



European Union
Funded Project



Project Implemented
by Golubac Municipality

REVITALIZATION OF GOLUBAC FORTRESS - FEASIBILITY STUDY



ALBO-inženjering Beograd d.o.o. preduzece
za projektovanje i inženjering - Beograd

Project Design and Feasibility Study
for Revitalization of Golubac Fortress

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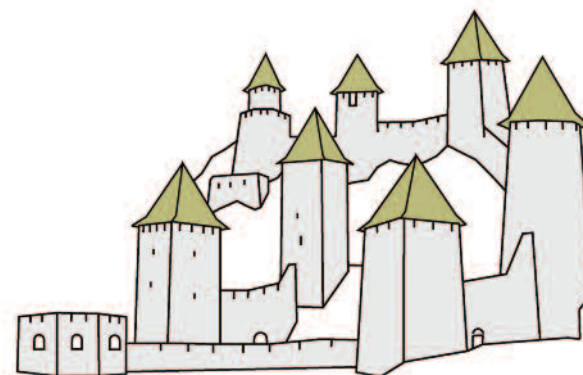
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Revitalization of Golubac Fortress

Feasibility Study

Belgrade, august 2009.

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Introduction

On the basis of the invitation in March 2009, the Municipality of Golubac entrusted ALBO-Engineering, Ltd. for planning and engineering, Strumicka 88/b, 11000 Belgrade with the making of the Fortress Feasibility Study & Project Design of the Golubac fortress revitalization, Golubac (Fortress Feasibility Study & Project Design, Golubac).

The tasks for the making of Feasibility Study and Project Design of the Golubac fortress revitalization were stated precisely in the contract signed with the Municipality.

It is known that prior to this task, Spatial Plan of the National Park Djerdap, Master Plan of Tourist Destination of the Lower Danube Basin were created and that the General Coastal Area Arrangement Plan and Golubac municipality Spatial Plan are currently being passed, all which were used during the process of creation of Feasibility study with Preliminary Project of the Revitalization of the Golubac Fortress.

The making of the Feasibility Study of the Golubac fortress revitalization with the Project Design is specific because it requires a multi discipline approach during the research and an overall consideration of the specific conditions in the area around this cultural monument.

Appropriateness and usefulness of every project comes down to its practical use by interested subjects in public and private sector, and according to the previously defined objectives.

As the Golubac fortress is a cultural monument of extreme importance for the Republic of Serbia and is about to have an important part in future economic and social development of the municipality of Golubac, this project aims more at the elaboration and formulation of the suggestion of the project design, the design and purpose of the future use of the area, and less at the study of the previous period and the current state of this deteriorated and endangered cultural monument. The history and state of the monument are well-known and they were one of the reasons for initiating the making of the Feasibility Study and the Project design of revitalization.

In this regard, the undertaken working procedures of the creation of this project are directed at the analysis and evaluation of the rehabilitation of the Golubac fortress as well as the planning and designing of the whole protected area around the immobile cultural asset.

Bearing in mind the above, the following working procedures were undertaken:

- Detailed inspection and analysis of the planning documents of the Municipality of Golubac;
- Inspection of the existing cartography base as well as the protection plans and programs of the Golubac fortress area;

- Meetings with the key representatives of the municipality of Golubac and public sector;
- Visits to the site and creation photo-documentation on key elements of the current state ;
- Discussions with experts in the field of protection of cultural monuments;
- Meetings of the project team members.

The undertaken procedure is a reflection of the complex structure and demands, as well as a relevant methodology in the creation of this specific project, which, in the best possible way, provides solutions for the set demands of the Purchaser.

Bearing this in mind, it was necessary to hire a great number of associates- experts in specific fields of integral sector of protection and valorization of cultural monuments, planning, and spatial design and object construction: Marija Jovin, graduate architectural engineer - for the integrative protection and the revitalization solution, Aleksandra Banovic, graduate architectural engineer - for the urban solution of the area, Vesna Vandić, graduate attorney - for the program, legal and economical analysis, Nenad Kis, graduate civil engineer - for the static analysis of the reconstruction, Branislav Jovin, graduate architectural engineer - for the traffic solution, Savo Djakonovic, graduate civil engineer - for the tunnel construction, Slavko Djerfi, graduate civil engineer - for the bypass, Nikola Cica, graduate electro-technical engineer - for the lights and electro installations, Boris Horosavin, graduate art historian - for the three-dimensional check and visualization of the object and area.

The consultants on the project - Ph.D. Miomir Korac, archeologist, and Sinisa Temerinski, architect - are deserving for defining the revitalization concept of the Golubac fortress and its suburb in order to be included in modern streams.

During the making of the project of great help to completely realize the potential and possibilities for the future protection, development and the use of the fortress and surrounding area, were: engineers Mihailo Sretenovic, Srbobran Stambolic, Radoje Milatovic, Rade Lasic and Natasa Zivanovic; for the advice in solving the problems related to the designing of the coastal area and reception of passengers from Corridor VII, archeologist Dragan Jacanovic - for the advice on programs of systematic archeological works, Haji Zoran Mrdjenovic from the Royal Order of Knights - for the advice on organization of knights tournaments, painter Slavko Radan - for the advice and instructions how to populate and breed white pigeons in the fortress.

We were especially helped by the representatives of the municipality of Golubac with their suggestions - Sasa Bogicevic, Snezana Oresanin Jovanovic, Sasa Stokic and Goran Jecic - to find a realistic solution for the revitalization.

In Belgrade, August 15th. 2009.

Marija Jovin, graduate architectural engineer

Social-economic and spatial analysis of Golubac Municipality

Position

The municipality of Golubac is situated in the north-east of Serbia, on the right bank of the Danube.

Its western parts spread over the area of the Pannonian border, while the slopes of North Kučaj represent the eastern parts of the municipality. The valley of the River Pek is a geo-morphological and water border on the west as well as small hills on the east and south slopes of North Kučaj - Kornavski vis 632m and Shomrda 735m height above sea level.

The municipality Golubac, if considered administratively, borders the municipality of Veliko Gradiste in the west, and in the south, south-east and east, it borders the municipality of Kucevo and Majdanpek. The north border of the municipality, 52km long, is the Danube along which extends the state border with Romania. The municipality of Golubac extends over the area of 368 km² with the average population density of 24 residents per km² and includes 24 settlements.

Geographical characteristics

Spatial limitation by the contact zone of the south-east rim of Pannonian Basin and the Carpathian mountain range defines the main natural features and the conditions of the municipality area. The west part of the municipality represents an area of very complex geographical structure including the valley of the Pek river, parts of the sandy terrain of Pozezeno and slightly rolling slopes. In the east part of the municipality hilly and mountain terrains prevail.

The most dominant geo-morphological form on the territory of the municipality is the Golubac gorge, which is the first gorge along the composite valley of Djerdap. After the Golubac gorge, the Danube enters 12 km long ravine of Ljupkovo, where the flooded confluence of the Dobranjska River is situated. A gorge called Lady's whirlpool is situated in the furthest eastern parts of the municipality. It is filled with underwater rocks and giant "pots" where the greatest depths of the Danube are located.

The climate of the municipality of Golubac is mildly continental, with an average air temperature of 11°C; January is the coldest month and July the warmest. The maximum precipitation is at the end of spring, with an average amount of precipitation of 700 mm a year. The most dominant wind in this part of Serbia is a south-east wind called "kosava".

The main water current on the municipal territory is the River Danube, which is the widest in Golubac along its course through Serbia (5-6km). The second biggest river in the municipality is the River Pek, but it runs only through a smaller, western part of the municipality. Of much more interest are smaller rivers which flow down mountain slopes towards the Danube, creating short valleys, which are often similar to gorges. Their confluences were mostly turned into small bays after the hydro power plant construction (Rivers Tumanska, Brnjica, Dobranjska, Kozica, Cesava).

About 16.000ha of the territory of the municipality are covered with forest and they are mainly situated in the western and southern parts of the municipality. These are the parts of the municipality of Golubac which are included in the National Park Djerdap, with the primary entrance into the National Park: the Golubac fortress. The area of the National Park and its protection zone includes 235 km² of the territory of the Golubac municipality (KO - cadastre area - Golubac- a part, KO Brnjica and KO Dobra). On the territory of the municipality of Golubac there are four natural reserves which are separated and under protection:

- Bosman-Sokolac (281,34 ha);
- The Golubac fortress (23,04 ha);
- Bojana (27,44 ha);
- Tatar Peak (25, 08 ha).

Natural regional entireties are also zones of the second degree of protection: Golubac gorge (1236,24 ha), a part of the area Sokolac-Vlasac (1040,62 ha), the canyon of the River Brnjica (1051 ha), a part of Somrda (6294,37 ha), the protected area of the Golubac fortress(the natural area around the immobile cultural asset of 118,75 ha), Chezava - Kastrum Nova (the protected area of the cultural monument of 65,38 ha).

Traffic position of Golubac Municipality

The Municipality of Golubac is 130 km away from Belgrade on the main road M25.1 Belgrade- Kladovo which is at the same time the most important road corridor for the Golubac municipality, also known as Djerdap highway.

The total length of roads on the territory of the Municipality of Golubac is 139 km, of which the biggest part consists of modern roads. The main roads are 44km long, and the regional roads are 27 km long, and the longest is the net of local roads which is 68 km long. Besides the main road M25/1 Belgrade -Kladovo, three more regional directions are important for the road traffic in the municipality: R108 Branicevo-Ljesnica in the Pek valley, R256 Golubac-Turija, and R 108a Golubac-Malesevo-Zelenik. However, although the main road M25.1 is said to be the most important traffic corridor for the Golubac municipality, this road goes through the Golubac fortress itself, a cultural monument of highest importance, with two tunnels dug through the fortress, which has damaged the fortress and introduced its constant devastation by transit and especially freight traffic. Therefore, and also because of the fact that the Golubac fortress is the primary entry point into the National Park Djerdap and in its surrounding area is the national reserve

of the same name "Golubac fortress", it is necessary to start a planned construction of an appropriate bypass to the the fortress and also to reduce the great intensity of road traffic of the whole Djerdap highway. The intensity of cars varies from 700 to 3500 measured by AYDT (Average Year Daily Traffic).

River traffic on the territory of the municipality of Golubac has a great potential due to the waterway of the Danube, but is also a prerequisite for its more intensified development, for the arranging of the coastal area and the construction of the missing infrastructure necessary for river traffic.

Railway traffic on the territory of the municipality of Golubac is not developed. The nearest airport to Golubac is the airport "Nikola Tesla" in Belgrade.

Population

There are 9.913 residents in 24 settlements in the municipality of Golubac, according to the latest population register in 2002. The administration centre is the town Golubac, situated at the very bank of the Danube with 1.896 residents.

Compared to the population register in 1991, the number of population in the municipality of Golubac decreased for 969 residents. This decrease of the population is a consequence of the negative population growth which is -11, 2% for this municipality. Therefore the age structure of the population is negative with 23% of the population older than 65.

The natural changes of the population of the Golubac municipality made the average population age in the municipality 42.6 years, which is more than the average state age, which is 40,43 years. About 5000 residents of this municipality are on the temporary stay in foreign countries.

Educational structure of the population in the municipality is rather negative: 3, 4% of the population older than 15 have university and higher education, while 8, 4% of the population has no further education and 32,7% of the population older than 15 does not have elementary school education.

Economy

Gross Product per resident of the Golubac municipality is 77.993 dinars, which is 55% less than the state average. The main economy branch of Golubac is agriculture and processing industry. The municipality of Golubac participate the Gross National Product of the Republic of Serbia with 0,07%.

In the municipality of Golubac the economy activities include: agriculture, hunting, forestry and water management with 35,61%, processing industry with 30,48%, wholesale and retail 8, 87% and tourism with 3,52%. The economy of Golubac has results under the state average and therefore this municipality is one of the under developed municipalities.

Plan Analysis

Spatial plan of the National Park Djerdap was passed in 1989, it is active, and within the purpose plan of the primary entrance area of the National Park "Golubac fortress", the following contents, spatial parts and objects were planned functioning as a cultural monument and national park: a museum, pier, archeological park, information centre, catering facility, car park.

Spatial Plan of Golubac Municipality – is on public inspection and is expected to be passed.

The municipality of Golubac is characterized by a relatively small use of the area, and this new Plan anticipates significantly larger investments in planning and arranging the area in the overall development of the municipality.

The Plan anticipates preventing the construction of industrial and other polluters of air, water, soil and environment on the territory of the municipality of Golubac. The need to develop according to the urban plan in order to develop tourist entities and contents was particularly emphasized.

General Town Plan (GTP) of Golubac Municipality – was passed and applied in 2002 and it was adapted according to the Law on spatial planning from 2003 (the decision about the applying the town plans passed before the day when the Law on planning and building from November 2003 became effective). According to this Plan, functional zones within GTP were singled out: Centar, Parlog, Prioriste and Vinogradi. The average size of the construction fund is 54 m²/per resident, with the biggest one in Center is 39 m²/per resident, and the smallest one in Parlog 28 m²/per resident. The reason for such a large construction fund for a settlement as large as Golubac is a result of the construction of individual objects of large squaring per resident, i. e. the fact that a great number of owners of these newly built objects lives abroad. The General Plan anticipates the development of three town centers, of which one has a primary, and the other two secondary statuses. The planned centre of primary status, which is the existing town centre, extends along the Djerdap highway with a distinct concentration in the area from the hotel "Golubacki grad" to the administrative building of the municipality.

Plan for general renovation of Golubac coastal area – the plan is on public inspection and is in the stage of being passed.

Plan for the general arranging of the coastal area of Golubac- the plan is on public inspection and is in the stage of being passed.

This Plan includes the area of 216,50 ha, 12km long i.e. 0,55% of the municipal territory. However, although small in size, this coastal area represents the most attractive part of the territory of the municipality of Golubac and its greatest potential. The plan involves the construction of new contents of about 90000 m² of the building area.

Within the planned new contents, a significant place belongs to accommodation facilities (planned number of beds is 1028, of which 130 beds are hotel accommodation, 858 in

mansions, suites and boardinghouses and 40 in motels). Besides accommodation facilities, the total planned capacities include technical infrastructure, accompanying and other social contents which partly already exist, green, park and recreational areas as well as a number of commercial contents.

According to this plan, the planned area has 12 zones:

- Zone 1 – The Golubac Fortress, singled out as the most attractive zone in the Plan area, with a possibility to develop public functions, commercial, business and catering services of tourism as priority objects inside the fortress;
- Zone 2 – includes the area reserved for recreation and tourism, commercial and business functions, residing with accompanying green areas;
- Zone 3 – the most dominant functions are public, cultural and business functions, with the entire zone being recognized as a regional ecological centre;
- Zone 4 – the central town zone where there are even now public functions, as well as contents of business and residential objects, with the arranged town green area;
- Zone 5 and 6 – similar according to their functional features because they unite public and educational and recreational contents with the existing hotel and arranged green and park areas, as well as sports fields;
- Zone 7 – a concentration of public functions, and also residential objects with trading and service contents and arranged marina with accompanying facilities;
- Zone 8 – extends along the highway, and includes residing, commercial and catering facilities and arranged areas for recreation;
- Zone 9 – The building of accommodation facilities (villas and suites) is planned with recreational facilities as an accompanying function and business-commercial contents fitted into arranged green areas;
- Zone 10 – similar contents as in the zone above, where it is also planned to arrange an open space for gatherings with accompanying commercial and catering facilities;
- Zone 11 – it is characterized by a dominant residential function with accompanying commercial and catering facilities, The building of accompanying commercial and service facilities is planned, information centre and arranged green and recreational areas next to the pier and customs office;
- Zone 12 – is situated between the river and the town road, and at the moment it is of dominant residential function with the existing weekend houses. It is planned to arrange these objects and complete them by building accompanying commercial, service and recreational facilities.

Water supplies

For the settlement of Golubac and its nearby settlements, there is a system of water supply, which uses the reservoirs at the location Vinogradi, where water comes from nearby wells. It is planned to build three more wells and a new reservoir "Zuti breg", then to improve the water distributional system and the reservoir area, as well as to

improve equipment for water production.

Sewerage system and waste disposal

The settlement of Golubac has a sewerage system, but there is no such system in other settlements. However, the sewerage system does not include set equipment for waste water processing, so that feces waters are released into some of the recipients and that degrades quality of their waters. According to the GTP, there is a plan to build a system of feces sewerage directed to the existing collectors. A collecting system takes collected water to a feces pumping station, where from it is pumped into a system for biological filtration situated on a plateau next to the road for Kladovo.

The existing dump of the settlement Golubac for municipal waste is on a land registry lot Branicevo and it has been used since 2002.

According to the national strategy of waste management, the municipality of Golubac is included in the area with a regional dump Smederevo-Pozarevac. The criteria of regionalization imposes an obligation of creating and building of transfer/recycling stations for the Golubac municipality, together with 13 other municipalities and it belongs to the region REC 8 within 17 planned recycled centers. Golubac is also in the region KSMZ within 7 planned stations for fertilizing and in the region INS 2 within 4 incinerators for municipal waste in Serbia.

Electric power system, gas line and telecommunications

The town of Golubac uses a transformer station TC 35/10 kV "Golubac", of 1x4 MVA+1x2,5 MV capacity, which supplies the settlement through the adequate distributing system. However, the existing system is insufficient for the present and planned level of consumers, and therefore its enlargement is planned.

There is no gas line on the territory of the Golubac municipality.

On the territory of the municipality of Golubac there is an automatic main telephone exchange which belongs to the group 012. The existing automatic main telephone exchange cannot satisfy all the needs of the population regarding connections, so it is planned to increase its capacities as well as to complete digitalization of the telephone system.

Purpose for making the study

The Golubac fortress, one of the most significant and the best positioned fortification in this part of Europe, is seriously endangered and only apparently it resists the time impact (?) because of the monumentality of the object and its extraordinary position in the area. When one considers each object individually, it is clear that the inexorable influence of humidity and cold is destroying the upper zones of the towers and ramparts and thus valuable data about the original forms needed for the reconstruction and protection of

the object are lost. The fortification is additionally endangered and devalued by placing the main road and building the tunnels through the ramparts and rocks which defended it and it was also deprived of basic characteristics of a closed, well-defended object, and visitors who find themselves inside are seriously endangered by heavy traffic. Devastated parts of the object which represent an additional danger.

This state of the object and unarranged area of the suburb - an area where people used to live and work for the fortress garrison and participated in its defense - does not make any profit which would be important for the local and wider community and it is a sad example of indifference which society exhibits to monuments of this kind.

Reconstructed and carefully maintained fortress, with devised programs and contents, may be one of the most important objects within the tourist offer of the Lower Basin of the Danube. "Strategy of Tourism of Serbia", created in 2006, recognized the potential of the Lower Basin of the Danube as one of the most significant tourist zones, and Master Plan of Tourist destination of Lower Basin of the Danube, created in 2007, included the Golubac fortress in the crucial investment projects, with a conclusion that it is necessary to focus at the fortification restoration and the creation of the theme, cultural and historical centre – Golubac fortress.

The creation of the Revitalization Project Design of the Golubac fortress with the immediate surrounding area represents the realization of one of the crucial investment projects of the Master Plan of Tourist Destination of Lower Danube Basin.

The danger of the devastation of the highly-valued cultural and historical monument is getting greater year after a year because with the passing of time, the decomposing processes are faster regarding the building material inside the walls, bushes with its roots increase the pressure in the core of the walls and cavities of the decayed joists; and leaves and trees' decay additionally accelerates the deterioration of lime mortar. A good example of the dangerous impact and the speed of the object's deterioration is the state of the reconstructed upper zones of the Tower 5 (next to the Palace) which is completely overtaken by bushes along the entire reconstructed height. When young plants grow it should be expected that the merlons and wall covering will deteriorate.

The fact that there is a danger from the further devastation of the Golubac fortress - the area of the fortress and former suburb, which is also the primary entrance into the National Park Djerdap - represents an additional factor which causes the need for the more emergent initiative for the working out of this revitalization project and this should be done as an additional regulating framework of the future economic and tourist development of the area of the National Park Djerdap and the municipality of Golubac.

Unused and not-valorized highly-valuable resources

The medieval fortification Golubac undoubtedly has extraordinary cultural resources and potentials. However, the Golubac fortress as a lower town even today represents unused potential because the resources have not been appropriately researched, protected, presented and arranged, and therefore not economically valorized.

Unused possibility of developing an attractive tourist destination

The cultural and natural basis of the Golubac fortress, suburb and the primary entrance into the National Park Djerdap are suitable for the development of a variety of extremely attractive tourist products which can be offered and thus ensure an additional value of tourist stay in the municipality of Golubac and in the area of the National Park. So far this area has not been designed according to a plan and defined by a concept of future development.

Unsatisfying development of tourism

Nowadays tourist potentials of this region are completely underdeveloped if compared to possibilities. The existing resources should be saved, improved and completed for the purposes of the future tourism development, as possible generators of economic development and factors of increase in quality of life for the local population. In this sense, the Project represents one of the frameworks which define applied directing of tourism development of cultural tourism, i. e. a segment which is related to the medieval heritage, which will incite future economic development, and thus create conditions for a better quality of life for the local residents.

Having in mind all the above, we conclude that the Project Design of the Golubac fortress revitalization, as a planned theme cultural and historical entity, creates a framework for a coordinated system for researching, protection, preservation and tourist offer of a medieval fortification and its attractions and thus add to a fast and promising development of the municipality of Golubac and Djerdap region and provide a better quality of life for its population.

Task for making of the Study

The task for the making of the Revitalization Project Design originates from the evaluation of the Golubac fortress location which was conducted within the Master Plan of Tourist Destination of the Lower Danube Basin.

The advantages of the location are general accessibility by all means and the fact that all tourist contents are at the very location. Nearby tourist attractions are also available: the area of the National Park Djerdap, cultural monuments and bigger settlements. The location was graded with 73%, and according to the criteria of total attractiveness and advantages it is classified as a good location.

In the suburb of the theme cultural and historic centre the Golubac fortress it is planned to organize sailing, swimming, fishing, entertainment...

There are also plans for 80 beds, a traditional restaurant, a terraced snack bar, a shop and a souvenir shop, a pier, panorama road, hiking treks, cycling treks, amphitheatre, Visitors' Centre of the National Park and a tourist information office.

According to preservation regulations of the Service for protection of cultural monuments and according to the analysis of the current state and the degree of preservation, it is

planned to recommend a restoration of the Golubac fortress to a degree which is possible. The purpose of the restoration is to bring the entire fortress and all the parts of the fortification into a state of construction suitability and to enable it for safe sightseeing and moving of visitors. The project needs to recommend different methods of technical protection for the specific parts of the fortification, from conservation to a complete restoration. The towers and ramparts, which are preserved to the height where hiking treks are, should be partially or completely restored.

When completely restoring the towers, it is important to pay attention to the restoration of the interior architectonic structure, so that the towers could be revitalized and could get a new purpose. In this regard, a restoration of the entrance should be planned, wooden floors constructions on the original levels as well as a reconstruction of the staircase and suggestion of roof constructing. The ramparts should be restored in all regards according to the saved data, including built staircases, hiking treks and merlons. On the interior side, modern, functional fences should be put because of the safety of all visitors.

For the needs of the restoration and presentation of the Golubac fortress, it is necessary to plan the moving of the main road. The new route for the road can extend along the brim of the plateau in front of the fortress, i. e. along the brim of the former suburb then into the tunnel through the rocky slope so that it could again be joined to the route of the main road downstream the fortress.

In making of the Study, the final documentation of the Project Design, the existing spatial planning documentation, the Project Design working documentation, the registry office files and photo documentation were used.

Methodological approach

In order to start the restoration design and object reconstruction in the Golubac fortress, and thus the making of a program for the object use, a state analysis was conducted for all the objects in the fortress. The towers, walls and the remains of the objects were individually considered in order to establish and present the scope of recommended work on them.

The project offers possibilities of undertaking specific type of work, their scope and the results obtained by adopting the specific type of works in terms of conservation, partial reconstruction or reconstruction.

The conservation includes a consolidation and protection of the current state of the towers or parts of the ramparts, so that their existence would be prolonged. The wooden elements, such as ceilings and fences, have not been restored so that the visitors' approach to the restored towers could not be allowed.

The partial reconstruction includes conservation works, which would mean, according to the existing data, the reconstruction of merlons on the towers and ramparts, setting up beams and floors on the places where they originally existed, the reconstruction of

the staircase and the rampart path, with modern safe fences. The roofs have not been reconstructed because the camber of the roof surface is not incontestably known. In this case the access to the towers and ramparts would be allowed, with the constant inspection of the wooden elements.

The reconstruction means conservation and a complete restoration, but roofs would be built above the towers; floors and staircases with fences would be built inside the walls, as well as fences on the stone staircases which lead to the towers and ramparts. Thus secured, the towers would be available for visitors, and closed towers could have a specific content/function, such as an exhibiting area. The open tower would be belvedere. In this case, the user of the tower would be obliged to inspect regularly the maintenance and safety of the object, but the effect of the using is the largest.

A direction and suggestion of works on each particular object inside the Golubac fortress appeared as a result of the evaluation and programs suggested in case of the realization of one of the recommended methods of protection.

The evaluation of the economic justification of investing in the realization of the Project Design of the Golubac fortress was undertaken with the application of the Cost-Benefit method. In the analysis of costs and benefits for the planned period, general revenues are compared to costs which can be calculated within the Project Design. In order to identify costs and benefits, one should pay attention to a possibility of not realizing planned and necessary works on the fortress revitalization, the planned moving of the road, the restoration and revitalization of the entire degraded protected area, future indescribable damaging consequences of further deterioration and endangering of this cultural monument of extreme importance, without doing anything to stop further consequences ("do nothing").

Objectives and purpose of investment

The purpose of this project is to point out most important social objectives which should be achieved in the local community: involvement and commitment of the local community in the project realization, esteem for the heritage it owns, creation of conditions for the accessibility of this heritage, and then in the surrounding-region: revitalization of the cultural asset, town planning of the object area, monitoring, advertising, promotion, managing visitors, protection and conservation of the heritage, encouraging sustainable development of the valuable natural and cultural resources which immediately can influence the economic development of the community.

The revitalization of the Golubac fortress and the suburb is a very significant undertaking in the most general social and cultural terms regarding the fact that this monument has extraordinary qualities within the category of fortifications in the area where the Danube flows from its spring to its confluence. Indifference and neglect of such an object is therefore inadmissible because the state of the monument shows the social attitude towards its cultural asset. The purpose of the revitalization is to put the restored fortress and the surrounding area as well as the contents which will be situated on this location

into a group of the best preserved, maintained and used objects in our country and the region of the Lower Danube Basin.

Having insight in the available documentation, and also based on our long experience in planning, we conclude that:

- It is a matter of an extraordinary area which does not function as an attractive offer and experience of visitors, underdeveloped in terms of market, and which can be significantly commercialized;
- There is an interest to initiate the revitalization, reconstruction and revival of this area by planned developing investment activities and by the means of future use within the larger tourist destination of the Lower Danube Basin;
- Strong regional and local interests have been expressed for development of tourism as a potential initiator of regional and local economic development and population employment;
- The community has shown the need and intention for the controlled development and protection of this area.

Economic objectives

The goal of the project "Revitalization of the Golubac fortress", besides the protection and arranging of fortress and surrounding area is also to establish „the best use“ concept, as a concept of the best use with the Feasibility, so that the Purchaser would be given a maximum support in defining the development concept of the total (nearer and further) destination- locality, and also to perceive all possibilities, stages and possible funding resources by objective insight of the development potential.

The area Djerdap - the Lower Danube Basin, including all five municipalities (Veliko Gradiste, Golubac, Majdanpek, Kladovo and Negotin) has modest and unsatisfactory characteristics of tourist demand and visit.

In the area Djerdap about 80.000 tourist visits were made in the period 2005-2008 with 180.000 overnight stays (an official data of the State Statistics Office). The average length of tourist stay is 2,25 days.

More detailed analysis of tourist turnover in this region shows the following results: the total tourist turnover during last years has mildly increased with an average rate of 2%. The growth rate is below the European average and growth average of other countries in the region. In terms of absolute amounts the increase of turnover does not have significant value (1.500 arrivals and 3.000 overnight stays) with regard to the low initial base of the arrivals number and overnight stays number which indicates an insufficient development of tourism of this area; the relative percentage of the total number of arrivals in this region in the total number of arrivals in Serbia, during last three years, is on average 3,7% while the relative percentage in the overnight stays number is smaller and is 2,7%; the largest turnover is accomplished by domestic tourism. The relative percentage of foreign tourist turnover is modest. The total number of foreign arrivals

during last several years is 6% of the total number of arrivals, while the number of overnight stays is about 5, 5% of the total number of overnight stays. The low relative percentage of foreign tourism, as well as low absolute values of number of arrivals and overnight stays of foreign tourists, indicates insufficient development of foreign tourism in this region.

The absolute values of the realized tourist turnover as well as the participation of the Lower Danube Basin in the total tourist turnover of Serbia are rather modest regarding natural potentials and the size of the administrative area. The modest values indicate the poor development of tourism and nonexistence of a systematic approach to the development and management of tourism.

Taken as a whole, the municipality of Golubac accomplishes the smallest part of tourist turnover and it is the most underdeveloped municipality in terms of tourism in the Lower Danube Basin.

The total tourist turnover realized nowadays in the Lower Danube Basin represents about 55% of the turnover realized in the 80s in the 20th century.

From the indicators stated above regarding tourist turnover, this project determines economic objectives of improvement and increase of tourist turnover, which will most of all have as a result the involvement and full employment for a larger number of residents of the municipality of Golubac of all educational levels and profiles, such as guides, curators, art historians and archeologists, animators, water sports instructors, navigators and small vessel operators, catering personnel needed for catering facilities, gardeners, pigeon breeders, ceramics craftsmen, operators for pool maintenance equipment, installations and waste waters filters, personnel for monitoring of the entire area, fire prevention operators, regular guards of the area and the object, and before all a quality and capable manager who will create and carry out programs for the use of the fortress so that Golubac is an interesting destination most of a year for all categories of visitors and especially for those who prefer the category of cultural tourism.

At the end of this chapter we can list the basic objectives in total within the economic objectives: attracting visitors, creating a brand and advertising various tourist contents, developing the identity of the area, reviving tourist activity in the Golubac municipality and the region, presenting the attraction, connecting the culture and heritage in order to gain profit.

Other objectives

The other objectives involve presentation of this cultural attraction, interpretation of the heritage in an innovative way, improvement of the physical accessibility to the heritage, rise of the awareness of the local population about the importance of cultural and historic heritage, appreciation of history, archeology and conservation.

The objectives also are for Golubac to attract as many foreign tourists as possible with its programs including international scientific conferences on the medieval art, medieval

war historians, and researchers of the influence of wars in the zone of the Lower Danube Basin on the development and shaping of European countries outside this region.

The objective is also to organize traditional knights' tournaments, traditional colonies of painters from the Danube Basin countries, painting exhibitions, poetry festivals, medieval court and folk music concerts, choir music festivals, folk dance festivals and festivals of music from the countries of the Danube Basin etc.

The aim of the investment is to accomplish previous objectives so that their realization has an impact on the creation of the image of Serbia as a country which esteems its cultural heritage and gladly presents it to Europe as an asset which establishes a dedicated attitude towards the idea of variety of cultural resources and their sustainable development. However, the most important aim of the investment is a possibility of employing primarily young residents of Golubac, and thus improving the economic circumstances which are currently such that it places Golubac into the group of underdeveloped municipalities.

Object Description

1) Location of the object

The immobile cultural asset, the Golubac fortress is situated on the bank of the Danube river, in the municipality of Golubac at the entrance of the National Park Djerdap. The fortress is situated at a steep lime slope and a forward cape where the Danube suddenly narrows into the biggest European gorge, cut through the massif of the Transylvanian Alps.

The Golubac fortress is situated at the Danube traffic corridor and a main road M-25. The coordinates of the fortress are Lat 44, 661185 Lon 21, 678563.

2) The importance in the system or the network

The Golubac fortress is a very important among a number of localities on the banks of this big river which has greater and greater importance as a comfortable way through the countries connected by the Danube; and these attractive localities are the points where numerous passengers ships stop on their way towards the confluence of the great river or on their way back to the northern countries. The Golubac fortress revitalized with organized attractive contents will be definitely included in the itineraries of these vessels. This area is also interesting for an increasing number of cyclists from Europe and year after a year the number of these tourists in Golubac and Donji Milanovac is increasing.

3) The function of the object

Being the entrance into the National Park Djerdap, as well as the entrance into a gorge rich with natural and cultural characteristics, the fortress has special tourist significance.

Besides the educational function for young visitors, the Fortress elaborately tells about the history of this area and the importance of the Danube and the rear of the fortress in the Middle Ages. The function of the revitalized fortification and the suburb, because of their attractiveness and contents, would also include becoming an important final or transit point for numerous tourists as well a good example for social care for cultural heritage.

4) Available technical documentation

In the making of the Revitalization project of the Golubac fortress, detailed data of the geodesist filming published by Geomap and Geosoft in 2009 were used. Also, we used published documentation of the archeological research of the fortress, photographs made at the beginning of the last century, i. e. before the building of the road through the fortress; old published drawings from the Vienna war archives, the drawings of Kanic and Titelbach and other available documentation.

During the making of the project all the documentation provided by the municipality of Golubac was used as well as the one gathered by Albo-engineering on the site.

5) Available planning documentation

The planning documentation we used was: the Spatial Plan of Serbia and the Spatial Plan of the National Park Djerdap, the General Town Plan of Golubac and the Master Plan of Tourism of the Lower Danube Basin. The Spatial Plan of the Municipality of Golubac and the General Maintainance Plan of the coastal area of Golubac are being passed.

6) The planned lifespan of the object

Having in mind that it is a matter of cultural heritage and that one of the project objectives is preservation, arranging and improvement of the immobile cultural asset, i.e. prolonging its lifespan, its duration is assumed to be permanent. Because of that, it is necessary to provide quality conservation works, constant monitoring of its state and regular maintenance of the protected object.

7) The duration of the work realization

The duration of the work realization on the Golubac fortress is immediately dependent on the time needed for the realization of the bypass around the fortress. No systematic works can be organized and undertaken on the fortress as with a of the main road passing through the construction site.

It was estimated that three years are required for the protection realization and reconstruction of the fortress, which depends on the fund raising. At the same time to the works on the fortress, a research of the suburb and the arranging of the coastal area can be organized.

After the research of the suburb is finished, the area of an archeological park and the

recreational zone can be arranged. The construction of Visitor Centre, a suite settlement and the adaptation of the stone-crushing facility can be undertaken parallel to the research of the suburb.

The overall duration of these works is planned for five years so that the revitalization effects could be presented as soon as possible.

8) Phases in the object construction

The first phase of the revitalization would be the construction of the bypass, car park, the restoration of the big quarry, restoration of the area around the crusher and the building of the visitor centre.

The second phase should include the reconstruction of the object and the ramparts of the fortification and the works on the research and conservation of the object in the archeological park, coastal arranging, building a suite settlement with the central object.

Work on the project

The work on the project consisted of three stages. The first stage was aimed at the gathering of existing data and documentation, literature and analogies, the second phase meant intensive field work involving recording the state, taking photographs and the description of the state, the third stage involved formulating the opinions, methodologies, possible variations and the object adaptation.

All the objects which are planned for the reconstruction, as well as the new contents, were tested in a three-dimensional model.

The basis for the planning of the revitalization were detailed photographs made by Geomap and Geosoft, land registry base and the terms passed by the Institute for protection of cultural monuments and the Institute for nature protection of Serbia. The key role had the meetings and the exchange of opinions with all the members of the expert team and the project consultant.

Market aspects

1) International market

Tourism as a possible generator of economic development and a factor of the growth of life quality of the local population.

The current general economic state of the municipality of Golubac is in its essence negative, so that it is necessary to use every chance which is given by development of tourism as a general initiator of economic development in the region of Djerdap. In this sense, this project represents an enterprising framework which defines the most appropriate strategic guidelines of the tourist development of the Golubac municipality, in

the field of cultural tourism, i. e. that part of it which concerns the medieval heritage of the Golubac fortress, which can incite economic prosperity in the municipal area. Thus, conditions for the improvement of life quality of the local residents will be created.

Tourism introduces attractive possibilities for investment. In shaping the future tourism development of the municipality of Golubac, one should adopt such a concept of development which can guarantee future profitable development of the tourist capacities with an attractive rate of return of the investment.

Regarding the above, we conclude that the Revitalization Project Design of the Golubac fortress will create a framework and influence for turnover increase for small and average business and a promising development of the region and insurance of the life quality of its population.

According to the predictions of the World Tourist Organization (WTO) an increase of tourist turnover in Europe is expected in the future. In 2008, the number of tourist arrivals was increased for 4%. The favorable development tendencies are also expected in the future at the average growth rate of 3,8%. In 2020, a total of tourist arrivals of 1,6 billion are expected.

The growth of tourist turnover in Europe is not equivalent for the whole area. The growth rate has not been of the same values in particular regions of Europe from the beginnings of mass tourism to the present day. Since our attention is on modern trends on the European tourist market, a special attention will be directed to the growth characteristics during recent years. The most intensive growth after 2000 was recorded in the region of Central and Eastern Europe of 11%. This region didn't represent a special tourist attraction until 2000. The other regions record lower growth rates. The highest growth rate of foreign tourism in Europe is recorded in countries which were weakly developed or underdeveloped in terms of tourism until recent period. The consequence of the high growth rate in underdeveloped countries is larger and larger dispersion of tourist turnover onto a greater number of countries. This, for example, in 1959 when tourist movement was mass, 15 countries absorbed 97% of the world's tourist turnover. Today 15 countries which are the most developed absorb 52% of the world's tourist turnover.

Cultural tourism in the broader sense means moving of people because of cultural reasons, i. e. achieving some goals related to the culture of the area which they visit, such as: visits to festivals, music events, theatres, old households in the country, historic and religious monuments, archeological sites, exhibitions, museums, lectures, conferences. In the narrower sense, cultural tourism includes tourism of heritage and tourism of art, related to the modern cultural production such as visual art, stage art, literature, while in the broader sense it also includes secondary elements such as life style: beliefs, cuisine, tradition, folklore as well as creative industries: fashion, web and graphic design, modern architecture, film, media and entertainment.

According to the estimates of the World Tourist Organization (WTO), cultural tourism in the world increases at the rate of 15% a year. According to the same estimates, 37%

of all travels have a cultural component. Researches in Europe showed that about 20% of tourists classify their holiday as a so called cultural holiday:

- Culture and historic towns and monuments are the most important attractions visited during holidays,
- Smaller countries of Central and Eastern Europe have been mostly visited because of cultural reasons, while the ones with diversified products have also attracted guests to rural and coastal areas,
- The prosperity of the developed western countries has caused that cultural tourism is no longer an expensive type of holiday,
- The most important reason for visiting cultural attractions is learning about the past and enjoying the atmosphere set by a specific attraction or location,
- The most important source of information used when making a decision regarding travel and visit to a locality is a recommendation given by friends and relatives, followed by the Internet and written guides,
- Visitors of cultural attractions are dominantly highly-educated, with large incomes and of professional or managerial profiles,
- Persons older than 50 visit cultural attractions more than younger tourists;
- Besides older people, young people also form a high percentage of visitors;
- Built cultural attractions are more important than cultural events and manifestations;
- For some tourists culture and cultural and historic heritage represent the main reason for visiting a destination or destinations;
- A trend of European population growing old will positively affect the demand for cultural products,
- When products of cultural tourism are in question, tourists demand authenticity. They observe authenticity from their own prospective, so that subjectively observed authenticity is often a key element,
- When there are bigger differences in cultures of the areas where from tourists come and tourist areas themselves, it is probable that one of the most significant motives of coming will be cultural reasons, and such tourists mainly visit historical buildings,
- Tourists from culturally closer areas demand clear and simple contents of entertaining type more and they look for cultural theme parks and mass cultural and historical attractions,
- Tourists, even when they are interested in culture and when they visit cultural and historical monuments, do not see themselves as exclusively "culture motivated" tourists, but as tourists interested in other contents,
- The high growth rates of this part of tourism market, increase of travel experience, being informed, as well as an effort to provide a variety of tourist contents, point to a fact that the significance of culture as a initiator and as a consumption environment will grow.

2) Domestic market

The main trends typical for domestic guests are the following:

- 28% of the total population of the Republic of Serbia does not go on holiday. 44% goes on holiday once a year, 10% goes twice a year, 6% goes three times a year, and 12% of the total population of the Republic of Serbia goes on holiday more than three times a year,
- Only 33% of residents of Serbia spend holiday in Serbia, while 30% goes on Holiday to Montenegro. Among other destinations, they mainly choose Greece, Hungary, Bulgaria and Turkey,
- People that spend their holidays in Serbia, most of them chose as their destination: Zlatibor, Vrnjacka banja, Fruska gora, Soko Banja, Belgrade, Kopaonik, Novi Sad, Bela Crkva and Tara,
- The population going on holiday to Serbia spends on average 22 euros per day per person,
- Even 30% of the total population going on holiday does not make accommodation reservations, while a large number makes direct reservations (34%). The other ways of making reservations are via travel agencies, tour operators,
- The chief source of information regarding a place for holiday represent friends (29%), then the information found in travel agencies (11%), newspapers (8%), the Internet (3%), tour operator brochures (2%) and various magazines.

The promising development of domestic tourism market must be related to the expected growth of income intended for travel. Current registered gross national income per a resident cannot justify realistically high tourist activity of the population of Serbia, especially foreign travel. It is probably still related to the grey economy. Current 4.000 dollars of the "gross national product per a resident" represents a lower limit which enables foreign travel for up to 10% of the population, and domestic travel, which are mainly cheap, low-quality and often socially mediated tourist travels for 25% of the population.

However, in Serbia there is a powerful travel culture which was inherited from past times, so with the expected growth of 6-7% a year, it can be soon expected an increased number not only of foreign travel, but also of more travel to more quality objects of Serbian tourist offer which is in the process of rehabilitation and new construction. It is realistic to expect in the coming 4-5 years, when the "gross national product per a resident" is increased significantly, a significant growth of the actual tourist demand of the domestic tourist market in Serbia.

The development of tourism in Serbia, especially after the finished process of privatization, discovery of new models of tourist product development and especially restoration and construction of new tourist objects in Serbia will be more and more based on economic demand of domestic market instead on social demand which has been the case up to the present.

The republic of Serbia has a diversified structure of attractions which were related to the original tourist offers in the past thirty years. Because of the absence from the international tourist market, tourist offers have mostly remained at that original level. Inherited infrastructure and suprastructure was mainly in the function of traditional type of tourism intended for domestic market and this in the form of children, youth, and so called social tourism through companies' resorts, which mostly do not have any major financial effects.

The main tourist products in Serbia today, according to official statistics data, are spas with climate sanatoriums, mountains and administrative centers of Serbia. Recently there has appeared and developed countryside tourism, as a new tourist product in form of events: Guca and Exit, and which have originated from Serbian traditional devotion to manifestations and festivals.

In the Republic of Serbia the main city destinations are: Belgrade, Novi Sad and Nis, and the most visited spas are: Vrnjacka Banja, Sokobanja and Banja Koviljaca, Kanjiza and Junakovic in Vojvodina. The most visited mountain destinations are: Kopaonik, Zlatibor, Tara, Divcibare and Zlatar.

3) Evaluation of the market efficiency

Based on economic and market analyses, the following can be concluded:

- In Serbia, tourism development is primarily based on the basis of available natural resources, and less on newly-made attractions;
- The location of the Golubac fortress has a naturally good resource foundation, the primary entrance of the National Park Djerdap to the Danube, as the basic resource, as well as the favorable climate for the use all year.
- Golubac has a favorable geo-traffic position, and with the advancement of transportation infrastructure, which is currently unsatisfactory, its availability will improve.
- The positive attitude of Serbia towards European Union and joining international integrations is an assumption for the realization of expectations about moderately high economy growth rates in the coming medium-term period. This represents one of market factors of stability and success of realization of the planned investments and their market exploitation.

European tourist trends indicate that there is a growing demand for attractions and new and undiscovered destinations.

The revitalized Golubac fortress and suburb, with planned attractive contents, have in principle big chances for market success.

- Starting with the basic resources used for defining the market profile of the Golubac fortress project, it is beyond doubt that its market success will depend on the correct market positioning, structuring of the product and offer, target groups which the project aims in collaboration with the market. Therefore, when shaping the development concept

and marketing strategy, a special attention should be paid to these elements;

- The primary market of the Golubac project is the entire Serbia, with an emphasis on the urban agglomerations of Subotica, Novi Sad, Belgrade, Kragujevac, Kraljevo, Smederevo, Pozarevac and other urban centers in Serbia. The secondary market is the region market which includes countries from the immediate surrounding of Serbia, Romania, Bulgaria, Hungary, Austria, Slovakia and Czech Republic, while the third market is the market of other countries, especially the Lower Danube Basin countries in Europe.

In order to evaluate market efficiency, it is necessary to realize the suggestion of the concept of the broader and narrower zone of the Golubac fortress, which is based on the usual steps and actions in the evaluation of a location according to the following pattern.

Attraction of the middle ages fortress as a universal resource, an element of image identification, an area of additional attractions of the originally arranged area with exhibits of the past, additional activities in the area.

System of special tourist experience in the time of the middle ages in an arranged exterior and interior.

System of animation and interpretation - presentation in direct communication between visitors and costumed "residents" of the town, song, dance, food, drink, souvenir and events which conjure up the life of people from the past. In this way, a special experience is obtained regarding the experience of the area and time these come from.

System of specific tourist products - the world already knows more than 300 tourist products, of which about sixty are seriously commercialized. Each of these products has its own market and development trend as well as elements for differentiation and value-money exchange. For the implementation of this promising tourist area it is necessary to create a set of values and specific tourist products.

Market research and marketing- Principles of planning and development of this project are based on professional demands and empirical rules of the global market set according to the broader impact zone from the micro location. Market success and influence of this project relies on: innovation, theme setting of contents and the system of experience which certainly creates an opening for international sphere of interest and influence on the market.

Spatial aspects

Coordination of the adopted version with the spatial and town plan

According to the Spatial plan of the National Park Djerdap the following contents are planned: a museum, a pier, an archeological park, an information office, visits to the National Park, catering object, a car park.

According to the Master plan of tourist destination of the Lower Danube within the in-

vestment project " Theme cultural and historical centre The Golubac fortress" following is planned: swimming, fishing, navigation, entertainment, 80 beds, a restaurant, panorama roads, hiking and cycling treks, an amphitheatre, visitors centre of the National Park and tourist information office.

All these programs are incorporated into the working program during the making of the revitalization project of the Golubac fortress and the planned contents are realized. Since possibilities to organize a part of the programs inside the restored objects were realized by the adopted concept of the object reconstruction in the fortress, therefore:

- It is planned to situate the museum and an area for scientific personnel and curators inside the restored Palace;
- A gallery is planned in Tower 5 for occasional exhibitions and workshops;
- An amphitheatre auditorium is to be placed on the slope of the front part of the fortress;
- There are changing rooms planned for performers inside the watchtower 2, which is next to the stage ;
- An area for selling souvenirs and for guides is situated in the watchtower 1;
- Cafés are to be situated inside the area called "Canteen" which is added next to the Tower 1 and on the location of the lower wall 1-4, while toilets and storehouses are planned in the area below the plates of the lower walls
- In Tower 2, which is forbidden for visitors, it is planned to breed white pigeons which would represent the best welcome to visitors;
- In the former road tunnels, a snack bar and a restaurant are planned, with terrace between two tunnels with 32 seats in the snack bar and 130 seats on the terrace and 150 seats in the big tunnel where a kitchen area is also situated.

Outside the fortress, in the area of the suburb, after the building of the bypass and tunnels and removing of the buildings of PIM (the firm "Ivan Milutinovic"), a car park is planned for 6 buses and 70 cars and a pier, opposite the car park, for ships and ropes for small vessels.

In front of the car park, towards the fortress, it is planned to situate an object of visitors centre, with a sanitary facility for visitors, tourist information office, an exhibition and presentation hall and an office; and on the other side there is a restaurant with a big terrace overlooking the river. Between the two wings, there is an amphitheatre for a presentation of the first information about the monument and from this point two paths start to the Fortress- one goes along the river and the other between the rest area and the archeological park.

For visitors' accommodation, rooms are planned in the penthouse of the visitors centre (26 beds), also a suite settlement is planned on the south slope (57 beds). The only object of PIM is the crusher which will be adapted into a painting studio with lodging.

Ecological aspects

1) Impact on the environment (micro climate, water, air, noise, soil)

All planned activities have as an objective improvement of the circumstances which are now present in the fortress and its nearby protected surrounding. This primarily refers to the planned bypass, not only because of the advancement of the possibility of reconstruction, it will also mean a significant improvement of micro climate and air quality inside the ramparts, this will stop the noise made by freight vehicles, as well as the danger of rockslides of the tunnel armature and the portal armature made by vehicles of greater heights than the tunnel profile. Forestation of the devastated areas, soil and the verticals of the first quarry, to which were later added the crusher and the area of the big quarry and protection from rockslides will improve the quality of air which is often because of kosava (south-east wind) full of stone dust.

2) Effect of the technical measures for the environment protection

The construction of sanitary facilities on appropriate places will solve the problem of removing numerous toilets which were built without any plan and design. The new facilities will satisfy hygiene standards and will be irreproachably maintained. Introduction of the equipment for waste waters filtration will solve the problem of soil and water pollution.

Everyday collecting, cleaning and daily taking away of garbage from the protected area will significantly add to the hygiene and appearance of the insufficiently maintained area at the moment, especially of the coastal area.

3) Visual pollution

Before all, this category includes poorly maintained coastal area with thrown bulky garbage such as old ranges, loads of construction material, different waste, objects overgrown with weed, cables conducted in air, a warden's house as if from a concentration camp on high rusty posts, abandoned concrete parts of working constructions, steam bath overgrown with weed and left to decay and repeated covering by earth, half decayed objects of the former PIM section- this all together represents an ugly image and an environment where from visitors look at the monumental building of the fortress.

According to the Project of coastal arrangement, which includes the area of the work site of PIM, the bank and the big quarry, activities are planned to remove all occurrences of visual environment pollution. This will be achieved by underground conducted cables, removing of all objects of PIM, apart from the crusher which is planned as a studio, coastal arranging, building hiking treks and sowing of grass in areas planned for visitor's rest and the archeological park.

Planned planting of creepers will cover previously stabilized steep slopes of the both quarries, a new rows of trees will be planted along the new part of the bypass; and from this place towards the area of the archeological park, shrub greenery and bushes

will be planted, so that this formed green rampart will separate the new part of the road and also be a sound and hygiene barrier from cars passing along the rim of the protected area.

4) Safety

The demolished fortress, through which the main road passes, the destabilized zones of the tower walls and ramparts from which stones fall down, nonexistence of fences even on the preserved parts of the fortress, where falls happen- these are all indicators which should be considered extremely seriously- with further deterioration of the object the danger level for visitors increases. If the activities on the bypass are not done, and then the works on the fortress, a constant danger threatening every group and individual visit to the Golubac fortress, can be expected.

According to the project, moving at the highest areas of the restored fortress is planned with professional guides, who will take care of the safety of visitors and paths should be secured by metal fences. The same procedure will be undertaken during getting onto the ramparts and the towers which will also be secured by fences.

Lifeguards will be present constantly on the pool planned in the recreational zone, and vessels could be rented without an escort only with a navigation license.

All the objects will be equipped with fire alarms, and the museum and the gallery with a security alarm as well; all areas will be equipped with fire prevention equipment, and free area with hydrants.

5) Evaluation of ecological suitability

According to the project, it is planned to arrange the area on the locations of the largest devastation, by planting greenery, and newly designed contents were chosen in such a way so that there is no environment pollution.

Having in mind environment protection, it is necessary to fulfill certain conditions and undertake the following planned measures of protection in order to provide complete ecological security during the realization of the main project:

- The objects should be designed and built according to the current technical regulations and standards in the certain filed,
- Maximum protection of environment components (water, air, soil, noise reduction) should be ensured,
- An appropriate level of management of waste and materials which can cause environment pollution should be planned,
- Connection to the water supply network should be done to the existing network,
- It is planned to take waste waters from the object to the waste waters filters,
- Atmospheric water will be taken from paved surfaces to the lake by ditch system,
- In the fortress and suburb area, all day cleaning and removing of waste is planned,

- The revitalization of the fortress and the objects of the suburb must be realized according to the Law on Fire protection,
- The hydrant system must be set according to the Regulations on technical norms for interior and exterior hydrant network for extinguishing fire.

Economical costs – price of investment

In this chapter the evaluation of the investment costs is presented, based on the draft budget of the Revitalization Design Project of the Golubac fortress.

Since the fortress revitalization and the construction of the planned objects is planned in stages, the planned investment dynamics of the work is 5 years.

In the following part the investment structure is presented in EUR.

ESTIMATE OF OBJECT CONSTRUCTION COSTS

OBJECT	PRICE IN EUROS
Snack bar "Canteen"	19400,00
Restaurant "Lagum"	29000,00
Visitors Centre	521000,00
Central suite object	254700,00
Suites	378900,00
Amphitheatre in the fortress	17000,00
Museum	262000,00
Swimming pools	315800,00
Studios "Crusher"	210500,00
Quarry amphitheatre - arena	900000,00
Pier for ships	850000,00
Marina	70000,00
Fortress revitalization	1050000,00
Bypass with a car park	1650000,00
TOTAL AMOUNT OF THE OBJECT CONSTRUCTION	6059400,00

ESTIMATE OF COSTS FOR EQUIPMENT ACQUISITION AND SETTING

OBJECT	PRICE IN EUROS
Snack bar "Canteen"	5820,00
Restaurant "Lagum"	8700,00
Visitors Centre	15630,00
Central suite object	76410,00
Suites	75780,00
Amphitheatre in the fortress	5100,00
Museum	78600,00
Swimming pools	94740,00
Studios "Crusher"	63150,00
Quarry amphitheatre- arena	270000,00
Pier for ships	255000,00
Marina	21000,00
Fortress revitalization	315000,00
Bypass with a car park	165000,00
TOTAL AMOUNT OF THE OBJECT CONSTRUCTION	1449930,00

Costs of maintenance, exploitation and management

Functioning costs are calculated, beginning with the exploitation plan, the use and commercialization of the object in the function of demand by users of the planned objects. Starting from the total planned yearly work of specific objects, the involvement of the staff (time and money included), as well as the electricity costs, water expenditure, telephone use and current maintenance.

Personnel costs, with exploitation costs can be calculated depending on the exploitation plan which is used to define more precisely the needed number of employees for the functioning of all the planned objects, and in relation to the fact that certain objects will not start with work at the same time, but after five years of construction and equipping

of the investment, because the construction of all the commercial objects is planned in the fourth and fifth year.

The estimate of yearly incomes of the employees in the planned objects in EUR:

Employee	Number	gross/month	Total EUR
Administration	6	740	53 280
Services	45	640	345 600
Marketing/Sales	4	750	36 000
TOTAL			434 880

The estimate of yearly electricity costs according to the estimated expenditure needs for all the objects is 120,000 €.

The estimated yearly cost of water supplies is 55,000 €.

The estimated yearly cost of telephone is 5,000 €.

The estimated yearly cost of current maintenance is 30,000 €.

Accompanying and additional costs

Accompanying and additional costs include different costs which are not included in the above such as security costs, promotion costs, and advertising costs.

Type of costs	Months	Amount	Total EUR
Security	12	4000	48 000
Promotion	6	10 000	60 000
Advertising	12	1000	12 000
TOTAL			120 000

The estimate of the total exploitation costs, maintenance and management of the theme, cultural and historic centre "The Golubac fortress" is 764,880 € a year.

Profits - Benefits

In this chapter, we represent an estimate of incomes which will be made by functioning of the commercial system of sale and services of the fortress and suburb, as well as other commercial incomes which can be realized.

1) Incomes

Incomes of accommodation facilities

Facility type	Number of room	Number of beds	Total of beds
Visitors centre	13	2	26
Bungalows	9	5	45
Suites	6	2	12
TOTAL			83

The projection of net accommodation income

1. Number of beds	83
2. Accommodation taking up* (%)	40
3. Average net accommodation price (€)	30
4. Overnight stays	12118
Accommodation income	363,540

* Estimated for 146 days of average taking up (40%) in the first year of work of accommodation facilities, with a projection of taking up growth of 5-7% a year in the following five years.

Catering facilities

Type of object	Hall/terrace	Number of chairs	Total of chairs
Visitors centre	1+1	140+128	268
Canteen	1	24	24
Club "Lagum"	1+1+1	32+112+150	294
TOTAL			586

Projection of net food and drink income

I. MAIN RESTAURANT

1. Number of meals (room and board)	36,354
2. Average net price per meal (€)	6,0
INCOME OF ROOM AND BOARD FOOD (€):	218,124

II. CANTEEN

1. Number of meals (a la carte)	23,000
2. Average net price per meal (€)	8,0
INCOME of FOOD (a la carte) (€):	184,000

III. CLUB RESTAURANT «LAGUM »

1. Number of meals (a la carte)	30,000
2. Average net price per meal (€)	10,0
INCOME of FOOD (a la carte) (€):	300,000

IV. CAFESS

1. Number of meals	33,000
2. Average net price per meal (€)	3,0
INCOME (€):	99,000

Total income (I+II+III+IV):	801,124
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Projection of net income of the Amphitheatre «Fortress»

The income estimate of the amphitheatre in the fortress with the total of 250 seats is given for purposes of performances, conferences, seminars, lecturers, commercial promotions and educational programs. It is estimated that for these purposes, a group visit lasting 1 to 2 hours can be provided, for the total of about 500 groups a year, with an average of 100 people per group and with an estimated price of 2€/person, which amounts to about 100,000 € of income per year.

Projection of income of the amphitheatre «Arena»

This area of special purpose, in the function of manifestations and the event «Summer Games of Golubac» (the repaired, reconstructed and equipped quarry), is planned for a visit of up to 3000 people. A highly commercial effect of similar manifestations such as «Guca» и «Exit» is planned for organization and carrying out of these programs, which means a significant income which could amount to €1 million.

Projection of net income of the Pier with the marina

The available capacity of the Pier with the marina is: contemporary tying of river «cruisers» and 20 ropes for small vessels 6 to 10m long and more than 10m.

According to the statistical data on the number of docking of river «cruisers» in the area, it is estimated that during only first year of the pier functioning, 250 dockings of these vessels could be taken into the consideration, and in the following year this number could be higher for 20%, as a result of promotion, advertising as well as especially conceived tourist offer and the attraction of the location and its contents.

The number of tying up in the marina is also estimated, with regard to number of passing and docking of navigators of small vessels on the Danube in the Lower Danube Basin, at around 400 per year.

I. PIER

1. Number of onetime tying of river cruisers	250
2. Average net price of tying docking until 3 AM (€)	400
INCOME I. (€):	100,000

II. MARINA

1. Number of onetime docking of vessels	400
2. Average net price of docking until 3 AM (€)	50
INCOME II (€):	20,000

TOTAL INCOME (I+II): 120,000

Projection of net income of Visitors centre

With regard to the planned position, function and the purpose of the total area of Visitors centre, as well as the reception of visitors and visitors service of the Golubac fortress, the following net income per year is estimated in the first year, according to the number of visitors of the region for who this location is the primary entrance point.

I. TICKETS

1. Number of visitors	30,000
2. Net price (€)	2
INCOME I. (€):	60,000

II. SOUVENIRS

1. Number	14,000
2. Average price per item (€)	5
INCOME II (€):	70,000

TOTAL INCOME (I+II): 130,000

2) Direct profit-benefit

On the basis of the given income projections, and by the virtue of the commercialization of the planned contents and services which can be realized in the set frameworks realistically, conducted market analyses of the project have shown that it is possible to expect a direct profit and benefit of about 2.5000.000 € during the first year of functioning and exploitation, and provided that a good market positioning as well as market, sale and managerial assumptions are realized. With the estimated costs of exploitation, maintenance and management of 746, 880 € - Theme cultural and historical centre «Golubac fortress», would not have any problems with solvency.

3) Indirect profits-benefits

Indirect benefits which will be realized will reflect in stimulus and improvement of working conditions of catering sector in the region and local community, as well as in new tourist products and entrepreneurial services in catering, and commerce which will represent additional income sources of the local population.

Entrepreneurial sector, by additional value of this project, will expand their business by trade and providing services in nearby environment of the fortress and Golubac (restaurants, shops, markets, services,..) Turnover of goods and services will increase by improving general conditions for tourism activity and number of tourists and this will improve employment of the population and income growth.

Analysis of funding resources

For the purposes of this study, it is assumed and suggested to the Purchaser that planned and needed funds, according to the stages of the project realization, are considered as financing of a project of regional, national and international importance in preserving cultural heritage and thus, the Purchaser should take the following steps according to the stages planned by the Project Design:

- Creation of the regulation plan with technical documentation for the fortress revitalization and the construction of the planned objects of infrastructure objects and the suburb objects, for which the financing means can be supplied from the local budget, national and international funds,
- According to the suggested first stage in the project realization, primarily supplying the resources for financing traffic infrastructure of a part of the main road with the construction of a tunnel, as well as the fortress revitalization, as an investment of national importance through the appropriate ministries,
- Beginning of the project realization according to the possible funding resources by means of the local budget, national and international funds, on the basis of the created technical documentation for construction of the suburb objects as commercial objects and according to the actual dynamics of in the investment financing and stages in performing activities.

Analysis of personnel and organizational possibilities

Within the analysis of personnel and organizational possibilities of managing of this complex, it is necessary to determine managerial assumptions which mean defining a special organizational form of doing business and management.

Managerial assumptions mean quality management, application of modern models of "managing a safe revenue", application of monitoring standards and cost reduction, i. e. commercialization of the area, contents and events.

In the municipality of Golubac and nearby surrounding area, for necessary managerial personnel there is qualified staff that would satisfy the required criteria. Also, services of accommodation, restaurants, pier and marina, visitors centre and tourist information office, require personnel that will gain required skills and knowledge with an additional training.

It is estimated that for the management activities within the theme cultural and historical centre "Golubac fortress" 55 men are needed: 6 administrative workers, 45 employees in catering business and 4 employees in advertising and sales.

Revitalization of Golubac Fortress – Project Design

The Revitalization Project of the town fortress is the first project of this kind in Serbia, while in Europe and the world such projects appeared much earlier. Golubac can be an example in Serbia of how cultural heritage is protected, presented and used as a tourist resource.