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**STUDY PROGRAMME
BUSINESS SYSTEMS IN TOURISM AND HOSPITALITY**

**PROMOTION AND PRESENTATION OF DANUBE
FORTRESSES IN MODERN DIGITAL ENVIRONMENT**

- MASTER THESIS-

-

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1. INTRODUCTION

There are around 200 remains of medieval fortifications in Serbia. On the Danube River there are seven of them. In this research we will examine how this side of the cultural tourism is developed in Serbia, how it gets along with the Internet revolution, how domestic and foreign tourists can be informed about important fortresses in our country, and if information about them provided on Internet is correct. In this thesis we will also try to explain how the modern information technologies can help in promoting and sustaining Serbian cultural heritage. Concisely, we will try to examine the current state of the fortresses and how they are presented in modern digital environment.

1.1. RESEARCH SUBJECT

Problem: Lack of web promotion of major Serbian fortifications.

Subject: The subject of this research is the current touristic offer of Serbian fortresses on the Danube, how they are presented, and how people can be informed about them on the Internet. In the first place, availability and updating of that information, and how the authorities use Internet and web technologies in terms of promoting our fortresses within domestic and foreign tourists.

1.2. GOALS OF THE RESEARCH

Scientific goal of this research is to point out the flaws and problems in web promotion of fortresses, and while examining their current touristic offer, to show how situation can be improved.

Social goal of this research is to show that substandard websites and lack of promotion can be an obstacle in tourism development, especially among foreign tourists, for whom the Internet is the first source of information.

1.3. HYPOTHESIS

General hypothesis: It is important to realize that in the era of wireless Internet, everything, from small business to governments, has its website. We have to find out what attractions we have that can be interesting and different for tourists who already had seen a lot, and how to properly use Internet and web technologies so that can be easily found online and seen in any corner of the world.

Special hypothesis:

- To promote cultural heritage tourism in Serbia, we must have interesting web presentations for tourists, working websites that are updated on regular basis.
- Every fortress with touristic potential has to have its own website with basic information such as working hours, access and attractions, and it must have versions in some other language except Serbian.
- Geographic information systems should be used in order to create special interactive maps of fortresses that can be useful for tourists.

1.4. RESEARCH METHODS

As we are trying to make this research objective, reliable and systematic, we will use the following research methods:

- Basic methods: analytic and synthetic methods
- General-scientific methods: comparative, statistic and deductive methods
- Methods and data collection techniques: evaluation and statistical analysis of websites and two online surveys (one with open questionnaires and the other with multiple choice answers)

2. CULTURAL HERITAGE TOURISM

Cultural tourism is one of the most prominent and most important forms of tourism, especially in Europe. Cultural tourism is a very wide category which concerns cultural heritage and tradition of one country. In this thesis we are researching medieval fortresses, so we are interested in cultural heritage tourism.

“Cultural heritage tourism is traveling to experience the places and activities that authentically represent the stories and people of the past and present. It includes historic, cultural and natural attractions.”¹ It usually refers to cultural-historical buildings, archaeological sites, monuments.

Cultural heritage tourism market is becoming wider. According to the European Heritage Group, attendance at museums, historical monuments and archaeological sites has doubled between 1977 and 1997 (European Commission, 1998)². At the same time, significance of preserving such sites and their potential in tourism is recognized by a number of global organizations, such as:

- UNESCO (United Nations Educational, Scientific and Cultural Organization),
- UNWTO (World Tourism Organization),
- ICOM (International Council of Museums),
- ICOMOS (International Council on Monuments and Sites) and
- WTTC (The World Travel & Tourism Council).

WTO studies have shown that forms of tourism with some particular motivation like sports or culture have shown great resilience to crisis. (Unkovic and Zečević, 2011) Tourists are now trying to satisfy various needs during one trip, including learning about local culture and surrounding, and having active vacation at the same time.

¹ Definition by The National Trust for Historic Preservation of United States

² Richards, G. (2001) The Development of Cultural Tourism in Europe, Wallingford: CABI. (page 1)

2.1. Tourist structure in Serbia

According to National tourist organization of Serbia, there were 2 192 435 tourist arrivals registered in 2013 in Serbia. 42% of visitors (921 768) were foreign tourists, and 58% (1 270 667) were domestic tourists. The number of foreign tourists is increasing every year, and in 2013 there were 14% more than in 2012. (In 2012 there were 45800 tourist arrivals more than in 2011 and 127 686 more than in 2010.)

If we observe the structure of foreign tourist turnover in 2013, visitors from the republics of the former Yugoslavia are the main generator of tourism demand in Serbia, especially tourists from Bosnia and Herzegovina (155 868), Montenegro (137 520) and Slovenia (121 997). In the 4th place are tourists from Russia (120 899), which is 32% more than in 2012.

The main problem is that we do not have in Serbia any system which could examine why those tourists come to Serbia, is there some attraction they prefer, and how their stay here could be improved and extended.

Important for this thesis, there is no way to find out how many foreign or domestic tourists that came to Serbia, had visited some of our medieval fortresses.

Table 1- Number of tourist arrivals in Serbia in 2013

	TOTAL	% 2013/2012.	Domestic tourists	% 2013/2012.	Foreign tourists	% 2013/2012.
Republic of Serbia	2,192.435	+ 5 %	1,270.667	0 %	921.768	+ 14 %
Belgrade	687.547	+ 9 %	164.054	- 5 %	523.493	+ 14 %
Novi Sad	117.499	+ 8 %	44.307	- 4 %	73.192	+ 17 %
Spa centers	405.768	+ 11 %	350.337	+ 8 %	55.431	+ 29 %
Mountains	398.841	0 %	338.354	- 3 %	60.487	+ 24 %
Other touristic loc.	494.630	- 1 %	314.810	- 4 %	179.820	+ 6 %
Other locations	88.150	+ 16 %	58.805	+ 17 %	29.345	+ 15 %

Source: National tourist organization of Serbia³

³ Data collected by Republic Institute for Statistics of Serbia

The fact that we do know is that currently Belgrade is the only destination in Serbia that can compete with other similar destinations, and that can take part in global tourism market. About 31% of total tourist arrivals in 2013 (687 547) were in Belgrade. There were 523 493 foreign tourists, which is 14% more than in 2012.

Belgrade has well developed infrastructure, the biggest international airport and a large number of attractions for different kind of tourist demand. Belgrade is passing through transformation, trying to clean itself from bad reputation and war history, and as a city with lots of events, city of parties, city of sports and culture; it can surely become a leader in south-eastern Europe.

Belgrade is on a good way to become the region's leader in City break and MICE tourism. But, on the other hand, if Belgrade wants to become the leader in cultural tourism, it has to work on promotion of its cultural tradition and heritage.

For our research we tried to find out if there is information about precise number of visitors of the fortresses on the Danube. However, none of the fortress has an exact number of visitors neither foreign, nor domestic.⁴ Problem is that in five of seven fortresses there is no ticket selling, and in two of them, Smederevo and Belgrade, the employees are selling tickets for just one part of the fortresses. In Smederevo Fortress they are selling tickets only for entry into the Small town, and in Belgrade Fortress from 2014 visitors can buy tickets to visit objects that were unavailable for a long time (Nebojsa tower, Sahat tower, Roman well and Big powder magazine).

⁴ For the purposes of this research, we contacted by telephone employees in the fortresses and tourism organization of municipalities that are in charge of the forts.

2.2. Cultural heritage tourism in Serbia

According to some predictions, Europe, Middle East and Asia will have the largest increase in this area. “The opening up of new cultural tourism destinations in Eastern and Central Europe will add to the growing supply of distractions for the European cultural tourist in future.” (Richards, 1996, page 10) This can be chance for Serbia to become one of them those destinations.

Serbia is the country with a long history and with large number cultural-historical monuments, including ruins and remains of diverse fortifications. Many of those potential touristic attractions were neglected during the years or destroyed in bombings. But today as we are looking for our spot in touristic map of the world we could have a lot of to offer in the sector of heritage tourism.

Serbia is a member of the aforementioned International Council on Monuments and Sites (ICOMOS). ICOMOS was founded 1965 in Warsaw as a non-governmental international organization dedicated to the conservation of the world's monuments and sites, and its composed of 110 National Committees. One of them is in Serbia.

On December 20, 2000 Serbia became a member state of UNESCO. Within UNESCO there is The World Heritage Committee which establishes the sites to be listed as UNESCO World Heritage Sites, sites of special cultural or physical significance. On the list of World Heritage Sites there are four localities from Serbia, all of them are cultural:

- Gamzigrad-Romuliana, Palace of Galerius (2007),
- Medieval Monuments in Kosovo: Dečani monastery, Patriarchate of Peć, Our Lady of Ljeviš, and Gračanica monastery (2004)
- Stari Ras and Sopoćani (1979)
- and Studenica Monastery (1986)

Except from the existing list of World Heritage Sites, there is a tentative list⁵, which includes 11 sites (both cultural and physical) from Serbia, and among them are two medieval fortresses that we are interested in: Smederevo Fortress (2010) and Historical place of Bač and its Surroundings (2010). Their touristic potential we are going to examine later in this research.

Another chance for improving cultural heritage tourism in Serbia is for Belgrade to win the title of European Capital of Culture in 2020.

Each year the Council of the European Union awards two cities (from two different countries) the title of European Capital of Culture. In 2010 Belgrade city applied for this title for 2020. This could be great opportunity for Belgrade, because as it is stated on website of European Commission, the studies have shown that winning this title is a valuable opportunity for cities to: regenerate cities, give new vitality to their cultural life, raise their international profile, boost tourism and enhance their image in the eyes of their own inhabitants.⁶

⁵ A Tentative List is an inventory of those properties which each State Party intends to consider for nomination.

⁶ European Comission-European Capitals of Culture, http://ec.europa.eu/culture/tools/actions/capitals-culture_en.htm (visited April 12, 2014)

3. MEDIEVAL FORTRESSES IN SERBIA

According to National Tourism Organization of Serbia, there were more than 200 medieval fortifications in Serbia. In that list are included different fortifications like fortresses, donjon towers and fortified monasteries. Today in the best condition are those that were in the function during the periods of Turkish rule. Most of the fortresses were along the former borders, and during the periods of time they had been rebuilt and adjusted to the development of military technology, so they had lost their original medieval appearance.

Recent years researchers and conservationists have been showing interest to preserve and restore these forts, recognizing them as cultural heritage, because they are serving useful purpose only if they are available and accessible to anyone who wants to learn about history and culture of our people.

Tourist organizations have seen the interest of foreign and domestic visitors and now they are looking to expand space for new programs in the old forts, which will change the former function, but at the same time save them from unnecessary destruction.

The most referenced written document about medieval fortifications in Serbia is Aleksandar Deroko's book "Medieval towns in Serbia, Montenegro and Macedonia" published in 1950 by Prosveta, Belgrade. Since then, 64 years have passed and it is still the first source of information when it comes to history of fortresses in Serbia.

4. PROJECTS

4.1. Section of the fortresses

Section of forts and remains of fortified towns in Serbia was founded on February 14, 2007 on the initiative of PE 'Belgrade Fortress', as part of the Standing Conference of Towns and Municipalities.⁷ Among 200 remains of different fortifications which are in varying degrees of preservation, PE "Belgrade Fortress" with the help of the expert committee made the selection of 29 fortresses located on the territory of 25 municipalities that will make membership section. Criteria for selection of the fortress were former importance of fortifications and the state of preservation, and the opportunity to practice conservation work to improve and update the content to attract visitors. "The purpose of establishing the Section of forts and remains of fortified towns in Serbia is to inform the public about the existence of important cultural heritage in our country; to determine their condition; to propose a revitalization program; to initiate conservation and restoration works and to become part of the tourist offer of Serbia."⁸

Selected 29 forts, in the judgment of experts, have the most possibilities for revitalization.

The list includes Bač, Petrovaradin in Novi Sad, Belgrade Fortress, Borač in Knić, Vršac castle, Smederevo, forts of monasteries Ravanica and Resava, Ram, Golubac, Fetislam in Kladovo, Maglič in Kraljevo, Hisar in Prokuplje, fort in Šabac, Niš Fortress, Ras, Užice, Kruševac, Stalać, Zvečan, Novi Pazar fort, Soko town, Mileševac near Prijepolje, Koznik at Brus, Koprijan near Niš, Pirot, Markovo kale near Vranje, Novo Brdo in Kosovo and Višegrad near Prizren. (Picture 1, page 14)

As we can see, there are all seven fortresses on the Danube in this list, which only confirms their significance in our cultural history and tradition.

⁷ Association of fortress had its own website which was founded on September 29, 2009, and was last seen on February 9, 2014.

⁸ Belgrade Fortress- Fortresses and remnants of fortified towns in Serbia
<http://www.beogradskatvrđjava.co.rs/?p=251&lang=en>, (visited May 8, 2014)

4.2. Cultural Route – Fortresses on the Danube

In June 2010, the development project "Cultural Route - Fortresses on the Danube" was launched in seven towns and municipalities (Bač, Novi Sad, Belgrade, Smederevo, Veliko Gradište, Golubac and Kladovo) in which seven medieval fortress on the Danube are located. This development project is a continuation of a pilot project of the Ministry of Culture "Fortresses on the Danube", which was, in 2009 and 2010, conducted as a part of the UNESCO's Regional Program for Cultural Heritage in South-East Europe. The goal of the project is to connect these seven fortresses into one unique thematic entity and to help in economic and social development of their municipalities. Thanks to this program, our cultural heritage on the Danube could be better positioned on the cultural map of Europe.

As part of this program website and internet presentation "Virtual museum of Danube" was founded in, as we will explain this in second part of this thesis.

Picture 1: 29 selected forts in Serbia



Source: www.winterfell-srbija.com

5. FORTRESSES ON THE DANUBE

“Because of the geographic location of the Danube valley, the Roman and Ottoman empires built a great many fortifications along the banks of the river – the only places secure enough for life and trade to develop. The defense of these territories was at this time a question of survival.”⁹

When the Danube lost its status as the border river, the fortifications lost its original purpose and importance. Today they are historical and cultural monuments, Danube finery and less or more, tourist attractions.

The remains of the seven remarkable medieval fortresses on the Danube can be seen navigating downriver from Bačka to Đerdap. Today, some of them are preserved to a greater and some to a lesser extent.

Those seven fortresses are: the Bac Fortress in the town of Bac, Petrovaradin Fortress in Novi Sad, Belgrade Fortress in Belgrade, Smederevo Fortress in Smederevo, Ram Fortress in the municipality of Veliko Gradiste, Golubac Fortress in the town of Golubac and Fetislam Fortress in the town of Kladovo.

⁹National tourist organisation of Serbia – Fortresses on the Danube; <http://www.serbia.travel/culture/the-cultural-route/fortresses-on-the-danube/> (visited September 28, 2013)

5.1. Bač Fortress

The Bač Fortress was built near the town of Bač, on a small island on the Mostonga River, a tributary of the Danube. The Fortress in Bač was an exceptional example of a "water town" because it was surrounded by the river Mostonga on all sides, and could be approached only by the drawbridges.

From the beginning of 14th century Bač was known as Hungarian Royal city. But, according to some chronicles, before it became a Hungarian possession and became Bač County, Bač was settled by Avars and Slavs in 9th century and had already been an built and fortified town. The fortress was built in the middle of the 14th century during the rule of Hungarian king Robert Anjou, but its final shape it got in 15th century. Archbishop Petrus de Varda enlarged the place of Bač and changed its appearance. He also made Mostonga River deeper so that boats from the Danube could sail into the town of Bač. After the Battle of Mohács in 1526, the city and fortress became an Ottoman possession, but it didn't change its appearance until the Rakotzy rebellion 1703-1710, when it was burnt, demolished and abandoned.

The ruins of the fortress include a pentagonal base, four lateral and one central tower (donjon tower) 18 meters high, which is to some extent reconstructed. (Picture 2)

In 1948, the Bač Fortress got the status of a cultural monument, which has stopped further corrosion and removal of materials and opened the way care for its preservation.¹⁰

When canal Danube-Tisa-Danube was dug, the place remained without water trenches and the streets in the historic suburb lost connection with the town of Bač.

Today the historical place of Bač and its surroundings are on UNESCO's tentative list for World Heritage List and they are considered a cultural and historic unity of great significance for the Republic of Serbia.

¹⁰ Cultural monuments of Serbia – Bač fortress and its suburbs
<http://spomenikikulture.mi.sanu.ac.rs/spomenik.php?id=685> (visited October 1, 2013)

Picture 2 - Bač Fortress today



Source: www.wikipedia.org

5.2. Petrovaradin Fortress

The Petrovaradin Fortress is located in the place also called Petrovaradin, near Novi Sad. On a site of the current fortress was medieval fortification which was during the history in possession of Celts, Romans, Huns, Avars, Byzantines, Hungarians, Serbs and finally Turks, who were defeated by Austrians in 1687.

The existing fortress was built by Austrians between 1692 and 1780 due to the constant danger of the Turks. In 1690 construction of new fortifications began according to system of French military leader, architect and a writer, Sebastian Vauban.

The old medieval fortress was torn down and the Upper Town of the present fortress was built in its place. A lot of objects from that period have been preserved until today within the Upper Town. With some interruptions, the constructions lasted for 88 years, but were intensified mostly after 1739, when the Turks occupied Belgrade again. Within the new fortifications, underground military passages, galleries and 16 km communication channels have been built,

which represent an interesting feature of this fortress today. After 1739, the Lower Town was widened and strengthened with a pentagonal ramparts and that is where the officers' residences, town government, hospital, old arsenal, barracks and other public objects were located.

By this system many fortresses in Europe were built, but the Petrovaradin is the largest (occupies over 110 hectares) and it is the best preserved. In that period were also built: Ludwig bastion with the Tower with the clock, today one of the most popular tourist attractions of Novi Sad, and the Arsenal, monumental one story building, where the Museum of Novi Sad is situated today.

„In 1991 Petrovaradin Fortress was added to Spatial Cultural-Historical Units of Great Importance list, and it is protected by the Republic of Serbia.“

Picture 3 - Petrovaradin Fortress today



Source: www.sr.wikipedia.org

5.3. Belgrade Fortress

The Belgrade Fortress, one of the largest fortifications in Europe, is located in Kalemegdan Park in Belgrade, on an excellent geo-strategic position, on a hill above the confluence of the Sava and Danube River.

In the first century, in the place of the present-day fortress was a permanent Roman military camp. Over the years it became a fortification, which was strengthened during the reign of Emperor Justinian (around 535). Between 4th and 7th century the fortress was destructed several times, by Goths, Huns, Avars and Slavs. On the ruins of that ancient fortress Slavs settled and by the late 9th century, that settlement was known as Belgrade.

In the 12th century, under Byzantine rule, was built the first medieval castle, in today's Upper Town. In the early fifteenth century, in the time of Despot Stefan Lazarevic Belgrade became the capital of Serbia. With the reconstruction of old and construction of new fortifications, advanced medieval fortress was established with internal fortification in the northwestern part of the Upper Town, with the suburbs in the East and West, with great Lower Town and with ports on the Sava and Danube. Turks conquered it in 1521, but until the end of the 17th century, Belgrade Fortress was not significantly remodeled.

Major changes occurred during the Austrian occupation of Belgrade (1717-1739) with construction of walls bastions which were all destroyed after their defeat by the Ottomans in 1739. While rebuilding the destroyed fortifications, Ottomans attempted to restore this significant fortification for defense. During that period, until the late 18th century, the fortress got its final form. In April 1867 at Kalemegdan the Turks handed over the keys of the fort to Prince Mihailo Obrenovic.

In 19th century a plateau around the fortress was transformed into a park. The Belgrade Fortress was seriously damaged in both World Wars. It has been archeologically studied since 1936, and in 1946, both the fortress and Kalemegdan Park were placed under the state protection. Today the fortress is considered as a monument of extraordinary importance.

The fortress is under the direct management of PE "Belgrade Fortress." It is always open to visitors and within it, there are following objects:

The Military Museum, the Preservation Institute of Belgrade, the National Observatory, the Natural History Museum, Ruzica Church, Church of Saint Petka, "Victor" monument, Thumb of national heroes and Belgrade Zoo.

"On 23 May 2007 UNESCO and the Serbian Commission for UNESCO, Culture Public Agency at The Ministry of Foreign Affairs, came to a resolution that Belgrade Fortress is to enter the UNESCO Heritage Preliminary list."¹¹

Picture 4 -Belgrade Fortress and Kalemegdan Park



Source: www.sr.wikipedia.org

¹¹ Belgrade Fortress - Fulfilling the preconditions for joining the UNESCO Heritage
http://www.beogradskatvrđjava.co.rs/Fulfilling-the-preconditions-for-joining-the-UNESCO-Heritage_2373-70_1930 (Visited October 21, 2013)

5.4. Smederevo Fortress

Smederevo Fortress is the medieval fortified town built in 15th century by the Despot Đurađ Branković. It is located in the town Smederevo, on the confluence of the Jezava River into Danube. The fortress is classified as a water fortress because it was completely surrounded by water, and it was modeled after Constantinople fortress.

The Smederevo Fortress was built in the shape of an irregular triangle, and it consists of the Small town with 6 towers and the Big town with 19 towers. (All towers are approximately 25 meters high.) The Small town was built first, finished by 1430, and The Big town was mostly built by 1439, and from 1444 to 1453 fortifications were established.

Turks conquered the town in 1439, but in 1444 the town was returned back to Despot Đurađ Branković. In 1459 the fort finally fell under Ottoman rule, and in the same time that meant the end of the Serbian medieval state. In 1480 the Turks strengthened the whole fortress erecting three polygonal low cannon towers which were connected by lower ramparts and by digging water trenches outside the ramparts.¹²

In 1867 Turks handed the Smederevo Fortress, together with six other fortresses, to Prince Mihailo Obrenovic.

The fortress was put under the state protection in 1946, and today is considered as monument of extraordinary importance.

Same as the Bač Fortress, Smederevo Fortress is placed on UNESCO's tentative list for World Heritage List. Today, the fortress is the main tourist attraction of the town of Smederevo. Every summer the Fortress Theatre Festival is being held inside the remains of Small town, and every autumn, the manifestation Smederevo Fall is located on the fortress.

¹² National Tourism Organization of Serbia – Smederevo Fortress, <http://www.serbia.travel/culture/fortresses-and-fortified-towns/smederevo-fortress/>, (visited May 2, 2014)

In 2010 the reconstruction of the ramparts, sponsored by Ministry of Culture of Republic of Serbia, was started. Works on reconstruction are still in progress, and all that is done in order to make fortress a better candidate for World Heritage List. The final works on reconstruction of ramparts and making the sidewalks for visitors is planned for 2014.¹³

Picture 5 - Smederevo Fortress today



Source: www.panoramio.com

¹³ Ilic J; October 01, 2013; Nastavljena restauraciju Smederevske tvrđave; Večernje Novosti; www.novosti.rs/vesti/kultura.71.html:456592-Nastavljena-restauraciju-Smederevske-tvrđave (Visited October 28, 2013)

5.5. Ram Fortress

Ram is a fortress in the village of the same name, in municipality of Veliko Gradiste. Located on the banks of the Danube, it is presumed that the city was built opposite the fort Haram, which was once located on the other side of the river. The remains of the fortress are still in good condition.

The earliest written record about Ram is from 1128 when near the fortress Byzantines defeated the Hungarians. After the Turks had conquered Serbia they decided to conquer the Kingdom of Hungary also. In order to protect the right bank of the Danube River, Ottoman Sultan Bayezid II, approximately in 1483, had reconstructed and strengthened existing fort for fighting with firearm. Because of that, Ram is considered to be one of the oldest artillery strongholds in Serbia.

Thanks to Turkish sources today we have detailed description of Ram. The Ram Fortress had an irregular polygonal base with five massive towers, three towers on the eastern and two towers on the western sides. The Donjon tower was located in the southwestern part of the fort and it could be entered the Ram Fortress through it. All towers had a ground floor and three floors. Each floor had one hole for the cannon. In the central part of the fortress are the remains of the octagonal structure. The entrance to it was only available through a drawbridge on the Danube side. The fort was surrounded by moat filled with water and two smaller outer ramparts. There was a caravanserai near the fort that was built at the same time. The Ram Fortress was built as a typical military artillery fortification with thick ramparts, built to defend against the firearms.

The Ram Fortress was the subject of interest of the few archaeologists and architects. In 1948, the Ram Fortress got the status of Serbia's cultural monument of great importance. Archaeological excavations were carried out in 1980. Today it is relatively well preserved, but unfortunately rather neglected. (Picture 6)

In March 2013 it was announced that with help of the Turkish embassy in Serbia, The Ram Fortress will be renovated.¹⁴ In the article about this renovation it is written that currently to the village of Ram there is no bridge, and visitors can get there only by ferry. Another problem is that there have been no organized tours to the fortress, so potential tourists have to visit it alone and without guide.

The plan of the development project is reconstruction of the Ram Fortress and regulation of its lighting system. Embassy of Turkey offered to finance these works, and works on the reconstruction of the old Turkish baths. In May 2013 it is published that the first part of the project- regulation of the lighting system had been successfully finished.

Picture 6- Ram Fortress today



Source: www.vreme.com

¹⁴ Knežević D.; March 27, 2013; Turska pomaže obnovu Ramske tvrđave; Danas; http://www.danas.rs/dodaci/branicevo/turska_pomaze_obnovu_ramske_tvrđave_.59.html?news_id=157069 (Visited October 10, 2013)

5.6. Golubac Fortress

The Golubac Fortress is situated on the right bank of the Danube, in the Djerdap National Park, near the town of Golubac. The first written record about the fortress dates from 1335, when it was mentioned as Hungarian military fortification, but the exact time of its founding is not known. The fortress was built on a high rock at the entrance of the gorge, where it provided the best overview of the entire environment. It was built in very important geo-strategic area. It belonged to Hungarians until the Turks conquered it.

Golubac consists of three parts: the front, back and upper city. It has ten towers and two large gates. The nine massive towers are connected by a rampart and positioned so as to defend the city from the land and from the water. All towers are rectangular, except the donjon tower that is in the bottom of the polygonal and the upper cylindrical. Because of its shape is called "hat tower." In the eastern part, above the palace, there is a small circular tower. The tenth, polygonal, tower was built by the Turks in 1480 when they improved the rest of the towers with openings for cannons. In front of the fort is the front wall that makes the outer wall of the trench, which was probably full of water because it was connected to the Danube. The town was by a heavy chain connected with the rock Babakaj, which is still sticking out of the Danube. In front of the fort was a suburb.

Golubac was in the Turkish possession until 1868 when they handed it to Prince Mihailo Obrenovic.

During the 1930 the main regional road was built right by the fortress and that is when the entrance gate was demolished. Construction of Djerdap hydroelectric dam between 1964-72, made Danube' water level to rise and flood lower parts of the fort.

Since 1948 the Golubac Fortress has been under the protection of Institute for protection of cultural monuments and in 1979 it was declared a cultural monument of extraordinary importance for the Republic of Serbia.

For several years now there has been a story about rehabilitation of the Golubac Fortress. In September 2009, Radio-Television of Serbia on its website published an article about

renovation project of this medieval fortress.¹⁵ Since then, at least once a year there is an article or reportage in media about this project, but until now no progress has been made on the project. In September, last year¹⁶ it was announced that project documentation is done, the feasibility study had a positive evaluation in Brussels and the location permit was obtained, and that after revision of project, the building permit is expected. It will be financed from the EU Instrument for Pre-Accession Assistance funds (IPA) By the roofs will be renewed, will be permanently protected old walls and allows the use of towers and other structures. There will be more objects in the fortress, like souvenir shop and visitor center. Guests will be able to stay in bungalows in the immediate vicinity of the fort, and there will also be a dock for tourist boats. The power of nature and the power of heritage can bring prosperity to citizens and contribute to the sustainable development of the municipality. For the municipality Golubac that sees its future in tourism, this will be a significant stimulus. But still, the works haven't begun.

Picture 7- Golubac Fortress today



Source: www.npdjerdap.rs

¹⁵RTS; September 14, 2009; Obnova golubačke tvrđave;
<http://www.rts.rs/page/stories/sr/story/125/Dru%C5%A1tvo/157401/Obnova+goluba%C4%8Dke+tvr%C4%91ave.html> (Visited October 20, 2013)

¹⁶Bujdić Krečković J.; September 18, 2013; EU obnavlja Golubački grad;
http://www.danas.rs/danasrs/srbija/hronika/eu_obnavlja_golubacki_grad.73.html?news_id=267845 (Visited October 20, 2013)

5.7. Fetislam Fortress

The Fetislam Fortress is located near the town of Kladovo in the Eastern Serbia. This fortress is considered to be the most important historical and cultural monument from the near past.

The Fetislam Fortress was built in 1524 by the Ottomans, after their conquering these parts of Serbia, and it consisted of two parts: the Small and the Big town.

The Small town or the Small fort was built first (1524) and had all the characteristics of an artillery base. It had a four-sided shape and was located on the highest part of the area near the bank of the Danube. It was protected by two-story circular towers, which are still quite preserved, and by loopholes in the walls. Around the fort there was a trench filled with water and in the interior there were only the military structures.

The bigger fortification, the Big town, was constructed later. It was a polygonal-base medieval bastion fortress with six towers, connected by ramparts with brick walkways, and surrounded by a water trench. The fortress could be entered through three gates: Orospi, Varoš and Danube Gate, the last was connected with the river. In 1818 the ramparts of the Big town were strengthened, and inscriptions that praised Sultan Mahmud II were set above the arched main entrances of the gates. Inside the fortress were preserved armory, a residential building, barrack, gunpowder warehouse, a small guard, dungeons-shelters, cobbled streets and water supply system.

In 1867 the Ottomans handed over the keys of the fort to Prince Mihailo Obrenovic.

In 1964 the Fetislam Fortress got status of cultural monument of great importance in the Republic of Serbia.

Archaeological research of the complex and its conservation were conducted during 1970's and 1980's but after construction of HPP Djerdap II and the creation of artificial lakes, coastal part of the fortress got under water.

The Fetislam Fortress is not used or maintained. Covered in weeds and partly devastated. In July 2012 it was announced that town of Kladovo is preparing for reconstruction of the Fetislam Fortress.¹⁷ A complex project for revitalization of the fortress included restoring of that cultural and historical site, and a plan to build a museum, visitors' center, hotel, restaurants, etc. The first phase of reconstruction of Fetislam included work on the Small Fort (which is also the oldest) and the regulation of existing summer stage that is within it. However, from July 2012 till today, the renovation hasn't begun, and fortress is still in the same condition.

Picture 8 - Fetislam Fortress today



Source: spomenicikulture.mi.sanu.ac.rs

¹⁷ M.S.; March 8, 2012; Rest in the fortress of Suleiman the Magnificent- Kladovo is getting ready for Fetislam reconstruction, a museum, a hotels and restaurants planned; eKapija; <http://www.ekapija.com/website/en/page/609344/Rest-in-the-fortress-of-Suleiman-the-Magnificent-Kladovo-is-getting-ready-for-Fetislam-reconstruction-a-museum-a-hotels-and-restaurants-planned> (Visited September 30 2013)

6. WEB TECHNOLOGY IN TOURISM

In the last twenty years we have seen the vivid development of information technologies and their global adoption. With the development of computers there has been an increase in using information. Information systems and information about amount and position of terrestrial resources are becoming more and more valuable as modern society seeks for the most efficient models of sustainable resources for living.

Web technology has a major impact on business systems in tourism. Internet provides fast, open and unlimited access to any kind of information you need, anywhere in the world. Industry of travels and tourism has become one of the main sectors which has benefits from IT. Travel and tourism have already become one of the most important sectors that use Internet

In the era of wireless internet, smartphones, tablets, notebooks and all the other portable computers, information is available in every step. In the last decade of the twentieth century, the Internet arose as a new information and communication technology. “It provides a more efficient way for people to access information and spread their opinions as it not restricted by time or physical distance.” (Kidner et al. 2002, page 138)

In urban planning, the current use of three information technologies named Geographic Information Systems, Virtual Reality and Internet, is outlined and the integration of these technologies is considered.

.In this research we will try to explain how the modern information technologies can help in promoting and sustaining Serbian cultural heritage.

6.1. Online marketing

Using Internet in terms of promotion of touristic product is probably the cheapest, but in the 21st century, the most effective way of marketing. Today having internet connection is something that is considered the basic need. Currently, there are around 2 923 000 000 internet users worldwide.¹⁸ As we mentioned before, every person with an Internet access is a potential customer or visitor.

One of the most important things when it comes to websites is choosing good domain name.¹⁹ It should be something that is not too long or complicated so people could remember it, and it should avoid having a similar name as some of the popular websites.

Also, significant is getting your website on the first page of the Search engine results page (so called SERP). The search engine indexes websites that have content that matches the keywords of searchers. If there is a lot of websites with a similar offer, website owner can get something that is called “sponsored links” or “sponsored results” (depending on the search engine). These are websites that are paid for, so that they can be showed on the search engine **first** result page. “Research by Jansen and Spink (2006) found that 73% of search engine users never look beyond the first page of the search engine”. (Charlesworth 2009, page 185)

When it comes to presenting a website to its visitors, these are some main issues:

Website design is most important. It should be well organized, easy to read and the web designer should use pleasant colors so it wouldn't be hard to read it.

If you are presenting a product there should be logo of the company.

Important information (working hours, precise location, etc.) should be on home page or easy to find.

Font should be normal sized, so everyone could read it.

¹⁸ Statistics and facts on Internet Usage Worldwide, <http://www.statista.com/topics/1145/internet-usage-worldwide> (visited September 2, 2014)

¹⁹“ Every presence on the Internet is identified by a series of numbers called the Internet Protocol (IP address) and to make these IP addresses easier to remember, it was decided to allocate word or a series of character to each IP number“, which is called domain name. (Charlesworth, 2009; page:37)

Every website should have its versions in other languages (at least in English) and it must not be grammar or spelling errors in it.

There are also some other ways to promote a touristic product on Internet, such as social networks.

Social networks may not be the first source of information when some potential visitor is planning a trip, which we saw from our survey (page 55 of this thesis). But it is a powerful tool of marketing when a satisfied visitor or customer shares his experience with his hundreds of friends on Facebook, for example. In a similar way work community sites that include customer reviews. One unsatisfied visitor who writes a bad comment can cost us more than a paid commercial.

6.2. Geographic information systems (GIS) in tourism

Geographic information systems are specialized systems that follow not only phenomena, events, activities, but also where they occurred. In that manner geographic location or WHERE something is located, becomes important attribute of activities, managing, strategies, plans and decisions. This most important characteristic is achieved through three technology segments: GIS, GPS, and RS. (Jovanovic et al. 2012, page 13)

GIS are powerful tool for storing and handling geo-spatial data and have been adopted in many market sectors, so as in tourism. GIS can be used to analyze demographic, economic, and infrastructure elements for a given area. Presence of employers, hotels, airports, high ways, streets, public transportation, can determinate database of potential customers for some franchise of restaurants and hotels. The most common use of GIS is related to Web GIS. Web GIS includes different services, as: locating (which helps tourists to zoom in maps till the specific object), finding routes (helps customers to find best routes from start to wanted destination), electronic atlases within GIS, which can show maps of different continents, countries and states and cities.

Web has brought millions of consumers to GIS, and has made it usable in almost every sector of industry and economy. Web still expands, thanks to popularity of mobile web. Advantages of mobile devices and wireless communication technologies helped in expansion of mobile web.

Modern, computer literate tourists have growing demand for information based on which they can make decision about destinations. One of the factors which help to improve positioning of touristic destination is high-quality website based on GIS technology, with high level of interactivity. GIS significantly ease access to information, their visibility, and contribution when it comes to making decisions, but it also can be used to promote touristic products, destinations, sights of touristic regions and countries. Use of digital geographic information implies their accessibility for daily use, especially as a decision support system.

More and more tourists use GIS on regular bases. People use GIS when travelling in foreign countries, meeting new locations, planning trips, finding accommodation etc.

“Travelers and tourists solve geographic problems when they give and receive driving directions, select hotels in unfamiliar cities, and find their around theme parks.” (Longley et al. 2005, page 4) GIS helps in solving those problems because it enables geographic searches for complex inquiries.

Important use of GIS is to ease mobility in transit and in touristic destination. When tourist finds himself in touristic destination, there is a question of simple orientation in a new and unfamiliar area. Most of the time, they use paper maps. Still, paper maps are limited. So the next in line are mobile GIS application which can be used on PDA devices or cell phones. Mobile GIS apps can be interactive guides which allow information about touristic sights.

GIS has an enormous potential in tourism. However, due to lack of touristic databases, GIS applications are limited. There is not enough information about touristic destinations, that concerns places and countries tourists are coming from, their motivation, their consumption, what attractions they are visiting and etc.

In order to get organized, structured information about important parameters, list of touristic resources needs to be done. They can include natural resources, touristic and other infrastructure, demographic data and data about cultural heritage sites. Lists should be made in order to manage tourism and touristic development.

7. GIS AND THE FORTRESSES ON THE DANUBE

This cultural route on Danube, could be part of the touristic domain where can be used interactive mapping based on GIS. Using Internet is also very important. As use of maps was part of the tourism, with evolution of Internet there is a need for various online maps. Maps are considered as a kind of a tool for showing spatial information, which are supposed to send a clear and understandable message. But unlike paper maps, GIS offers easy and quick alteration of information on maps.

Important for planning trips, sailing on the Danube River, or bicycle routes, there can be measured different distances, for example between hotels and these historical sites.

Until recently, decisions were being made using paper maps, and today most of the tourists use intelligent digital maps²⁰. GIS software has a possibility to connect geographic information (where is something located?) with describable information (what is and what are its properties?), and this advantage can be very useful in this cultural route.

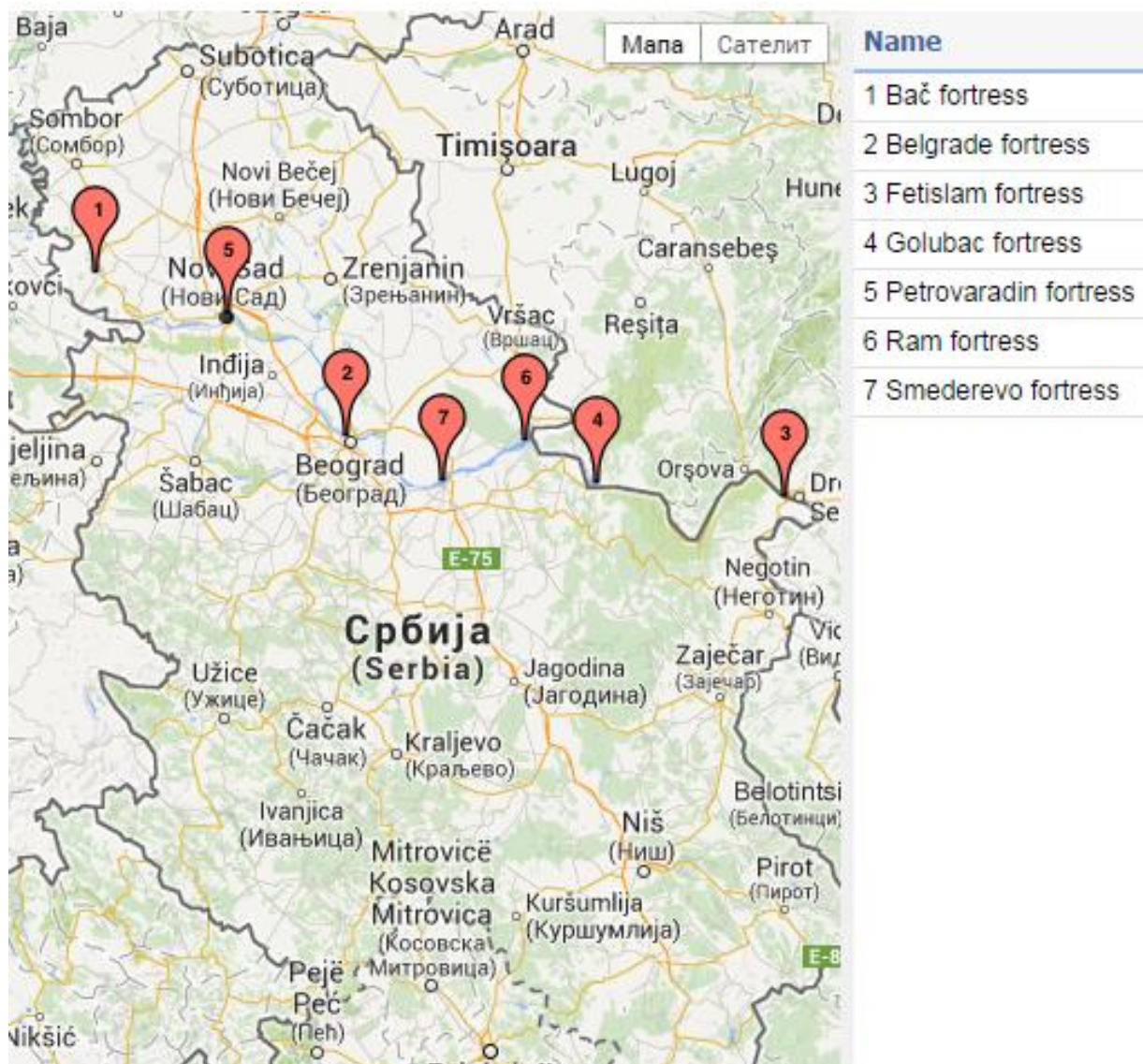
Digital mapping is a visual representation of GIS and it offers a number of possibilities like geovisualization, animation and three-dimension modeling, spatial analysis of simple overlap and creation of thematic maps. Thematic GIS maps or charts are created according to a specific theme related to a certain geographic area (in this case that would be Danube's flow through Serbia) and they present physical, social, political, cultural, economic and other aspects of one city, state, region or continent.

In the following picture we can see a map that we made on a special website, www.zeemaps.com, that is based on Google maps, and it serves to create personal maps that can be shared on websites.

Picture 9 shows a personalized map with marked fortresses on the Danube and with a list in alphabetic order. With a click on every mark, it opens a small window with a picture of the selected fortress and its web address (if there is a website).

²⁰ In our survey 73% of examinees answered that they will rather use maps in digital forms than paper maps (page 56).

Picture 9 – Locations of Fortresses on the Danube



Source: www.zeemaps.com/map?group=1113907&location=Belgrad%2C%20Serbia&add=1#

7.1. Visualization of fortresses

As we will see later from our survey, when it occurs in planning or navigating touristic routes or travels Google maps are first choice among young people.

Six fortresses in Serbia are presented in 3D in Google maps and Google earth, and four of them are fortresses on the Danube River: Bač Fortress, Petrovaradin Fortress, Belgrade Fortress and Smederevo Fortress.

- **The Bač Fortress**

Bač Fortress is the only smaller fortress presented in 3D. The most details have been done on preserved donjon tower.

On Google maps, the Bač Fortress can be found on the geographic location 45°23'35" N, 19°13'18" E and its presentation on Google Earth edition is showed on the Picture 10 below.

Picture 10- Bač Fortress in 3D



Source: Google earth

- **The Petrovaradin Fortress**

The Petrovaradin Fortress has its 3D presentation done very well. Objects inside of the fortress are shown very precisely, although they are not labeled.

Its coordinates are 45°15'13" N, 19°51'45" E.

Picture 11-Petrovaradin Fortress in 3D



Source: Google Earth

- **The Belgrade Fortress**

On Google maps, (Google Earth version) Belgrade Fortress is presented in 3D, and unlike other fortresses, even the objects within it are showed and marked. Its coordinates are: 44° 49' 24" N, 20° 27' 1" E. Because of the greatness of the Belgrade Fortress, we presented it in two pictures.

Picture 12-Belgrade Fortress in 3D (Military museum and Sahat tower)



Picture 13- Belgrade Fortress in 3D (Nebojša tower and Ružica church)

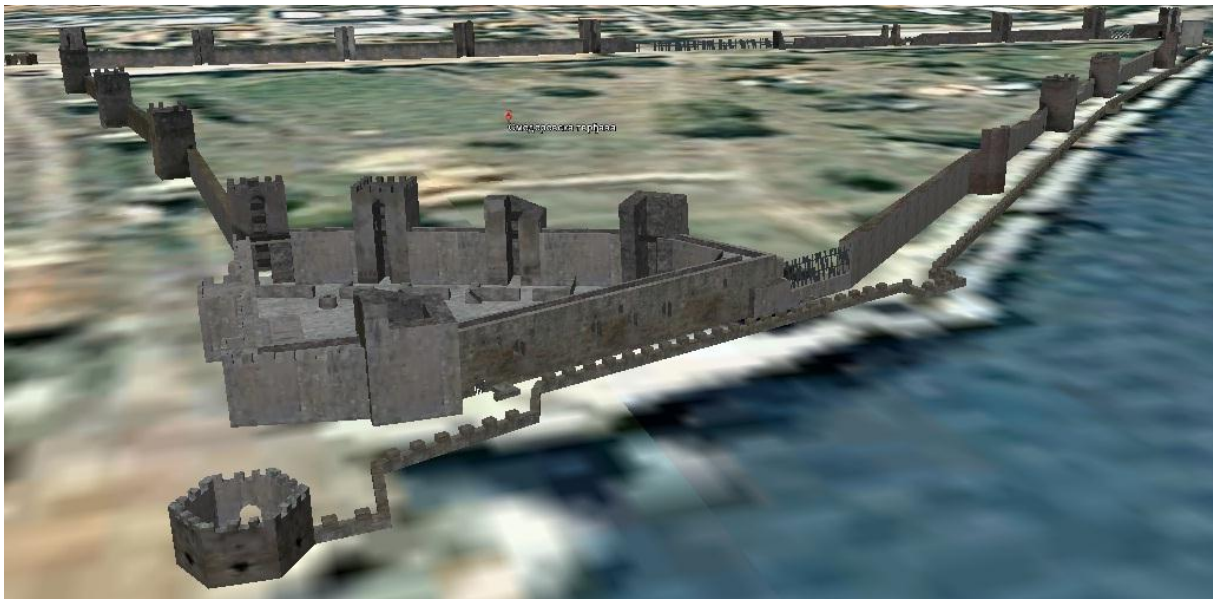


Source: Google earth

- **The Smederevo Fortress**

Like the other three, the Smederevo Fortress is also presented in 3D on Google maps (Google Earth version), and its coordinates are: 43° 21' 46" N, 19° 43' 47" E.

Picture 14-Smederevo Fortress in 3D



Source: Google Earth

Except for these 3D models, every fortress except Fetislam Fortress have been presented in “photosphere” on Google maps. These are 360 degrees pictures that show the whole inside or outside of the fortresses.

Other types of visualization of fortresses can be found only for Belgrade and Smederevo fortresses. Belgrade Fortress on its own website has interactive map of the whole fortress with all objects inside presented in 3D, marked and labeled and Smederevo Fortress has a new website called “Virtual tour through the Smederevo Fortress” that will be discussed in later chapters.

8. WEBSITES EVALUATION

Valuable information about history of fortresses on the Danube can be found on Internet presentations of Tourist Organizations of municipalities in which fortresses are located, and of course, on Wikipedia. From touristic point of view, we also checked TripAdvisor.com to find out how fortresses are ranked and commented by visitors. TripAdvisor.com is a travel website that assists customers in gathering travel information, posting reviews and opinions of travel-related content and engaging in interactive travel forums, with an estimated 49,568,000 monthly visits.²¹

A major objection we have to website of National Tourism Organization of Serbia because in English language there is information only about Belgrade Fortress, Petrovaradin and Smederevo.

We will check if all the information is up to date, accessibility of information such as working hours, price tickets, contact and access, we will check other languages etc.

We will use Alexa traffic rank toolbar, and TrafficEstimate.com to test websites popularity. “Alexa Toolbar collects data on browsing behavior and transmits it to the Alexa website, where it is stored and analyzed, forming the basis for the company's web traffic reporting. As of 2013, Alexa provides traffic data, global rankings and other information on 30 million websites.”²² The Alexa Traffic Rank will show how popular the site is, search analytics will show which terms are used to get traffic and audience data will show what kind of visitors website is attracting. TrafficEstimate.com aggregates information about website you interested in to analyze the website SEO (search engine optimization), competition, ownership, related websites, and traffic stats. The number of visits differs from visitors (or unique visitors). Visits includes multiple visits from the same individual (repeat visits).²³

In the continuation of the research we will check online information about each of seven fortresses on the Danube and examine them one by one.

²¹ <http://www.trafficestimate.com/tripadvisor.com> (visited September 9, 2014)

²² Wikipedia, the free Encyclopedia, Alexa Internet; http://en.wikipedia.org/wiki/Alexa_Internet (visited on May 8, 2013)

²³ Web traffic estimates, <http://www.trafficestimate.com/> (visited on May 8, 2013)

8.1. Virtual museum of Danube

In terms of promoting the Fortresses on the Danube and their appearance in the modern digital environment, in 2011 PE "Belgrade Fortress" in association with the Ministry of Culture of the Republic of Serbia initiated the project, i.e. the internet presentation "The Magic Touch of the Danube – Virtual Museum" (virtualnimuzejdunava.rs). The aim of this internet presentation is to connect representative examples of natural and cultural heritage of the entire Danube region, to point out the importance of preserving that heritage and to create opportunities for future international cooperation between state institutions of countries in the Danube region.

"The internet presentation "The Magic Touch of the Danube – Virtual Museum" is seen as a development platform with a possibility of constant input of new data and content, the mapping of new sites and expansion of the database."²⁴ It also offers an interactive map of Danube's course through Serbia, and valuable information about historical and archeological sights on its banks

Internet presentation Virtual museum of Danube was founded on July 25, 2012. Global rank of website www.virtuelnimuzejdunava.rs was 5, 251, 608 in May 2014, but already in September 2014 it lowered to 16 398 433! Because of the low rankings there is not enough data to estimate the number of monthly visits of this website. There are only 14 other websites that link to it, and we could say that it has not big popularity among potential tourists, which is also shown in the results of our survey

²⁴ Virtual Museum of Danube – About us; <http://virtuelnimuzejdunava.rs/home/about-us.457.html> (visited September 20, 2013)

8.2. Serbia country guide

This is a fast growing and well-designed website, which offers a possibility to find information and photographs about sights that tourist are interested in, and at the same time to find an accommodation or restaurants near it. Through the search engine you can explore a destination or to plan your own excursion.

Interactive maps with positions of the fortresses can be found only on aforementioned Virtual Museum of Danube, and on Serbia Country Guide (serbia.superodmor.rs), and both are based on Google maps. Serbia Country Guide has a real touristic interactive map of Serbia, with places for accommodation, restaurants and bars, cultural-historical heritage locations, sights of nature, spas and climate resorts, ethno villages, ski centers, locations for hunting and fishing and monuments from UNESCO lists.

Serbia.superodmor.rs was founded on December 3, 2011. In May 2014 it had global rank 155 404, and it was ranked as 368th website in Serbia. This website has received estimated 165 000 visits over the last 30 days. In September 2014, its global rank is 105 150, and is ranked as 277th website in Serbia. Over the last 30 days it has received estimated 232 900 visits. The positive growing of this website is because 106 sites are linking to it, and first among them is Blic.rs, the most read online newspapers in Serbia. When we observe the structure of the visitors, visitors from Serbia hold 73,8% which is not peculiar, in the second place are visitors from Bosnia (5,2%), and visitors from Montenegro with 3,3%

Table 2 – Positive growth of the website Serbia Country guide in the last three months

	Global rank	Rank in Serbia	Number of visits
May 2014	155 404	368	165 000
September 2014	105 150	277	232 900

8.3. The cultural treasure of Serbia and National Tourist Organization of Serbia

The website “The cultural treasure of Serbia”(culture.serbia.travel) was founded on January 15, 2013 as a part of the website of the National Tourist Organization of Serbia (serbia.travel). It is established to promote highlights of Serbian rich cultural heritage within international visitors. It is divided in 7 parts: Prehistory on Serbia’s land, The Roman Empire in Serbia, Monasteries of Serbia, Galleries in Serbia, Classical music in Serbia and Fortresses in Serbia. As for the part with fortresses in Serbia, there is information about Bač, Petrovaradin, Belgrade Fortress, Smederevo, Golubac, Maglič, Niš Fortress and Kale in Pirot. But there is not much of it. A few paragraphs about their history, link to their websites (if they have them) and telephone numbers of tourist organization in charge of them.

The website has an interactive map within it, based on Google map.

All the data are the same for these two websites because they are registered on the same domain. Global rank is 756 357 However, that is 118, 651 places down versus the last three months. In Serbia they hold 10 046 7.319 rank. 18.9% of visitors come from Serbia, and most of the visitors are there from Google. There are 29 500 monthly visits estimated in September 2014. However, there are 488 sites are linking to it, and it should gain bigger popularity.

Although this website can be to a greater extent improved, it is the only one of the mentioned that is using the advantages of mobile web. It has its own Android and IOS application that is also called “The Cultural treasure of Serbia”, and it can be downloaded for free. The application was uploaded by National Tourism Organization of Serbia on June 28, 2013. It was. This application was conceived as a guide through cultural-historical heritage of Serbia. The National Tourism Organization of Serbia has selected some of the most important monuments, monasteries, galleries and festivals, localities, archaeological sites that potential tourist one can make a tour of.

9. ONLINE PRESENTATIONS OF THE FORTRESSES

9.1. Bač Fortress in the modern digital environment

As we mentioned before the historical place of Bač and its surroundings today are on UNESCO's tentative list for World Heritage List. On their website in the sections "Statements of authenticity and/or integrity" and „Comparison with other similar properties“ this can be read about the historical place of Bač:

„So far, there is no other location recognised or acknowledged with a similar combination of both the natural and cultural heritage, since this is a specific area under particular historic conditions stretching along an unexplored strip of the left bank of the Danube river.

The natural and cultural heritage of the region is a significant factor for the development of the local community, and the management, as well as the interpretation of the cultural landscape would allow the region to be preserved for posterity.“

When you search online information for Bač Fortress, there is a lot of websites that provide information about history of the town of Bač and its fortress. But, the problem is that neither of those sites gives you information about today's activities in the fortress, and what it has to offer now. The tourist organization of the town of Bač has a fair website on which you can find not only the history of place and fortress, but also the news and activities. Problem is that news and posts are only in Serbian language. Besides that, there you can find all information about how to get there, where you can stay, how you can organize your time and what you can see in that historic place.

As we can see from their website, tourist organization of the town of Bač is giving its best to keep that place alive through various manifestations and activities, such as "European heritage days" and "Volunteer camp at the fortress" in cooperation with UNESCO. Since 2006 within the development project "Centuries of Bač" all that activities are carried out in terms of research, reconstruction and popularization of the fortress and its suburb.

On TripAdvisor.com the Bač Fortress is ranked #47 of 101 attractions in Vojvodina. (September, 2014)

When it occurs to maps, the only interactive maps on the Internet that includes the Bač Fortress are on the “Virtual museum of Danube” website and Serbia Country Guide.

9.2. Petrovaradin Fortress in modern digital environment

Petrovaradin Fortress is very popular today thanks to annual summer music festival EXIT, the biggest music festival in this part of Europe which attracts visitors from all over the world. On TripAdvisor.com Petrovaradin Fortress is ranked #2 of 101 attractions in Vojvodina (September 2014). And according to comments of visitors, the EXIT festival made it popular.

It is strange how fortress so popular isn't better presented online. It is in good condition, within it are a Museum of Novi Sad and large number of studios, and still it doesn't have its own website. Information in English language about it is possible to find on various websites about Novi Sad, on website of EXIT festival and on website of Tourist Organization of Novi Sad. But neither of them has information about activities or events at the fortress, or how to get there. The website of Museum of Novi Sad which is located at the fortress, and organizes tours around the fort doesn't have an English version of the website, and is very poorly designed. Considering that the significant number of foreigners is coming every year, it would be better if they followed the example of the website of the Belgrade Fortress with the interactive map.

It is, as every other fortress, positioned on the interactive map of the Danube River on Virtual Museum of the Danube, and on touristic interactive map of Serbia at Serbia.superodmor.rs. On Google maps (45°15'13" N, 19°51'45" E) it is like the Belgrade Fortress, presented in 3D, which is the only highlight.

9.3. Belgrade Fortress in modern digital environment

Today the Belgrade Fortress and Kalemegdan Park represent an area of rest and joy. It is free to enter the fortress; it is in the city center, with lots of activities, so it is an inescapable place for tourists and Belgraders. Popularity of this place among the visitors proves its rank on the TripAdvisor.com. The Belgrade Fortress is ranked #2 of 90 attractions in Belgrade that travelers recommended (September 2014). The best ranked attraction in Belgrade, according to visitors of TripAdvisor.com is Saint Petka's Chapel which is also situated in the area of fortress.

The Belgrade Fortress has its own website, www.beogradskatvrldjava.co.rs. Well-designed, regularly updated and with all information one visitor could need. There are versions in Serbian (Cyrillic and Latin) and English language. There can be read about history of the fortress, about events, programs and exhibitions in objects within the fortress; service information for the visitors and interesting facts about this place. There is a large gallery with videos and photographs of every part of the fortress and park, including beautiful Panorama photographs of: Lower town, Small and Big staircase, Victor monument, North-East rampart, Monument of Gratitude to France and Inner Stambol Gate.

Specificity of this website is an interactive map of the fortress and Kalemegdan Park.²⁵ Map has an English and Serbian version. All the fountains, monuments, staircases, objects and buildings, gates and towers are positioned on it and when you click on them, it redirects you to an article about each of them. This interactive map is a big plus for touristic development of the fortress, and it would be great if one day every fortress on the Danube would follow this example.

With such a good website, we didn't have to look for other information through the Internet. Everything we needed to know we found on this website. There are many articles about it online and on digital maps at Virtual Museum of Danube, and Serbia Country Guide internet presentations.

²⁵ Belgrade Fortress – Interactive map <http://www.beogradskatvrldjava.co.rs/Interactive-map-80-1988> (Visited October 21, 2013)

9.4. Smederevo Fortress in modern digital environment

The Smederevo Fortress is the only fortress that has two official websites.

However, the first website, www.tvrdjava.com, is not as good as the website of the Belgrade Fortress. The website has working English and Italian versions beside Serbian. Sadly, in the English and Italian languages we can only read about history of the fortress, find contacts of Tourist Organization of Smederevo and Tourist Information Center, and see gallery with photographs. There is no interactive map of the fortress or any other information for tourists on the website. Not even working hours and how to get there, or are there any organized tours for visitors.

In November 2013, the second website, The Smederevo Fortress - 3D virtual walk was launched. It has two domains; www.smederevskatvrdjava.com, for the website in Serbian language and www.smederevofortress.com in English language. It was established as a part of the project of the Museum in Smederevo “Virtual Walk Through the Smederevo Fortress“ and was financed by Swedish government, through “Swedish International Development Cooperation Agency“. Organizations “Cultural heritage without borders” and “Balkan Museums Network” were partners within realization of this project, as well as Tourist Organization of Smederevo and Regional Institute for Protection of Cultural Monuments in Smederevo.

Virtual walk through the Smederevo Fortress is a website with panoramic view of 360 degrees. It provides panoramic tour from 19 differently positioned points that completely cover 10.5 hectares, but special attention was paid to the panoramic sightseeing of the Small town, a fortress of despot Đurađ Brankovic. Within a website there are info points where visitors can find basic information about the objects in the fortress. This kind of website is the best website for touristic promotion of this kind of cultural heritage attraction, and it would be excellent if all the other fortresses could have similar web presentation.

The Smederevo Fortress is ranked #22 of 98 attractions in Central Serbia on TripAdvisor.com (in September 2014), and it is number 1 tourist attraction in Smederevo.

9.5. Ram Fortress in modern digital environment

There are lot of websites and articles online about history of this fort, and legends about it, including of course Tourist organization of Veliko Gradište municipality. But almost any of them is not presenting what this fortress has to offer today, and what its touristic potential is.

On TripAdvisor.com the Ram Fortress is ranked #37 of 98 attractions in Central Serbia, and number 1 attraction in Veliko Gradište. (September 2014)

On the website of Regional Cooperation Council – Task Force on Culture and Society, the cultural tourism potential of the Ram Fortress is described as: “of outstanding local and great regional value”.²⁶ It is written: „The Ram Fortress is a great resource for the development of cultural tourism at local and regional level. If adequately presented and revitalised, the fortress could become a very attractive venue for various open-air cultural events, thus enriching the cultural and travel offer of the local community and the region.“

This is the potential that has to be used.

As for digital maps, the Ram Fortress could be found on the ones that we have already mentioned. “Serbia country guide” offers nice article about it within its position on the interactive map, and of course the Internet presentation “Virtual Museum of Danube” that is showing cultural and historical side of the fortress.

On Google maps, the Ram Fortress can be found through the search engine and on the coordinates: 44° 48' 46" N, 21° 19' 48"E.

²⁶ Task force on culture and society of Regional Cooperation Council – Ram Fortress, Ram;
<http://tfcs.rcc.int/en/archive/105-countries/serbia/227-ram-fortress-ram> (Visited October 14, 2013)

9.6. Golubac Fortress in modern digital environment

On the Internet could be found a lot of photographs and reports about the Golubac Fortress, even the conceptual design and idea of how the reconstructed fortress would look like. On the TripAdvisor.com the Golubac Fortress is listed as the number 9 attraction (of 98 of them) in Central Serbia and number one in town of Golubac. That means that on the list of the attractions and things to see in Central Serbia it is positioned better than Smederevo and Ram fortresses. As for its presentation on the web, the town of Golubac, within the project “Development of a quality touristic offer in Golubac municipality” which is funded by the European Union, had designed very nice website, with, besides Serbian, an English and Romanian version of it. Even though the website is updated regularly and it offers a list of activities and tours that can be done in Golubac, and a list of taverns and places for accommodation, the fortress is only a small part of it. It is described in detail, with photographs as one of the attractions in Golubac, and it has an option to contact Tourist Organization for organized tours. Our comment is that there is no interactive map of Golubac municipality, or Djerdap National Park. With activities such as sailing and cycling, with walking routes and all that natural, cultural and traditional sights to see in that area, one interactive map would be a big hit for potential tourists.

Like all the other fortresses, this one is also well presented on interactive maps on “Serbia.superodmor.rs” and on “Virtual museum of Danube” website.

9.7. Fetislam Fortress in modern digital environment

Of all seven fortresses this one is least presented on Internet. Nice presentation about it exists on the website serbia.superodmor.rs and on its interactive map of Serbia. The history of the fortress and its location on Danube, together with all the other fortresses, is presented on the internet presentation: Virtual museum of Danube. Also, there are a lot of websites that could be found writings about it, like website of Tourist organization of town of Kladovo, website about Cultural monuments in Serbia, or Association of Fortresses, but problem is that those websites are only in Serbian, and if they have an English version, there could not be found anything about today's activities or manifestations on it.

Even in Google Maps we couldn't find location of the fortress unless we know its coordinates or we search for it through the town of Kladovo. That is the only fortress on the Danube that cannot be found through the search engine of the Google maps.

With help of the Virtual Museum of Danube that uses Google maps for its presentation, we found it at the following coordinates: 44° 36' 56" N, 22° 36' 06" E.

10. RESULTS OF THE SURVEYS

10.1. The first survey

To examine how people are informed about fortresses on the Danube, in September 2013, we created a survey with open questionnaires. The survey included five open questionnaires, and was taken online, among students and graduates from Belgrade and its surroundings.

The first question of the survey was: „How many fortresses on the Danube are you familiar with? “

None of the examinees did know that there are 7 fortresses on the Danube. Closest answer was 5, and that answer gave 24% of the examinees. 64% of the examinees answered with “I don’t know”, and 12% of them gave various answers.

The second question of the survey was: “Can you name the fortresses you have heard about?”

Not surprisingly, 100% of the interviewees have known about the Belgrade Fortress. 96% also have heard of fortress in Novi Sad and the same number of examinees have heard if the Smederevo Fortress. 52% of the interviewees have heard about Golubac and 12% about Ram. 28% knew about Fetislam Fortress in Kladovo, but almost no one did know how it is called. Not one of the interviewees had mentioned Bač Fortress, and only 20% could name more than 4 fortresses. As shown on the Table 3 below.

Table 3- Which fortresses our examinees can name

Belgrade Fortress	100%
Petrovaradin Fortress	96%
Smederevo Fortress	96%
Golubac Fortress	52%
Fetislam Fortress	28%
Ram Fortress	12%
Bač Fortress	0%

The third question was: „How many fortresses have you visited?“

Not any of the examinees has visited all 7 fortresses, not even 6 of them. Only 8% of the examinees have visited 5 fortresses. 40% have visited 3 of them (Belgrade, Novi Sad and Smederevo fortresses), 32% visited only 2 and 20% of examinees 4 fortresses.

Having in mind that survey was sent to people from Belgrade and surrounding, visiting Belgrade Fortress is not a strange thing.

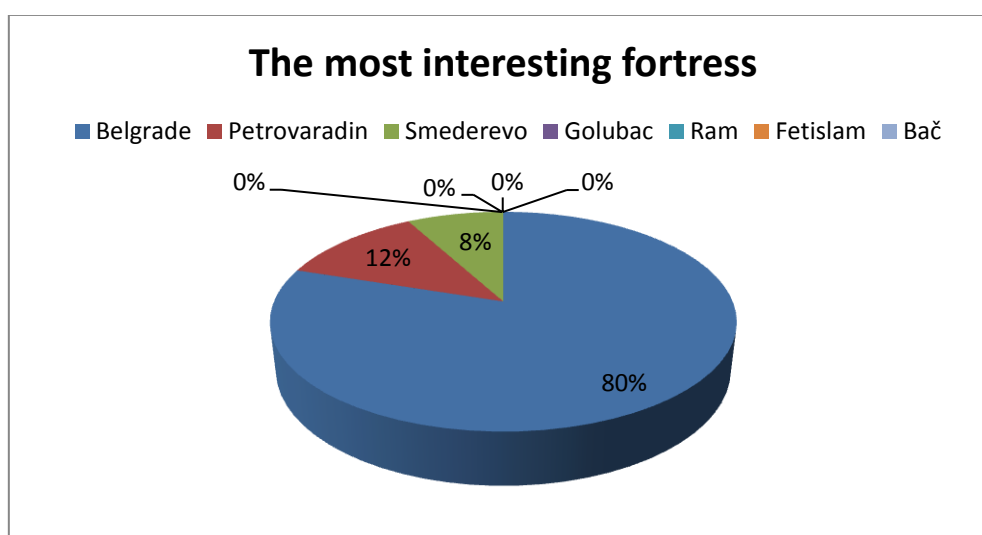
The fourth question was: “On what occasions you have visited those fortresses?”

Most of the interviewees, 72% of them, answered that they have visited on their own or during school trips. Most of them stressed that they have visited some fortresses during school excursions and the Belgrade Fortress on their own. 28% answered that they have all of them visited on their own.

The fifth question was: “In your opinion, which one is most interesting for visitors?”

80% of the examinees answered with: Belgrade Fortress. Only 8% answered Smederevo, and 12% Novi Sad. Again, as most of the examinees are from Belgrade, or have been studying there, they are most familiar with Belgrade Fortress, so this result is just showing which fortress they are most familiar with.

Chart 1



As we can see from the results, no one knew exactly how many fortresses are there. And except from Belgrade, only the Smederevo and Petrovaradin Fortresses are well-known among young people. Were it not for the school trips, maybe neither that two would be known. No one has heard of Bač Fortress and very small number has heard of Ram Fortress. These results are very disappointing. They show the shortage of information about fortresses on the Danube, and that is the result of the lack of interest in promoting them.

10.2. The second survey

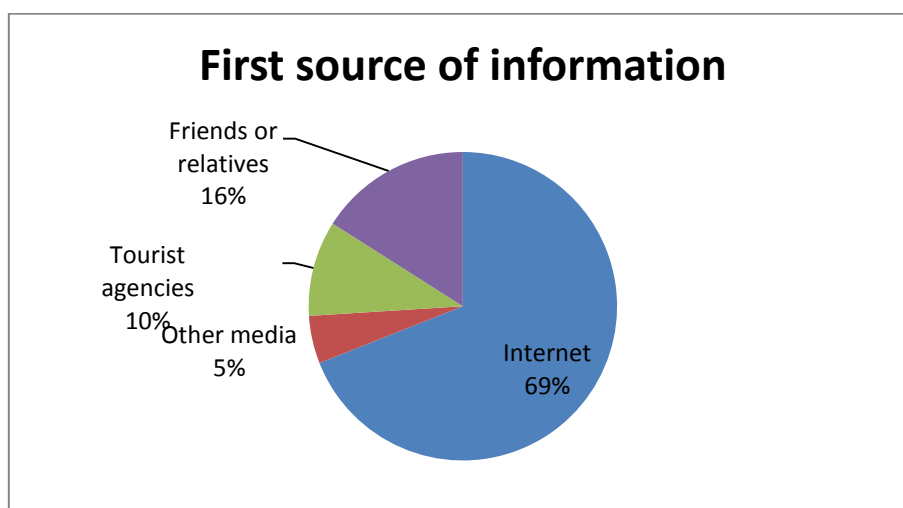
The second survey was about using Internet and web technologies in planning trips and travels. This survey was made in Google document form and was conducted anonymously. It included five questions with multiple answers. These were the questionnaires and the results:

First question: What is your first source of information when it comes to planning travels, trips or when you want to visit some tourist attraction in Serbia?

Possible answers were:

1. Internet – 69%
2. Other media (television, radio, newspapers) - 5%
3. Tourist agency - 10%
4. You travel only on recommendation of a friend or a relative - 16%
5. Other

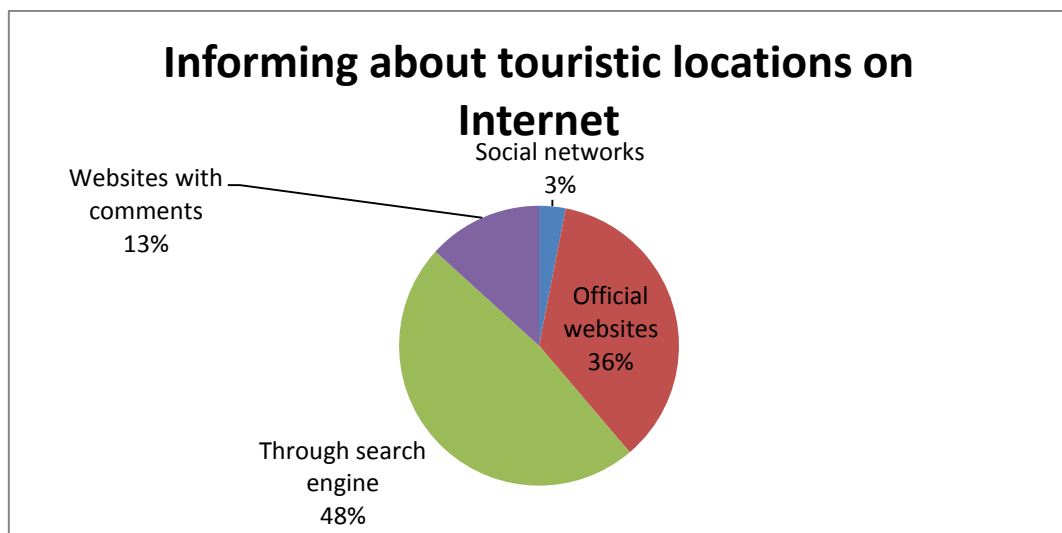
Chart 2



Second question: If you try to find information about touristic location you want to visit over the internet, what sites do you visit first?

1. Social networks (Facebook, Twitter, Youtube, Google +) (3%)
2. Official websites of the places you plan to visit (36%)
3. You are using search engine with key words and you enter the websites that are first on the list (48 %)
4. You visit international community websites with visitors' reviews (13%)
5. Other

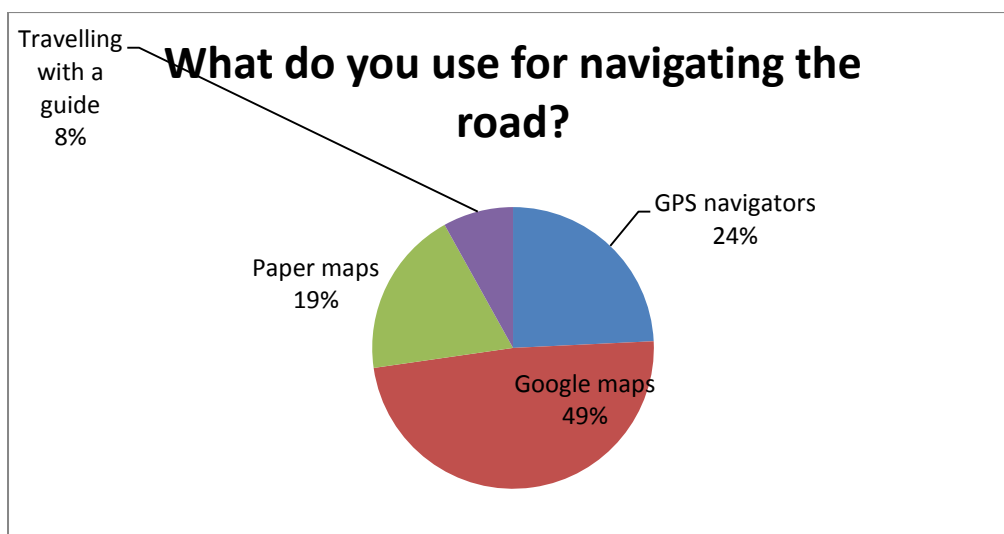
Chart 3



Third question: What do you usually use for navigating the road or travel planning?

1. GPS navigators (24%)
2. Google maps and navigation based on them (49%)
3. Paper road maps (19%)
4. I don't use anything, I travel only with a guide (8%)
5. Other

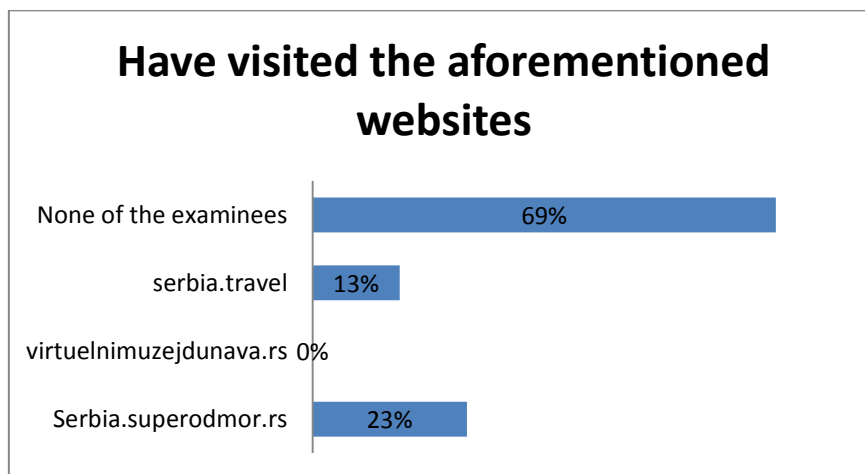
Chart 4



Fourth question: Have you ever visited any of the following websites?

1. Srbija.superodmor.rs (23%)
2. Virtuelnimuzejdunava.rs (0%)
3. Serbiatravel.rs (13%)
4. None of them (69%)

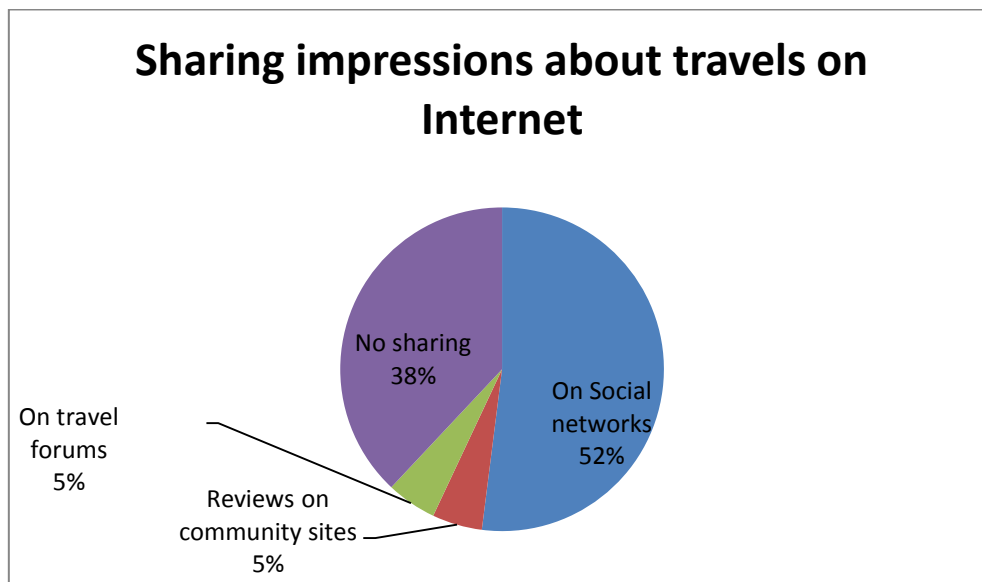
Chart 5



Fifth question: Do you use internet to share your experience and impressions from travels?

1. Yes, I upload photographs and share impressions with friends on social networks (52%)
2. Yes, I review attractions, objects and locations on community websites (5%)
3. Yes, I share experience on forums about travels (5%)
4. No, I don't (38%)
5. Other

Chart 6



The results obtained in this survey shown us that 69% of the examinees consider Internet first source of information when they are planning trips. 73% choose maps in digital forms over paper road maps (49% - Google maps and 24% - GPS navigators). 48% of examinees would let search engine to find adequate websites for them, and that is where we see the importance of putting official website on the search engine's first results page. Again, large number, 52% of examinees, would share impressions about their travel with virtual friends and potential tourists, which can be very good if they were satisfied, but on the other hand if they were not, that could be bad publicity.

11. CONCLUSIONS

Touristic success in any country depends on abilities of that country to develop positively, to manage and promote touristic resources. Large amount of information within tourism industry can be placed in various analog and digital forms. Therefore it is necessary to use information systems capable in answering questions about touristic resources and providing touristic information in an integrated way. From our second survey we could realize that young people in Serbia use Internet on regular basis for finding information about touristic locations. Social networks and international community websites have become the sources of impressions from travels and reviews of touristic attractions and accommodation. It means that every tourist with Internet access is taking part in promoting some touristic product.

As we saw from our first research, the Belgrade Fortress was voted as most interesting fortress for the visitors. Probably because it is located in the Capital city and there are a lot of activities in it. So it is not strange that only this fort has an adequate website. It is updated on regular basis, with news and activities in English and Serbian language, with an interactive map of the Upper and Lower town of the fortress with all the objects within them, and with beautiful panoramic photographs.

Unlike Belgrade Fortress which has its own firm, all the other fortresses depend on Tourist organizations of the municipalities they are situated in. So their Internet presentations also depend only on the effort of those organizations. That these fortresses can be very interesting for visitors, we see from good impressions of the foreigners who had commented on them on TripAdvisor.com.

Smederevo and Petrovaradin Fortresses are, like the Belgrade Fortress, well-known among our examinees. Petrovaradin Fortress, very popular because of the EXIT Festival, doesn't have its own website, and despite its popularity there is no adequate online information for tourists. The Smederevo Fortress is the only one besides Belgrade that has its own website and the only fortress with the web presentation "Virtual walk through the fortress". This web presentation should be the example to the other fortresses.

As we saw from our first survey, the Bač Fortress is unfamiliar to the general public (apparently no examinee has heard about it). But, even though information about it could be found on Internet and even though there are works on its renovation and keeping, it should be considered some kind of promotion of it outside the Bač County.

The Ram Fortress also is not very popular among young people. Probably one of the reasons is that there are not organized tours to it, and it can be reached only by ferry. Considering that its reconstruction is in the progress, we hope that in the end of it we will see a progress in its Internet presentations and promotion.

The Golubac Fortress has the potential to become most attractive fortress in the area. But that could be achieved if the works on its reconstruction really start soon, as it was announced earlier this year. First changes can be seen on the renewed website of the Tourist Organization of the municipality of Golubac, but if they want to promote the fortress and activities in it, it will demand its own website.

The Fetislam Fortress is probably most neglected, concerning condition of its remains and the Internet presentation of it. Within months of this research we haven't seen any progress in changing that image.

A devastating fact is that 0% of the examinees could name and number all seven fortresses on the Danube River. It is also unacceptable that, after more the 60 years from publishing, Aleksandar Deroko's book "Medieval towns in Serbia, Montenegro and Macedonia" from 1950, is the main reference on websites that provide information about history of fortresses.

In the era of the Internet and digital media, we have to use their advantages in spreading information. The Virtual Museum of Danube internet presentation is the first step to introducing that part of our history and cultural heritage to wider public, but sadly, this website is not popular enough, and as we understood that 0% of examinees from our survey has visited it.

Just like every other industry, tourism also requires investments to develop. Potential touristic route would include cruises on the Danube River, from Bač Fortress to Fetislam Fortress,

visiting all seven fortresses, learning about their history and buying souvenirs would be something extraordinary that will improve our position in touristic map of the world.

If the development project „Cultural route – The Fortresses on the Danube“ really can be fulfilled, the effects of that project will induce economic recovery of the certain municipalities (especially Bač, Veliko Gradište, Golubac and Kladovo) and will create opportunities for touristic progress of the whole Danube region in Serbia.

An interactive map based on GIS, with pictures, brief history and information for visitors could be made for the fortresses on the Danube tour. With a click on a position of selected fortress on the map, it could transfer you to the official website of it. It could be done also as mobile interface, because most of the tourists now use tablets, PDAs and smartphones on travels. One day, when Golubac, Ram and Fetislam fortresses are reconstructed, this is the touristic opportunity our country cannot miss.

Cultural heritage is something most important that one nation has. If we want to preserve what we have, we must show the importance of our heritage and work on its promotion.

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