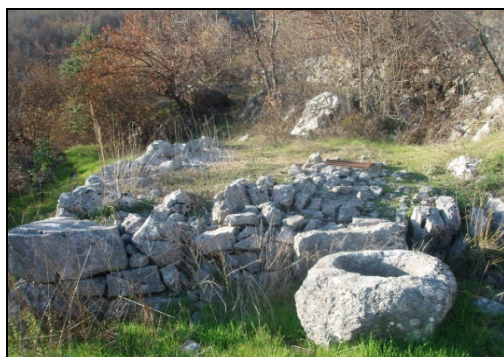


Figure 12. Kamenice in Bogodol
(Source: Author, 2011)



Figure 13. Mills on river Bregava in Stolac
(Source: Author, 2011)

Baptismal well is a specific element of the Christian tradition. In the early Christian rituals different words were used for baptismal font, therefore a vessel for christening, in which the baptized was dipped during receivment of holy baptism, and the building of baptisterium, in which were housed one or more baptismal fonts. By construction technique, it seems, that Studenac belongs to late Roman period (4th to 6th

century) ie. to the construction *opus quadratum* (Dugandžić, 2010). In this case, faces of the walls are made of properly and neatly carved blocks of stone, and in the empty core of the wall are piled stones mixed with a furnace mortar (Figure 9).

Puddles

Water scarcity affects both humans and animals. Mostly engaging in the production of livestock on waterless mountains of Herzegovina prompted the people to use natural or to upgrade and maintain semi-natural and artificial ponds. They kept water in them by piling up a layer of clay in natural karst depressions, so that rainwater would not be lost. Almost every town in Herzegovina has had their pond which in the past had a greater role than today. Once these were the only sources of supply of goods and agricultural irrigation. Usually there were three sides built, with partially carved stone (with Klačno mortar) and the side without the wall is an entry for livestock (Figure 10). Ponds are important for living diversity of each environment. They are the trademarks of the former Herzegovinian landscape. they represent habitats of many amphibians, insects and wetland plants, so they must be protected, because if they grow out, all the plants and animals that live in them, will disappear. The stay of cattlemen from the low-Herzegovina in the mountain would lasted until the first autumn rains, when the pastures in the valley are restored and it's the time when the flock goes back to their villages. Cattle grazing in the mountains, collecting and processing milk and wool meant a continuous stay of herds and those who cared about them for about four to five months.

Through

Through is usually an integral part of a well or čatrnja (cistern) (Figure 11). Rainwater or snow were collected in the upper part of the cistern. The lower part of the river, was used for watering the goods. Throughs of Herzegovina have the usual shape of a crown which is the same as in Primorje (coastal region), and they do not have a hole through which water is drawn. It is a rare phenomena that sinks have decorations or inscriptions. Unfortunately, some of the throughs were formed from the tombstone, originally a stećak, which was later converted into a through. Middle Ages certainly had a special wooden innovation. This is confirmed by numerous calcified throughs that are found buried once one starts to build the trap springs. This is an example of springs under the drum on the Gvozdno polje on Hrbiljina plateau. Some waterbeds are built of wood. Most of them are destroyed. Sometimes you can find a calcificated through on the place where a new well is being dug. Waterbeds are connected with drinking fountains. Its meaning had a specific position on our mountains with arrival of Islam. Hair fountain were built, as the foundation of wealthy residents. This custom has been retained to this day.

Kamenice

In Herzegovina, on a plateau, there was no current water nor springs, and the landforms are often used as water findings. Kamenica, where for some time after the rain there could be found water, often saved both humans and animals of thirst. These kamenica could be found in many places. It was a small hole in a stone boulder. In this recess there can fit two fifty liters of rainwater. It provided the animals with water as well. Kamenice can sometimes appear as a man-shaped small fountain in stone. Considering that the cornerstone is a healthy material that maintains long freshness, kamenica was also help to shepherds in extinguishing their thirst (Figure 12).

Architectural aqual infrastructure also includes waterwheel, mills and stupe

Waterwheel or mill used to be a very important economic facilities, whose purpose was to grind grains of all kinds and transform them into the most basic foodstuffs. Today they are in the period of dissolution. In rare cases they have been reconstructed as a single historical monument or as part of a cultural milieu, mostly for tourism purposes. The two most common name used for this type of traditional economic structures are: waterwheel

or mills / mill. In karst regions mills were built of stone of sedimentary origin, usually limestone. The frame doors and windows, as well as the angular stones are of finer treatment in order to give the object strength. The cover on the mills is of stone slabs and roof structure is timber. In the 20th century newer materials are used for cover: tile or sheet. Vodenice attract the attention of many travel writers and researchers who have visited Bosnia and Herzegovina, such as Evans (1965). There are several examples of positioning watermill on the karst streams, namely: a small mountain streams, larger karst streams, on karst springs, in karst sinks, and watermill in urban areas. What is the same for all of them, is that water powers them all. In town of Stolac on the river Bregava there was a large number of mills some of which are partially preserved today, but in a state of ruin (Figure 13). Stolac was one example of the urban environment where there were built mills completely harmonized with the natural environment through and the rest of the architecture in the city. In Extensive list of the Klis sandžak from 1550 in nahija Livno there were a total of 55 mills. On the river Bistrica there were 22 mills on the which was paid tax mill "resm-and-asijab" by 30 akčas per year (Spaho et al., 2007). With Turks there came dolapi, a wagons for irrigation. Dolap or wagons are used for irrigation of arable land, and they are common artistic motifs and part of the postcards. Today they are forgotten and there is not a lot of them. Only on the river Trebišnjica from the mid-19th century, there are written records of Trebinje wagons, but they, had to appear at the beginning of the 18th century. Only on Trebišnjica river there were 60 of them to date.

Artificial lakes for collecting water in karst

Lake Klinje was accumulated from 1891 to 1896, with the construction of the stone arch dam in valley below the bulkhead essay of rivers Vrba, Dramešina and Žanjevići. Arch dam was designed and built under the instructions of the French engineer Krantz. It was 26 meters high, its upper width was 4.6 meters and and on the base 16.7 meters. Its length was 104.5 meters and it contained 9,504 cubic meters of material. For its construction they brought volcanic ash from Mount Vesuvius in Italy, which served as a binding material. The dam was built for irrigation of Gatačko field. At the time of the great flood on October 13, 1975, the crown of the dam was damaged and rebuilt in 1982 and 1983, and then the equipment and facilities at the dam were reconstructed. A few years ago Government of Bosnia and Herzegovina recieved a written notice from Austrian Ministry of construction that has expired 100 year warranty for the construction of this dam. There is no doubt that this building deserves to be a national monument.



Figure 14. Building Klinje dam (Source: Renner, 1896)

Channels for traditional irrigation

Residents of the river valley Drežanka used water from Drežanka for different purposes and in different ways (Stojaković, 1982). The best known way of using water are

dug irrigation canals ("soak") of small and scarce farmland. The Mediterranean climate impacts that extend from the south through the valley of the Neretva River, penetrating the valley Drežanka, and they are especially felt in the lower reaches around its mouth. This leads to the dry summer period, in which Drežanka does not dry up. These dry summers and arable land that are located relatively close to the river forced the residents of Drežnica to manually, completely without the help of modern machinery, dig canals, or rather a network of channels, along the river valleys of Drežanka (Renner, 1896). Such irrigation created better conditions for agriculture. Drežnica was even in the middle ages been known for exporting its grain to Dubrovnik as indicated by some written documents from the second half of the 14th century which mentions the sale of grain to Dubrovnik by Radoslav Mesnovića from Dreznice, and it is assumed that it is a grain that he exported from Drežnica (Niškanović, 1983). There are several names for channels: gully, zlib (groove), gutter, jaz. Channels are social, rural good. The principle of allocation and use of water from the canal was determined already during the construction of the channel.

Property relations in this valley are such that attention is paid to each parcel had access to the river. The width of the output is called "forehead". The right to water was given to all those who took part in the construction ie breaking through the channel (Belamarić, 1999). The distribution was prepared and carried out in a traditional way: on the "forehead" (time interval irrigation). Two forehead were 24 hours, one brow was 12 hours - day and night, half a day was forehead. The time was determined by the position of the sun in the daily distribution, and the position of the stars of night distribution of water from the canal. In the village Bunčići there once existed stones ("markers") that followed their shadow during the day. It was solar clock meant for timing of "order" for users of irrigation channels. Over time the arable plots were cut by inheritance, and how the clock was more and more commonly being used to measure the time, so the appearance of clock soaking time "melting" was measured per hour (60 minutes). When inheritance or sale of land that had channels, or through which there were dug canals, a common law was used. The right to water is gained through contribution and participation in the construction of the channel, and that right is passed from the old to the new owner together with the land that is bought or inherited (Palavestra, 1982; Stojakovic, 1982).

CONCLUSION

All these objects in Herzegovina karst are now threatened. Animal husbandry is disappearing. There is almost no tradition of expulsion of cattle on the mountain. There is no local population so cisterns, fountains and ponds are not repairing. We hope that they will find a way for registration of architectural heritage of water infrastructure in karst through certain cadastre, and thus easily restored, protected and evaluate for purpose of tourism, economy or nostalgic mountain walks. Due to the practical needs for accessibility of water in Herzegovina karst, but also due to the economic valorization of the same, every activity to raise awareness about the importance of this heritage is necessary. With hunger, thirst is also still a huge problem in many regions. There are many people who can not afford a single glass of fresh water per day. The most vulnerable are, as always, children and the infirm. It is unfortunate that today, in era of Agenda 21, the action plan for the 21st century that was adopted five years ago in Rio de Janeiro, and which advocates sustainable development and rational management of natural resources, people seem to know less (or what was worse, simply care less) about some of the problems that have been successfully handled by people thousand years ago. Among other things, in Agenda 21 in the part relating the management and use of water resources stands: Modern technologies, including the improvement of indigenous technologies are needed regarding the full use of limited resources of water and protecting those resources from

the pollution. Unfortunately, washed up areas of many public water tanks are overgrown with weeds, and reservoirs themselves are damaged or even partially buried. Should it not be considered, as part of the development of infrastructure of the coast and the islands, a re-training of many of our tanks and not only because of the cultural and historical reasons ie as a tourist attraction, but also as a valuable system in case of need that may provide something more precious than gold: fresh drinking water.

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THE BENEFIT OF GEO-BRANDING IN A RURAL GEOTOURISM DESTINATION: ISFAHAN, IRAN

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Abstract: Rural centres are among the most important of those which have affected world tourism trends. The increase in short-term trips has made these territories one of the main tourism destinations. In today's competitive world, a targeted effort is necessary to brand all products and services to compete for tourist attraction. It is noteworthy that, until this time (2016) 120 villages have been considered as rural destinations for the target of tourism markets in Iran, and therefore, it can be said that the existence of a particular brand is an encouraging and effective factor to attract tourists to rural areas. The Delphi technique is used to determine the benefits of making and managing a tourism brand for desert villages which are geotourism destinations in Isfahan, Iran. Analysis of the data summarized thirteen benefits of geo-branding for rural areas.

Key words: desert village, geotourism, Iran, tourism brand

* * * * *

Introduction

Destination branding (DB) is considered as one of the most important and effective strategies in the marketing area for tourism destinations. It is a selection of reliable factors to recognize a destination through image-reconstruction and image building (Cai, 2002; Curtis, 2001; Hall, 2002). Furthermore, the main idea behind building DB is to establish an emotional (Morgan & Rego, 2009) and rational link with tourists through unique identity. It is highly regarded due to its impact on improving the mental image of tourists and making a competitive differentiation. Despite the importance of branding in the realm of marketing for destinations, not enough attention has been given to the area. A lack of a mental image of appropriate destinations for many parts of the country has led to the fact that many people travel only to certain cities within the borders of Iran. Among

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the areas with great potential in tourism marketing – especially geotourism– are villages located in desert areas, although they have not yet been successful as they should in attracting tourists. Making a brand is an important factor in introducing these areas. Desert villages are among the purest and most admired of natural and geological but unknown heritage in Iran, and they have a great potential for desert tourism and geotourism development in the country. Due to their own geomorphology and geology attractions, these regions can easily be introduced as geotourism destinations. Geotourism is part of the new niche tourism which has recently become of interest in many countries (Hose, 2003; Dowling & Newsome, 2005). Geotourism, which strives to identify and preserve earth heritage such as geological and geomorphological phenomena, can be not only a positive factor for tourist attractions and economic development, but can also play an important role in sustainable, rural development in destinations. In today's competitive world, identifying and introducing desert villages as geotourism destinations requires worldwide marketing. Obviously, tourist destination branding is one of the most important aspects of destination marketing. Making and managing a brand can significantly influence the improvement of tourists' mental image and competitive differentiation of a destination compared to other similar destinations.

This survey is specifically concerned with the benefits of making and managing a geotourism brand in the desert villages of Isfahan, Iran. Data were collected through a literature review and the responses from a questionnaire for experts. The paper is organized as follows: in the following section a literature review is presented which includes the importance of brand making and managing in geotourism destinations. The methodology, analysis of results, and a conclusion are presented in subsequent sections.

Literature review

Nowadays, a brand is an influential factor in the conception of tourists when choosing a destination. Thus, a robust and solid brand can distinguish a product, service or a destination from its rivals (Lim & O'Cass, 2001). Investigating the role of branding in destination marketing is of the utmost importance. The issue became more important when the decision-makers of the tourism industry found that many destinations had become of interest due to the early mental images created in individuals and so many theories were suggested for building a destination brand. The most extensive efforts were made by Hankinson (2004) who was the first person to lead the theoretical framework of product-based branding to tourism destination branding. Regarding this, Ritchie and Ritchie (1998) stated that a destination brand can play a coordinating role among tourism stakeholders through the creation of a common image (Cai, 2002). Here it must be said that the higher the number of stakeholders who use the brand, the greater the destination awareness and tourist attraction will be, although quality control (QC) is also needed, since taking advantage of unregistered products and services or businesses may damage the mental image of brand. As a result, the role of brand manager is to establish an evaluation committee to authorize the use of the brand and provide reports on quality control products and services (Aaker, 1997). According to the American Marketing Association, the brand can be defined as a multi-dimensional combination of functional, emotional, strategic and communication elements with which a unique network of connections is made in the minds of consumers (Tsiotsou & Goldsmith, 2012).

Among brands, rural and cooperative brands are an excellent way to promote the local economy. Nowadays, brands in rural destinations play an important role in the development of the green economy and sustainable tourism. Cai (2002) proposed one of the first conceptual destination rural branding models. In the model, the brand elements mix to uniquely identify and position the destination through positive image building.

This understanding is derived from general branding literature (e.g. Aaker, 1997; Keller et al., 1998; Pham & Muthukrishnan, 2002) and emphasizes the role of image building. Furthermore, Cai (2002), in an article titled “Cooperative branding for rural destinations” illustrated that conceptualization and modelling of cooperative branding will help advance the field of destination marketing and bring about efficient use of rural tourism resources and effective marketing practices; the above mentioned study was conducted in Old West Country, a marketing consortium consisting of seven rural counties in the state of New Mexico, USA. He found that both the region and its member communities benefited from cooperative branding in projecting a consistent cognitive image based on shared destination attributes. In addition, Embacher (2013) urged that building and managing a rural tourism brand brings benefits by supporting business chains, creating trust in unknown products and services, giving security, facilitating decision-making, allowing identification and self-presentation, creating familiarity and positive prejudices, minimizing the risk for disappointment, standing for values, giving orientation, standing for controlled quality and creating repeat business.

It is noteworthy that the private sector or family businesses only undertake innovation such as creating new products or organizing new tourism activity when an organization promises them it will be profitable. Branding (certification) of local products will support the local producer. Local producers and customers will benefit from branding advantages which are higher quality, environmentally friendly and so on (Farsani et al., 2012).

It is obvious that geoparks and geotourism destinations which emphasise sustainability activities should not maximize the negative impacts on the ecosystem. Therefore, they should take advantage of a local, national or international certification brand or Eco-labels for their products, services and activities. Eco-labels are an excellent way to enhance credibility for green marketing claims. Eco-labels on one hand help a quality product stand out in the market, and also allow customers to recognize and choose products with a low negative impact on the environment (earth-friendly products); on the other hand, they can guarantee and support entrepreneurs, small and medium-size businesses, products and services. The awards, guidelines, labels and formal certificates of environmental quality related to the tourism industry developed a greater importance in the 90s. This aims to distinguish companies or institutions that contribute in some way towards sustainable development in tourism (Lima & Careto, 2007).

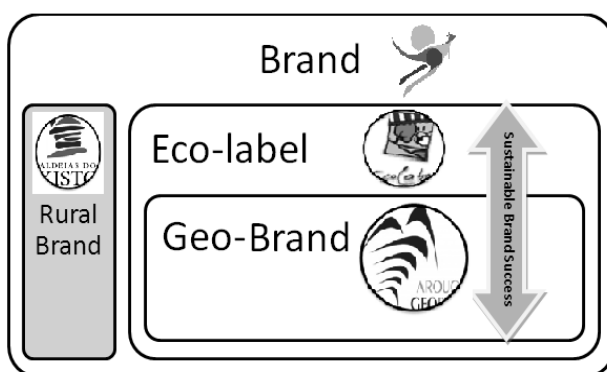


Figure 1. Sustainable Brand Success in Rural Tourism Destinations

In the last two decades with the emergence of geotourism and geoparks as a sustainable form of tourism in protected and rural areas, a new concept of “Geo-brand” – an earth-friendly brand creating an image that identifies geological or geomorphological

heritage of a territory – entered tourism marketing. Lastly it can be concluded that Eco-labels and Geo-brands undoubtedly helped fuel sustainable brand success in rural tourism destinations (Figure 1). Regarding creating Geo-brands, the Global Geopark Network (GGN) provides opportunities and possibilities, through a common logo, for small firms which are the members of the geopark network to boost their creativity and initiatives (Zouros & McKeever, 2009). At the local level in some rural and protected areas located in geoparks territories or geotourism destinations (such as: Vulkaneifel Geopark (Germany); Arouca Geopark, Azores Geopark and Naturtejo Geopark (Portugal); twenty-seven schist villages (Portugal); Cabo de Gata-Níjar Natural Park (Spain); Nature park TERRA.vita European Geopark (Germany); Parco Naturale Adamello Brenta (Italy); Eisenwurzen European Geopark (Austria)) tourism markets take advantage of the geo-brand or other Eco-labels and certifications (e.g. in festivals, local products, events, publications etc.). Moreover, some local producers use the geo-brand for promoting their rural products and activities (Figure 2) (Farsani et al., 2013a; Agência Desenvolvimento Turístico, 2008).



Figure 2. Geo-brands in rural geotourism destinations (Portugal) a: the geo-brand is a symbol of houses built from schist stone b: the geo-brand is a symbol of an outstanding fossil locality of the Darriwilian (Middle Ordovician) age, where giant trilobites and trilobite clusters (from several to thousands of specimens) occur in large slabs of shale in Arouca Geopark territory (Source: Arouca Geopark website; Agência Desenvolvimento Turístico, 2008)

However, the rural tourism brand is a new concept in Iranian tourism marketing and up to this time, no significant work has been undertaken in this field and none of the above-mentioned approaches takes into consideration the benefit of a rural geotourism brand in a case study in Iran. The importance of this research is to investigate the benefits of making and managing a geotourism brand in the desert villages of Isfahan, Iran as rural geotourism destinations. Rural geotourism is nature-based tourism which takes place in the countryside and which includes unique geological and geomorphological landscapes. In these villages, geo-heritage and geo-landscapes fit in with the rural population's lifestyle and culture (Farsani et al., 2013b).

Materials and Methods

This study was conducted in Iran in the desert villages of Isfahan province (in the east of the province). Isfahan (covering an area of 107,029 km² between 30°42' and 34°30' N latitude and 49°36' and 55°32' E longitudes) is located on the main north–south and east–west routes crossing Iran, and it is Iran's number one tourist destination

for a good reason. Isfahan province is situated between the massive central Zagros mountain range and the grand desert. Isfahan has a great desert in the east including some desert tourism villages which have recently become known as geotourism destinations (e.g. the villages of Mesr and Farahzad, Garmeh (Figure 3), Ghoortan, etc.). The empirical part of this study was conducted from June to September 2014.

A Delphi technique as a systematic and interactive forecasting method is used to investigate the benefits of making and managing a geotourism brand in the desert villages of Isfahan province, Iran. This technique relied on a panel of fifteen experts. In order to achieve this goal, the major research questions were formulated as follows:

Q1: What are the benefits of a geotourism brand in desert villages?

The fifteen experts answered the questionnaires in three rounds. In the first step an open-ended question was designed for face-to-face meetings and the interviews and the data for this study were collected through a snowball sampling method. Snowball sampling method is a non-probability sampling technique that is used by researchers to identify potential subjects in studies where subjects are hard to locate. Sample sizes in a qualitative method may be too small to support claims of having achieved either informational redundancy or theoretical saturation (Sandelowski, 1995). The qualitative research method (axial coding) is used for analysing the data. In the second step, according to the experts' opinion which was given in the first questionnaire and literature reviews, the second questionnaire (closed-ended) was designed. Responses were made on a 5-point Likert scale ranging from strongly agree to strongly disagree for key characteristics of benefits of a rural geotourism brand. The questionnaire was sent to the same experts as those who filled in the forms. In this regards, a hypothesis was designed as follows:

H0: The parameter is not desirable ($M \leq 3$)

H1: The parameter is desirable ($M > 3$)

In the third step, the one-sample t-test method was used to achieve the more desirable parameter, and lastly, the authors removed the non-desirable parameter and summarized the results and sent them to the experts. This process was repeated until a consensus emerged.

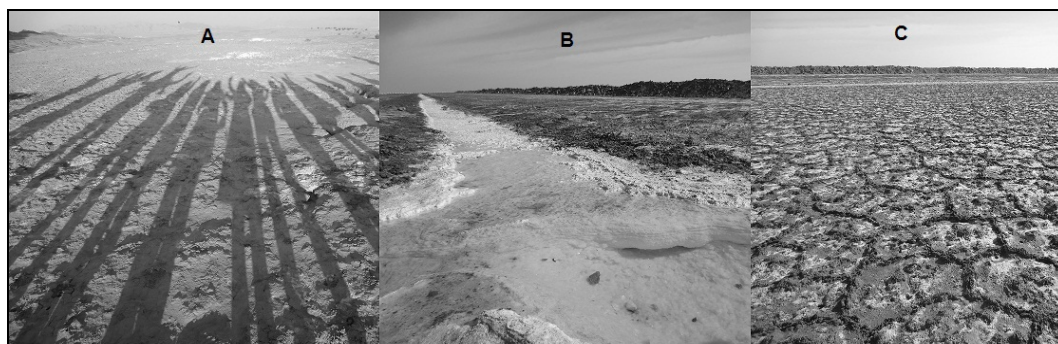


Figure 3. Geo-attractions of Garmeh Village A) Desert land, B) Salt Lake, C) Salt Polygons)

RESULTS

As mentioned before, a total of fifteen experts were interviewed. Respondents indicated their opinions and ideas about the benefits of making and managing a desert rural geotourism brand. Analysis of the data through a qualitative method (axial coding) without software identifies marketing, economic, socio-cultural and environmental benefits of a geotourism brand in desert villages (Table 1).

Table 1. Determining the Variables According to Qualitative Method (axial coding) Analysis

Coding	Group		The benefits of a geotourism brand in desert villages
A	Marketing	A1	An appropriate brand is considered as a marketing tool
		A2	A tool for popularization (it is kept in people's memories)
		A3	Raises the curiosity of tourists to discover the desert
		A4	Attracts the attention of tourists to desert areas
		A5	An important factor to introduce the geological and geomorphological features and attractions of the desert area
		A6	Brings more competitiveness
B	Economic	B1	Local Economic Development
		B2	Creates opportunities for entrepreneurship and employment
		B3	Attracts investors to desert villages
		B4	Attracts investors to desert public-private partnerships
C	Socio-cultural	C1	Local involvement
		C2	Regional identity and value creation
		C3	Standardization of tourism services and infrastructure
		C4	Local product standardization
D	Environmental	D1	Sustainable desert tourism
		D2	Protection of desert ecosystem

According to the results obtained from the qualitative research (Table 1) and literature reviews, we summarized the benefits of a geotourism brand in desert villages of Isfahan (Table 2).

Table 2. The Benefits a Geotourism Brand as an Eco-label in Desert Villages of Isfahan, Iran

Coding		The benefits of making and managing a geotourism brand in desert villages	Mean
A	Marketing	A1 Promotes network activity	3.7333
		A2 Attracts the attention of tourists to desert areas	3.9333
		A3 An important factor to introduce the geological and geomorphological features and attractions of the desert area	3.4667
		A4 Brings more competitiveness	3.4667
B	Economic	B1 Local economic development	3.8000
		B2 Creates opportunities for entrepreneurship and employment	3.8000
		B3 Attracts investors to desert villages	3.9333
		B4 Attracts investors to desert public-private partnerships (small and medium-sized enterprises (SMEs))	4.4000
C	Socio-cultural	C1 Local involvement	3.8667
		C2 Regional identity and value creation and providing cultural exchange	4.2000
		C3 Standardization of tourism services, infrastructures and local products	3.9333
		C4 Reverse rural-urban migration	3.0667
D	Environmental	D1 Sustainable desert tourism	4.000
		D2 Protection of desert ecosystem	3.8667

In the next step, based on the result of the descriptive analysis (on a 5-point Likert scale ranging from strongly agree to strongly disagree) and analysis of the data with a one-sample t-test (Table 3), it can be said that promoting network activity, attracting

tourists to desert areas, introducing the geological and geomorphological features and attractions of the desert area and bringing more competitiveness to the area are marketing benefits; and developing local economy, creating opportunities for entrepreneurship and employment, attracting investors to desert villages and attracting investors to desert public-private partnerships (small and medium-sized enterprises (SMEs)) are categorized as economic benefits of making and managing a geotourism brand in desert villages. In addition, experts illustrated good agreement on three socio-cultural benefits: local involvement, regional identity and value creation and providing cultural exchange, standardization of tourism services, infrastructure and local products. It is noteworthy that reverse rural-urban migration is removed from the sub-divisions. Moreover, promoting sustainable desert tourism and protection of desert ecosystems are classified as environmental benefits of a geotourism brand. Finally, the results of the one-sample t-test were sent to the experts again and a good agreement was generally found among them on variables: A1, A2, A3, A4; B1,B2,B3,B4; C1,C2,C3 and D1, D2.

Table 3. The Result of One-Sample T-Test for Selecting the Variables

variable	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
A1	4.036	14	.001	0.73333	0.3436	1.1230
A2	3.500	14	.004	0.93333	0.3614	1.5053
A3	1.974	14	0.068	0.46667	-0.0403	0.9736
A4	2.432	14	0.029	0.46667	0.0551	0.8783
B1	4.000	14	.001	0.8000	0.3710	1.2290
B2	4.000	14	.001	0.8000	0.3710	1.2290
B3	4.090	14	.001	0.9333	0.4439	1.4227
B4	3.552	14	.003	1.06667	0.4227	1.7107
C1	4.026	14	.001	0.86667	0.4049	1.3284
C2	6.874	14	.000	1.20000	0.8256	1.5744
C3	5.137	14	.000	0.93333	0.5436	1.3230
C4	0.269	14	0.792	0.06667	0.5989	-0.4656
D1	3.623	14	0.003	1.00000	0.4080	1.5920
D2	2.582	14	0.022	0.73333	0.1243	1.3424

Conclusion

Desert villages are one of the purest and most wonderful but unknown natural attractions in Iran and have a great potential for tourism attraction and development in the country. Among the provinces in Iran, Isfahan has great potential for promoting desert tourism. These regions, due to their specific geomorphology and geology, are well introduced as geotourism destinations. In today's competitive world, identifying and introducing these regions as geotourism destinations requires worldwide marketing. Nowadays in a competitive market, tourism destination branding is one of the most important aspects of destination marketing which can have a significant influence on improving the mental image of tourists and creating competitive differentiations in a destination compared to other similar destinations. Recent studies have illustrated that a rural tourism brand and Eco-labels play an important role in the development of the local economy and sustainable tourism.

This study is an initial attempt to investigate the benefit of making and managing a geo-brand as an Eco-label in desert village of Isfahan, Iran. The results provide some support for the expectations that building a geo-brand brings important benefits for rural areas. The result of the Delphi technique clearly shows that making and managing a geo-

brand brings thirteen benefits to desert villages such as promoting network activity, attracting tourists to desert areas, introducing the geological and geomorphological features and attractions of the desert area, bringing more competitiveness to the area, developing the local economy, creating opportunities for entrepreneurship and employment, attracting investors to desert villages and attracting investors to desert public-private partnerships (small and medium-sized enterprises (SMEs), local involvement, regional identity and value creation and providing cultural exchange, standardization of tourism services, infrastructure and local products, promoting sustainable desert tourism and protection of desert ecosystems.

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TOWARDS TOURISM DEVELOPMENT: BRIDGING THE GAP BETWEEN TOURISTS' EXPECTATIONS AND SATISFACTION

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Abstract: This study evaluated the compatibility between the expectations and satisfaction of international tourists toward the attributes and quality of services offered. Data were obtained from a survey of 420 international tourists visiting Penang, Malaysia. Findings indicated that the highest expectations of visitors were the safety and image or appearance of the destination. The results further demonstrated that the most negative gap between tourists' expectations and satisfaction can be found in the local transportation service, and the most positive gap was observed in cultural uniqueness. By detecting the weak components of the attributes and the quality of service, this study presented implications for local tourism authorities to better understand the essential policies and actions in improving the quality of the tourism industry in the locale.

Key words: tourist expectation, tourist satisfaction, image, gap analysis, Malaysia

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INTRODUCTION

Tourism is recognized as one of the third largest industry in the world (Lozano-Oyola, 2012). In fact, Southeast Asia drew more than 81 million international tourists in 2011 (ASEAN Secretariat, 2012). The governments of Southeast Asian countries strive to generate direct and indirect employment opportunities through this industry (Coccossis, 2008; Constantin & Mitrut, 2008). In 2012, Malaysia has experienced an influx of 25

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million tourists. With a GDP contribution of 7% in 2012, the Malaysian tourism sector generated 811,500 jobs (WTTC, 2013), indicating the significant influence of the tourism industry on the economic growth of Malaysia. The most tourist attractions in Malaysia refer to beaches, nature, resorts, beautiful geological landforms/landscapes, unique geological phenomena and geoheritage sites (Adriansyah et al., 2015).

Identifying the needs and demands of a tourist plays a major role in the success of the tourism industry. For the past few years, the quality of products and services offered by tourist destinations has been emphasized as a variable that induces high levels of satisfaction. A tourist's satisfaction is relevant to his/her selection of a future destination (Tian-Cole & Crompton, 2003) and affects their future behaviour (Bigné et al., 2001; Lee et al., 2007). A review of the tourism literature revealed that satisfaction is determined by a balanced average of the gap between tourists' expectation and actual experience (Chi & Qu, 2008; Truong & Foster, 2006; Yoon & Uysal, 2005).

Thus, examining tourists' expectations in achieving standard levels in the quality of service is necessary to ensure their satisfaction. Tourist expectation has been defined as a preconceived perception of travel outcome (Wang et al., 2016). Assessing tourists' expectations and their own experiences can help identify the strengths and weaknesses of a destination based on the beliefs of the former. However, to date, only a few studies have assessed the expectations and experiences of tourists (Wang & Davidson, 2010). Generally, the perceived quality of a service can be measured by comparing the post-trip experiences of tourists against their pre-trip expectations (Shoemaker et al., 2007). Extant literature shows that the gap analysis between expectation and performance is considered a strong instrument with which to discover the critical objects for a destination and to provide an opportunity for decision-making through which authorities can improve levels of satisfaction among tourists (Jain & Gupta, 2004; Saleh & Ryan, 1991; Wang & Davidson, 2010).

To bridge the gap in the satisfaction literature, this study aims to examine the differences between the pre-trip expectations and post-trip satisfaction of international tourists in Penang Island, a famous island off the northwest coast of peninsular Malaysia. By empirically examining the behaviours of tourists, this study is likely to provide better understanding of the most influential factors in realizing tourists' satisfaction. Moreover, the findings and implications of this study are expected to shed light on the contributions of different components in improving the satisfaction level of tourists. Research indicated the importance of tourist satisfaction and argued that satisfaction plays an important role in planning marketable tourism products and services (Egresi & Polat, 2016). In particular, Penang Island exudes a special tourism image with the combination of its amazing geological features, rich cultural diversity, and unique history as a UNESCO World Cultural Heritage Site. Therefore, the findings of this study are anticipated to encourage concerned authorities to improve the quality of services being offered in the Penang World Heritage Site as one of the main tourism destinations in Penang Island.

LITERATURE REVIEW

A recently conducted research on tourism has focused on the perceptions of tourists toward destination, in consideration of the fact that a traveller's perceptions can influence tourism marketing (Ahmed, 1991). An image of a destination is established by a collection of perceptions regarding a product or service, which are obtained from different sources (Assael, 1984). As a set of positive and negative perceptions toward a destination, destination images describe the real or actual experiences of tourism in a specific destination. Tourists' perception affects the formation of a destination image, and in

return, the perception is affected by specifying the similarities and differences among the facilities, attractions, and service standards of several destinations (Laws, 1995). From another perspective, a concurring destination image is influenced by the experiences of a service, mental reaction of a tourist toward the performance of a service, and distance level among the predicted and experienced services (Yu & Goulden, 2006).

Given the significant role of destination image in determining the destination choice of tourists (Lee et al., 2002), many empirical studies have focused on the relationship between the perception and satisfaction of tourists and destination image at the global level (Bigné et al., 2001; Castro et al., 2007; Chen & Tsai, 2007). Studies have revealed the most effective factors in generating the destination image and the effects of this image on tourist satisfaction, which may persuade tourists to select interesting places to visit and to make frequent trips to these places (Chi & Qu, 2008; Chen & Tsai, 2007).

A positive travel experience is generally associated with a positive image among tourists, and consequently, a more positive image of a particular destination are held by a visitor. Studies have determined the positive effect of destination image on satisfaction (Bigné et al., 2001; Chi & Qu, 2008; Lee, 2009), in which more positive destination images tend to lead to a higher level of satisfaction. As a result, visitors are more likely to revisit that destination. Varvara (2012) stated that the satisfaction of customers can be assessed by the satisfaction levels attained from the consumption or usage of a product or service, respectively. In particular, Varvara (2012) explained that the evaluation of satisfaction can be established within the process of service delivery.

In the context of tourism, a review of the literature revealed that different studies have dealt with various aspects of consumer satisfaction in tourism, travel, hospitality, and recreation (Ali & Howaidee, 2012). However, tourist satisfaction is a psychological concept, which shares the pleasure of tourists with the achievements of their hopes for and expectations from a product or service (WTO, 1985). Research has also indicated the significant association between visitors' perceived value of destination and their satisfaction (Iniesta-Bonillo et al., 2016). Expectations are normally formed based on the performance perceptions on products, services, and experiences.

Studies have suggested that a consumer's future choice of a product or service is directly influenced by his or her past experience (Zeithaml et al., 1993; Sukiman et al., 2013; Anderson & Hair, 1972; Hoffman & Bateson, 1997; Hosany & Martin, 2012; Jin & Song, 2012; Oliver, 1997; Oliver & Burke, 1999; Prakash & Lounsbury, 1984). Research has demonstrated that tourists will value their experiences depending on their expectations, the context, the situation and the resources present (Prebensen & Xie, 2017). Oliver and Swan (1989) described consumer satisfaction as a relationship between the costs of what the tourist spends and the benefits he/she anticipates. A study on tourist expectation formation found that travel motivation, advertising and word-of-mouth recommendations influence travellers' cognitive image and the interactions between cognitive and affective image contribute to form tourists' expectations toward travel destination (Wang et al., 2016).

Measuring tourist satisfaction must be focused on multiple dimensions. Tourists may have varying motivations for visiting particular destinations, and as such, they may also have different satisfaction levels and standards (Yoon & Uysal, 2005). The greater the similarities between the outcomes and expectations, the higher their satisfaction would be. In agreement with the latter statement, a wide range of methods and approaches to assess consumer satisfaction or dissatisfaction have been employed by scholars. The outcomes of a comparison can be estimated based on the positive and negative disconfirmations, which lead to either a satisfaction or dissatisfaction. Oliver (1997)

reported that positive disconfirmation is obtained when the experiences of tourists (post-trip perception) exceed their expectations (pre-trip perception), whereas negative disconfirmation is formed when their expectations exceed their actual experiences. Only a few studies have evaluated the pre- and post-trip experiences of travellers based on the significant role of tourist satisfaction in choosing destinations (Wang & Davidson, 2010).

In accordance with the results of an empirical research, Weber (1997) concluded that satisfaction level is increased when the post-trip perception of travellers has exceeded their expectation. On the contrary, some studies (e.g., Hui et al., 2007; Martin et al., 2009; Rodriguez del Bosque et al., 2006) have demonstrated that tourists experience a psychological struggle when they perceive a meaningful difference between their expectations and experiences. This condition magnifies or exaggerates the inconsistency of situations (Anderson et al., 1994), in which the destination image can be subsequently influenced and the satisfaction level of tourists can be decreased.

First developed by Richard Oliver (1980), many studies have used expectancy disconfirmation theory (Ali & Howaidee, 2012). This theory has also been examined and tested in various studies (Oliver & DeSarbo, 1988). Based on this theory, when a consumer purchases a product or services, he or she has pre-purchase expectations about the anticipated performance of these products and services. Subsequently, the outcomes of using the products or services are compared with the initial expectations of consumers prior to usage (Ali & Howaidee, 2012).

The perceived quality of a product or service may influence the post-consumption behaviour of tourists (e.g., Chen & Tsai, 2007; Chi & Qu, 2008; Zhang et al., 2014). Generally, the quality of service is greatly contingent upon the expectation of consumers and is often known as the difference between a customer's experience and his/her expectation of the service. Studies have explained the effects of service expectations in the tourist destination choice (e.g., Kanousi, 2005; Kueh & Voon, 2007). The positive effects have encouraged researchers and scholars to determine the expectation level of tourists in the quality of services prior to their tourism experience (Sukiman et al., 2013), because the actual achievement of performance lives up to the tourists' expectations.

Service quality is an important element of assessing the processes of measuring equality and improving equipment; however, very few studies have focused on service quality in the field of tourism (Ali & Howaidee, 2012). Quality is a considerable concern because it is used to evaluate the productivity of a specific product or service in tourism marketing and tourism service sector (Godbey, 1997). Moreover, the quality of tourism service influences the destination image, which subsequently affects both the expected and perceived qualities (Prabhakaran et al., 2008).

The effects of the quality of services have led scholars and researchers to focus on the components of the overall tourism product. Middleton and Clarke (2012), for example, classified the quality of tourism products in a destination into five major elements, namely, attractions, facilities and services, accessibility, image, and price. Considering the significant effect of confirmation of expectation on tourist satisfaction, the gap analysis is employed to assess the differences between expectations and experiences in the field of tourism. The findings of this analysis can be used to recognize poor quality destinations or products (Wang & Davidson, 2010). Despite numerous studies on the satisfaction and dissatisfaction of tourists, the gap between the expectations and satisfactions of travellers has rarely been assayed, particularly in Malaysia. Earlier studies in other contexts can help enhance our understanding of tourists' expectations. These studies, however, cannot be directly applied to the context of Malaysia, hence the need to conduct this study.

CONCEPTUAL MODEL DEVELOPMENT

Many previous works have attempted to determine the factors that influence the satisfaction of tourists. A great deal of attention has been given to the importance of understanding and maintaining consumer satisfaction across various industries. This study aims to advance research on consumer satisfaction in the context of tourism. Gauging the satisfaction of visitors lies within the general area of consumer satisfaction. In the marketing literature of consumer satisfaction, the notion of satisfaction can be measured by the difference between a consumer's expectation of a service and the actual performance of a service. Ryan (1995, p. 41) stated that "if tourist satisfaction is seen as the congruence of need and performance, then dissatisfaction can be perceived as the gap between expectation and experience".

Another research suggested that analysing the gap between expectation and experience is the dominant tradition used in understanding consumer satisfaction (Pearce, 2005), and is known as expectancy or confirmation /disconfirmation theory. This theory suggests that the consumer is deemed satisfied if performance exceeds expectations, neutral if performance equals expectations, and dissatisfied if performance falls short of expectations (Oliver, 1980, 1997). This proposition implies that a gap analysis must be performed to explore the areas that require improvements, in order to enhance tourist satisfaction and to achieve sustainable tourism. Hence, thoroughly understanding the tourists' expectations can lead to enhanced quality of services offered in destinations, thereby improving the overall satisfaction of travellers. Based on the above discussions, the following research questions are drawn:

-is there any difference between the pre-trip expectations and post-trip satisfaction of international tourists in Penang Island?

MEASURES

The study context

The survey was conducted in Malaysia, in which the tourism industry has witnessed continuous growth over the past few decades. The required data were collected by administering a survey to international tourists visiting Penang Island from October to December 2013. Penang Island, a considerably famous island tourism destination in Malaysia, is the third most common tourist spot in the country and is located at the northwest coast of Peninsular Malaysia.

This turtle-shaped island is renowned for its beaches, elegant colonial architecture, rich variety of wildlife, spicy cuisine, and multi-cultural population. These qualities shape the unique tourism image of the island. Penang has numerous well-preserved heritage buildings; thus, its capital city (George Town) has been listed as a UNESCO World Cultural Heritage Site. Despite being the second smallest state in Malaysia, Penang is a thriving tourist destination. In fact, the hotels in the island accommodated 3,096,907 foreigners in 2012. These hotels are considered the third largest following the hotels offered in Kuala Lumpur and Pahang. This figure accounts for almost 12% of the total number of foreigners who stayed in hotels in Malaysia.

The sampling areas were located at sites that have been identified to attract island tourists. Four trained interviewers, who were divided into two groups, approached adult tourists over the age of 18 years. Respondents were randomly selected by using a systematic sampling method as they departed via the selected locations. The sample consisted of 420 leisure tourists interviewed during their visit to Penang. During the interview survey, leisure trips were differentiated from trips made to visit friends, relatives, or other purposes. All the 420 respondents completed the questionnaires. The

sample comprised 52% male, 63% were aged between 18 and 35, and 46% were single. Finally, majority of the respondents (47%) were college educated and 68% stated that they were on their first trip experience to Penang. The majority of the respondents were Chinese (12%), followed by Australian (10%) and Singaporean (6%).

Research instrument

A self-administered three-page structured questionnaire was used as the research instrument. The survey instruments, which were related to all constructs in the proposed model, were included in the questionnaire. The questions measured the expectations and satisfactions of tourists toward the destination. In particular, the tourists' expectations were gauged in terms of 12 main areas, namely, the friendliness of the local people, ease of local communication, destination image, cultural uniqueness, variety of tourist attractions, value for money, safety, ease of access, availability of information, quality of services, transportation, and cleanliness. These items were adapted based on the work of Mathieson and Wall, 1982 and Song et al., 2012.

The scores for expectation items were based on a five-point Likert-scale format ranging from 1 (not at all important) to 5 (extremely important). Another five-point Likert-scale ranging from 1 (very poor) to 5 (excellent) was also used to measure the experiences of tourists. The reliability of all constructs was assessed and confirmed because the Cronbach's alpha coefficients for all constructs were higher than the recommended value of 0.7 (Hair et al., 2006). The final set of questions asked the respondents about their demographic information, and travel behaviour. In particular, the respondents were asked about the nature of their visit to Penang through the following items: (1) how many times have they visited Penang, (2) who they were visiting with, (3) reasons for visiting Penang, and (4) how did they find Penang as a destination.

RESULTS

A paired *t*-test was conducted to examine whether a gap existed between the expectations and satisfaction of destination facilities and services. The *t*-test has been applied to determine the significant difference between tourists' expectations and experiences as suggested by Chaudhary, 2000; Hui et al., 2007 and Johann, 2014. The purpose of the test is to determine whether there is statistical evidence that the mean difference between paired observations on a particular outcome (i.e. expectations vs experiences) is significantly different from zero.

Table 1. Paired *t*-test on attraction attributes and services

Attributes	Expectations (pre-trip)	Experiences (post-trip)	Gap	<i>t</i> value	<i>p</i> value
Destination image	3.946	3.769	-.177	-3.505	.001***
Cultural uniqueness	3.382	3.774	.392	6.093	.000***
Variety of tourism attractions	3.863	3.818	-.045	-.865	.388
Value for money of retail goods	3.682	3.898	.216	3.556	.000***
Safety and security	3.920	3.764	-.156	-2.862	.004***
Ease of access to attractions	3.879	3.914	.036	.650	.516
Friendliness	3.381	3.647	.266	-1.839	.067*
Availability of information	3.381	3.381	.000	4.028	.000***
Ease of communication	3.686	3.383	-.303	-4.912	.000***
Quality of accommodation services	3.624	3.396	-.228	-3.902	.000***
Local transport services	3.895	3.392	-.503	-8.901	.000***
Cleanliness	3.795	3.721	-.074	-1.349	.178

Note *** $p < 0.01$ ** $p < 0.05$, * $p < 0.1$ (2-tailed)

Table 1 shows that in nine of 12 attributes, the gap between the expectations and experiences was statistically significant. The largest positive gap (positive disconfirmation) between the expectations and experiences came from 'cultural uniqueness', followed by 'availability of information', and 'value for money of retail goods'. Meanwhile, 'local transport services', 'ease of communication', 'quality of accommodation services', 'destination image', 'safety and security', and 'friendliness of the local people' had a negative gap between the higher levels of importance and lower levels of satisfaction (negative disconfirmation). However, no significant mean differences were observed between the expectations and experiences of 'variety of tourism attractions', 'ease of access to attractions', and 'cleanliness', for which the levels of satisfaction were relatively high (over a three on average from a five-point scale for all items).

CONCLUSIONS

This study aimed to examine the compatibility between the expectations and satisfactions of international tourists based on the attributes and quality of services offered in Penang Island. The attributes and services were classified in terms of 12 main areas, as shown in Table 1. Data were randomly collected from the international tourists visiting the tourist attractions in Penang during the period of October to December 2013. A gap analysis was conducted to address the research objective.

The results of the gap analysis demonstrate the differences between the pre-trip perception and post-trip experiences of tourists in terms of the quality of products and services. The analysis indicates that the tourists are not satisfied with several attributes and the quality of some services. In particular, the tourists believe that their perceived values, which are related to a number of attributes in the destination, are less than their expectations. The negative gap values also demonstrate that the satisfaction of tourists is less than their expectations. Moreover, there are positive difference values for cultural uniqueness, price of retail goods, access to attractions, and availability of information because these aspects are all higher than what the tourists have expected from their trips. Thus, the local tourism authorities must consider these positive attributes as valuable investment opportunities through which they can enhance the local economy of Penang.

Meanwhile, the tourism industry also faces some weaknesses in terms of destination image, variety of tourism attractions, safety and security, ease of communication, cleanliness, and quality of services. These aspects play a significant role in the development of the tourism industry. Hence, Malaysian authorities must work on improving the quality of services offered within the Penang heritage zone. Evidence confirms that there is an underperformance in the tourism industry in the study context. However, earlier studies also revealed that Malaysia underperforms in some tourism attributes, including cleanliness, usage among local people, and safety (Sohail et al., 2007; Sukiman et al., 2013; Tang, 2011).

The results of this study also indicate a negative gap for perceived destination image, suggesting that the tourists' expectations are greater than their real actual experiences in the destination. Hence, the tourists' pre-trip perception of Penang is superior to the real image, which is formed by personal experiences. One possible explanation is that the Penang heritage area has been advertised and promoted by media sources, magazines and online sources, such that the induced image has formed greater representation than an organic image for those who decide to visit Penang. The negative difference value for Penang attractions could be due to the induced image, which has been emphasized by advertisers and promoters. Therefore, the tourism-related advertising should present a more realistic image of Penang as a tourist destination. The

destination image remarkably affects the satisfaction of tourists and may even influence their selection of a destination or of other factors related to their visit (Chi & Qu, 2008). Weaver and Lawton (2007) suggested that a positive destination image may serve as a pull-factor for the destination that can increase the loyalty of tourists.

By considering the significant influence of a positive image on the flourishing tourism industry, local tourism authorities must focus on initiating effective actions to ensure that the tourists' expectations are met. Moreover, to develop effective tourism marketing, one must consider the base image held by tourists before the trip to identify the strengths and weaknesses of the destination (Echtner & Ritchie, 1991). Thus, promotional advertising strategies must be strictly monitored by authorities to create realistic and sensible presentations of the destination image through tourism-related advertising, promotional activities, and public relations services.

Our results reveal that safety and security are areas that are most in need of improvement, which is in line with a study conducted in an Indonesian context (Chaudhary, 2000). While migration and poverty in urban areas have increased crime rates in developing countries, international tourists can be considered one of the most appropriate targets for offenders operating in tourist destinations. Safety and security are considered major challenges for the development of the tourism industry. Therefore, it is particularly crucial that they be resolved to ensure safer environments in Penang and other tourist spots in Malaysia. In terms of ease of communication, which is another tourist dissatisfaction element, could be attributed to the non-English speaking background of tourists, including Chinese, Japanese, Korean and Thai visitors, who were surveyed in this research. Therefore, this study suggests that skilled experts with the ability to speak and understand other languages, including Chinese, Japanese, Korean and Thai, must be employed in the tourism sector.

The results of this study also reveal that the tourists are not satisfied with the friendliness of the people in the area. Local authorities and service suppliers, including public transportation, shopping complexes, hotels, tourists companies, travel agents and tourist information, must improve their social skills and friendliness to create a more hospitable environment and increase the quality of service in the Penang tourist zone. The last tourist dissatisfaction element is related to the quality of services, including accommodation, public transportation, and cleanliness.

The real experiences of tourists demonstrate inadequate quality of services and major defects in public services and facilities at the Penang heritage area. Thus, apart from ensuring the required supervision in all tourist destinations, maintaining and improving the quality of services in public areas, public transportation facilities, and environment cleanliness should also be prioritized. The success of the tourism industry is realized when authorities know and understand the tourists' expectations. This study reports considerable findings regarding the empirical implications for the tourism industry in Penang heritage area, listed as a UNESCO World Cultural Heritage Site. The results of this study may contribute to the improvement of the current marketing strategies for tourist destinations in Malaysia.

Recommendations for future research

We identified consistent empirical evidence. However, some limitations and suggestions for future research are worth noting. First, this study did not consider ethnic diversity among the study respondents. Considering that tourists from many different nations visit the study area, future research must focus on examining the measurement invariance both between and within different ethnic groups because of the unique characteristics of the study sample. This condition must be considered so

that we can understand if tourists with different ethnic backgrounds have varied expectations and experiences. Second, in addition to the attributes of a destination, several other factors could affect the destination image.

Substantial research has indicated the importance of individual factors and the interactions among structural factors (e.g., age and income level) in explaining the destination image (Beerli & Martin, 2004). Therefore, future studies must address and consider the moderating effect of age and income level on the formation of destination image and on the satisfaction of tourists. The last limitation of this study is the scope, which is restricted only to tourists visiting one island in Malaysia. The expectations and satisfactions of tourists may definitely not be generalized to all other areas in Malaysia or destinations in other countries, because of exclusive social characteristics, cultural textures, and environmental structures in each destination.

In sum, this study provided a significant contribution to the marketing literature, particularly to the tourism literature, by presenting information that can help local tourism authorities gain a better understanding of the weaknesses and strengths of the attributes of destinations in Penang Island, in which further actions and effective policies must be implemented.

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THE QUESTION OF KAZAKH NATIONAL AND GEOGRAPHICAL TOPONYMIC AS A POTENTIAL FACTOR OF TOURISM DEVELOPMENT

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Abstract: The article discusses the role of specific examples of the Kazakh national geographical names of the different regions of Kazakhstan, based on the toponymic methods of scientific research. Geographical names may constitute the attractiveness of the tourist region. The existence of place names related to landscape and human activities is revealed. Toponymy of terms is studied in detail for their origin and spread caused by certain reasons and features. An analysis of national geographical terms has shown that the names associated with elements of relief, hydrography and plant cover features of the Kazakhs not only numerous, but also narrowly differentiated and each special term almost never occurs in other nations and has no analogues. It could be one of factors of tourist attractiveness in terms of natural and conducive to the development of tourism.

Keywords: toponyms in tourism, landscape, factors of tourism development, hydrography, geographical terms, environment.

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INTRODUCTION

With the development of natural resources, people had to give the names to geographical features. These geographical names (toponyms / place names) contain geo-ecological information, which is based on certain regularities and defines conditions of social and economic development of any nation. Additional geographic names may constitute the attractiveness of the tourist region (Wendt, 2011; Ilieş & Wendt, 2015). One of the motivations when making decisions about the direction of departure are associate names with recreational qualities, especially with the names of emphasizing the attractiveness of tourist sculptures, hydrological network, recreational values or heritage values (Herman & Wendt, 2011; Zhakupov, et al. 2015; Herman, et al., 2016). Names and the place names in particular can have significance for tourists (Wendt et al., 2016; Zhakupov, et al. 2016). Within tourism studies there has been limited analysis of the relationships between (place) names and tourist practices. In his seminal semiotic analysis of tourism MacCannell (1989) identified naming as part of the process of defining tourist attractions (Clark I.D., 2009; Light, 2014).

From this perspective, the ancient Turks, including Kazakhs, for many thousands of years had mastered vast spaces of Eurasia, where they had left their traces in the place names. Place names with Turkic roots are found from Kamchatka in the Far East to the far west of Europe and from the Deccan plateau to the northern outskirts of the Eurasian continent, what we can find even on the old maps (Wendt J.A., 2013). A particularly close relationship of the Kazakh nation as part of the Turkic world with the nature and a particular trait in naming geographical features should be noted here (Dostay, 2008: 857). Geographical names had been originated in ancient times and continue to appear today, being live witnesses of historic events of the past. Place names as the language of Earth are specific and convincing (Ilieş et al., 2015). Therefore, the people's place names clearly describe certain characteristics of the area and, according to B. Aspandiyarov, "... are distinguished by superior accuracy and expression" (Aspandiyarov, 2005: 116). Toponymic researches allow us to determine the ethnic composition of population of a certain area, what nations had resided in the territory, what language authors of these names had spoken in ancient times, i.e. the etymology of place names.

Certainly, all this is possible only with an interdisciplinary synthesis of the historical, geographical and linguistic sciences. The foundations of toponymic study of national geographical terms in Kazakhstan were laid in the twentieth century. The toponymy of Kazakhstan was characterized with prevalence of linguistic direction. Reconstruction areas of specific geographic term or toponym wasn't the subject of a special study. There were some examples of etymological, comparative-lexical studies, which led to the attempt to recreate areas with the concentration of the most famous geographical terms, including landscape names.

V. P. Semenov Tyan-Shanski was the first among the Russian researchers who pay an attention to the problem of distribution and toponymic activity of landscape terms. In his famous work "How geographical landscape reflects in the national names of populated areas?" the basic laws related to toponym-forming function of landscape terms were revealed (Semenov Tian-Shan V. P., 1924: 134). The scientist analyzed and processed an extensive terminological material, which undoubtedly increases the reliability of the author's judgment. Based on the analysis he put forward the idea of "the possibility of restoring the original landscape of certain places in ancient times" through geographical names. This scientific idea had practical extension in the works of E. L. Lyubimov and E. M. Murzaev (Lyubimova E. L., Murzaev E. M., 1964: 304). Scientists analyzed hundreds of names, including names of trees, in order to restore the landscapes of the Russian

plain. For example, to identify the ancient area of oak and reconstruct the Russian plain landscape conditions over 3000 names were taken into account. Strict confinement of «oak» toponyms to specific regions showed that the area of this tree was wider in ancient times. Regional studies contributed to the theorization of toponymy (Yeginbayeva, et al., 2016; Berdenov, et al. 2016). Thus, physical and geographical bases of toponyms on the example of Azerbaijan were discussed in the works of academic B. A. Budagov (Budagov, 1984: 10). The development of toponymic direction in geography of Kazakhstan associated with the name G. K. Konkashpaev (Konkashpayev, 1970: 175; Konkashpayev, 1951: 10). Today his works, devoted to the study of Kazakh national geographical terms, hasn't lost their importance.

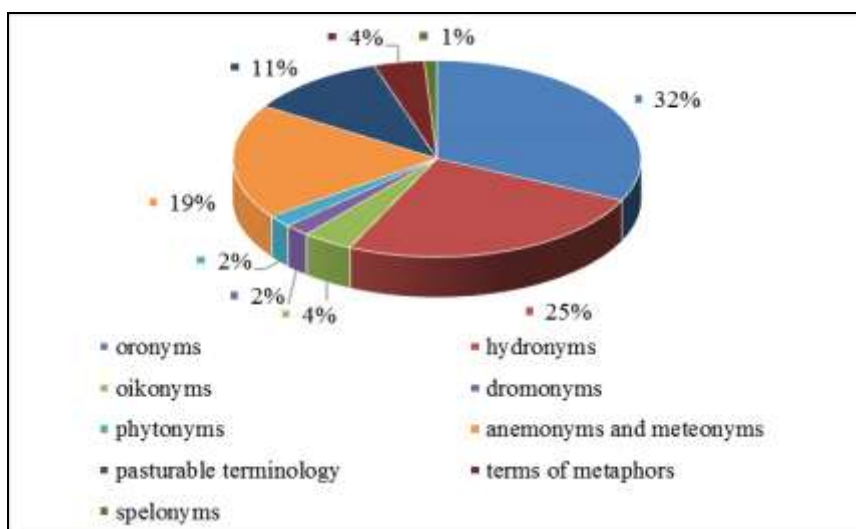


Figure 1. The Kazakh national-geographical terms according to G. K. Konkashpayev and K. T. Saparov (Konkashpayev, 1951; Saparov, 2010)

Kazakh geographical terms are very numerous and widespread not only on the territory of Kazakhstan, but also far beyond. Various terms of Kazakh people are common in other peoples that speak in Turkic and Mongolian languages. Some of Kazakh geographical terms become ingrained in Russian professional literature and are used on a par with terms that already existed in Russian language (e.g. sor, takyr, etc.). Kazakh geographic terms reflect natural characteristics of Kazakhstan territory, furthermore overwhelming majority of them are applied to lay, drainage elements, ground cover, fauna and partly to climate, topsoil and overall landscape. Kazakhs being former breeders mostly drew their attention on natural characteristics of their territory that had fundamental importance for breeding (Figure 1).

THE ORIGINAL DATA AND RESEARCH METHODS

Various methods of analysis, such as statistical, etymological, linguistic, comparative-historical and cartographic, were used in the research of toponymic material of the Republic of Kazakhstan. Consideration of interaction between toponymy and geographic environment showed that the geographical environment, different aspects of economic and ethno-cultural activities of human society are factors of toponyms' formation. The impact of the geographical environment on the formation of toponyms,

conditioned by, first of all, productive human activity in a certain natural space, reflection in toponyms its most attractive features, the availability of information load in toponyms. Geographical environment directly influences on the formation of toponyms in the region. In the process of material wealth production, in the practical and spiritual activity of the population geographical objects get their names, which reflect the specific characteristics of natural conditions, different aspects and features of the geographical environment, spiritual and economic life of society (Figure 2).

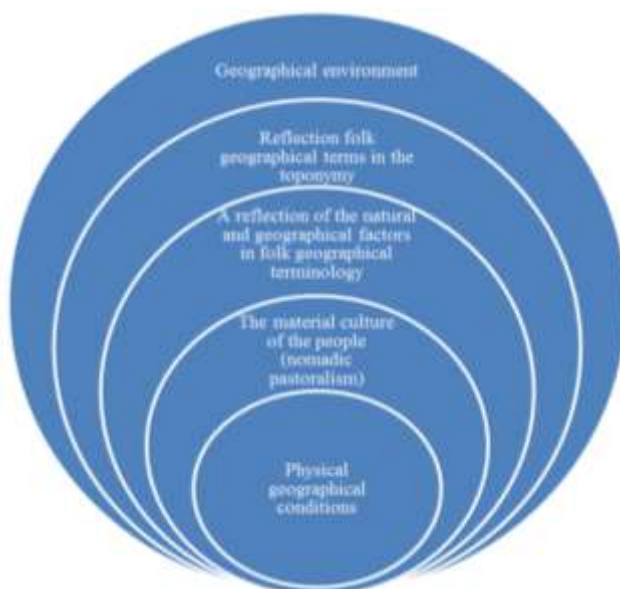


Figure 2. Interaction between geographical environment and toponymy (Makanova, 2004: 8)

People life takes place in all areas of the geographical environment on the specific territorial, natural and manufacturing complexes, consisting of many objects with their own names, which are directly connected with the history, life and culture of nation from ancient time, that reflected on condition of toponymic system of the region. Geographical names – toponyms became necessary and essential attributes in the everyday life of society. In the process of production activities and satisfaction vital needs humanity uses various types of natural resources. The study object, that generalizing interests of interaction between society and nature, as we understand, is the geographical environment. Reflection of environmental components (relief, vegetation, soil, climate, etc.) in the toponymy and geographic terminology reliably confirms the connection of the system of geographical names and the physical-geographical features of the area (Makanova, 2004: 9). The form of exploitation facilitated to get Kazakhs a detailed knowledge of nature elements. During many centuries Kazakhs were in motion the years round, crossing from one seasonal pasture to another.

The nomadism brought to develop phenomenal watchfulness of Kazakhs, that is needed to use natural characteristics of their territory (forage lands on the first place) to manage their farm. Their life made them not only to know the specific features of different pastures (especially lay, climate, vegetation, type of water sources, utilization season, appropriateness for different types of livestock, etc.), but also to observe all the minutest details of lay that can be used as the landmarks during migration, sheltered

location for livestock during rough weather, etc. For this very reason the geographic terms of Kazakhs concerning the lay, drainage elements and vegetation cover characteristics are numerous as well as varied. Every smallest detail of mountain, shallow, river, lake, pasture has its certain term the analogue of which almost impossible to be found in other peoples, especially agricultural people. These terms are of value in preparation of scientific geographic terminology in Kazakh language that is highly needed for students as well as instructors in secondary and higher educational institutions, also for people of literature and science that are involved in geographic science. Kazakh popular geographical terms can help map-makers, transcriptions and ethnography workers in Kazakhstan since overwhelming majority of geographical denominations in the territory of Kazakhstan includes the same terms that describe some features of this locality (Konkashpayev, 1951: 7).

In terms of geographical sciences highlights the works of G. K. Konkashpaev on the problems of geographical terminology. Questions about relationship of the geographical environment of Kazakhstan with place names in recent decades is reflected in the works of S. A. Abdrakhmanov, A. P. Gorbunov, J. D. Dostay, K. D. Kaymuldinova, K. T. Saparov, A. S. Omarbekova, A. E Ayapbekova, A. U. Makanova. These studies have shown that the place names of the Kazakh geographical can get detailed information that is the name of a geographic object polluter can learn not only about its natural properties, but also on possible ways of its economic development (Dostay, 2008: 859). K. I. Satpayev, the outstanding scientist and academician, introduced place names as one of the reliable features of finding mineral deposits. Place names imprint historical stages of settlement of territories, economic activities of people, ancient migration and interethnic contacts, ethnic habitats, historical, political and social and economic changes that had been taking place in the country for many centuries. They remind future generations of heroic deeds of their ancestors in defending the country from external enemies. Being a huge repository of spiritual wealth and wisdom of the nation, place names, as monuments of culture and folklore and oral folk arts, are worth of collection, safekeeping and protection from negligent use (SCGNK, 2011: 8).

RESULTS OF RESEARCH

The territory of Kazakhstan, that is resource-rich and has original variety of ethnic groups, religions, languages and cultures, was the arena of historical big events. It experienced multiple invasions of different tribes and peoples. Each of them left an imprint on region toponymy. For that reason the toponymic system of Kazakhstan is presented as the complex formation that consists of multilingual and multiple-aged components original spirit of which transformed beyond recognition. The linguistic investigations showed that toponymy of Kazakhstan includes the elements of Iranian, Arabic, Mongolian, Slavic, Turkic toponymy. The Kazakh toponymic system stands apart. Its research should be comprehensive that is forced by some moments of our reality. In the result of Kazakh society political life change in historical time, also there took place a transformation of toponymy.

These changes forced by foreigners' invasions, colonial and imperialist policy of neighbouring states not always are of a positive nature. Eventually the maps of different authors and travellers had different inflected geographical denominations that are still remained unchanged. Kazakh geographical terms and denominations can become a valuable resource in research of dynamic of Kazakhstan landscapes, thereby connecting toponymy with historical geography and ecology. Moreover, we think that in past, when the manner of life was more dependent upon environmental conditions, the

denominations of geographical objects reflected the natural characteristics in a greater degree rather than in present time. Facts of social life of sovereign Kazakhstan (union and elimination) determine the necessity to create new political, administrative, economic, physical and geographical maps.

Geographic interpretation of the most Kazakh people terms and denominations allows to determine the issues of historical geography and forecasting the dynamic of landscapes. Historical roots of authentic culture of Kazakh people throw back to depth of millenniums. The unique economy was a core that determines the traditional culture and presence of Kazakh people that was of a stable nature during many centuries. The structure and type of breeding were the direct consequence of smart and rational use of local natural conditions and resources (Akishev, 1972: 43). Thus the development of life environment was the background of the spiritual development.

The result of spiritual development of Kazakh ethnic group of its «own» territory can be the scope of knowledge that through the inter-generational transferring and accumulation during the historical period become the popular geographical denominations. The reason of denominations historism is that every historical stage of society development was featured by its own characteristics of geographical object essential for that period. For example, Kazakhstan river valleys are used as the pasture grounds since old times. For this reason such locality conditions as water content of river and vegetation characteristics were relevant for breeder.

Geographical dependence of popular toponyms is determined by the presence of popular geographical terms in it (Beysenova, 2006: 96). Local names, long established in the lexicon, successfully meet the practical needs in naming newly organized administrative-and-territorial and economic units, settlements and their parts, new mineral deposits, as well as renaming existing sites. Exceptionally significant is the informative and educational value of placenames, and their address function is particularly important for the society. Kazakhstan, which occupies 5,0 % of the territory of Eurasia, is one of the major world powers by area and ranks number 9 in the world, after Russia, Canada, China, USA, Brazil, Australia, India and Argentina. In such a vast territory, millions of endogenous placenames had appeared, accumulated and survived to this day thanks to the people's memory. Unfortunately, this huge number of placenames has not been collected in full in one place yet, systematized or thoroughly studied. The most complete collection of geographical names is embodied in large-scale topographic maps. Their creation lays foundations for future work with geographic names, therefore no wonder that in most countries in the world, the organization and direct execution of works on regulation and standardization of geographical names has been imposed to the state topographic and geodetic services (SCGNK, 2011: 8).

DISCUSSION

In fact, popular geographical terms are generic names that specify a certain type of objects and phenomenon of physical geography. Since every ethnos has unique spiritual culture, the perception and denomination (naming) of geographical items will be strictly ethnic. Thus, popular terms may give evidence the influence of geographical environment on ethnic identity (Bromlei, 1983: 213). In that context the uniqueness of Turkic, Mongolian geographical terminology is known. Nomadic type of breeding developed the phenomenal watchfulness of Kazakhs and Mongolians, as it was noticed by most researchers. These peoples have detailed classification of pastures, microrelief elements, water sources that are needed for orientation on flat plain during migration (Akishev, 1972: 40) (Table 1). Oral character of traditional Kazakh culture determinate a

closer attention to word as the instrument of understanding the world. It is worth noting such outstanding characteristics of Kazakh popular terms as numerousness, locality, metamorphous and presence of such phenomenon as homonymy and synonymy. Terms-metaphors refer to hill shapes and partly to drainage.

Table 1. The taxonomical group of orographical terms as a part of toponyms
(Source: KaymULDinova, 2008: 868)

No.	Landsurface			Prevalent terms	Terms with limited spreading areals
	classes	Types	types species		
1	Flatlands	Accumulative flatlands	Marine accumulative	kara, kyzyl, oi, sai, sor, tau, tobe, tup, shagyl	don, zhotA, kyl, oba, taipak, shoky, shoshak, shyn
			Lacustrine alluvium	alan, batpak, oi, sai, sor, shunkyr	aral, zharyk, kum, oba, tuz, shat
			Alluvium	baitak, dala, zhon, oi, oiyk, kopa, shukkyr	asar, kumak, taban, shokat
			Proalluvium	adyr, bas, bauyr, dala, zhazyk, zhon, kara, kyr, oi, ozek	bokter, zhaima, etek, kankai, shoiyrylma
			Eolus	dombak, zhal, konyr, kum, tobe, shagyl, shokat	asar, baiyr, zhar, kumak, turan, shoshak
		Denudation flatlands	Structural	bel, zhazyk, zhon, oi, takyr, tau, tobe, shagyl, shoky	adyr, kiya, kolka, oba, tobe, tortkul, shongal
			Sculptural	adyr, dala, zhal, sai, tas	nura, serek, shat
2	Hilly and low hilly areas	Techtonical		biik, din, zhartas, kara, kiya, kyzyl, sengir, soran, tobe, shakpak, shat, shoshak	dombak, koktas, sayak
		Denudation		adyr, burat, zhal, zhartas, keregetas, koitas, konyrtas, naizatas, sengir, serek, soran, shoky	dogalan, koinak, kyly, kyr, tukyl, shat
		Erosional		adyr, zhar, kara, sai shykyr	kemer, kabak
3	Mountains	Low mountains		adyr, arkalyk, bas, bel, zhar, kara, kyr, kyrka, moin, oba, tau tobe, shoky, sholak	dombak, moynak, nyra, sengir, serektas, soran, takyr, tortkil, shoshak
		Middle mountains		bel, zhotA, kezen, satu, tas, tau, tekshe, tym syk, shoky	kaykan, kiya, oba, koby, myryn, nyra, oi, sandyk, shoshak, shykyr
		High mountains		asy, zhotA, kezen, keregetas, tau, tor, shakpak, shoky	kakpak, korym, shyn

There are groups of terms-metaphors concerning the names of human and animal body parts, items of material culture. Especially terms concerning the names of domestic animals and their body parts. For example: aidar, arka, auyz, bas, bauyr, bel, bet, buyrek, erin, zhol, zhelke, kabak, kulak, mandai, muryr, tos, shat, etc. This may be due to the fact that «breeding activity of nomads determined their spiritual life». Moreover, as noted by scientists, Kazakhs had zootheism concerning the ancient pre-Islamic believes iconizing different powers and phenomenon of nature (Saparov, 2010: 62).

For the most part Kazakh toponyms reflect not all elements of geographic landscape, but only those that have an essential role in economic activity. This principle

can be followed up in all groups of toponyms including crysolitic such as Kholodnyi Belok, Muзтаu, Atky, Shashyn, Salkynтаu, Zhelditau, Kytinkara, Salkynbel, Kungei. The interesting saying that “all geographic denominations are pragmatic in their semantics” and that they reflect “the human to nature attitude that was formed during centuries-old economy activity” (Argynbaev, 1975: 87).

Thus, the «selectiveness» of folk terms in the composition of place names is evident: out of 600 known Kazakh folk geographical terms, only 200 are involved in the formation of place names (Beysenova, 2006: 99). Absolute majority of toponyms of Saryarka includes popular geographical terms of relief that reflect a certain characteristic of earth surface, fully participating in formation of toponyms of region under investigation. In Saryarka region there are about 127 denominations that has a term «tau» in their basis (Table 2).

Table 2. The semantic characteristic of oronyms of Saryarka on the basis of the term “tau” (Source: Saparov & Yeginbayeva, 2015: 433)

By relief form	By the presence of minerals	By color	By climate figures	By organic world
Azutau	Altynkorgantau	Akadyrtau	Zhamantau	Aygyrzholtau
Ayyrtau	Altyntau	Akshyltau	Zhelditau	Arganatytau
Akdyntau	Altynshokyttau	Aktau	Zangyrtau	Arkaryltau
Berikkaratau	Bolattau	Akshatau	Muzdytau	Arystantau
Domalaktau	Tastemirtau	Alabastautau	Yzyrlytau	Ayulytau
Zhalpaktau	Altynshokyttau	Alatau		Burkittitau
Kazantau	Karkaralytau	Karakiyatau		Donyztau
Kakpaktastau	Temirtau	Koktau		Eshkyltau
Keregetastau		Kokshetau		Zhylandyttau
Nayzatastau		Kyzyktau		Kiiktau
Sandyktau		Kyzyladyrttau		Koyanshokyttau
Sengirtau		Karatau		Kulansutau
Ulytau		Konyrtau		Kargalytau
		Saryzhaltau		Sunkarkiyatau
		Saryshokyttau		Tulkilytau
		Shubartau		Tyshkantau
				Ukilitau

Popular geographical terminology consistently and fully participates in formation of proper nouns – toponyms. Therefore, “there is no toponymic systems in the world that would be built without such terms” (Saparov et al., 2015: 434). In this respect, we decided to weigh in several popular terms the meaning of which as the part of toponyms directly connected to traditions of Kazakhs use of natural resources. Extensive analysis of terms arka, adyr, alap, bas, bauyr, koryk, konyr, tebin, tas, shat, etc. allowed us lay upon the tapis the semantic nuances that were previously described in other researches.

Such terms as shat, tas within the names of North Kazakhstan areas signified boundary marks that were placed during propertizing on pastures adjacent to wintering ground (Konkashpayev, 1970: 175). Structurally, there are simple and complex placenames. Simple placenames consist only of a geographical term, i.e., a common name in them appears as a proper name: for example, «qopa» – Qopa, «teniz» – Teniz, «qaq» – Qaq, «shalqar» – Shalqar, «aral» – Aral, etc.

In the formation of complex placenames, most frequently combinations of the following options can be met:

- Noun // term. In such combinations, anthroponyms (personal name), zoonyms (animal names), phytonyms, ethnonyms, and others are present. Some nouns act as adjectives defining the nature of an object. For example, the presence of the words «Ayrar», «Tuz», «Saumal» as part of hydronyms indicates to gustatory quality and salinity of water;

- Adjective // term. In this case, the nature of objects is specified by the presence of words denoting color, taste, size, etc. Analyzing such placenames, we should consider the non-color nature of some components, such as «aq», «qara», «sary», «kok»;

- Numeral adjective // term. The presence of digital units points to quantity, and some figures, such as «zhetti», «qyryq», «zhuz», «myn» – point to numerosity of this occurrence. There is evidence that these numeral adjectives as part of place names may be relicts of ancient Turks' figures, when they did not know how to calculate.

- Term // term. In this combination a term specifies, completes and thereby emphasizes the meaning of the other one. There are also hybrid place names, which comprise two identical terms by semantics, that belong to different languages. Typical combinations are Tasbulaq, Tauqum, Kolsay, Zharsu. There are also so-called affixed place names, the first parts of which include various affixes. In these cases, the most productive affixes are -ly, -dy, -ty (-li, -di, -ti). Numerous examples bear this out: Qoyandytau, Taldybulaq, Taldyköl, Shilisay, Shagalalyköl, etc;

- Term // formant. A formant in the composition of geographical names is called a topoformant. There are many formants of Kazakh people, which are relict: in fact, they are ancient (substrate) terms. Most often -ly, -li, -ty, -lyq, -lik, -tyq act as topoformants.

In addition, such phenomenon as a reality is inherent to placenames. And the reality is conditioned by the specific nature of certain terms and a limited habitat of their distribution. For example, the component «qoty» is present only in the names of objects where granite outcrops were found. The placename Bakanas can be called narrow-areal, even endemic; this place name is based on a specific hydronym.

There are also cases where the terms arise from their own geographical names as a result of a reverse process – a transition of a proper name into a common name. A demonstrative example for this is a formation of the term «ustirt» (plateau) from the place name Ustirt. Numerousness and narrow differentiation of Kazakh geographic terms determinate by the fact that “nomads were ... phenomenally proficient in nature, they gave names to every shape of observed relief and landscape”.

Recently, the society has traced a tendency to a deeper understanding and study of the spiritual experience of previous generations. This can explain the increased public interest in geographical names. In various regions of Kazakhstan social movements have arisen aimed at recovery of unfairly lost or unjustly changed names, and revise of attitude to some memorial place names. Social significance of toponymic investigations is determined by the necessity in practical implementation of scientific researches and developments. In this regard, we'd like to note the importance of studying the toponymy of Kazakhstan by experts in the field of geographical sciences.

Geographical interpretation of many Kazakh folk terms and names allows to disclose issues of historical geography and forecasting of landscape dynamics. The urgency of a comprehensive study of the toponymic heritage of the Kazakh nation is determined primarily by the fact that, as bearers of historical and geographical information, place names are classified as elements of spiritual culture (Beysenova, 2006: 98).

New century will bring new objects for science, definitely one of them may be called as to get advanced experience from previous generations and use it to the benefit of people. Time-proven ecological system of natural resource use of Kazakh people requires

all-around research. Kazakh popular geographical terms fully participate in geographical denomination formation process, thereby determining their meaning. Research of Kazakh geographic denominations in different aspects allows filling gaps that existed during many years (Kaymuldinova, 2008: 867).

CONCLUSION

Thus the following may be noted:

- During the nomadic manner of life Kazakh people has worked out special strategy of thinking and behaviour in the condition of arid ecosystems that determined concepts and ground of objects nomination;
- Popular geographical terms as part of toponyms serve as indicators that provide insight into the types, character, landscape features and zonalities, morphology of geographic objects;
- The whole system of various information on environment and natural resources gained by nomad civilization of Kazakhs is contained in Kazakh toponymic material;
- Research of information «background» of Kazakh toponyms and introducing it to scientific academia is appropriate to be started on the level of microtoponyms, since they fully reflect the complex pattern of relationships of Kazakh nomadic society and environment;
- Identify the spread level of similar toponymic constructions based on specific term of landscape. Total prevalence of toponym-forming term is not always the most valid criterion to recognize the boundaries of the spread areas of similar toponyms. Also with the identification of areas of toponyms we should analyze their landscape «binding».
- Features of geographical environment is the main factor in the nomination of geographical objects.

Although toponymists identified the so-called «law of relative negativity of names», toponyms often reflect physical and geographical realities of the territory. A reproducing in the name of values of physical-geographic become simultaneously clear information giving the tourist attractions of the described geographical space. And we tend to think that some names really have unusual for their region geographical features. For example, toponyms with lexeme *agash* (tree) and *su* (water) are often found in areas of semi-desert and desert zones. This can be explained by the fact that in monotonous landscape environment unusual phenomena serve as a guide, what show a real touristic attractiveness of described area. Thus, at revealing spread areas of toponyms on the basis of certain geographical terms, the landscape conditions under which these names are functioning should be taken into account.

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ENVIRONMENTAL EDUCATION IN PROTECTED AREAS. CASE STUDY FROM BIHOR COUNTY, ROMANIA

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Abstract: Environmental education activities should be organized in order to protect the nature and to increase population awareness in this sense. The present paper aims to achieve this objective, by using Valea Roșie Nature 2000 tourist map in print and digital form as an instrument for environmental education activities. These types of graphical and cartographic materials can be efficient means for transmitting information to pupils/students, tourists etc. Also, it can contribute to school curriculum improvement in a moment when many educational institutions have eliminated or drastically reduced environmental education classes and activities.

Key words: environmental education, Valea Roșie Nature 2000, interactive tourist map

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AIMS AND BACKGROUND

In many countries, environmental education has become a new dimension of the educational curriculum aiming to initiate and promote positive attitudes regarding the environment, especially among young people. In Romanian schools, environmental education is an optional discipline. It would be necessary to be included among other subjects of the curriculum such as: geography, biology, physical education and sports, arts etc., and this could be done by school, based on parents' consent. This type of education acts in the following directions: educational needs - awareness regarding the risk of environmental degradation; benefits for society - by developing an appropriate behaviour of youngsters towards protecting and conserving nature (Eagles et al., 2001; Vishwanath, 2006; Kumar, 2006; Linc et al., 2011; Ollerrer, 2012; Blewitt, 2013; Stevenson et al., 2013; Bancheva, 2015; Ienciu et al., 2013; Ilieș et al., 2015; Jovanovic et al., 2016; Ilieș et al., 2016). The present paper aims to address issues of environmental education in a natural protected area within Nature 2000 sites network (Valea Roșie Nature 2000 site ROSC10267). The area is located in the central western part of Bihor County, in Oradea Metropolitan Area (Figure 1). The territory occupied by the site includes three categories of land: pasture (3%), beech forests (93%) and forest habitats (4%) (Herman et al., 2016a).

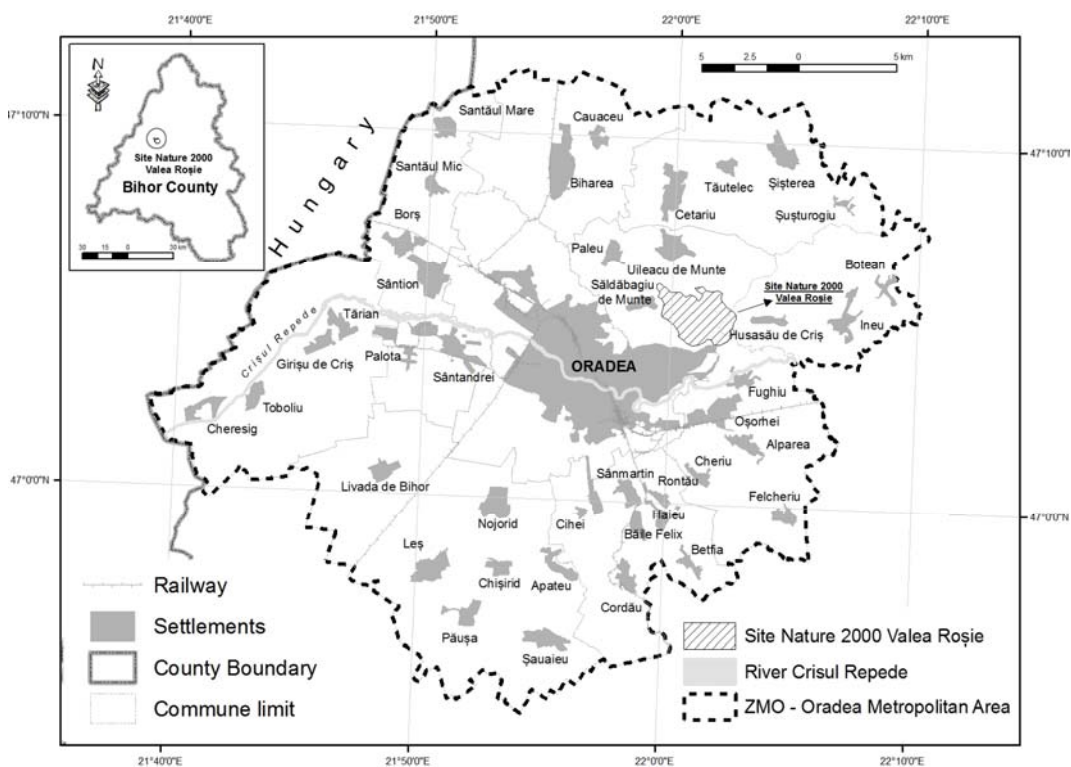


Figure 1. Valea Roșie Nature 2000 Site location

Data from this area outline the existence of a single type of habitat - 9130 beech forests *Asperulo-Fagetum* (according to Annex I of Council Directive 92/43/EEC it requires the declaration of special conservation areas), and also of some animal species of Community interest whose conservation requires the designation of special areas in this

sense (Annex II of Council Directive 92/43/ EEC) (Ghira et al., 2002; Herman et al., 2016a), (<http://natura2000.mmediu.ro/upl//formulare/ROSCIO267%20-%20F.pdf>).

EXPERIMENTAL

Our research methodology consisted in: bibliographical documentation, field survey and mapping. After obtaining the information, we begun the analytical phase - processing data and information obtained through GIS technology and other specialized software. In order to reach the aim of the present paper, we called also a qualitative research method – the focus group. Using this in-depth methodological frame we can provide a complementary mean regarding the dimensions of environmental education in Oradea and the way in which this aspect in approached in relation to a natural protected area (Golumbeanu et al., 2014). The interactive tourist map of Valea Roșie Natura 2000 site (Figure 2), Bihor County, Romania has been created by using the application ArcGis Online. From a structural point of view, it has been organized into thematic layers: tourist attractions, trails, limits of Valea Roșie Natura 2000 site, with the possibility of introducing other thematic layers as well, changing the existing ones according to the necessities etc. The legend of the map is bilingual, Romanian and English.

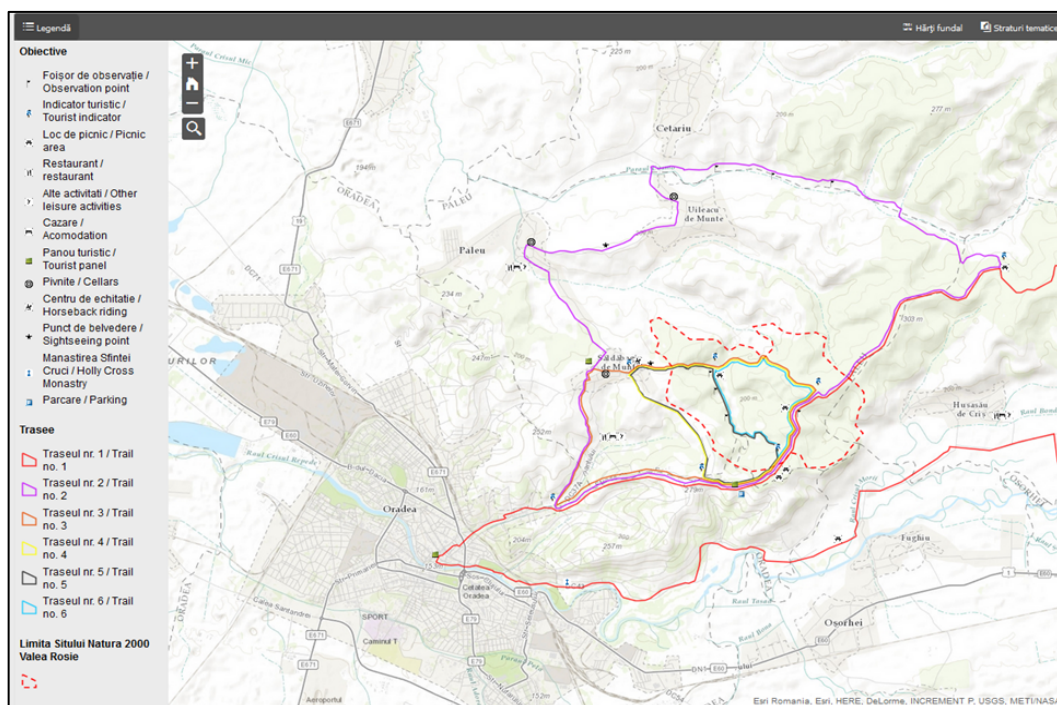


Figure 2. Interactive tourist map of Valea Roșie Natura 2000 site, Bihor County, Romania

The map can be accessed at the hyperlink: <http://www.arcgis.com/apps/MapTools/index.html?webmap=f54ec5bfo1fa4660be159c5d29b2bbcb>. The development of the tourist map within the present study gathers a lot of basic elements in what regards the rules and techniques of visual communication in tourism. The map provides interpretative trails, which, according to Morales (1992) can be seen as touristic service for a general public, casual visitor to an area or not.

The trails on the map are developed along natural paths and are accessible for a wide range of population (even for people with disabilities) on foot, bicycle, horse-riding etc., and is one of the best ways to enjoy activities in a protected area. We state that the map has an appealing aspect (Ham, 1992) and fulfils specific technical requirements related to layout, design and operation (MBRS, 2005). Trails` layout is circular and uses curved lines, which, according to some specific studies are more attractive for people because they create a sense of curiosity (Ham, 1992).

The map is more than informative; it also provides information and location of certain elements of major interest and importance (MBRS, 2005). Besides, this map could be a strategic element for environmental education in a protected area, due to the fact that principles of nature conservation are better transmitted and understood if they are graphically illustrated by using familiar elements and facts (Herman et al., 2016b; MBRS, 2005). Therefore, we believe that the usage of such tourist maps can awaken and even enhance visitors` desire to conserve the protected area.

FOCUS GROUP METHOD AND RESULTS ANALYSIS

The general objective of the focus group was to investigate how ecological education classes are integrated in the curriculum at pre-university level in Oradea. Accordingly, we delineated 3 specific objectives (Babbie, 2011): SO1: identifying the methods/instruments used by teachers from schools in Oradea city in order to integrate environmental education classes in the curriculum; SO2: outlining the feedback collected from pupils after participating at environmental education classes; SO3: identifying how cartographic materials (maps) can be integrated in environmental education classes. The focus group gathered different specialists who share common interests regarding ecological education in natural protected areas and who can provide professional opinions about our topic of interest.

The total number of participants was eight: the custodian of Valea Roşie protected area, an environmental education specialist, a pre-university teacher, an environmental specialist, a geographer, a biologist, a physician, a sports representative. Discussions, guided by a facilitator, lasted about 1 hour and 30 minutes and were audio-recorded. Throughout discussions participants were guided and encouraged to freely share their perceptions related to the topic.

The interview guide was elaborated in compliance with the research objectives and covers three themes of interest: 1. The way in which ecological education classes are integrated within the curriculum at pre-university level; 2. Pupils` feedback regarding ecological education classes; 3. The usage of cartographic materials in ecological education. First we aimed at identifying local and regional inhabitants` (from Oradea city and Bihor County) knowledge degree about Valea Roşie Nature 2000. Results outline the fact that information regarding this area is not widely disseminated among locals.

More popular natural protected areas are those which represent political, economic or social interest. Still, Valea Roşie Nature 2000 is very well known by specialists and in terms of surface, location and possibilities it is a suitable area for thematic study camps addressed to pupils and students. In what follows, analyses made on research themes will be discussed.

Environmental education classes

First of all, we aimed at identifying if schools in Oradea put an emphasis on the importance of ecological education. Answers had a high degree of homogeneity: unfortunately, there are very few schools in our city that provide classes of environmental

education. And when provided, these classes are optional and stipulated only at gymnasium level. Mostly, parents decide the educational path of their children and they tend to choose more pragmatic disciplines.

„Parents prefer math, informatics They are not aware of the importance of environmental education. They think children won't need it” (pre-university teacher).

Even if confronted with this reluctance, pre-university teachers consider that environmental education classes can be promoted through other specific school activities, like cleaning the class room or school-related activities organized in partnership with organizations. These practices tend to have a positive effect on pupils and they are more motivated to learn new things about the environment. Promoting environmental education based on local, regional and national inter-institutional partnerships (universities and public authorities) is also very important.

„We need to increase associativity. Universities can have a major role here. Only by doing this, we have a chance to increase the degree of knowledge regarding environmental education” (environmental specialist).

Feedback from pupils regarding environmental education classes

In rare cases when pre-university children benefit of environmental education, classes are held outside the class room and teachers try to embrace a more applicative teaching-learning process. Hence, children interest regarding environmental education is stimulated and their feedback is always positive.

„Children are curious about environment and they appreciate all related activities. When they get to know certain aspects about environment, they begin to ask additional information” (pre-university teacher). Even if the feedback is positive, the Romanian legal framework is restrictive in what regards the possibility to conduct environmental education classes outside the class room. When the educational process develops in the field, few teachers are willing to assume increased responsibility for every children.

„Teachers don't want to take responsibility for children when going in the field for a class or another. They simply refuse to do that” (pre-university teacher).

Cartographic material and ecological education

We were also interested in how the cartographic material, mostly tourist maps, can be efficiently integrated in ecological education classes, camps, etc. Two directions were delineated: usage in schools and in extra-curriculum activities. Cartographic materials can provide support for sports activities and competitions, touristic orientation and other tourism-related activities.

„Cartographic materials are being used during ecological education classes in our schools, in Oradea.....but we can rely only on maps” (pre-university teacher).

„Cartographic materials can be efficiently used in different activities: sport, tourism, touristic orientation for children, but not only. I think these materials will add something extra and new to this type of activities” (geographer). In terms of specific methods and techniques used in environmental education adapted to different age groups (preschool, school or high school), the interactive tourist map can be considered a support for practical actions (outdoor exercises, practical work, creative activities etc.) by developing specific activities on the proposed routes. The interactive map can be used for informational training with the help of the computer (e.g. interactive lessons using interactive maps and satellite images, mobile and tablet applications etc.)

RESULTS AND DISCUSSION

Environmental education programs heavily depend on specific environmental conditions and social adaptation related to site's delimitation; in this case, the

administrative territory of the municipality of Oradea Metropolitan Area. In order to increase the awareness degree especially among young people (pupils, students etc.) through such activities, it is necessary to have a direct contact with the nature (a primary goal in a natural protected area must be developed through sports and recreation activities; also it would be useful to consult the material before the visit - e.g. books, brochures, guides, maps etc.), and also to have materials placed in situ in order to guide tourists and visitors (e.g. billboards, posters) (Serrano, 2011). In this respect, a first step would be to place information boards that contain cartographic material, data about protected flora and fauna, data about tourist attractions etc. The information included on boards aims to awaken the visual sense of the tourists, to train and consolidate some specific skills and competences in order to actively observe and understand the site's complexity. It would also be useful to have some guidance boards.

Six routes that follow the existing forest roads were proposed within the interactive tourist map; they will be synchronized with the site's management plan (if it will be available), interlinked with the city of Oradea and neighbouring localities, where other environmentally friendly sports and entertaining activities can be offered. These activities are interconnected with environmental education activities specific for a natural protected area. The prepared cartographic material can be used in proximity schools (e.g. with the help of some PowerPoint presentations, a brochure or a web page etc.) during the ecological education classes and with practical applicability in the field.

CONCLUSIONS

At least at local level, more specific in Oradea city and in Bihor County, schools provide a poor educational offer in what regards environmental education classes. These classes are present mainly at gymnasium level and they are optional. Unfortunately, parents' educational options for their children are oriented towards other disciplines.

However, schools which undertake environmental education classes try to integrate and efficiently use cartographic materials (mostly geographic maps) in their teaching-learning process. But, these materials can be very well integrated in school-related activities and not only, such as sports, competitions, touristic activities etc.

Regardless of the above mentioned aspects, children display positive attitudes towards environmental education, and their curiosity is enhanced by specific practical activities in the field. Even if we take into consideration this feedback, it is a complicated procedure for teachers to conduct environmental education classes outside class rooms, because Romanian legislation is very restrictive in this sense.

A proper and efficient promotion of environmental education at pre-university level would require a strong collaboration between schools and local and regional institutions and authorities, such as universities.

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A THEORETICAL MODEL OF PARENTAL FACTORS AND STUDENTS' CAREER DECISIONS TO JOIN THE HOSPITALITY INDUSTRY IN CHINA

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Abstract: China is now enjoying fast growth of international tourism development, which contributes to creating a large amount of employment in the tourism and hospitality industry. For the sake of gaining competitive advantage, this industry has an urgent need to attract and recruit the qualified and skilled employees. However, a great proportion of Hospitality and Tourism Management (HTM) undergraduates fail to make their career decisions to work in the tourism industry due to the parental influential factors. It is therefore important to provide a value conceptual model that expounds on the theoretical relationships existing between two parental factors and HTM students' career intentions. This study contributes to the literature by clarifying the effects of parental influence on the students' career decisions to enter the hospitality industry in China.

Keywords: Parents, Students' Career Decisions, Hospitality Industry, China

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INTRODUCTION

According to UNWTO (2015) report, China as one of the strongest developing countries, especially benefits from the fast development of tourism. According to China National Tourism Administration (2015) statistics, China tourism's direct contribution to GDP, which was US\$263 billion in 2014, just second after the United States, and 12 times greater than the average level for other Asian countries. Added to this, in the same year, global tourism including both direct and indirect employment, created 107,519,000 in 2015, representing 3.6% of total employment. In addition, travel organizations are expected to contribute to a total of 130,694,000 employment vacancies by 2025 (UNWTO, 2015). This rapid tourism development in China has led to a huge demand of personnel

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from the hospitality and tourism market. To illustrate, this year (2016) China will have employment vacancies for some predicted 52,000 management professionals and 583,000 operational-level staff (China National Tourism Administration, 2015). Although the Chinese hospitality and tourism industry contributes largely to employment opportunities, the mainland China is faced to a serious mismatch between supply and demand for personnel, with the problem of keeping and recruiting new employees, resulting in a serious shortage of qualified personnel and potential management in this industry (Chang et al., 2014; Chang & Tse, 2015; Chen & Shen, 2012). Worse, many Chinese Hospitality and Tourism Management (HTM) programme students are not choosing to work in the industry after graduation, for the major reasons that the Chinese parents are not motivated to support their children to make career decisions to join the tourism and hospitality industry (Chak-Keung Wong & Jin Liu, 2010; Zhang & Gu, 2000; Zhao, 1991).

Many studies conducted in different cultural contexts such as India (Agarwala, 2008; Gokuladas, 2010), Japan (Campbell & Uto, 1994) and the US (Buckley & Petrunik, 1995; Ng et al., 2008) demonstrate that parental factors have a significant influence on students' career choices. However, few studies using China as the research context investigate the Chinese students' parents which have an obvious and strong effect on their career choice. Actually, Chinese parents in particular play a variety of important roles in their children's lives, especially in crucial and vital decision points such as choosing a university and a major programme, getting married and choosing a career (Bai, 1998; Chak-Keung Wong & Jin Liu, 2010; Jin et al., 2009). Chinese parents do not have the power to change the major programme that they favoured as their child's first choice, so many HTM students join this programme not as their first choice but perhaps as fourth or fifth. Even HTM programme students who have been enrolled in this major for three or four years' learning experience might find that their parents still do not support them in joining this industry (Chak-Keung Wong & Jin Liu, 2010; Jin et al., 2009; Zhang & Gu, 2000). However, there is a scarcity of empirical research on HTM programme students in China, investigating parental influences and views about making career decisions on graduation, especially in the tourism industry context.

For the above reasons, the current research aims to address these gaps through investigating Chinese HTM undergraduate students' awareness of the parental influential factors; whether these factors have a significant effect and influence on their career decisions in selecting the hospitality industry.

LITERATURE REVIEW

The Concept of Career Decisions

Careers can be viewed from either the organizational or individual level (Lips-Wiersma, 2002). While organization-level analysis considers a career as a structure or pathway within the organization, individual-level analysis views it as the individual's subjective and objective choice or experience of work or job (Kosine & Lewis, 2008). In a previous study by Julien (1999), career is defined as a role of social identity, a social status, or a way to earn a living, or a pathway to achieve a person's needs through self-actualization on the jobs. Ballout (2009) suggested that careers research can be easily divided into two major dimensions in terms of monetary exchange and non-monetary exchange for individuals. Based on the above career definitions and research studies, very little research on career decisions and career choices was found. However, the definition of career decision making in this study refers to the process of a person in choosing his or her career action to deal with a problem or evaluate a career option, organizational environment or the occupation itself (Mimbs et al., 1998).

The career decision-making process involves activities such as identifying career objectives, collecting vocational information, generating career options, and evaluating different alternatives before making a final decision (Mau, 2004).

Thus, this study will focus on the concept of making career decisions, which may fill the knowledge gap around this term and measurement. The students are at the initial stage of employment, making their first career choice, rather than at the stages of looking at career success or career commitment which follow on from the initial decision process.

HTM Students' Career Decisions

HTM programme prepare students for career opportunities in a variety of workplaces in the tourism and hospitality industry, which encompasses a variety of business sectors including a range of travel agency, tour operation companies, sightseeing spots, cruise, hotels and accommodation, food and beverage companies, bars and catering centres, conference and banqueting centres and recreation centres. However, according to Abdullah et al., (2015), most people consider that this industry employees are "uneducated, unmotivated, unskilled and unproductive". This is especially true of Chinese perceptions of this service industry's jobs (Blomme et al., 2009; Chang & Tse, 2015), most believing the jobs involve easily mastered skills with no need for educational qualifications (Brown et al., 2014; Chang et al., 2014; Chuang & Dellmann-Jenkins, 2010). Based on the study from Chang & Tse (2015), up to 70% of positions within the hospitality industry do not require a formal education, degree or diploma.

The cultural context also results in HTM students not joining the industry, especially those from traditional Asian cultures, where parents do not encourage their children to make careers in the tourism industry, seeing them as servitude with little opportunity for future promotion (Chak-Keung Wong & Jin Liu, 2010; Lu & Adler, 2009). Given the nature of the labour market and the characteristics of the tourism industry, many employees find the work stressful and strenuous, with fewer skills needed, poor pay and bad working conditions compared to jobs in other industries (Brown et al., 2014; Chuang & Dellmann-Jenkins, 2010; Lu & Adler, 2009).

Pizam et al., (2013) stated that many Chinese university students found part-time jobs in the tourism or hospitality industry and recognized this as a "pass-through" phase in their career development. Moreover, many students took on tourism or hospitality work as a way of earning extra money towards their school fees (Brown et al., 2014; Chuang & Dellmann-Jenkins, 2010; Lu & Adler, 2009). Poor remuneration and benefits, heavy workload, no pay for overtime duties and overwork for these part-time students are cited by Fong et al., (2014). Brown et al., (2014) and Richardson (2009) examined the attitudes and perceptions of current HTM undergraduates toward their future careers. Unsurprisingly, this study's findings also showed that many of them made careers in other business sectors rather than the tourism and hospitality industry.

Some researchers (Blomme et al., 2009; Donina, 2015; Lam & Ching, 2007; Pizam et al., 2013) also explained that the students who had internship experience in tourism industry, more than half of respondents claimed that they had a bad work experience and would not join this industry after graduation. Many also cited bad experiences coming from unfulfilled expectations and mismatches between the real work environment and what they learned at university. And the other studies such as Bao & Fang (2014) and Brown et al., (2014) stated that tourism and hospitality employers pay insufficient attention to the treatment of students during the internship programme set by the universities. They are seeing interns as simply alleviating the labour shortage instead of developing potential employees during the internship period, which would largely steer clear of the undergraduates going into a career in this industry. Thus, the industry is

confronted with a significant problem involving the attraction, recruitment, and retention of future workforce (Brown et al., 2014; Fong et al., 2014; Richardson, 2009). This is why this study is dedicated to finding the related parental support and concern factors influence HTM students' career decisions in the tourism and hospitality industry.

Parental Factors

Cultural values are illustrated in the different characteristics and influences on the relationship between parental factors and their children's career decisions, particularly between individualistic and collectivistic cultures (Hou & Leung, 2011; Zhang et al., 2014). Individualistic cultures, such as American, focus on the individual's personal feelings and autonomy; children are less likely to be influenced by their parents, with relatively little parental impact on deciding their career choices (Buckley & Petrunik, 1995; Ng et al., 2008). In contrast, collectivistic cultures such as in China and India, emphasize family relationships and conformity with all kinds of social norms (Agarwala, 2008; Bai, 1998). Similarly, collectivistic culture implies strong parental influences, which also have a significant impact on their children's career behaviours (Salami & Oyesoji Aremu, 2007). China is considered as typical of collectivism cultural values (Chak-Keung Wong & Jin Liu, 2010; Jin et al., 2009). Some studies have stressed that many Chinese students are not willing to be separated from their families, and that they have a certain of psychological dependence on their parents (Bai, 1998; Chak-Keung Wong & Jin Liu, 2010; Jin et al., 2009; Zhang et al., 2014).

This is compared with a country where individualistic cultural values are dominant; for example, in the USA students showed more independence and freedom, being mature and responsible in making their own choices (Ng et al., 2008). Despite the critical part played by Chinese parents on their children's decision points (Bai, 1998), few studies have been conducted on parental influences on HTM programme students' career decisions. This study therefore aims to examine the influence of parental factors on HTM programme students' career decisions to work in the hospitality industry. Based on Chak-Keung Wong and Jin Liu's (2010) research, it employs two major constructs, parental support and parental concern, to evaluate parental influential factors.

Parental Support

Parental support refers to behaviour or influence of the father or mother, showing a variety of help and expectations to their children (Salami & Oyesoji Aremu, 2007). It can be realized in behaviour such as discussion, the spiritual, financial and educational support, or other helpful strategies (Salami & Oyesoji Aremu, 2007; Stringer & Kerpelman, 2010). Parents' support for their children's career decisions can be manifested through providing vocational counselling, capital investment, passing on useful knowledge, offering suggestions on alternative options and providing learning experience opportunities (Silbereisen et al., 1997; Stringer & Kerpelman, 2010). Campbell & Uto (1994) emphasized that communication with their children and respect for their choices and decisions, plus verbal or behavioural encouragement, played a significant part in parental support. Parental support can be categorized as either supportive and hindering effects on their children's career behaviour (Aldrich & Kim, 2007; Stringer & Kerpelman, 2010). Bai (1998) suggested that hindering factors, such as discouragement and verbal or behavioural, prevent children from making decisions and exert more negative and adverse pressure on their psychological development.

A large number of studies have emphasized that parental support has positive and supportive effects on their children's career behaviour (Campbell & Uto, 1994; Salami & Oyesoji Aremu, 2007; Silbereisen et al., 1997; Taylor et al., 2004), but few have examined parental hindering factors such as parental barriers or interference in their children's

career development. According to social cognitive theory (Rogers & Creed, 2011), strong parental support has a significant positive effect on a young person's career decisions. Agarwala (2008) also noted that a supportive family environment, especially from the parents, is closely related with children's career development.

A related study by Chak-Keung Wong & Jin Liu (2010) examined parental support for children entering the hospitality industry; however this factor was rated by the students as of the lowest significance. The authors concluded that Chinese parents do not usually encourage their children to join the hospitality industry as career development. One reason was that parents have negative perceptions of hospitality careers, as well as little knowledge about this industry's development, and the kind of vocational opportunities that would provide for students. Many of them believed that HTM courses would lead to their children becoming tour guides or hotel operational staff, with no advancement or opportunities for promotion or career development (Zhang & Gu, 2000). Hence, Chak-Keung Wong and Jin Liu (2010) blamed the factor of negative parental support as the major contributor to students' unwillingness to join the hospitality industry.

Parental Concern

Parental concern refers to worries about their children making wrong decisions about certain behaviour (Salami & Oyesoji Aremu, 2007), for several reasons: unsatisfactory working conditions, low salary, and low social status in the eyes of relatives and friends (Guan et al., 2014; Salami & Oyesoji Aremu, 2007). Parents in China especially like to discuss and show off their children's progress to other people in the neighborhood (Bai, 1998). Guan et al., (2014) and Zhang et al., (2014) stressed that collectivistic cultural values is a reason for this kind of comparison with others, identifying it as a psychological inclination behaviour.

Similarly, Agarwala (2008) stated that collectivistic cultural values are normally manifest as family or social groups in countries such as China and India, where parental opinions and concerns about their children's decisions or quality of life play a major role. Based on Bai's (1998) research, young people's career choices and career advancement in China are much more influenced by parents, as they are afraid of responsibility in making financial decisions, or psychological frustration in re-investment and re-decision of their choices. Zhang et al., (2014) suggested that many Chinese parents' concern about their children's career choices prevents them from working or studying far away from home. Aldrich and Kim (2007) argued that it may not be the children themselves but the parents who tend to have more dependence on family ties, associating this with their children's career choices. They also judged that a career decision in China seems to be made more to satisfy parents or family needs rather than an individual's own aspiration or interests.

Buckley and Petrunik (1995) considered that parents always replicate their own careers on their children, drawing on traditional family careers, themes, limitations and emotional aspects. For example, when family generations follow a medically oriented career tradition, they will ensure the children stay in the field of medicine, even though they might move to another area of the same field.

According to Salami and Oyesoji Aremu (2007), family systems have become the source of a career counselling model utilizing the effects of family, birth order and sibling dynamics. Children will move into different directions in their career behaviour, when the parents or elder sibling had chosen their own direction and planted their role identity with certain attributes on their children or brother. These parents always believed that their children had trouble in making decisions, imposing rules and roles based on their greater experience, which would be better for their children. Later, parents would impose unsuitable career expectations, past experiences and a relationship network on their

children and thus limit their career decisions (Guan et al., 2014; Taylor et al., 2004). In related research within the hospitality context (Chak-Keung Wong & Jin Liu, 2010), the respondents placed the highest value on parental concern over welfare and prestige when choosing their career in the hospitality industry. The discussion revealed that Chinese parents are more concerned about their children's future career regarding the factors such as salary and benefits, and work location to make sure their children do not live too far away from them. The reason behind the greater concern over these factors was that if their children earn a high salary the parents do not need to worry about their future medical care, rent or other necessary life expenses (Chak-Keung Wong & Jin Liu, 2010).

Another important parental concern is that Chinese parents prefer their children to work in a good organization with a high salary which makes them proud in front of their friends, relatives or neighbourhood (Chak-Keung Wong & Jin Liu, 2010). For instance, parents usually demonstrate their children's abilities to bring honour and prestige to their families such as by working in a bank, or as a government official, lawyer or teacher (Bai, 1998; Hou & Leung, 2011; Zhang et al., 2014). This factor was valued highest by HTM undergraduates, encouraging them to stress the salary and job status as major considerations in choosing a career and strengthening their inclination to enter the hospitality industry (Chak-Keung Wong & Jin Liu, 2010; Ko, 2007; Lu & Adler, 2009).

THEORETICAL BACKGROUND AND CONCEPTUAL MODEL

Various theories have been developed to explain what career choice is. Some describe it as the entry stage of a career (Palos & Drobot, 2010), whereas others recognize the need for individuals to realize their vocational inclination and preference (Mimbs et al., 1998). Yet, this study emphasizes students' career decision making and examined the related theories listed below. Parsons' trait-and-factor theory (London, 1983) focuses on personal traits such as ability and personality in influencing career actions. Ginzberg's theory (Kosine & Lewis, 2008) explained individual's lifelong process of career development, comprising three different stages. Super's theory (Germeijs & Verschueren, 2007) is more closely related to this research, targeting respondents like adolescents preparing to enter the labour market, but he still divided their career development into five stages based on Ginzberg's theory. Holland's theory (Katsikea et al., 2011), like Parsons' concentrates on the person fitting the environment, influencing the individual's career action. Gottfredson's theory (Jin et al., 2009) of career choice also emphasized self-concepts such as self-interest, self-abilities, self-values which can influence the different stages of career development and choice. Most studies of the students' career decisions utilize Social Cognitive Career Theory (SCCT), which illustrate too many original variables such as person inputs, background contextual influences, self-efficacy, outcome expectations and career goals (Ballout, 2009; Mau, 2000; Rogers & Greed, 2011; Usinger & Smith, 2010; Vigoda-Gadot & Grimland, 2008).

Concluding the above theories, they are not wholly sufficiently close to the research objectives and questions of this study. Yet, this study is going to use Theory of Reasoned Action (TRA), developed by Ajzen and Fishbein (1980), which clearly indicated that career choice is influenced by three determinant variables and most importantly, showing the links between attitude towards behaviour, subjective norms, behavioural intention, and individuals' behaviours. First, attitude towards behaviour indicates an individual's positive or negative evaluation about performing the behaviour. Second, termed subjective norms, which indicate individuals' perceptions about what other people or society think they should do, such as parents' or friends' recommendations, who may exert an influence on the individual's attitudes and inclination to make decisions.

Behavioural intention is a tendency of individuals to take action in the future according to their subjective judgment. According to TRA, an individual's behaviour is driven by behavioural intention to perform a behaviour. The individual's behavioural intention is predicted by his or her attitude towards behaviour and subjective norms. The purpose of research framework is to investigate the logical sense of relationships between the independent and dependent for testing those relationships are meaningful or not, a critical part of any research (Ajzen & Fishbein, 1980). Through the above theoretical and literature discussion, the study proposed a research framework presented in (Figure 1).

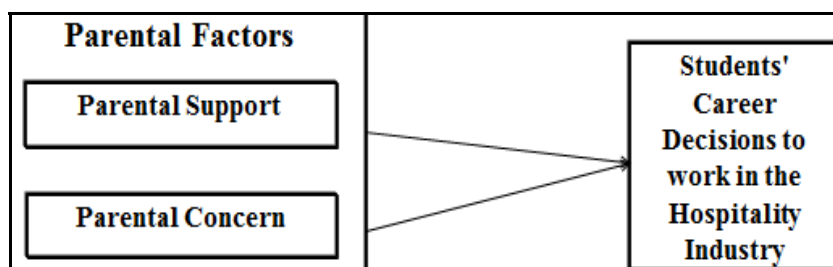


Figure 1. Research Framework (Source: This study, 2016)

The Theory of Reasoned Action (TRA) models are utilized to evaluate students' career decisions in this study. Within this research context, as Figure 1 shows, two independent variables are input: parental support and parental concern factors to evaluate students' career decisions as the major dependent variable.

A large number of researchers have found that students' career decisions were largely influenced by parental factors (Bai, 1998; Chak-Keung Wong & Jin Liu, 2010; Silbereisen et al., 1997; Taylor et al, 2004; Zhang et al., 2014; Zhao & Zhu, 2014). They all revealed that positive parental motivational factors can be the major determinants of students' career decisions to work in the hospitality industry.

CONCLUSION AND FUTURE STUDIES

Despite numerous studies on HTM students' career development in the hospitality industry (Bao & Fang, 2014; Fong et al., 2014; Kim & Park, 2013; Ko, 2007; Lam & Ching, 2007; Pizam et al., 2013), few have examined the relationship with parental influence within Chinese context, a gap which this study will fill. Based on TRA (Ajzen & Fishbein, 1980) theory relationship, a framework for this study was proposed. Two parental factors, parental support and parental concern were evaluated from the literature and the relationship between these two factors and students' career decisions. Further empirical study in this area is in progress along with a follow-up of Chinese undergraduate students and their parents via survey to determine statistical findings.

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