Measuring Tourism Potential of Places of Interest and Memorial Objects Using Analytical Hierarchy Process (AHP) - Case Study
City Of Nis, Serbia

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Abstract. Places of interest are the parts of the city that usually represent important historical events and which in that way mark the certain place. They were built for permanent preservation of the memories of significant events, people and places of national history (memorials). City of Nis is one of the oldest cities in Europe, as evidenced by a number of prehistoric sites and monuments in the city. Furthermore, it is recognized as the Nis traffic center of the Balkans as a geographical core of the Balkan Peninsula. The aim of this paper is to analyze the market appeal places of interest and memorial object in the city of Nis, and evaluate its potential and importance for the development of tourism. The paper used the analytical hierarchical method in order to evaluate the potential and importance of tourism in the area of Nis. Ten relevant criteria were proposed and were indicated for several of the most attractive places of interest and memorial object in city of Nis (Cegar Monument, Skull Tower, Bubanj Memorial Site) and were analysed by Analytic Hierarchy Process (AHP) which is one of the most popular tools in decision-making processes. Analyzing the sights it was found that Skull Tower has the highest market appeal, followed by Cegar Monument and the least market appeal has Bubanj Memorial Site.

Keywords: places of interest; memorial object; Nis; heritage tourism; cultural heritage; the analytic hierarchy process.
**Introduction.**

Cultural heritage represents a very important offering element, which is of a special cultural and historical importance for choosing a destination. Some research indicates that cultural heritage has gained an increasing importance and has large impacts on different economy levels (Florida, 2002; Hesmondhalgh, 2002; Scott, 2002) and that regions may build up their competitiveness by further developing their cultural heritage (Bandarin et al., 2011; Boix et al., 2012; Cooke and Lazzeretti, 2008; Pereira Roders and Von Oers, 2011).

According to the European Commission, there are now approximately 200,000 protected monuments in the European Union (EU), and 2.5 million buildings of historical interest (European Commission, 1998). Cultural attractions have become particularly important in this modern form of pilgrimage called tourism. Not only do cultural attractions such as Museums and monuments constitute the largest sector of the European Attractions market, but they are also increasingly being placed at the centre of urban and rural development strategies and image enhancement programmes (Richards, 2001).

Heritage tourism is focused on the material (“tangible”) and intangible resources, including the way of life of a community. The concept of the spiritual, “intangible” cultural heritage (language, stories, art styles, music, games, religious beliefs, etc.) becomes increasingly important, which is why UNESCO adopted the Convention to help its protection. Heritage or legacy is a modern use of the past, including the interpretation and representation (Rabotić, 2012).

Cultural heritage shows not only the level of the creative power of a city in the past which is reflected in the uniqueness of traditions, historical events and monuments that exist in a specific city, but is also an important factor in its recognition (Radojević, 2011).

According to Conrad (Conrad, 1982), “the wish for retrospect which is caused by a psychological need for the continuity or for searching the roots, brings to being interested in the past.” Cultural heritage is no more just a pure past but it also represents places where different cultures meet (Hadžić, 2005). Depending on physical, artistic, cultural and historical characteristics, as well as on the possibility of their presentation, cultural heritage can be divided into the following groups (Website article by UNESCO, The different types of cultural heritage): archeological sites, goods of monumental and artistic characteristics, cultural and historical integrities, places of interest and memorial objects, folklore heritage, belief, languages, manifestation values, cultural institutions with its activities, cultural landscapes, cultural routes, traditional medicine, underwater cultural heritage, documentary and digital heritage, music, songs, literature.

Using this qualification, some places of interest and memorial objects of the city of Nish will be presented and some elements of their valorization and cultural and touristic presentation will be given by analytical hierarchy process. The city of Nish is very rich in having cultural monuments which succeed in giving the picture of cultural and historical events and processes in this area.

**GEOGRAPHICAL SETTING AND CULTURAL HERITAGE INVENTORY**

The city of Nish, by its territory belongs to a Nish county and it represents the center of a regional area (three counties – Nish, Toplica, Pčinj), with 589,486 citizens. Nish is one of the oldest towns in the Balkans situated at the crossroads of Balkan and European highways which connect the Balkans with the Near East (Map 1). It has been well-known as the Gate of East and West for ages (Prodović, 2011). It was inhabited at the beginning of the Bronze Age and today Nish has been living and developing on the ruins of the Roman town Naissus and big Roman graveyard (Janičević, 1998).
City of Niš is located at Corridor 10, with the main road on the branch line to the south, Thessaloniki and Athens, and the route to the east of Sofia and Istanbul. From Nis roads lead to the northeast, towards Zaječar, Kladovo, Timisoara, and southwest to the Adriatic Sea (Radojević, 2011). Nis airport is very significant for establishing international tourism fluctuation towards tourism destinations in the south and southeast Serbia. Tourism economy could realize significant revenue by offering services to tourists landing on the Nis airport (Stanković & Petrović, 2007). The town itself was formed in the spatial vacuum gravity of large metropolitan centers of Belgrade, Sofia and Skopje (Prodović, 2011).

The city of Nis as a social, economic, educational, health, cultural and sport centre of the South-East Serbia as well as the crossroads of the most important Balkan and European highway and railway traffic directions, is in possession of excellent potentials for further tourism development (Stanković & Petrović, 2007).

At present, the tourist destination of the city of Nis faces an ever-increasing competition and tourist requests that are liable to continual changes. In order to develop the tourism destination of the city of Nis and to reach success under complex conditions, it is necessary to adapt new changes continually. This task becomes more and more difficult due to the fact that development must pay attention to the tourism resource limitations (Gligorijević & Petrović, 2008).

City of Nis has a lot to offer possessing the potential to become an attractive destination in the region. Tourism of the city of Nis can be developed through various forms. However, the form of tourism that should most be activated is heritage tourism. Nis is one of the oldest cities in the Balkan Peninsula and has a rich cultural heritage. The turbulent history has left the city with valuable cultural symbols and monuments, the most important Bubanj, the archaeological site of the Neolithic period, Mediana, dating from Roman times, old Christian monuments dating from the 4th to 6th century, the complex Nis Fortress, dating from the 17th century, Kazandžijsko sokače, the urban area from the 18th century, a Cegar monument, Skull Tower, Monument to the Liberators of Nis and others (Radojević, 2011). In the group of places of interest and memorial objects, Cegar Monument, Scull Tower and Bubanj Memorial Site were done.
**Places of interest and memorial objects**

Places of interest and memorial objects, sub-group of “dark tourism”, represent work of human hands or nature, important for the history of a specific nation. They include places, objects and monuments which individually or in a group point out important events, persons and places. They are memorial graveyards, various monuments, memorial places (Hadžić, 2005). Places of interest may be parts of a town where some important historical events happened or “black spots”, places where big murders, persecutions, executions happened. On the other hand, they can be places where famous painters painted their paintings or places where famous people spent most of their time. This phenomenon is well recognized, and named differently in the literature as dark tourism (Foley and Lennon, 1996, p. 198), thanatourism (Seaton, 1996), black spot tourism (Rojek, 1993), atrocity heritage tourism (Tunbridge and Ashworth, 1996), and morbid tourism (Blom, 2000). Among these, dark tourism is the most widely applied in academic literature (Sharpley, 2009), and defined as ‘the act of travel to sites associated with death, suffering and the seemingly macabre’ (Stone, 2006, p.146), or alternately, as ‘visitations to places where tragedies or historically noteworthy death has occurred... that continues to impact our lives’ (Tarlow, 2005, p. 48). Dark tourism offers both an educational and emotional tourism experience, conveying important messages related to gaining knowledge of past events (Henderson, 2000; Lennon and Foley, 2000), while serving an emotional or potentially therapeutic function as well (Braithwaite & Lee, 2006). Such attractions and sites evoke negative emotions including fear, horror, sadness, depression, empathy, sympathy, and feelings of vengeance (Krakover, 2005; Miles, 2002).

In Nish and its surroundings they are Cegar Monument, the unique monument in the world – Scull Tower and Bubanj Memorial Site. All three are of a great cultural historical importance not only for the region but for the whole country. They should be promoted as much as possible all over the world. There will be more about this cultural heritage.

**Cegar Monument.** Northeast of Nish, not far away from the village Kamenica, there is a historical place, the hill Cegar famous for the First Serbian Rising battle. The monument, as a mark of respect and memory for brave soldiers and their commander Stevan Sindelić, was raised on that hill.

The first and the biggest trench was on Cegar, with the duke Stevan Sindelić and the second with Petar Dobrnjac in Gornji Matejevac (nearby the Latin church) (http://www.ni.rs). On 30th May 1809, the Turks attacked Dobrnjac’s trench and on the following day, 31st May, they attacked Sindelić’s trench on the Cegar hill. When Sindelić saw that the Turks invaded the area and killed a lot of Serbian soldiers, he rushed to an ammunition storehouse and blew it out. About three thousand Serbian soldiers and doubled number of Turkish soldiers were killed on that day. Because of this battle for freedom and independence, Cegar became a historical place for our people (http://www.visitnis.com). The hill was marked as a monument. Today’s monument is the Tower-the symbol of a military fortress. The monument was raised on 50th anniversary of liberation from the Turks, 1st June 1927. It is was placed on the same place where the first memorial object had been raised. The Cegar monument is a famous historical place and has been protected by law since 1983. The same year, it was declared as a cultural heritage of great importance by the Assembly of Serbia (Andrejević, 1996).

**Scull Tower.** Scull Tower represents the unique monument in the world. It came to be as a consequence of the big battle on Cegar in 1809. It used to be situated outside the settlement, next to the Constantinople road but today it is in the very centre of Nish, in boulevard Zoran Đinđić. The tower was raised from the sculls of killed soldiers in Cegar battle, near Nish, on 31st May 1809 (http://www.ubnt.ni.ac.rs). It was built very soon after the battle by the order of Hurshid pasha, the Turkish commander of Nish at that time, later Grand Vizier. It was built on the four-angled foundation, about three metres high. 952 sculls of Serbian heroes were walled in as a warning to the Serbian people. Today, 58 sculls remain: 21 on the north wall, 13 on the western wall, 12 on the southern wall and 11 on the eastern wall. In a special cabinet, there is one more, well preserved with the sign: “The scull of Stevan Sindelić” (Andrejević, 1996), (http://www.discoverserbia.org).

On the platou, in front of the entrance of the chapel, there is the bust of Stevan Sindelić, built in 1938, the work of a sculptor Slavko Miletić. On the bust pedestal, there is a Cegar battle relief of the same sculptor. Scull Tower has been protected by law since 1948 and declared as a cultural heritage of great importance by the Assembly of Serbia since 7th April 1979. Nish institution for protection of cultural monuments gave a suggestion of putting Scull Tower into a list of UNESCO world cultural
heritage in May 1989. Scull Tower represents the unique monument of a kind in the world and it faithfully illustrates Turkish misdeeds upon the Serbian people.

**Bubanj Memorial Site.** Bubanj Memorial Site is located on a forest hill, southwest of Nish, in Palilula community. Bubanj Park crosses the main Nish-Skopje road, two kilometers far from Red Cross concentration camp. During the Second World War, this place was one of the biggest places of executions in Yugoslavia. The monument shows three fists of monumental dimensions (www.nistourism.org.rs).

Bubanj Memorial Site was one of the biggest places of executions during the National-liberation War. At the beginning of 1942, Bubanj shooting range started executions by shooting 24 Krusevac people - Red Cross camp inmates. After that, massive shootings began. German fascists drove camp inmates in trucks, day and night and shot the Serbs, Jews, Gipsies here. About 10 000 camp inmates and prisoners were shot. In this death factory, groups of patriots from the south of Serbia were shot one after another (http://spomenikikulture.mi.sanu.ac.rs).

The first memorial object was a very modest stone pyramid which was raised on 7th July 1950. Three years later a tender for building a monument on Bubanj was invited. In July 1960, the work of Ivan Sabolić was accepted.

The monument on Bubanj was ceremoniously uncovered on 14th October 1963, the day of Nish liberation. A complex is like a big park with a memorial path, about a half kilometer long and with a marble relief, 23x2.5 in size, consisting of five compositions which symbolize “the killing machine”, hanging, shooting, rebellion, capitulation and the victory and three concrete obelisks which symbolize raised hands with clenched fists (Andrejević, 1996). Inside the complex, since 2004, there is a chapel built of glass and metal, done by an architect Aleksandar Budevac. Bubanj, as an authentic place of massive fascist terror during the National-liberation War has been protected by law since May 1973 and in April 1973, by the decision of Serbian Assembly it was announced cultural heritage of great importance. Thanks to an overborder project of Serbia and Bulgaria this year, 15th October, the part around the monument and the amphitheatre should be reconstructed. The reconstruction will be done by the overborder project of Serbian Palilula community and Bulgarian Bobov Dol community. European Union has taken to finance the project from IPA fund as a part of ColourTour programme. Palilula got 121.666 euros. A tender has been invited and the best offer was from “MD Gradnja” company (http://www.jugoistocna.com).

**Methodology**

With aim of getting market attractiveness of places of interest and memorial objects, AHP methodology was applied. Selection of the method is based on the type of analysis that is needed for the realization of the objectives. Research was conducted in May 2013, which is carried out by experts in their field, in order to precisely determine the final rankings.

**Research subject** in this paper is to consider which place of interest or memorial object is the most attractive cultural heritage.

**The goal of the research** is to evaluate the places of interest and memorial objects in the city of Nis. This study proposed ten relevant criteria: environment, well-known outside the local area, important national symbol, interesting story about cultural sight, characteristics that differentiate from other local cultural sights, appeal for special needs, complementary with other products in region, tourist attraction in region, destination is associated with culture and political support, which should be used as market appeal tool. These criteria were indicated for several of the most attractive cultural sights of investigated area.

**Research Methodology.**

To get the information about the most attractive cultural sight, in the paper is used the method of Analytic Hierarchy Process (AHP). AHP is one of the most popular tools in decision-making processes. This model is structured as a set of pair-wise comparisons of decision elements made by the decision maker. At the top of the hierarchy is the goal, the next level contains the criteria, while alternatives lie at the bottom of the hierarchy. If the comparisons are not perfectly consistent, then it provides a mechanism for improving consistency (Triantaphyllou & Mann, 1995). This method is a "qualitative" technique that relies on the judgment and experience of the decision makers.

An approach based on pairwise comparisons which was proposed by Saaty (1980) has long attracted the interest of many researchers. Pairwise comparisons are used to determine the relative
importance of each alternative in terms of each criterion. In this approach the decision-maker has to express his opinion about the value of one single pairwise comparison at a time. Usually, the decision-maker has to choose his answer among 10-17 discrete choices. Each choice is a linguistic phrase. Some examples of such linguistic phrases are: "A is more important than B", or "A is of the same importance as B", or "A is a little more important than B", and so on (Triantaphyllou & Mann, 1995).

Pairwise comparisons are quantified by using a scale. Such a scale is an one-to-one mapping between the set of discrete linguistic choices available to the decision maker and a discrete set of numbers which represent the importance, or weight, of the previous linguistic choices. The scale proposed by Saaty is depicted in table 1 (Triantaphyllou & Mann, 1995).

**Stages of the research.** The first stage of the project is the selection of places of interest and memorial objects. After that, relevant criteria were selected and ranked as a market appeal tool. With those criteria we form a hierarchical model in statistical software “Expert Choice 2000” to enter the score. Later on places of interest and memorial objects were also graded. With obtained ranks program used calculations to form a graph which shows the most attractive site.

<table>
<thead>
<tr>
<th>Intensity of importance</th>
<th>Definition</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equal importance</td>
<td>Two activities contribute equally to the objective</td>
</tr>
<tr>
<td>3</td>
<td>Weak importance of one over another</td>
<td>Experience and judgement slightly favor one activity over another</td>
</tr>
<tr>
<td>5</td>
<td>Essential or strong importance</td>
<td>Experience and judgement strongly favor one activity over another</td>
</tr>
<tr>
<td>7</td>
<td>Demonstrated importance</td>
<td>An activity is strongly favored and its dominance demonstrated in practice</td>
</tr>
<tr>
<td>9</td>
<td>Absolute importance</td>
<td>The evidence favoring one activity over another is of the highest possible</td>
</tr>
<tr>
<td>2,4,6,8</td>
<td>Intermediate values between the two adjacent judgments</td>
<td>When compromise is needed</td>
</tr>
</tbody>
</table>

**Results and discussion**
Talking about places of interest, the most attractive for the market and with the highest rates, which can be seen on figure 1, is Scull Tower. This can be easily explained by the history of its beginnings and the story behind. Scull Tower represents the result of the battle which took place on a historical hill- Cegar, 1809. Scull Tower was built like a chapel and became the mausoleum of bravery. It has been in a bad shape for years, but some renovations have been done recently and there are more and more tourists coming every year. Sign posts are very good, so it is neither hard nor far to get there. Despite the fact that only 58 sculls remain, the most attractive for this place of interest is the scull which is supposed to be Stevan Sindelić’s, one of the greatest Serbian heroes. Next to a parking lot, there is a souvenir shop where tourists can get souvenirs and the guide book which is available in Serbian and English.

This monument is unique of a kind and it represents a very important period of Serbian history. Scull Tower, due to its importance and greatness of historical value, should be promoted and visited much more. An Internet presentation would help in its promotion and affirmation. Both the interior and exterior of this place can be used for promoting other issues like organizing
In order to deserve a special place in historical and cultural heritage, special tours in visiting this monument should be organized.

Figure 1. Places of interest and memorial objects evaluation results

Cegar monument – the hill where the famous historical battle took place, represents an outstanding and important place from the period of the First Serbian Rising. This monument is not of a great architectural value but that is not the reason of not visiting it. On the very spot there is no adequate guide who would welcome tourists and tell the story of this amazing monument. The site and the parking lot are arranged very well but, on the other hand, there is no promotion for this site. It is obvious that in promoting and visiting Scull Tower, Cegar monument should be involved in, too.

Bubanj memorial site is the site which talks about sufferings of thousands and thousands of people during the Second World War. However, the site has been neglected by citizens and local authorities, so it has the lowest rate. One of the greatest places of execution during the World War II, famous historical site, has become a gathering place for young people who cover the walls of the monument with graphites.

In order to have better promotions and presentations of this site, it is necessary to put sign posts and attract tourists to come. The amphitheatre which is near the Fists should be used for cultural happenings and the park can be used for sport events like cycling, running etc. The consistency rate (CR) which is 0.08, also shows that results are correct and that there is no need for correction in comparing and repeating calculation.
Conclusion.

The city of Nis has a very good basis for the tourism development, primarily cultural (heritage) tourism. Places of interest and memorial objects city of Nis make this area important for the whole country. The results of the research indicate how Nis with its cultural heritage has the potential for development of cultural (heritage) tourism and with its rich history can find its place in the tourist market, both in the country and abroad. Some of the things that should be done in the city in order to become an attractive destination of heritage tourism: make adequate restoration and reconstruction of the cultural heritage, stop the deterioration of cultural heritage, improve infrastructure, arrange the website and provide adequate information of cultural heritage, and finally to use different promotion tools such as tourism fairs, trade shows, exhibitions, and others in order to promote cultural heritage in the best possible way. By offering adequate quality content such as sightseeing in the city and cultural-historical monuments, organizing various tourism and cultural manifestations, enabling quality and approachable accommodation and catering services and the like, tourism economy could realize significant revenue from tourists transiting through Nis.

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УДК 33

Измерение туристского потенциала достопримечательностей и мемориальных объектов, используя аналитический иерархический процесс (АИП) на примере города Ниш, Сербия

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4 Вукица Майсторович
Аннотация. Достопримечательности являются частью города и обычно представляют важные исторические события, отмечая, таким образом определенное место. Они были построены для того, чтобы сохранить память о важных событиях, людях и местах национальной истории (памятники). Город Ниш – один из старейших городов Европы, о чем свидетельствует ряд доисторических мест и памятников города. Более того, Ниш считается транспортным узлом Балкан и географическим центром Балканского полуострова. Цель данной работы – проанализировать привлекательные достопримечательности и мемориальные объекты города Ниш и оценить их потенциал и важность для развития туризма. Для оценки потенциала и важности туризма в районе Ниш в статье использовался аналитический иерархический метод. Были предложены десять важных критериев, которые применяли к нескольким самым привлекательным достопримечательностям и мемориальным объектам города Ниш (памятник Сегар, башня черепов, мемориальный комплекс Бубань). Они были проанализированы с помощью аналитического иерархического процесса (АИП), который является одним из наиболее популярных инструментов в процессах принятия решений. При анализе достопримечательностей, было определено, что башня черепов обладает наибольшей рыночной привлекательностью, за ней следует памятник Сегар и наименьшей рыночной привлекательностью обладает мемориальный комплекс Бубань.

Ключевые слова: достопримечательности; мемориальный объект; Ниш; культурно-исторический туризм; культурное наследие; аналитический иерархический процесс.