

# **Methodology and Documentation Techniques in Conservation Projects in Slovenia: Aims and Reality!**

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## **1. Abstract**

The purpose of this paper is to present the present state of documentation, interpretation, presentation through existing methodology of surveys of cultural heritage in Slovenia. Our aim is to establish appropriate standards of the documentation, surveys and methodology at different levels for updated knowledge of cultural heritage.

## **2. Introduction**

The essence of »Conservation« in Slovenia is planning for the long term use of cultural resources. Today the widely accepted philosophy of conservation and the basic principle of preservation is that monuments and sites are to be protected in their own right and in all their variety, as far as possible, and should never be assessed either on the basis of individual interests or political consideration. Nevertheless, the problems in conservation policy are such that cultural heritage is under constant threat and it is obvious that it cannot be separated from the consequence of political, economic and administrative decisions. The cultural heritage and landscape are a fragile and irreplaceable resource.

The increasing needs and updated knowledge of cultural heritage claims the advanced methodology of surveys, documentation and the use of integral information system to support the conservation management, interpretation and presentation of cultural heritage.

## **3. Public service for the protection of Cultural Heritage in Slovenia**

The administration of the protection of cultural heritage is mainly the responsibility of the Office for Cultural Heritage within the Ministry of Culture, accompanied by the State Archive and the Inspectorate for culture Heritage. The main tasks of the Office for Cultural Heritage are the preparation of legal procedures, the provision of funding and the development of a common binding classification system, which is as yet missing (Wimmer, Cultural policy in Slovenia, 1996) but is now in progress. Seven additional institutes were in the past quite independently of state authorities and at the same time of each other and they developed its own priorities, physical planning and landscape planning, conservation projects, cooperation with external specialists, classification of standards and taking the relevant decisions.

The short history about the cultural and natural heritage protection and preservation on the territory of Slovenia was presented in the previous papers by Ariadne 1 and 4 by Jovo Grobovšek (preзидент of ICOMOS/SI) and Mojca Guček. In Slovenia there is a long tradition of Vienna School of History of Art and monument protection, while in the last fifteen years the impact of British archaeological school is becoming very significant, especially in the field of conservation archaeology. Another important change is the centralization of seven previously independent regional Institutes in one Public Institute for the Protection of Cultural Heritage in the Republic of Slovenia, while Cultural Heritage Office as a part of Ministry for Culture is main administrative organisation and takes the care of central register of Heritage (Grobovšek 2001).

Restoration Center of the Republic of Slovenia become also the part of Public Institute.

#### 4. Documentation and conservation project

Slovenia is conventionally divided into different regions, formed of different geological and ecological units which possess different vegetation cover. The richness of its flora and its extraordinary variety is explained by the fact that Slovenia is situated at the contact point of four floral zones: the Alpine, the Mediterranean, the Pannonian and the and Illiric-Dinaric (Martinčič&Sušnik 1984, 5) and lies long at the cross road of four different cultural influences.

For this reason the diversity of cultural heritage in the country, and sometimes the contradiction of cultural influences in our history, is an advantage and important catalyst bringing together different cultural approaches together.

The important part of cultural heritage is our landscape. Landscape is changing through both natural and man-made process, urban areas and vernacular heritage are under constant threat like elsewhere, especially by urbanisation and infrastructure planning, in spite of the fact that the new Law on Protection Heritage 1999 and adopted Malta Convention on archaeological heritage by our parliament.

The main task of our public institute and offices and the conservation policy is in general: recording, researching, evaluating cultural heritage and at the same time providing the legislation of cultural heritage, managing conservation projects, as well as including the regional planning and urbanistic projects, education and presentation of cultural heritage to the public and developing methodology for conservation projects and through all this preserving the cultural heritage for the future.

A good documentation of the monument, site or GIS of landscape is a fundamental tool of recording and producing data base not only for the future but also for today.

At the national level, conservation procedures consist initially of making an inventory of all cultural properties in the country. This is the major administrative task and involves establishing appropriate categories of cultural property and recording them both graphically and descriptively.

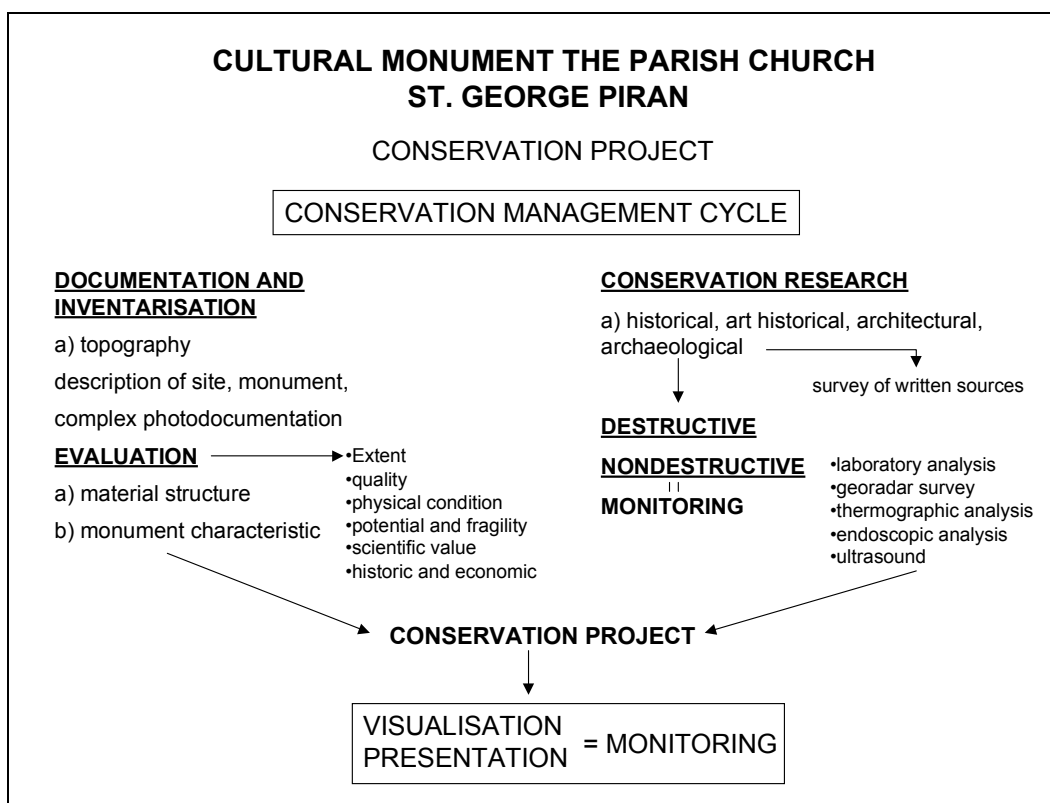
Every basic conservation management cycle consists of different levels of collecting and evaluating the present state of documentation: surveying new data and developing the conservation research.

Complete recording as we know is essential before, during and after any conservation intervention and accurate and updated knowledge is fundamental.

Conservation research of important monuments and sites should be based from the early beginning on non-destructive techniques and modern surveying techniques with a support of classical surveying. Unfortunately this is not a common practice in conservation policy in Slovenia.

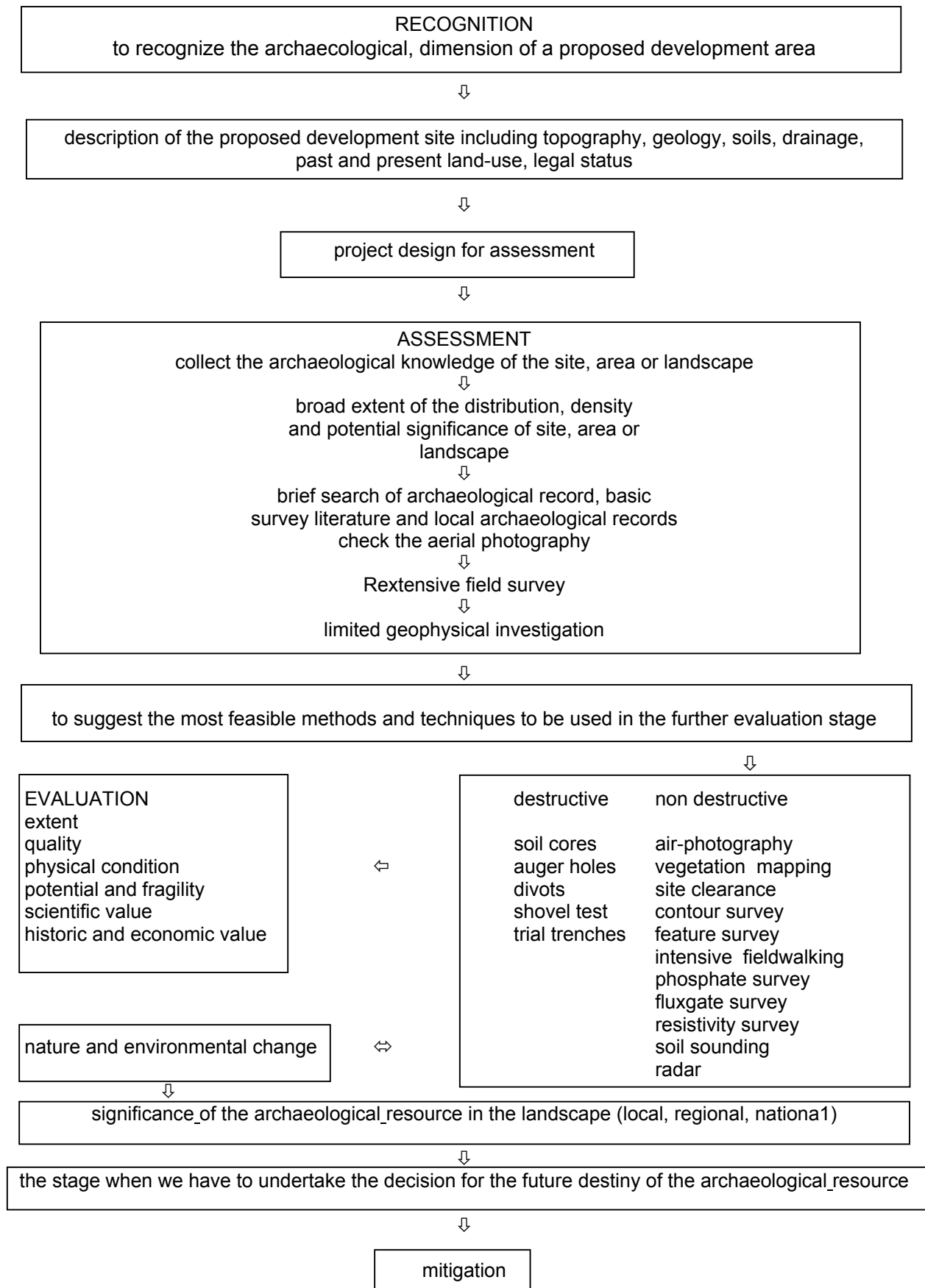
Firstly, legislation does not provide the urgent need of different non-destructive techniques as part of conservation survey, second the modern techniques are not very popular, some of them are expensive and the manipulation with digital technologies needs extra education.

In the field of documentation (archeology, architecture, history of art, cultural landscape...) mentioned conservation management cycle, techniques of recording and the whole methodology of surveying differences could not be obtained, because the institutes developed their own standardisation, while the general strategy plan for standardisation does not exist. Many years ago we developed a complex and simple conservation management cycle for standing building based on interdisciplinary approach for our use but it will be soon upgraded by different specialists. The computer technology to store and analyse information collected from a study area or object in one place with different levels of archive is not a new concept. However, through the use of advanced data collection techniques, digital cameras, different non-destructive investigations results, laboratory research, classical drawing and photogrametric data base this system can become greatly enhanced.



## 5. Methodology

Eight years ago a significant approach has been made concerning the preservation of archaeological heritage in Slovenia. Central Heritage Office as part of the Ministry of culture under Council of European Communities in its Council Directive on the assessment of the Effects of Certain Public Project on Environment (EEP/85/337) established a team of conservation experts to create an archaeological state project for successful protection of archaeological resources especially on the country side. The methodology concerning archaeological assessments and evaluation adopted of areas of landscape, what was a routine only on Western countries is now a normal procedures also in Slovenia. The archaeological heritage is only one of many factors which have to be considered during the planning of development proposals in the context of environmental assessment. Archaeology is a part of this multidisciplinary approach. In practice this means that not only scheduled, listed or potential archaeological sites should be assessed and evaluated before construction work started, but entire area under threat. The project aim was to avoid damage to archaeological sites where possible, although the scope for this is somewhat limited but should improve their chances of survival in some form (rescue excavation) and the use of non-destructive techniques as part of regular archaeological rescue state projects is becoming a normal procedure. The methodology of rescue excavation, documentation system and data acquisition of the site are becoming a standard, but we need normatives and principles how to organize the archive report, final reports, normatives for postexcavation period and we need writing standardisation issues.



Flow diagram 2

## **6. Non-destructive techniques**

The rapid development of information technology at the end of the last century has led to the realisation that without the application of modern techniques in archaeology and conservation it is not possible to keep up to date of the demanding documentation processes which are directly connected with an increasingly demanding research methodology and with the documentation itself. As part of many methods of recording of culture heritage were photogrammetry is one of the techniques of data acquisition, which has successfully established itself in conservation and archaeology over the last hundred years. In specialist literature (Barker1998,274) on archaeology the photogrammetric method of documentation is predominantly connected with rescue excavation or recording of standing structures, since this method of documentation is seen as the only one to guarantee the reliability and accuracy of the actual condition. In the past the process of excavation was directly dependent on the execution and speed of the photogrammetric shooting, the stereo-photography, development time and the ability of the team. Because of the limitations mentioned above the excavation process often had to adapt itself to the shooting of stereo pairs, the photogrammetrist was not always rationally exploited, while a laboratory for the production of photo –sketches was not always available, which slowed the progress of the excavation. In the last five years we have managed in co-operation with the Institute of Geodesy and Photogrammetry in Ljubljana to rationalise and optimise the whole photogrammetric process. The mapping of the stereo pairs was done using an analytical instrument called Adam Tec. Promap.All details were mapped the photogrammetrically acquired data was arranged by labelled stratigraphic units and coordinated with the closed matrix phases.From the edited digital data (AutoCAD r14) it is possible to draw individual details and stratigraphic units from various periods, different models of the site. Manipulation is fast and very important in the archaeological interpretation of the site. Another important advantage of this method of photogrammetric recording is the speed of data acquisition and instant processing. Documentation of this type in digital form is also essential in the drawing –up of conservation programmes, which in the final phase lead to various presentation decisions, and for the preparation of various models of visualisations, design of modern structure shelters or coverings. The comparison showed that significant differences exist in the accuracy of photographs of the same architectural remains, and above all that we can understand archaeological or architectural drawing as a phase of preliminary interpretation. Preliminary interpretation, if not done together with photogrammetric documentation, is not a true representation of the actual condition, and since the documentation is also created for the future, only a document, which shows the true condition is credible (Stokin 262, 2000).

The use of other non-destructive techniques as part of conservation research and in the context of conservation projects exists but like it was mentioned in the beginning it is not a common practice. The use of new techniques and an interdisciplinary approach offer a wide data base and thus make it possible to make more reliable interpretation of the results, which are an integral part of the conservation project. The integration of photogrammetric, georadar and thermographic analyses through the employment of computer documentation system permits precise documentation, rapid access to data and elaboration with new methods.

## **7. CASE STUDY SOCERB CASTLE**

The castle was in ruins after the fire of 1780, and according to analyses, all Interventions upon the walls and the interior were likely to have been a gradual occurrence. The most extensive intervention was carried out in the beginning of the 20<sup>th</sup> century (1924)The building in the interior were redapted and partially rebuilt, applying the same technique of building and the same building material as in the tower by the entrance. The ruins were almost completely preserved in accordance with the conservational doctrine developing at the time. Concerning that the interventions on the ruins were made to preserve the existing state of the romantic ruins, it follows that the last owner of the castle conducted his interventions knowing and understanding the meaning in preserving the ruins of a monument.The main objective of the primary conservation programme for a four-year period are as

follows: Research, analyses of the existing and the new data base as well as subsequent interpretation. Preservation of the existing condition of the castle and consolidation of the ruins after laboratory analyses of the materials. Vegetation mapping. Architectural and archaeological research (photogrammetry, radar survey, geodetic measurements, airfoto documentation, endoscopic analyses.

Architectural studies of the spatial possibilities for using the interior of the bailey for cultural and catering purposes.

The assembly and erection of explanatory panels and the creation of a publication to accompany an exhibition. A holistic conservation programme should presumably deal with the wider area of the Socer castle's hinterland and at a very start, comprise basic interdisciplinary spatial investigations like GIS, and would entail a great number of additional investigations for such a large area and seems relatively unrealistic at that time because of limited financial resources.

## **8. RESEARCH DESIGN**

So called research design in conservation policy in Slovenia is very superficial: it deals with chronologies descriptive cultural history, art history of a monument, materials, finds etc... and has no research programme concerning current research needs, whether national, regional or purely local. The solution would appear to lie in an approach that operates at a number of different levels and stages, and this kind of research programme in the context of conservation should become standard practice. Research begins most commonly when a scientist becomes interested in the problem, or in the general area of investigation, and when the search for explanatory hypotheses begins. In conservation the process of research design starts with the identification of problems that need to be solved.

## **9. CONCLUSIONS**

Our aim is to develop a documentation, system and methodology of surveys with modern documentation techniques because the increasing needs of an accurate and updated knowledge of monuments and cultural landscape are fundamental weapons for evaluation, conservation and presentation of cultural heritage.

Interdisciplinary approach with the support of new computer technologies today enable accurate fast and rational documentation of cultural heritage, the cultural landscape and large rescue archaeological projects, where the method of data acquisition is extremely important. Unlike the rest of cultural heritage, archaeological rescue projects mean the permanent loss of irretrievable information, and thus first class documentation is essential.