# STUDIES in ANCIENT STRUCTURES

Proceedings of the 2nd International Congress

Organized by YILDIZ TECHNICAL UNIVERSITY FACULTY of ARCHITECTURE

July 9-13, 2001 İstanbul-Turkey

# THE FORTMED EC PROJECT. A Holistic Approach for the Restoration of Castles and their reuse for the Socioeconomic Development of the Around Area. The Castle of Servia.

- I. Papayianni (1), K. Theologidou (2), K. Theocharidou (3), I. Steryiotou (4)
- (1) Prof., Aristotle University Thessaloniki, Greece
- (2) MA, Architect Restorer, 11th Ephorate, Ministry of Culture, Greece
- (3) Dr, Architect Restorer, Greece
- (4) Dr. Architect Restorer, Greece

#### **ABSTRACT**

In the frame of the FORTMED EC Project (2000-2003) an effort is made for developing a methodology for conservation and revitalization of the castles of the medial period. Four different types of castles have been selected from four countries of Mediterranean basin: Greece, Italy, Jordan and Turkey. In each case a systematic study of the existing situation (including history, environment, survey of pathology and documentation of the materials) will be made. Then, a justified proposal for the consolidation / conservation and revitalization of each castle will be suggested focused on the use of materials compatible with the old structure, compiling the four pattern studies, the constitution of a model methodology is attempted.

#### 1. INTRODUCTION

The FORTMED EC project started in 2000 and aims at a constitution of a model methodology by which the medieval fortifications should be restored with respect to their historical background, to their structural authenticity and in harmonization with their modern urban centers or natural landscape. Four east Mediterranean countries are participated, having selected the following castles as case studies for the pilot application of the proposed methodology.

Greece: The castle of Serbia. Contractor and coordinator: Aristotle University,

Thessaloniki, Research and Planning.

Italy: The Castle of Konigsberg-Monreale inside the fortification system of the Piano Rotaliano in Trentino – Contractor: Instituto Universario di Architectura di Venezia.

Turkey: The Byzantine castle of Constantinople – Contractor: Technical University of Istanbul.

Jordan: Shobak castle in Southern Jordan – Contractor: Ministry of Tourism and Antiquities.

It is believed that the experience accumulated by studying medieval castles of different type, in relation to their environment and social and socioeconomic background, will much help in understanding the problems and in proposing the best solutions, in accordance to conservation principles and economy saving aspects.

What are expected from the appliance of the proposed model methodology?

- Better quality and less costly repair work.
- Minimization of the repair work, to preserve the authenticity.
- Documentation of history, materials and different techniques of construction.
- Enhancement of local economy by creating sites with major tourist attraction
- Promotion of traditional techniques and local low potential materials.
- Protection of historical physiognomy of the city/area.
- The cultivation of mutual respect of culture and ethics (that is of paramount importance for the co-existence of people).

#### 2. BACKGROUND

Fortification is one of the most important parts of Architectural Heritage. Castles are often extensive, massive structures, easily viewed, on the top of mountains or they surround citadels and harbor entrances. They have early attracted the interest of restorers and citizens, since they are witnesses of the past, a source of historical and cultural references, a place where the memory still exists and could take another role, participating in the life of today as a symbol not of a military power, but of cultural value. In 1949 the International Castles Institute (IBI) was set up and established Castellogy (awareness for protection and revitalization of fortifications). In 1990, it was united to Europa Nostra. A number of 52 IBI Bulletins have been produced, devoted to many aspects concerning historical and architectural documentation, legislation, principles and techniques of restoration, and policy for tourist promotion. They are focusing, in particular, on the necessity of historical documentation.

During 1998, in the frame of INTEREG II, a joint (Greece-Italy) EC project aimed at the valorization of coastal castles, under the title Castro periplous-Castrorum circumnavigatio. More than 35 castles, mostly from the medieval

period (some of them incorporating classic or archaic remains and later construction phases up to the 19<sup>th</sup> century), were included. The program focused mainly on the interventions related to visiting facilities and not on conservation / restoration needs.

The up to date experience showed that the problems envisaged in restoration/revitalization of fortifications are closely connected to the type of castles and the perspectives, for the recast or recreation of the area and broader region. Small forts, ruined fortresses and citadels in country side and city walls in modern urban centers can serve as mere visiting places, being open-air museums of themselves, but can also shelter new uses (small local museums, exhibitions, etc.) in the interior of their towers and rest buildings. In any case castles attract a great number of people, and especially of young age, and since they are so closely connected with the pure history of the certain area, (defense, survival of the population through the centuries), require a more "educational" and visual presentation, in order to reveal their historical values.

Furthermore, the consolidation and conservation of the remains is work of high cost, since: a) The castles are usually located on isolated and non-easily accessible areas. b) The historical and archaeological documentation takes much time because of their great size, their long past and bad state of preservation, that very often requires extensive excavation, in order to reveal the entire fortified enclosure with its contents. Furthermore the extended repair works that are executed for safety reasons, affect undesirably the authenticity of the castles.

Therefore, a well-defined effective methodology (of multidisciplinary character) is necessary to prolong the life of repaired parts and avoid interventions incompatible to their historic value and to the local environment.

# 3. THE PROCESS OF A PATTERN STUDY

It consists of three stages A, B, C. The first (A) deals with the evaluation of the existing situation and always precedes of B and C. In the stage (B) the repair works and activities for conservation and rearrangement of the area around, are included. In the stage (C) well-justified proposals are suggested, based on the historical and cultural added value, of the restored castles. Plans for housing arrangement, recreation, development of cultural tourism, educational programs are presented, aiming at serving modern social requirements and enhancing local economy. In the following schedule of the proposed methodology the pivots of work packages are shortly described.

The first stage (A) is devoted to research of archives, historical sources, laboratory and site investigations, selection of all relevant data and photos. The second stage (B) is the main works for the implementation of a restoration project. Scientists of all specialties such as archaeologists, architects civil engineers, material engineers as well as trained technicians should cooperate for that. For the work packages of the (C) stage the participation of authorities and local society is

necessary for the realization of the plans. Since the available budget is usually limited it is essential to define the priorities in the developing plans.

#### 4. THE CASE OF THE CASTLE OF SERVIA.

#### 4.1. Historical note.

The town of Servia is located in Western Macedonia, at a distance of 25km from Kozani and 155km from Thessaloniki. It is a small town with a population of 10.000 inhabitants. Geomorphology is the main characteristic of the area. It is a narrow land among the mountains of Pieria, Titario and Kamvounia and the river of Aliakmon. The castle was built on a hill. Two ravines, extremely steep, were protecting it, in the east the ravine of St. George and in the west that of Chouni. In the past, the area was of strategic importance, as it was one of the three passages, which connected Macedonia to Thessaly, and one of the two passages which connected the upper to the lower Macedonia. The castle, together with the naturally strong defensive position, resulted for the area to be impregnable.

The date of its erection is not exactly known. Many researchers position it in the 6<sup>th</sup> century. However the first written reference is owed to Konstantinos Porfirogenitos in 10<sup>th</sup> century. For a short while it was under the char of Bulgarians Samuel (995-1001). The Byzantine Emperor Basil II (976-1025) won the Bulgarians in 1001 and demolished the castle in 1018, to avoid reoccupation. In 1204 Franks crusaders occupied Servia, while in 1216 it came under the Despotate of Hepirus. Stefanos Dousan occupied Servia, for a short period, in 1341. From 15<sup>th</sup> cent. Up to 1912 it was under the Ottoman rule.

#### 4.2 Description.

Two enclosures and the Acropolis formed the castle. The outer enclosure was the most populated and the civilians inhabited it. The military lived in the inner enclosure and the sovereign in Acropolis. Round and rectangular towers strengthened the walls.

The outer enclosure is not fully saved and its outline is not completely known. However, here are still preserved, in relatively good condition, two churches of small dimensions and a basilica in ruins. It is the church of St. John the Baptist (14<sup>th</sup> century) and the church of St. Theodore (11<sup>th</sup> century) with a tiny aqueduct in its courtyard. The latter was the church of a monastery. The Basilica of Catechized, or St Demetrius (11<sup>th</sup> century) was probably the cathedral. Furthermore, traces of churches were discovered in the same area, during archaeological excavations. It seems that this part of the castle was the religious and administrative center. In addition, traces of walls are visible everywhere, which prove a dense building.

The inner enclosure is better preserved. It has a polygonal form and it was the second line of defense and the shelter for the population, in case of capture of the outer part. It was thinly inhabited. The ruins of buildings, which are sparse, prove this.

Acropolis was the last line of defense. There existed the house of the sovereign and military buildings. Some remains of them are still visible. Acropolis has a quadrilateral form. Two rectangular towers preserve most of their height. One of them was partly demolished by the earthquake of 1995. The foundation of another triangular tower is visible.

Pretty early, the area outside the castle was inhabited, as well. The church of St. Anargiri, (by the end of 16<sup>th</sup> century) was outside the fortified town and very close to the entrance of the walls. Gradually more inhabitants moved outside the walls. Acropolis and the inner courtyard were firstly depopulated. The whole castle has been abandoned until the end of the 17<sup>th</sup> or the beginning of the 18<sup>th</sup> c.

Rectangular and circular towers, connected with high walls, formed the castle. They were stone masonry structures. Very often bricks were additionally used and in some cases they formed decorative motives. Lime mortars were mostly connecting stones and bricks, though mud mortars, related to the later phases of construction, are also found.

STAGE A (Work Packages WP 1-5)

Documentation and evaluation of existing situation

WP1: Natural environment: Key words: Location, climate, geomorphology

geopolitics, flora and fauna.

WP2: Socioeconomic status: Key words: Ownership, legal frame of the state and

local community, economical activities

of the region, resources, main occupation educational level.

WP3: Architectural Structural

and Technological data: Key words: Designs of topography and architecture

of the structures included. Survey of pathology and construction techniques. Documentation of old materials. Old regional techniques of construction.

regional techniques of constructions

WP4: Historical data: Key words: Ethnology, recursion of the history, historic

events, references, everyday life inside and

outside the castles.

WP5: Evaluation of the

selected data: Keywords: Definition of the basic axis or eminent

characteristics which should be alleged and of the pririorities of activities.

**STAGE B** (Work Packages, WP1-5)

Consolidation, conservation, restoration and revitalization of the castle ensemble.

WP1: Repair works: : Key words: Interventions for solidification

conservation (cleaning, consolidation, pointing reconstruction, reinforcement of foundation sheltering, conservation of work of arts included in the ensemble.

WP2 : Excavation for further archaeological

documentation : Key words : Find data for "dark" historical periods.

WP3: Plans for the functional rearrangement of the

site : Keywords : Access, Protection of natural and

architectural physiognomia, lightening,

readibility of the history.

WP4: Plans for connection with other

monuments of

architecture : Keywords : Pedestrian, archaeological walk, place of

sightseeing and relaxation.

WP5: Establishment and operation of

monitoring system : Keywords : Long-time behavior of

repaired parts, record of visitors Regulations.

STAGE C (Work package 5 WP 1-3)

Management and exploitation of the site after restoration

WP1: Use for educational

Purposes : Key words : Plans for regular and occasional

activities in cooperation with local and state authorities.

WP2: Enhancement of cultural

activities : Keywords : Festival, infrastructure for theatre

performance, meetings, events.

WP3: Plans for development of

local economy : Keywords : Ecotourism, local bus, guides for

visitors, activation of

municipality and periphery in participation joint development

projects.

### 4.3. State of preservation.

The castle suffers from extended demolition. Furthermore cracks of different types and width, inclination from vertical, weathered joints, lose masonry and losses of adhesion of the building materials are problems, which appear to most of its parts.

The main cause of deterioration is abandonment and neglect. Human action was another main cause of decay. The reuse of building materials, during the centuries, for the construction of new buildings was a very usual action. At the period between the two world wars a forest with pine trees was created to cover the hill of the castle. The roots of the trees must have caused serious damage to the remains. Moreover, earthquakes, weathering, ageing, climatic conditions and especially frost, as well as the bad quality of ground are some other causes of decay.

# 4.4. Archaeological research and consolidation works.

The size of the castle and its state of preservation need extend archaeological research, to reveal the missing parts of the walls and the remnants of the houses and different buildings. This research will help to understanding the layout of the castle, the different types of buildings, such as houses, churches, handicrafts, and public buildings, and get useful information about the community, its activities and the everyday life. Archaeological research was sparse until recently.

Consolidation works were mainly focused on churches and small parts of the walls to avoid collapse. The church of Ag. Anargiri has been fully conserved. The conservation of mural paintings was also included. A major plan for the restoration of the basilica of Catechized has started five years ago. Besides consolidation of the existing structure, the project includes partial rebuilding of missing parts and partial covering, for the protection of frescoes on the walls and graves revealed during excavation works, under the floor of the central aisle. The systematic analysis and record of the old materials as well as the design of the new repair materials (in order to be compatible with the old ones) is made in the frame of the FORTMED EC project.

Ministry of Culture – 11<sup>th</sup> Ephorate of Byzantine Antiquities is responsible for the protection of the castle. Furthermore, a convention among the Ephorate, the Treasury of Archaeological Funds and the Municipality of Servia has been signed for the conservation and enhancement of the monuments in the area.

#### 4.5. Exploitation of the castle.

The size of the castle, its position and its state of preservation entail long lasting archaeological research and consolidation – conservation works. Therefore, a step by step approach is necessary for its preservation and exploitation. The consolidation of the superstructure, threatened by collapse is the most urgent action. Archaeological research to reveal foundations in some cases should be

necessary. Lighting of specific parts of the castle together with the cut of a limited number of trees, so that the castle is visible from long distance, as it used to be, is another action that could start. An archaeological walk in the castle with certain points of station, where information material could be positioned on specific plates is another step of priority, in order to bring people to the castle and make known its history and structure. Educational programs for all ages could enrich this walk. Cleaning of the uncontrolled vegetation in selected areas could help a better understanding of the remnants. Furthermore, some cultural events in open areas would bring many visitors and make it well known. The conservation of all the churches together with their direct environment is a second step. A further step could be the revelation of the perimeter of the towers and the walls by excavation works, so that its exact size and form become known. The conservation and enhancement of these parts should directly follow. Furthermore the choice of specific parts, (such as Acropolis, the administration center, areas where traces of handicrafts have been noticed, churches, baths) for excavation works should be made so that the whole organization of the castle gradually comes to light.

#### REFERENCES

- 1. Dimopoulou, Ι. "Τα παρά τον Αλιάκμονα Εκκλησιαστικά". Ιερά Μητρόπολις Σερβίων και Κοζάνης, Thessaloniki , 1994. (In Greek)
- 2. Evgenidou, D. "Κάστρα Μακεδονίας και Θράκης. Βυζαντική Καστροκτισία." εκδ. Adam., Athens 1997. (In Greek)
- 3. Malouta, Μ. "Τα Σέρβια. Ιστορική και Λαογραφική Επισκόπησις". Thessaloniki, 1956. (In Greek)
- 4. Xigopoulou, Α. "Τα Μνημεία των Σερβίων". Athens, 1957.
- 5. Papathanassiou, Th.. "Το Μεσαιωνικό Φρούριο Σερβίων", 1939.
- 6. Tsarmanidi, Α. Γ. "Συμβολή στην Ιστορία της Επαρχίας Σερβίων. Κατά την περίοδο 1350 1912". Volume I, 1359 -1880. Educational Group of Serbia "The Castles" Serbia 1995.



Figure 1. Castle of Servia. A view from Acropolis.



Figure 2. Parts from the inner enclosure.



Figure 3. Basilica of Catechized.





Figure 4, 5. Towers from Acropolis. State of preservation.





Figure 6, 7. Tower from Acropolis and its state of preservation.

Detail from loose masonry.



Figure 8. Detail showing roots action.