

# BEST PRACTICES HANDBOOK

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TRANSNATIONAL MODEL FORM OF SOCIALLY  
USEFUL USE OF MEDIEVAL RUINS

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Istituto Superiore sui  
Sistemi Territoriali per l'Innovazione



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## TRANSNATIONAL MODEL FORM OF SOCIALLY USEFUL USE OF MEDIEVAL RUINS

Compiled by:

Patrizia Borlizzi - Antonino Frenda - Silvia Soldano – Marco Valle  
SiTI – Istituto Superiore sui Sistemi Territoriali per l’Innovazione



Authors:

*Lublin University of Technology (Poland)*

*Matej Bel University (Slovakia)*

*Ivan Murin - Dagmara Majerová - Jana Jaďud'ová - Iveta Marková - Kamila Borseková - Anna Vaňová - Dana Benčíková  
- Ivan Souček - Martin Miňo*

*The Institute of Theoretical and Applied Mechanics AS CR, v. v.i. (Czech Republic)*

Patrizia Borlizzi – Antonino Frenda – Silvia Soldano – Marco Valle  
*SiTI - Higher Institute on Territorial Systems for Innovation (Italy)*

*Italian Association for the Council of Municipalities and Regions of Europe (Italy)*

*Venetian Heritage Cluster (Italy)*

### Disclaimer

The authors are responsible for the choice and presentation of the facts contained in this publication and for the opinions expressed therein.

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# CHAPTER 1

Objectives of the  
publication



This handbook, focused on the theme of sustainable and socially useful “use and re-use” of medieval ruins, is the main output of WPT2, whose aim is finding the balance between the needs of stakeholders and public expectations concerning use of medieval ruins and preservation of authenticity and historical value of medieval ruins (as historical monuments).

It supplies an operational tool useful to guide owners and managers of the thousands of medieval ruins around Europe toward a sustainable re-use, preservation and modern management of historical ruins.

Theoretical and practical models are provided on the themes of architectural and archaeological restoration, projects of contemporary reuse, management of cultural heritage, with a wide presentation of cases-study referring to European context.

Users have the opportunity to deepen their knowledge of the most current approaches to conservation, sustainable use and management of the ruins, which represent, throughout Europe, a heritage of inestimable historical-cultural value but extremely fragile, on which the professional must know how to relate correctly for not compromise its authenticity.

*In the last half century the European debate on the theme of the enhancement of cultural heritage has changed the point of view with which assets are perceived: no longer a legacy to be guarded and contemplated but a dynamic reality with an active role in the contemporary world.*



The new approach to the heritage of the past has involved, in addition to the restoration and architectural project, also the artistic creations, determining different balances in the relationship between the new and the old. In order to protect a medieval ruin, as well as any historical artifact, it is necessary to overcome the concept of the mere physical protection of the object to open up to a deep relationship with the past to put it in relationship with the present.

The reuse project has to be integral part of the overall conservation activities. The utility of ruined sites must be considered before starting any restoration or enhancement works. If not, the risk is that the reuse project is useless for community and probably not sustainable.

Ruined sites are strongly linked to their socio-cultural context and represent the identity and the memory of a place. Recognizing the value and importance of ruined sites help us to think about a socially sustainable reuse, that must be the guide of any restoration work on ruins.

The goal to be pursued necessarily must be that of attributing a correct meaning to the ruin, in a logic of conservation and respect of the monument to be enhanced, through transformations compatible with the authenticity of the ruined work, avoiding deformations and alterations of visual and formal perception of the ruin.

*Each interventions on ruined sites must consider the values of the place and create a dialogue with the ancient remains respecting the principles of authenticity, compatibility, reversibility, recognizability and minimum intervention.*

Knowledge and communication of historical ruins are fundamental steps that help to reconnect them to the community.

Conservation approaches and choices must be part of the communication programme in order to improve the knowledge of the site and increase community awareness, who is the final user of the ruined site. Investigating the perception of ruined site by community can guide the restoration projects and the reuse that must consider into account needs and expectations of the citizens.

The handbook's outline is composed by 5 chapters that will try to respond in an exhaustive way to the aims related to contemporary and socially useful use of historical ruined sites, identifying shared approaches and methodologies on the restoration provided by a wide range of cases-study.

The INTERREG CE project "RUINS. Sustainable re-use, preservation and modern management of historical ruins in Central Europe - elaboration of integrated model and guidelines based on the synthesis of the best European experiences"<sup>1</sup> focuses on cultural development strategies and the participants are exchanging knowledge that is already being developed within a local and regional context and could be applied at a wider European level. The project applies an empowering bottom-up approach, in which local and regional stakeholders are actively engaged throughout the project's running time. Due to the transnational character, the project contribute to create a common European identity, strengthen cooperation between international, national and local stakeholders both vertically and horizontally, and promote exchanges between boundaries. Project objective is to give "the second life" to medieval ruins through modern management and attributing contemporary, socially useful functions, while preserving historical value of these sites. Project aims to develop and disseminate transnational guidelines and integrated model of contemporary use, modern management and protection of medieval ruins in Central Europe in order to enable elaboration of comprehensive management plans for ruined historical sites. Elaborated comprehensive management plans will help owners and managers of historical ruins, local, regional and public authorities exploit economic potential of this heritage in economic development of regions, and to preserve value of medieval ruins as cultural heritage. Activities undertaken within project will be combination of research tasks concerning documentation and evaluation of technical state of ruins, conservation tasks concerning the form of protection of ruins and, most of all, activities aimed at contemporary use and modern management of historical ruins. Cooperation of 6 countries with various traditions and experiences will result in development of universal models that could be applied for management, use and protection of medieval ruins all over Europe, providing European added value. Importance of project arises from fact that historical ruins in many countries are in danger for two reasons. Firstly, all historical ruins are in state of constant destruction (it results from their form - lack of appropriate protection against weather conditions).

Therefore, their technical protection - assuming minimal interference in historical form and substance, is difficult and expensive - it is a continuous process. Such a process is difficult to organize, so for many ruins destruction process keeps progressing. Secondly, form of ruin often is not considered a proper form of maintenance of historical object. Increasingly, owners, users, public opinion, journalists, local communities demand rebuilding of ruins. Rebuilt ruins are transformed into hotels, restaurants, museums, offices, etc. Such reconstruction irreversibly destroys authentic historic ruins. The number of such projects keeps increasing. Cultural heritage represents a big potential for economic growth, generating value and thereby directly benefiting citizens. Finding better balance between preservation of cultural heritage and sustainable socio-economic development of regions is necessary. Therefore there is urgent need for development of modern, attractive forms of re-use, management and protection of ruins in their present form, while preserving their historical value. RUINS project has a big role to play in building the future of Europe making use of the increasing worldwide demand for touristic offers relating to the ruins. What is more, the project highlights and boosts the important role of cultural heritage in Europe as a resource and a common good. The members of the network are undertaking several coordinated actions at the same time acting as an open-air laboratory of European construction. Furthermore, the creation of a common visibility in order to promote the route at a local, national and international level and the involvement of local communities and stakeholders is a fundamental process necessary to its success. The project is fully in line with the European Cultural Heritage Year's objectives, such as promoting European values, heritage-related skills, common history, intercultural dialogue and social inclusion through education, non-formal and lifelong learning. Preservation, education and use embedded within a framework of cultural tourism can be better organized as a cross border endeavor. The aim is to raise awareness of these connections in order to create a stronger identification with Europe and as a prerequisite for further European integration. This is also RUINS's focus and ideal: to achieve a closer connection, network, and collaboration between and with stakeholders but also policy makers.

A lack of functionality of historical ruined sites leaves limited opportunities for establishing a viable economic future of these sites.

Reuse is surely one of the best ways to ensure the preservation of an antique object keeping it alive: a function-free monument deteriorates rapidly.

Nowadays many heritage places have been adapted for new uses, providing them with a function that guarantees their continuing maintenance and relevance to society.

The re-use of a building through a compatible use allows the functional recovery of the monument. Restoration to active use of historical ruined sites may be the most viable way to ensure their continued existence.

The purpose of this Document is therefore to define the basic principles of the project of sustainable use and re-use of historical ruined sites as essential components of heritage conservation efforts.

# CHAPTER 2

Use and re-use of historical  
ruined sites

## 2.1 Function of Cultural Heritage

Author: SiTI - Higher Institute on Territorial Systems for Innovation

The importance of conservation of cultural heritage is recognized worldwide. In fact, cultural heritage of a place - which includes both tangible and intangible assets - is the testimony of the identity and legacy of the past for each community that has to be transmitted to future generations. Cultural heritage is not only to be protected, but in order to preserve it, it must be usable and part of the production system and local wellbeing.

It is not a coincidence that UNESCO, the most important intergovernmental institution which deals with culture, through the *Convention Concerning the Protection of the World Cultural and Natural Heritage* (1972), considers that:

*“Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage [...] situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain” (Article 4).*

Each State Party also commits itself *“To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavor, in so far as possible, and as appropriate for each country: (a) to adopt a general policy which aims to **give the cultural and natural heritage a function in the life of the community** and to integrate the protection of that heritage into comprehensive planning programmes [...]”.*

By the UNESCO Convention is therefore very clearly not only the importance of conservation of cultural heritage, but also its socially useful organization.



Roman amphitheater of Nîmes (France), a UNESCO site, still used today for traditional bullfights



Back in 1964, the article 5 of Venice Charter elaborated the conservation concept, underlining the need to have an active conservation, understood as monument integration with the social life and its dynamics of change, stating:

*“The conservation of monuments is always facilitated by making use of them for some socially useful purpose”.*

Hence, the socio-economic importance of the cultural heritage was also enshrined in some way. Indeed, conservation constitutes a transformation of the economic and cultural asset that allows an increase in "social utility".

The preservation of the cultural object passed by the actualizing of its function, integrating it into contemporary life; the original *utilitas* can become a new *utilitas* enjoyed by the community, assigning a socio-cultural added value to the restored object.

Therefore for the first time, there is a clear focus on the concept of the asset usefulness, on which we could lend, that is an alternative to capitalism and reuse of buildings, architectural heritage as a means of economic development.

This has also been emphasized in the Italian Restoration Charters of 1972, which states:

*“In order to ensure the survival of monuments, the possibility of new uses of ancient monumental buildings should also be examined, when these are not incompatible with historical and artistic interests. Adaptation shall be limited to a minimum, preserving the external forms scrupulously and avoiding sensitive alterations to the type designation, to the building organism and to the sequence of internal paths”.*



Venice Arsenal (Italy) during the International Cinema Festival

In 1975 the *Declaration of Amsterdam* definitively states that conserve means to interact with the new functions in a compatible way with the premises:

*“it has been proved that historic buildings can be given new functions which correspond to the needs of contemporary life”.*

Apart from its priceless cultural value, Europe's architectural heritage gives to people the consciousness of their common history and common future. Its preservation is, therefore, a matter of vital importance. The architectural heritage includes not only individual buildings of exceptional quality and their surroundings, but also all areas of towns or villages of historic or cultural interest.

The architectural heritage will survive only if it is appreciated by the public; educational programs for all ages should, therefore, give increased attention to this subject. Since the new buildings of today will be the heritage of tomorrow, every effort must be made to ensure that contemporary architecture is of a high quality. The preservation of architectural heritage ensures the permanence of values, guaranteeing against the waste of economic resources, rather linked to the complete cycle of construction, demolition and reconstruction.

The Declaration accepts the principles of the *European Charter of Architectural Heritage*

*"considering that the preservation of architectural heritage depends largely on its integration into the life of citizens and its role in urban and spatial planning", be founded on the principles of "integrated conservation".*

Ecological and socio-political components are its peculiar characteristic, which inspire it in addressing the complex issue of preserving and restoring the architectural heritage. At the same time, recovery and regeneration of urban space go through the civic and political and social commitment so that the city continues to be the place with equal opportunities for its citizens, to satisfy material and spiritual needs and ensure fair economic convenience to live there.

Ten years later, the *Convention for the Protection of the Architectural Heritage of Europe* (Granada, 3.X.1985), article 11, contain definitions of safeguarding and realizing the ideals and principles which are common heritage:

*“Due regard being had to the architectural and historical character of the heritage, each Party undertakes to foster the use of protected properties in the light of the needs of contemporary life and the adaptation when appropriate of old buildings for new uses”.*

## 2.2 Re-use of European ruins throughout the history

Author: SITI - Higher Institute on Territorial Systems for Innovation

Throughout history, ruins have been interpreted in different ways, depending on the historical moment and the consideration of the past and of the passing of time and on the relationship that man has established over the centuries with the mutilated remains of past eras.



The "Roman Ruin" in the park at Schönbrunn (Vienna, Austria), c 1800

At the same time, the approach to the use of the ruins has undergone various oscillations of thought.

*In the classical age it was widespread and considered legitimate to reuse parts of ruins as building material for new buildings and monuments. Great monuments have been made by reusing pieces of buildings that have fallen into ruin.*

The Forum in Rome is one of the most famous ruins in the world and many of its buildings have been reused at some point. This reuse extended beyond the common practice of recycling the marble in new structures, and included the adapting of existing ruins for new uses.

The Trajan Market, built in AD 107-110, was completely transformed for reuse in the Middle Ages. Sadly, the phases of medieval, and Renaissance building in the Forum were subsequently removed in the single-minded archaeological pursuit of the 'glories of imperial antiquity'.

During the years of the first restoration works through the writings and militant activities of Antoine Chrysostome Quatremere de Quincy, Ludovic Vitet, Prosper Merimeè, Adolphe N. Didron, Alexandre Lenoir and many others, while they are encouraged, in architecture, Reproductions and additions in style, a more vivid respect is reserved for the ruins.

The latter, raised by the 'burden' of the use and use by man, is considered worthy of conservation for its exclusive testimonial value; the history of the restoration of the ruins of archeology or of architecture, even medieval, goes hand in hand with that of restoration in general, but is always placed one step further on the path towards the preservation of the physical integrity of the asset.



*The theoretical discussion on adaptive reuse as a way to preserve historic monuments started in the 19th century. At that moment the practice of restoration was situated between two opposing orthodoxies: the restoration-movement, led by Eugène Emmanuel Viollet-le-Duc, and the anti-restoration movement, led by John Ruskin and his pupil William Morris.*

As an architect and chief inspector of monuments in France, Eugène Emmanuel Viollet-le-Duc had been involved in many restoration works of mostly Gothic buildings, among which the Notre Dame in Paris, the castle of Pierrefonds and the citadel of Carcassonne.

His interventions were often far-reaching, as he added for instance completely new parts to the building ‘in the style of the original’.

His work, however, has been criticized by his contemporaries and descendants. John Ruskin for example describes this kind of stylistic restoration as ‘a destruction accompanied with false description of the thing destroyed’.



Medieval town of Carcassonne (France), restored by Viollet-le-Duc

Nevertheless, both Viollet-le-Duc’s work and writings are particularly relevant to contemporary conservation when it comes to methodological issues and reuse of historic buildings.

He states:

*“[...] the best of all ways of preserving a building is to find a use for it, and then to satisfy so well the needs dictated by that use that there will never be any further need to make any further changes in the building. [...] In such circumstances, the best thing to do is to try to put oneself in the place of the original architect and try to imagine what he would do if he returned to earth and was handed the same kind of programs as have been given to us. Now, this sort of proceeding requires that the restorer be in possession of all the same resources as the original master – and that he proceeds as the original master did”.*

Viollet-le-duc's restoration theory, on the one hand, confines classical ruins to the more remote past; on the other, it draws the remnants of medieval architecture into reality, whether real or highly idealized.

Therefore, beyond any ideological tension, the discrimination between preservation of the ruin and its reconstruction is in the possible affinities of the work with the present civilization, that is, its propensity to be re-used not only in ideological terms.

Viollet-le-Duc's ideas contrasted strongly with those of the anti-restoration movement who fought against the destruction of the historical authenticity of the buildings in favour of their protection, conservation and maintenance.

Ruskin considered restoration 'the most total destruction which a building can suffer'.

According to him:

*"It is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture [...] Do not let us talk then of restoration. The thing is a Lie from beginning to end [...] Take proper care of your monuments, and you will not need to restore them".*

Ruskin, unheeded but prophetic, expresses, among the first, a profoundly modern vision of the ruin; it is not by chance that he refers not only to archaeological ruin, but to buildings of the past in general, identifying in the signs of time the greatest glory of a building.

The conflict between these opposing theories on conservation, and the adherent opinions on adaptive reuse, have been discussed by Alois Riegl.

He ascribes this conflict in theories to the different values which their proper adherences attributed to monuments. Riegl distinguished different types of values which he generally grouped as commemorative values – including age-value, historical value and intentional commemorative value - as opposed to present-day values - including use-value and art-value (newness-value, relative art-value). Although different values can be found in one single monument, these values do often conflict with each other. He states:

*"The contradiction between newness-value and age-value is at the centre of the controversy which rages over the treatment of monuments".*



Giovanni Antonio Canal, il Canaletto - Capriccio with Classical Ruins and Buildings, c.1751

On the one hand, the supporters of the restoration movement, inspired by Viollet-Le-Duc, rested essentially on the amalgamation of newness-value (unity of style) and historic value (originality of style), aiming to remove all traces of natural decay and restore every fragment to create a historic entity. On the other hand, supporters of the conservation movement, led by Ruskin and Morris, appreciated monuments exclusively for their age-value. For them, the incompleteness of an artefact should be preserved as traces of natural decay that testify to the fact that a monument was not created recently but at some point in the past.

Although Riegl is rather critical about the creative restorations executed in the 19th century, by including the use-value in his assessment of monuments, he recognizes reuse of historic buildings as an intrinsic part of modern conservation. Where a monument has ceased to have use-value, the consideration of age-value has begun to prevail in its preservation. The situation is more complicated where the use-value comes into play; most would prefer to regard a building in use as something sturdy rather than as something aged and decayed.

He points to the innumerable monuments that are still in use or that have received a new use in the course of history and says:

*“an old building still in use must be maintained in such a condition that it can accommodate people without endangering life or health [as such] practical considerations, allow age-value only in a few exceptional cases”.*

The so-called romantic current identifies the core of the question: ruin survives, but its authenticity is fatally chained into its decadence. In the thought of Ruskin and Riegl we can grasp that intricacy, which is indispensable to us, between the ruin and the condition of human existence.

Throughout the nineteenth century, however, the position of a positivist matrix prevails, so intervention on the ruin oscillates between the desire to re-propagate lost perfection and to exalt the incompleteness, on the contrary.



Castle of Urquhart in Scotland, one of the most famous ruined site of the Country



Camillo Boito finds that the restoration method should depend on the individual circumstances of the monument. He distinguishes three methodologies which he calls 'archaeological restoration' (for antique monuments), 'picturesque restoration' (for medieval monuments) and 'architectural restoration' (for Renaissance and other monuments). Moreover, he presents eight principles to restore a building. He states, for example, that a monument should be consolidated rather than repaired, and repaired rather than restored. In case restorations or additions are necessary, he also describes how modern interventions may be done in such a way so that they can be recognized as such to avoid misunderstandings about the historic and artistic value of the building. Although Boito does not mention reuse of buildings in particular in his writings, his ideas are extremely relevant in relation to adaptive reuse as he describes several possible approaches how to deal with alterations and additions to historic buildings. As such, his principles can be recognized in many projects of adaptive reuse from the beginning of the 20<sup>th</sup> century onwards up to date. Starting from the distinction between living monuments and dead monuments spread in Italy by the most influential exponents of the so-called scientific restoration, the ruin, as a non-operable object (in the utilitarian sense of the term) becomes a symbol of intangibility. It is a "impracticability of use" that is shared by several supporters of the preservation of the ruins in Italy. In order to emphasize their belonging to the past, it seems that the ruins must be excluded from the present, except for models or teaching.

In the thirties of the twentieth century the case of the restoration of the architectural ruin is part of the more general reflections of Gustavo Giovannoni, who had noted the need for close collaboration in the restoration of the archaeologist and architect, almost to recall, for some types of interventions, the specific skills of the archeology world. He hopes for this type of historical constructions only a few - the most conservative, as the 'simple consolidation' - among the categories of restoration planned by him. The building in a state of ruins falls, as is known, for Giovannoni, in the group of those he called, referring to the theories of the Belgian Cloquet, 'dead monuments'. For these, the concept that almost universally prevails is that of:

*"not changing the type and not revitalizing them, so to speak, making them return complete and usable buildings [...] this criterion of maximum respect of the form, even if it is monk or smoked of ruin, in which the architectural work is found, to the picturesque aspect that it has assumed, to the primitive concept for which it was conceived, it has the base as well as in the lack of a positive practical purpose of use, in the greater veneration that for them is in us".*



Rock of Cashel, a ruined site in Ireland

Within the conservation discipline, the post-war era was not only a moment to discuss the principles and techniques of modern conservation, but also to discuss the meaning and scope of 'cultural heritage'. Until the 19th century, the notion of heritage was limited to antique and medieval buildings but due to the destructions of the two world wars, awareness grew about the value of buildings of other periods and typologies including vernacular architecture, industrial buildings and even complete historic cities.

As the conservation practice had to deal with these 'new types of heritage', interest for adaptive reuse as a methodology towards conservation grew.

In 1964, The Venice Charter points to the importance of adaptive reuse within the conservation practice saying that *"the conservation of monuments is always facilitated by making use of them for some socially useful purpose"* and stated that it was indispensable to take initiatives to facilitate the understanding of the ruins and to ensure their use, not in utilitarian terms, but as an active conservation tool, restating them to a dimension of sociality and functionality.

Since 1964, therefore, it is aware that only a careful design that re-activates the parts makes it possible to preserve and enhance pre-existence, thus resulting in a mere testimony of identity to active resource for the community.

In recent times new reflections arise about the relationship between conservation requirements (documentary proof of the ruin) and those that are defined in the project, but also - a theme that has so far been neglected in the archaeological and restoration domains - on the use of these artefacts: it is no longer understood as a matter of materials, not even as a simple pretext for setting up singular "invented ruins", rather than re-contextualizing the ruin that from the past migrates into the present as a "form of life" as a resource that is responsible for new responsibilities.

## 2.3 Approaching to ruin's re-use project design

Author: SiTI - Higher Institute on Territorial Systems for Innovation

Various are the values for a ruin: they can be evocative, historical, aesthetics and cognitive (and many others). Equally, several are the possible ways for a future use, according to the succession of temporary moments of 'use' or 'useless'. In each of these instances, ruins have the important role of time-landmark as well as that of favourite witness in the historical landscape.

If it is often not easy to give a function to monuments still in good condition, even more difficult is the intervention on artifacts that, due to functional conditions and levels of degradation, can not be inserted into a usability and economical circuit.

*Today we tend to consider that the way to achieve the best result from the restoration of a building to a state of ruin is to include the reasons for use and reuse. The ruin is now considered no longer a distinct element and separate from the contest in which it is an integral part, but as an indissoluble component of the invariants that give meaning to the territory.*

Currently, it is possible to identify different approaches and models of interventions on the ruin: ruin as an evocative fragment, ruin as a tool for understanding history, ruin as an equal interlocutor, ruin as a "rest and pretext", ruin as a rebuilding premise. The approaches changes a lot according to the period and the cultural and restoration tradition of Countries.



Tower of Pescina, the medieval structure built in a strategic position to control the mountain pass, has resisted the abandonment and the devastating earthquake of 1915.



Intervention on Lichtenberg Castle by Andrea Bruno. In this case, a new organic unit is sought, in which the relationship between the old and the new one comes into question



An intervention that has been much discussed, the restoration of the Castle of Matra in Spain

# CHAPTER 3

Guidelines for a socially  
useful re-use of Medieval  
Ruins



### 3.1 Communities and Cultural Heritage

Author: SITI - Higher Institute on Territorial Systems for Innovation

Cultural heritage has a universal value for us as individuals, communities and societies; shapes our identities and everyday lives and for these reasons it is important to preserve and pass on to future generations<sup>1</sup>.

Through cherishing our cultural heritage, we can discover our diversity and start an inter-cultural conversation about what we have in common, reinforcing a sense of belonging to a common European space.

The neighborhood and European perspective also enables a broader and more intensive discussion of quality standards for preserving and developing cultural heritage: commitment to developing and preserving cultural heritage does not end at national or European borders.

While people are living in and around World Heritage sites, their role in heritage processes and management has changed considerably. Nowadays we must connect the conservation goals with the objective of smart, inclusive and sustainable growth.

*Local communities must be encouraged to use their local cultural assets as a springboard through a process whereby local actors, are encouraged to assume an active stewardship over the heritage and are empowered develop that heritage in a responsible, profitable and sustainable manner.*

The idea of ‘popular participation’ as a necessary ingredient of sustainable development was iterated in a number of important international documents leading up to the *1992 Earth Summit* at Rio de Janeiro, where Principle 10 of the Declaration emphasized that ‘environmental issues are best handled with the participation of all concerned citizens, at the relevant levels’<sup>2</sup>. This perspective was reinforced by international commissions and a number of summits during the 1990s through to the *2002 World Summit on Sustainable Development*<sup>3</sup> (WSSD). The WSSD agreed that, ‘good governance within each country and at the international level is essential for sustainable development’, and popular participation is the foundation of good governance.

An equally notable ideal of sustainable development, if the goal is to conserve heritage, either natural or cultural, is the preservation of knowledge, innovations and practices of indigenous and local communities embodying both traditional and contemporary lifestyles. This idea was iterated at the WSSD<sup>4</sup> following the adoption of this principle in the *Convention on Biological Diversity*<sup>5</sup>.

The *World Heritage Convention Concerning the Protection of the World Cultural and Natural Heritage*<sup>6</sup> is today a globally recognized legal instrument in heritage conservation.

<sup>1</sup> To enable people to become closer to and more involved with their cultural heritage the European Year of Cultural Heritage, throughout 2018 is seeing a series of initiatives and events across Europe (at EU, national, regional and local level) in celebration of our cultural heritage diversity.

<sup>2</sup> Cfr. *The Rio Declaration on Environment and Development*. (1992), UNCED Doc/A. CONF.151/5/Rev/1. See also chapters 3, 11 & 14 of Agenda 21 (1992), UNCED Doc/A. CONF.151/4.

<sup>3</sup> Cfr. Plan of Implementation of the World Summit on Sustainable Development. (2002). A/CONF.199/L.1, Paragraph 4.

<sup>4</sup> Cfr. See the WSSD *Plan of Implementation*, paragraph 44, sections J, L and H.

<sup>5</sup> Cfr. *Convention on Biological Diversity*, Article 8 (j). See also 10 (c).

<sup>6</sup> The *Convention concerning the Protection of the World Cultural and Natural Heritage* was adopted by the general conference of UNESCO in 1972. Its purpose is to ensure the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage of outstanding universal value. The Committee at its 16th session (Santa Fe, USA, 1992) adopted guidelines concerning the inclusion of Cultural landscapes in the World Heritage List; The document is available at: <https://whc.unesco.org/en/conventiontext/>

One of the key principles under the 1972 Convention is the protection of the heritage of humankind for *'transmission to future generations'*, as defined in Article 4:

«Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain».

The following Article 5 asks for *'effective and active measures'* to be taken by States Parties, and in particular *'to adopt a general policy which aims to give the heritage a function in the life of the community'*:

«To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavor, in so far as possible, and as appropriate for each country:

1. to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes;
2. to set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions;
3. to develop scientific and technical studies and research and to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage;
4. to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage; and
5. to foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field».

The concept of culture in itself is based on a 'society' or a 'group' as stated in the *1982 Mexico City Declaration on Cultural Policies*<sup>7</sup>:

«(...) in its widest sense, culture may now be said to be the whole complex of distinctive spiritual, material, intellectual and emotional features that characterize a society or social group. It includes not only the arts and letters, but also modes of life, the fundamental rights of the human being, value systems, traditions and beliefs».

It is therefore evident that the safeguarding of cultural heritage constitutes a fundamental precondition for the preservation of the social identity of different peoples and social groups.

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<sup>7</sup> Cfr. 1982 Mexico City Declaration on Cultural Policies;

The document is available at: <http://unesdoc.unesco.org/images/0005/000525/052505eo.pdf>

«(...) it is culture that gives man the ability to reflect upon himself. It is culture that makes us specifically human, rational beings, endowed with a critical judgement and a sense of moral commitment. It is through culture that we discern values and make choices. It is through culture that man expresses himself, becomes aware of himself, recognizes his incompleteness, questions his own achievements, seeks untiringly for new meanings and creates works through which he transcends his limitations».

The *2002 Budapest Declaration*<sup>8</sup> provide a broad perspective as to the past and future of the implementation of the *1972 World Heritage Convention*.

The Declaration served to increase awareness and support for World Heritage as well as promoting the establishment of new partnerships.

The Declaration also determining an active involvement of communities as stated in Article 6:

«(...)We will seek to ensure the active involvement of our local communities and [indigenous peoples] in the identification, protection and management of our World Heritage properties».

The *2005 Faro Convention*<sup>9</sup> emphasizes the important aspects of heritage as they relate to human rights and democracy. It promotes a wider understanding of heritage and its relationship to communities and society. The Convention gives a innovative definition of cultural heritage. In the Article 2 states:

«cultural heritage is a group of resources inherited from the past with which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time; a heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations».

The Convention recognising that every person has a right to engage with the cultural heritage of their choice and it is convinced of the need to involve everyone in society in the ongoing process of defining and managing cultural heritage. It recognise individual and collective responsibility towards cultural heritage and emphasises that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal.

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<sup>8</sup> Cfr. *The Budapest Declaration on World Heritage* adopted by the World Heritage Committee on its Twenty-sixth session in Budapest, Hungary, 24 - 29 June 2002; The document is available at: <http://whc.unesco.org/archive/2002/whc-02-conf202-5e.pdf>

<sup>9</sup> Cfr. *The Convention on the Value of Cultural Heritage for Society* was adopted by the Committee of Ministers of the Council of Europe on 13 October 2005, and opened for signature to member States in Faro (Portugal) on 27 October of the same year. It entered into force on 1 June 2011.

The document is available at: <https://rm.coe.int/1680083746>

*The World Heritage Committee, on June 2007, welcomes the proposal by New Zealand to enhance the role of communities in the implementation of the World Heritage Convention, adding a “fifth C” for ‘Communities’ to the existing Strategic Objectives which were adopted as the Budapest Declaration on World Heritage to enhance the role of communities.*

The underlying reason of the Convention<sup>10</sup> was the recognition of the ‘critical importance of involving indigenous, traditional and local communities in the implementation of the Convention’. This is necessary because:

1. Heritage protection without community involvement and commitment is an invitation to failure;
2. Coupling community to the conservation of heritage is consistent with international best practice, as evidenced by comparable international regimes;
3. Conservation, capacity building, credibility and communication are all intrinsically linked to the idea of community;
4. Heritage protection, should, wherever possible, reconcile the needs of human communities, as humanity needs to be at the heart of conservation.

The heritage identification and protection process cannot succeed without a certain level of heritage awareness and acceptance among visitors and community residents.

In the context of heritage places, few statements have been made and very little is known about public awareness of the management, importance, or designation of historic sites<sup>11</sup>.

*Essential for a better heritage awareness is communication: communicating heritage is an inescapable requirement in order that tangibles and intangibles traces present in the territory take a full meaning truly through understanding (and fruition).*

The cultural heritage that is not communicated and does not communicate, is not conceived as such and therefore does not exist in the consciousness of individuals and the community.

Communication of cultural heritage must involve everyone, first of all the members of the community that identify themselves with it, with the aim of encouraging them to acquire awareness and exercise responsibility.

This need subsists in the archaeological heritage that plays a particular role in giving shape and meaning to today's crucial and problematic concepts such as group and social identity and therefore memory.

Therefore it is necessary to make the knowledge accessible, through a process of interpretation of the meaning and values of which they are carriers, that is attentive and documented,

<sup>10</sup> Cfr. World Heritage Committee Decision WHC-07/31.COM/13B; For the purposes of this paper, ‘communities’ involves all forms of non-State actors. That is, from the smallest groups of citizens, in whichever form they manifest themselves. They may range from groupings of peoples as indigenous, traditional and/or local peoples. They may be presented as, inter alia, community groups, tribes, nongovernmental organizations, private enterprise and/or local authorities. The defining characteristic of communities, in this setting, is what they possess. They all possess a direct connection, with relevant interests, to individual sites and often they have a connection that has endured over time. Typically, these communities share a close proximity with the sites in question. These peoples and/or entities are not necessarily directly representing official State positions, and may actually be in dissent from official positions. The document is available at: <https://whc.unesco.org/archive/2007/whc07-31com-13be.pdf> ;

<sup>11</sup> Awareness has received considerable academic attention in the contexts of environment and place, education, emotions, interpersonal relationships, and health care, with an overwhelming suggestion that people have different levels of awareness and that a wide range of stimuli, included personal experience with people, places and events, are critical in the formation of individual, cognitive awareness.

communicated with languages, modalities and tools that are clear, diversified and effective, open to continuous revisions and multiple perspectives.

Our action in the field of cultural heritage should target promoting diversity and dialogue through access to heritage to foster a sense of identity, collective memory and mutual understanding within and between communities.

Citizen participation has become an ethical obligation and a political necessity. It revitalises society, strengthens democracy and creates governance that can renew the conditions for 'living together', encouraging well-being and a better quality of life. The role of culture as a component of sustainable development is also being increasingly discussed in policy debates.

In our future, the conservation of the world's natural and cultural heritage should, wherever possible, be done with the active engagement of communities which have a close relationship with the heritage in question.

*Ruins are representative of European values and illustrative of European history and heritage and our aim should be to raise awareness of this heritage in order to create a stronger identification with Europe and a further European integration as well.*

In Europe there are at least several thousand historical ruins.

Owners and managers of these sites struggle with the same problems: protection of ruins is problematic due to ongoing process of destruction, and modern use of ruins is limited.



Stage performance, Old castle Celje, Slovenia



### 3.2 Reference principles: Authenticity, Compatibility, Sustainability

Author: SiTI - Higher Institute on Territorial Systems for Innovation

International Charters and common restoration standards across Europe contain three fundamental concepts to be followed in the reuse of cultural heritage projects: respect for the buildings authenticity, compatibility of use and sustainability of the identified function.

In dealing with the theme of the reuse of cultural heritage, a fundamental reference for each intervention is the concept of authenticity.

The Nara Document on Authenticity (1995) states that:

*“Conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage. Our ability to understand these values depends, in part, on the degree to which information sources about these values may be understood as credible or truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity”.*

Furthermore:

*“Authenticity, considered in this way and affirmed in the Charter of Venice, appears as the essential qualifying factor concerning values. The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as within the inscription procedures used for the World Heritage Convention and other cultural heritage inventories”.*

Recalling once again the UNESCO Convention, a World Heritage Property is expected to pass the “test” of authenticity in relation to design, material, workmanship or setting.

*Authenticity means that historic building should be seen as a true testimony of the culture or tradition that it represents.*



Respect of the authenticity of an ancient building - Castelvecchio Museum in Verona, designed by Carlo Scarpa

As underlined by the *Italian Code of Cultural Heritage and Landscape*, recognizing the meaning of history means recognizing the importance of roots as the foundation of what is contemporary, better understanding and seeking to act for a future determined by conscious choices and memories of experience passed. Remembering is crucial to understanding the present and acting in it;

*"Our historical legacy [...] can still serve us as a magic mirror: to look at it, we can gain a better intelligence of our current "uneases "and perhaps discover the paths that let you escape."*

In fact, every place - a site, a monument – can be defined as unique thanks to its own characteristics and signs, which have stratified in space and time. The thick texture of materials, memories, relationships and objects that make up these peculiar characters represents the authenticity of a place.

Respect for authenticity is therefore a fundamental principle for reasoning both in terms of conservation and reuse of historical monuments.

Finding and respecting authenticity allows us to consider the absolute unity of architectural experience, whether it is an ex-novo project or a restoration.

The term authenticity, moreover, is not neutral and expresses a notion that is subject to oscillations, in close connection with the culture and the historical period in which it is inserted.



Some reuse interventions, poorly respectful of the historical pre-existence: the Barcelona arena converted into a shopping center and the church of St. Mary in Dublin transformed into a pub.

*Only a historical monument, conserved in its historical material substance, has any value as historical document. If this substance is lost, for us the historical monument also loses the nature of historical source, because it is no longer possible to study its history or development with archeological methods.*



The re-use of a building through a compatible use allows the functional recovery of the monument. About this concept, the Italian architect Piero Gazzola said in 1968:

*"Experience has taught us that protection is only effective if it is active: only if it saves the monument from the state of abandonment, if it recovers the work to its original function, or if it gives it new aims, but in harmony with the characteristics that give meaning to the monument".*

The scientific community supports the idea that the new function of the architectural asset must start from the building itself, its history and typology starting from the context in which it is located. It is always necessary to start from the characteristics of the building and not simply define its new functions without first checking the cultural parameters of "compatibility".

The individuation of the new function requires a specific knowledge of the building in all its aspects, but also considerations regarding socio-economic values of the context that identifies its historical meaning and artistic value.



Compatible reuse of the Castle of Rivoli (Italy), transformed into a Museum of Contemporary Art by Andrea Bruno. The general criterion of intervention was to bring the Castle back to the "unfinished" situation, typical of the unfinished building site of Juvavara at the time of its interruption, without completions or remaking, so that everything belonging to the past time was kept in its authenticity, both historical and artistic.

The choice of a new function for the buildings and the development of an appropriate reuse project is a fundamental step in the process of safeguarding for an existing architectural asset. In fact, only if that asset, characterized by the intervention of man, continues to be lived every day, it will be possible to pass on its history to future generations.

Making a space usable and attractive guarantees its maintenance, keeps it alive and makes it a living space and place of "civic identity".

This process is not an end in itself, but it is what determines the community's interest in the building, which is necessary so that the architectural work becomes an identity for the constitution of a "*genius loci*".

In this way it is the community itself that wants to keep the architectural heritage alive.



The new function of the building involves knowledge of the building itself and its territory and community, in order to identify the most appropriate ways of renewal it.

The mentioned international Charters also raise awareness that sites and monuments must be considered as linked to their territorial and landscape context, which is an integral part of their value.

According to one of the principles followed in monument conservation, any changes should be reversible.

The work carried out in order to adapt historic ruins to new functions entails such modifications to the original structure that they are no longer reversible, i.e. it is not extension work which could be reversed in the future to restore the structure to its original state. But the principle of the differentiality of modifications alone cannot compensate for the lost qualities of an authentic structure, in particular because this often becomes a justification for projects with a low artistic value, or without any value at all.

There is no rule to intervene on an architectural asset, it is a choice that the architect makes case by case.

#### COMPATIBILITY OF USE

*If the restoration is designed to reuse the building, the new planning must be compatible with heritage natural vocation.*

#### COMPATIBILITY OF CONSERVATION APPROACHES

*The choices of the conservation works should be compatible with the object that has to be restored.*

#### COMPATIBILITY OF USE

*If the restoration is designed to reuse the building, it must be compatible with its natural vocation to be reused.*



Literature and religion come back to converge in the Selexyz Dominicanen: a bookstore located in Maastricht (Netherlands), created from a Gothic church built over seven centuries ago.

Sustainable development has been defined as the *“development that meets the needs of the present without compromising the ability of future generations to meet their own needs”* (Brundtland, 1987).

The mentioned definition presented a two-pillars model including environment and development concerns.

A later model has been proposed and it is based on the so-called *“triple bottom line”*; it consider to integrate development issues into environmental, social and economic factors.

Later on, more inclusive approaches have been taken into account, which add new dimensions to the model, such as the political-institutional aspects, the cultural factors and the technological elements.

Recently, the concept of sustainability has been again broaden in order to consider other relevant issues. In particular, a recent paradigm is emerging for addressing problems in the domain of urban regeneration and cultural heritage re-use.

Nowadays, cultural heritage has an instrumental function as a touristic destination, culture industry, or commercial enterprise; it is a way to create knowledge and awareness.

The intrinsic value of cultural heritage is not linked to use or function that it serves but as identity, embodiment of accumulated knowledge, that bonds community to space, determining the spirit of place and source of pride that is interest for future generations as a non-renewable cultural resource.

According to ICOMOS *“Declaration of Paris on Heritage as a Driver of Development”* (the *“Paris Declaration”*), heritage is a fragile, crucial and non-renewable resource that must be conserved for the benefit of current and future generations.

Heritage with its value for identity, and as repository of historical, cultural and social memory, preserved through its authenticity, integrity and ‘sense of place’ forms a crucial aspect of the development process. Heritage has to play a key roles in the context of sustainable development relate to social cohesion, wellbeing, creativity, economic appeal, and promoting understanding between communities. Cultural heritage of cities builds sense of belonging and of identity of local communities, and it promotes social cohesion, inclusion and equity.



Symbolic concert among Palmyra's ruins, after terrorist attacks

The conservation of cultural heritage and traditional settlement patterns is a key element for inclusive economic and social development and poverty alleviation, for improving the livability and sustainability of urban areas, as well as for the new development of surrounding areas.

We can and must conserve our common heritage as human beings and pass them on to the future generations not as museum relics but as living changing models of adaptability. We must recognize and celebrate places whose identity is the unique result of its characteristics the geography, the climate, their materials and their habits.

Through participation of local communities, the re-use of cultural heritage becomes an important resource of protection and maintenance. Active participation allow citizen and users to recognize historical and cultural memory as values; a resource that will activate economical sustainability through the attribution of new intended use of the building.

In particular, this new functions must be able not only to protect the building's identity, but also to ensure a significant growth in economic and social values.

The community's expectations play a strategic role in reuse strategies, in order to improve quality of life, increasing activities, infrastructure and services, with positive effects on socio-economic development.

The "not the use" problem becomes "the Re-use", where the distinctions do not take place on an historical based evaluation but on the real chance to re-introduce buildings in the economic processes nowadays using a evaluation based on social utility.

The aim is to identify the best re-use in order to generate a profit or at least to be close to the planned balance at the management stage.

The priority of "create an income" from the historical-architectonical building collide with the ethical need to respect its real nature; so became necessary that renewal, according whit the protection aims, guarantees conservation and respect of the heritage that the building symbolize.

New functions, can be an important economical sustainable instrument for the conservation and will stimulate the re-appropriation of the good by citizen's community : the "ruins" if recognized useful by the Community and part of the economical, social and cultural development process, may attract financial amounts towards for the conservation and maintenance of the building.

While the conservation of an abandoned asset will be perceived as a non-repayable investments. The intervention of private actors to invest on the asset and on the service is stimulated by Community attention to that particular place. If the growth of the community is influenced from the new functions of the building, this will receive more investment even because generate an income itself.



Royaumont Abbaye, Asnieres sur Oise. Built in the 13th century by Louis IX, the Abbey is home to the Royaumont Foundation from 1964, now an interdisciplinary study and research center for music and dance artists.



The aim of the intensive re-use and the inclusion of new functions will be the improvement of the quality of offers for citizen. This functions can be directly connected to social and cultural services or can be activities or actions that indirectly produce benefit to the community. This will improve and major the flow of people and economical funds inside the territorial system.

This considerations on re-use and creation of directly services for citizen are directed on the search of a development of innovative forms of tourism which instead of conflicting with the wellbeing of the local community, interact with an active and dynamic context. Therefore re-use must be a form of local development that, in opposition to the tendency to transform most cultural and attractive touristic place in "fossil without life", moves in dynamic and active environments, regardless from touristic market.

Keeping this in mind, is essential to focus on the analysis of territorial system where the ruins are located, when it is envisaged to develop recovery and re-use project, in order to viable persecution the ultimate goal of provide service for citizen.



The "embrace of the walls" in Bergamo (Italy), a symbol of the link between the community and its cultural heritage

Territory interconnection and the identification of service are essential features and must be considered upstream of any kind operation. Therefore the target is to develop a touristic growth, socially sustainable for local communities and compatible with growth of social quality of the location.

The develop of activities connect to tourism is not the only way for the "re-use" during the identification step. Also it is necessary to work in order to increase of human capital, to improve the immaterial quality of life of people, to create knowledge and to make people more aware of their heritage capitals.

Finally, it should not be forgotten that the enjoyment and use of a cultural assets (even more speaking about ruins), on the one hand constituting a time of cultural enrichment and restoration of the monument to the socio-cultural and economic context, on the other hand, could generate or favor the degrades to the detriment of the preservation of the good itself.

**The phase of knowledge.**  
Understanding the value of  
the ruined site

### 3.3.1 Historical knowledge

Author: Lublin University of Technology

The first step in the process of the sustainable use and re-use of the historical ruins should be acquisition the widest possible historical knowledge about the object.

For this purpose, it is necessary to collect the existing knowledge about the object, determine and assess the state of the research, check the scope of previous renovation and restoration work, and recognition of the results of the documentation of these researches.

Historical diagnosis should refer to both the historic object as well as the wider historical context on the scale of towns, regions and sometimes the country.

Recognition and analysis of the state of the art about the object should provide an answer to a number of basic questions: the circumstances and time of its origin, historical transformations; creators, founders and owners; style, form and function, historical functions of particular elements; condition of the historic substance; type of materials and applied constructions and technologies, values represented by the object, including intangible values.

The development of the state of the art allows us to assess whether our knowledge about the object is sufficient to undertake further activities related to its use to modern functions, without the risk of losing its value, authenticity and integrity.

Historical ruins are most often multi-phase objects, composed of parts and structural and compositional elements arising in the centuries-old process of development (and destruction). Identification of building phases and subsequent stratification, changes in architectural forms, defence systems, functional changes, etc. is of great importance for scientific and research, protection and practical reasons (regarding modern use and development).

Cognitive analysis should also take into account the location of the building in the area, characteristics of the compositional layout, spatial and functional relations both between the various parts of the historical foundation, as well as the closer and further surroundings - the layout of roads, local forms, nearby objects (historical and contemporary) surrounding the landscape. Historical ruin is an important element of the cultural landscape and its analysis is of great importance for the full assessment and preservation of values.

Correct recognition of the monument should be based on the results of specialist research. Such research include mainly: historical research (archival research of source materials, iconographic research - collecting all historical views of the object, historical maps, layouts etc.), archaeological research, architectural research, landscape research and analysis, other specialized research.

Correct cognitive analysis is not possible without the participation of specialists and conducting many specialist studies and expert opinions. The use of historical ruin for new functions should be based on methodical, multifaceted studies and analysis.

A full reconnaissance of a historic ruin based on specialized research is necessary in order to preserve its value and choose the manner of use and re-use with respect for authenticity and integrity. All investment activities near and in the vicinity of a historical ruin, related to its availability, modern use, development, adaptation to new functions should be preceded by interdisciplinary research - archival, archaeological, architectural, landscape and assessment of the technical condition. There should be no investment activities without a comprehensive exploring of the facility.



### 3.3.2 Topographic and architectural survey

Author: The Institute of Theoretical and Applied Mechanics CAS

Site investigation focusing on specific heritage values of ruins and their state of preservation is being processed in various levels from *basic descriptive record* through more elaborate *analytical records* of different aims up to thorough *comprehensive analytical record* containing all available information on the remaining constructions and their historical development. The measured documentary required to visualise the outputs of all these analyses is generally the same as the planning documentation of the current state needed for repairs, conservation and reuse projects.

#### Surveying methods

During field exploration and recording processes the simple traditional methods are used as the situation and detail hand sketching. Light operative tools such as measuring tapes, laser levels or distance meters are suitable for onsite surveys.

For mapping itself, modern geodetic methods are used, especially:

#### GPS measurement

GPS targeting is advantageous when point identification of individual elements and site boundaries is sufficient without the need for maximum accuracy.

GPS devices receive a signal from satellites circling around the Earth at an altitude of about 20 km. By intersecting the distance from the satellites, the target position is determined, so it is necessary to receive a signal from at least four satellites. The more satellites are available for measurement, the more accurate the measurement. However, in addition to the low number of satellites and their position, deviations may also cause factors such as the density and height of the stand or morphology of the terrain. In order to achieve greater accuracy, it is necessary to re-measure each focal point and subsequently settle the measured values.

#### Total station targeting

Total station is a modern geodetic instrument, which is widely used today in many fields. It is an instrument for measuring and registering measured values of horizontal angles, altitude angles, distances and their conversion to rectangular coordinates. The theodolite is the direct front of the total station. The total station consists of a tripod, a total station instrument, an elevation and a reflection prism (mirror). Alternatively, robotic total station console could be used. The robotic total station can be "two-man" with the need for two workers, one controlling the total station and the other the jump prism, in the case of "one-man" then the worker controls the robotic total station from the reflection prism.

#### 3D photogrammetry

Digital photogrammetry is a well-established technique for acquiring dense 3D geometric information for building objects including their ruins from stereoscopic image overlap and has been shown to have extensive applications in a variety of fields. Aerial photogrammetry refers to the collection and processing of imagery captured from an aerial or orbital vehicle. Close-Range photogrammetry (CRP) refers to the collection of photography from the ground or some lesser distance than traditional aerial photogrammetry and is becoming increasingly popular and accessible due to new, easy to use software and digital cameras. Similarly to more sophisticated laser scanning, it offers to generate accurate topographic horizontal and vertical sections through structures and their parts.



**3D scanning**

Laser scanning systems enable contactless determination of spatial coordinates, 3D modelling, visualization of complex buildings and structures, interiors, underground spaces, terrain morphology with extraordinary speed, accuracy, complexity and security. The scanned object can be displayed in the form of point clouds using the software to create an object model that can be transferred to the CAD system. Other outputs can use line vectoring.

For outdoor measurements the ground scanners are preferably used having a greater range than handheld scanners. The second ones are significantly lighter which is appreciated when scanning the interior rooms, cellars, attic spaces. Another option is to use 3D scanning device fixed to a drone, especially for hard-to-reach areas. All these new scanning technologies allow easy, fast and complex survey with an option of subsequent visualization of the object. There is always a need for high-quality and especially high-capacity software that will allow us to get the best possible data to evaluate and pass on the best possible outcome to the customer.

**Systematic descriptive interpretation:**

Spatial identification, location, and site description of ruin and its surrounding should include the following types of information:

1. Location of the ruin;
2. Field identification of individual architectural or functional units;
3. Identification of the original function of individual structures and their relics;
4. Relationships to other parts of a larger complex and to the surrounding area;
5. Relative and absolute dating;
6. Basic characteristics of archaeological findings;
7. Tracking features of individual field relics
8. New documentation and hypothetical reconstruction of the ruin;

When processing these individual points we consider particularly important

***Location of the ruin***

- Cadastral number, parcel numbers, extent of the landmark with respect to individual parcels
- Location with respect to nearby larger or more significant points, settlements,
- Coordinates in measure 1:10 000
- GPS or geodetic position (standard coordinates)

***Field identification of castle ruins***

- Moats and ramparts
- Access (bridges) and gateway relics
- Relics of masonry, especially perimeter walls, brick objects
- Walls, turrets, parapet walks
- Wells, cisterns
- Relics of castle-related facilities (economic and production buildings)

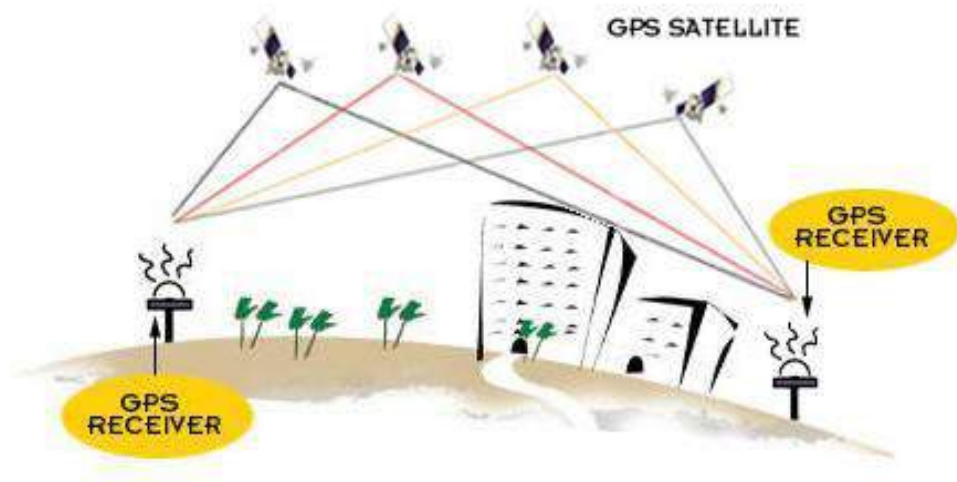
**Main tracking features of individual field relics**

- Conservation rate (distinctiveness)
- Composition (e.g. moats and ramparts)
- Quantity, multiplicity
- Height/ depth/ width/ length

- Shape
- Floor plan
- Failures and defects
- Interrelationships (horizontal: e.g. internal, external, concurrency, vertical: superposition ...)

***New documentation of the ruin***

- Current photographic documentation
- Description
- Actual position in a geodetic system (coordinates) or GPS coordinates
- Putting the current orientation on the geographical and cadastral maps
- Updating data in information systems



Total station and GPS measurement

### 3.3.3 Diagnostic for Cultural Heritage

Author: The Institute of Theoretical and Applied Mechanics CAS

#### Basic survey

The elementary method of assessment of the current state of the ruin object is *basic (visual) survey of building condition*<sup>12</sup>. The basic survey can be divided to several phases:

1. Preparatory phase
2. Initial phase of the survey
3. Information from owner or user
4. Building description
5. Exterior surfaces (facades) survey
6. Internal survey
7. Roofing survey
8. Works of art related to construction

#### 1. Preparatory phase

The introductory phase includes, in particular, familiarization with the purpose and objectives of the survey, the intentions of using the survey object, with scope of survey – list of the secondary objects that are the subject of the survey and access to them, or restrictions access to some parts. It is assumed that object identifying data (GPS coordinates, owner's name and address, monumental or other protection etc.) are known and that the potential users have been acquainted with conducting a survey and ensuring safe access into the building.

Before the actual survey there is needed to collect all accessible documentation of the object, including all documents about its use, technical changes, , extraordinary events or loads etc. (at least in recent decades). It is also important to find out territory limits and possible risks in the given area, eg. specific geological conditions (clays, slumping soils (e. g. loess), previous ground works, mining activities, embankments, underground cavities, etc.), location of the object in flood risk areas, matters affecting the level of the underground water (deep incisions for traffic structures, excavations, big trees in the vicinity).

On the actual day of survey, names and addresses of responsible persons are recorded, as well as date and time of survey, weather or other influential circumstances and their effects to the survey.

#### 2. Initial phase of the survey

After informing co-workers and users of the object with objectives of the survey initial steps can progress:

- External and internal inspection of an object to acquire basic overview about the object and location.
- Viewing the object from certain distance to check regularity and straightness of walls, roofs, verticality of chimneys, windows and doors.
- Inspecting nearby objects if they indicate some similar problems (possible common cause).
- Identifying of the restrictions and obstacles - (no) accessibility of the premises, surrounding greenery, fixed facilities or constructions making the survey impossible.
- Determining where the wall lining can cover construction defects.
- Determining the building orientation and what may result from it for special problems.

<sup>12</sup> Based on Drdäcký, M. - Adámek, J. Handbuch für Baudiagnostik/Rukověť stavební diagnostiky. Revitalisierungs-leitfaden - Sanierung und Erhalt kirchlicher Bauten/Příručka revitalizace - Sanace a zachování církevních staveb. St. Pölten: Diözesanarchiv St. Pölten, 2016 - (Schmid-Mikula, C.), s. 56-91. ISBN 978-3-901863-47-9.

- Classifying the subsoil type if it is visible somewhere. - Determine whether special security measures are required (scaffolding, lifting platform truck, safety harnesses, etc. ).
- Determine whether or not there could be some hidden spaces.
- Creating of opinion about the distribution of forces in the construction.
- Detection of visual signs of overloading of structures - excessive deflection, material crushing, cracks
- Detection of signs of improper original design or inappropriate later modifications and changes.
- Clarification of how to ensure the stability of the building.
- Detection and evaluation of object accessibility for maintenance and monitoring.

### 3. Information from owner or user

- Who owns or maintains the building and what type of knowledge of its behaviour is known.
- How long is the building owned or used by him.
- Information about the history of the building or its surroundings.
- What changes were made on the building, alterations, adding, attic remodeling, removal of walls, new openings, remove parts, etc.
- Details of major repairs or remediation work including exact location and time, or documentation.
- Date of last render repair or room painting.
- Roofing replacement date.
- Data about construction works in the surroundings – on neighboring buildings or on public land.
- Data on details of previous use and, if known possible environmental harms.
- Data on the recent removal of trees or larger shrubs from the close vicinity.
- Information on the existence and use of a manual for maintenance.
- Reporting problems with heat losses or with condensation of water.
- Data on eventual problems with excessive humidity.
- Data about problems with overheating of some rooms or facades.
- History of possible flooding or sanitary overflows affecting the object.
- Data about the drainage of the object.

### 4. Building description

The basic survey record contains above all a brief description of the object with the following outline.

- Building type
- Number of floors, basement, attic etc.
- Approximate age (if known).
- Type of use, historical change, intended future use.
- A brief description of used building materials, type and form of the roof, type of masonry.
- A brief description of the bearing construction system.
- Description analysis of construction stability.

In addition, it is also advisable to find out typical defects of similar objects of the same kind and period of construction - according to literature or experience of the person conducting the survey).

### 5. Exterior surfaces (facades)

Visual survey of surfaces provides a general picture of the stability of the object. The survey consists of the following steps:

- Visual inspection of all external walls and recording of found cracks (size, location, character etc.)
- Record of possible connections in the near vicinity - trees, drains, heavy traffic, etc.

Cracks can indicate:

- Sinking / lifting
- Temperature changeover
- Material shrinkage
- Overloading
- Corrosion of wrought iron and steel elements
- Corrosion of anchor bolts
- Bending or inclining of walls
- Interruption of the anchoring cables
- Deflection of the lintels
- Corrosion of transversal reinforcement, rotting of wooden lintels;
- Missing lintels
- Deformations of in the arches
- Degradation of the masonry

If the cracks are severe (deep reaching, penetrating the walls through, have appeared suddenly or change in the time) and their causes are not obvious, monitoring of their behavior is needed

#### 6. Internal survey (partially ruined objects)

For the exploration of interiors it is advisable to prepare measured plans of individual floors or walls so inspecting persons can draw defects, especially cracks and their distribution. It is necessary to particularly examine everything that has been seen from outside and could possibly be seen inside, eg. cracks in masonry, walls inclination or deflection. One needs to record mainly the following phenomena:

- Non-homogeneous masonry, doubled walls
- Detection of the effects of horizontal forces – mainly from vaults and roofs
- Documentation of cracks in vaults, in conjunction with vaults and walls.
- Checking of uneven surfaces and sudden changes in the thickness of walls
- Inspection of all incomplete constructions (walls, vaults, ceilings), assessment of their deformations and stability
- Recording moisture stains or efflorescence salts, molds, mushrooms
- Checking the cellar including stairways and corridors
- Checking the stability of the foundation walls

The final step is to make a proposal of other supplementary surveys or recommend some immediate intervention.

#### 7. Roofing

Roofing is being inspected from the outside as well from the interior. For external inspection from the ground should be used telescope or telephoto camera. Following phenomena are examined:

- Accessibility and security inspection
- Type of covering
- Repair or replacement history
- Condition and completeness of folded roofing
- State of chimneys
- Check for adequate ventilation of the under roof spaces
- Determination of degradation due to sunlight



The inspection of the internal space of the roofing is based on the findings from an outside inspection and also depends on accessibility of under roof spaces. Typically detected characteristics are as follows:

- Detection of roofing leakage
  - Detection of overload of attic
  - Verification of the verticality of the roof trusses and their spatial stiffness
  - Stability and possible biodegradation of timber trusses and their joints
  - Condition of steel or reinforced concrete elements (if any)
  - Checking the overhanging purlin supports
  - Detection of older repairs and assessment of their effectiveness
  - Protecting space against the penetration of birds and others pests
  - Check the state of the drains for rainwater removal
  - Checking vegetation in close proximity to the object or directly on the object
- The final step is to make a proposal of supplementary special survey or recommendation of performing some immediate intervention.

#### 8. Works of art related to construction

A special category is the artwork associated with the building - wall paintings, sculptures, stucco decoration etc. These elements require the implementation of restoration surveys. It can be only recommended to include "building" status of this parts to the general description.

There are also others specific diagnostic methods, more information about them can be found in *BEST PRACTICE HANDBOOK – TRANSNATIONAL MODEL OF SUSTAINABLE PROTECTION AND CONSERVATION OF RUINS*.

### 3.3.4 Regulatory framework

Author: SiTI - Higher Institute on Territorial Systems for Innovation

The legal framework governing cultural heritage comprises the whole array of legal instruments, systems and processes, which are used to manage and regulate cultural heritage. Whereas the terminology used to describe components of the framework may differ from country to country, the key features are essentially similar.

Laws and legislation concerning Cultural Heritage protection and valorisation, in particular that referring to historical ruined sites, differ a lot among the European Nations, and it distinguishes the approach to the national Cultural Heritage in each Country.

When a heritage building becomes listed, it means its preservation and interventions are under the control of authorities under certain classification degrees. However, these authorities may vary from country to country. When the heritage building is a listed building, regulators become an actor in the decision making process.

Regulations defined by planning and local authorities should be the first guidelines to be followed. It will therefore be necessary to analyze all the geological, geotechnical, hydraulic and hydrogeological aspects through the study of the thematic cartography available and / or direct surveys; verify the existence of environmental, historical, archaeological and landscape restrictions on the site on which we will intervene and then identify the appropriate measures to safeguard environmental protection and cultural and landscape values.

The reconstruction of the framework of the restrictions is therefore extremely delicate and, in most cases, must be oriented not only to the identification of the limitations imposed on the project, but rather to the clarification of the specific features of the asset and its reference site as well as its vulnerability due to lack of protection, in order to increase the degree of conservation and protection of such assets through strategic projects.

This analysis will serve to verify the compatibility of the project of re-use of the building with the restrictions dictated by the competent bodies for the protection and control on cultural heritage. The new activities to be installed must therefore be dimensioned compatibly with the standards required for the new reuse and the characteristics of the site on which we operate.

## Decision-making process

### 3.4.1 Territorial framework analysis

Author: SiTI - Higher Institute on Territorial Systems for Innovation

A fundamental passage for knowledge purposes and for correctly delineating possible scenarios for the use of ruin, is to carry out an analysis of the territorial context.

There are no defined limits of the extent of the territory to be considered, the “case by case” approach represents the correct one.

First of all, the potential market must be considered and evaluated.

For instance, does a need exist for the proposed reuse?

Will the local social and demographic characteristics of the area make the project feasible?

What type of development is taking place locally and what is the competition?

Evaluation of the potential project’s location is primary.

What sorts of services are available, such as transportation?

What other uses exist in the area?

What are being planned?

What is the existing or potential environmental quality of the surroundings?

The analysis should consider local social and demographic characteristics of the area, the type of development, services available, such as transportation, other uses that exist in the area or planned existing or potential environmental quality of the surroundings.

#### Analysis of the urban and landscape context

In the first instance, the position of the object in relation to the landscape, urban context, the transport network and, in general, the accessibility system are all aspects that influence the possibilities of future use.

A completely isolated asset, in an inaccessible context, will probably need a greater planning effort and use of resources than one that is already well connected or in a central or highly recognizable position.

The analysis of the landscape context is carried out taking into consideration the relationship that the ruin has established over the centuries with its surroundings.

An assessment that should be made concerns, for example, the location of the ruin: the ruin is located in a position of high visibility (perhaps above a height), is it a territorial landmark?

Another aspect concerns the relationship to the historical (or modern) buildings, its urban surroundings and the role it may play in urban areas.

A degraded urban context is undoubtedly a critical situation, because the only enhancement of the object-ruin would not be sufficient, but should consider a wider range of action, reasoning in terms of regeneration of a whole urban sector.

#### Accessibility Analysis

The analysis of the accessibility system is fundamental to understand how currently the ruin is connected to the territory, what services are currently in use and what changes to the current accessibility system should be foreseen to make the ruin easily accessible and usable.

It is obvious that a poor network of connections does not encourage the use of the asset, although the overall reuse project can be valid.

It is in fact now known that, as far as transport infrastructures are concerned, the attractiveness of a territory is already measured by the perception of its accessibility when choosing a visit.

The size and efficiency of the offer of means of transport are crucial for the tourism competitiveness of a place.



Transport infrastructures serving tourism should allow:

- facilitate accessibility to tourists, including foreigners;
- facilitate accessibility to the city center and promote urban mobility;
- facilitate the mobility around the destination chosen for the visit.

It is, therefore, international, national and local transport, with reference to the different modes (air, rail, road), which, at different times of tourist use, influence the quality of the visit.

That said, an analysis of accessibility to a place must necessarily take into account the presence or absence of the following transport infrastructures and systems and their interconnections with the object of valorization:

- **Air:** identify the nearest airport, the relative travel time and the vehicles or services (public or private) available to reach the place in question or any intermodal centers.
- **Public Road Transportation;**
- **Public Train Transportation ;**
- **Road Network** at different levels;
- **Free Parking / Shuttle Service at Parking Service;**
- **Tourist Shuttle Services;**
- **Cycle Pathways** that intercept the goods object of enhancement / availability of **Bike Sharing services;**
- **Pedestrian Routes** that intercept the good object of valorization;
- **Services for People with Special Needs.**

### **Analysis of the demand and supply of the territory**

The usefulness of this analysis lies first of all in an initial verification of the actual opportunity and need to carry out the reuse project which is being analyzed in terms of feasibility. In fact, if there is not a sufficiently large residual demand, or there is no need for the function or functions to be set up, then most probably the wisest choice is to not make the investment at all.

While it may be difficult to determine the potential users of the work / service with good approximation and credible values, on the other hand it can be extremely misleading to rely on approximate and broad estimates, which tend to overestimate the number of users.

In summary, the analysis of the demand for the specific service, is built starting from the definition of the catchment area, within which the potential users are estimated and the existing offer represented by the competitors, i.e. structures that already offer on the market products and / or services similar to those in the project. In this way, according to appropriate calculations, the residual demand is determined, given the difference between the potential demand (the set of theoretical users) and the one already satisfied (the subset of those already benefiting from the offer on the market), i.e. the portion of users who could instead request the services to which the reuse project refers. The analysis of the application also serves to determine both the degree of usefulness of the work and its congruous sizing.

To describe in qualitative and quantitative terms the current status and the prospects for the evolution of the demand for goods and / or services that constitute the needs to be met directly with the proposed intervention, it is first of all necessary to define the catchment area.

The catchment area coincides with the geographical area of origin of the users of the work and its correct delimitation is important for the setting of a good analysis of the demand. For its definition it is necessary to determine the maximum distance, in terms of time, that can be used to take advantage of the service guaranteed by the work. Starting from the presumed location, the position of the arrival points of each route is determined, according to the means of transport

used, within the established time frame. The line joining these points, on all possible routes, called isochronous, is the ideal boundary of the catchment area of the intervention.

The analysis of the demand is carried out for each function within the basin thus identified. Starting from the total number of inhabitants of the area, coefficients are applied that take into account the percentage of the population concerned.

We are trying to determine which portion of the population (divided by age, gender, etc.), is potentially interested in using the service.

To do this, you can use surveys already carried out or execute them ad hoc on an appropriate sample (through questionnaires, interviews, etc.), but bear in mind that these studies are quite expensive and time-consuming. Therefore, where possible, it may be appropriate to use information already known, obviously verifying the reliability and / or the authority. Once the percentage of the population concerned is determined, it is multiplied by the actual number of inhabitants and by the frequency of use; in this way the quantity of potential demand is obtained.

At this point the competitors are analyzed, i.e. the share of demand already intercepted by the market, that is already satisfied by existing goods and / or services. To do this, it is necessary to identify all the services similar to the one studied in the user base and analyze how much demand they are able to satisfy, saturating the request. With the difference between potential demand and satisfied demand, any residual demand can be determined, which can highlight a space in the market or, on the contrary, a situation already saturated. This is clearly a simplification, since if the service offered by the new intervention is much better, one can think that it will subtract competition from the demand. On the other hand, even in the presence of a portion of residual demand, compared to a quality service that is lower than what already exists, it may not be able to capture a sufficient number of users for optimal functioning.

As part of this phase, the analysis of the current tourist supply is of particular importance. In order to identify the characteristics of the supply, the related statistics should be analyzed, for example, the survey on the capacity of the hospitality accommodations and the survey on the movement of customers in hospitality facilities. The variables of interest are the arrivals and the presence of the clients, distinguished according to the origin (the region, if Italians, and the nationality, if foreigners). For arrivals we mean the number of national and foreign clients, hosted in the accommodation facilities during the period considered; the presences are the number of nights spent by clients in the accommodation; the average stay, finally, is the relationship between the number of nights spent and the number of customers arrived.

Data should be consulted from official sources, generally available at the municipal level.

### **Analysis of cultural supply**

Speaking of valorization of ruins and of potential functions to be installed, the analysis of the current cultural supply of the territory assumes fundamental importance, since the use of cultural type represents in most cases the most compatible.

The cultural supply should tend to be investigated at the regional scale to get the most comprehensive picture possible and the following cultural services and activities must be identified:

- museums and exhibition spaces. The type of museum and its collections (historical, ethnographic, art, etc.) must be evaluated;
- libraries and archives;
- cultural events of various kinds (concerts, festivals, historical re-enactments, etc.);
- historical sites and archaeological parks.

For each type of service or cultural site, the catchment area and the services it makes available must be identified, also for the purposes of possible networks and connections of the project for the reuse of the ruin with the existing supply.

Establishing a system of relationships in advance is in fact fundamental for the good outcome of the enhancement proposal, as entering into an already consolidated cultural network facilitates undoubtedly the promotion and communication of the site itself.

### Demographic and social profile of the territorial area of reference

The demographic and social analysis of the area within which the ruin to be exploited is another important step in order to better calibrate the potential choice of use.

A very significant indicator of the development prospects of a territory is represented by the demographic dynamics in progress on it.

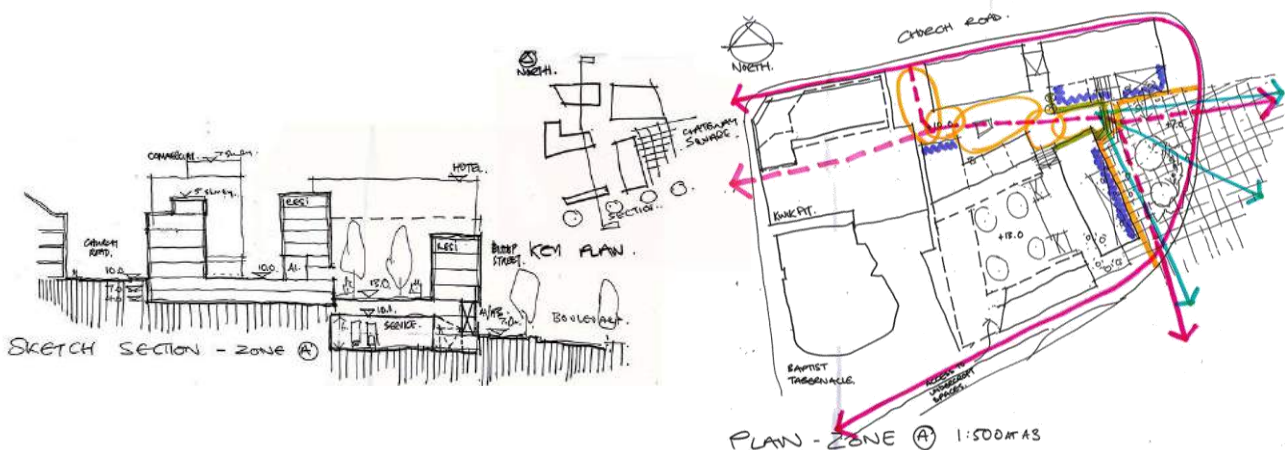
Obviously it is not a question of setting up an analysis from scratch, but looking for data from official sources. Data to be considered are linked, for example, to the age groups of the population, which obviously represent different targets, which could be of interest to a certain type of service that another.

Another aspect to consider is employment dynamics, also in reference to the age groups mentioned above. Other relevant data should be level of education and employment of population, population density, income.

The peculiarities of the prevailing economic sectors in the territory such as agriculture, the industrial sector, tourism (reception and catering) and trade should then be investigated too.

A picture of the activities present and of those that may be lacking is an essential fact to avoid the risk of setting up an unnecessary activity in the re-use project.

Lastly, an analysis of the settlement needs of the area, which allows to select 'driving' activities, capable of producing income, to which to associate driving activities, capable of satisfying the cultural and social needs posed by the community should be done.



Accessibility analysis example,

Source: extracting from Northshore Development Guidance Exploratory Test Strip by Colin Haylock / Ryder HKS Architects 2007.

### 3.4.2 Role and participation of the stakeholders in the decision-making process

Author: Italian Association for the Council of Municipalities and Regions of Europe

Cultural heritage is a key resource that belongs to all humankind. Its value transcends money and the economic universe. Investments in the preservation and valorisation of cultural heritage are extremely important. Such investments should not fall exclusively on public authorities. Conversely, given that cultural heritage generates a series of economic effects, mixed financing is recommended: it may take the form of public-private partnerships (Lorgulescu et al, 2011).

In parallel to what affirmed by Lorgulescu et al (2011) about investments in cultural heritage, we can state that a similar discourse could be done when dealing with decision making processes about the functions of a heritage site, which is actually the phase which generally precedes investments. Being cultural heritage a common resource which effects the society as a whole, the approach to the decision making process about it should be able to integrate different stakeholders' voices, both private and public, as well as the living community.

In this regard, confirming the economic and strategic potential of cultural heritage, the European Commission, through its report "Towards an integrated approach to cultural heritage for Europe" (Report 2014/2149 (INI), 24th June 2015), assert the necessity of new *participatory governance models* to promote its 'shared resource' aspect and to strengthen links between local, regional, national and European plans.

A shared decision making process about cultural heritage is a prerogative of participatory governance, an approach which consists of setting and developing rules and mechanisms for a policy, as well as business strategies, by involving all the institutions and individuals, at each stage of the policy cycle (i.e. planning, decision-making, implementation, monitoring and evaluation)

In the work plan for culture 2015-2018 of the European Agenda of Culture participatory governance is defined as "about strengthening the relationship between cultural heritage institutions and professionals, and everyone interested or engaged in cultural heritage – civil society, the public, owners, caretakers, businesses, etc. It affects the professional role because it demands both knowledge of cultural heritage, and knowledge of the relevance of cultural heritage in society and of the relations between people and cultural heritage".

As a matter of fact, even if cultural heritage has a European dimension, policies for its maintenance, restoration conservation and (re-)use are primarily national, regional or, most of all, local responsibilities.

As for the local level, the responsibility of territorial stakeholders is in some way justified by the value the site has by itself, being situated in that specific territory: the *eco-systemic value* identifies the value the cultural site has considering its relationship with the context in which it is located, as composed by the place/city/area in which it lays, the complex of actors (public, private, civic society, the community itself), activities and relationships which are part of it and there interact. Indeed, even where professional and academic knowledge set the agenda, the use of some of the attitudes and methods of participatory governance of cultural heritage enable the decisions taken by professionals and institutions to better address societal needs and be more sustainable for all those involved.

The idea at the basis of the development of a participatory governance model at the local level is *stakeholders' collaboration*.

A stakeholder has been defined as a person who has the right and capacity to participate in the process; thus, anyone who is impacted upon by the action of others has a right to be involved (Gray, 1989).



Collaboration may be looked upon as a process of joint decision-making among autonomous, key stakeholders of an inter-organizational, community domain to resolve planning problems of the domain and/or manage issues related to the planning and development of the domain (Jamal and Getz, 1995).

What is important to be underlined is that collaboration does not simply mean a way to give voice to different actors, but it consists in an engagement all interested parties in the decision-making process by allowing them to take responsibility, enhancing their self-reliance and their own awareness of the issues—all of which enables them to enjoy a greater degree of consensus and shared ownership (Medeiros de Araujo and Bramwell, 1999).

Above collaboration, the necessary condition to a successful participatory decision making process about cultural heritage is *awareness*.

Awareness in the sense of knowledge of heritage itself: since decisions impacting on cultural heritage must be based on knowledge and evidence, mutual awareness of different expectations of stakeholders, an open attitude to providing information throughout the process and a proper awareness of different values of cultural heritage among those concerned are all necessary if participatory governance of cultural heritage is to be implemented successfully (Work Plan for culture 2015-2018 of the European Agenda of Culture).

Awareness about the involvement of different stakeholders: clearly identified stakeholders and a committed civil society are fundamental to the successful participatory governance of cultural heritage, too. Depending on the objectives of the process, it will probably be necessary to go beyond the boundary of 'the usual suspects' or majority voices. Such groups may not be previously known to the cultural organisations, so it is important to make special efforts to identify them. Mediators, experts, 'ambassadors' of the project/process and also politicians may provide useful channels to reach different groups of civil society (work plan for culture 2015-2018 of the European Agenda of Culture).

Once individuated the actors to involve, the process requires direct dialogue among participating stakeholders and a recognizing of their interdependence, with the objective of generating a collective vision, shared decision-making and consensus-building (Richins, 2009; Waayers et al., 2012). Thus, the success of this multi-stakeholder involvement depends on the identification of roles among these subjects and on coordinating their voices. To do so, Saito and Ruhanen (2017) affirm it is necessary to understand their salience in the collaborative process.

Indeed, many researcher state that identifying stakeholder salience helps effective stakeholder coordination, inclusion or exclusion of stakeholders in cooperative actions, and categorisation of their roles in certain projects (Boatright, 2002; Jamal & Getz, 2000; Medeiros de Araujo & Bramwell, 1999).

The resource-dependence perspective suggests that the importance of an actor in the decision-making process derives from personal characteristics and charisma, financial and human capital, expertise, information, reputation, infrastructure, organisation size, and/or socioeconomic status, amongst others (Dawson, 1996; Gaventa, 1980; Hardy, 1985; Pfeffer, 1981).

Stakeholders have different levels of responsibility and authority. Their influence on a project which may change during the life of the project. Their responsibility and authority range from occasional contributions in surveys and focus groups to full project sponsorship, which includes providing financial and political support. Stakeholders who ignore this responsibility can have a damaging impact on the project objectives.

Moreover, stakeholders may have a positive or negative influence on a project. Positive stakeholders are those who would normally benefit from a successful outcome from the project,

while negative stakeholders are those who see negative outcomes from the project's success. For example, business leaders from a community that will benefit from a tourism program development may be positive stakeholders because they see economic benefit to the community from the project's success. Conversely, environmental groups or local community could be negative stakeholders if they view the project as doing harm to the environment or their culture. In the case of positive stakeholders, their interests are best served by helping the project succeed. The negative stakeholders' interest would be better served by impeding the project's progress by demanding more extensive environmental reviews. Negative stakeholders shall be often overlooked by the project team due to the risk of failing, to bring the project to a successful end. Involving the stakeholders during initiation generally improves the probability of shared ownership, outcomes acceptance, and stakeholder satisfaction. Such acceptance is critical to project success. Key stakeholders on a heritage site may include:

- Client, government authorities, final users
- Sponsors, internal and external owners and investors
- ICOMOS
- Environmental preservation organizations
- Researching institutes, universities, specialists
- Consultants, contractors, suppliers, workers
- Local people in the site and around the site
- Tourists and tourism agencies
- Site manager, performing organization, management team
- Public, people not directly related to the acquisition, but have influence, positively or negatively and society (Hajjalikhani, 2008).

### 3.4.3 Involvement of local communities

Author: Matej Bel University

A locality is a culture creating element, and it is considered to be the main criterion of culture. Unlike the everyday environment of one's residence, ruins represent a physical place which the local community relates to its perception of personal identity, and cultural and historical memory. Ruins and the related contexts represent a set of stable contexts of culture transmission in a community. Long-term sharing of values of a historical environment enables forming of an environmental cognition – selection-organized perception which manifest secondarily in whole culture of the local community (Altman, 1973).

For a culture of the local community, partial perception is very important, as they trigger the common incentive factors. In development of ruins, what plays an essential role is the context of figures (shape, morphology, background), locality, frequency of inevitable interactions with the ruins, the intensity and length, where the members of the community spend their daytime in interacting with the preserved ruins. This is how territorial identity, one of the dimensions that identify an individual and the community, is formed. What relates to territorial identity is the findings evaluating the rate of dependence on (link to) the environment of the ruins, and identifying those meanings which the environment of the ruins creates for local communities. The existence of a memory of ruins is related to feelings of solidarity and unity, which are expressed in the local community in similarities and collective action.

#### Local society and perception of ruins as a cultural heritage

When explaining why the perception of a historical sight is so intensive in local communities, it is necessary to reflect the context of time and change of environment, which are two extremely inconstant and changeable factors from the culture development point of view (Boyd & Richerson, 2005).

Criteria that determine the sustainability of the relation between the historical object and the local community enable us to outline advantages and disadvantages which relate to preferring the individual-specific or social contextual learning:

1. Local communities are potentially confronted with urban changes, and individuals are limited in using local ways of adapting the ruins in time. Hence the concern that one's opportunity and possibility to participate in sharing ruins may be gained or lost.
2. An individual in a local community is surrounded by impulses enabling to create a certain relation to ruins in cultural configurations respective to the environment this person grew up within. The acquired knowledge about the cultural object are obtained through collective, as well as individual learning processes. Both ways are complementary, and have their own substantiation for rational action and activity of an individual. For the local community, they represent such ways that lead to ensuring continuity and sustainability of the cultural object.
  - a.) Individual approach and import of new knowledge about the ruins leads to specification of its understanding, which is highly valued as to the status in local community. With regard to the character of the local community, environmental conditions, and a lower number of individuals, the extent of individual knowledge may not be sufficient. It leads to losses in their contents. This is the cause of incompleteness, which may result in weakening the internal cohesion of the local community.

b.) Social learning in local community includes various levels of imitating and other perceptions of behavior. By acquiring the local knowledge, the knowledge of an individual is enriched, which is essential in creating relationships with the local community. By accepting this knowledge, misunderstanding and wrong behavior is subjectively prevented. A non-conventionalized process of obtaining knowledge may represent a threat to the cohesion and compactness of the local community.

3. As to sustainability of the ruin value in the local community, the stability of ruins depends on:

a.) **dynamics** which the local community uses in integrating the changes in the functions of ruins

b.) **stability**, i.e. how stable the local culture is against the external changes caused by tourism

4. Each community tries to sustain and create such opportunities that help to transmit the values of cultural heritage and pass them onto the new generations. It stimulates various forms of learning, of which the most effective one appears to be the daily interaction with ruins, as well as the informal social learning.

### **Cohabitation of people with ruins**

With regard to an individual, the local community should initiate experiencing such situations in which the knowledge of ruins, culture, and local social relations are strengthened. Information which is passed in this way enables deeper understanding of the micro-world the individual lives in. Perception should provide an individual with support and collective reference for this person's behavior. This way of perceiving ruins may be substantiated by Bourdieu's concept of habituation (Bourdieu, 1992).

To live in a local community requires continuous acquiring of certain local experience, as well as knowledge which is related to the specifics of the environment, and thus enables one to obtain a certain social status. In this way, a system of dispositions is created, which at each moment triggers the inclusion of previously obtained experience and information, as a matrix or perception, understanding, communication, and action. The phenomenon of habituation with the environment of the ruins is defined as the frequency of repetition, within which the cultural phenomenon stabilizes. Habitus is then understood not primarily as environment, but rather as dependence on the circumstances which have shaped this environment. In case of long-term perception of ruin decay, the collective representation of undesirable cultural heritage is triggered. Cohabitation can then be understood as habitual behavior, and repeating, periodical occurrence of a phenomenon, which legitimizes responsibility and correctness of action towards the historical object of the ruins.

By participating in the process of cohabitation, members of the local community join together, and the community strengthens and stabilizes. Much of the knowledge may be acquired within the family, where certain behavior often repeats. Familiarization of the knowledge is thus spread among the members, and becomes a way how to earn trust of the others for oneself. Familiarity in local community transmits mutually, and thus is also applicable outside the environment of an immediate family.



### An inventory method of reflectiveness of the local community

The method follows the priority Strategic Research Agenda, JPI Cultural Heritage and Global Change as recommended by the European Commission on April 26, 2010 .

The studies that served as a foundation are:

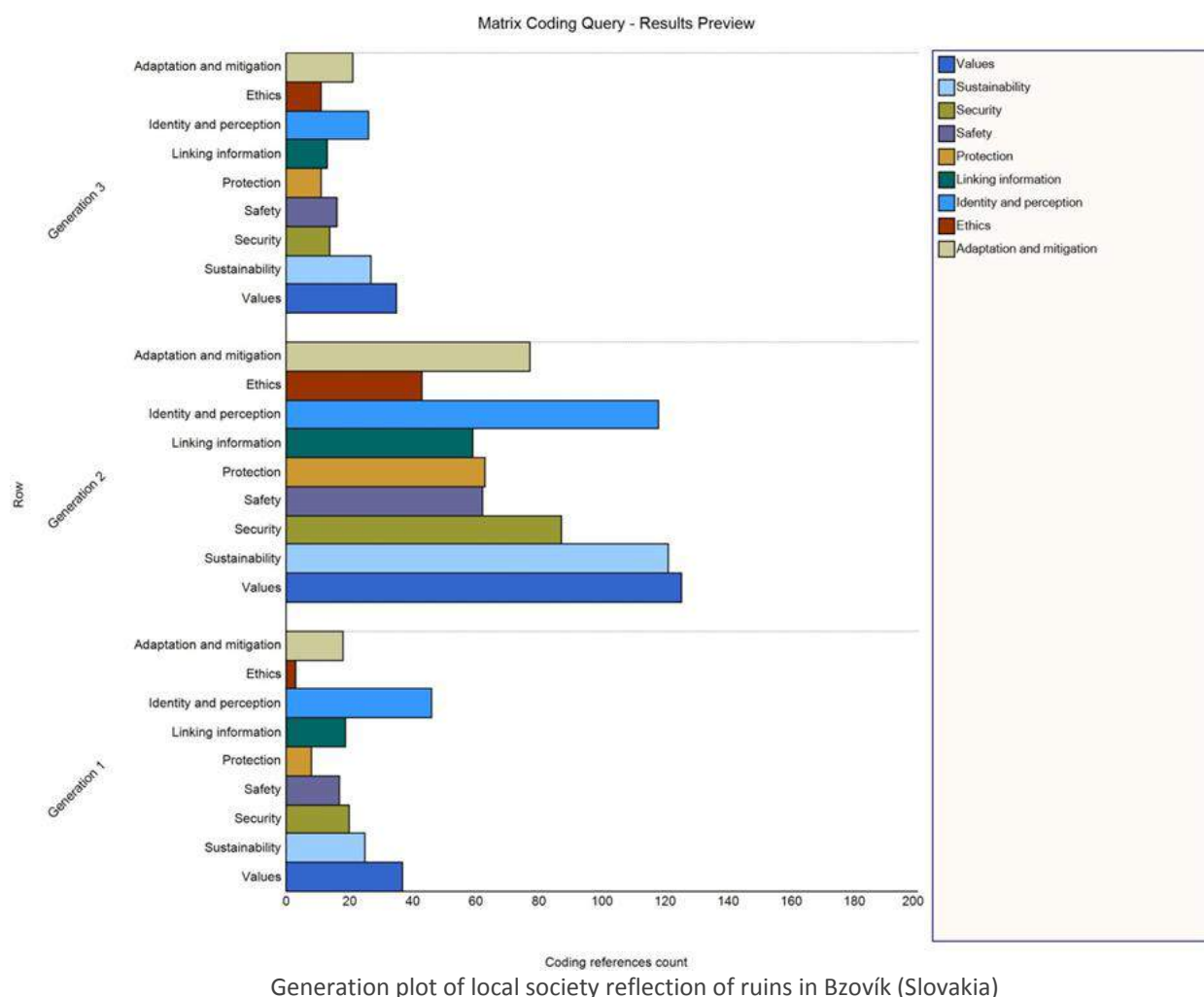
Rhisiart, Martin. 2012a. JPI Cultural Heritage and Global Change, Real-Time Delphi Study on the Future of Cultural Heritage Research. Paris : Centre for Research in Futures and Innovation, University of Glamorgan, UK with CM International University, 2012a. research report.

—. 2012b. JPI Cultural Heritage and Global Change, Report on Drivers of Change and the Future of Cultural Heritage. Paris : Centre for Research in Futures and Innovation, University of Glamorgan, UK with CM International University, 2012b. research report.

—. 2012c. JPI Cultural Heritage and Global Change. Futures Literacy Scenarios Workshop: The Future of Cultural Heritage Research. A workshop to support the development of the Strategic Research Agenda. Paris : Centre for Research in Futures and Innovation, University of Glamorgan, UK with CM International University, 2012c. scientific report.

When collecting the data of perception of the ruins by the local community, the methodology of data triangulation was followed at the following levels:

- 1) method of collecting data (statistical findings, questionnaires, scaling, and ethnography)
- 2) type of data (qualitative, quantitative, contextual)
- 3) data analysis (mixed method)
- 4) data interpretation (heritage science, environmental and economic)
- 5) investigating generational attitudes



The following may be considered to be optimal methods of obtaining data:

- 1.) cross culture questionnaire findings distributed
  - a) physically – in person ( $n_{\min}=400$ )
  - b) digitally  $n_{\min}=400/\text{locality}$
  - c) 60 structured interviews (Gen1=20, Gen2=20, Gen3=20)
  - d) direct ways of finding the answers to the analysis of managerial tools (5 questions),
  - e) scaling of sustainable generational transmission of the local culture (5 questions).

The priority topics are:

#### *Priority 1.*

**Reflective society with ruins** is broadly based on recognizing how the world is changing. What are the traditions of cultural heritage in the light of demographic change. What do local communities represent under our "heritage"? What are the choices for such a designation and how can they change over time? Who is the bearer of the cultural heritage and how is it created today?

Indicators in priority are<sup>13</sup>:

#### 1. Identity and perception

- Learning how to use all forms of ruins heritage, material, intangible and digital contributing to local identity;
- Discover how people are also recipients, expeditors and creators of ruins heritage;
- Findings as percipients are motivated to create, understand, and enjoy it; impact of contexts and history on ruins as protected and managed as educational institutions expand understanding and co-creation of ruins heritage.

	<b>Identity and perception</b>	<b>B : perception of visitors</b>	<b>C : personal memory</b>	<b>D : perception of inhabitants</b>	<b>E : local identity</b>
<b>Generation 1</b>	<b>46</b>	0	1	0	0
<b>Generation 2</b>	<b>118</b>	1	0	0	1
<b>Generation 3</b>	<b>26</b>	0	0	1	0

#### 2. Values

- How to increase the understanding of the importance and values that the variability of the manifestations of the ruins carries (both for individuals and for communities); both from their own (immanent) cultural values and from the values presented socially and economically;
- How they understand the meaning of cultural heritage maintained by a particular community and from this point of view (emotional principle) to see how they perceive, use and interact with it;
- Explain the socio-economic role and importance of ruins for the local community;
- Explore forms of user interactions, including interaction and dialogue within the "users" of the ruins heritage. One example is the co-creation of activities in the familiarization of children and young people with ruins heritage.

<sup>13</sup> The tables present findings of a pilot study of the project RUINS in locality Bzovík ( $n = 1065$ ). When comparing three generations G1, G2, and G3, the bold number indicates the frequency of the generational agreement of the indicators and the 0/1 representation of the most frequent codes A-E.

	Values	A : uniqueness	B : tourism	C : generation transmission	D : economic potential
Generation 1	37	1	0	0	0
Generation 2	125	0	1	0	1
Generation 3	35	0	0	1	0

### 3. Ethics

- Explore ruins heritage implications associated with demographic changes as well as changes resulting in conflict;
- Ensure that new policies in ruins management respect the different values and convictions that people have.

	Ethics	B : public interest	C : corruption
Generation 1	3	0	0
Generation 2	43	1	1
Generation 3	11	0	0

### Priority 2.

**Connectivity of people with ruins** includes addressable findings on issues that allow people and communities to interact with the heritage. The findings will be used for a wider area of tourism and transport development. They are applicable to the development of social and cultural capital (for example through the development of volunteering); are also looking for sustainability issues. Partial findings are geared towards developing technologies and their impact on cultural heritage in an ever-increasing digital age.

Indicators in priority are:

#### 1. Local epistemology of protection

- Explore the opportunities that cultural heritage brings to the revitalization and renewal of ruins and landscapes, taking into account the values of different species (tangible and intangible) cultural heritage.
- Identify what evidence is required by key stakeholders in deciding on new or changed ways of using cultural heritage.
- Explore ways in which people acquire and expand knowledge about all forms of cultural heritage, how they are in touch with their cultural and historical memory.

	Protection	B : volunteers activism	C : unemployed activism	D : preservation	E : adaptation
Generation 1	8	0	0	0	0
Generation 2	63	0	1	1	1
Generation 3	11	1	0	0	0

#### 2. Sustainability

- which are indicators of heritage sustainability, taking into account the cultural, social, economic and environmental approach of;
- Explore how the heritage is affected by changes in the demographic development of the population (generation) and examine the relationship between environmental development and social development. gender / age / education / site dependence on question.

	Sustainability	B : stabilisation	C : re-building	D : new function	E : musealisation
Generation 1	25	0	1	0	0
Generation 2	121	1	0	0	0
Generation 3	27	0	0	1	1

### 3. Security

- To obtain background material to develop strategies for managing cultural heritage in terms of safety and risk prevention.

	Safety	B : statics	C : seasonality	D : roofing	E : fire
Generation 1	17	1	0	0	0
Generation 2	62	0	1	1	0
Generation 3	16	0	0	0	1

### Public participation and activism

In connection with a public/civic participation, authors Zora Bútorová and Oľga Gyárfášová (2010, p. 447), offer the following definition:

*“Active participation of individuals in solving societal problems and managing public affairs - whether it takes place within a local community, a specific social organization, an ethnic or national community, or a global community. Citizen participation is a manifestation of active citizenship. It is not limited to the fact that individuals are interested in public affairs and they are watching it in private, but it is expected from them to enter the public space through concrete actions.”*

In addition, the authors claim that this concept has an extra-individual dimension, which means that it refers to the activities of the individual towards the public sphere, which makes it impossible to consider the isolated character of an individual, but to be understood as a social actor entering the civic life. With regard to citizen participation, it should be stressed that it takes place not only in the political parties or entities, but also in the social and economic spheres. According to M. Čambáliková (1996)<sup>14</sup>, in Slovakia, following the change of the socio-political environment in 1989, there was a change in the understanding of citizens' rights, and especially in the case of political and civil rights, which ultimately resulted in the institutionalization of civic participation in the political, social and economic sphere. In this context, interesting findings regarding the transformation of civic participation in the Slovak environment offer a comparison of FOCUS research data from 1994, Institute for Public Issues from 2004 and research of Citizenship and participation in Slovakia from 2008. In this research, respondents should answer the question whether they have applied some of these forms of public engagement and are considering their application in the future.<sup>15</sup>

	1994	2004	2008
Engaging in solving a problem in a city	40 : 72	38 : 70	36 : 64
Participation in public hearings, debates and negotiations	--	--	18 : 40
Participation in the work of NGOs	--	--	9 : 30
Participation in commenting on a law or regulation	--	--	7 : 37
Candidate to public service	10 : 22	6 : 17	5 : 17

- % active in the past: % allowing participation in the future

-- the data was not tracked during this period

<sup>14</sup> Cfr. Čambáliková, M. (1996). On the issue of civic participation in transforming Slovakia. Sociológia (28) 1, 51-54.

<sup>15</sup> Cfr. Bútorová, Z., Gyárfášová, O. (2010). Citizen participation: trends, problems, contexts. Sociológia 42 (5): 447-491.

### Stakeholder management in cultural heritage

The concept of "stakeholders" was first used in 1963 by the Stanford Research Institute (Freeman, 2011). The classic definition proposed by Freeman (2011) describes a stakeholder as *"any group or person who can affect or is affected by the achievement of the objectives of the organization."*

However, a more appropriate definition is "actors on cultural scenes", which appears more and more frequently in the context of cultural resources and heritage management and has been proposed by the Malopolska Institute of Culture (Krzyszowski, 2010).

When analysing the structure of the space in which cultural heritage resources function, it may be observed that its vital part includes people or groups who perceive these resources as an opportunity to meet their own individual needs or to develop the entire community.

Thus, stakeholders, when satisfying their needs by using cultural heritage resources, have a significant impact on their preservation and growth, and, at the same time, these resources greatly influence stakeholders themselves, their development and their relations with the environment.

Freeman (2011) divides stakeholders into two groups – internal and external stakeholders. The internal stakeholders are defined as people or institutions that have a direct impact on the shape and functioning of an organization (or object of cultural heritage). This relationship is reciprocal, because the organization (object of cultural heritage) has an impact on the stakeholders. This group, as to cultural heritage, includes members of local communities, tourists, employees of the cultural object, the owners of cultural objects, and/or other social organisations. The external stakeholders are defined as people or institutions who indirectly benefit from the profit made by a cultural institution or event. This group includes providers, users of goods and services, local authorities, and the media.

We agree with the statement of Góral (2015), that Freeman's division seems to be incomplete. The individual stakeholders play multiple roles in their communities. For example: a person may be an employee of a cultural institution that organises cultural festivals, a resident of the community, a visitor attending a folk festival organized by the local association, or in his/her spare time, this person may create hand-made doilies based on traditional local patterns, which are then sold to tourists. The roles depend on the individual interest or needs to be met at a given moment. The main purpose of project stakeholder management is to manage the relationship between the project and its stakeholders. It is essential to identify and analyze stakeholders who can affect the outcomes of cultural objects. In this context, we distinguish the positive and negative effects. The positive relation is manifested through active involvement of stakeholders in events organized at/in the cultural objects.

An additional argument for collaboration is that it engages all interested parties in the decision making process by allowing them to take responsibility, enhance their self-reliance, and their own awareness of the issues, all of which enables them to enjoy a greater degree of consensus and shared ownership (Aas, Ladkin, Fletcher, 2005).

The negative relationship includes the added cost to planning and development, the identification of legitimate stakeholders, and the capacity of stakeholders to participate. Expectations may be raised beyond what can be delivered in reality.

Mitchell, Agle and Wood divided stakeholders into eight classes, depending on the attributes of power, legitimacy, and urgency:

1. If the stakeholder does not possess any of the three attributes, they cannot be counted as a stakeholder.
2. Demanding stakeholders have an urgent claim, but have no power or legitimate relationship. They can be irksome but not dangerous, so management can disregard them.



3. Discretionary stakeholders possess the attribute of legitimacy, but they do not have power or urgent claims. Although there is no pressure on managers to engage in an active relationship with such stakeholders, they can choose to do so.
4. Dormant stakeholders possess the power to impose their will, but they do not have any legitimate relationship or urgent claim, and thus their power remains unused.
5. Dependent stakeholders possess urgent and legitimate claims, but no power. These stakeholders depend upon others for the power to carry out their will.
6. Dominant stakeholders are both powerful and legitimate. Their influence is assured, and it is clear that the expectations of any dominant stakeholders will matter.
7. Dangerous stakeholders are not legitimate, but they possess power and urgency. They can be coercive and possibly violent; hence, they can be “dangerous”.
8. Definitive stakeholders possess all the attributes. They will already be members of an organization’s dominant coalition. When their claims are urgent, managers have a clear and immediate mandate to consider and give priority to that claim.

At the same time, while observing the diversity of the stakeholders interested in cultural heritage resources, it is easy to notice that there are dependencies between them which, on the one hand, reflect the “copybook” process of developing the cultural heritage awareness in the inhabitants of a region, but, on the other hand, present the complementarity of various cultural heritage stakeholders’ actions in the context of sustainable local development based on cultural heritage resources (Góral, 2015).

### **Activism and “conservation of the castles by the unemployed”**

First accounts on voluntary work on ruin restoration come from the 80s. The account refers to the Strom života (Tree of Life) camps who worked on the ruin of Carthusian Monastery Lapis Refugee deep in the forest of The Slovak Paradise National Park. Main reason for this event was the secret meeting of catholic dissidents during the communism era in Czechoslovakia.

After 1989 (end of communism period) many ruins were left in bad condition or in unfinished conservation process led by government or municipality ran companies, who ceased to exist. Ownership becomes an issue as restitution to pre-communism owners was in progress. Many ruins had unclear ownership, or didn't exist on the cadaster maps. Enthusiast investing their free time and own funds become a stimulus in the strive for preservation of certain ruins. As many owners were by underfinanced or unauthorized state bodies like small municipalities, state owned Forestry Company (which is not authorized to invest its funds into heritage preservation), who have often no means to conduct a restoration. First attempts are mainly targeted on sustaining the access to the ruins for the public by establishing hiking trails and cleaning of brush growth, but also first experiments with unprofessional conservation works occur.

Among the first sites are the castles Sklabiná and Čabrad' or the monastery Katarínka. In 2002 seven NGOs, that had already gained some experience in restoration of ruins founded an association “Zachráňme hrady” (Let's Save the Castles) to exchange know how and to coordinate activities. The volunteer activities have caught the attention of the Department Culture as some of them under professional supervision were achieving high level results. To support this work the Department of Culture issued a new grant scheme aimed on these kind of activities.

The grants scheme is called RESTORE YOUR HOME - Funding Program, Subprogram 1.4: Conservation of Historic Parks and Architectural Areas in Critical Stance AKA “Conservation of the Castles by the Unemployed”. The pilot program was launched in 2011 on two ruins only.

But after it became public in 2012 it boosted many new NGOs who initiated the process of conservation and restoration in many new sites. To make a better image of the extent the

“Zachráňme hrady” association has reached 28 members each representing another ruin in process of conservation and restoration. The grant scheme specifications are bellow:

***Aim of the Program***

- financial back up for conservation mainly of large areas of architectural heritage in critical stance
- activation of long term unemployed people for the work market

***Most Important Criteria –Preparedness***

- finished projects (statics, architecture...) and research (archeology, history of building and art...)
- documentation approved by regional office of Monument Board

***Program Priorities***

To apply for the program, the monument must meet the criteria:

- object in critical stance
- object located in important tourist destination
- object located in district listed in the government list of less developed districts

***Principle of the Program***

The principle of funding this subvention program is based on participation of two government institutions:

- Department of Culture providing funds for material and know how
- Central Office of Labor, Social Affairs and Family – providing funding for Human Recourses – via European Social Fund

***Human Resources***

The manpower provided by the project can be divided into 2 main categories:

- non-qualified works – „The Hands“ – used for jobs as digging, transport of materials, cutting of greenery, preparing mortar...,
- qualified works – masons, carpenters, research assistants etc.

Special category is paid project coordinator, who is responsible for accounting, work management, HR, project report... A coordinator is allowed only if at least 8 workers or volunteers are under his charge.

The advantage of this grant scheme is that it combines the issues of heritage preservation with the issue of unemployment. By employing local people on the restoration works it also creates bonds between the heritage site and the local community. The grant provides money for material and Professional work and man power for the hard work. The disadvantage of the project is that it is set for one year terms only. At it is necessary to apply for each term again. The application is demanding on bureaucracy and as that the application itself consummates a lot of energy that could be invested in other issues concerning the restoration. The impossibility to make a schedule of work for a larger time frame because there is no certainty of continuity and amount of funds granted is also a disadvantage of this model. This can cause problems at huger structures by having left unfinished work due to lack of funding. And unfinished work often means original historical structures exposed to degradation. This even means that there is actually no vision when this site stops to be a construction site more than an educational and cultural establishment.

### 3.4.4 Cost-benefit analysis and decision support systems

Author: Italian Association for the Council of Municipalities and Regions of Europe

Investing in cultural heritage conservation and management implies several risks that must be taken under control since the preliminary steps of the decisional planning process. Rigorous and transparent analysis of convenience able to catch technical obstacles are requested beforehand procedural and economic-management.

Cost Benefit Evaluation must therefore be integrated as a part of the overall project development process; it represents a support for optimization of investment choices and a tool for the efficient allocation of resources.

Evaluation must be considered a strategic asset and a methodology for designing the investments, and the central core of the planning process, as it helps to remove discretion for decisional process, especially if the investment is public. The assessment of the feasibility of an intervention is a difficult exercise, arbitrary in case of absence of a precise general methodological framework.

Cost benefit analysis represent an integral part of a more comprehensive feasibility study, which encompasses diverse topics and matters and requires diverse competences.

A feasibility study can be organised in the following main sessions:

- context and market analysis
- definition of objectives and alternative plans
- technical and administrative feasibility check
- environmental impact analysis of selected alternative/s
- social impact analysis of selected alternative/s
- cash flow analysis and financial feasibility indicators
- **cost benefit analysis**
- risk analysis

The **context and market analysis** includes the understanding of the territorial context under a multifaceted point of views: societal, economic, cultural, political and institutional. A good description of the context is the first fundamental step necessary to determine trends and demands, notably that information necessary to estimate financial and economic cash flows. The purpose of the analysis is also to check the consistency of the cultural plan with the specific territorial framework. **Mapping stakeholders** is a further step of context analysis, as none project can be implemented successfully without a proper involvement of interested parties.

When a feasibility study refers to investment in built cultural heritage, the context analysis should include specific outlines of people's attitude to culture, recreation and creative activities, thus to assess and their preferences and better estimate the potential demand. To develop the market analysis related to offer, it is necessary individuate and cultural services, settings and infrastructures already active in the territory; the analysis should also collect information related to the price policies applied in order to understand how to place the new investment within the larger system of tourist and cultural territorial offer. Moreover, the context analysis should take into account both the strategic framework complete of national, regional and local development plans and the understanding of real cultural/tourist needs in the context.

The **needs assessment** is then purposeful to determine the expected changes and, so far, to define options, notably the diverse alternatives capable to achieve the established **objectives**.

Available data on the use and enhancement of cultural heritage in Europe, shows how there is still a clear distance between the impressive consistency of cultural material and immaterial goods, on the one hand, and their level of enhancement and use on the other hand.

As widely recognized, the protection, conservation and enhancement of the cultural heritage offer opportunities to improve the liveability of a place, social integration and the sense of belonging to the community and, more broadly, the economic development of the territory of reference. It is therefore a relevant issue to be faced in the context of regional development policies.<sup>16</sup> The interventions in the cultural heritage sector often aims at improving the conditions of liveability and the community lifestyle: it generates new places for people to spend free times, have recreation and develop social relationships.

Cultural built heritage if restored, renewed or reused and designated to cultural or tourism fruition, thanks to its unicity and identity, gives community a sense of belonging, that denotes the right reason for investing in cultural heritage. Investing in cultural built heritage conservation and (if possible adaptive reuse) enhances the attractiveness of a place, and can give a boost to the local economy, increasing tourist flows, generating income and possibility of employment for the local population.

When defining the cultural investment's **objectives**, it is necessary to determine and understand the target profile, notable of those who will benefit, direct or indirect, form the investment itself.

Beneficiaries are both users of the cultural services (for example visitor of the site) and indirect who, though

not using the service, they are indirectly involved thanks to the externalities the cultural heritage site generates (for example, the owners of restaurants, bars or others commercial activities, the owners of shops selling books, souvenirs of cultural heritage, ect. located in the area surrounding the site).

When developing a feasibility study it is also necessary to understand the **relevance** of the investment in terms of contribution to policies and strategic plans.

This knowledge framework (context, trend, market, objectives, benefits, relevance) allows to define the options: **alternative plans** coherent with the established objectives and the expected level of benefits. Alternatives are then assessed and compared against a set of decisional criteria and sub-criteria that can be grouped in these categories: environmental, social, cultural and economic sustainability, as well as, technical feasibility and use compatibility. **Multiple-Criteria Evaluation** Tools can be used to compare and prioritize the alternatives, making the decisional process more transparent and shared.

One selected, the alternative is further detailed and outlined in both technical and economic sense. It implies also the prefiguration of the management and governance models, that can differ if the owner is private or public. In case of public private partnership (PPP), responsibilities and rules must be clear since the preliminary design phase, and this management frame should also consider the relation with the interested parties and the community becoming a PPPP, where the added P means People (public private people partnership).

Furthermore, it is opportune underlining the differences there are, when the investment in cultural heritage is located in a large or medium urban centre or in the internal areas or rural villages, because the context characteristics are quite different. In the first case, especially if it is already recognized as tourist destination, the city can be attractive itself, due to the wide cultural and creative offer and by virtue of its urban nature, resources, services and skills to support processes of virtuous development. In the second case when the asset is located in small municipalities or in less urbanized and high value naturalistic contexts, the focus should be the wide territorial scale. In other terms, it is important to understand the correct territorial delimitation and related basin of interests, before developing the overall project design and management model.

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<sup>16</sup> Invitalia. "Guida all'analisi costi-benefici dei progetti d'investimento"

Once the territorial borders have been defined, it is possible to study the context's attractive potential before estimating the expected users: understanding if the cultural asset is capable to attract or not visitors outside its reference area, or to generate new regional, national and foreign tourist visits, which may also involve overnight stays in site, allows to properly define both cost and revenue flows.

Actually, developing a management model of a site is very different from designing a marketing plan of the destination where the site is located. The need to develop contemporarily both dimensions depends on the fact that the asset is or is not the main attractor good form which depends on not the tourist potential of the context.

In some case it is not simply the asset restored and preserved that is attractive by itself; it is the complementarity

amid the asset and cultural activities that can be realized in there or in its surroundings. It is the case of theatrical or historic representations, music and other form of shows and events, as well as expositions, but also guided tours with their fascinating storytelling and educational dimension.

Design and planning must include management issues, maybe before the technical features. Management includes not simply cost and revenue but also the external benefits and the social impacts generated by the investment.

Generally speaking, when estimating the demand of cultural heritage investments, it is necessary to take into account several variables; among them:

- demographic characteristics of the reference basin, distinguishing people on the basis of age, level of education for example;
- socio economic variables, such as: GDP, the level of income per capita of the population, the unemployment rate, the availability of free time;
- the conditions of accessibility to the area, in terms of availability, quality and efficiency of existing transport services;
- the preferences expressed by population in relation to time dedicated to different cultural activities present in the area;
- price elasticity;
- Tourism flows, or, if the investment is included in a destination already established from the point of view tourism with its own paths of growth, resources and services that trigger virtuous development processes.

The most important outcome of the context and demand analysis and the prefiguration of optional scenarios is not only the possibility to estimate the flows of future revenues (and benefits), but the capacity to evaluate the capacity utilization rate of the project in order to verify its adequacy to meet the expected demand. In other words, to verify that the project is not over or underpowered with regard to meet the real needs of final users.

A feasibility study includes also financial and economic evaluation, both based on the cash-flows analysis.

This methodology requires that the following rules are used:

- The analysis only takes into account incoming and outgoing cash flows; they do not enter instead in the analysis provisions, amortization and other accounting items that do not correspond to actual cash movements.
- The analysis should normally be performed from the point of view of the owner. If, in the provision of a service of general interest, the owner and the operator do not coincide, must be performed a consolidated financial analysis, which excludes the cash flows between the owner and the operator, in order to evaluate the effective return on investment, net of



internal payments. This results particularly easy in the presence of a single operator, who provides the service on behalf of the owner, normally under a PPP contract.

- The Present Value of future cash flows is calculated using an appropriate Financial Discount Rate, which reflects the opportunity cost of capital.
- Cash flow forecasts must cover a period appropriate to life economically usefulness of the project and its long-term impacts. The number of years for which the forecasts is defined as the time horizon of the project (or reference period). The choice of the horizon timing affects the results of the evaluation; for this reason, it is appropriate to refer to values standards differentiated by sector and based on internationally accepted practices.
- The financial analysis must generally be performed using constant (real) prices, i.e. with prices set at a base year.
- The analysis must be performed net of VAT, both for purchases (costs) and for sales (revenue), if this can be recovered from the project promoter. VAT must instead be included when not it is recoverable.
- Direct taxes (on capital, income or other) are considered only for the verification of the financial sustainability and not for the calculation of financial profitability, which is calculated before deduction of such taxes. This, to avoid complexity and variability over time.
- Pursuant to art. 19 (discounting of cash flows) of the Delegated Regulation (EU) no. 480/2014 of the Commission, for the 2014-2020 programming period, the European Commission advises to consider a discount rate of 4% in real terms as a benchmark for the real opportunity cost of capital in the long term.

The estimation of investment costs, operating costs, revenues and sources of financing, allows to evaluate the financial profitability of the project, measured by the following key indicators: net present value (NPV) and the internal rate of return (IRR).

The NPV and the IRR compare investment costs with revenues and measure capacity of the net revenue generated by the project to repay the initial investment, regardless of sources.

The NPV is expressed in monetary terms (Euro) and depends on the size of the project. The IRR (C) is instead a number expressed in relative terms (%), which does not vary according to the scale dimension of the project. The IRR is mainly used to assess the future performance of the investment compared to other projects or a rate of return adopted as a reference. This indicator comes also used to assess whether the project requires third parts' financial support: when the IRR is lower than the discount rate applied or the NPV is negative, it means that the net revenue generated do not compensate for the costs.

Cost-Benefit Analysis (CBA) is an analytical process for estimating economic advantages or disadvantages of a decision of investment and it is developed by evaluating costs and benefits in the perspective of change expected.

The CBA considers

- financial cost and revenues,
- the so called opportunity cost intended like the potential gain from the best alternative predictable among the several possible alternatives,
- shadow prices determined when market prices do not reflect the opportunity cost of inputs and outputs;
- externalities and macroeconomic approach enabling the analysis of the impacts generated by the

alternatives on society as a whole via the calculation of economic performance indicators, which are even calculated in monetary terms.

The results of the cost benefits analysis on the heritage site can contribute to the decision making process by themselves, but they can acquire particular usefulness if being included in a Decision Support System (DSS).

As a matter of fact, participative governance models applied to heritage sites management normally brings to fragmented scenarios in which multiple variables and determinants are crossed with the different views and interest of the stakeholders involved in the procedures. In such a situation, exacerbated by recent strong dynamism characterizing the cultural sector and, generally, the landscape in which sites are located, a common element can be recognized: information (Baggio, 2005). Thus, considering the importance and the beneficial effects of e-managing a great amount of generated information, cultural management sector has been seeing for some years the possibility to use ITCs in a great variety functions: among these, Decision Support System (DDS) can play a fundamental role driving the choices of functions of heritage sites.

A decision support system (DSS) is a computer based system that aids the process of decision making (Finlay, 1994) through the extraction of useful information from a wide base of raw data, documents, personal knowledge, and/or business models. The DSS architecture is composed of a Knowledge Base, a Data Base and a Model Base which interact with the final user (the decision maker) via a communication layer based on Internet Technologies and their standard protocols.

In the perspective of cultural heritage mangament and choice of function, a DSS is able to join the data coming from the different analysis done and show different scenarios related to site use's possibilities. The added value of using a DSS in the process of decision making is that, through data management, it is able to integrate the views and to coordinate the actions of resource controllers, private businesses, gatekeepers, host communities and institutions. The DSS is developed to analyse the perspectives and planned strategies of the stakeholders and to assess, through simulation tools, the impacts of hypothetical heritage site uses. The DSS is able to process various inputs, analyse and 'understand' these inputs, and suggest courses of action that assist actors in the diagnosis, planning and design of their activities. The DSS can be used for the construction of a variety of future scenarios by recording the preferences for resource use of the various stakeholders. The DSS can also evaluate the potential of alternative policies using the same inputs. The value of the DSS as a planning instrument lies in its ability to draw precise inferences about various management actions and policies, without needing to implement the and without destroying any component of the existing policy framework.

In addition, the DSS can help decision makers test the sensitivity of decisions with regard to uncertainties. The simulations also indicated which types of informal linkages might appear within the inter- and intra-organizational decision-making arenas after collaborative negotiation processes have taken place.

The development of a DSS implies difficulty and, often, high cost since this tool is data intensive for all actors and requires very extensive and expensive field work. However, once the programme has been built, it is fairly easy to alter the assumptions and derive a wide range of simulations under many scenarios, coordination patterns (policies) and negotiation processes (Bousset et al, 2007). This should be easier when the focus of the analysis is the function of a specific heritage site.

### 3.5 The re-use project

Author: SiTi - Higher Institute on Territorial Systems for Innovation

Ruins constitute an area of interest for experiments and theoretical digressions in the field of cultural heritage preservation.

The numerous presence of ruins in European cities, especially Italian ones, raises several questions and many are the factors that must be taken into consideration as well. For this reasons it is not easy to indicate a univocal road to travel.

It is necessary to establish the quality and significance of the ruins, to define the reasons why they must be preserved and for whom, taking into account that the cities grow exponentially and that the cultural diversity of its inhabitants grows.

The term "ruin" has the double meaning of indicating both a process and the outcome of that process. It indicates the physical destruction or disintegration of something or the state of disintegrating or being destroyed as well.

Referring to the cultural heritage field, the term addresses to the remains of a building (typically an old one that has suffered much damage or disintegration) indicating precisely the result of the destruction, the remains that resist over time to witness what it once was and what happened.

Ruins, therefore, not only represents the tangible part of a past partly disappeared but is above all a generator of memory and can represent an opportunity to retrace the history in order to rediscover identity.

Ruins are what remain, relics deeply and drastically altered in the spaces, not only by time, but also by nature. In their evocative and fascinating image, ruins must be returned to the contemporary life from which they often appear, instead, dramatically separated.

Cultural heritage has a universal value for us as individuals, communities and societies; shapes our identities and everyday lives and for these reasons it is important to preserve and pass on to future generations.

Citizen participation has become an ethical obligation and a political necessity. It revitalises society, strengthens democracy and creates governance that can renew the conditions for 'living together', encouraging well-being and a better quality of life.

The heritage identification and protection process cannot succeed without a certain level of heritage awareness and acceptance among visitors and community residents.

Our action in the field of cultural heritage should target promoting diversity and dialogue through access to heritage to foster a sense of identity, collective memory and mutual understanding within and between communities.

The remains of the past (from the archaeological ruin to the historical building) rarely retain their original characteristics and it happens more often than they are the result of previous modifications (due to intentional interventions or natural causes). Often remains little of the original intention and even when the building has arrived to us almost intact it is always a partial conservation, since the cultural universe that originated it has changed. We must consider the architecture of the past as "palimpsests" of complicated processes of transformation, due to the repeated changes in the historical and social conditions.

In the past the ruin was considered as a resource available to be used and mankind intervened on it without the current shyness.

The contemporary architectural interventions on the ruin oscillate from conservation to reintegration, up to the absolute extremism consisting in the reconstruction, considered acceptable and suitable only if based on the contemporary design that, from the knowledge of the history, leads to a creative and modern form and image of the architectural work.

Interventions on ruins appear difficult and risky, on the boundary line between archaeological and architectural restoration.

However, the significance of the ruin itself can be achieved only through a reintegration of the work in the context from which it appears excluded, becoming an integral part of the present, while maintaining its historical and primitive meanings and values.

The goal to be pursued necessarily must be that of attributing a correct meaning to the ruin, in a logic of conservation and respect of the monument to be enhanced, through transformations compatible with the authenticity of the ruined work, avoiding deformations and alterations of visual and formal perception of the ruin.

Nowadays, there are 3 main approaches aimed to the enhancement of ruins:

1. Conservation of the ruin in its material authenticity, shape and mutilate image;
2. On-site museum;
3. Reintegration of the image with contemporary design.



Obviously the choice of one solution rather than another one depends on the multiplicity of factors and circumstances mentioned previously. Each case is a case in itself and does not want or can be an absolute reference for all other ones.

The basic assumption is that a lack of functionality of medieval ruins leaves limited opportunities for establishing a viable economic future of these sites. Giving new functions to ruins can result in broad, economically profitable ways of using the medieval ruins. In economy market conditions a building with a beneficial use is far more likely to survive than one that has no use at all. Reuse is surely one of the best ways to ensure the preservation of an antique object: a function-free monument deteriorates rapidly, while keeping one ineffective remains alive.

Utility of ruined sites must be considered before starting any restoration/enhancement works. If not, the risk is that the reuse project is useless for community.

Conservation approaches and choices must be part of the communication programme in order to improve the knowledge of the site and increase community awareness, who is the final user of the ruined site. Investigating the perception of ruined site by community can guide the restoration projects and the reuse that must consider into account needs and expectations of the citizens. Ruined sites are strongly linked to their socio-cultural context and represent the identity and the memory of a place. New design projects have to consider the values of the sites and dialogate with the ancient remains respecting the principles of authenticity, compatibility, reversibility, recognizability and minimum intervention.

### Accessibility

The issue of accessibility is now placed in its own right within the restoration project, now included in the broader concept of "integrated conservation".

The close link between monument and use, in fact - reiterated several times not only as a better guarantee for the conservation of heritage, but as an intrinsic condition of architecture, for which can not exclusively apply instances of "pure contemplation" - leads us to consider the restoration as an intervention that should not, as too often happens, subtract the works from enjoyment, but which aims to save them by allowing them to remain as long as possible, as aesthetically and historically living parts of our society.

### THE PRINCIPLES OF UNIVERSAL DESIGN

*Version 2.0 - 4/1/97*

Compiled by advocates of universal design, listed in alphabetical order:

Bettye Rose Connell, Mike Jones, Ron Mace, Jim Mueller, Abir Mullick, Elaine Ostroff, Jon Sanford, Ed Steinfeld, Molly Story, and Gregg Vanderheiden

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#### UNIVERSAL DESIGN:

**The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.**

#### PRINCIPLE ONE: Equitable Use

The design is useful and marketable to people with diverse abilities.

#### PRINCIPLE TWO: Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

#### PRINCIPLE THREE: Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

#### PRINCIPLE FOUR: Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

#### PRINCIPLE FIVE: Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

#### PRINCIPLE SIX: Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

#### PRINCIPLE SEVEN: Size and Space for Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

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### Interpretation and display

It perhaps goes without saying that the appeal of sites and the expectations of visitors are inextricably linked, and the presentation of physical fabric is, for most, the greatest draw. Due to their inherent defining nature, that of incompleteness, ruined sites (and their settings), particularly those where substantial parts have been lost or are masked by fallen masonry and shrouded in vegetation, can be confusing to understand. The development of sites can be difficult to determine with any certainty. This is particularly the case where documentary evidence is lacking and where similar materials, workmanship and/or architectural styles have been used for different phases of work; where buildings evolved in a

complex or protracted manner; or where ancient fabric was reworked during construction, alteration or improvement.

In addition to the securing of fabric they must try to make ruins intelligible to visitors. As our understanding of ruined structures can only ever be partial, their display will always be problematic. Intelligibility is the prerequisite and a piecemeal approach must be avoided if sites are to be presented in a meaningful and holistic manner.

The objective of presenting a site, ruined or otherwise, must be to portray it in its correct and full documentary and historic context insofar as is it understood and possible to do so. Presentation policies must therefore be site specific and take account of, respect and achieve a balance between all values (emotional, symbolic, cultural, environmental and use - past and future) attached to or inherent in fabric, and clearly define its messages if visitors are to understand, learn from and enjoy these sites.

The objective of physical presentation must, in addition to being authentic in all respects (designs, materials, workmanship and so on), be determined by the particular nature of a site and its individual setting.

As their once completed forms cannot be experienced, ruined structures and their true significance can perhaps never be properly understood. Interpretation, whether in the form of official guides and the like or by the transmission of stories, can aid the understanding of tangible remains.

But it is not possible to present the whole story of a ruin solely by reference to the physical remains.

The interpretation of stories provides a means of conveying more of a monument's past. It can take many forms, including: simple printed leaflets; lavishly produced illustrated guides and histories; plans showing phased development and models, tactile or otherwise; graphic panels; exhibitions of related artefacts; knowledgeable guides with a command of multiple languages; audio tours; virtual reality and interactive television; costumed interpreters, re enactments of historic events and *son et lumière* (dramatised spoken history accompanied by spectacular lighting effects).

The history of a monument is always best explained at its site and the provision of interpretation is an important aspect of managing tourism. Of course, it must be based upon thorough scholarly and accurate research.

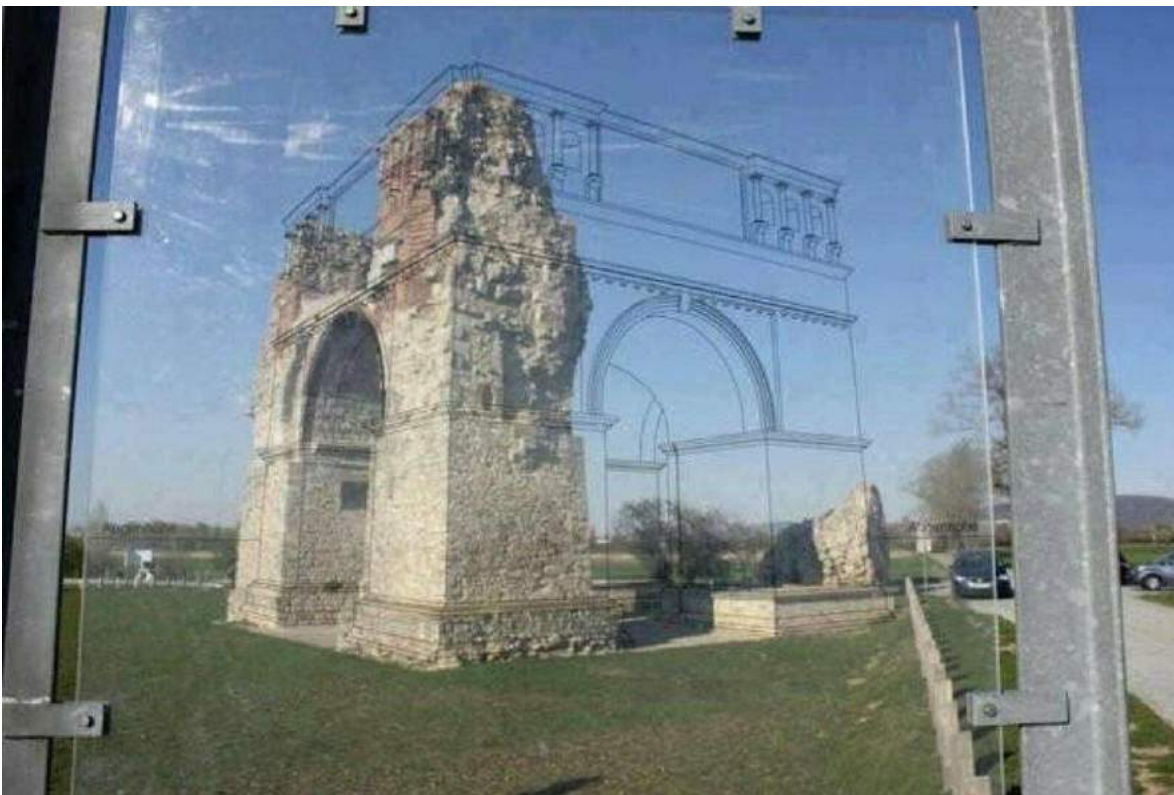
Though the level and sophistication of interpretation will depend on the breadth of a site's appeal and its popularity, at a minimum it should explain a building's pre-ruinous state and the cause of its ruination. Successful modern approaches to interpretation encompass all phases of a monument's history and include details of its most recent, post-ruinous past, the objective being to provide visitors with the fullest understanding of a monument's story.

Visitors who remain uninformed are often understandably disappointed with their experience, and may be frustrated and develop negative attitudes to the site and its continuing survival, especially those who have travelled long distances and paid entrance fee.

The same may be the case where interpretation is overdone. Assailing the visitor with audio-visual facilities of all kinds can be intrusive to those whose main interests are archaeological or historical, and to those who visit sites principally to enjoy and appreciate their spirit, sense of peace and tranquilly. The educational value of many ruined sites is huge and their interpretation and presentation must be recognised as a responsibility of the custodian to the visitors rather than a means of drawing greater numbers of visitors to a series of 'attractions', which is too often the trigger for providing or improving interpretation.

In the enhancement process the aspects related to fruition and communication take on a primary role, for the elaboration of which it will be appropriate to refer in general to the objectives and principles recommended by the ICOMOS *Charter for the Interpretation and Presentation of Cultural Heritage Sites*.





Information panels at Heidendor Gate, Austria

## ICOMOS CHARTER FOR THE INTERPRETATION AND PRESENTATION OF CULTURAL HERITAGE SITES

recognizes that interpretation and presentation are part of the overall process of cultural heritage conservation and management. Interpretation refers to the full range of potential activities intended to heighten public awareness and enhance understanding of cultural heritage site. These can include print and electronic publications, public lectures, on-site and directly related off-site installations, educational programmes, community activities, and ongoing research, training, and evaluation of the interpretation process itself.

Presentation more specifically denotes the carefully planned communication of interpretive content through the arrangement of interpretive information, physical access, and interpretive infrastructure at a cultural heritage site. It can be conveyed through a variety of technical means, including, yet not requiring, such elements as informational panels, museum-type displays, formalized walking tours, lectures and guided tours, and multimedia applications and websites.

### **Principle 1: Access and Understanding**

Interpretation and presentation programmes should facilitate physical and intellectual access by the public to cultural heritage sites.

### **Principle 2: Information Sources**

Interpretation and presentation should be based on evidence gathered through accepted scientific and scholarly methods as well as from living cultural traditions.

### **Principle 3: Context and Setting**

The Interpretation and Presentation of cultural heritage sites should relate to their wider social, cultural, historical, and natural contexts and settings.

### **Principle 4: Authenticity**

The Interpretation and presentation of cultural heritage sites must respect the basic tenets of authenticity in the spirit of the Nara Document (1994).

### **Principle 5: Sustainability**

The interpretation plan for a cultural heritage site must be sensitive to its natural and cultural environment, with social, financial, and environmental sustainability among its central goals.

### **Principle 6: Inclusiveness**

The Interpretation and Presentation of cultural heritage sites must be the result of meaningful collaboration between heritage professionals, host and associated communities, and other stakeholders.

### **Facilities and infrastructures**

Visitor facilities are increasingly a prerequisite at popular ruined sites and the rise in tourism can put services for visitors in conflict with the care of sites if not sensitively handled.

Where consideration is being given to their provision, they must be appropriate to, and influenced by, their surroundings in terms of design, scale, material and location. New buildings should be soundly constructed and designed for a long life, and be capable of alteration or extension as necessary to cater for future needs. Standards of design should be high and materials should be sustainable, durable and selected to enhance, though not necessarily match or be finished in replication of the originals.

Facilities should be located in areas of least fragility and archaeological disturbance kept to an absolute minimum. They should complement rather than detract from monuments and should age well and

weather comfortably in their settings. The proximity of facilities to historic fabric can be offensive and excessive; poorly planned, badly designed or insensitively located facilities have a seriously adverse impact on the significance of features, ecological characteristics and an enjoyment of the site.

Where facilities are to be inserted within a monument, new work must respect the significance and sensitive nature of fabric and installations must be carried out in an appropriate and compatible manner if fabric loss and the risk of problems occurring at the interface of the old and new are to be avoided.

It is important that account be taken of past and intended future use, minimal intervention and reversibility.

Power and lighting along with signage and, in some cases, security measures can be necessary at ruined sites. Each has a job to do, but each can detract from the character of a monument if poorly or inappropriately designed. As for any intervention, the most successful schemes are those which have least interventive and visual impact on fabric.

### **Power**

Whilst most ruined monuments require very little in the way of electric power beyond perhaps some basic lighting, modern legislative requirements can be onerous and difficult to meet where visitor facilities are provided.

Many ruin sites, particularly those in isolated locations, have no modern power supply and some have no service provision of any kind whatsoever. Where mains servicing is required but is prohibitive for reasons of archaeological sensitivity or cost, imaginative responses are needed if today's mandatory standards for human comfort (minimum temperatures, etc.) and energy efficiency levels are to be met.

When servicing sites, careful thought must be given to the location of plant and service routes. Modern services, having an expected life of 20 or so years, are transitory when compared to historic fabric, so reversibility and minimal intervention must dictate the nature of the installation if the special character of sites is to be preserved; no scars should be left as and when renewed or replaced, and holes and chases for pipes, cables and ducts, fixings and plant bases must be kept to an absolute minimum.

### **Lighting**

Good lighting can be welcoming and can also enhance security. Ruined spaces in particular need to be imaginatively and sensitively lit if the beholder is to appreciate something of their former qualities, more so where such spaces have multi-functional use.

The discreet and careful positioning of lighting can illuminate parts of a ruined structure that are no longer accessible and/or would otherwise be difficult to appreciate without doing harm. Elsewhere, imaginative lighting can add interest and intrigue.

In terms of effectiveness in internal spaces, schemes which attract the eye by echoing the effect of sunlight (or moonlight) are most successful. Externally, low-level up-lighters can have a dramatic effect on a building by accentuating the light and shade of architectural detail and its scale.

The careful use of light can also be used to 'bide' less favorable or fragile areas by focusing attention elsewhere, and can also be used to highlight trip and other hazards.

### **Health and safety**

Safety and access are thorny issues and often related at ruinous sites. Parapet walks, precipitous paths and steep banks, descaling stone and live plaster are all potentially dangerous. Floor surfaces may be uneven and dangerous to even the most able of visitors.

The first duty of the custodian is security and survival, including the character, of historic fabric, not the safety of visitors. Clearly, the safety of visitors must never be ignored, and security fences.



### 3.5.1 Conservation of the ruin in its authenticity, shape and mutilate image:

#### St. Galgano Abbey (Chiusdino - Siena, Tuscany)

Author: SiTI - Higher Institute on Territorial Systems for Innovation



St. Galgano Abbey in Valdimerse is one of the most interesting examples of the Italian Gothic-Cistercian style.

The centuries of greatest splendor of the abbey were the XIII and XIV but, since the beginning from the XV century began a decline that culminated in the collapse of the vaults of the abbey church (1781), with the ruin of the bell tower (1786) and with the ecclesiastical sentence of profanation (1789).

The abbey complex consists of the famous church "without roof" and a mighty building placed along the right arm of the transept. In this building there were the sacristy, the archives, the chapter house, the parlor and the scriptorium, and at the upper floor, the dormitory and the chapel. On the right side of the abbey church there was the cloister, completely disappeared.

The abbey was built with a Latin cross plan with three naves, for a length of 72 meters and a width of 21. The apse finishes with six single-lancet windows and a rose window that give to the whole architectural structure an extraordinary sense of lightness and elegance.

In 1503 the abbey was entrusted to a commendatory abbot, a choice that accelerated the decadence and ruin of the whole complex. The administration of the commendatory abbots turned out to be awful, so much so that one of them, in the middle of the century, had the lead cover removed from the roof of the church so that then the structures quickly deteriorated.

In 1577 restoration works were started, but they were useless interventions that did not succeed in minimizing the progressive degradation.

In the first half of the eighteenth century the complex collapsed into several parts and those still standing were intact still for a short time. In fact, in 1781 what was left of the vaults collapsed and in 1786, because a lightning, the bell tower collapsed; the main bell, made in the fourteenth century, was saved, but only a few years later it was sold as bronze.

In the following years the abbey was turned into a foundry, until in 1789 the church was definitely deconsecrated and abandoned. The rooms of the monastery instead became the seat of a farm and were partially restored as early as the first decades of the nineteenth century.

Towards the end of the nineteenth century there was a new interest to the monument.

In order to restore the building, in 1896 the Architect Antonio Canestrelli started the survey of architectural structures and the whole building was the center of a historical study supported by a photographic campaign carried out by the Fratelli Alinari of Florence.



St. Galgano abbey before the consolidation works, 1890 ca.  
Source: Alinari Archives, Firenze

Gino Chierici in 1924 for the restoration project of the Abbey of San Galgano, had guessed that the building had been reduced to ruin for too long and had well understood how that fragmentary image was historicized in the collective imagination contributing to increase the evocative power of those beautiful ruins. It was necessary to identify an intervention strategy that did not alter at the semantic level of what remained of the abbey.

Even before analyzing the relationship between the abbey and the natural context that had assimilated it, figuratively speaking, as a ruin, it focuses on its actual state of conservation and proceeds to a careful historical research that can clarify the causes of a so advanced deterioration. Precisely the satisfactory conservative state of the surviving structures pushed Chierici to a consolidation intervention that would not alter the figurative image of the ruin.

At this point, Chierici addresses the theme of the fragment, working on the ruin as a surplus and as a lack, analyzing the remains to clarify both the level of conservation and the expressive potential of these, to define the limits of possible integrations.

Chierici matured the decision to proceed with a conservative intervention of pure consolidation with some structural additions aimed at guaranteeing the static equilibrium of the building, disinteresting to the theme of re-use.

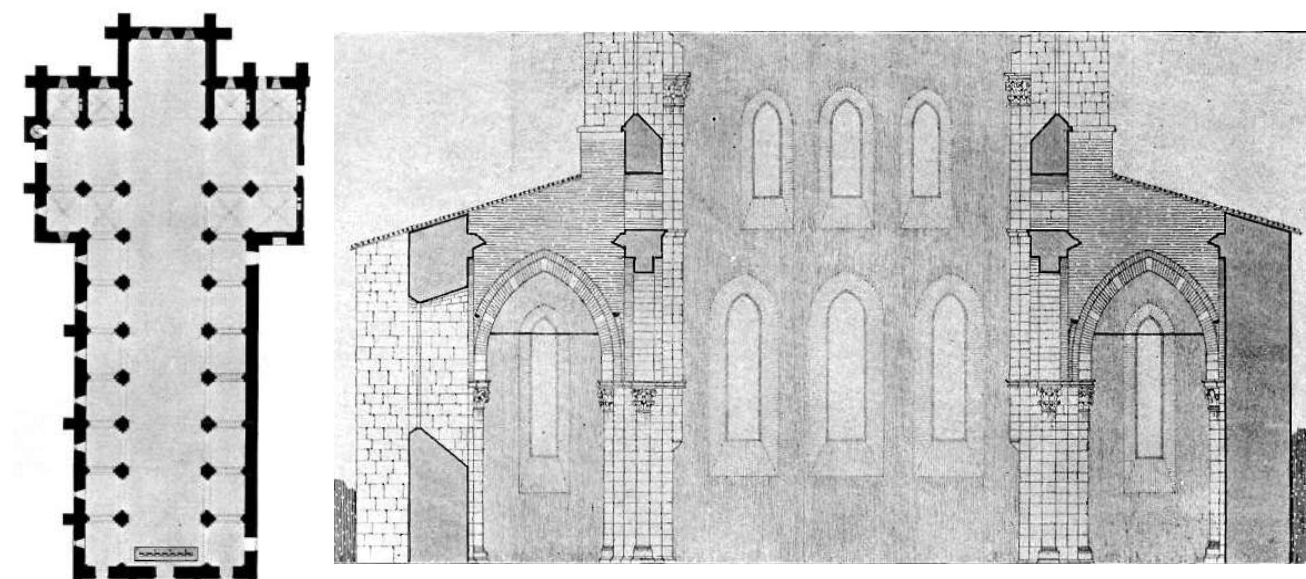
Chierici used the term "consolidation" and not "restoration" to define his project, probably to highlight the difference between its choices and what most of the technicians of the time would have expected from a restoration.

Chierici decided to demolish and rebuilt with the recovered materials the vault that covered the last bay of the left side aisle that, unlike the others, had been made of bricks; he partially consolidated and restored some architectural elements and had rebuilt the third last transverse arch of the left aisle near the transept.

Eliminated the danger of walls collapsing, Chierici consolidated all the masonry, demolishing and reconstructing the unsafe parts and repairing the lesions.

This intervention constitutes, in the Italian context, an important reference from the methodological point of view, especially today that the problem of the protection of archaeological evidence is becoming increasingly urgent.

The variegated archaeological heritage with which we must confront highlights the complexity of the protective interventions, and approaches such as that of Chierici for the Abbey of St. Galgano make us understand that protection can take various forms and multiple meanings.



Consolidation Project of St. Galgano Abbey by Gino Chierici

Source: G. Chierici, "Il consolidamento degli avanzi del tempio di San Galgano" in *Bollettino d'arte del Ministero della pubblica istruzione : notizie dei musei, delle gallerie e dei monumenti d'Italia* , Anno 4, ser.2, n. 3 (sett. 1924).



### 3.5.2 Conservation and restoration of the ruins with enhancement through by an on-site museum: Villa romana del Casale (Piazza Armerina - Enna, Sicily)

Author: SiTI - Higher Institute on Territorial Systems for Innovation

Listed in 1997 in the UNESCO World Heritage List, the Villa Romana del Casale is an example of a late-imperial Roman luxury villa whose use was intended for holidays or hunting. Dated between the end of the third century and the beginning of the fourth century, the site has a typology of a manor house (*pars dominica*) belonging to a large rural village (*mansio*), located in the district of Sofiana, five kilometers away from the villa.

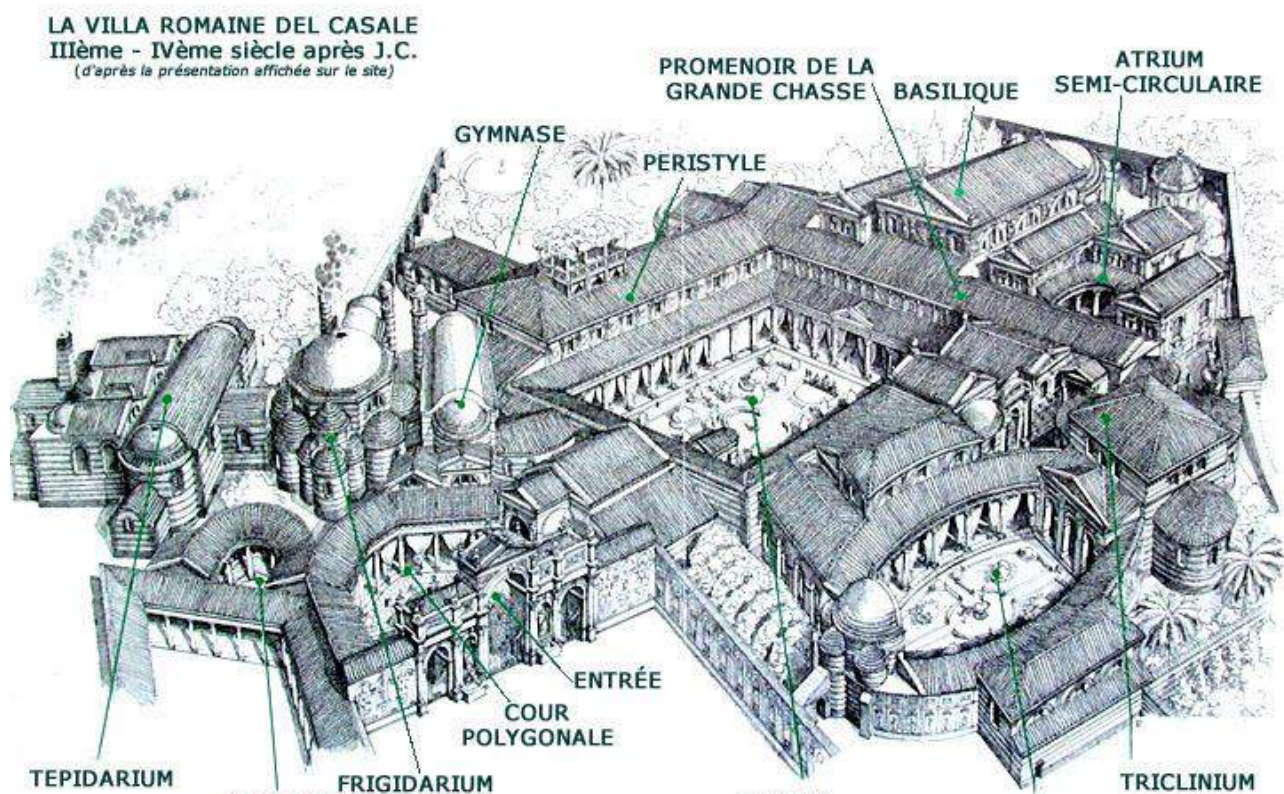


Fig. 6 Villa Romana del Casale

Source: [http://www.fiesicilia.it/e1sicilyfest/wp-content/uploads/sites/2/photo-gallery/imported\\_from\\_media\\_library//130-villa-romana-sicily-piazza-armerina.jpg](http://www.fiesicilia.it/e1sicilyfest/wp-content/uploads/sites/2/photo-gallery/imported_from_media_library//130-villa-romana-sicily-piazza-armerina.jpg)

The Villa has 48 rooms (about 3500 square meters of surface) and is famous for the richness and quality of its mosaics (4th century AD), which are recognized as among the most beautiful Roman mosaics *in situ* to date. These mosaics testify the habits of life of the ruling Roman class and shows the mutual influences between cultures and exchanges in the ancient Mediterranean - between the Roman world and the North African area - and allows to retrace the history of the greatest among the Empires, with scenes of daily life, depictions of heroes and deities, hunting scenes and games.

The Villa continued to be inhabited even in the Byzantine and early Middle Ages (V-VII century) and in the Arab-Norman period (X-XII century) it was still frequented as an emporium and agricultural center.

Between the 14th and 15th centuries, after the devastation of previous centuries, a new agricultural center called the Casale was established, from which the current name of the archaeological area comes from.



Villa Romana del Casale, aerial view,  
intervention by Arch. Minissi.

Following subsequent damage and flooding, and the consequent landslides that covered many areas of the complex, the ancient Roman settlement was permanently abandoned.

The first excavation campaigns began in 1881, and then resumed from 1935 to 1939; In the 1950s the entire complex was brought to light.

The intervention of the coverage of the large triabsidata hall (*Triclinium*) designed by the architect Piero Gazzola dates back to 1941.

In 1958, following a competition, the architect Minissi was in charge with the task of conserving and enhancing the Villa .

Minissi designed a roofing system that manages to reconcile the need to protect the archaeological ruins *in situ* with respect and maintenance of the atmosphere created by the ruins themselves.

The project, due to the transparency and lightness of the materials used, leaves the system of the villa recognizable, with the ancient traces of the walls and the mosaics of the floors visible and creates an

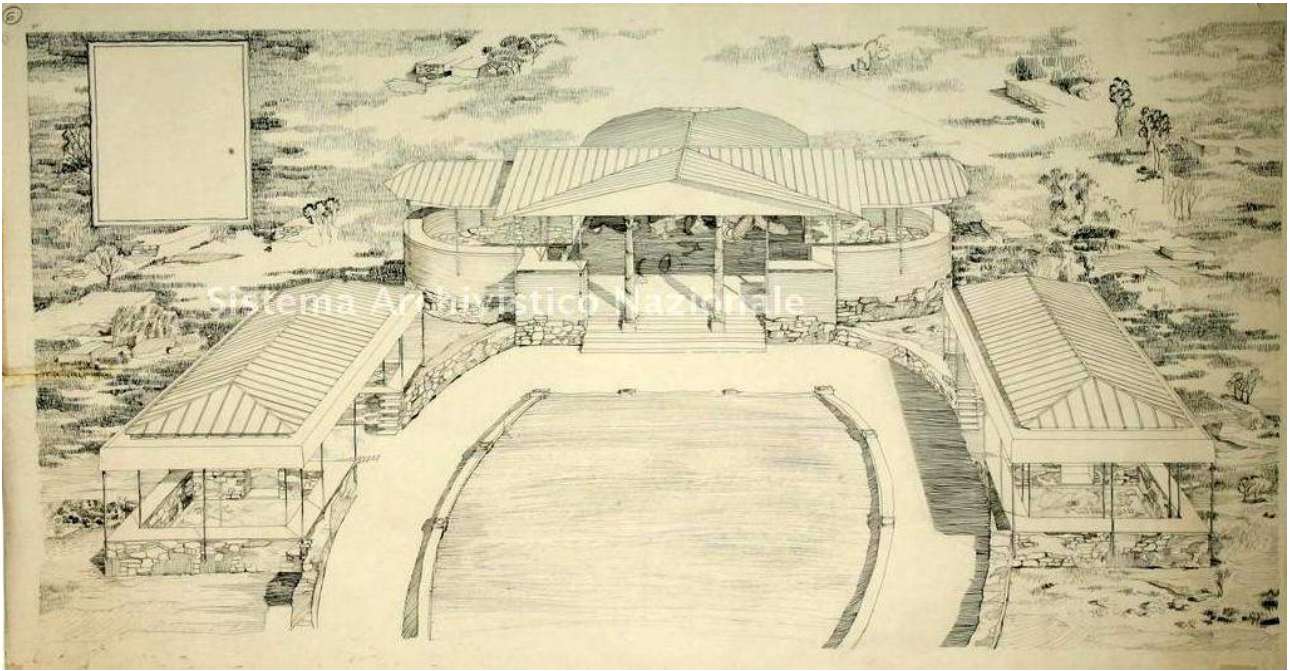
immaterial space illuminated by a diffused, indirect natural light.

The architect does not realize a single roof over the whole *domus*, but more roofs, each with modern materials and technologies and proposes for each the form that could have originally had. Through this solution Minissi manages to reconstruct, ideally, the original volume of the Villa. Thin steel upright pillars, resting on the traces of the walls, support the roof. The volumes, the roofing layers and the walls are made of transparent plastic material (*perspex*), innovative for the times.

In contrast to the practice in use in those years, the construction of suspended metal walkways on top of the ancient perimeter walls of the various environments, create a raised path that allows you to read the mosaics from above, without trampling them and organizes the entire tour route.

The coverage of the Villa del Casale is part of the history of contemporary archaeological museography for the refusal of any attempt to camouflage or reproduce false stylistic, for the minimalism, the choice of materials and non-aulic forms, for the transparency and lightness of the innovative materials and advanced technologies used and finally for the constant attention between the need for *in situ* conservation of archaeological finds and the changed needs of a wider use by the public.





Villa Romana del Casale, Project by Arch. Minissi.

Source: SAN – Sistema Archivistico Nazionale. Archivio degli Architetti

The solution designed by Minissi has always been much appreciated by contemporary critics. In the decades following its realization, the work of Minissi was distorted by the lack of maintenance, by repeated vandalism, by fire attempts, by the 1991 flood, by the deliberate destruction of the false ceilings and by the replacement, with whole glass sheets, of the side shutters, impeding the air circulation, made possible by the pre-existing shutters.

In 2004, the Sicilian Region appointed Vittorio Sgarbi high commissioner for the restoration of the Villa, who commissioned the architects Lucio Trizzino and Mario Bellini to replace the current roofing. The architects designed a huge dome of 160 meters in diameter, 40 meters high, in steel and glass, a very opposed solution, and in fact unattainable, so that, in the same year, Sgarbi appointed the architect Guido Canali who re-proposes the coverage designed by Minissi, realizing it with a modular construction system, covered with plastered aluminum panels.

Even this hypothesis was rejected and a competition is then launched that leads, in 2006, to the approval of the project of Arch. Guido Meli (Director of the Archaeological Park), by the Regional Public Works Department.

The project, drafted by the Regional Center for Design and Restoration, directed by Meli himself, proposes the reconstruction of the walls of the entire villa with plasterboard perimeter panels, plastered in earthenware pesto, and a wooden roof, protected by a copper mantle.



Villa Romana del Casale in the years: 1954, 1962 and 90's.

Source: Alinari Archives, Firenze



In 2007, because the coverage of Minissi was completely deteriorated due to lack of maintenance and improper interventions, it was decided to eliminate the old roofs and museum layout, considered by Sgarbi not only not more efficient but also, dated, inadequate and incapable of evoking the original volume of the Villa.

In spite it has been insistently asked not to demolish the work of Minissi, the new intervention of architect Meli was realized canceling the solutions proposed by Minissi and canceled the previous lightness with a more invasive intervention and illuminating the mosaics with only artificial lights.



Villa Romana del Casale – former intervention by Minissi  
Source: FIE - Comitato Regionale Sicilia Federazione Italiana Escursionismo



Villa Romana del Casale – new intervention by Guido Meli  
Source: FIE - Comitato Regionale Sicilia Federazione Italiana Escursionismo

### 3.5.3 Reintegration of the image with contemporary design

Author: SITl - Higher Institute on Territorial Systems for Innovation

Interventions on the ruins act on the boundary line, not adequately defined and underlined, between archaeological and architectural restoration.

In this conceptual uncertainty, which inevitably reflects on the operational and methodological aspect, the ruin cannot be understood as a pure archaeological object, because it is a "constructed" that, in its development, has undergone a long phase of abandonment, visible and perceptible above all on the elements and on the most exposed parts.

The interventions on the ruin oscillate from conservation to reintegration, until the reconstruction, also considered acceptable and suitable only if based on the contemporary design that, from the knowledge of the ancient, draws a creative and modern form and image of the architectural work. It is necessary to preserve the historical heritage, but the intervention can not foresee a renewal of the degraded and ruined work through a reconstruction of its original form and image, because this would lead to the creation of a "false", that is a work without of value and meanings, which deceives the observer, depriving the work of its historical dimension.

*Reconstruction has always been one of the most controversial issues for those with an interest in the material evidence of the past. Nevertheless, there are no textbook rules about this issue and each case is deemed to be different and must be judged on its merits.*

Concepts, such as "compatibility"<sup>17</sup>, "reversibility"<sup>18</sup> (or, better "re-treatability") and "minimum intervention", are at the heart of Charters.

In international legislation and guidelines is strongly discouraged the reconstruction of incomplete ruined buildings. At the highest level of international consensus, the obligations of UNESCO's World Heritage Convention (1972) are legally binding on the states party to it. The Operational Guidelines for the Implementation of the World Heritage Convention address the question of reconstruction of buildings as follows:

«In relation to authenticity, the reconstruction of archaeological remains or historic buildings or districts is justifiable only in exceptional circumstances. Reconstruction is acceptable only on the basis of complete and detailed documentation and to no extent on conjecture».

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<sup>17</sup> When we refer to the concept of "compatibility" we should consider it in its several aspects: compatibility of materials used in restoration works, compatibility of conservation approaches, compatibility of (re)use.

The materials used during the restoration works must be compatible with the existing ones. They must not cause physical and chemical reactions that could cause further damages to the monument. In addition, the choices of the conservation works should be compatible with the object that has to be restored. Lastly, the (re)use of the monument must be compatible with its natural vocation to be reused.

<sup>18</sup> Reversibility is only a theoretical abstraction. Is said reversible a cyclic process in which both the system and the surrounding environment return to their equilibrium state existing at the beginning of the process. The reversibility of a restoration work can be traced in the prohibition of all those operations which in some way can irreversibly alter the aesthetic configuration (as completions in style or removals and demolitions that erase the passage of the monument through time, or the alteration or removal of patinas of time).

Several Charters about conservation have addressed the question of reconstruction of sites on the basis of their archaeological remains.

For example, the influential Charter of Venice (1964) states:

Article 15. «Ruins must be maintained and measures necessary for the permanent conservation and protection of architectural features and of objects discovered must be taken. Furthermore, every means must be taken to facilitate the understanding of the monument and to reveal it without ever distorting its meaning. All reconstruction work should however be ruled out "a priori". Only anastylosis, that is to say, the reassembling of existing but dismembered parts can be permitted. The material used for integration should always be recognizable and its use should be the least that will ensure the conservation of a monument and the reinstatement of its form».

Article 9 «(...) any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp. The restoration in any case must be preceded and followed by an archaeological and historical study of the monument».

Article 12 «Replacements of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original so that restoration does not falsify the artistic or historic evidence».

The considerations about reconstruction expressed in the above mentioned convention and charter are echoed in many subsequent documents.

One above all, the revised version (1999) of the Burra Charter of Australia ICOMOS that states with regard to the reconstruction:

Article 1.8. «Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of new material into the fabric».

20.1. «Reconstruction is appropriate only where a place is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the fabric. In rare cases, reconstruction may also be appropriate as part of a use or practice that retains the cultural significance of the place».

20.2. «Reconstruction should be identifiable on close inspection or through additional interpretation».

About the reasons that can justify the reconstruction, as stated in the 2000 Krakow Charter:

«(...) The reconstruction of entire parts in "style" should be avoided. (...) The reconstruction of an entire building that was destroyed by war or natural events, is permissible only under exceptional reasons of social or cultural identity related to an entire community».



Before presenting some cases-study to look at as reference, is interesting to report the principles for site reconstruction formulated by Nicholas Stanley-Price, member of the Archaeological

1. A reconstructed building – if based primarily on excavated evidence – must be considered a new building (reconstruction as a creative act);
2. Reconstruction of one or more buildings is to be considered only if the values (including the landscape value) of a site will be better appreciated than if the buildings are left in a ruined state (the ruin as a source of inspiration or as a memorial);
3. The surviving evidence for the former building must be fully documented in such a way that this record is always available in the future (a scientific and ethical obligation to record for posterity);
4. The surviving evidence for the former building, or for different historical phases of it, must not be destroyed or made inaccessible by the very act of reconstructing it (a scientific obligation to allow (built) hypotheses to be verified or rejected);
5. The evidence – its strengths and its limitations – for the reconstructed form must be interpreted clearly to all visitors (an ethical obligation not to mislead or misinform the public);
6. Buildings that have been wrongly reconstructed in the past could, on a case by-case basis, be preserved as they are (reconstructions as part of the history of ideas).

Institute of America's Site Preservation Committee, who states:

Utility of ruined sites must be considered before starting any restoration/enhancement works. If not, the risk is that the reuse project is useless for community.

Conservation approaches and choices must be part of the communication programme in order to improve the knowledge of the site and increase community awareness, who is the final user of the ruined site. Investigating the perception of ruined site by community can guide the restoration projects and the reuse that must consider into account needs and expectations of the citizens.

Ruined sites are strongly linked to their socio-cultural context and represent the identity and the memory of a place. New design projects have to consider the values of the sites and dialogate with the ancient remains respecting the principles of authenticity, compatibility, reversibility, recognizability and minimum intervention.

Knowledge and communication of historical ruins are fundamental steps that help to reconnect them to the community.

Recognizing the value and importance of ruined sites help us to think about a socially sustainable reuse, that must be the guide of any restoration work on ruins.

The goal to be pursued necessarily must be that of attributing a correct meaning to the ruin, in a logic of conservation and respect of the monument to be enhanced, through transformations compatible with the authenticity of the ruined work, avoiding deformations and alterations of visual and formal perception of the ruin.

### 3.5.3.1 Cases-study of reintegration projects: materials/new volumes

Author: SITI - Higher Institute on Territorial Systems for Innovation

In the presence of historical evidences (architecture) or archaeological sites (urban traces) the methods of protection, conservation, exhibition, can be of various types and are conditioned, first of all, by theoretical and design issues that involve the way of understanding the relationship between architecture and archeology.

The types of intervention are determined by the choices addressed to the achievement of the best synthesis between the purposes of protection and those of enhancement and use of archaeological heritage.

Not always the old-new relationship is understood in a conflictual way, and ruin is understood as the basis of the project, evocation of antiquity on which new architectures are grafted.

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#### TWO HOUSES IN OROPESA

<b>Location</b>	Calle Iglesia 1 – 3, Oropesa. Toledo, Spain.
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<b>Work</b>	Residential Building
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<b>Architect</b>	Ángela García de Paredes & Ignacio G. Pedrosa	<b>Realisation</b>	2011 - 2015
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<b>Description</b>	Two houses with 13th century town walls.
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Oropesa is known for its castle, built in 1402 as the residence for a noble family from Toledo, who undertook the construction of an unfinished aerial connection between the castle and the “Nuestra Señora de la Asunción” church. The structure is supported by arches and walls that cut across the city, and in which these houses are embedded.

Medieval architecture is part Oropesa’s heritage and the Two Houses sit in the twin shadows of the town’s 15th century castle and "Nuestra Señora de la Asunción" Church.

The challenge presented to Paredes Pedrosa Architects was to update these spaces without compromising on the Two Houses’ past. Not an easy task, given the fact that walls date back to the 13th Century are part and parcel of the overall structure.

The houses were small, with many divisions, and in ruins. They had two shared courtyards behind one of the facades, with wide brick arches crossing them.

The project opens a long, narrow courtyard/crack, which defines two asymmetrical houses on either side, built for two siblings. The roofs were dismantled and rebuilt a meter higher, reusing the clay roof tiles.

The two structures are linked together by the two powerful brick arches, which are protected as historical monuments.

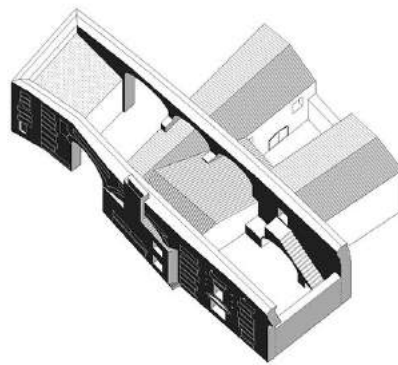
Due to heritage protections, the overall façade could not be altered, but the two patios have been merged into one unit, open on one side with the church’s picturesque church tower acting as a backdrop.

Paredes Pedrosa Architects have completed a highly successful restoration of a previously overlooked space.

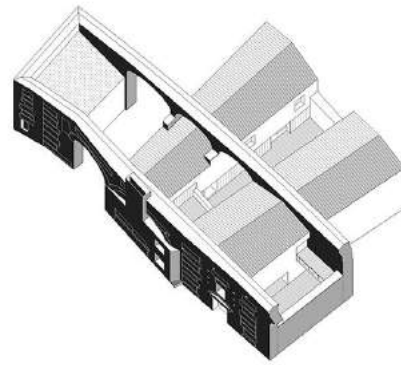
**Awards:** Fritz Höger Preis Special Mention 2017  
ASCER Spain Tile Award of Architecture  
Selected for the Spanish Pavilion awarded with a Golden Lion at the Biennale di Architettura 2016  
Hispalyt Arquitectura Cerámica Award 2015

Images



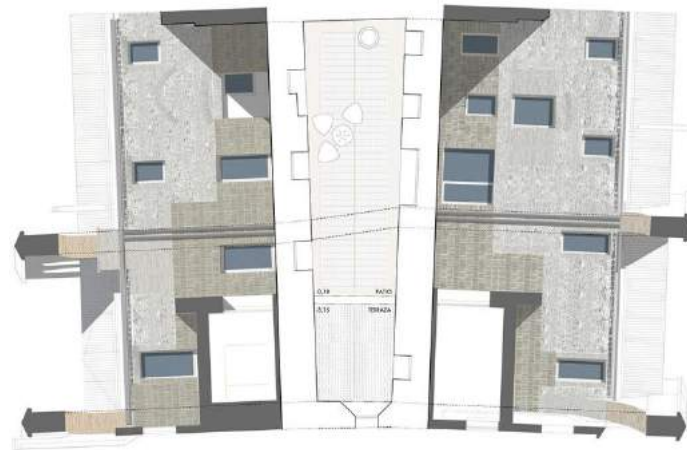
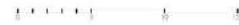


ESTADO ORIGINAL



INTERVENCIÓN

AXONOMETRICA



PATIO. ALZADOS DESPLEGADOS



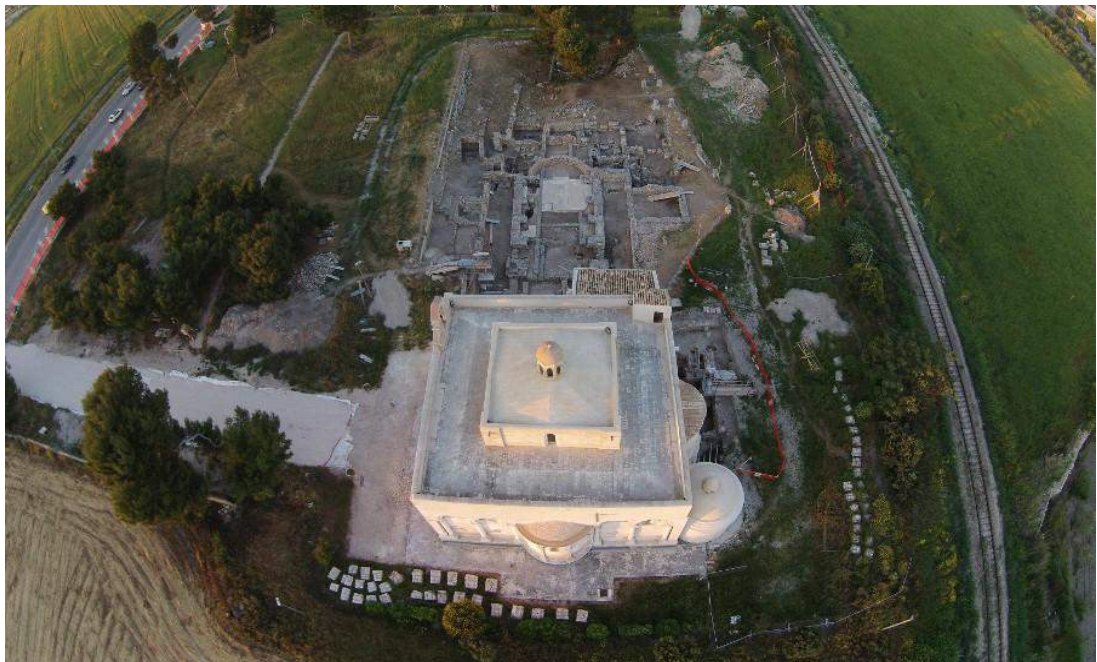


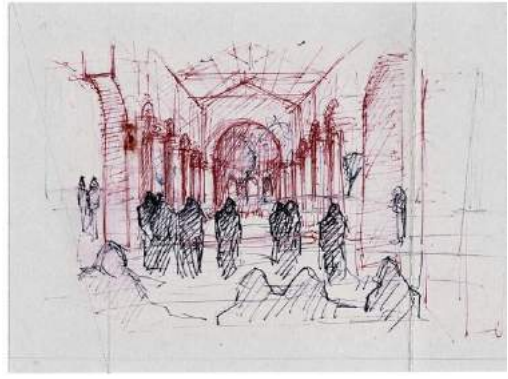
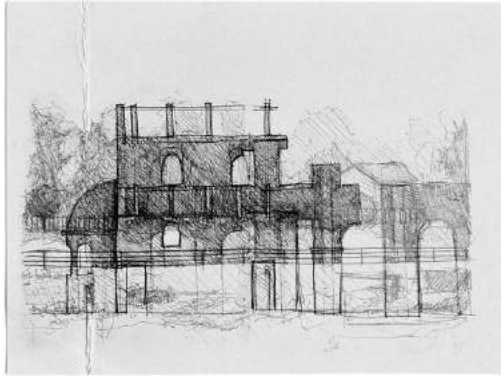
**BASILICA DI SANTA MARIA MAGGIORE DI SIPONTO****Location** viale Giuseppe Di Vittorio, Manfredonia. Puglia, Italy.**Work** Archeological Park**Designer** Edoardo Tresoldi**Realisation** 2016**Description** Permanent installation Commissioned by Ministry of Cultural Heritage and Activities.

The intervention realized in the Archaeological Park of Siponto reinterprets the volumes of the ancient Early Christian basilica located close to the existing Romanesque church, which was erected 600 years later. Promoted by the MIBACT Regional Secretariat and the Archaeological Superintendency of Apulia, the project is linked to a conservative intervention.

The majestic wire mesh transparent sculpture presents itself as a contemporary artefact perfectly integrated with the surroundings, and establishes a new dialogue between ancient and contemporary, opening up new scenarios for preservation and enhancement of the historical and archaeological heritage. Detached by strong visual and volumetric decompositions and cherished by the atmospheric factors, the installation outlines as a bridge towards the memory of the place and allows the public to relate with time and history.

The visual power is based on the essential necessity to coincide art, landscape, history and surrounding environment, and configures itself as an artistic development of the classical concept of restoration, an innovative reinterpretation of archaeology realized with the support of contemporary art.

**Awards:** Medaglia d'Oro all'Architettura Italiana 2018 – Premio Speciale alla Committenza.**Images**







**References** <https://www.edoardotresoldi.com/works/basilica-di-siponto/>  
<http://www.musei.puglia.beniculturali.it/musei?mid=738&nome=parco-archeologico-di-siponto>

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**ABBAY CASTLE OF ST. AMBROGIO DI TORINO**

**Location** Sant'Ambrogio di Torino. Piedmont, Italy.

**Work** Touristic Accomodation (Youth Hostel)

<b>Architect</b>	L. Musso, M. Ruffino, C. Vinardi, G. Vinardi, M. G. Vinardi, L. Re, B. Vinardi, F. Di Carlo, M. Fantone, G. Dell'Aquila (LSB architetti associati), G. L. Forestiero (Studioata), M.I Ramello, M. Paris;	<b>Realisation</b>	2006
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**Description** Restoration and reuse ruined castle for low-cost accommodation end use.

Through successive lots of intervention, the project led to the restoration and consolidation of the remains of the abbey castle of Sant'Ambrogio di Torino ( sec. XI and next).

Within the perimeter of the restored walls, a new tourist-hotel structure was created, clearly identifiable by materials and construction technology from the restored historical remains.

The project also saw the revival of the high-level patrol route, starting point of the ascent to the Sacra di San Michele, through the mule track and the Via Crucis.

During the restoration works, important archaeological excavation operations were carried out, which led to the rediscovery of the remains of the corner tower, which can be traced back to the end of the XI century - the period when the abbatial castle was first installed - and the rediscovery of the original perimeter of the Castle.

**Awards:** Architetture Rivelate 2008

**Images**







## RESTORATION OF THE FORMER CHURCH OF S. ANTONIO AND THE GARDENS OF THE CLARISSE CONVENT IN SANTA FIORA

**Location** Santa Fiora, Grosseto. Tuscany, Italy

**Work** Archeological Park

**Architect** 2T\_R architettura

**Realisation**

2009

**Description** Restoration and enhancement of ruined church

The complex of the former church of S. Antonio and of the adjacent gardens of the convent of the Clarisse constitute the extreme offshoot of the inhabited center towards the Fiora valley.

The places were in time forgotten and abandoned and, beyond the wall of the church, the area was characterized by major collapses of masonry, layers of rubble and decay.

The restoration and the new exhibition have allowed to recover the walls, return the gardens to the public, reopen the vaulted systems at the base of the imposing walls, create new paved areas, a bar, spaces for children's play and two small arenas for shows and music.

An articulated set of smooth concrete floors that is simultaneously paving, elevation, roofing, accompanies the visitor from the square to the gardens.

**Awards:** Piranesi Prix de Rome 2011

### Images









**References** <https://divisare.com/projects/155235-2tr-architettura-restauro-della-ex-chiesa-s-antonio-e-degli-orti-del-convento-delle-clarisse-a-santa-fiora>



**TEMPIO DUOMO RIONE TERRA****Location** Pozzuoli, Napoli. Campania, Italy.**Work** Church**Architect** Marco Dezzi Bardeschi**Realisation**

2003 - 2009

**Description** International architecture competition for the restoration of Pozzuoli Cathedral

The site is composed of a Roman temple on whose perimeter, with subsequent adaptations and transformations, the Baroque Cathedral was built.

The temple, in white marble, was a pseudoperiptera plant with nine Corinthian columns on the long sides and six on the short ones, with a square cell also in marble.

From the end of the 5th century the ancient Temple was adapted to a Christian church, dedicated to St. Procolo, and it remained visible under the new structures until 1632, when the new arrangement of the cathedral hid the ancient structure under Baroque decorations and stuccos leaving visible only some Corinthian capitals above the secondary door of the building and a few fragments of the epistilio.

In 1964 a violent fire destroying the roof, the nave and much of the seventeenth-century decoration brought to light the structure of the ancient Temple of Augustus once again.

The restoration works begun in 1964 and continued until 1972, were entrusted to the architect Ezio de Felice, who privileged the archaeological parts to the detriment of the Baroque construction. The interventions included the consolidation of the temple with the introduction of iron elements and with the construction of a reinforced concrete slab on micropiles; for the temporary protection of the Temple was then built a metal roof. The works were then interrupted abruptly due to lack of funds.

The International Design Competition for Restoration of the Tempio Duomo Rione Terra in Pozzuoli, announced by the Campania Region, set some criteria to be followed: (i) Adherence to the principles of restoration; (ii) Respect of the archaeological and Renaissance / Baroque pre-existence; (iii) distinguishability of contemporary interventions and integrations; (iv) Attention to the sense of place; (v) Re-functionalization of the Cathedral;

The project of restoration of the monument should had to maintain the functions (archaeological/place of worship) and enhance the historical-artistic and landscape setting in which it is inserted.

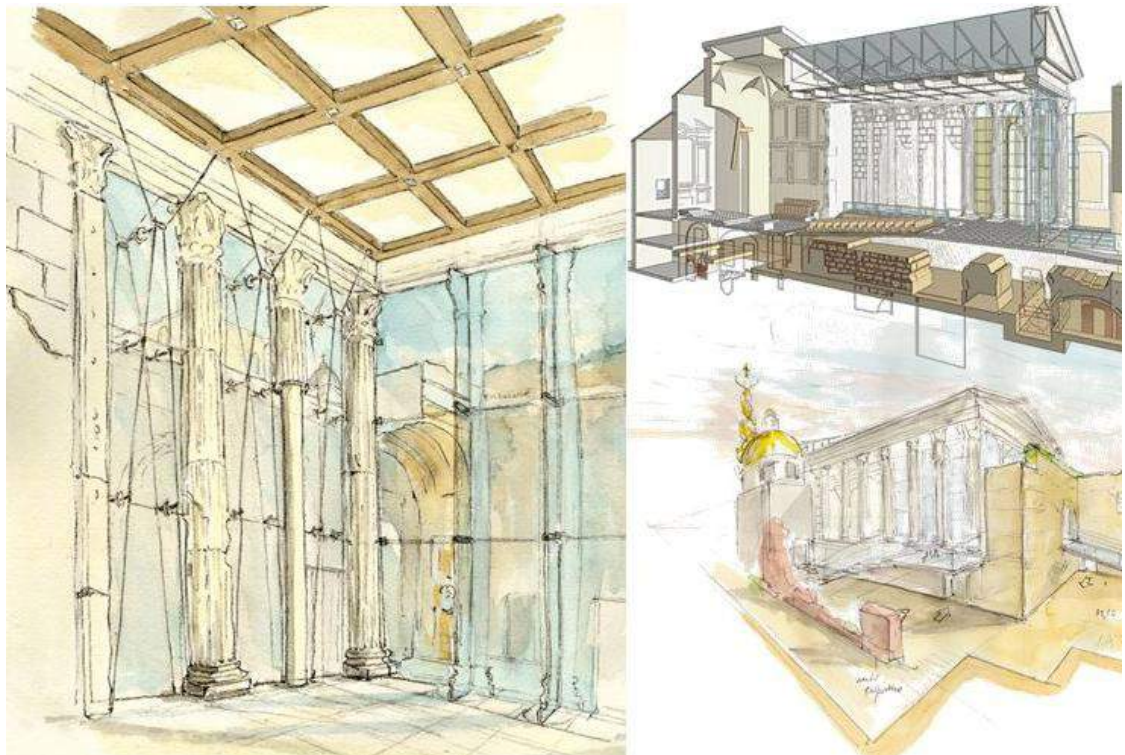
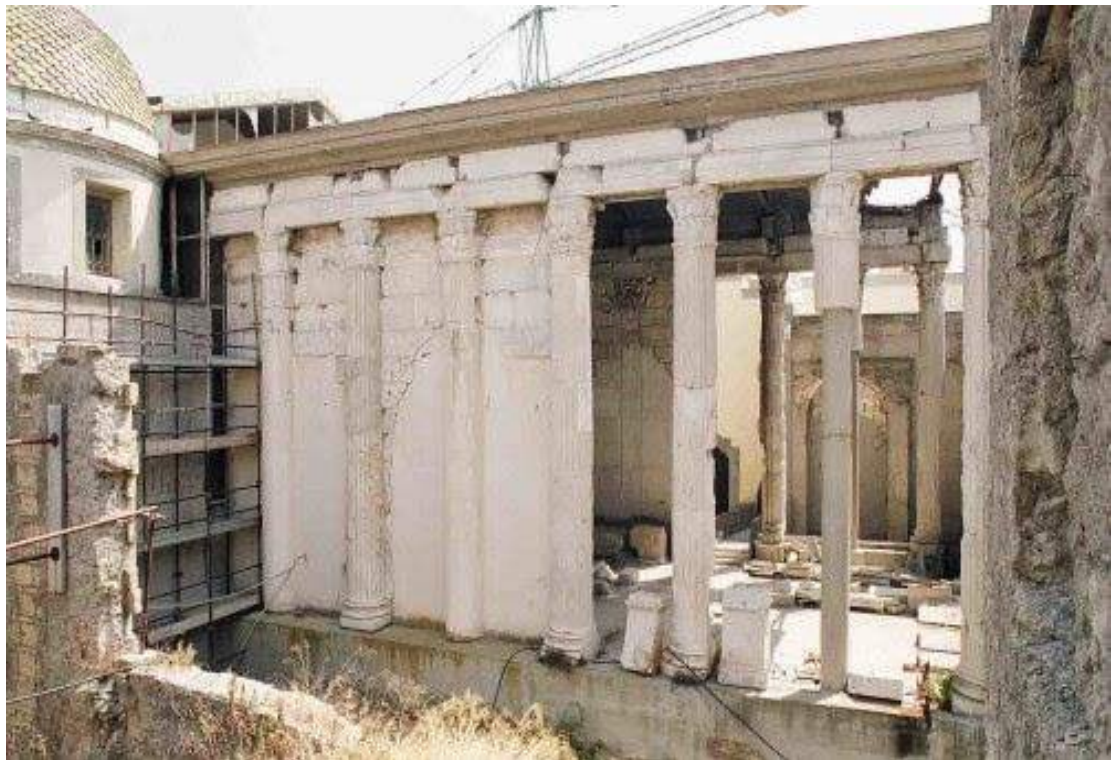
The result is a site-museum that combines the archaeological protective function with a liturgical reuse function. The group of designers has set as its goal the achievement of a unified vision, both inside and outside, of the two moments of the construction of the monument, the phase of ancient Roman Temple and that of Christian Cathedral.

The planning difficulty lay in making the complex stratification of the building comprehensible. The intervention is based on an accurate conservation project aimed at ensuring the maintenance of the largest possible number of existing elements.

The project guarantees the best enhancement of the site through a dual function, the renewed liturgical use of the strictly religious space, and the cultural use of accompanying to an archaeological visit and a better collective enjoyment.

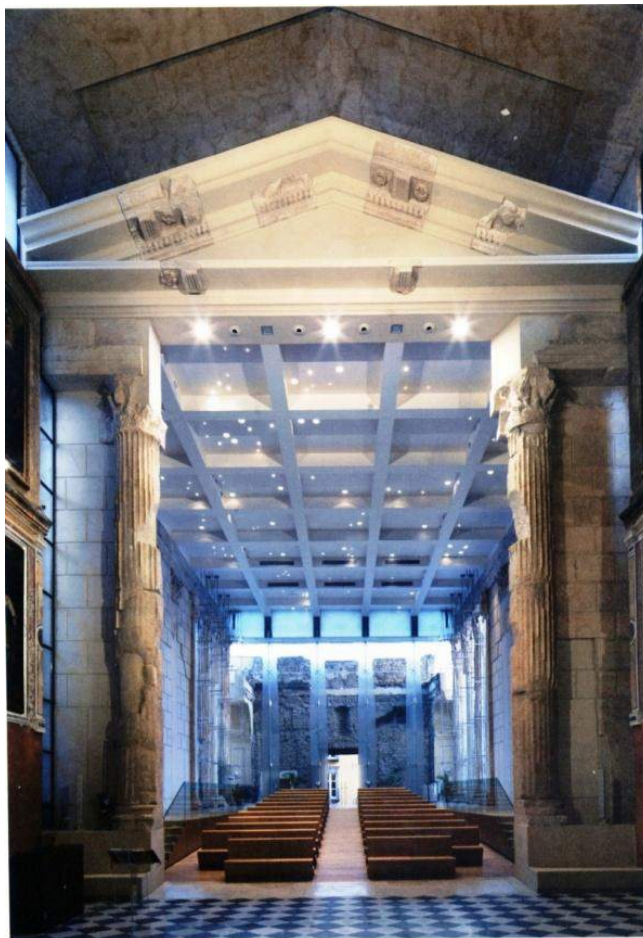
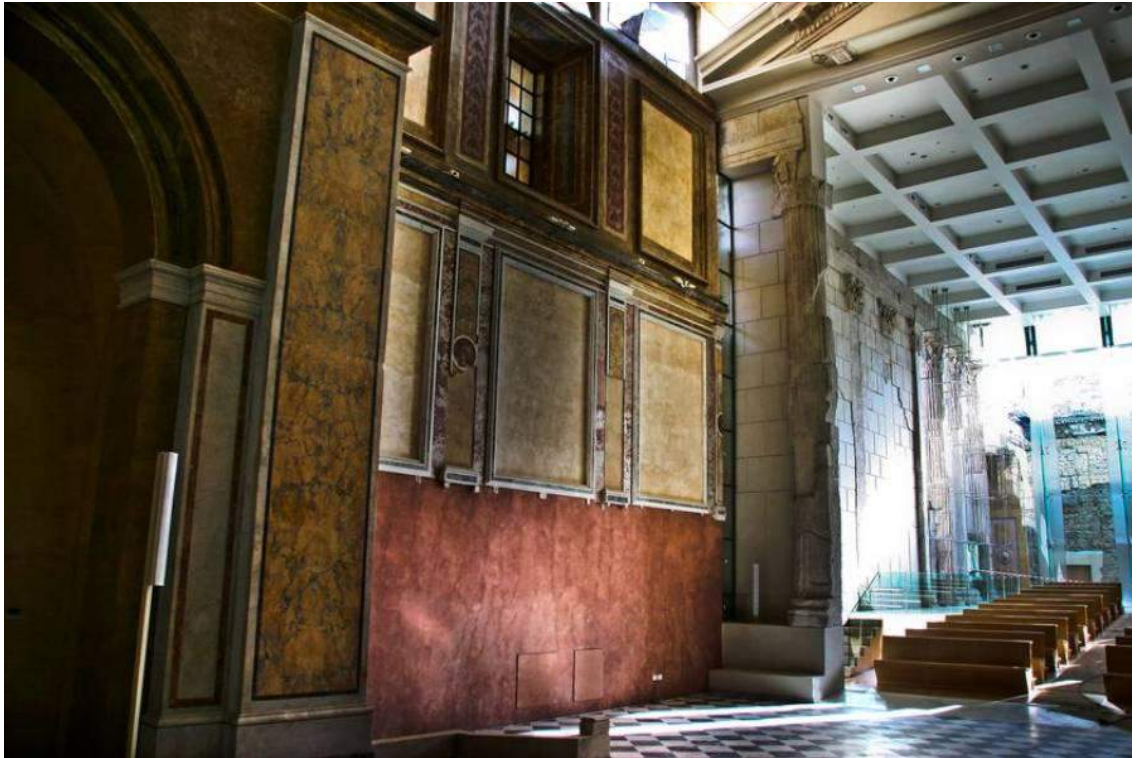
**Awards:** Premio Nazionale di Architettura IN/ARCH-ANCE 2011

**Images**









References [http://www.marcodezzibardeschi.com/Progetti/incorso/Tempio\\_Duomo.html](http://www.marcodezzibardeschi.com/Progetti/incorso/Tempio_Duomo.html)

### 3.5.3.2 Technological adaptation and plant design

Author: SITI - Higher Institute on Territorial Systems for Innovation

The life, functionality and usability of an architectural complex of any kind is strictly linked to its physical conservation: a building that does not perform any specific function can be at most an archaeological find to be observed or studied, but it cannot represent the container of social and human activities.

It must be considered that a building is designed and built according to the parameters of its time (living comfort required at the time, known technologies, use required to the building) and all its features are an imprinting of the architectural structure: they must always be taken in consideration and, if possible, preserved even if the building is subjected to radical changes and transformations over time.

The approach to the problem of the insertion of technological systems inside a historic building is very complex because there is no work scheme that allows us to systematically solve different needs which often appear to be conflicting and irreconcilable as:

1. Respect for the architectural protective restrictions of the building;
2. The restoration of parts of the plant or of terminal components, originating or pre-existing to the restoration intervention (in particular of the lighting fixtures, the radiators, the sanitary fixtures that can be, even if vintage, valuable and efficient);
3. Compliance with the law in terms of safety, accident prevention, energy saving, accessibility by disabled persons, etc .;
4. The adoption of appropriate plant system solutions, such as to allow updated technologies adapted to the new functions envisaged for the building.

The architectural restoration cannot therefore be considered a mere operation of consolidation and recovery of a building complex, but must also be considered as the intervention of restitution of a building to a social function and to a user, after a careful "reading" of its typological, functional and historical characteristics.

It is therefore necessary to study and foresee with the same effectiveness the protection of a historic building and its "re-use", intended as use of a building for needs different that for which it was originally built.

This important concept includes the complex problem of the selection and design of technological plant systems.

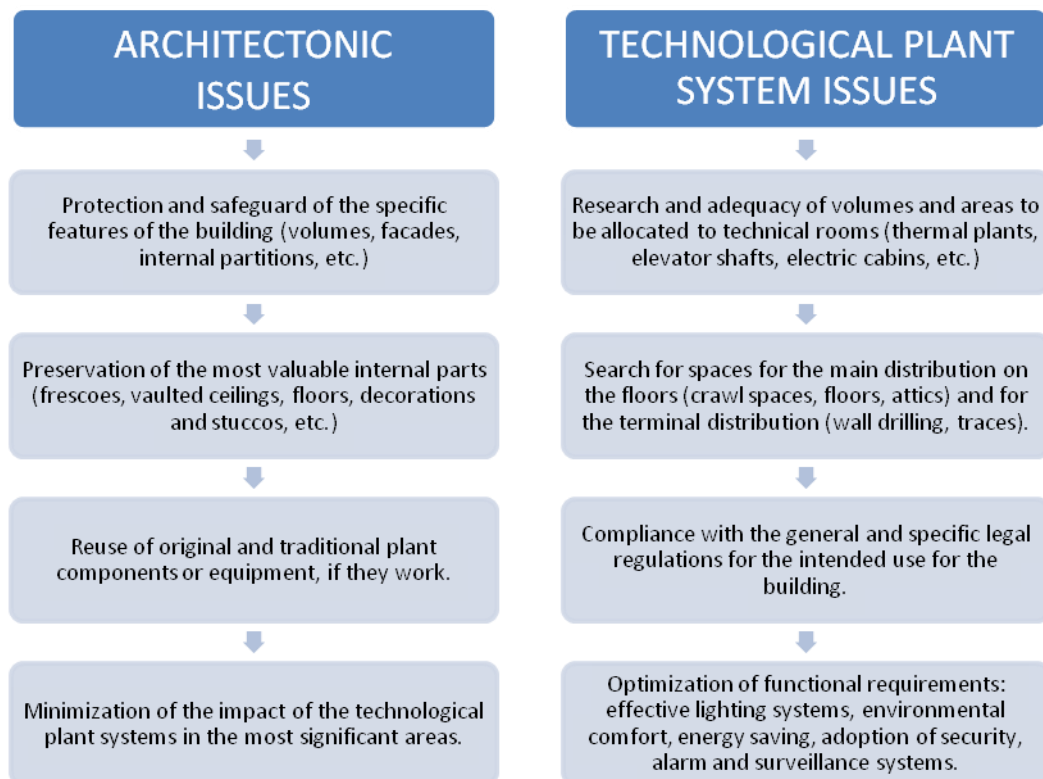
Therefore, if the modality of the intervention is not carefully studied and adapted to the specificity of the building and the type of reuse foreseen, it may happen that the project choices are not balanced or unbalanced towards one of the two following positions:

- I. an approach aimed prevalently to the conservation of the building, to which the plant technological systems are applied in a disorganized manner;
- II. a hyper-technological approach that leads to an unacceptable impact of plant engineering on the historical and artistic peculiarities of the building.



The project of a building restoration has therefore be considered as an interdisciplinary activity of architecture, structural engineering as well as plant engineering, such that, starting from a careful examination of the pre-existing conditions, and analyzing the possible technologically adoptable solutions achieved a result of effective integration and compatibility between the protection of history and the importance of the building and the efficiency required by the most up-to-date plant technologies.

### Compatibility of a Restoration Work



The problems and the consequent design choices for a plant renovation work within a general restoration intervention, therefore, involve different areas of the building and articulated technological plant systems.

For each of them it is necessary to find the optimal solution that allows an acceptable compatibility between the architectural-conservative needs and the technological-functional needs: a perfectly restored building complex but not usable at best would result in a useless heirloom; a building with advanced technological features, but distorted from the historical-artistic point of view, represents an offense to its intrinsic value and a wound to the common heritage of art and history.

The regulatory body of a technical type for a plant design within a general restoration project is very complex and it is the result of the overlap of the following families of regulations:

- the general ones, valid for all technological systems, to be implemented both on new buildings and on pre-existing buildings;
- those relating to buildings that are used for particular uses (museums, schools, hospitals, public entertainment venues etc.) or for premises dedicated to specific activities;
- those relating to the protection of artistic assets and adaptability of installations in buildings of historical interest.



The plant system configuration in a building is complex and articulated by the coexistence of numerous subsystems, each of which performs the function of providing users with specific equipment and comfort.

The plant systems can be divided into two large families:

- A. Mechanical: all those that have prevalent relevance with moving engines and machinery; they are generally connected to the air-conditioning heating systems, the sanitary and fire-fighting systems, the lifting systems;
- B. Electrical: all those which mainly concern the operation of electricity, such as the light system, the power sockets, the power supply to various consumptions (the so-called "motive force").

By analogy of an installation nature, to the "Electrical" family are associated with the signaling systems which are in turn subdivided into:

- I. communication systems (telephone system, computer transmission, sound system, television, intercom, etc.);
- II. security systems (presence detection systems or dangerous events detection, alarm systems, burglar alarm systems, CCTV control, automatic access control, lightning protection, grounding, etc.).

It is also possible to bring the structural configuration of the installations, both mechanical and electrical, to common plant complex, such as:

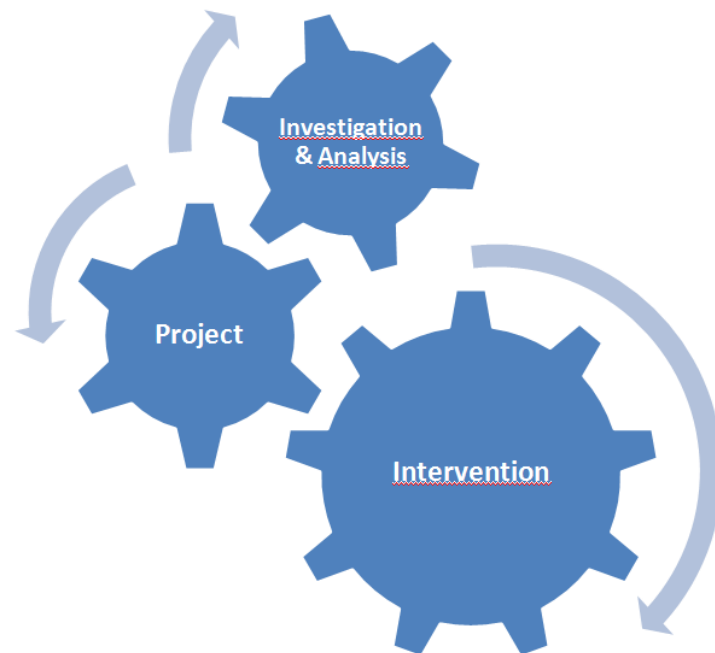
- i. the plant, that is the part of the system which, transforming the energy received from the outside, produces and spreads the element to the whole system; this element can be water (hot or cold), air, electricity, signal etc .;
- ii. the distribution grid, whether it is fluid, electrical or IT, which transmits the plant element, produced by the power plant, along well-defined physical paths (pipes, pipes, pipelines);
- iii. the terminals, ie the equipment that receives the plant element and allow it to be used by users (the radiator, the lighting device, the power outlet, the domestic appliance, etc.).

It is therefore evident that the insertion of the new intended use and the consequent system adaptation is one of the key points of the whole project.

It will be necessary to make the needs of new users consistent with the historical-architectural characteristics: the more complex these are, the more the intervention requires updated technologies and application choices.

The intervention must include only the minimum and indispensable actions in order to make the structure functional, paying attention to the safeguarding of the material and architectural integrity of the structure itself.

## Introduction or adjustment of plant systems



Investigation & Analysis	Project & Intervention
Historical and documentary research on the building and on the environmental context of reference.	Effectiveness and coherence of the intervention with respect to the identified requirements.
Survey and graphic reproductions.	Compliance with the relevant regulations.
Identification of any valuable surfaces.	Functionality of the solutions.
Diagnostics (static, energy-environmental).	Respect for the authentic building material.
Identification of the energy and environmental requirements to be striven for the new intended use.	Compatibility of the intervention.

Once the preliminary analysis part above has been acquired, the design of the plant system must be commensurate with the same coordinates as the restoration intervention: minimum intervention, compatibility and reversibility.

## TRANSNATIONAL MODEL FORM OF SOCIALLY USEFUL USE OF MEDIEVAL RUINS

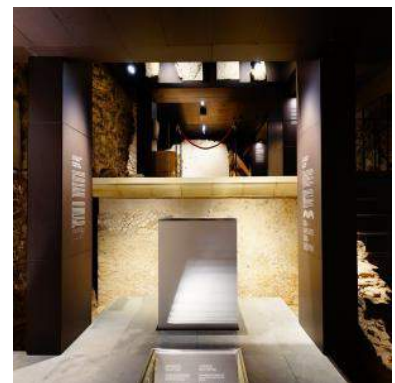
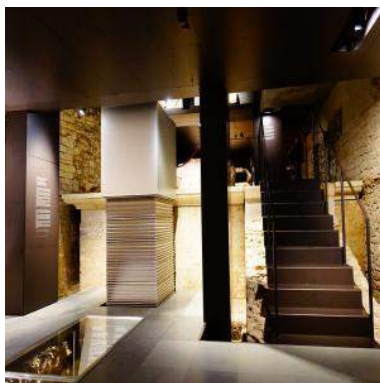


Electric radiation heating with intermittent operation.

Basilica S. Croce in Gerusalemme, Roma.



Hidden electric heating on the cornice



Elevator. Design by FABOC

### 3.5.4 Multimedia and technologies for the virtual and immersive use of the ruins

Author: Venetian Heritage Cluster

In recent years, the multimedia and digital approach to the Cultural Heritage field is gaining importance and attention, and it appears to be a qualifying point for the future fruition of monuments and ruins. Through these technologies, is possible to enrich the visits and the enjoyment of cultural sites and parks and to digitally reconstruct the ancient design of ruins and buildings without any alteration of the existing remains. This, of course, has an impact also on the expenses of the organization which manage cultural site, since it reduces the costs connected with the restoration. Moreover, the use of digital technologies leads to a larger enjoyment of the Cultural Heritage, even of the monuments located in places difficult to reach and by the people with disabilities.

Nevertheless, many steps are still to be done towards a larger use of multimedia technologies in the Cultural Heritage fields. For instance, giving an account about the Italian case study, some data collected by the governmental *Osservatorio Innovazione Digitale nei Beni e Attività Culturali* demonstrate that on 476 Italian museums, 20% of them provide interactive exhibits, 13% can give a virtual tour of their collection and just 9% has implemented, at the moment, a digital app.

Developing multimedia and virtual technologies for Cultural Heritage, also known as Cultural Computing, relates to a number of competences and professionals, spacing from Mathematics expert, IT Engineers and Cultural Operators. Projecting and designing Cultural Computing devices begins from a deep and strong built-in preparatory and projecting phase, that has to take into account the desired final users, the scope of the intervention, the technologies that has to be developed in order to implement the most suitable solution for the desired target and, overall, the complete accuracy of the historical and cultural data. There are, in fact, a number of possible devices to be used in order to assure immersive experiences to the visitors of a cultural site, but it is always to be beared in mind that the overall aim of the use and implementation of these technologies is to give the users a deeper comprehension of the remains and a greater knowledge of their history and cultural data. The main focus of the entire process is, in fact, to translate, using scientific methods, cultural data to represent essential aspects of culture<sup>19</sup>.

Virtual and Augmented Reality Technologies will provide new means to create and transform culture. On one hand, VR technology provides us with the possibility of immersion within multimodal interactions (audio, video and haptics) to enhance user presence in digitalised culture (digital theatre; digital dance; digital music; digital heritage, etc.). On the other hand, AR or mixed reality technology provides us with the possibility to extend, transform and combine different cultures in the same mixed environment (for example combine object from digital dance with others from digital music over space and time). However, we need to develop new interfaces and new interaction metaphors to allow 3D visualisation of culture and 3D interaction with different objects of such culture<sup>20</sup>.

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<sup>19</sup> Tosa, N., Matsuoka, S., Ellis, B., Ueda, H., Nakatsu, R.: Cultural computing with context-aware application: Zenetic computer. Lecture Notes in Computer Science 3711, 13-23 (2009)

<sup>20</sup> Haydar, M., Roussel, D., Otmane, M., Mallem, M.: Virtual and augmented reality for cultural computing and heritage: a case study of virtual exploration of underwater archaeological sites. Virtual Reality, Springer Verlag, 2011, 15 (4), pp. 311-327.



We can define Virtual Reality (VR) as a set of techniques that allow simulating an experience of reality, even if partial, by the use of images, sounds, smells or the perception of movements. Virtual reality artificially creates immersive sensory experiences of physical presence in places in the real world or imagined worlds and lets the user interact with that world<sup>21</sup>. The first application of a VR system applied to Cultural Heritage was implemented in 1994 for a plausible 3D reconstruction of Dudley Castle in England as it was in 1550 and that assures a walk-through experience. This consisted of a computer controlled laserdisc-based system designed by British-based engineer Colin Johnson<sup>22</sup>. Since that starting point Virtual and Augmented Reality systems has gained popularity and has transformed from a future sign to a used tool in several fields of human behavior. Nowadays, these instruments have achieved an evaluable contribution to public engagement in Cultural Heritage sites. Furthermore, the experience can be also accessed from different places and at different times even when the original sites are inaccessible to the public or no longer existing<sup>23</sup>.



Nowadays some of the most common devices are the wearable devices for the immersive VR, actually known as head-mounted display (HMD) or simply “headset”, that simulate the real (or the most plausible one) aspect of the monument or ruin in a certain time. These devices can be subdivided into 2 macro categories:

- Non-portable systems—devices connected to an external graphics processing unit (such as Oculus Rift or PlayStation VR)
- Portable systems—devices in which the graphics processing unit is embedded into the headset (such as Samsung VR Gear)

<sup>21</sup> Ferrari, F., Medici, M., The Virtual Experience for Cultural Heritage: Methods and Tools Comparison for Geguti Palace in Kutaisi, Georgia, in Luigini, A., Basso, D., Brusaporci, A., Cicalò, E., Moretti, M. M., Turco, M., Menchetelli, A., Panciroli, C., Rossi, D., Trisciuzzi, M. T., Villa, D. (eds), Proceedings, Volume 1, IMMAGINI? Conference 2017, International and Interdisciplinary Conference IMMAGINI? Image and Imagination between Representation, Communication, Education and Psychology.

<sup>22</sup> Higgins, T., Main, P., Lang, J. (Eds.), Imaging the Past: Electronic Imaging and Computer Graphics in Museums and Archaeology; British Museum: London, UK, 1996.

<sup>23</sup> Maietti, F.; Di Giulio, R.; Balzani, M.; Piaia, E.; Medici, M.; Ferrari, F. Digital Memory and Integrated Data Capturing: Innovations for an Inclusive Cultural Heritage in Europe through 3D Semantic Modelling, in Ioannides, M., Magnenat-Thalmann, N., Papagiannakis, G. (Eds.), Mixed Reality and Gamification for Cultural Heritage, Springer: Berlin, Germany, 2017; pp. 225-244.

<sup>24</sup> After Ferrari, F., Medici, M., The Virtual Experience for Cultural Heritage: Methods and Tools Comparison for Geguti Palace in Kutaisi, Georgia, in Luigini, A., Basso, D., Brusaporci, A., Cicalò, E., Moretti, M. M., Turco, M., Menchetelli, A., Panciroli, C., Rossi, D., Trisciuzzi, M. T., Villa, D. (eds), Proceedings, Volume 1, IMMAGINI? Conference 2017, International and Interdisciplinary Conference IMMAGINI? Image and Imagination between Representation, Communication, Education and Psychology.

Concerning the portable instruments, in recent years a lot of steps forward have been made, and the costs for the organizations that would like to provide a VR experience to their visitors have been decreased a lot. In fact, starting from 2012 both Google and Samsung, two of the major companies in the production of electronic devices, started to develop VR systems based on the assumption that a modern smartphone contains all the features requested for a portable HMDs devices, such as multi-core CPUs, dedicated GPUs, high-resolution displays, compass, gyroscope and the ability to enjoy 360° graphic content. In this perspective, Google developed the Cardboard project and Samsung since 2015 has implemented Samsung VR headset, based on a Galaxy Smartphone. Portable HMDs are an interesting solution both in terms of cost and ability to be used in different contexts. By contrast, the computational power compared to the above-mentioned graphic workstations is tens of times lower, which, as in the present case, implies the development of immersive solution more oriented to the use of raster than 3D vector graphics. Not least, the mobile HMDs were the first low-cost devices to offer the possibility of Immersive Virtual Reality. Modern devices could be grouped under three main families: the “Head-stabilised” systems, that takes as reference the user’s head; the “Body-stabilised” information is fixed relative to the user’s body position and varies as the user changes viewpoint orientation, but not as they change position; finally, in “World-stabilised” information is fixed to real world locations and varies as the user changes viewpoint orientation and position.

	Meizu M1 Note	LG Nexus 5	Samsung Galaxy S6 Edge	Wimius 3D VR
OS	Android 5.0	Android 5.1.1	Android 6.0.1	Android 5.1 + Nibiru
Chipset	MediaTek MT6752	Qualcomm MSM8974	SAMSUNG Exynos 7420	ND
CPU	Cortex-A53	Snapdragon 800	Cortex-A53 Quad-core 1.5 GHz	Cortex-A53
	Octa-core 1.7 GHz	Quad Core 2.3 GHz	Cortex-A57 Quad-core 2.1 GHz	Quad-core 1.7 GHz
GPU	ARM Mali-T760 MP2	Adreno 330	ARM Mali-T760	ARM Mali-450 MP6
RAM	2 GB	2 GB	3 GB	2 GB
HD	32 GB	32 GB	32 GB	8 GB
Display	5.5"	4.95"	5.1"	5.5"
Resolution	1080 × 1920 pixel	1080 × 1920 pixel	1440 × 2560 pixel	1080 × 1920 pixel
ppi	401 ppi	445 ppi	577 ppi	400 ppi
Battery	3140 mah	2300 mah	2600 mah	3000 mah
Release date	14 October	13 May	15 February	16 November
Tested HMD	TecnaXX VR TX-77	TecnaXX VR TX-77	Samsung Gear VR	Wimius 3D VR

Comparison among the most used VR devices in 2017<sup>25</sup>

What is defined as a Fully Immersive Virtual Reality is based exclusively on HMD as the display device in the immersive demonstrator.

The fullness of the immersion is caused by the possibility the user has to look around into the fictional environment and through this to fully explore it.

Developing and implementing a VR system is highly related with the creation of a model of the geographical space around the VR device and, thus, around the visitor. This technology and the related methods is indebted with the development that the Geographical Information Systems have had in the last thirty years, as a method of modelization of geographical information and data. By means of the GIS environments, the users – increasingly made of archaeologists and historians – could extract new information combining data that have been collected before and that are recalled through specific geographic queries.

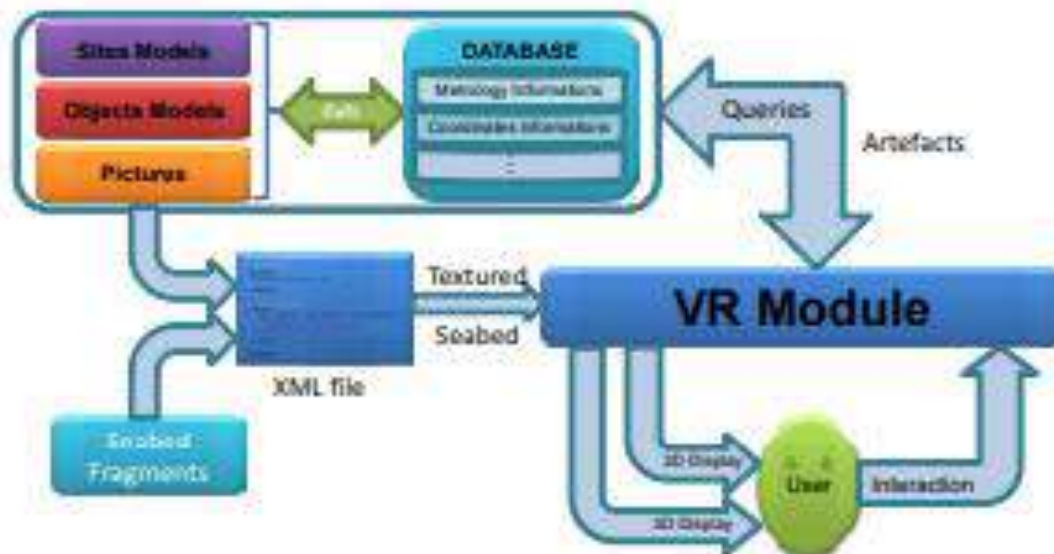
<sup>25</sup> After Ferrari, F., Medici, M., The Virtual Experience for Cultural Heritage: Methods and Tools Comparison for Geguti Palace in Kutaisi, Georgia, in Luigini, A., Basso, D., Brusaporci, A., Cicalò, E., Moretti, M. M., Turco, M., Menchetelli, A., Panciroli, C., Rossi, D., Trisciuzzi, M. T., Villa, D. (eds), Proceedings, Volume 1, IMMAGINI? Conference 2017, International and Interdisciplinary Conference IMMAGINI? Image and Imagination between Representation, Communication, Education and Psychology.

The basic principle of the VR is based on the same methods, even if transformed from 2D spatial geographical queries into 3D spatial queries, that the user makes through his own movement. Because of this, the first steps in projecting a VR system are the modelization of the virtual environment that has to be created and the one of the user possible movement.



Tracking systems to capture the user's movements<sup>26</sup>

It is important, in fact, to stress that Virtual Reality, and in particular the Immersive Virtual Realities, systems are centered on the user's experience. A commonly accepted definition of Virtual Reality have been provided by Rheingold in 1991 as an experience in which a person is "surrounded by a three dimensional computer-generated representation, and is able to move around in the virtual world and see it from different angles, to reach into it, grab it, and reshape it"<sup>27</sup>. Another proposed statement to define VR is more confined to the visual domain: "a VR system is one which provides real-time viewer-centered head tracking perspective with a large angle of view, interactive control, and binocular display"<sup>28</sup>.



VR system architecture<sup>29</sup>

<sup>26</sup> After Haydar, M., Roussel, D., Otmane, M., Mallem, M.: Virtual and augmented reality for cultural computing and heritage: a case study of virtual exploration of underwater archaeological sites. Virtual Reality, Springer Verlag, 2011, 15 (4), pp. 311-327.

<sup>27</sup> Rheingold, H., Virtual Reality. Summit Books, London (1991).

<sup>28</sup> Cruz-Neira, C., Sandin, D., DeFanti, T.: Surround-screen projection-based virtual reality: the design and implementation of the cave. In: Proceedings of the 20th annual conference on Computer graphics and interactive techniques, pp. 135-142. ACM New York, NY, USA (1993).

<sup>29</sup> After Haydar, M., Roussel, D., Otmane, M., Mallem, M.: Virtual and augmented reality for cultural computing and heritage: a case study of virtual exploration of underwater archaeological sites. Virtual Reality, Springer Verlag, 2011, 15 (4), pp. 311-327.

Nowadays, it is in the praxis commonly well known that VR systems have three peculiar characters, that distinct this technology from other digital-based systems. Modern VR devices, in fact, are highly immersive, and offer to the user the possibility to interact as he prefers in the fictional world, having responding data to his queries in real time.

The Augmented Reality is for many aspects a very different system to combine historical data with computing processes. An Augmented Reality system has been defined as those that “supplements the real world with virtual (computer-generated) objects that appear to coexist in the same space as the real world”<sup>30</sup>.

Thus, this is the main difference among VR and AR systems: while VR is completely immersive for the user, and recreate a fictional environment all around the user, Augmented Reality couple fictional elements with the real world, where the devices are positioned. In any case, the two systems share also many common features, except for the fact to combine real and virtual objects in a real environment, such as that both the two system run interactively, and in real time.

On one hand, the user of VR systems is put into a fictional environment, that makes not possible for him to see the real world around himself. On the other hand, augmented reality allows the user to see the real environment with superimposed virtual objects. Thus, AR does not substitute itself to the real world, but immerse the user in a mixed environment where real spaces and objects host virtual objects.

The manipulation and, more in general, interaction of the user with the fictional features of the Augmented reality is given through the so-called “Tangible User Interfaces” (TUIs). This method adopt physical objects as an instrument to create a liaison between real environment and virtual objects, and between virtual environment and real objects. For example, the most common TUI interface gives to the user the possibility to manipulate virtual objects and to explore a virtual environment through the manipulation of real objects and tools<sup>31</sup>.

To conclude, it is important to underline once more how these methods are to be seen not as a final target, but as a tool to enlarge the visitors’ commitment to the sites they visit. Thus, the main focus and the final aim of the larger and larger use of these devices is to highlight the historical reality which the monuments were developed in.

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<sup>30</sup> Azuma, R., Baillot, Y., Behringer, R., Feiner, S., Julier, S., MacIntyre, B.: Recent advances in augmented reality. *IEEE Computer Graphics and Applications* 21(6), 34-47 (2001).

<sup>31</sup> Haydar, M., Roussel, D., Otmane, M., Mallem, M.: Virtual and augmented reality for cultural computing and heritage: a case study of virtual exploration of underwater archaeological sites. *Virtual Reality*, Springer Verlag, 2011, 15 (4), pp. 311-327.



## Management plan

### 3.6.1 Maintenance plan

Author: SiTI - Higher Institute on Territorial Systems for Innovation

Many of the problems facing heritage collections, sites or assets are the result of long-term neglect or lack of maintenance.

*Good management and maintenance are crucial to the long-term care of heritage sites, collections and assets – which means having the right skills and procedures to ensure that they are looked after. Poor management and maintenance puts heritage at risk, and can lead to higher costs in the future.*

William Morris, within the 1877 SPAB Manifesto<sup>32</sup>, urged: “Staving off decay by daily care”.

The starting point for the SPAB Approach is care and maintenance.

*«Some deterioration of a building over time is almost inevitable, but maintenance helps slow the rate and lessens the need for larger campaigns of work. Major interventions tend to be more costly, disruptive and damaging to building fabric»<sup>33</sup>.*

The importance of maintenance is also stated in the 1964 Venice Charter<sup>34</sup>:

*«The intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence (Art. 3). It is essential to the conservation of monuments that they be maintained on a permanent basis (Art. 4)».*

Maintenance is defined by the 2013 Burra Charter<sup>35</sup> as the continuous protective care of the fabric, contents and setting of a place. The Charter states as follow:

*«Maintenance is fundamental to conservation. Maintenance should be undertaken where fabric is of cultural significance and its maintenance is necessary to retain that cultural significance (Art. 16). Maintenance means the continuous protective care of a place, and its setting. Maintenance is to be distinguished from repair which involves restoration or reconstruction (Art. 1.5) ».*

<sup>32</sup> The Society for the Protection of Ancient Buildings (SPAB) is an amenity society founded by William Morris, Philip Webb and others, in 1877. SPAB was established in response to the work of Victorian architects whose enthusiasm for harmful restoration caused irreparable damage. Today the SPAB encourages excellence in new design to enrich and complement the built historic environment. The SPAB's ideas stem from the thoughts of John Ruskin. The SPAB Approach is based on the protection of 'fabric' - the material from which a building is constructed. A building's fabric is the primary source from which knowledge and meaning can be drawn. Materials and construction methods embodied in building fabric illustrate changes in people's ideas, tastes, skills and the relationship with their locality. Fabric also holds character and beauty; the surfaces, blemishes and undulations of old buildings speak of the passage of time and of lives lived. Wear and tear adds beautiful patination that new work can only acquire through the slow process of ageing. More info available at: <https://www.spab.org.uk/>

<sup>33</sup> Cfr. SLOCOMBRE, M. *The SPAB approach to the conservation & care of old buildings*. London: SPAB. Available at: <https://www.spab.org.uk/sites/default/files/documents/MainSociety/Campaigning/SPAB%20Approach.pdf>

<sup>34</sup> Cfr. *International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter 1964)*, IInd International Congress of Architects and Technicians of Historic Monuments, Venice, 1964. Adopted by ICOMOS in 1965. Available at: [https://www.icomos.org/charters/venice\\_e.pdf](https://www.icomos.org/charters/venice_e.pdf)

<sup>35</sup> Cfr. *The Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013 (Burra Charter)*. The Charter gives definition for terms used in heritage conservation, discusses acceptable conservation processes and establishes the best practice for achieving the heritage conservation of a particular item. Available at: <https://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf>

Maintenance can be categorised according to why and when it happens, as:

1. **Corrective Maintenance:** work necessary to bring a building to an acceptable standard (often as recommended by a conservation plan);
2. **Planned Maintenance:** work to prevent failure which recurs predictably within the life of a building;
3. **Emergency Corrective Maintenance:** work that must be initiated immediately for health, safety, security reasons or that may result in the rapid deterioration of the structure or fabric if not undertaken.

**Preventive maintenance costs markedly less than repairing extensive damage or building failures**

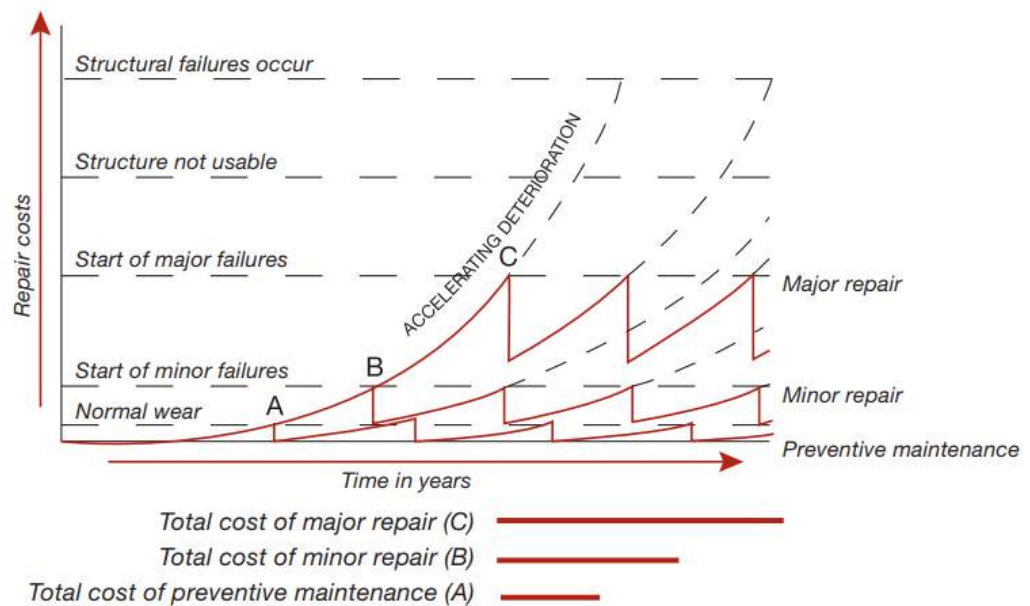


Diagram from *Preventive Maintenance of Buildings*, Van Nostrand Reinhold, New York, 1991.

Some deterioration of a building over time is almost inevitable, but maintenance helps slow the rate and lessens the need for larger campaigns of work.

Major interventions tend to be more costly, disruptive and damaging to building fabric. Good maintenance involves simple, frequent checks and minor works: clearing gutters and drains, fixing slipped slates or tiles, or replacing missing putty around glass.

In general, maintenance is the combination of all technical and associated administrative actions during the service life to retain a building or its parts in a state in which it can perform its required functions<sup>36</sup>.

A maintenance plan is a structured and documented set of tasks that include the activities, procedures, resources and the time scale required to carry out maintenance<sup>37</sup>.

*A maintenance plan is a document in which you set out what maintenance you need to do, when you will do it, and who will do it. It also tells us how much it will cost and how you will monitor the work.*

<sup>36</sup> Cfr. ISO 15686-1:2011, *Buildings and constructed assets - Service life planning*; Available at: <https://www.iso.org/standard/45798.html>

<sup>37</sup> *Ibidem*

Whether in public or private ownership, good management of heritage assets should include effective conservation planning aimed at retaining heritage values, and effective maintenance programs to direct money effectively and wisely. The main reason for a maintenance plan is that it is the most cost-effective way to maintain the values of a site.

Maintenance programmes for historic properties should integrate a cultural heritage-at-risk perspective<sup>38</sup>.

Maintenance programmes are often conceived in terms of the daily causes of deterioration of a property, e.g., visitor and occupant use and the impact of weather conditions (temperature, humidity); this perspective should be expanded to include analysis of all possible human and natural sources of decay and loss, the degree of risk associated with each and appropriate measures to reduce or mitigate risk.

Risk assessment should be adopted and implemented as part of the maintenance of property, at a series of management levels, by all owners, occupiers and authorities responsible for the architectural heritage. Measures for the protection of the architectural heritage against natural disasters should begin with the development of specifications and guidelines for the assessment and upgrading or strengthening of historic buildings. It is imperative that any works intended to improve the resistance of a building do not result in an unacceptable intervention into or loss of the special interest of the building. In order to achieve this goal it is important to ensure complete survey and recording, and detailed inspection and understanding of the historic building, as well as its structural system and constructional materials and techniques, its evolution and history and its conservation.

Good maintenance is the single most effective means of reducing the amount of potential damage or loss. Therefore, it is essential that quality maintenance work, undertaken on a periodic basis after regular inspections (on a cycle of at least five to ten years) and employing traditional and compatible techniques and materials, be advised and specified. The use of mortars and grouting in masonry structures and the issues of tensile resistance, bonding, tying of floors and roofs to walls, and wind and water tightness in all structures, are the paramount considerations.

*Only trained workmen should be allowed to undertake maintenance, repair and improvement work on historic properties.*

As it is clear, maintenance should be always a planned activity. Unplanned maintenance, corrective or emergency maintenance is a response to problems that haven't been identified in the past or could not have been foreseen. Preventive maintenance is a process that uses a strategic plan to replace things before they have failed.

*A maintenance plan help us to care about heritage, to think about resources and hopefully to ensure that the same problems do not arise again in the future..*

<sup>38</sup> Cfr. MASSUE, J. P. and SCHVOERER, M. (2001). *Protection of cultural heritage: handbook - School of civil protection*. European and Mediterranean Major Hazards Agreement (EUR-OPA), International Organization for Migration (IOM). Available at: <https://www.coe.int/t/dg4/majorhazards/ressources/pub/handbookfiles/4c.pdf>



For the purposes of this handbook we have defined the main steps to follow in order to draft a maintenance plan as follows:

## MAINTENANCE PLAN

### 1. INTRODUCTION

- Scope of the Plan and information about who wrote the plan, when and why should be provided in order to gather information what their expertise is and on who was consulted; It also should indicate links to other planning work and any gaps in the plan.

### 2. UNDERSTANDING OF PROPERTY

- Knowledge and understanding of history, design and construction are essential. Is necessary to know and record in detail what you are managing. Without this information you cannot decide on a maintenance policy or estimate expenditure for a budget.
- An Heritage study inventory sheet is needed. The inventory sheet includes a description of the item, information on architectural style, historical significance and heritage listings and a photograph. Data sheets are usually accessible on a database and can be expanded to any level of detail.

### 3. CURRENT SITUATION

- Should be provided a list of the current management and maintenance arrangements on the site, including who is currently responsible for management and maintenance; what they do, when they do it and with what resources; what condition your heritage is in now (using your Heritage study inventory sheet ); what management and maintenance standards you need to meet; and briefly mention your project and what work it will involve.

### 4. RISK TO THE HERITAGE

- Identify potential risks to heritage is needed.
- Risks might include:
  - natural factors (disasters such as earthquake, fire, flooding, storms or other adverse weather conditions);
  - human factors (theft, arson, vandalism or other attack);
  - resource issues (lack of regular maintenance or care due to: lack of specialist skills, lack of resources, lack of access to areas of a building) ;

### 5. MAINTENANCE AIMS AND OBJECTIVES

- Once provided a clear idea of what the heritage is, why it is important, and how it could be at risk, determine aims to manage and maintain the site in the long term. They should include objectives for managing and maintaining the historic site and the skills, activities, equipment and facilities required to support them.

### 6. ACTION PLAN AND COSTS

- Draft a list or table that sets out: what needs to be maintained and managed; what work is involved; who will do it; when and how often they will do it; and what resources (money, people and skills) are required.

### 7. REVIEW AND UPDATE

- It is necessary to explain when and how the Plan will be monitored and reviewed.

### 8. BIBLIOGRAPHY

- A list of other documents or references that are relevant to the plan should be provided.

Looking after monuments in a responsible manner, which guarantees both the authenticity of the historical message and its tangible expression, requires regular maintenance of our cultural heritage.

To be effective, this maintenance must be carried out in good time and in the right place, which in turn requires regular, thorough inspections of the structural condition of the building and the condition of the interior and the valuable artefacts<sup>39</sup>.

In this sense, Maintenance Plan is a tool that can provide an integral approach for the preventive conservation of the cultural heritage.

## Resources<sup>40</sup>

Useful resources on historic building management and maintenance can be found at the following websites:

### *English Heritage*

[www.english-heritage.org.uk](http://www.english-heritage.org.uk)

English Heritage is the Government's statutory advisor on the historic environment. It provides wide-ranging guidance on all aspects of caring for the historic environment.

### *The Institute of Historic Building Conservation (IHBC)*

[www.ihbc.org.uk](http://www.ihbc.org.uk)

IHBC is the main professional organisation for building conservation practitioners and historic environment specialists. Its website contains a wide range of guidance, advice and links to other resources.

### *Society for the Protection of Ancient Buildings (SPAB)*

[www.spab.org.uk](http://www.spab.org.uk)

SPAB provides an excellent website resource dedicated to the care of old buildings.

### *Monumentenwacht Vlaanderen*

[www.monumentenwacht.be](http://www.monumentenwacht.be)

Monument Watch is focused on preventive action: the association aims to contribute to the promotion of the cultural heritage in Flanders, in particular by promoting their conservation. The emphasis will be on encouraging regular maintenance of heritage value.

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<sup>39</sup> With the aim to help heritage owners in maintaining their buildings and to raise general awareness about maintenance, in 1973 in the Netherlands was founded the organization Monument Watch (Monumentenwacht).

The success of the Dutch organization influenced the Flemish part of Belgium to do the same. In 1991 Monument Watch Flanders (Monumentenwacht Vlaanderen) was founded and focused since then on preventive action: the association aims to contribute to the promotion of the cultural heritage in Flanders, in particular by promoting their conservation. The emphasis will be on encouraging regular maintenance of heritage value. More info available at: <http://www.monumentenwacht.be/en>

<sup>40</sup> A more detailed resources list is available at *Management and maintenance plan guidance* provided by the Heritage Lottery Fund. The document is available at: <https://www.hlf.org.uk/management-and-maintenance-plan-guidance>

### 3.6.2 Tourist Destination Management Plan and assessment of the Tourism Carrying Capacity of the site.

Author: SiTI - Higher Institute on Territorial Systems for Innovation

Touristic flows, if not properly managed or organized, can constitute a risk for the conservation of cultural sites.

It is therefore important to define a Tourist Destination Management Plan (DMP) and, as operational action of the DMP, to estimate the maximum number of people that may visit the tourist destination.

These assessments are particularly useful for medieval ruins, which are fragile and ancient buildings or areas.

The definitions of the concepts introduced are these:

- Destination Management is a process of leading, influencing and coordinating the management of all the aspects of a destination that contribute to a visitor's experience, taking account of the needs of visitors, local residents, businesses and the environment.
- A Tourist Destination Management Plan (DMP) is a shared statement of intent to manage a destination, articulating the roles of the different stakeholders and identifying actions for the future.
- Tourism Carrying Capacity (TCC) is defined as a quantitative methodology oriented to quantify the optimum number of tourists that a particular tourism destination is able to sustain. In other words, TCC is the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural environment and an unacceptable decrease in the quality of visitors' satisfaction.

TCC assessment is useful not only in the cases of crowded destinations, but in the situations characterized by low flows too, because TCC is a method to improve the management of the flows and to enhance the different destinations in terms of quality of experience and attractiveness.

**DMP: objectives, phases and results.**

The table following summarizes the main phases of Destination Management Plan development in terms of stakeholders engagement and outputs.

Phase	Stakeholder engagement	Outputs
<b>1- DMP start-up phase</b>	Initial meeting and creation of work group	Needs and expectations Timeline
<b>2- Collecting data</b>	Assistance and participation	Description of current situation Database
<b>3-Establishing strategy of the DMP</b>	Meetings and exchange of ideas	Strategic direction
<b>4-Establishing objectives of the DMP</b>	Meetings and exchange of ideas	Concrete objectives
<b>5-Establishing actions and timeline</b>	Agreement on tasks and responsibilities	Draft of DMP
<b>6-Developing actions and projects in respect of timeline</b>	Approval of DMP	DMP
<b>7-Monitoring and reporting</b>	Consultation	Report (annual, biannual)

Below is a detail of the phases described.

**1. DMP start-up phase**

The need to write a DMP is linked to the need to share a strategy to manage tourism.

In particular, it is necessary to:

- Create a work group;
- Identify the vision for the destination;
- Share the vision between stakeholders;
- Define needs and expectations of the stakeholders;
- Define the timeline.

**2. Collecting data.**

To write a useful DMP, it is necessary to have a detailed picture of the situation of the destination in terms of:

- Current use of the destination – current use of the ruins;
- Tourist flows and impacts;
- Accessibility, transport providers and car-parking availability;
- Conservation status of ruins;
- Tourism facilities (accommodation, toilets);
- Activities and events proposed during the year;
- Any specific issue (disabled accessibility, natural risks, safety issues etc).

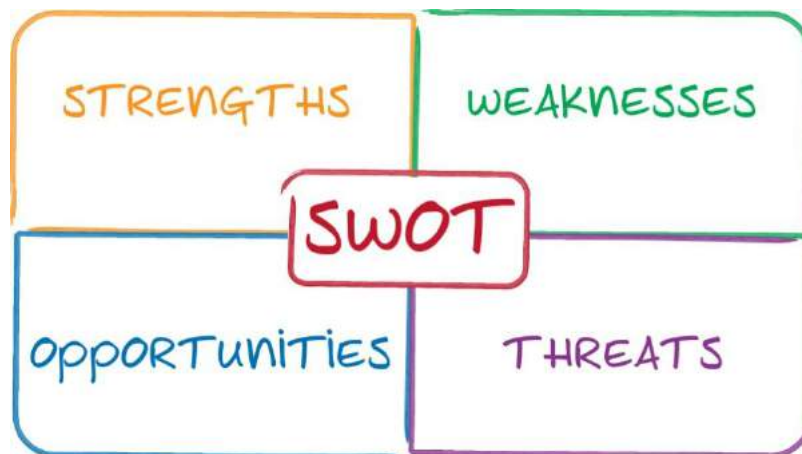
The sources used must be official and the data collected as recent as possible.

To better organize data and define strengths and weaknesses of the system it may be useful to use a Swot Analysis.

SWOT analysis is a strategic planning technique used to help a person or organization identify strengths, weaknesses, opportunities, and threats related to project planning.

It is intended to specify the objectives of the project planning and identify the internal and external factors that are “favourable” and “unfavourable” to achieving those objectives. Users of a SWOT analysis often ask and answer questions to generate meaningful information for each category to make the tool useful and identify their competitive advantage.

Strengths and weakness are frequently internally-related, while opportunities and threats commonly focus on the external environment.



### 3. Establishing strategy of the DMP

The purpose of this phase is identifying strategy and targets of the DMP through meetings and exchange of ideas.

It is important to have aspirations and challenging goals but these should be guarded by an element of realism and attainability over the period of the DMP.

The DMP, including the objectives and actions it contains, should provide a direction for all stakeholders.

### 4. Establishing objectives of the DMP

The purpose of this step is to define operational objectives for the site; these objectives must be consistent with the strategy defined before.

The operational objectives must be shared between stakeholders and characterized by:

- Timeline;
- Responsible body for achieving;
- Impacts and fallout;
- Indicators for the monitoring;
- Funds and budget.



## 5. Establishing actions and timeline

DMP must contain concrete actions to achieve the operational objectives and the strategy for the site.

The concrete actions must be characterized by:

- Timeline and priority;
- Responsible body for achieving;
- Impacts and fallout;
- Indicators for the monitoring;
- Costs and resources required;
- Funds and budget.

A concrete actions could be a real project (for example to open a museum in the ruins), an activity in the site (to organize an exhibition) or a “virtual” action (to create a database).

## 6. Developing actions and projects in respect of timeline

This is the operational phase, in which it is necessary to develop the actions and the projects identified before, in respect of timeline.

## 7. Monitoring and reporting

The last phase of DMT is related to monitoring the results achieved and reporting. It is necessary to define a Monitoring Plan in which to identify indicators and targets.

Performance indicators should be linked to strategy, objectives and concrete actions of the DMT. Indicators need to be relevant, clear, credible and comparable, but above all they should be capable of being used – i.e. based on relatively easy and cost effective monitoring.

Typically, a DMP would:

- Set a strategic direction for the destination over period of up to 5 years;
- Contain prioritised actions within an annual programme, identifying stakeholders responsible for their delivery.

The preparation of a DMP must involve:

- Private sector;
- Local authorities;
- Civil society;
- Wider economic partners that are influenced by or have influence on tourism;
- Cultural and heritage partners.

The time required for each stage will depend on the size and complexity of the area and size of the team involved.

A DMP is a dynamic concept, with a long term vision and it requires regular monitoring and reporting, with constant revision and renewal.

## Tourism Carrying Capacity: method and results

Touristic flows, if not properly managed or organized, can constitute a risk for the conservation of cultural heritage sites. It is therefore important to estimate the maximum capacity to receive tourists that a specific site has without compromising its integrity or the recreational experience.

According to the definition of the United Nations Environment Programme, Tourism Carrying Capacity (TCC) is defined as a quantitative methodology oriented to quantify the optimum number of tourists that a particular tourism destination is able to sustain.

Thematic literature proposes several TCC definitions and methods, depending on the characteristics of the territories to which they are applied.

In these guidelines is proposed a comprehensive methodology to assess Tourism Carrying Capacity in cultural heritage sites, able to provide a technical support to cultural development and tourism management policies<sup>41</sup>.

The innovative approach proposed uses a combination of qualitative analysis and quantitative indicators to tackle all the main aspects related to the touristic flow of the site: how tourist flow affects the conservation of the property, how the property can be shape by the experience.

The aim of the method is to underline negative and positive aspects of the management system and suggest guidelines for the improvement of the touristic offer without generating negative impacts on the heritage.

The main objectives of the methodology are:

- to create a repeatable procedure and investigating system;
- to direct future management decisions and strategies;
- to provide an easy and simply upgradable method, using both on desk and in situ analysis.

TCC is broken down into its most characteristic aspects that need to be calculated and evaluated in order to come to a final comprehensive result.

In particular, it is necessary to define the following components:

- Theoretical TCC: it's the maximum number of tourists that can stay at the same time in a certain location, given the site's area and supposing that each person will occupy 1m<sup>2</sup> of space; it is a mere geometrical consideration.
- Physical/functional TCC: is the theoretical TCC with corrective coefficients (qualitative or quantitative) related to physical or functional aspect of the site, such as elements that reduce or inhibit accessibility, safety law prescriptions (maximum visitors allowed at the same time, etc.), architectural barriers. Physical/functional TCC value is lower than theoretical TCC by definition.
- Social TCC: it describes the perception of residents toward the touristic phenomenon, both from the qualitative and the quantitative point of view. This evaluation includes important elements, such as the seasonality of the tourists flows, tourists' behaviour, number of visitors.

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<sup>41</sup> The method proposed was developed by SiTI, in cooperation with the Italian Ministry for Cultural Heritage and Activities and Tourism (MiBACT).

- Psychological TCC: is linked to the perception of tourists toward the site they're visiting, how they judge the level of services, hospitality policies, proper signposting.
- Infrastructural/territorial TCC: is a wider spectrum evaluation, that includes consideration about the environment around the site, infrastructures and transportation policies' adequacy, number of parking lots, factors linked to the specificity of the territory.
- Management TCC: is a comprehensive theme, responding to all the issues tackled by all the other TCC indicators, providing useful strategies in response to site's previously highlighted weak points and suggesting how to improve touristic flows management.

The application of the methodology consists in three main phases:

1. Collect preliminary information about the typology of each site, the visit area, its legal status, the number of visitors per year;
2. Calculate the value of the Carrying Capacity Indicators;
3. Define guidelines for the management system.

Referring to the case study of medieval ruins, below are some examples of data to be collected and indicators to be calculated.

1) Collect preliminary information about:

- Number of visitors per year;
- Current use of the destination;
- Accessibility, transport providers and car-parking availability;
- Tourism facilities;
- Activities and events proposed during the year;
- Surface available to tourists;
- Distribution of the space;
- Legal status
- Management body
- Disable accessibility;
- Analysis of visit paths and most crowded areas;
- Monitoring system; etc.

The collection of these data is aimed to know the situation in detail and defining the strengths and weaknesses of the system.

2) Calculate the value of the Carrying Capacity Indicators

The indicators have to be organized with respect to the different components of TCC.

Below there are examples of indicators that can be used for medieval ruins.

TCC component	Indicators
<b>Theoretical TCC</b>	<ul style="list-style-type: none"> <li>○ Number of tourists compared to total area of the site</li> </ul>
<b>Physical/functional TCC</b>	<ul style="list-style-type: none"> <li>○ Number of tourists compared to visit area (services included)</li> <li>○ Maximum crowding (allowed by safety laws)</li> </ul>

	<ul style="list-style-type: none"> <li>○ Accessibility (presence of architectural barriers, difficult paths)</li> <li>○ Current use of the ruins</li> <li>○ State of conservation of the ruins</li> </ul>
<b>Social TCC</b>	<ul style="list-style-type: none"> <li>○ Perception of the touristic flow (in terms of quantity of tourists)</li> <li>○ Perception of the touristic flow (in terms of behaviour)</li> <li>○ Number of vandalism acts</li> <li>○ Number of tourists during the most and the less visited month of the year</li> </ul>
<b>Psychological TCC</b>	<ul style="list-style-type: none"> <li>○ Satisfaction levels of tourist</li> <li>○ Tourists willingness to visit the site again</li> <li>○ Existence of policies to reduce crowding (online, call service booking)</li> <li>○ Adequacy of the cultural offer (conservative and exhibition, training of personnel, cultural events)</li> <li>○ Communication and promotion (informative and institutional instruments, leaflets, brochures, website)</li> <li>○ Presence of services (Info point, bookshop, library, archive, bar, restaurant)</li> </ul>
<b>Infrastructural/territorial TCC</b>	<ul style="list-style-type: none"> <li>○ Efficiency of public transport</li> <li>○ Presence of dedicated parking</li> <li>○ Compatibility between reuse function and territorial services</li> </ul>
<b>Management TCC</b>	<ul style="list-style-type: none"> <li>○ Actions to improve the management of the tourism flows (the actions are related to the issues emerged by the different CCT components)</li> </ul>

### 3) Define guidelines for the management system

The operational result of the CCT assessment is to define guidelines for the management system.

In particular, it is necessary to define strengths and weaknesses of the system and actions in order to improve the quality of the experience.

TCC evaluation is useful not only in the cases of crowded destinations, but in the situations characterized by low flows too, because TCC is a method to improve the management of the flows and to enhance the different destinations in terms of quality of experience and attractiveness.

Below there are examples of actions that can be used for medieval ruins.

<b>TCC component</b>	<b>Indicators</b>
<b>Very low tourist flows</b>	<ul style="list-style-type: none"> <li>○ Organize attractive events during the year</li> </ul>
<b>Current use of the ruins not compatible with conservation status</b>	<ul style="list-style-type: none"> <li>○ Modify the current use</li> </ul>
<b>Low level of satisfaction following the visit</b>	<ul style="list-style-type: none"> <li>○ Increase the communication</li> <li>○ Improve the quality of services</li> </ul>
<b>Frequent acts of vandalism</b>	<ul style="list-style-type: none"> <li>○ Increase surveillance</li> </ul>

### 3.6. 3 The management system

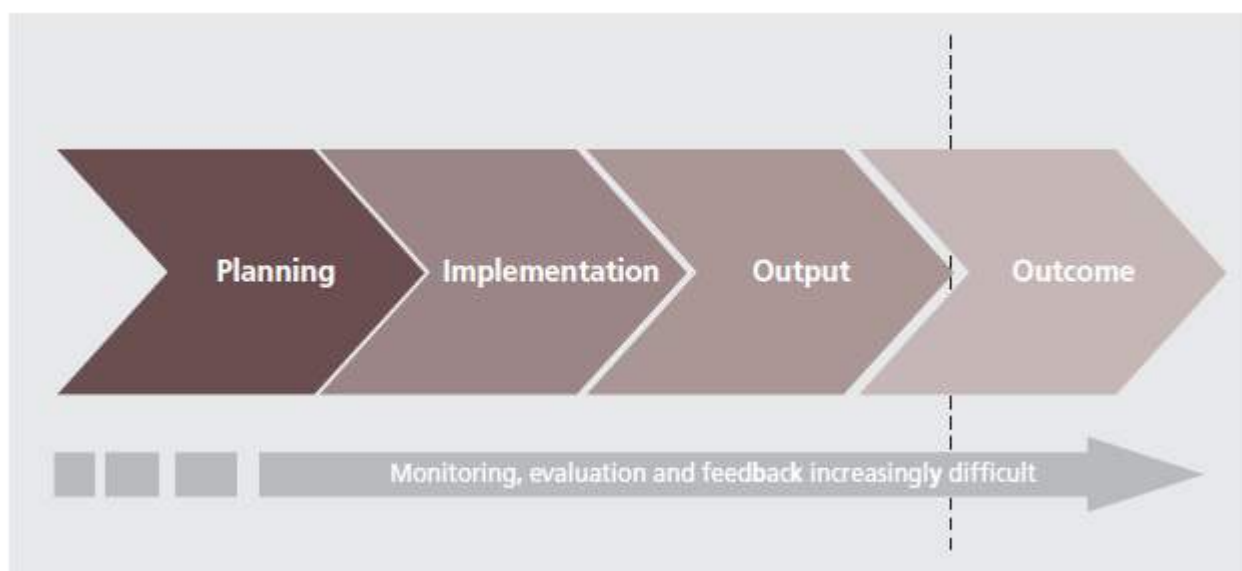
Author: Venetian Heritage Cluster

Designing a management model for Cultural Heritage includes knowledge from a number of fields of study and Economics and organizational studies play a relevant role among them. The so-called “management cycle” is an unique tool in order to plan and implement the organization’s policy agenda, through the help of external stakeholders and monitoring actors that could provide useful advices to the management staff.

After a basic planning phase, the second phase of the management cycle is focused on implementation, carried out with the stakeholders’ help. The implementation phase of the management cycle involves important coordination of tasks and priorities. This stage entails two different and coordinated operations: (a) perform the planned and expected operations, and (b) constantly check that they are on the line of the organization’s mission and of the pre-determined aims. If in this phase a diversification from the starting point is detected, a modification or improvement of the plan could be required.

The essential tool for a consistent and proper management is the management plan and moreover, if seen from a business point of view, the business plan. There are a lot of similarities between a management and a business plan and they share some information, for instance the organization’s mission and vision, even in order to achieve different goals. However, the business plan might relate to an agency’s corporate strategy rather than to a site’s management plan, and clear vision and mission statements (and other useful information found in a management plan) might not exist.

While the management plan is about setting out the actions needed to deliver the purposes for which a protected area has been designated, the business plan focuses on the financial and organizational dimension – in other words, how to resource the delivery of the management plan.



Management cycle diagram. (After “Managing Cultural World Heritage”, Paris, Unesco, 2013, p. 117)

Managing monuments and ruins and, more in general, pieces of Cultural Heritage, implies a number of issues concerning several aspects of the preservation, enhancement and sustainable reuse of the material remains.



One of the most challenging tasks in the management process is for sure the design and development of a business plan, in order to obtain an economically sustainable management of the monument. In fact, while for the pieces of Cultural Heritage characterized by a public ownership the funds are usually provided by the public Authorities, for monuments or ruins belonging to a private third party the issues concerning the budget for its management are often urgent and difficult to solve. In this perspective, creating a plan to build and develop an activity that could be a source of funds and its related business plan is the first step to be taken.

Obviously, designing a business – whatever it would be - inside a monument or a ruin is not like doing it in any other place and environment, so that it implies a series of vigilances to be undertaken. First of all, obviously, the materiality of the monument must be respected and preserved. Another critical difference between a Heritage site management and mainstream business is that whatever enterprises are undertaken, they must not undermine the values for which the site has been notified, and should in fact seek to enhance them. So any business plan must recognize these values, and also other important values associated with the site, even where not specified in the nomination. In modern business, the importance of a rigorous and reasonable business plan is close to be self-evident. In the Cultural Heritage management field, it is even more important. Enterprises and, more in general, the commercial environment has for a long time developed instruments and resources to analyze the market they are positioned in, as well as to foresee new products and the way to commercialize them. On the other hand, conservators and cultural authorities are expert in their field but generally poor at talking the language of the business sector. Therefore, elaborating a business plan could be also an instrument to make these two important worlds starting to talk a common language, and this could help also the ordinary management of a site in order to prioritize the intervention on the monument and its surroundings. In any case, in fact, what is essential is adopting a business planning approach to conservation – a systematic way of identifying what are the assets of a site and what they are worth – in other words, their values. Of course, they are the main “added values”, and it is essential to properly identify them in order to understand why a certain site or monument is important in a local, national or international scenery and this helps a lot also in the fundraising process. In fact, a central part of the World Heritage Site Manager’s job is to convince donors, governments and citizens (in the language of business) to ‘buy’ its products and services in an appropriate way, and then to demonstrate that their ‘investment’ is worth it. At the same time managers need to ensure that in ‘consuming’ our sites, nature’s capital assets are not diminished, but can be sustained. In the effort to secure sustainable financing for protected areas, in general, a manager who can demonstrate that existing resources are already being effectively allocated through systematic business planning processes, may more likely succeed in convincing national authorities and/or external donors that an increase in their financial support will be a good investment<sup>42</sup>.

Anyway, due to the peculiar nature of the “business” that take place within the monuments or the ruins, the business plan should be seen as a flexible tool that can be a support for a Cultural Heritage manager, not as a cage he cannot exceed. Similarly, the organization is the maker of the plan and the wearer of this tool, not its slave, so it seems important to bear in mind what the purpose of the plan is, being it a roadmap for the development of the organization itself or an instrument to demonstrate to the funders the ability of being well-organized.

A business plan, in fact, it is often mandatory in the participation in many funding programs, in order to show how the money obtained will be managed and invested, as well as the point the organization aims to reach and how it intends its own mission.

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<sup>42</sup> Patry M., *Business Planning for Natural World Heritage Sites - A Toolkit*, Paris, Unesco, 2008, pp. 10 - 12.

A business plan helps managers and stakeholders to understand how business will be managed in the most effective way, and to ensure that the organization is properly accountable for the use of any funds it receives. For managers of Cultural Heritage, the primary reasons for writing a plan will be to:

- Provide a clear, realistic, and practical blueprint for an organization's future development;
- Enable everyone in the organization, including its board or management committee, to agree upon and share common goals;
- Ensure the participation of key stakeholders (such as donors, politicians, bankers, sponsors, and other groups with which an organization is likely to work);
- Ensure that the organization's goals can be achieved with the resources available to it;
- Identify any key risks that could prevent an organization meeting its goals and put plans in place to mitigate these;
- And achieve a smooth handover at times of staff change.

Additional reasons might be to:

- Support applications for financial support, for example to the World Bank, UNDP, government departments, sponsors and charities;
- Inform strategies for particular capital or revenue initiatives;
- Review organizational structure, approaches to training and personnel management, technological resources or monitoring procedures<sup>43</sup>.
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The main focus of a business plan, indeed, is to ensure the achieving of the business goal of the organization in an instantaneous perspective, and the proper development of the organization in an ongoing basis. On the other hand, a management plan relates also to questions concerning the employees' productivity, their motivation and training, their safeness as well as the funds the organization needs to develop its mission and to reach its goals.

Thus, a business plan and a management plan often use cross-related information, even if aiming to reach diverse goals.

### **Scope and content**

The scope and the contents of a business plan is heavily related to the complexity of the business organization it refers to. An important issue is to understand which is the proper quantity of the information contained in the plan: it is suitable to have the very essential information to develop the business plan, but it's not wise to include in the plan a redundant quantity of data that could become difficult to manage.

It should be advisable to bear in mind, while a business plan is being written, which is its foreseen audience and which time range it is requested to cover. Concerning the first issue, obviously a business plan could be adopted and taken into account by a general audience, but the best practice is to write it taking into account the responsibilities and the role within the decisional process of the main recipient or recipients of the plan. Concerning the duration of the document, the major part of the business plans envisages actions for three or four years, entailing a detailed plan for the first year and a number of future perspectives and overlooking actions for the other years. Thus, it is desirable that the plan is updated each year, considering unexpected positive events or negative factors that could be occurred during the period between one plan and its updating document.

At its most simple, an organizational and business plan contains 7 key sections:

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<sup>43</sup> Patry M., *Business Planning for Natural World Heritage Sites - A Toolkit*, Paris, Unesco, 2008, pp. 16 - 17.

1. An overview of your organization, its Mission and Aims;
2. A clear statement of objectives;
3. An assessment of the context and market in which an organization is operating;
4. Budgets and financial forecasts to show how objectives will be reached, and assessment of risks along the way;
5. Implications for management structure and staffing;
6. Timescales and Activity Plan;
7. Milestones and Monitoring<sup>44</sup>.

### **Executive Summary**

The Executive Summary is probably one of the most important sections of a business plan, since it has to demonstrate that the plan will deal with some crucial issues of any business enterprise and the Cultural enterprises make no exception. This section of the document is moreover of great importance since it gives an account of the most important points of the plan, and it would thus be the first being read by any recipient or evaluators. For this reason, it has to demonstrate the full understanding of the several issues ingrained in such a special business like as a Cultural enterprise. On the other side, the plan is expected to be encouraging for the reader and for all the recipients in order to make the continuing the reading of the plan and have a fuller account of the organization, its perspectives, mission and goal.

### **Institutional Analysis**

The institutional analysis describes in deep the organization the business plan is set for, dealing with its vision, its products and the employees working within it, as well as assessing the organization's points of strength and weakness. In this field, this part of the business plan uses some tools, such as the SWOC and stakeholder analysis, useful to highlight the plus and minus of the organization and of its attitude to build or develop a business. Moreover, the institutional analysis provides also some future perspectives and goals for the organization, in order to sustainably develop it as well as its business. Typically, some of the topics that should be included in this section are: Profile, Vision and Mission, Situation Analysis, Stakeholder analysis, SWOC (Strengths, Weaknesses, Opportunities and Challenges) Analysis and Goals.

### **Profile**

This part of the business plan is intended as a first description of the organization and gives accounts on the crucial issue it is dealing with. Thus, some basic facts are giving in this subsection, such as the organization's legal regulation and the way it is internally organized and structured in terms of capital, human resources, products and services given to the public.

Of course, the optimal form of management of any site varies a lot in reason of the nature, size and economic weight of the organization that is in charge of it. In fact, the Cultural Heritage is managed by several forms and kinds of Authorities, such as Governative, Non-Governative, Private Bodies, Local Authorities, Public-Private Partnership Bodies; thus, there is not an unique way to build a sustainable business plan – being it for a commercial use or for a non-commercial one – but it should fit at its best to the organization it is set for.

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<sup>44</sup> Patry M., *Business Planning for Natural World Heritage Sites - A Toolkit*, Paris, Unesco, 2008, pp. 16 - 17.

The main areas the plan deals with in this section are:

Its structure and constitution

Name of organization

Head office address

Legal context – international, national

What was it set up to do?

What is its authority?

What kind of an organization is it?

What is the status of the site or area it manages?

What are the site's values?

Its finances

Budget performance

How does the organization derive its funds?

Grant aid, trading activities, reserves of funding?

Statement on financial control systems

How is money accounted for?

Capital assets – built assets, equipment etc.

What items does the organization own, and what are they worth?

What is the turnover of e.g. vehicles, radios, uniforms?

Financial table – proposed net expenditure against statutory headings

Its people

Management role and function

What are its institutional values?

How is the organization steered or directed?

Is there a board?

How is it selected?

Number of employees and roles

Summary description

Policy on health and safety and human rights issues

Organigram<sup>45</sup>

**Vision and Mission**

The section connected to the Vision of the organization aims to give an account on the values the organization has been built upon, even in a quite idealistic way. In fact, it could be also inspirational even if it would drive the future development of the organization in the next decades, compatibly with local, national and transnational variables, mainly concerning social, economic and politic issues. Vision should be seen as a “business card” through which an organization introduces itself to stakeholders, its employees, eventual donors and funding agencies, politicians individuals and parties and is intended to be a way to vehicular the fundamental message of the organization. For this reasons and for its wide audience, the vision section should use a plain language and it is desirable that it could be simply understandable by all the readers of the plan. In the Cultural Heritage management field, the main focus of the vision should be about how the organization should pursue a sustainable management of the ruins, including their preservation and the economic development, as well as the multi-layer public engagement.

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<sup>45</sup> Table after Patry M., *Business Planning for Natural World Heritage Sites - A Toolkit*, Paris, Unesco, 2008, pp. 16 - 17.

Ideally, the mission statement should describe exactly what you will be doing for the next 3-5 years and what you want to achieve. The formulation of these statements is a team process, so it will be helpful to bring a representative group of interests together in a series of workshops to formulate your vision and mission.

### **Present situation**

The aim of this subsection is to give to the reader an overview of the current status of the organization, in terms of relations with the contexts where it operates and of internal settlement. Particularly in the field of Cultural Heritage management, in fact, the external relations are crucial in order to develop the activity of the organization: both the relations with the public and, more in general, the people who care about the sites and, on the other hand, with the institutional stakeholders are basic in this perspective.

Moreover, also the internal asset of the organization the business plan is set for is a crucial matter to be analyzed from an external point of view as well as from an inner one, by the employees themselves.

This part of the business plan is important in order to position the organization by reference to others operating in the field of Cultural Heritage management.

### **Stakeholder Analysis**

This part of the plan entails with the analysis of those institutions and individuals who have an interest in the organization and the work that it does. These parts are of several natures, and varies from the staff working within the organization, to the Scientific and Operative Boards, to the external and general public, that in a way could be seen as the “customers” of the Cultural site and of the economic activities installed within it.

This analysis may help to improve the direct relations with the direct stakeholders, as well as to make the external image the organization gives to indirect stakeholders and general public.

### **Analysis of Strengths, Weaknesses, Opportunities and Challenges**

A SWOC (also known as SWOT - strengths, weaknesses, opportunities, threats) analysis is crucial in every business plan and is commonly used in every enterprise or organization in order to highlight what are the strength basis of their activity as well as what is improvable. Usually it is a simple table or preferably a matrix and is an useful tool to give an overview of the problems that have to be solved within the organization as well as of the issues concerning its activity. Alongside the negative issues, also the opportunities and the future developments are taken into account, in order to underline the positive aspects of the existing activity and the future challenges. If an organization is complex, it is important to carry out such an exercise with a multi-disciplinary team, as, for example, what the conservation group may perceive as an important weakness or threat, may not be seen as a major concern by the financial department and vice-versa. Often, the authors of such plans are unable to make clear distinctions between the strengths/weaknesses and opportunities/challenges sections.

In general:

- Strengths and Weaknesses are internal factors that describe the present over which you have some level of control or influence
- Opportunities and Challenges are usually external issues that describe a potential that you may not be in a position to control<sup>46</sup>.

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<sup>46</sup> Patry M., *Business Planning for Natural World Heritage Sites - A Toolkit*, Paris, Unesco, 2008, p. 38.



## Objectives

Through this chapter of the business plan, the intentions declared as vision and mission are translated into tangible measures, compatibly with the broader current situation of the organization. It is reasonable to expect some problems and conflicts between the several urgencies inherent to the organization's nature, for instance among total conservation and economic use. In these cases a mediation should be used, balancing the several requirements but always bearing in mind which are the main values of the organization, as they were declared in the *Vision and mission* section of the business plan.

In the definition of the organization's objectives, the management literature recommends to make them as much as possible S.M.A.R.T.: Specific (clearly referred to well-defined activities); Measurable in their effects; Achievable in the time covered by the business plan; Related to the resources and the scope of the organization; given of a Timeframe with scheduled deadlines.

Designing objectives in the field of Cultural Heritage management is particularly difficult, since the major part of the organization that operate in this field are often non-commercial ones. In these cases, especially if they are Public Authorities or in some ways are related with them, the main task of the business plan is to operate efficiently in regards to the amount of money the organization was given. The main objectives, in this case, will be the accountability of the expenses and the improvement of the quality of the activities. Business planning and objectives definition are even more complicated when an organization is required to cover partially or totally its own operating costs through its own activity. In this case the preservation of the materiality and dignity of the monument is expected to be coupled with a business-oriented mentality that can find donors, funding, enterprise options and any other source of incomes. From this point of view is even much more important that the objectives set in this section of the plan are really precise, clearly given to certain people and strictly connected to a series of deadlines that it is important not to fail.

## Market Analysis

After having analyzed the organization from an inner point of view, it is important to take into account the external world, where the organization is expected to place, being it at a local, regional, national or international level.

Even if adapted to peculiar case of the Cultural Heritage field, it is possible to figure out the management process as a normal commercial relation among the organization, its "products", that is to say the monument itself and the activities that take place within it, and the market. The market is indeed the most uncontrollable factor among the ones listed before, so that it could be of several kinds, such as:

- Stable – for example the case of a cultural site or a monument of local interest strictly linked with the local community, that frequently used to frequent the site or the case of a World Heritage site capable to attract a high number of visitors equally subdivided during the whole year.
- Dynamic – for instance some discontinuously frequented sites or some monuments belonging to the Heritage of countries where tourism is increasing.
- Turbulent – for sites or monuments located in countries where wars or terrorism are present, or where the political conditions cannot grant the safety of the visitors. .
- In a planning activity, the main issue is to take care that the organization is in the condition to keep to produce the product, that the market keep to demand the product, that the organization is in the condition to be able to supply the market.

The market's analysis follows some steps:

### **Market definition**

In this subsection it is expected to gain the larger number of information possible about how the market of interest for the organization is set and how it is transforming, in order to have an overlook to define some future strategies. Important issues to be taken into account in this subsection are, for instance, the typology of the market and its size, how the market is subdivided into segments and how to recognize them, how the market shares, and which is the future trend of the market, with a special focus on the market growth.

### **PEST Analysis**

The PEST analysis deals with the external factors that may positively influence or negatively affect the activity of the organization and its future perspectives. The PEST analysis forces the organization to reflect upon its relations with trends in politics, population growths, movements and demands as well as the cost of the feedstock supply.

Issues that may emerge in a PEST analysis include: Political (and legal) Direct and indirect taxes, corporate taxation, public spending, regional, environmental, tourism and industrial policy, monetary policy and interest rates, changes in international trade, competition law, deregulation/regulation issues, bureaucracy, corruption, biodiversity and human rights issues, international obligations. Economic Business cycle, employment levels, preferences, opportunities and restrictions, inflation and exchange rates. Social Population growth, age structure, rural to urban migration, social and cultural shifts, pressure groups, race and gender issues, trends in education levels etc. Technological Improved research and development methodologies, increased awareness and accessibility of 'clients', monitoring and other equipment for PA management, communication etc<sup>47</sup>.

### **Customer profile**

Defining the profiles of the people that form part of the visitors, in a business plan also seen as "customers", is crucial for a managers who aims to shape his organization's offer in order to respond to the market's expectations. Obviously, the Cultural Heritage sites "market" is peculiar and different from a normal market economy, and it is important to identify those who rely on the natural and cultural services that protected areas provide. Moreover, the management process of any Cultural site or monument is increasingly more related to the funds the site is in the condition to auto-generate from the visitors or from external sources of funding, such as donors or contributions by funding agencies.

Even if the customers or consumers of the Cultural sites value the site for many different reasons, each of these customer types can be profiled. Some data about the customers can be collected under some main directories, such as demographics (Age, Sex, Marital status, Education, Profession), economic factors (High/medium/low income, Personal debt, Tax burden, Savings tendency), consumer adoption process (Innovators, Early adopters, Early majority, Late majority, Laggards), psychographics (Customer demand, Lifestyle, Motives, Interests).

### **Competition**

Surprisingly, the analysis of competitors plays a relevant role even in the Cultural Heritage management field, since a manager is supposed to know what other sites similar to his own offer to the public and which are their points of strength or weakness.

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<sup>47</sup> Patry M., *Business Planning for Natural World Heritage Sites - A Toolkit*, Paris, Unesco, 2008, p. 48

The competitors that will emerge starting from this research could be inspirational for the management, also in terms of activities carried out within the monument or the heritage area that attract consumers that could, on the other way, alternatively be attracted by the organization's monument.

You need to identify them, but this can be a difficult task, because the 'competition' may be another protected area in another country, or a tourism venture that offers similar experiences to yours, but in a safer, cheaper or more comfortable and less crowded environment. The internet can be a valuable source of information in this area.

This subsection of the market analysis helps also the management in focusing the strength points of its own organization in order to underline them in the funding-seeking process, both from private donors and from public funding agencies.

### **Human resources**

In each organization, the role of human resources working within it and with it is central for the proper running of the organization's business. Therefore, an analysis of the human resources working within the organization is an important part of the management system of cultural sites. It aims to describes the current state of the human resources in the organization as well as to identify gaps in capacity, linked to the strategies identified in the business plan, and how the organization plans to address these gaps. Properly developing the settlement and the improvements of skills of the human resources working for the organization, is the main task for the managers of a site, since the so-called "human capital" is one of the most important assets of the organization itself. This part of the managing system's description aims to include issues such as organizational structure, current staff profile, future organizational needs and gaps, training needs and performance appraisal.

### **Organizational structure**

Understanding and improving the organizational structure is a focus point for every business company or organization. In the Cultural Heritage management field, it is important to understand how the human resources available are employed and how their potential is lived up to. This analysis could give as a result a chart or an organizational metrics dealing with numbers, functions and roles covered in the organization. In the Cultural Heritage management field this analysis is crucial: if the organization is planning to seek funds in ways that will expand (perhaps temporarily) its numbers, it is important to present a proposed structure for the management of people in a proposed project. In the case of an organization seeking funds to continue and improve its operations, it is important to illustrate gaps in capacity, and how any increases in funds will address those gaps<sup>48</sup>.

Understanding the way in which the organization is built and managed will help to identify which of its parts does what, and who is responsible and answerable to whom. It also provides a rapid insight into the 'metrics' (numbers, functions, roles) of the organization. If your organization is planning to seek funds in ways that will expand (perhaps temporarily) its numbers, it is important to present a proposed structure for the management of people in a proposed project. In the case of an organization seeking funds to continue and improve its operations, it is important to illustrate gaps in capacity, and how any increases in funds will address those gaps. As we saw in the first section, an organogram is a key tool in summarizing structure. This should be accompanied by a description of the organization and roles, functions and costs of its staff.

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<sup>48</sup> Patry M., *Business Planning for Natural World Heritage Sites - A Toolkit*, Paris, Unesco, 2008, p. 75.

### **Risk Analysis**

In the Cultural Heritage management field, risk analysis is one of the most crucial operations to be carried out, both to preserve the ruins or the monuments but also to assure the safety for the visitors. Conservation, in favour of the next generations, of our CH\_M\_Ruins (Cultural Heritage Medieval Ruins) is one of the main tasks of the societies, they represent the reference points of our identity, whether current or future.

The value of CH\_M\_Ruins is established case by case, by popular opinion, by organizations, by experts from

the field and by the public body. They are recognized, catalogued and inventoried; buildings, collections, archives, as well as individual objects of any size and of every age. The responsibility for objects is assumed by whom is in charge of their care and protection, whether they are these single individuals or institutions.

Which methods and means are the most appropriate for the protection of cultural heritage it is often the subject of discussions, opinions are divergent. These guidelines are intended to be a look at the possibilities of protection from dangers through an optimum risk management, especially in case of catastrophe.

The protection therefore constitutes the implementation of all the measures necessary to avoid damage before they occur (prevention), or, in the case of a lesion, to minimize it are to call the specialists of the cultural heritage (conservatives and restorers) or agents ready intervention (firemen, civil protection, etc..).

Well-coordinated intervention is the indispensable premise for the cultural good damage to be reduced to the least possible damage (recovery).

Cultural assets are threatened in different ways. These guidelines give some crisis management tip which may arise in the event of fire, high water and / or other natural disasters.

It is necessary, in principle, to split two categories of events that can cause damage: at first the primary risks as fire / heat, smoke / soot, water / humidity, impact / pressure. Secondly, risks such as biological attacks and chemical reactions. Besides these two first categories, you have to keep account of the possibility of disappearance (theft, dislocation). The level of urgency is defined by the time it takes from the recognition of danger to the time when it is possible to act calmly. The time before urgency is the normal case. Next is the recovery phase.

### **Responsibility and priorities coordination in cases of urgency**

In case of intervention by operators such as firemen, police, ambulance, etc., responsibility on the site is always in charge of the chief intervention team. Secondly it can be in charge of the manager of the police, firemen, ambulance, or the person responsible for the cultural goods. The head of cultural heritage must always stick to the principle: First save people, then animals, the environment and ultimately the material values. Therefore, fast rescue of cultural assets can be best achieved if coordination between the various actors is planned and exercised in advance.

### **Risk Management**

The primary task of managing the risk is to avoid the risk. As it is impossible to avoid any risk, the objective is to minimize and keep below control the residual risk. Greater security is achieved with optimization of the following factors:

- CH\_M\_Ruins environment and construction: protection of the site where the object is located, as well as analysis of features of the protected building or of what contains the protected object.

- Technical characteristics: they are understood as the technical components that are in the cultural heritage good to be protected. These can be functional to the good to be protected (alarms) or functional to the building itself (heating, electrical connections, telephones, etc.).
- Organization of education: this term indicates the kind of practical use and maintenance of the site/good.

The organization includes knowledge of the different responsibilities, that of the current management but also that of disaster safety, accidents, planning of interventions, etc. In each case it is the responsibility of the manager to implement more measures suitable for the cultural asset in question as well as the most suitable for the institution represented. For an optimal development of risk management, it is necessary to set priorities, depending on cyclicity (frequency) and strength (intensity) of events which are possible causes of damage. The answers to these questions will be provided from the risk analysis.

### **The risk analysis**

The risk analysis by the manager is the basis for the development of an adequate risk management. It is therefore important in this area the answer, for example, to the following questions:

List of useful questions for the analysis of risks (example):

- Cultural property: Is there an inventory?
- What are the identifying elements of the object?
- In what category can you enter the cultural good?
- What are the conditions of the cultural good? How is it protected?
- Are you insured?
- The place: are there possible natural dangers (landslides, floods, earthquakes, etc...)?
- How is the road situation? How is it regulated?
- Are there nearby objects or situations potentially dangerous?
- Where are the fire extinguishers? And the nearest hydrants?

The construction:

- To what construction type the building belongs (castle, palace, little fortification village, etc)?
- Are there Static Peculiarities?
- Are there escape trails?
- Are there anti-fire walls? In which maintenance conditions are roofs, fixtures, doors, water evacuation channels?

Use:

- How is the building used? Who is responsible for it? In the premises are there possible sources of
- fire?
  - Management: what parts are open to the public?
  - How are the warehouses / stores organized?
  - Are there work studios?
  - What are the monitoring systems?



**Device systems:**

- What technical installations are present?
- Where are the heating systems located?
- How is water management organized?
- Are there fire alarm systems and / or extinguishers?
- Are electrical installations checked regularly?
- Is there a lightning rod?

**Urgencies:**

- Are there contact points of emergency (police, firefighters, ambulance, etc.)?
- Is there a plan intervention in the event of fire?
- Are the escape routes indicated? Are there known gathering places for people?
- Are there contacts with experts of cultural heritage protection?
- Is there an intervention file for cultural heritage protection?
- Are there experts in the field of CH\_M\_Ruins and / or restorers in the design of evacuation plans?

**Measures and partners**

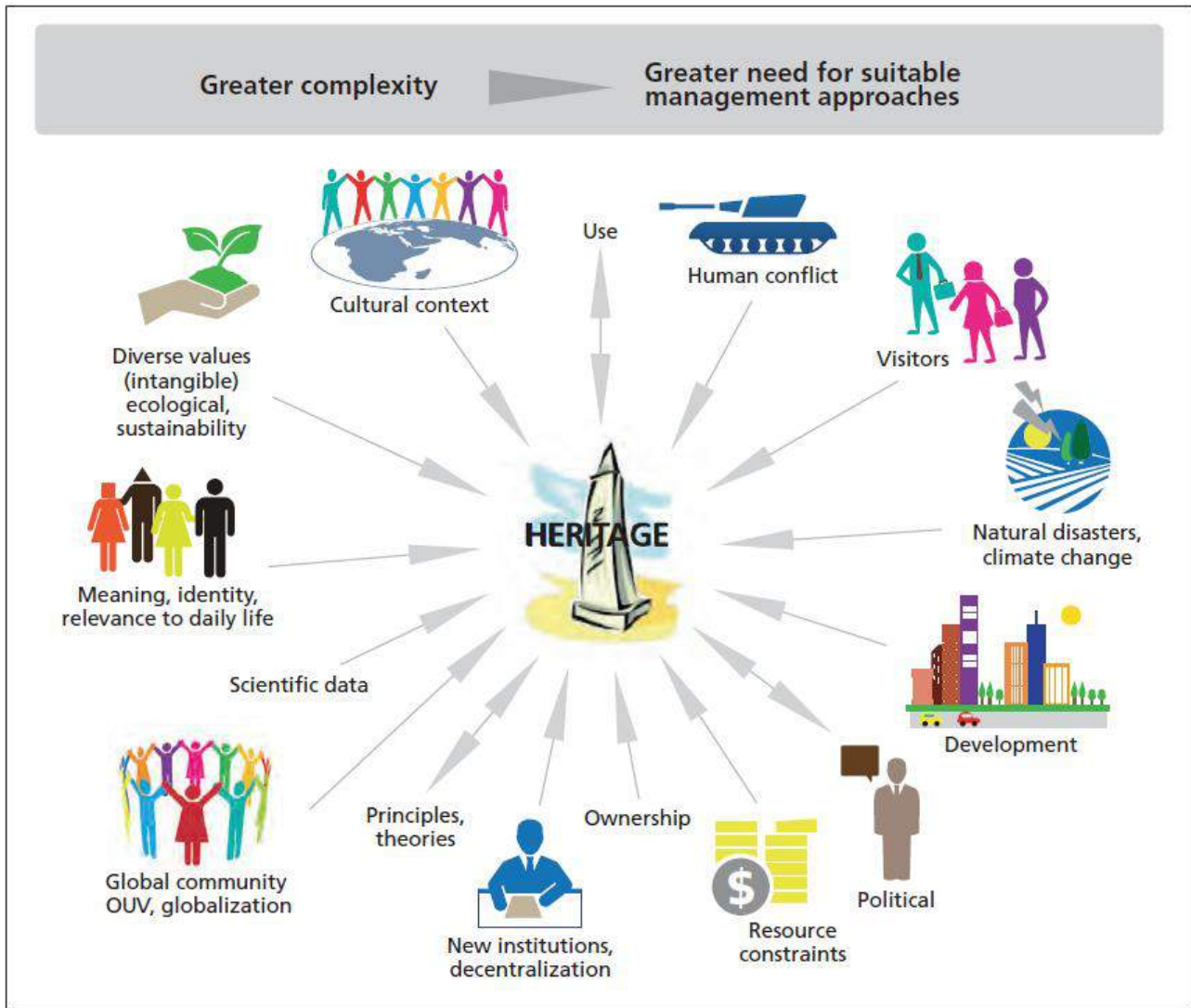
After the risk analysis, it is matter now to avoid the risks to the greatest possible extent. Neutralize, minimize, managing and financing risk is the final purpose of the exercise. Solutions like that can be found in the following fields:

- situation and construction
- construction, safety and security technology
- management organization, planning
- risk financing

After setting up a list of measurements to improve security, it is important to determine the financial need purpose. As a rule, financial means must be found outside the cultural goods sector in the strict sense. An excellent approach is to get in touch with all the actors involved in the protection, among which you can list: the owner, manager and / or storage manager, user, the security officer and / or, ultimately, the insurer.

Taking into account the possible solutions you have to go to the implementation plan. In case the cost of realization of selected projects is over the effective financial possibilities, there will be the need to optimize everything, prioritize and prepare a timetable. The priority will be given to the higher risks, which are more probable and happen more frequently. Even the already existing safety devices should be subject to periodic analysis and verifications. New solutions are to be followed in their development and possible new applications to be examined regularly.

The risk management requires a constant commitment, which success also depends from co-ordination between the various managers of the various sectors touched, as it is advisable to collaborate with internal and external experts.



UNESCO, Managing Cultural World Heritage, 2013, pg. 14, fig. 2.

### 3.6.4 Financial plan

Author: Venetian Heritage Cluster

The Financial Plan helps the organization's management to completely understand the organization or site's financial situation and funding requirements. In this phase, all the actions and requirements identified in the previous analyses, as well as the employees gaps, are transformed in expenses and an adequate budget coverage is established, if it is possible, for them. For a potential donor (whether it is your government, an investor, or a donor agency), this is a particularly important plan, since it provides the financial focus of the business plan and of the activities carried out by the organization. A proper financial plan usually includes: a summary of your institution or site's financial history; the current financial situation including a detailed budget statement; the future financial projections including the projected expenditure and capital requirements as well as the projected income and funding needs; a summary of important conclusions from the Financial Plan<sup>49</sup>.

As for the Cultural Heritage management organizations, it is important to prepare carefully this section of the financial plan, in order to demonstrate to the donors or the funding agencies that the expenses expected for the year could be sustainably supported by the organization. In order to do that, it is also important to identify the sources of funding and to quantify the possible amount of money that can be given by them.

#### Financial History and Budget

This section couples a brief summary of the organization's financial history, focusing on its main sources of income in recent years and also its main expenditures with the elaboration of the budget envisaged for current year. This section is useful to prove a sustainable financial running of the organization, both to possible donors or funders both to stakeholders. The financial history of the organization highlights how it spent the money, where it came from, and which kind and quality of results were reachable through this money. It is advisable to use some info graphics and metrical parameters in order to properly present these data to the reader of the financial plan, that – it's important to bear it in mind – it's not a mere internal tool but a useful document to be circulate in order to prove the state of health of the organization. Alongside the financial history, stand the budget the management envisage for the current year activities. It usually refers to a detailed budget statement, which is a month-by-month expression of the revenues and expenses over the year. This part of the financial plan could be attached to the management plan as well as stand as a stand-alone document. This is a core document, that helps the managers to clearly define the budget allocated for each activity for the year, and to precisely track the way money is spent, in order to avoid money waste or useless and unnecessary expenses. It could be useful to group the expenses under some voices, such as: Sales; Cost of goods sold (Material/Labour/Fixed costs of goods sold); Gross Profit; Operating expenses (Sales and marketing/Research and development/General and administrative); Income from operations; Other income and expenses; Income before taxes; Income tax and other taxes; Net income after taxes.

In the definition and outlining of a financial plan, considering sustainable funds – whether for special projects or for the normal activity, is often a central part and it is crucial to insert in the plan only sustainable funds and not unrealistic incomes. If the Cultural Heritage management organization is part of the governmental body or directly on the payroll of the State part of the budget could be covered by public allocations, even if with increasing frequency the managers are supposed to find external funds. Thus, managers are forced to compete with other public Bodies

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<sup>49</sup> Patry M., *Business Planning for Natural World Heritage Sites - A Toolkit*, Paris, Unesco, 2008, p. 83.

or organizations to find funds and applying to public calls by non-governmental or Over-National (e.g.: European Union) Funding Authorities. The project-writing and application process in order to seek funds is, on the other hand, extremely time-consuming, and the rate of overall success does not grant to cover the time used for the preparatory phase. Of course, unsuccessful applications are a cost for the organization, since they imply that some human resources have been allocated on that project in vain and this has been an unproductive time cost for the organization. If generating funds is a significant activity, it is important to plan carefully, and to have a strategy for this within the business and the financial plans. It goes without saying that a well-thought out business plan is a crucial tool for sustainable financing. The final result of the financial analysis process would be a financial statement, clearing declaring the overall expenses and incomes for the year or, for mid- and long-term management projects, for the following years. There are many standardized models which is advisable to refer to, both visual and statement based. Since this is a very crucial phase, which is related with the organization's future itself, it is often demanded to an external expertise and in many case this is the most advisable solution.

### **Future financial projections**

This subsection is central for projecting the actions envisaged in the management plan and in the business plan in the next 3-4 years. Through this, the actions prove to be realistic and the plan to be reliable to any possible donor or funding agent that might be interested in the organization. In order to do that, this subsection is usually split into two parts: in the first one, the focus is on projected capital requirements and operating expenses; the second one deals with the planned sources of income and funding.

The first point deals with the funded the organization expects to need in order to accomplish its tasks or projected actions. These will constitute the statements of amounts, the timeframe over which they will be required, and the purpose for which they will be used. Since it is a crucial phase, the expenditure provisions should be written at last, in order to verify that the amounts foreseen are in accordance with the targets given in the action plan and with the budgetary sustainability; the provisions must match also the goals concerning marketing and the organizational issues that have emerged in the previous analyses. Since budget forecasting could be carried out through several different methods, each sites management staff has to find the most suitable to their needs and habits. For example, a first method could be based on a proportional division of the total amount to be spent in the year. Another method to forecast expenses tends to subdivide the costs into several typologies, some of them are seen as fixed costs and some as variable and related with the volume of the activities carried out. For example, the expenses requested for the human resources are deeply connected with the number of employees working in the site and, thus, to the number of visitors the site is capable to attract; moreover, the costs of supplying the items sold in a book shop are in dependence of the number of items sold and, thus, to the incomes they will generate. The second part focuses on the forecast of the incomes, that in the annual cycle of management of a cultural site could come from a number of sources, such as own trading activities, restauration activity or the sums taken from the rent of some rooms, sale of merchandise, government funding, donor funding for specific projects or ongoing donor funding, interest from investments, and so on. These sources are supposed to be identified very precisely and carefully, separating those that could be thought to be certain and those that are not. At the same time, it is recommendable to distinguish the funds that are directly under the control of the management staff and those which are on dependence of external agencies or factors. At the same time, it is required to indicate which funds are secured and which ones are just probable (and, if it is possible, which is the percentage of probability to have the funds).

### 3.6.5 Marketing and communication plan

Author: Venetian Heritage Cluster

Approaches to place development, including the place of a ruin, might be different. Based on the knowledge from literature and experience, they can be divided into territorial, traditional, and oriented towards demand/marketing, or the so-called marketing places approach.

According to the territorial approach, the place is taken as a whole, with all advantages and disadvantages, while in development, the emphasis is on the advantages. The traditional approach is based on the urban use of the place, aims at coordinating activities in the place, respects the interests of the existing stakeholders, and harmonizes individual goals.

Marketing places approach is focused on the needs of the target groups, creating conditions for the effective use of the place, and on performing the functions and activities with respect to collective goals.

Marketing management in the conditions of a place is based on the marketing of the place. Place marketing is understood as application of the philosophical concept of marketing, based on the market and oriented towards the market, using marketing methods and tools specific for conditions of the place.

The role of place marketing is to attract the market and take a position in the market (despite existing competition); effectively communicate between the demand and supply (to minimize the risks of entering the market); effectively use the internal resources of the place (to build a competitive advantage); accept and use trends and changes in the external environment; foster participation, partnership and cooperation of the subjects in the place, which are customers on the one hand, and implementers on the other (integrated approach, fulfilling the goals); treat the place as a product which can be sold in some sense; ensure effective development, since marketing is a part of organization and management of the place, and a part of local or regional politics. We found this approach to be suitable and efficient for the development of ruins as well.

#### **Strategic marketing planning of ruins utilization and development**

The place of ruins or the ruin itself can be developed only through purposeful activity – strategic planning or strategic marketing planning. Conventional approach to strategic planning and market oriented approach to strategic planning are shown in Table 1. It is important to perceive the difference between these approaches as it advocates the use of strategic marketing planning instead of conventional strategic planning.

By using the strategic marketing planning approach, it is possible to focus on the development of ruins only, as a partial product of place, or on the development of the place of ruins as the overall product place – municipality or city. Thus, the development strategy of place (city/municipality) should be based on existence and efficient exploitation of ruins.



Conventional approach Strategic planning	Market-oriented approach Strategic marketing planning
<p><b>Vision and goals</b> defined from “the top”</p> <p><b>Analysis</b> internal environment external environment</p> <p><b>Strategy</b> offer orientation a result of consensus of experts without adequate assessment of the preferences of target groups</p> <p><b>Implementation</b> insufficient definition of competencies reduces the employability of actors</p> <p><b>Control</b></p>	<p><i>active participation of development players</i></p> <p><b>Vision and goals</b> - defined collectively</p> <p><b>Analysis</b> - internal environment - external environment - <i>demand in the market</i> - <i>behaviour of the competition</i></p> <p><b>Strategy</b> <i>Demand orientation</i> <i>Marketing mix tools</i></p> <p><b>Implementation</b> - <i>PPPs with competences</i> - <i>new methods, tools, approaches</i></p> <p><b>Control, evaluation- feedback</b></p>

Approaches to strategic planning

Source: Vaňová et al. 2017

The basic assumption of this approach for ruin utilization and development is that the future is largely uncertain, but the place of ruins should be a flexible system that can absorb potential changes in the environment and quickly and effectively adapt to them. This establishes a need to create information, planning, implementation, and control systems that can monitor the changing environment and constructively exploit the opportunities.

Strategic marketing planning of the place of ruins (as a partial product or the overall product place) can be defined as a process of searching for and harmonizing the objectives, market opportunities and available resources of the place where the ruins are located, mainly focusing on long-term objectives.

The role of strategic marketing planning of ruins is to effectively satisfy commercial and non-commercial needs and expectations of the existing and potential customers of the place of ruins by the assessment and optimal use of its potential.

At the same time, it is necessary to take account of possible changes in the market, in the external and the competitive environment, and to establish the place of ruins in the market through a sustainable competitive advantage, while respecting the public interest.

To accomplish this task, it is necessary to:

- analyze the ruins at their starting point,
- analyze the strengths, weaknesses, opportunities and threats of ruin utilization and development,
- analyze the competition and the world trends,
- analyze the market, identify target segments and their needs, and harmonize the offer of ruins with the needs of the market.

There are different approaches to strategic marketing planning and the most frequently presented opinion in literature is that the process of strategic marketing planning is composed of five phases:

1. the concept phase;
2. analysis phase;
3. strategy phase;
4. implementation phase; and
5. the control and evaluation phase.

Individual phases follow one another, each being a separate subject to evaluation and control; the so-called system of feedback. Such concept of strategic marketing planning is a link between the ability to define a vision and to set conditions for creating different variants of ruin utilization in the future.

The following section presents a proposal of marketing plan for efficient ruin exploitation by outlining the possibility of the overall development of a territorial unit (municipality or city) based on efficient ruin utilization and development.

### **Marketing plan of ruins utilization and development**

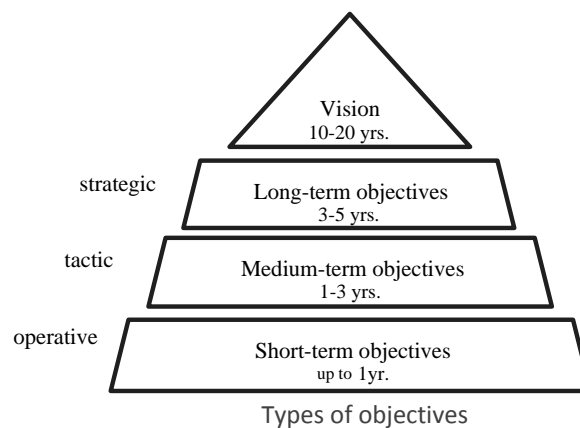
Strategic marketing planning is a systematic, participatory and transparent decision-making process that determines priorities, makes wise choices, and allocates scarce resources (i.e. time, money, or skills) to achieve the agreed-upon objectives that are developed using local community values. Strategic marketing planning in cultural heritage localities should contain five phases:

#### **1. The concept phase**

The existing experience shows that missing vision, mission and objectives at the beginning of the whole process represent an obstacle to making purposeful analysis and quality strategy of ruin utilization and development. In the concept phase, the values and the highest long-term objectives of the ruin utilization and development are set. The concept phase includes formulation of policy, vision, mission and objectives of the ruin utilization and development. Policy or philosophy of ruin utilization and development includes basic attitudes and values to be achieved. Vision is the top of the pyramid made by mission and objectives; it is the most general idea of the future of a ruin in the long term. Formulating a vision is creating a brief, to some degree general, but objective and accurate, idea of what the ruin should look like and what it should be in terms of offer, customers and priorities. Mission is a permanent definition of the main functions of the ruin and the activities to be implemented there. The purpose of a mission is to set and clearly present the objective and direction of utilization and development if it is the case.

To define the mission of a ruin means to take account of the strategic possibilities of its utilization and development in terms of satisfaction of customer needs. The mission should lead to a maximum possible satisfaction of the needs of the market and should be formulated realistically and uniquely so that it addresses the majority of stakeholders. The ruin's mission is transformed into the objectives of ruin utilization and development that serve to evaluate the success of the mission. An objective is a desired state to be achieved in the future. The objective should be measurable with qualitative and/or quantitative indicators, limited in time, specific, achievable and realistic. The highest objectives, which are expressions of the vision and mission, can be formulated qualitatively as general objectives, without emphasis on quantification. As for the time, we divide objectives into long-term, medium-term and short-term objectives.

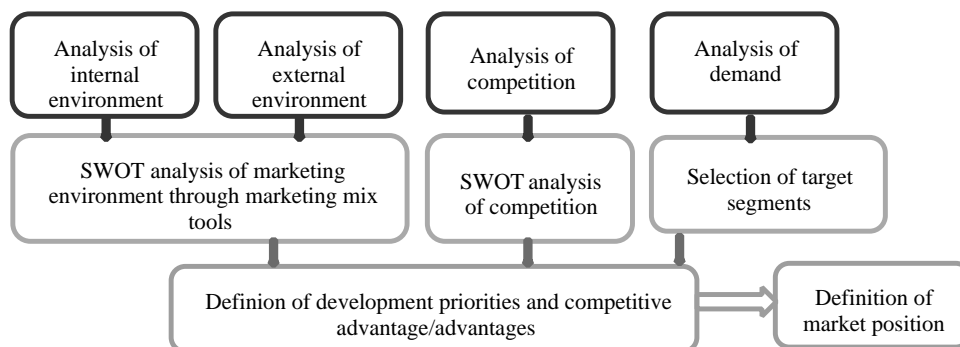
Individual objectives should support, and not contradict each other.



Source: Vaňová et al. 2017

## 2. The phase of marketing analysis

The phase of marketing analysis comprises four partial analyses: analysis of the internal and external environments, analysis of the demand, and analysis of competition, in order to produce an integrated and comprehensive view about the ruin. The outputs are a SWOT (strengths, weaknesses, opportunities and threats) analysis of the ruin, identification of the market position and of the target segment/s, and a SWOT analysis of the competition. Following figure outlines the whole phase of marketing analysis including the main outputs of partial analyses.



Process of the marketing analysis

Source: Vaňová et al. 2017

The purpose of the internal environment analysis is to describe and characterize the current state of the ruins and point to the specific features, advantages and problems related to the current and future utilization and development. The basic preconditions of the ruins utilization and development are contained in its value and location. From the qualitative point of view what is evaluated is the image, attractiveness, glamour and the aesthetic value of the ruin.

The image of the ruin is how it is perceived, i.e. the mental image of the place where ruins are located. The charm, attractiveness and the aesthetic value of the ruin is understood as a recognition of the quality of the natural or man-made environment. It is difficult to define or measure these qualities as a set of qualities that can be a part of the aspects of a territory where the ruins are located, regardless of being physical qualities, symbols or associations. Although they are not clearly defined, they are active factors of the success or failure of the ruin and its competitive advantage in the market.

The external environment is meant as the surroundings of the ruin. The analysis of the external environment is the collection of information heralding changes in the external environment (the surrounding places and their similar attractions as ruins – towns and cities, villages, countries, continents, world) with a positive or negative impact on the ruin or place where the ruin is located. The development of the external environment needs to be examined from the point of view of its past, present, as well as future. Owing to this, the world trends must be taken into account from various areas of life. This is especially important when looking for potential ways of developing the ruin, the competitive advantage of the ruin, the potential markets and the possibilities of innovation. Among the trends in the world to be taken into account are for example:

- the long-term growing trend of ecological awareness (inhabitants, companies and visitors are not interested in places with excessive pollution. On the contrary, there is an increasing interest in the environment that is only damaged insignificantly, which represents the potential for quality housing and recreation. The trend is so-called green places);
- changes in the lifestyle (the dominating trends are retreat from everyday stress, or voluntary simplicity);
- development of information and communication technologies (they influence new trends in the development of ruins and places where they are located – creative places, smart places, etc.).

These facts significantly change the needs, which must be translated into the creation of the competitive offer of the ruin exploiting the current and potential competitive advantage of the ruin. The internal environment can be, to some degree, cultivated, whereas the external environment has to be respected. The results of the marketing environment analysis can be transformed into:

- the strengths and weaknesses of the ruin that can be influenced,
- opportunities and threats of the external environment that cannot be influenced, or are difficult to influence.

This system of analysis is called analysis of strengths, weaknesses, opportunities and threats, i.e. the so-called SWOT analysis.

An important part of the analysis phase is the analysis of demand or the analysis of the market. The philosophy of marketing maintains that the key to success in the market is knowing the current and potential needs of customers (further on, the concept of customer will denote the equivalents of buyer and consumer). The customers of the ruin are the current or potential customers who satisfy their needs or live in the place where the ruins are located, visit the ruin or do various activities in/at the ruin. Market analysis means the analysis of all current and potential customers of the ruin. Within the analysis of the market, it is possible to identify a market position. Market position is the place that the offer takes in the minds of consumers, compared with the competition according to important attributes. Market position expresses how the place's offer, in this case a ruin and its offer, is perceived by the target market or consumers. Building of a market position is a crucial moment for the long term success of the market offer. Segmentation helps identify the current market position and gain a new desired market position by creating an offer that will meet the expectations and needs of the target market/target consumers. Through market segmentation it is possible to find out:

- which attributes of the ruin's offer are important for which market segments, and
- how these segments perceive the existing offer in the market and what offer they would desire.

The analysis of competition is based on comparison of the investigated ruin with other places with similar ruins.

Although the importance of competition for the ruin utilization and development is obvious, in practice, the realistic assessment of competitors usually gains little attention. Often, the reason is either the subjective conviction of the ruins' management that they know the competition and its behaviour, or resignation due to the extent of the competition research. Place marketing uses methods and tools that can significantly contribute to a more efficient process, especially in non-price competition.

### 3. The phase of marketing strategy

Strategy is a tool used to achieve the determined objectives. The strategy sets out the objectives and procedures to achieve, and allocates the resources by implementing the procedures. Marketing strategy is an organized marketing approach expected to help achieve the marketing objectives. It includes specific strategies for target markets, marketing mix, and the amount of marketing costs. In place marketing, the creation of a marketing strategy includes the activities that need to be done. If we consider a development of municipality or city to be based on ruins, we can assume that the future of the place is largely unclear and it is difficult to estimate its future development. If a place is able to absorb different changes and efficiently and quickly adapt to new opportunities and trends, a plan of procedures and activities must be developed to decide which services, production and activities will be supported, which will be maintained and which will have to be terminated or given up.



The marketing strategy of the ruin utilization and development presents the trends of future development and tools and procedures to achieve them.

The concept of marketing strategy is closely connected with the concepts of competitive advantage and unique competences/abilities. Marketing strategy of the ruin utilization and development is specific in that it respects different subjects with a different relationship to the ruin, with different interests in the ruin, and it is a result of negotiations of different interest and political subjects preferring different ways of achieving the objectives. The marketing strategy of ruin utilization and development is a plan for a longer period, and therefore, it consists of several stages of investment and transformation. When creating a marketing strategy, we do not start from the scratch, because each ruin has its character given by the potential. The creation of marketing strategy for a ruin requires an interdisciplinary and team approach. At the beginning of the strategy phase, the overall objectives set out in the concept phase are complemented by marketing strategic objectives and specific marketing objectives, specified in quantity and time. Marketing objectives must be set out for different areas with an impact on the prosperity, ruin utilization and development, such as position in the market, municipal profit, competitive advantage or objectives, controlled growth, and limited or zero growth of the ruin. Considering several ways of reaching the marketing objective and the changes in the market, the marketing strategy should be developed in more alternatives. They should include different alternatives of marketing strategy and strategies of the marketing mix tools to ruin utilization and development. From different alternatives of marketing strategy, the following are selected strategies that have the best chance to be implemented in a particular time. The selection of a suitable alternative depends on:

- reachability of the segments,
- political priorities,
- ongoing activities in the place of ruin,
- availability of financial resources (funds, investor, etc.)
- expected success of implementation, and
- trends in the ruin utilization and development.

Assuming that the creation of the marketing strategy of ruin utilization and development is based on respecting and influencing the needs of the target segment, exploiting the strengths and eliminating the threats of the place, it is necessary to take account of the SWOT synthesis. The SWOT synthesis is an overview of the strategic situation of the ruin as a result of assessment of individual factors of SWOT analysis. The combination of individual factors of SWOT analysis has an effect on generating different variants of the future, which is a basis for systematic strategic choice. The combination of potential opportunities and threats together with the predicted strengths and weaknesses brings the ruin into harmony with its environment. The ruin can thus focus on the opportunities that correspond with its strengths and avoid the risks it cannot resist due to its weaknesses. The results of the SWOT synthesis transferred to so-called "TOWS matrix" are the basis to formulate alternative strategies developed to reach harmony between the internal qualities of the ruin and its external environment.

		MARKETING MICRO-ENVIRONMENT	
		<b>Strengths (S)</b>  Own resources, possibilities, qualities with a potential positive influence on strategy implementation.	<b>Weaknesses (W)</b>  Internal negative factors with a potential negative influence on strategy implementation .
M A C R O- E N V I R O N M E N T	<b>Opportunities (O)</b> External positive factors with a potential positive influence on strategy implementation	Conceptual strategy "maxi-maxi" <b>Aggressive growth strategy (SO)</b>	Conceptual strategy "mini-maxi" <b>Reversal strategy (WO)</b>
	<b>Threats (T)</b>  External negative factors with a potential negative influence on strategy implementation	Conceptual strategy "maxi-mini" <b>Diversification strategy (ST)</b>	Conceptual strategy "mini-mini" <b>Defensive strategy (WT)</b>

TOWS matrix

Source: Authors, according to Ochrana, F., 2002. p. 85; Lesáková, D. et al., 2001, p. 53.

SO (Strengths-Opportunities) strategy, or the aggressive growth strategy, is the most attractive strategic variant. It can be developed in a ruin where strengths are prevailing over weaknesses and threats. Such ruin is able to take advantage of all opportunities. It is a progressive type of strategy and its aim is to increase the market share or to enter new markets.

ST (Strengths-Threats) strategy, or diversification strategy, is the strategy of a strong ruin existing in an unfavourable environment. The strong position of the ruin and the place where the ruin is located, should be used to eliminate threats or to focus development on "safe activities". It is a stabilization strategy that aims to maintain the market position and make changes only to a necessary extent.

WO (Weaknesses-Opportunities) strategy, reversal strategy, is suitable for an environment surrounded by an attractive macro-environment, where weaknesses are prevailing over strengths. The strategy focuses on taking advantage of the opportunities offered to strengthen the current position and remove the weaknesses.

WT (Weaknesses-Threats) strategy, defensive strategy, is suitable for a problem area in an unattractive macro-environment. It is a form of damping strategy based on consolidation or reduction if the current trend of development in the particular area has not been successful.

A specific type of ruin utilization and development strategy is a combined strategy, which combines two or three previous types of strategies.

Ruin utilization and development marketing strategies are based on the current status of the market and differ according to whether the objective of the ruin is to succeed in the new market, to acquire or maintain a market position, or to market a new product.

The ruin can be developed and get a competitive position in the market due to competitive advantage through four target market strategies:

- strategy to attract tourists and entrepreneurs in tourism,
- strategy to attract new business activities,
- strategy to keep and develop the existing business activities, and
- strategy to support small and new businesses.

In addition to the above-mentioned approaches to creating marketing strategies of the ruin utilization and development, there are strategies based on the image marketing, brand building, co-creation, attraction marketing, infrastructure marketing, and marketing of people. Based on experience, these strategies, implemented independently or sequentially, either have little impact, or are inefficient.

#### 4. The phase of implementation

For successful implementation of a marketing strategy, it is inevitable to know what to do and what results are expected. In the implementation phase, marketing strategies are transformed into specific marketing activities. The implementation steps of marketing strategy and marketing mix strategies are planned in time through action programs. They are the background for determining the:

- extent and character of activities,
- extent of necessary funds, budget,
- human resources and responsibility, and
- the form of control and evaluation of the particular activity.

The implementation phase involves specific measures that lead to fulfilment of the vision through meeting particular goals. At this stage, it is necessary to secure continuity of the individual activities in space and time, as well as active cooperation of all subjects involved. In practice, this means suitable inclusion of marketing in the activities of self-government authorities, i.e. establishment of an independent marketing department or another form of adequate inclusion of marketing activities in the organization that governs the ruin.

## 5. The control and evaluation phase

In literature, strategic marketing planning is characterized as a dynamic process which is subject to change and influence of development dynamics in macro- and micro-environment, in the markets, among competitors, etc. Continuous monitoring of these changes takes place within the control and evaluation stage. It is the feedback system – permanent functionality control of the components and marketing instruments in relation to current situation in the market. With regard to the fact that ruin utilization and development always takes place within non-stop transformation process, on the grounds of feedback system, it is possible to identify wrong or ineffective steps, capture behaviour changes in the market and respond to them in time.

In the control and evaluation phase, it is necessary to continuously evaluate the effectiveness and efficiency during implementation, as well as the market approach. In professional literature, marketing audit is defined as one of the control and evaluation methods. In place marketing, the purpose of audit is examination of vision, mission, general and marketing objectives, ruin utilization and development, marketing strategy, marketing mix, external environment, the organization, and the systems.

Elaboration of a quality marketing audit is highly demanding as to the financial, personnel and organizational aspects. It requires experts who submit a comprehensive, independent audit with good information value.

### **Communication strategy of ruins utilization and development via promotion**

Contemporary society is characteristic for excessive communication that goes beyond the classical concept of communication. Place marketing is based on communication with customer – from needs analysis in the form of marketing research, to sales of the product and point of purchase communication. Therefore, ruin utilization and development and its success in the market need a comprehensive marketing communication programme, in which special role is played by a tool of the marketing mix – promotion.

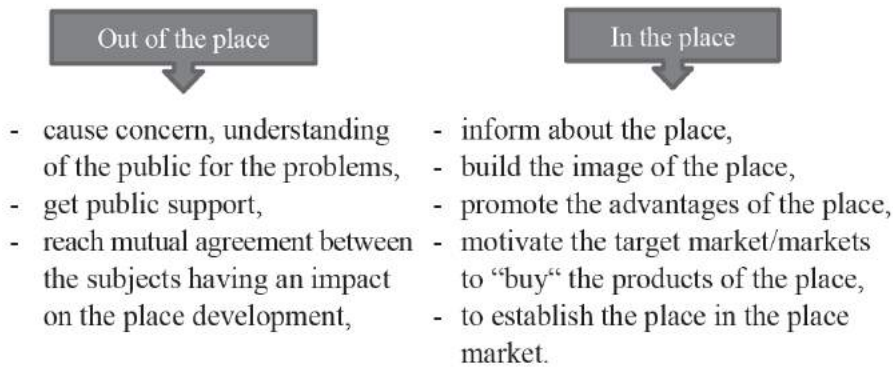
### **Marketing communication via promotion**

Marketing communication is an irreplaceable part of presentation of the place focused on profit and prosperity. Each place, including those where ruins are located, wishing to succeed in the market should create its own integrated programme of targeted communication with customers it wants to address. This is an inevitable factor in getting the ruin established in the tourism or cultural heritage market.

Place promotion represents the way in which managers address visitors and public, and thus encourage them to come and stay in a ruin and place where ruins are located for some time. It also allows establishing credibility and positive relationship to its brand.

The goal of place marketing promotion is to use the communication mix tools (promotion, public relations, sales promotion, personal communication, and direct mail) in order to inform about the ruin, promote its advantages, and to motivate target market or markets so they “buy” the products of the ruin; to establish the ruin in the cultural heritage or tourism market, inform the public about the activities of the local self-government for the citizens, cause concern and understanding of the public for the problems of the ruin, get public support, and to reach mutual agreement between the subjects having an impact on the ruins utilization and development (Vaňová, 2006).

The goal of promotion is differentiated according to the communication activities orientation:



Source: Vaňová et al. 2017

### Promotion and promotion strategies

For sustainable ruin utilization and development and its success in the market, it is important to create a complete promotion programme based on a promotion strategy. The essential parts of each place communication strategy are:

**Goal:** What do we wish to achieve with the communication strategy? Each goal should be set in compliance with SMART or KARAT requirements.

**Subject:** What kind of information are we going to spread, or what are we going to communicate? The answers must be based on detailed analysis of the present situation of the ruin and current promotional activities.

**Target group:** Who are we going to communicate with? A good practice is to provide exact specifications of the target group according to the selected segmentation criteria (e.g. geographical, psychological, social and economic).

**Message:** In the process of creating communication activities, it is necessary to consider the structure and format of the communicated message, as well as credibility of the message resource. With regard to who we wish to address, we can choose to apply a rational, emotional, moral, or combined contents of the message.

**Channels:** We choose the channels to be used in communication. They can be personal (TIK - tourist information office, information centre, phone call, etc.) or impersonal (media, internet, information boards, etc.).

**Instruments:** We choose particular communication mix instruments (promotion, PR, sales promotion, personal communication, or direct mail).

**Form:** According to the chosen instruments we choose suitable forms of the communication mix instruments (e.g. printed leaflets for promotion, radio competition for sales promotion, etc.). Forms of the instruments should complement each other with their effect and thus create synergy.

**Frequency, time, length, repetition:** Another important decision is the length of the communication campaign, frequency and repetition of the particular forms of communication mix.

**Staff distribution:** This stands for tasks assigned to the people responsible for them.

**Budget:** Financing of the campaign, clear financial resources and bulk funds.

**Effectivity and efficiency monitoring:** Setting the way of the current checking (monitoring) and the following evaluation of communication strategy efficiency on the basis of predetermined indicators.



Promotion is currently a must and its development requires a lot of finance. Promotion makes the place where ruins are located better known for the public, raises the awareness of the place and helps it attract new business activities, tourists and people and keep the existing ones.

Promotional communication runs in two directions:

- the sender of the message is the municipality (if municipality is in charge of the ruin) or management of ruins, and the recipient is the public,
- the sender of the message is the public and the receiver is the municipality or management of the ruin. Sometimes an intermediary may help in communication between these two subjects (e.g. civic association). It is necessary to realize that both these subjects have equal position in the communication process. Two-direction promotional communication also serves as a system of feedback.

The major channels of promotional communication at present are divided into personal and impersonal ones, e.g. personal communication and electronic communication.

Ruins and places where they are located use different forms of promotional communication, depending on available funds and creativity of people in charge of their implementation and running. At present, it is possible to talk about four key, perspective types of promotional strategy for the place:

- creative,
- emotional,
- innovative, and
- integrated.

Creative promotional strategy is based on the ability of the creator to differentiate the place of ruins from competitors by the selected creative idea and attract the attention of the current and potential customers of ruins.

Emotional marketing strategy is based on the fact that the efficiency of communication grows with the ability to give it a certain emotional subtext, its advantage being that it is very difficult to copy.

Immediate reaction to the development of technology, especially information and communication technologies, is an innovative promotional strategy. Modern technical tools enable the introduction of new promotional techniques. At the beginning, they increase costs, but they have a good chance to attract the attention of a wide public, as well as to influence more specified groups according to their individual needs. The current trend is two-way communication, which restricts one-way communication and this brings benefits for the whole place where ruins are located. The most important innovations in promotion are on-line communications – the use of the Internet, digital technologies, 3D and 4D systems, GPS (Global Positioning System), multimedia terminals, mobile networks, mobile phones, etc. Everything is reproducible today (except for tastes and smells). Satellite services enable, for example, to locate ruins and objects with a real view, which can be used to attract investors, residents and tourists to the place, navigate drivers, etc. The Internet makes it possible to establish contact with millions of people at almost zero cost. Integrated promotional strategy is based on integrating communication activities. A suitable combination of communication tools helps to efficiently mediate the ruins offer and demonstrates the maturity of the culture of local authorities and subjects in the place where the ruin is located. The goal of the integrated promotional strategy is to increase the interconnection of all promotional tools, and to increase their efficiency for internal and external communication, which, despite the increasing communication costs, ultimately helps maintain or reduce the total cost of promotion.

The sequence of steps in creating a promotional strategy is as follows:

1. identification of the subject of communication, in this case ruins,
2. identification of the target recipients and their current “mood” in relation to the subject of communication, i.e. how the subject of communication is perceived by the majority of target audience, how deeply they know it, what their attitude towards it is, or how important it is for their needs and interests,
3. formulation of the vision and goals of communication,
4. choice of the message (content, structure, format),
5. choice of the media (personal and non-personal communication channels),
6. choice of the source of the message (should be reliable, competent and popular),
7. choice of the communication tools from promotion mix,
8. determining the time, length and frequency of communication,
9. creating the budget,
10. inter-connection of individual measures, preparation of a timetable according to the importance of individual steps,
11. deciding about the tools of assessment /control of the strategy effectiveness,
12. implementation, and
13. control and evaluation.

In designing a promotional strategy, it is important to decide about the channels to transmit messages to target segments, which affects the success of promotion. Communication channels are classified as personal and non-personal.

Personal communication channels are very effective, as they ensure direct feedback. Non-personal communication channels are mainly those media that mediate a message without personal contact. Recently, the importance of the Internet and mobile networks has grown and they have become the most effective communication channels. A great benefit of both channels is the possibility of interactive communication.

### **Promotion mix and tools of communication**

Efficient promotion of ruin utilization and development requires a correct setting of communication tools within the promotion mix. The promotional mix consists of the following communication tools:

- Public relations

One of the most effective promotional tools is communication with the public. PR can reach a wide audience at a relatively low cost. Public relations are a planned and systematic activity that is aimed at creating and strengthening trust, understanding and good relationships with important public groups, changing the attitudes and behaviour of decision-makers in the place where ruins are located, getting the support of these subjects and groups in order to effectively implement the strategy, building a positive image and brand name of the ruin. Ruins that want to be present in the market, create a positive image and become known among the current and potential customers, should use a unified graphic style, the so-called single identity system for all activities. The PR tools that can be used in ruin utilization and development are media (printed, electronic, agencies), various events, financial or material sponsoring, information services, or services of the public office.

- Advertising

Advertising is a paid non-personal form of presentation and support of the ruins through different media which is done by an identifiable sponsor. Advertising of a ruin should always focus on what is unique and specific to it, and should include things that will imprint deeply in

the memory of the recipient. Advertising can be done through various communication channels such as the Internet, printed materials, multimedia, and so on. The most commonly used promotional materials are: flyers, brochures, books, publications, maps, studies, annual reports, calendars, postcards, posters, tourist guides, videos, banners, and other.

- Sales promotion

Sales promotion is a promotional tool that represents short-term incentives to activate buying or selling. It is often combined with advertising or personal communication to support the goals of the promotional programme. Through its tools, it stimulates interest and offers strong incentives for “buying” by using some form of coercion in the form of a benefit that adds value to the consumer. Sales promotion can create a short-term, but also sustainable, competitive advantage.

- Personal communication

Personal communication is a form of verbal presentation in conversation with one or more potential “buyers”, aimed to offer ruins to potential visitors, entrepreneurs, investors, etc. It functions effectively especially on the grounds of personal relationships, while making and keeping personal contacts directly or indirectly. An advantage of personal communication is personal interaction and direct feedback, where one party can discover the needs of the other one and make flexible adjustments of the message content. It is effective mainly when setting preferences.

- Direct mail

Direct mail as a marketing communication mix tool is effective when there is a need to address an exactly defined target segment or individual subjects. The means are telephone, mail, Internet, e-mail or teleshopping (mainly for tourist destinations), one use objects (3D objects), etc. Direct mail also includes sending offers, notices, comments or other shares to the consumers. Each of these forms should contain a reply/response option – telephone number, website address, contact email. Direct mail is a popular medium as it provides selective choice and personalization of the market. It is flexible, can be pre-tested and its effect is measurable.

- Organized events

Events in ruins boost the interest of the customers and media in the ruins, as well as the place where they are located. The events organized by companies, organizations or institutions for their customers represent a rich, innovative and creative approach to building of image, trust and friendly relationships with customers and a wide public.

Events are an impersonal communication channel through which the organizer sends a certain message to the target audience. There are different types of organized events suitable to be located in ruins, for example:

- cultural (music, folklore, theatre, film events, festivals, etc.),
- gastronomic (making traditional or non-traditional food),
- historical (historical fencing performances, folklore festivals),
- commercial (exhibitions, fairs, etc.),
- thematic (New Year’s Eve, Children’s Day, etc.),
- informational (open days, etc.), or
- other events.

Organized events as a form of promotion evoke emotions, lead the target group towards active participation and engagement while providing an intensive emotional experience, and attract the attention of consumers, potential customers and the media. People often associate the emotions and memories of the event with the place where it was located. Positive

experiences cause the need to communicate them on social networks, which increases interest in the event, as well as popularity and visit rates.

- Virtual communication, applications, social networks, blogs

The Internet is an inseparable part of everyday life. The advantages of the Internet communication include the possibility of accurate targeting, easy measurement of the users' responses, continuity of display of promotion sharing, information updates as needed, up-to-date information thanks to quick data transfer, easy altering, sending, archiving and linking of information, building relatively anonymous user databases, addressing a wide public regardless of their location and current time, at a low cost.

The most frequently used forms of promotion on websites include blog, banner, text link, electronic mail, audio-visual communication, social networks, YouTube channel, etc.

- Word-of-mouth (WOM)

One of the most popular ways to promote a place and spread information to people is word-of-mouth. Word-of-mouth is a form of personal communication that includes exchange of information about the product or service between the target customers, neighbours, friends, relatives or colleagues. Products, brands, services, events, and destinations represent important conversation topics. People exchange information with direct or less direct links to the place products or the place as a whole.

- Buzz communication

One of the WOM techniques and part of buzz marketing is buzz communication. It is the concept based on making a buzz. It is a way of "making" the consumer talk about the product, while the media write about it. It is a relatively cheap technique but very demanding as to content. Creation of a quality campaign concept is rather complicated as it expects finding extremely interesting, unusual, or even controversial topics that would have a potential to make a necessary buzz among both the consumers and the media. The topic that evokes talking and writing must be fascinating or humorous, and it should trigger conversations. This communication model is based on direct participation of the target audience in marketing communication – the recipient forwards the message to friends, and they tell other people. That is how buzz is created – a buzz that will also make the media focus on the topic.

- Guerrilla communication

Guerrilla communication or campaign is an unconventional communication campaign with low cost which has made it very popular in recent days. It can not only attract attention but also keep the cost low. Unconventional approach of guerrilla communication is supposed to surprise and impress the target group with its original solutions.

- Product placement.

Intentional and paid placement of a place (city, village, region or its locality, historic landmark, monument, ruin, name, etc.) in an audio-visual piece aimed to promote it, is called product placement. Quality product placement shows the place or its sub-products in a positive or attractive context which causes emotion and the need to visit the place. Contrary to the classical promotion, it is perceived by the viewers as an unforced method. The problem with product placement is measuring its effectiveness. One of the most popular indicators is e.g. visit rate increase.

### 3.6.6 Risk assessment

Author: Matej Bel University

International programmes, especially related to heritage in danger are (Work, Gis, 2004):

- UNESCO World Heritage Centre: "Periodic reporting of world heritage sites" and the "List of world heritage in danger". A digital, internet-based tool for periodic reporting developed by the Nordic World Heritage Foundation in co-operation with GRID-Arendal (Norway) is, as far as we are concerned, concerned, in the testing phase. (<http://whc.unesco.org> )
- ICOMOS: The "Heritage at Risk" programme, which includes annual national and thematic reports on cultural heritage in danger. This reporting is still in its starting phase, but is gaining in importance. So far, only written reports are provided (to be downloaded from the ICOMOS website). (<http://www.international.icomos.org/risk/index.html>)

Risk is defined as the probability that a certain kind of damage will be realized (Ball and Watt, 2001). Their means is following:

- Hazard – a situation which could cause harm e.g. a stockpile of nuclear waste; an earthquake fault line; a worn stair case; an excess of visitors
- Risk – the probability that a certain kind of harm is realised e.g. the probability of fire
- Risk assessment – the activity of identifying hazards and assessing the likelihood of harm
- Risk management – the decision making process following on from risk assessment

For our purpose, as seen from the perspective of the physical qualities of cultural heritage, a possible definition of risk could then be (Work, Gis, 2004):

*Risk is the probability that a certain harmful event (hazard) or process might take place within a certain time span. The actual destructive effect of the harmful event or process is related to its intensity and the vulnerability of the cultural heritage asset in question.*

Risks are the result of natural or human-made threats. Natural risks include both the catastrophic and sudden, such as a flood or an earthquake, and continuous, cumulative and slow processes such as erosion. Anthropogenic risks are the result of different human activities, which include development in general and tourism in particular, inappropriate management, and the lack of maintenance and neglect. Risks to heritage sites are also dependent on the specific characteristics of each site and its inherent vulnerability (Paolini, et al., 2012).

Risk management is the process of identifying, assessing and analysing expected and possible damage - in this context, to heritage sites - and of developing mitigation strategies in order to reduce the risk of damage (Paolini, et al., 2012).

An alternative way of saying this is that risk management is the decision-making process following a risk assessment (Ball and Watt, 2001). It is the process that involves managing losses and impacts (on the significance of a historic site) in order to minimize them and to reach a balance between opportunities gained and lost. The adoption and application of the risk management approach by the organizations and institutions involved in the management of heritage sites will provide them with a well-organized tool to assist them in their conservation and management planning decisions.



A heritage buildings are a buildings that are considered to have historical significance. Factors making a building historically significant include its historic, aesthetic, scientific, and social value (Mydin et al. 2014). Also important are its materials, setting, use, association, meaning, records, and related places as well as its related objects (ICOMOS Burra Charter, 1999). Many of the heritage buildings were built without much thought given to fire protection and resistance (Ibrahim et al., 2011).

### Risk analysis

It is a systematic process of using available information to identify potential hazards and quantify risks. (Karácsonyová, Munka, 2010). Its essence is a preventive approach, ie the active search, analysis and assessment of possible hazardous events due to damage to the RUINS environment and the human population.

Each type of risk has characteristic sources and factors (Table 1). Risk sources are generally referred to as external (external factors) and internal (internal factors). External factors generally include (MF Guidance, 2006): - economic factors, sociological factors, physical factors, - technological factors, - political factors, - legal factors.

Internal factors, for the RUINS project, enter into the issue if the object is re-used for a company in the form of a particular organization with legal personality, museum, hotel, gallery ... Internal sources of risk belong to each organization and their activity is different in each organization.

Basic Factors (MF Guidance, 2006) are used:

Organization Strategy, Organization Structure, Information Systems, Management Style, Collaborators, Shared Value and Employee Skills.

Simplified answers to three basic questions:

1. What can fail? (hazard identification)
2. To what extent is it likely to be done? (frequency analysis)
3. What are the consequences? (analysis of consequences)

Answers to the questions raised will form the basis for creating effective security measures.

#### 1. Hazard identification (What can fail?)

Hazard identification is a systematic examination of the system in order to determine the type of hazards and ways of manifesting hazards. Dangers are biological, chemical, physical, social, e.g. tourism, or a radiological agent that may cause damage to the object-RUIN) Dangers as a source of undesirable factor are broken down by origin and origin. From this division, the construction of security systems "safety" and "security" .

<i>Danger</i>	<i>Originator</i>	<i>Origin</i>	<i>Safety system</i>
Earthquake			
Dry	Accidental	Natural	SAFETY
Floods	Climate Changes		
Natural fires			
Man factor	Social:	Anthropogenic	SECURITY
Unintentional	societal, economic, political		
Intentional: terrorism, vandalism	Legal		
Device disorders	Technological		
Materials aging			

Assessment of sources (external) hazards and identification of security systems (Andrejikova et. al., 2012)

The data acquisition process is complicated and solved in a number of ways, use of historical data, knowledge from previous risk analyzes, subjective opinion of the processor of the risk analysis. It is necessary to accept the incompleteness of the list of identified hazards and unidentified (unknown) hazards. At the same time, the accepted possibility of residual risk remains (Karácsonyová, Munka, 2010).

Basic tools for identifying environmental risk include, according to Andrejikova et. al. (2012) SWOT analysis, sensitivity analysis, simulation procedures, decision trees, expert risk assessment, Risk Diagnosis Methodology and others.

The main objective of the risk assessment process is to compare the level of risk that has been obtained in the risk analysis process with the predetermined criteria. The outcome of the risk assessment will be whether the assessed risk is acceptable or unacceptable (Čičmanová, Mäkká, 2014).

How is it appropriate to use RUINS to use the risk assessment method of the ALARP model. ALARP (As low as reasonably practicable) means reducing risk to a level that is practically (technically and economically) feasible. ALARP includes three acceptability areas that are divided by the upper and lower boundaries. The lower boundary defines an acceptable area with the lowest risk. If this limit is not exceeded, we may consider the system to be safe. On the other hand, there is an upper boundary that defines an unacceptable area. (Čičmanová, Mäkká, 2014). There is an ALARP area between the two borders, where the risk is accepted if the cost of reducing it is disproportionately high or the risk reduction is impossible.

### **Risk management**

A guide to risk management is the ISO 31000 codified by the International Organization for Standardization, namely:

- ISO 31000:2009 –Principles and Guidelines on Implementation
- ISO/IEC 31010:2009 – Risk Management –Risk Assessment - Techniques
- ISO Guide 73:2009 –Risk Management –Vocabulary

Classical levels of risk have until recently been an acceptable and unacceptable level of risk, at present, according to STN 31010, the following three categories are used for perceiving the level of risk:

1. The risks are so great that they are not acceptable,
2. The risks are so low that they are acceptable,
3. The risks are among the previous two categories, and then the compromise between the cost of the benefit and benefits must be assessed.

The level of risk is usually grouped into three areas (areas):

a) **Upper zone** - unacceptable / unacceptable level of risk - high level of risk considered unacceptable, regardless of whether it can bring any benefit and treatment of the risk is necessary regardless of its costs.

b) **Medium band** - Permissible / tolerable level of risk (tolerable) - Permissible only if all available risk mitigation measures are used, with a level of efficiency consideration taking into account the costs and benefits and opportunities being considered taking into account the potential consequences.

According to the principle of ALARP there is a sliding scale for (Belan, Mišík, 2015):

- Permissible large risks that are only allowed if their reduction is not possible or if the cost of reducing it is significantly disproportionate to the benefits received, therefore it is expected that the risk will be reduced unless the cost of the reduction is to outweigh the benefits.
- The permissible small risks that are permissible after considering the cost of reducing them, and if the benefits outweigh the costs, it is therefore appropriate to apply a rigorous cost-benefit analysis to their reduction.

(c) **Lower band** - Generally acceptable / acceptable level of risk (broadly acceptable) - The risk level is considered negligible or so small that no risk management measures are necessary, the risks need to be monitored to ensure that they remain low .

Tolerable risk represents the risks that an individual or company is willing to undertake when they see the possibility of gaining certain benefits. The conditions for defining the permissible risk are:

- to provide certain benefits,
- the extent of the risk can not be considered negligible or as something that we can ignore but rather as something we need to track and reduce as much as possible (ALARP).

The basic direction of risk management is transformed into acceptability criteria (Fig.2). Criteria for risk assessment are determined on the basis of experience and rules generally acceptable to society. We divide them into qualitative (risk classification) and quantitative (ALARP).

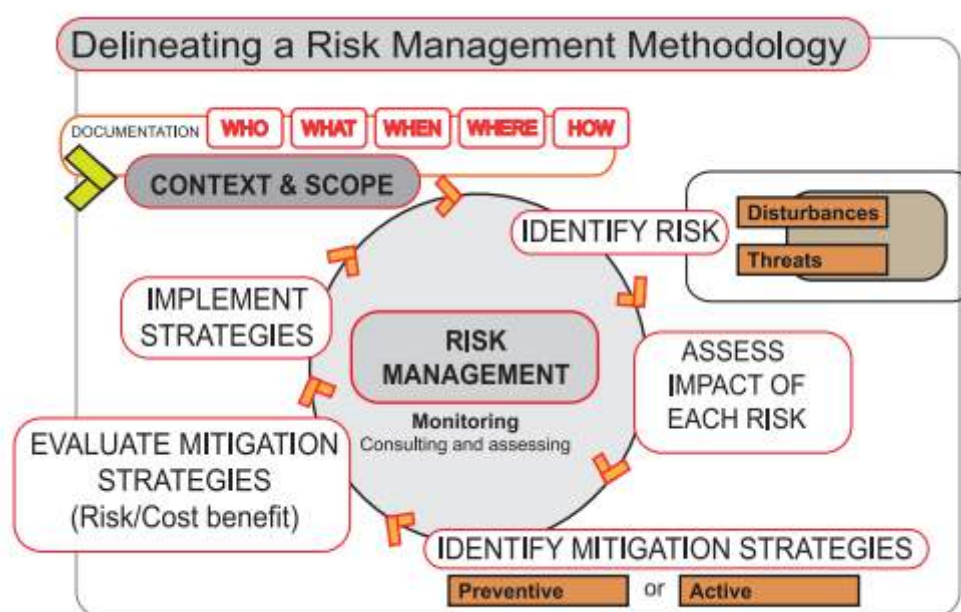
Cultural heritage is always under pressure from a variety of risks. Natural disasters, development, tourism, pollution, inappropriate site management, looting and conflict are just some examples of the risks faced by these sites. (Paolini, et al., 2012)

The threats can be either natural or anthropogenic: that is, human-made. Natural risks can be divided into two categories: catastrophic and sudden occurrences, such as a flood, forest fires or an earthquake, which have an immediate impact on heritage sites, and continuous threats with cumulative and slow effects, such as erosion and material decay. Anthropogenic risks result from a number of different human activities, including development in general and tourism in particular, and inappropriate management, lack of maintenance and neglect. The site's vulnerability depends on the environmental, economic, social and political context. The vulnerability of heritage sites increases when there are no maintenance approaches, there is inappropriate excavation and/or restoration, the site is affected by uncontrolled development and urbanization, there is a loss of local and traditional knowledge, and there is a lack of management systems for the site (Paolini, et al., 2012).

As mentioned before, this risk management proposal is based on two approaches for assessing and reducing risks to collections and artefacts, Waller's Cultural Property Risk Analysis Model (2003) and the Risk Management Australian / New Zealand Standard (Standards Australia/Standards New Zealand, 2004), as applied by CCI-ICN and ICCROM. These approaches have been enhanced here so they can be applied to heritage sites in order to develop and provide

a systematic tool to identify, assess and manage risks. The risk management methodology is an integral part of the management plan, with the aims of improving site conservation and tourism management, and strengthening the involvement of the local community. In this proposal the systematic application of the risk management process (Fig 1) includes six steps (Paolini, et al. (2012):

- 1) Defining the context and scope, including a documentation review as well as a values, condition and management context assessment.
- 2) Identifying the risks.
- 3) Assessing the impact of each risk.
- 4) Identifying possible mitigation strategies.
- 5) Evaluating risks and mitigation strategies based on cost–benefit analysis.
- 6) Implementation of the strategies (preventively or actively) to treat risks.



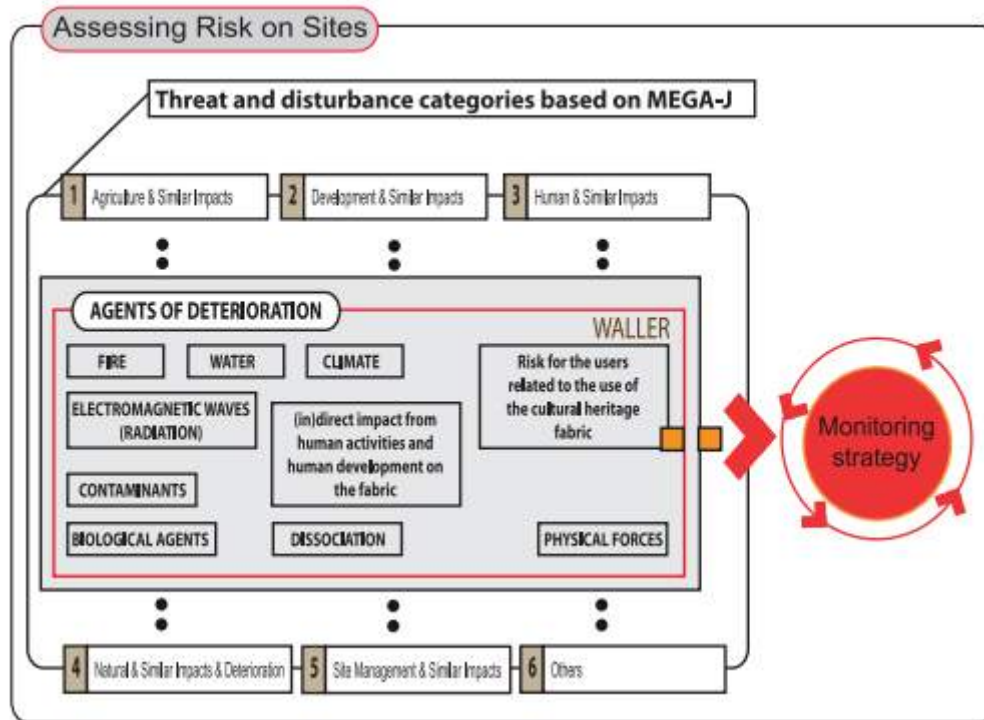
Risk management approach UNESCO

Also, partial methods of identifying existing procedures are available. In the various EU Member States, measures have been taken to preserve the cultural and natural heritage against fire on the basis of its own analyzes, legislative powers and systems dependent on decision-making processes in the individual Member States.

#### **Risk identification during Paolini, et al. (2012)**

To identify risks two elements need to be identified: what might happen in terms of potential damage (the threat), and the probable cause (the agent(s) of deterioration). Risk categories, such as natural impact, and the main types of threat, such as erosion and wind, when defined, make it easier to identify threats on site and record them. For this publication, since the risk methodology has been mainly developed, tested and implemented in Petra, from the beginning it was decided to use the predefined categories of threats and disturbances developed and standardized by MEGA-J for archaeological sites in Jordan. These categories were used for identifying and recording the condition of and risk to the sites and site elements, and to link geographic data to the condition of monuments.

As defined by MEGA-J, disturbances are current ‘detectable, negative effects on the site or site element by natural forces or human activities’ and threats are ‘detectable phenomena, whether natural forces or human activities, that appear to predict a future disturbance to a site or element’. Threats and disturbances as classified and defined in MEGA-J fall into six main categories: agricultural, development, human, natural, site management and other impacts, as depicted in Figure.



Risks and agents of deterioration potentially affecting the heritage sites UNESCO (Paolini, et al., 2012)

The risk impact increases when the frequency or strength of threat increases. Therefore, in order to be able to assess the impact, the frequency of occurrence or probability of threats and the severity and impact of their effects should be assessed.

The level of risk can be assessed based on both qualitative and quantitative approaches and criteria. In this risk management methodology both qualitative and quantitative approaches are presented. The qualitative approach uses words to describe the magnitude of severity (effect of damage) and the probability (likelihood) of a damage occurring. The quantitative approach uses numerical values for the risk criteria, and the magnitude is based on a scoring system. The quality of the quantitative analysis depends on the accuracy of the numerical values. Both methods are valid and could be used depending on the risk assessment projects and their targeted objectives, and the amount of data, time and resources available, as not everything can be grasped by numbers.

In the qualitative approach level of risks are identified based on the severity of effect (mild, severe, catastrophic) and frequency and probability of the damage happening (rare, sporadic, continuous). Three main types of risks can be defined according to their severity of effect and frequency (Paolini, et al., 2012):

- Type 1: catastrophic and rare
- Type 2: medium and sporadic
- Type 3: mild and constant.

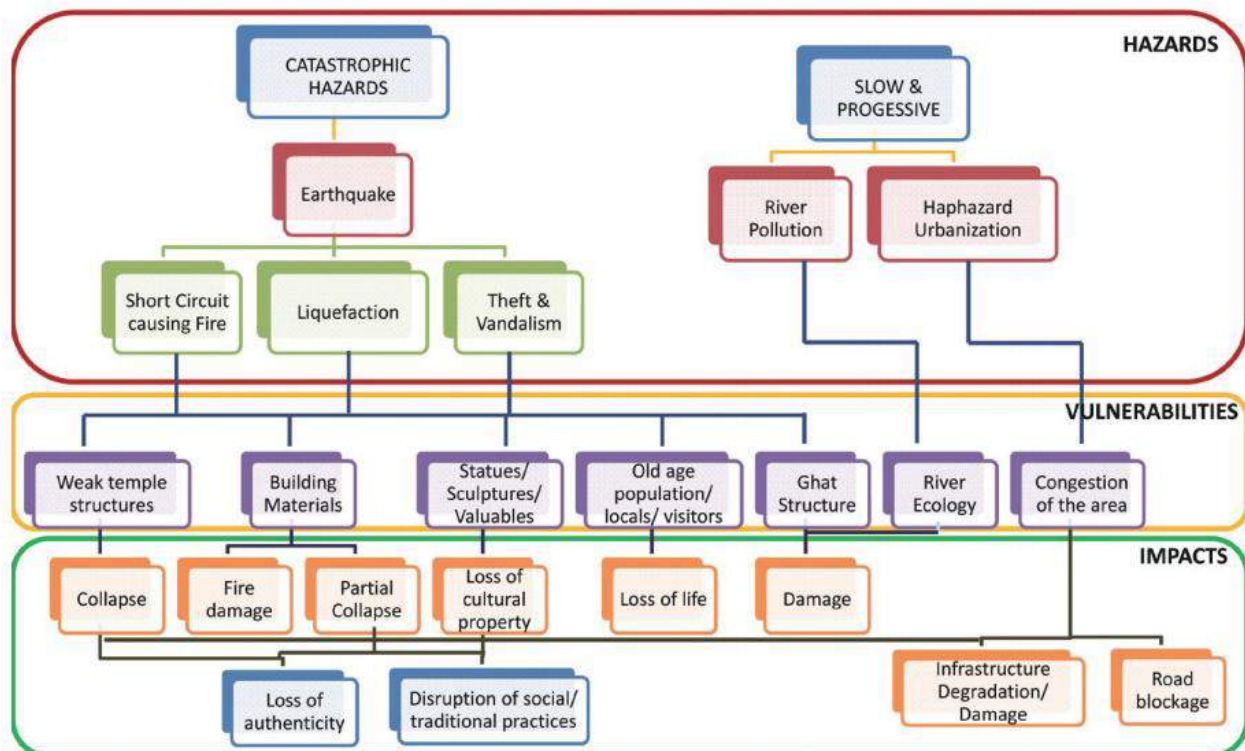


## Risk Analysis

The complex process consists of the following phases:

1. Risk identification
2. Risk assessment (Disaster Scenario)
3. Risk management (Main task of managers)
4. Monitoring and control

Generally, Risk Analyse by “Chart by the ITC 2015 Participants (see figure bellow)” (Proceedings of UNESCO, 2015) is instruction for prepare for an optimal development of risk management and find of events which are possible causes of damage.



An optimal development of risk management and find of events which are possible causes of damage  
(Proceedings of UNESCO, 2015)

### 1<sup>st</sup> step Risk Analysis: Risk identification

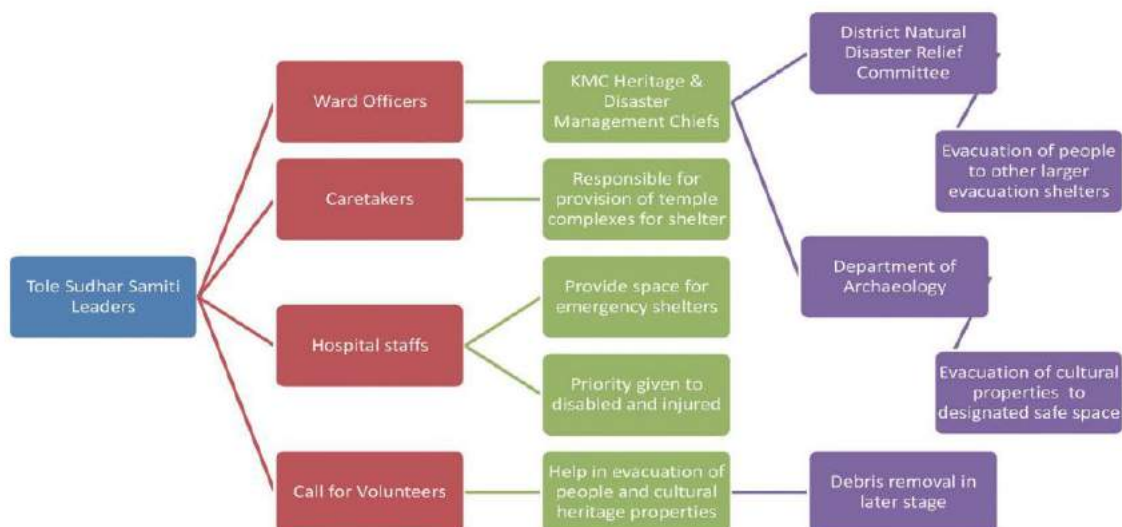
The process of the risk identification is based on multi-hazard and vulnerability assessment by the Mohammad RAVANKHAH (Academic assistant at Department of Environmental Planning & PhD candidate in International; Graduate School: Heritage Studies, Brandenburg University of Technology, Germany from the ITC 2015 Participants). (Proceedings of UNESCO, 2015).

PRIMARY HAZARD EARTHQUAKE	<b>SECONDARY HAZARDS</b> <ul style="list-style-type: none"> <li>▪ Liquefaction</li> <li>▪ Flooding/ rising ground water</li> <li>▪ Fires/ explosions</li> <li>▪ Wind driven rain/ Sand storm</li> </ul>	<b>HUMAN-INDUCED THREATS FOLLOWING QUAKE</b> <ul style="list-style-type: none"> <li>▪ Looting of valuable objects in citadel</li> <li>▪ Response and damage assessment related errors</li> <li>▪ Improper interventions affecting the OUV</li> <li>▪ Encroachment adjacent to the core zone</li> </ul>
	<b>STRUCTURAL</b> <ul style="list-style-type: none"> <li>▪ Weakness of mud layer/bricks to seismic activities</li> <li>▪ Improper past interventions/ lack of foundation</li> <li>▪ Existing cracks/structural damage due to the earthquake 2003</li> <li>▪ Loss of cohesion of mud brick due to decay, drying out, and termites</li> </ul>	<b>NON-STRUCTURAL</b> <ul style="list-style-type: none"> <li>▪ Lack of appropriate risk assessment/ preparedness</li> <li>▪ Lack of adequate emergency coordination among heritage and disaster related organisations</li> <li>▪ Lack of appropriate public awareness and socio-cultural revival of the citadel</li> <li>▪ Vulnerable local residents &amp; tourists in the citadel</li> </ul>
VULNERABILITY (Exposure/Sensitivity/DRM)		
RISKS	<b>DIRECT RISK</b> <ul style="list-style-type: none"> <li>▪ Cracks and collapse of earthen material/structures</li> <li>▪ Damage to Qanat by quake &amp; liquefaction</li> <li>▪ Damage to archaeological sites by quake &amp; debris</li> <li>▪ Impact on date palm orchards by fire from damaged life lines</li> <li>▪ Casualties &amp; Loss of life (staff/residents/tourists)</li> <li>▪ Impact on the OUV and authenticity of the property</li> </ul>	<b>CONSEQUENTIAL RISK</b> <ul style="list-style-type: none"> <li>▪ Dampness and growing vegetation/fungi on adobe walls as a result of rising ground water</li> <li>▪ Damage to interior collections by environmental factors, such as rainfall and wind, via collapsed roofs</li> <li>▪ Loss of traditional earthen techniques</li> <li>▪ Social loss (local ceremonies &amp; rituals in citadel)</li> <li>▪ Economic loss (shortage of water for irrigating gardens due to damage to Qanat)</li> </ul>

The process of the risk identification by the Mohammad RAVANKHAH

### 2<sup>nd</sup> step Risk Analysis: Scenarios

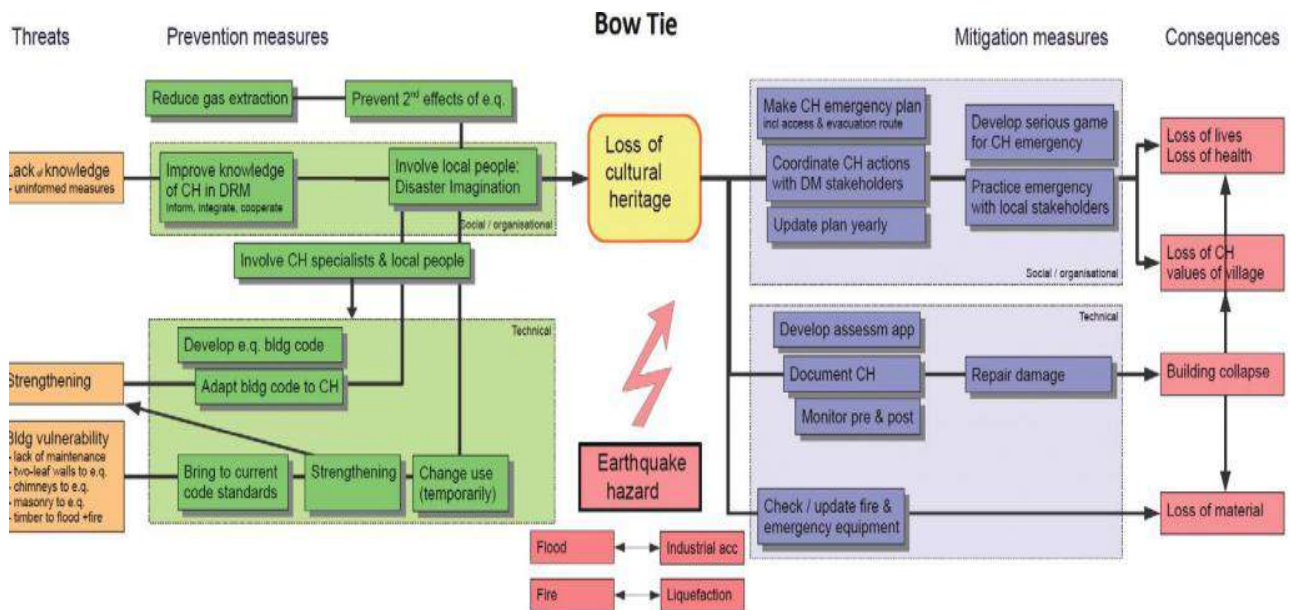
Conclusions of first step risk analysis are identified risks places. Risk places form the basic information for the creating scenarios make of disaster, accidents, fires and prepare planning of prevention and interventions. Proceedings of UNESCO Chair Programme on Cultural Heritage and Risk Management from INTERNATIONAL TRAINING COURSE (ITC) on DISASTER RISK MANAGEMENT of CULTURAL HERITAGE Ritsumeikan University, which was prepared by ITC 2015 Participants, proposed scenario on the following figure.



Samples of roles for scenarios DISASTER RISK MANAGEMENT of CULTURAL HERITAGE  
(Proceedings of UNESCO, 2015)

### 3<sup>th</sup> step Risk Analysis: Methodology, Prevention and mitigation measures

Ilse A.E. DE VENT, Senior inspector, Dutch State Supervision of Mines from the ITC 2015 Participants (Proceedings of UNESCO, 2015) showed methodology “Bow Tie”.



Methodology “Bow Tie” (Proceedings of UNESCO, 2015)

# CHAPTER 4

Good and bad practices:  
cases-study

## 4. GOOD AND BAD PRACTICES: CASES-STUDIES

Herein are proposed some good and bad practices of intervention.

This additional collection of cases-study was made thanks to the contribution of all project partners and represents a source of great interest both for stakeholders and professionals.

The examples providing extra references for operational practice. Let it be clear that the described interventions cannot explain an operational practice so huge and diversified that has to take into deep consideration the features of the ruins took into account from time to time.

To help readers to recognize at first sight the presented category of intervention through the cases-study, it is provided a red table for **bad practices** and a green table for **good practices**.

The descriptions provided represent a miscellaneous of examples to which look at.

KRZYŻTOPÓR CASTLE	
Author: <i>Lublin University of Technology</i>	
<b>Typology</b>	Castle
<b>Location</b>	Ujazd (Poland)
<b>Heritage</b>	<p>Krzyżtopór is one of the largest noble castles in Poland. Mannerism style, erected in the palazzo in fortezza type in 1627-44 on the initiative of the governor of Sandomierz, Krzysztof Ossoliński, perhaps according to a project brought from Italy, from the circle of G. Vignola.</p> <p>The construction was led by the Italian architect Lorenzo Senes.</p>
<b>Use</b>	<p>Institution of Culture Zamek Krzyżtopór in Ujazd.</p> <p>The castle organizes various cultural events addressed to tourists and the local community, including knight shows, artillery shows, historical reconstructions, old dance shows and workshops, night tours.</p> <p>The educational offer for children and young people is broad, including historical lessons, educational and artistic workshops (eg self-made jewelery, clay molding workshops, blacksmithing and weaving workshops, decorating wooden swords, presentation of seventeenth-century costumes, presentation and study of court dances, staging of duels, historical battle shows, knight's games and fun, field games). In addition, commercial services are also provided, including photo sessions, wedding ceremonies.</p> <p>There are five sightseeing routes with different degrees of difficulty. Forms of sightseeing - individually or with a guide.</p> <p>Next to the castle there is a free car park, a small gastronomy, in the building: cash registers, toilets, a souvenir shop, a concert hall.</p>
<b>Intervention made in order to host the current function</b>	<p>In the 1960s and 1970s, research (mainly archaeological) began. Inventories of individual facilities and design works were also carried out. The next archaeological research was carried out in 2010 on the premises of the castle and its surroundings (the area of castle gardens).</p> <p>The castle was secured as a permanent ruin with the reconstruction of some vaults and a temporary roofing of towers and most of the wings. In 2014, the conservation and thorough renovation of the castle ruins was completed.</p> <p>Works included execution: protection of the wall structure, adaptations of rooms for the needs of tourist traffic in one of the bastions without disturbing the original shape (including construction of an audiovisual room, exhibition hall), exchange of canopies, execution of the courtyard floor, partial reconstruction of the gate building, execution of visiting the Castle, partial reconstruction of gardens, land development in front of the castle, construction of a parking lot, conducting a nationwide promotional campaign, as well as creating illumination that will allow for night tours.</p> <p>Research and renovation and conservation works carried out in 2010-2014 were financed mainly from EU funds from the European Regional Development Fund. The object of the project was renovation, adaptation to the needs of tourist traffic and promotion of the Krzyżtopór Castle in Ujazd. All renovation and conservation activities were carried out in accordance with the conservation guidelines.</p> <p>The value of the project amounted to approx. PLN 12 million.</p>



	After the works were completed, the castle was open to visitors. It is secured in terms of the safety of the facility and visitors. The facility is illuminated and marked, monitored, provided with audible alarms, supervised at night.
<b>Conclusion</b>	The Krzyżtopór castle is the good example of the re-use of historic ruins for several reasons. In the process of adapting the monument to the new functions, research works were carried out, which deepened the knowledge about the object and its values. The historical substance and the form of the monument have been preserved. The castle has been open to visitors. Promotional activities undertaken by the manager, new cultural and educational functions have made the facility a place important for the local community and a tourist attraction on a regional and national scale. The new function also brings economic benefits - currently, the maintenance of the castle complex is financed mainly from running own business /tourism, sale of goods and services, etc./ The annual amount of income is PLN 1,150,000.
<b>Ownership / Management</b>	Municipality of Iwaniska / The Institution of Culture Zamek Krzyżtopór in Ujazd
<b>References</b>	<a href="https://www.krzyztopor.org.pl/">https://www.krzyztopor.org.pl/</a>

**Pictures:**

The Krzyżtopór Castle







CASTLE IN CHĘCINY	
Author: <i>Lublin University of Technology</i>	
<b>Typology</b>	Castle
<b>Location</b>	Chęciny (Poland)
<b>Heritage</b>	<p>The Royal Castle in Chęciny was erected in the 13th/14th centuries. It was expanded in the 14th century on the initiative of King Casimir the Great. Destroyed as a result of a fire in 1465, then renovated with the extension of the western tower and a fragment of the walls of the lower castle. In 1607, it again fell into a fire. It was rebuilt from the simultaneous construction of the east gate with the bridge and the residential building. The castle was destroyed in 1657 and 1707 by the Swedish army. At the end of the 18th century, there was a fragmentary demolition of the castle, which has not been used since then.</p>
<b>Use</b>	<p>Institution of Culture – Royal Castle in Chęciny</p> <p>The castle offer various cultural and recreational events - temporary exhibitions, concerts, conferences, theatrical performances, historical reconstructions, old dance shows and workshops, tasting of local food.</p> <p>The event "Night at the Castle" with many attractions: visiting the castle at night, fire theater, illumination shows, thematic scenes, thematic fights, contests and games, refreshments, bonfire.</p> <p>Educational function - the historical ruined site is used for training and educational activities for schools (educational and artistic workshops, trips, guided tours).</p> <p>Commercial use - sale of souvenirs, photo sessions, fashion shows.</p>
<b>Intervention made in order to host the current function</b>	<p>The ruins of the castle were restored in the 40s and 80s of the 20th century. In the 90s of the 20th century, a viewpoint was set up on the tower. In recent years, the Castle Hill in Chęciny has been revitalized in 2013-2014. Renovation and conservation works were financed mainly from EU funds from the European Regional Development Fund. The value of the project amounted to approx. PLN 8 million. The works were preceded by archaeological research.</p>
<b>Conclusion</b>	<p>The castle is the good example of the re-use of historic ruins. Adaptation to new functions was preceded by scientific research. The historical substance and the form of the monument have been preserved. The ruins of the castle have been secured and made available for sightseeing. The offer for visitors is dominated by cultural and educational functions. Currently, the castle in Chęciny is one of the most visited heritage site of that type in Poland.</p>
<b>Ownership / Management</b>	<p>Municipality of Chęciny</p> <p>Institution of Culture – Royal Castle in Chęciny</p>
<b>References</b>	<p><a href="https://www.zamek.checiny.pl/en/history">https://www.zamek.checiny.pl/en/history</a></p>



**Pictures:**



The Chęciny Castle



HRAD BEČOV (BEČOV CASTLE)	
Author: <i>The Institute of Theoretical and Applied Mechanics CAS, v. v. i.</i>	
<b>Typology</b>	Castle
<b>Location</b>	Bečov nad Teplou, District Karlovy Vary, (Czech Republic).
<b>Heritage</b>	<p>The Bečov mediaeval castle was founded in the first half of the 14th century. The first reliable reference to the castle dates back to 1349, when a deed certifying the castle existence was issued by the then owners of the Bečov manor, the House of the Lords of Osek, later of Rýzmburk. At first, the bergfried or defence tower and the palace were built. After 1352 the construction of the tower that was originally supposed to have a residential function started. However, the plan was changed and the Chapel of the Visitation of the Virgin Mary was created filling the space of three regular tower floors. After 1356, a representative residential tower, the so-called keep was built near the chapel tower. The walls of the castle lord's private chamber were covered in late-Gothic paintings. The residential and chapel towers were connected by a rampart. In 1495, the castle was acquired by Pluh of Rabštejn family who made significant changes thanks to their wealth gained by tin mining in Slavkovský les. They modified the keep interior and rebuilt the oldest parts of the castle to the Renaissance form; these buildings are still referred to as the Pluh Houses. They connected the keep with the chapel by a representative dining room where social events such as feasts and banquets were held. During the Thirty Years' War, in 1624, the Questenberks became the Bečov manor owners. Soon after the castle was taken over by the Emperor's garrison that stayed here until 1648, when the town and the castle were conquered by General Königsmark who captured the soldiers. Since then, the upper castle has remained empty being used for storage purposes. Together with the adjacent Baroque chateau it was opened to the public in 1996.</p>
<b>Use</b>	<p>Interior of the upper castle is presented as a training ground for the students of archaeology, construction history and restoration.</p> <p>The presentation activities are oriented mainly to traditional building crafts, techniques and materials and their utilisation within the mediaeval castle. Special guided tours focus mainly on traces of various periods of construction history of the castle, building craft live performances or educational and training programmes intended for both the professionals and general public. The standard guided tours show the place where the exceptional early Gothic masterpiece – St. Maurus's Reliquary – was hidden under the floor of the chapel. Together with the exhibition in the neighbouring chateau they are interpreting its extraordinary story. Regular events organised by technological laboratory of the Heritage Institute help to promote modern methods of recording and documentation.</p>
<b>Intervention made in order to host the current function</b>	<p>The abandoned mediaeval castle, after the Thirty Years' War adapted to the warehouse and granary, had been gradually devastated since 1945. Recently it was stabilised by the repair of its Baroque roofs. The interior walls, ceilings and floors of the castle have remained almost untouched, provided with just minimal</p>



	interventions, to show illustratively unique surfaces and details from different time periods.
<b>Conclusion</b>	The current mode of use allows organizing a wide range of activities for the public using authentic castle interiors with a plenty of remarkable construction details that would have disappeared in case of standard interior reconstruction.
<b>Ownership / Management</b>	Together with adjacent Baroque chateau the partially ruined Gothic castle in Bečov n/T is one of the main tourist attractions of Western Bohemia. It is owned and managed by National Heritage Institute as the Listed Culture Monument No. 28094/4-726.
<b>References</b>	<a href="http://www.hartenberg.cz/en/">http://www.hartenberg.cz/en/</a>

**Pictures:**



HRAD HARTENBERG (HARTENBERG CASTLE)	
Author: <i>The Institute of Theoretical and Applied Mechanics CAS, v. v. I</i>	
<b>Typology</b>	Castle
<b>Location</b>	Hřeben, District Sokolov, (Czech Republic).
<b>Heritage</b>	Ruins of the castle of Hartenberg are located in the valley of the Svatava stream, 7 kilometres away from its confluence with the river Ohře, the biggest river of the foothills of the Ore Mountains in Western Bohemia. Hartenberg means "hard rock" in German, the first castle of that name was founded here in the 13 <sup>th</sup> century. In the past the castle was besieged, captured, and plundered several times and its foundations were often shaken by local earthquake clusters. During the 17 <sup>th</sup> century it was rebuilt into more comfortable Baroque residence. The castle burst into flames many times, the last three intentionally set fires gradually destroyed the palace and the main tower in the years 1985–1991. The whole complex has been only slowly recovering from that shock.
<b>Use</b>	The publicly opened castle with a small museum exposition. Meeting place of its visitors, supporters and the volunteers, the scene of many social and cultural events. A broad range of social activities is available for this purpose from educational or spiritual meetings to participation on the ruins stabilisation and necessary conservation works.
<b>Intervention made in order to host the current function</b>	Activities organised for public are focused significantly on heritage conservation of the remaining structures of the castle and on keeping the site tidy and safe for visitors. The recent deliberate damages caused by arsonists justify the conservationist interventions recovering the state of the castle as it was before fires. All works are carried out under archaeological supervision.
<b>Conclusion</b>	The concept of sustainable care for the ruin is based on the continual stimulation of public interest in this place. The personal involvement and participation on events has a big importance. Also the international dimension is considered very important. So far the working camps organised for volunteers has been attended by the participants from 76 different countries. Social supporting activities include courses of basic skills and craftsmanship such as stone masonry, carpentry, gardening oriented to the inclusion of socially vulnerable people in the labor market. The activities initiated around the castle support to revive the nearby village, and the combined resources enable to contribute to the repairs of the local granary and the old school building. Some environmental projects oriented to surrounding landscape have been supported including mapping, planning and knowledgeable maintenance.
<b>Ownership / Management</b>	From 1997 the castle is managed by its private owner, Mrs. Irena Loosová and Mr. Bedřich Loos. In 2018 their constant effort has been awarded by the <i>Patrimonium pro futuro</i> prize of the National Heritage Institute of the Czech Republic. The ruin is the Listed Culture Monument No. 36028/4-696.
<b>References</b>	<a href="http://www.hartenberg.cz/en/">www.hartenberg.cz/en/</a>

**Pictures:**



CASTLE TRAKOŠĆAN	
Author: <i>Zadar County Development Agency ZADRA NOVA</i>	
<b>Typology</b>	Castle
<b>Location</b>	Trakošćan 1, 42253 Bednja, Croatia
<b>Heritage</b>	<p>Castle Trakošćan's cultural heritage, is protected as a historical entity, which consists of the castle, the building next to the castle, park and forest park with a lake. Today the castle is one of the few facilities in Croatia with preserved original constitution, historically closely related to the architectural framework and the life of its owners.</p>
<b>Use</b>	<p>The Dvor Trakošćan Museum Establishment was founded in 1953, so that the first permanent exhibition was opened in 1954.</p> <p>The Museum Institution Trakošćan manages the complex as a whole, historical and natural entity, protected as cultural heritage that consists of a castle, two commercial buildings, a spacious yard, and chapel of St. Cross, garden houses, gardens, lakes and park-forests, all in an area of 87 hectares. By establishing a museum facility Dvor Trakošćan the Castle became an independent subject with his own professional management and staff.</p>
<b>Intervention made in order to host the current function</b>	<p>Since it was nationalized and the museum was created the Castle was gradually renewed with more intensity back in the last twenty years. The renewal was encouraged and implemented by with help of associates and various state institutions, primarily the Ministry of Culture, despite all changes in society and even in the war conditions, from neglected, devastated, and partly damaged historical ensemble, the Castle and its surroundings were transformed to an enviable institution in the field of culture.</p> <p>Recently, In the protected Forest Park Trakošćan a new information center was set up and a teaching trail for visitors to make its beauties even better presented to guests. The project "Info Center and Educational Track Trakošćan" was funded by the Ministry of Environmental Protection and Nature through the project NIP - EU Natura 2000 Integration Project. The aim of the project is to raise the level of awareness and education of visitors about the species and habitats around the Trakošćan Lake and the parks of the same name that are part of the Natura 2000 ecological network.</p>
<b>Conclusion</b>	<p>Trakošćan Castle is one of the most known tourist attraction of the Croatian Zagorje, which is visited annually by some 70.000 guests.</p> <p>The Museum that was established in it offers a wonderful permanent exhibition of historic overview of this region and its history and, one of the most beautiful parts of Zagorje is even more appealing to visitors since the newly investments in the surrounding area.</p> <p>Along with its primary mission to preserve, study, restore and present the legacy of the historic monument, the museum of Dvor Trakošćan expended the touristic and educational offer to its surroundings making it a unique experience.</p>

<b>Ownership / Management</b>	<p>Trakošćan was built in the late 13th century in northwestern Croatian defense system as a small observation fortress for monitoring the road from Ptuj to Bednja Valley. He often changes the owners and was often divided until 1569 when he goes to the hands of the Croatian noblemen Drašković family.</p> <p>In the second half of the 18th century Trakošćan was abandoned once again. Neglected, it begins to deteriorate rapidly and only in the second half of the 19th century, the family Drašković re-interested in its estate in the spirit of the new era romantic return to nature and family traditions. In this spirit marshal Juraj V. Drašković converted the estate into residential castle and the surrounding park was transformed into a romantic garden with artificial lake. Family Drašković, after nearly 400 years of continuous ownership leaves the castle in 1944. Soon after the castle was nationalized.</p>
<b>References</b>	<p><a href="mailto:dvor@trakoscan.hr">dvor@trakoscan.hr</a></p> <p><a href="http://www.trakoscan.hr">www.trakoscan.hr</a></p>

**Pictures:**





Picture 3.: Old castle 19th Century, 1888. (Source: the collection – *Hrvatska mjesta u Grafičkoj zbirci HAD*)



CASTELLO “DI ALBOINO” – “ALBOINO’S” CASTLE	
Author: <i>Venetian Cluster</i>	
<b>Typology</b>	Castle
<b>Location</b>	Feltre, Belluno district (Italy).
<b>Heritage</b>	<p>In Feltre, a town located in the North-East part of Italy, the main building in the urbanistic structure has been, since the 11st century, the castle located on the top of the hill that host the most part of the buildings of the Medieval and Renaissance city. The military and defensive characteristics of the building has been kept until the beginning of the 20th century, used as a barrack until the end of the first World War. Since the end of the Second World War part of the castle until the Eighties part of the castle hosted spaces of social housing and the other part a youth hostel. Both these activities were interrupted after the Eighties and the monument, government-owned, was basically abandoned and not maintained.</p>
<b>Use</b>	<p>The stables of the castle currently host the public library, while the towers are part of the city museum circuit, in particular devoted to illustrate history of the castle itself and of the main square, also by means of Virtual Reality (VR) and Augmented-Reality (AR) devices.</p>
<b>Intervention made in order to host the current function</b>	<p>The large area where the several buildings forming part of the castle gives the possibility to host different kinds of structures and activities in a reuse perspective. Particular attention has to be kept since this monument represent one of the most important buildings in the town and one of the most symbolic.</p> <p>The stables of the castle, built during the Napoleonic time, were restored in the years 2003 – 2006 and in a first moment were devoted to host the library of the University IULM. Some years after, in 2011, the building has been reallocated to host the municipal library, with a library heritage formed by 100.000 contemporary volumes and a rich and valuable historical section. This operation gave the possibility to form a cultural hub in connection with the close civic museums, the main historical square as well as the theater and the municipal seat, that have been built since the Renaissance onwards.</p> <p>In recent years a restoration campaign has been carried out, mainly focusing on the two towers of the castle, through some INTERREG 2014-2020 Italia-Austria funds. At the moment, it has been completed the intervention on the first tower, that has been transformed into a cultural heritage attraction, entirely visitable, where the history of the urbanistic transformation and evolution of the city. On the top of the tower has been placed, on the side of one of the windows with a view on the historical square, an augmented reality screen that attempts to be a “time window”, showing a reconstruction of the architectonical and urbanistic layout of the square in the past centuries.</p> <p>In parallel with this intervention, an immersive Virtual Reality intervention has been projected, through the use of some HDM devices that can be rented at the Touristic Info Point located in the square. These VR devices provide an immersive virtual tour on the Renaissance city and give some general account on the city’s history.</p>

<b>Conclusion</b>	<p>The castle of Feltre could be seen as a good example of public reuse of historical and medieval monuments. Even if no economic activities were developed within the monument, through the restorations and the interventions that have been promoted, it rescued an important social role, thanks to the presence of the public library, and its cultural role, because of the beginning of the fruition of the main tower, also thanks to VR and AR systems.</p>
<b>Ownership / Management</b>	<p>The acquisition of the entire monument to the Municipality heritage gives the chance to enhance its use and cultural values. The number of visitors has increased a lot during the last two years, also through the creation of a sort of “loyalty card” that gives a discounted access to the castle and to other monuments and cultural attractions of the city.</p> <p>The number of users of the public library, also through the creation of a cultural hub with other municipality structures, has grown up to 100.000 users per year.</p>
<b>References</b>	<p><a href="http://www.visitfeltre.info/">http://www.visitfeltre.info/</a></p>

**Pictures:**

The main historical square of Feltre, dominated by the castle.



The public library now located in the renovated stables of the castle, dating back to the Napoleonic period.



The restoration activities on the main part of the castle.



Visitors at the castle tower, where the AR devices are located.



Visitors at the castle tower, where the AR devices are located.



VR devices used to enrich the visit experience of the castle in Feltre.

HRAD BZOVÍK (CASTLE BZOVÍK)	
Author: <i>The Institute of Theoretical and Applied Mechanics CAS, v. v. I</i>	
<b>Typology</b>	Fortress (former monastery; former Castle)
<b>Location</b>	Bzovík, district Krupina (Slovakia)
<b>Heritage</b>	<p>Before 1135, Bzovík monastery was founded by Lampert from the Hunt-Poznanyi family, together with his son Nicolas and wife Sophie, who was a sister of Hungarian King Ladislaus. Originally, it was the Benedictines who settled here. Later (around 1285), the Premonstratensian abbey was established and became the most important feudal estate in the Hont region. The monastery was highly engaged in the economy of the kingdom.</p> <p>During the 15<sup>th</sup> century the monastery was the aim of multiple attacks by its neighbors, mainly the citizens of town Krupina, which left the site heavily damaged. The restoration after these conflicts was finished in 1515.</p> <p>In 1530 the monastery was seized by Sigismund Balassa who rebuilt the site into a castle in 1530-1546. The entire former monastery was surrounded by ramparts wall with four corner round towers. After Balassa's death in 1559, his brother-in-law Georgius Fánchy inherited the castle and by adding the outer line of earthwork ramparts turned it into a fortress. His heirs granted the structure to the Jesuit Order in 1678. In the same year was the object burned in the Emeric Thököly rebellion. The following year was the site rebuilt in baroque style into a seminary. The Jesuit order owned the building until 1908. Afterwards it came through the hands of multiple private owners and was unoccupied. During World War II the site was damaged and afterwards partially taken apart by the locals for building material.</p>
<b>Use</b>	<p>In general the site is not used. Only occasional ad hoc organized cultural events take place at the site. Adaptation to use the site as a museum was started, but never finished. Function was designated for the four towers only–</p> <p>Tower 1 – museum exhibition, info kiosk</p> <p>Tower 2 – museum exhibition</p> <p>Tower 3 – sanitary facility</p> <p>Tower 4 – café and kitchen</p>
<b>Intervention made in order to host the current function</b>	<p>The Intervention to host the museum at the site consisted of a combination of reconstruction, conservation and adaptation work. The restoration started in the years 1965 -1975. Methodology was chosen to reconstruct the ramparts to full height and cover them with shingle roof. The four towers of the ramparts were restored and were to adapt for cultural and social utilization and for tourism. To do these new constructions had to be done in modern materials (mainly concrete). The towers were protected by new historizing shingle roofs. The ruins of the buildings along the</p>



	<p>inner side of the walls were in bad condition and were put down. The central ruins in the layout of the monastery were left in the stance of strict conservation. The technology was based on cement mortars and concrete. The chapel was covered by a shingle roof set on a concrete frame construction.</p> <p>1988 – Stance of the ruins in bad condition due to unfinished work. The works continued under the same principles and were mainly of maintenance character.</p> <p>During the last decade maintenance of the rampart walls by reparation of the masonry. In 2018 the restoration of the monastery ruins started.</p>
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>- Creation of buffer zone with building restriction around the object. Result – preservation of the surrounding landscape with many detail which are discovered only today</li> <li>- Use of different material for new construction. Result – recognizable original structure form modern addition.</li> <li>- protection of the most preserved parts from precipitation – result – almost no decrease of original mass of the structures, relative good technical condition, preserved fragile details such as decorated plasters</li> <li>- Holistic survey preceding the restoration. Result – sufficient basis to plan the construction phase. Use of correct technology (lime based mortar). Result – can be evaluated only with time, but even if the new added constructions and mortars decompose it would not affect the original constructions.</li> <li>- Discreet utilization of some elements originating in previous restoration. Result – non disturbing safety elements allow the access for public into some interiors.</li> <li>- Step – by- step restoration approach. Result: even if the restoration will stop at any point , there will be some finished parts</li> <li>- Community participation – even not on bigger scale yet. Result – building of a bond between the heritage and the community – forcing awareness for maintenance</li> <li>- Plans for tourism facilities outside of the site. Result – no big demand for invasive interference</li> </ul>
<b>Ownership / Management</b>	<p>The owner is the municipality of Bzovík, who manages the site under supervision of Regional Monument Board in Banská Bystrica.</p>
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#### Pictures:



*This picture shows a not very common appearance where the vicinity of the castle is not filled with recent building although the site is located at the edge of urbanized area.*



*A section of southern rampart showing the recognizable addition of the masonry.*



*A decomposed segment of with cement technology restored masonry from the 60s restored in lime technology.*



*New utility constructions done in concrete to be distinguished from original substance of the heritage.*



*Roofed northwest Tower and a detail of the preserved decorations on plaster around one of the loopholes*



*Contemporary safety railings applied on the concrete platforms and stairways made in the 60s.*

SPIŠSKÝ HRAD (SPIŠ CASTLE)	
Author: <i>University of Matej Bel</i>	
<b>Typology</b>	Ruined Castle
<b>Location</b>	Spišské podhradie, Presovsky self-government region, (Slovakia).
<b>Heritage</b>	<p>In the eastern part of Slovakia (Presovsky self-governement region), on a dolomite rock 200 m above the surrounding land, at the elevation of 634 m, is located one of the most precious cultural monuments in Slovakia - Spiš Castle.</p> <p>The history of region, where castle is located, is very rich. The rock the castle stands on was inhabited already 40 000 years ago. More than 800 years ago the spectacular stone castle had started to rear up imperiously. In year the 1780 a great fire underwrote its final indelible. Spiš Castle is not just an evidence of architectural development from the 12<sup>th</sup> to the 18<sup>th</sup> century. With its area of 41 426 m<sup>2</sup> it is at the same time one of the largest castles in the Central Europe.</p> <p>The castle ruins together with unique environs of Spis territory is since 1993 registered in UNESCO's World Cultural and Natural Heritage List.</p>
<b>Use</b>	<p>The Spis Castle was build more than 900 years ago, in the 12<sup>th</sup> century, on the site of an earlier castle. As an important political, economic and cultural centre for this part of Kingdom of Hungary, several kings and families owned the castle. Now, a property of state of Slovakia, 'Spišský Hrad' (in Slovak), one of the largest castles in Europe, is living vividly as a tourist's favorite spot.</p> <p>Besides, the Museum of Spis region is located on the ruined castle.</p>
<b>Intervention made in order to host the current function</b>	<p>Construction of the medieval castle on a travertine hill dates back to the beginning of the 12th century. The oldest written reference to the castle is from 1120. At the beginning it was a boundary fort placed at the northern frontier of an early feudal Old Hungarian state. Afterwards, it became the seat of the head of the Spiš region for many centuries. In the second half of the 15<sup>th</sup> century the reconstruction of the castle fell upon its new owner Štefan Zápoľský whose intention was to remake it into a stately aristocratic residence. He had made a palace, a knight hall and chapel of St Elisabeth in the castle. His son Ján, later King of Hungary was born at the Castle. The last building works at the Upper Castle were made under the orders of the Thurzos' and the Csákys'.</p> <p>In 1780 the castle compound was destroyed by fire and the proud Spiš Castle gradually fell into ruins. The total decay of the castle was prevented only through the intervention of conservationists who in 1970 got down to the difficult job of preserving the walls and palaces threatened by the instability of its rocky base. At present there are the collections of the Spišské múzeum placed in the castle documenting its history, along with medieval arms and feudal jurisdiction.</p>
<b>Conclusion</b>	<p>The ruined castle perfectly used its potential of attractive location close to High Tatras and other important monuments located in Eastern Slovakia (Levoča, Spišská kapitula, Žehra – all enlisted on UNESCO World Heritage List).</p> <p>The ruins of castle are well preserved and maintained and mostly open for tourists. Its historical value is well perceived and awarded also intentionally by its enlisting into UNESCO World Heritage List.</p>



	<p>Besides “typical” tourist usage – museum with guided tours on ruined castle, the castle have several interesting and modern form of usage. During the year 2018, several thematic events, concerts and festivals took place on ruined castle Spiš. Every Friday, Saturday and Sunday in summer months (July and August) the event Summer on Castle was organised. It included concerts, night sightseeing tours, theatre, fairy tales days and nights, parkour exhibitions, concerts and historical swordplay. Summer on Castle is a great example of regular event that is usable also for other ruined castles in Slovakia, including Bzovik. Regular events have easier management as they are based on regularly repeated activities. For regular events it is possible to use the same or similar marketing strategy and tools. Regular events are cost efficient as properties, materials and approaches from previous years are usable repeatedly. It is efficient in terms of human resources as well, as experience and skills gained in previous years are usable for upcoming years. Besides, it is attractive for domestic and international tourist and motivate tourists, and also locals, to visit the ruined castle more than just once. We proposed the same model for Bzovik.</p>
<b>Ownership / Management</b>	<p>Ownership of State of Slovak Republic, enlisted on UNESCO World Heritage List and on belong to National Cultural Monuments of Slovakia</p>
<b>References</b>	<p>FIALA, Andrej – VALLAŠEK, Adrián – LUKÁČ, Gabriel. Spišský hrad. Martin: Osveta, 1988.</p> <p>HOMZA, Martin – SROKA, Stanislaw (ed.). Historia Scepusii Vol. I. Bratislava, Kraków : Katedra slovenských dejín UK FF, Instytut Historii Uniwersytetu Jagiellońskiego, 2009.</p> <p>NOVOTNÁ, Mária (ed.). Terra Scepusiensis – Terra Christiana : Spišský hrad, Spišská Kapitula, dve centrá v dejinách Spiša. Levoča : SNM – Spišské múzeum v Levoči, Rímskokatolícka cirkev Biskupstvo Spišské Podhradie, 2009.</p> <p>Websites:</p> <p><a href="https://www.slovakia.com/castles/spis-castle/">https://www.slovakia.com/castles/spis-castle/</a></p> <p><a href="http://www.spiskyhrad.sk/en.html">http://www.spiskyhrad.sk/en.html</a></p> <p><a href="https://www.spiskyhrad.com/lokalita/">https://www.spiskyhrad.com/lokalita/</a></p> <p><a href="https://www.spiskyhrad.com/strucne-dejiny-spiskeho-hradu/">https://www.spiskyhrad.com/strucne-dejiny-spiskeho-hradu/</a></p> <p><a href="http://www.spisskemuzeum.com/">http://www.spisskemuzeum.com/</a></p> <p><a href="http://slovakia.travel/en/spisky-hrad-castle">http://slovakia.travel/en/spisky-hrad-castle</a></p> <p><a href="http://www.spisskemuzeum.com/2018/leto%20na%20hrade%20-%20august%202018.html">http://www.spisskemuzeum.com/2018/leto%20na%20hrade%20-%20august%202018.html</a></p>

**Pictures:**



Source: <http://timeforslovakia.com/tailor-made-tours/spis-castle/>



Source: <https://www.ephoto.sk/fotogaleria/fotografie/577145/spissky-hrad/?s=photos>



Summer festival on Spis Castle:







Source:

<https://spis.korzar.sme.sk/c/8212914/leto-na-spisskom-hrade-spestri-kulturny-festival.html>

<https://spis.korzar.sme.sk/c/20882649/suhra-dnice-na-spisskom-hrade-ponuknu-kulturnu-vsehochut.html>

<http://slovakia.travel/tajomne-noci-na-spisskom-hrade>

<https://spisska.dnes24.sk/odstartuje-uz-na-zaciatku-jula-leto-na-spisskom-hrade-zatraktivni-festival-242942>

<https://www.aktuality.sk/fotogaleria/478564/spissky-hrad-otvaral-sezonu/6/>

CASTLE IN BOBOLICE	
Author: <i>Lublin University of Technology</i>	
<b>Typology</b>	Castle
<b>Location</b>	Bobolice (Poland)
<b>Heritage</b>	<p>The castle in Bobolice was built in the middle of the XIV century. By the King of Poland, Casimir the Great. It was an element of the defense system of numerous strongholds "Eagles' Nests", which defended the western border of the Polish kingdom from the side of Silesia. It was in possession of successive Polish kings and knight families. It was ruined in the second half of the XVI century, during the war with Maksymilian Habsburg and during the so-called Swedish "Deluge". Already in the second half of the XVII century. He was abandoned and began to fall into ruin. After the Second World War, the castle walls were partially demolished.</p>
<b>Use</b>	<p>Bobolice Castle – Hotel and Restaurant Commercial use - hotel and restaurant services, conferences, business meetings and trainings, wedding celebrations.</p>
<b>Intervention made in order to host the current function</b>	<p>In the years 1998-2011, the legally protected ruins of the castle, were rebuilt by a private owner and intended for the hotel. Before the "reconstruction", archaeological and security works were carried out. Apart from the nineteenth-century images of the castle in ruins, there were no messages, plans or sketches of the castle. The castle was built on the basis of preserved ruins and a project developed by architects in cooperation with historians and archaeologists.</p>
<b>Conclusion</b>	<p>Historical ruins of castle was completely transformed into a full cubature form. As a result, most of the castle's historical values have been lost.</p>
<b>Ownership / Management</b>	Private owner
<b>References</b>	<p><a href="http://www.zamekbobolice.pl/">http://www.zamekbobolice.pl/</a></p>



**Pictures:**



The Bobolice Castle



The Bobolice Castle. Ruins.

THE ARAGONESE CASTLE OF BRINDISI	
Author: SiTI – <i>Istituto Superiore sui Sistemi Territoriali per l'Innovazione</i>	
<b>Typology</b>	Castle
<b>Location</b>	Isola di Sant'Andrea, Brindisi. Puglia ( Italy).
<b>Heritage</b>	<p>The Aragonese castle of Brindisi is also called "Alfonsino" - because it was completed by Alfonso d'Aragona - or 'red castle' by the color of the stone.</p> <p>It was wanted by Ferdinand I of Aragon in 1481, in the place where there was a Benedictine convent of the eleventh century and was finished in 1492. Only in 1558 began the construction of the Forte a Mare, contiguous to the Rocca Alfonsina.</p> <p>The island on which the Alfonsino Castle and the Forte a Mare stand was formerly called Bara (name of oriental origin, perhaps Jewish).</p> <p>From the Middle Ages the island was called instead of St. Andrew, because in 1059 the Archbishop of Brindisi Eustasio granted it to build a monastery in honor of the Apostle Sant'Andrea.</p>
<b>Use</b>	<p>For too many years the castle has remained a foreign body compared to the city: a monument of extraordinary beauty, completely inaccessible to the citizens.</p> <p>Over the years the castle has been the victim of abandonment, of copper thefts that have disabled the entire electrical system, of continuous acts of vandalism that have as their object gates, doors, fixtures. Not to mention the landfill in the inland docks, by unknown persons, of waste from the processing of fish products.</p> <p>To all this are added unhappy choices on its use, as when in August 2012 it was turned into a nightclub.</p> <p>The intended use of the monument is still uncertain today.</p> <p>The priority is to make it usable as soon as possible to citizenship by preserving it from the vandals have put him on his knees in recent years, thwarting the previous restoration completed between 2008 and 2009.</p>
<b>Conclusion</b>	<p>More than for its abandonment, the castle is the victim of the improper use that has been done for years; an incompatible use of the monument disrespectful of its history, its splendor, its artistic features and, last but not least, its manifest fragility on the conservative level.</p> <p>Today the castle is a culturally empty container, if by "cultural destination" we mean a place designed to educate and train Italian citizens and, consequently, to promote democracy and to spread knowledge.</p>
<b>Ownership / Management</b>	Demanio - state property
<b>References</b>	<p>Provincia di Brindisi, <i>Il Castello Alfonsino e il Forte a Mare</i>;  <a href="http://www.provincia.brindisi.it/index.php/storia-e-tradizioni-mainmenu/61-cultura/storia-e-tradizioni/134-il-castello-alfonsino-e-il-forte-a-mare">http://www.provincia.brindisi.it/index.php/storia-e-tradizioni-mainmenu/61-cultura/storia-e-tradizioni/134-il-castello-alfonsino-e-il-forte-a-mare</a></p>



**Pictures:**



The Aragonese castle of Brindisi



The Aragonese castle of Brindisi. State of abandonment.



The Aragonese castle of Brindisi. Improper use: Discotheque / Bivouac.

HRAD BUKOV (BUKOV CASTLE)	
Author: <i>The Institute of Theoretical and Applied Mechanics CAS, v. v. i.</i>	
<b>Typology</b>	Castle
<b>Location</b>	Střítež u Bukova, District Žďár nad Sázavou, (Czech Republic)
<b>Heritage</b>	Remnants of a Gothic castle built on the outskirts of Strážecký stream in the middle of the 13th century during the reign of Přemysl Otakar II were held by the Lords of Bukov. It was probably abandoned at the beginning of the 14th century; already in 1504 the castle was mentioned as desolate. Although Bukov, called also Lísek, belonged to small castles, quite a lot of it was preserved: remains of cylindrical tower and foundation masonry, where it is easy to distinguish individual parts of the castle: e.g. entrance to the castle, entrances to individual parts and a part of the window, a castle moat depths of almost 7 meters. Also the remnants of the central heating system, a hypocaust, were uncovered by excavations.
<b>Use</b>	The ruin of the castle is used only for occasional wild camping of unspecified persons. There is no marked or official hiking trail.
<b>Intervention made in order to host the current function</b>	An archaeological survey conducted years ago remains unpublished. The site was cleaned up some time ago. No conservation works or interventions are apparent. Now the ruins are left to be overgrown by greenery.
<b>Conclusion</b>	The site seems to be completely abandoned although there are the remains of one of the oldest castles in Moravian part of the Czech Republic. On the one hand, because of its unavailability, the ruins are spared of excessive tourist traffic, on the other hand, the lack of information on the meaning of the place may speed its deterioration. Moreover possible harms of preserved parts of the castle may escape attention for a long time.
<b>Ownership / Management</b>	The ruined castle is owned by private person. The object is the Listed Culture Monument No. 39636/7-3970.
<b>References</b>	<a href="http://www.hrady.cz/index.php?OID=1125">http://www.hrady.cz/index.php?OID=1125</a>



**Pictures:**



Source: National Heritage Institute, Czech Republic    Source: Tomáš Tuček (mapy.cz)



Source: [www.mapy.cz](http://www.mapy.cz)



CASTLE ERDÖDY, KERESTINEC	
Author: <i>Zadar County Development Agency ZADRA NOVA</i>	
<b>Typology</b>	Castle
<b>Location</b>	Kerestinečka cesta, Kerestinec, City of Sveta Nedelja (Croatia)
<b>Heritage</b>	<p>The castle is situated in the town of Sveta Nedelja, near Zagreb. It was built by the noble family of Erdödy. The earliest mention of the castle is the year 1576. This Late Medieval/Renaissance castle with fortification elements was rebuilt in the 18 th and the 19 th century and thoroughly redecorated in the beginning of the 20 th century. The rectangular ground plan of the castle is defined by the two-storeys high building on the three sides of the castle, while the fourth side is defined by the one-storey building. All four 'wings' of the castle form an inner courtyard with open hallways. On the outer corners of the main wing two cylinder towers flank the main facade.</p> <p>Today, the castle is abandoned, neglected and ruinous.</p>
<b>Use</b>	The castle has no permanent function – it is being used by the local community as a place for hosting various cultural, educational, artistic and similar happenings.
<b>Intervention made in order to host the current function</b>	<p>During the WW II in the castle was organized a concentration camp, as well as a prison for communists, antifascists and leftists. After the WW II, the castle was used for military purposes (barracks and similar). During that time, the eastern castle wing was destroyed and new one was rebuilt. [Picture 2 and 3]. Also, two cylindrical towers were demolished. Putting aside all the horrors of the concentration camp, and focusing only on the castle, it can be stated that that 'specific' reuse irretrievably devastated the castle: all the historic furniture, along with art pieces and utensils were either stolen or ruined. Also, the interior organization of the castle was changed in order to form smaller cells. No maintenance of the building caused rapid deterioration of the building (humidity, moss, cracked construction...). When the castle was used as a military barracks, park was transformed into a polygon for military and missile drills.</p>
<b>Conclusion</b>	<p>The devastation of the castle Erdödy began with it's loss of the residential function. First being used for the atrocities of the WW II, and then for the military barracks and polygon, the castle was deprived of all it's historic inventory and identity – all the tapestries, curtains, furniture, furnaces, wall paintings and plaster ornaments, paintings and sculptures as well as utensils, were stolen or destroyed. Today, not a single object connecting the castle with it's rich history exists – there is no trace of the lives of the nobility of Erdödy, Pallavicini, Türk or Mihalović. The devastation reached it's peak with the destruction of the surrounding park. Today, the castle is cut off it's historic park by a road and does not form a unity with the preserved lake, which lies on the other side of the road.</p> <p>Today, the castle still has no function and its decline continues. [Picture 7 and 8]</p>

<b>Ownership / Management</b>	Today, the castle is owned by the City Sveta Nedelja and has no permanent function. During the whole year, various cultural and educational manifestations are organized in the castle. [Picture 4, 5 and 6]
<b>References</b>	<a href="https://www.svetanedelja.hr/dvorac-erdody-kerestinec-po65">https://www.svetanedelja.hr/dvorac-erdody-kerestinec-po65</a> . M. O. Šćitaroci, Dvorci i perivoji hrvatskog Zagorja, 1989.

**Pictures:**

Picture 1. An old photograph of the castle, showing its corner towers and fossas (source: <https://hr-hr.facebook.com/dvorac.kerestinec/>)



Picture 2 and 3. Old photographs of the concentration camp and prison of Kerestinec (source: [sh.wikipedia.org](http://sh.wikipedia.org); [slobodnajugoslavija.com](http://slobodnajugoslavija.com)).



Picture 4, 5 and 6. Aerial view of the castle and modern socio-cultural manifestation on the castle  
(source: <https://youtu.be/x2SGpmKP7SE>; sventv.info; hr-hr.facebook.com)



Picture 7 and 8: Inner courtyard of the castle (photo by: Nela Laptoš) and interior of the castle (photo: Ivan Vranić).



## HRAD BZOVÍK (CASTLE BZOVÍK)

Author: <i>The Institute of Theoretical and Applied Mechanics CAS, v. v. I</i>	
<b>Typology</b>	Fortress (former monastery; former Castle)
<b>Location</b>	Bzovík, district Krupina (Slovakia)
<b>Heritage</b>	<p>Before 1135, Bzovík monastery was founded by Lampert from the Hunt-Poznanyi family, together with his son Nicolas and wife Sophie, who was a sister of Hungarian King Ladislaus. Originally, it was the Benedictines who settled here. Later (around 1285), the Premonstratensian abbey was established and became the most important feudal estate in the Hont region. The monastery was highly engaged in the economy of the kingdom.</p> <p>During the 15<sup>th</sup> century the monastery was the aim of multiple attacks by its neighbors, mainly the citizens of town Krupina, which left the site heavily damaged. The restoration after these conflicts was finished in 1515.</p> <p>In 1530 the monastery was seized by Sigismund Balassa who rebuilt the site into a castle in 1530-1546. The entire former monastery was surrounded by ramparts wall with four corner round towers. After Balassa's death in 1559, his brother-in-law Georgius Fánchy inherited the castle and by adding the outer line of earthwork ramparts turned it into a fortress. His heirs granted the structure to the Jesuit Order in 1678. In the same year was the object burned in the Emeric Thököly rebellion. The following year was the site rebuilt in baroque style into a seminary. The Jesuit order owned the building until 1908. Afterwards it came through the hands of multiple private owners and was unoccupied. During World War II the site was damaged and afterwards partially taken apart by the locals for building material.</p>
<b>Use</b>	<p>In general the site is not used. Only occasional ad hoc organized cultural events take place at the site. Adaptation to use the site as a museum was started, but never finished. Function was designated for the four towers only–</p> <p>Tower 1 – museum exhibition, info kiosk</p> <p>Tower 2 – museum exhibition</p> <p>Tower 3 – sanitary facility</p> <p>Tower 4 – café and kitchen</p>
<b>Intervention made in order to host the current function</b>	<p>The Intervention to host the museum at the site consisted of a combination of reconstruction, conservation and adaptation work. The restoration started in the years 1965 -1975. Methodology was chosen to reconstruct the ramparts to full height and cover them with shingle roof. The four towers of the ramparts were restored and were to adapt for cultural and social utilization and for tourism. To do these new constructions had to be done in modern materials (mainly concrete). The towers were protected by new historicizing shingle roofs. The ruins of the buildings along the inner side of the walls were in bad condition and were put down. The central ruins in the layout of the monastery were left in the stance of strict conservation. The</p>

	<p>technology was based on cement mortars and concrete. The chapel was covered by a shingle roof set on a concrete frame construction.</p> <p>1988 – Stance of the ruins in bad condition due to unfinished work. The works continued under the same principles and were mainly of maintenance character.</p> <p>During the last decade maintenance of the rampart walls by reparation of the masonry. In 2018 the restoration of the monastery ruins started.</p>
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>- Use of wrong technology – extensive use of cement based mortar in restoration and conservation of masonry result – decomposition of original material (even stones!) behind the camouflage of strong concrete</li> <li>- extensive digging – result unearthed foundation constructions falling apart under the cemented cap; basement of the southwest tower standing on the ground with no buried fundaments; lot of unearthed untreated construction falling apart; lot of original Romanesque and gothic style sculpted detail lying around and falling apart.</li> <li>- No water management in the monastery layout. Result – falling apart original constructions due to freezing and drying cycles</li> <li>- Demolition of certain buildings. Result - loose of complexity, loose of authentic historical substance</li> <li>- Change of special arrangement in some interior spaces. Result - unreadable historic space</li> <li>- Invasive plumbing installation. Result - destructed original historic constructions</li> <li>- Incorrectly unauthentic re-embed details, new constructions camouflaged as historical. Result confusion in interpretation, non-authentic impression</li> <li>- Heterogeneous principle in methodology mixed reconstruction and conservation principle. Result - possible bad interpretation by visitors, non-authentic impression.</li> <li>- All at once restorations approach. Result – due to prematurely stopped restoration no single part could be identified as finished</li> <li>- Hiring of building company with little to no experience with ruins. Result – poor craftsmanship at the beginning, need for permanent supervising</li> <li>- Use of temporary material on the protective roofs on the ramparts. Result – in case no funding could be obtained for more durable material the ramparts would be soon opened for the natural processes to begin with decomposition process</li> </ul>
<b>Ownership / Management</b>	<p>The owner is the municipality of Bzovík, who manages the site under supervision of Regional Monument Board in Banská Bystrica.</p>
<b>References</b>	<p>32. Beljak, J. – Debnár, P. – Mordovin, M. – Šimkovic, M. -- Maliniak, P. – Žažová, H. – Kožiak, R. – Kohút, V. -- Hladký, F. – Cheben, M. – Loydl, A. – Ornth, spol. s r. o.: Výskumná dokumentácia z archeologického výskumu NKP Kláštor premonštrátov Bzovík (Hrad Bzovík), Nitra 2015.</p> <p>33. Faulhammer, : Bzovík, kláštor premonštrátov – zameranie, 1923, archív PÚ SR A 1160, A 1285</p>



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**Pictures:**



*a fragment of wall showing the decomposed original substance behind the cement mortar*



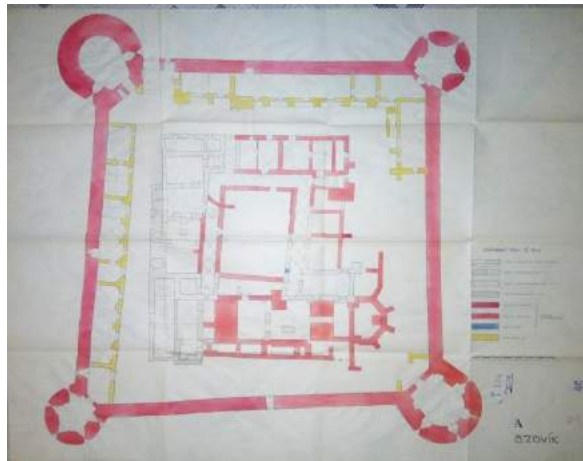
*A cement based cap on the decomposed original substance of the excavated church foundations*



*the door way shows the original level of the ground in the southwest tower. All the masonry under this level is unearthed foundations.*



*The same original historic construction on the photograph made during the restoration and today. The decline of mass due to no protection is vivid.*



*Plans for restoration – yellow means demolition*



*The comparison of the preserved mass in the time of restoration and today. The decline of the original mass is in great part due to the unfinished process of restoration. The contrast between the roofed objects and the ruins of monastery are the result of mixed restoration approach.*



*Shaft for plumbing inside northeast tower*



*Entrance to the ground floor of southwest tower. On the photograph from the restoration is visible that the whole wall in which the doorway and loop holes are set was not preserved and is created anew.*



*Ground floor of southeast tower with new arrangement of inner space*





*Poor craftsmanship in the initial stage of the northern ramparts conservation expressed in enormous areas of mortar signaling lack of wedging with stone.*



*Temporary shelter on the top of northern rampart. partially destroyed by the winds.*



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**RUINS**