



# HERITAGE MANAGEMENT EDUCATIONAL HANDBOOK



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INTERVENTIONS IN RELIGIOUS ARCHITECTURE

### CHAPTER I HISTORY OF HERITAGE MANAGEMENT

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#### INTRODUCTION

For many centuries throughout the history of architecture the requirement for supervising and caring for monumental assets in the face of actions of destruction or "simple" alteration has been found. Ancient civilizations always proposed guidelines for the maintenance and conservation of their more important architectures and milestones of the past.

Following a timid start in the late 18th century the discipline of architectural conservation/restoration found its first "official" spokespeople in the 19th century, in the pioneers who stood out in various countries such as France, England and Italy. Despite the fact that their voices were barely heard initially and lacked the dissemination later afforded by other tools they had a great influence in the development of theory. The Conservation Charters are without doubt one of the better-known measures characterising the methodological proposals on an international scale.

In Rome in 1883 a group of engineers and architects gathered around the table at a major conference in order to debate and reach an agreement on several measures which could be carried out in heritage interventions. This process of mediation and discussion of principles and guidelines culminated in the drafting of the first Conservation Charter. Following this initial experience, different Conservation Charters have been continuously drawn up in different parts of the world since the early 20th century. Numerous official documents (charters, recommendations and declarations) have been published under the name of the different cities where the member countries of the organisations working in the field of conservation and restoration held these meetings.

It should be noted that the various charters have never had coercive or legislative value, but are rather seen as recommendations, insisting on increasing awareness among specialists of the dangers/benefits of conservation actions following unsuitable/relevant technical criteria affecting a specific asset. At present, the nature and content of these Charters have changed, as they have evolved considerably compared to earlier documents drafted. The more recent Charters, especially the 21st-century ones, are particularly complex and far more nuanced than the early documents, whose nature and principles were broader as they were also affected by the consequences of the dramatic wars of the 19th century.

The interpretation of these charters can follow several patterns: their evolution over time can be analysed chronologically as if it corresponded to a historical evolution. Another interesting tangential and cross-disciplinary interpretation seeks a degree of coherence based on the themes and issues examined, as well as possible conflicts to be resolved over the centuries. Yet another possible key interpretation considers the impact and repercussion of the charters (and other declarations or recommendations) over time, as well as their adoption by internationally renowned organisations such as ICOMOS and UNESCO.

#### NOTES IN THE THEORY OF CONSERVATION

In order to understand the current situation of conservation, the criteria guiding it and the role of professionals in the field, the past evolution of this discipline should be analysed. There are numerous studies on this topic, which is essential to ensuring responsible scientific conservation that is in keeping above all with the demands and culture of

our time. Although the conservation of artworks and architecture has been present from Antiquity to the present, two very distinct stages can be identified throughout history. In an initial pre-scientific period (covering from early historic civilizations to the 18th century) the conservation of monuments, paintings and sculptures was decidedly artisanal and empirical, mostly aimed at repairing and preventing damage and deterioration, reconstructing lost elements or modifying them to suit taste, ideology or any other arguments (economic, political...). Methods were closely guarded in artists' workshops as in professional terms there was no difference between the practices of artistic creation and conservation.

The second moment or scientific period (19th and 20th c.) started with the contemporary era and coincided with the modern interpretation of heritage and the need to conserve it to transmit it to future generations. A series of different intervention theories initially based on solid historic awareness and the knowledge of the different values of the monument, and then architectural heritage, make up the core nucleus of the discipline. In parallel, technological advances and the development of an increasing professional awareness brought about studies and research on the most suitable methods for guaranteeing the knowledge and survival of historic architecture.

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# **PIONEERS ALBERTI PALLADIO BORROMINI**

#### ARCHITECTURAL CONSERVATION: THE PIONEERS

One of the first conservators to stand out was the Italian architect Leon Battista Alberti in the 15th century. Built on the site of a small church of Dominican monks (13th-14th c.), the Basilica di Santa Maria Novella, in Florence, had an unfinished façade until a wealthy Florentine merchant, Giovanni Rucellai, provided funding for the work and commissioned his favourite architect. Leon Battista Alberti was thus put in charge of completing this delicate unfinished structure, strictly respecting the geometric proportions and producing an elegant and harmonious composition of serpentine and Carrara marble. This academic feat attached value to pre-existing elements, made full use of the existing geometry and was guided by the composition of the finishes. Alberti "simply" completed the façade with a classical order based on proportion. In order to provide unity to the whole and add harmony "the façade was completed with a basic order based on proportion. He used stone inlaysintarsias in order to unify the whole, creating harmony between the original Gothic elements and the new ones while paying homage to the Tuscan constructive tradition".

In the 16th century, another pioneer, Andrea Palladio, was the official architect for the works of the Republic of Venice, working mostly in the city of Vicenza and its surroundings, including the Basilica. At the time this work was considered a full-scale restoration, with a two-storey Loggia surrounding the former Palazzo della Ragione of Vicenza like a new structural enclosure. This two-floor composition benefited greatly from the use of Venetian windows (also known as the Palladio motif), which join a central arch with two horizontal elements in the form of architraves either side. The façade columns supporting the individual arches are doubled towards the interior, transforming the arch into a thin barrel vault which created a fantastically renewed urban setting, a new shell for the mediaeval buildings which was completely in keeping with the Piazza dei Signori and the Renaissance city. The excellence of this architectural solution from the perspective of heritage management lies in the technique strategy of how Palladio designed the facade's openings following and respecting the existing floor plan of the original palace. Although this would have resulted in uneven horizontal dimensions for the windows and as a result either different heights for the arches or parabolic arches of the same height could have appeared. Despite this threat the facade looks harmonic and symmetric as the central great windows of the Palladio motif were conceived with equal dimensions throughout the whole facade, while the differences in width are symmetrically handled as part of the architraves on the sides of these great arched openings.

Another precursor of the discipline was Francesco Borromini in the 17th century. When working on the project for the Oratorio dei Filippini in Roma, Borromini employed constructive and typological languages which differed greatly from the simple sober lines of the original convent. The collective spaces for classrooms were used for the interpretation of dramatic and musical oratory. The spaces for private residence were humble and welcoming, organised around interior courtyards designed to function as small ideal cities. This was all finished off with one of the first Baroque façades, respecting the volumes and planes of the original church while also setting itself apart from it with a sober counterpoint of the concave and convex forms. This humble solution shows a great respect for the predecessor neighbouring building, offering a useful example for any later developments in the neighbourhood of monuments and any facades of heritage importance.

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In the 18th century following the frantic activity of the excavations on the Palatine in Rome (1729), in Villa Adriana in Tivoli (from 1734), and the Roman cities of Paestum (1746), Pompeii (1748) and Herculaneum (1750), the concept of local antiquities and the search for national identity was reinforced. There was therefore a gradual definition of guidelines and actions favouring archaeological conservation, and it is worth noting the particular role of two Roman architects, Rafael Stern and Giuseppe Valadier, in the first half of the 19th century.

An analysis of the case of the Roman Colosseum highlights two interventions which resolve a major structural issue, preventing the collapse of several wings of the Colosseum following years of abandonment, looting and earthquakes.

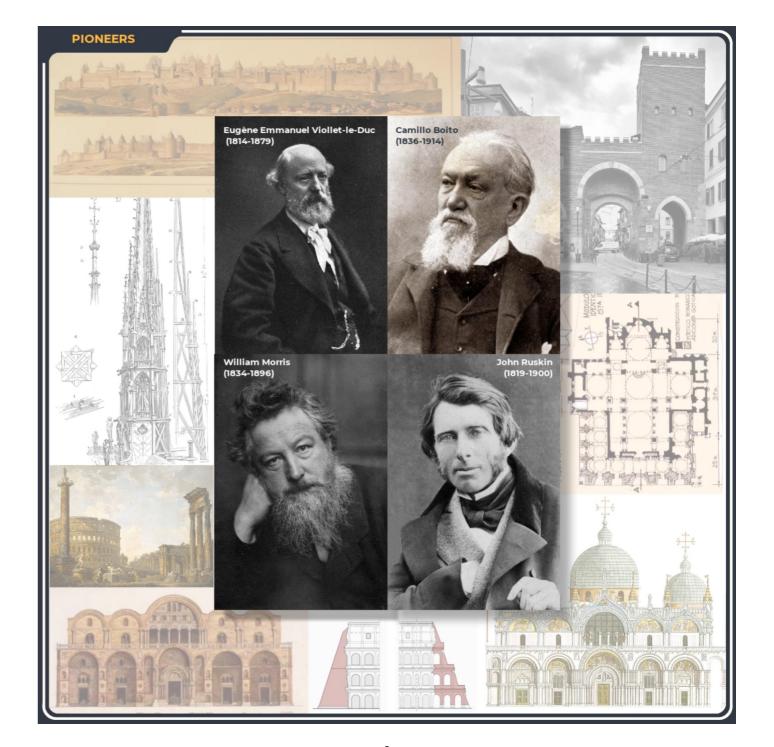
In the solution by Rafael Stern (1807) the arches on the wing towards the Lateran were consolidated using a simple abstract buttress. This intervention made it possible to maintain the authenticity of the Colosseum (Flavian Amphitheatre) by creating a formal and material contrast between the new and existing projects while also halting the degradation, bricking off the parts in poor condition, and adding simpler textures and details in new finishes. In addition, the second intervention, carried out by the architect Giuseppe Valadier (1826) in another weak section of the construction, resolved the structural issue by re-establishing some abstract arches to create continuity between the new and existing projects. These two actions by Stern and Valadier employed a new pragmatic approach: establishing a distinction between the additions and the original parts to create a dialogue, while also incorporating recognizable simplification and contrast, developments considered essential from the 20th century on.

#### ARCHITECTURAL CONSERVATION: HISTORICAL POINTS OF REFERENCE

#### Conservation in style and aesthetic unity

Eugène Emmanuel Viollet-le-Duc (1814-1879) was a French architect, conservation expert and architectural theorist whose role is mostly associated with the neo-Medieval movement, a cultural trend which was born in Europe in the early decades of the 19th century and prompted among other things a revival of Romanesque and Gothic architecture. As a friend of the first Inspector General of Historical Monuments of France, Ludovic Vitet, and his successor Prosper Mérimée, from a very young age Viollet-le-Duc took part in the debate on conservation of national monuments, mostly dating from the Middle Ages, which had suffered the damages and ravages of the French Revolution. He was responsible for shaping the conservation theory, in style, which dominated the international stage for most of the 19th century and the first third of the 20th century. His theories are based on the idea that the value of a monument rests upon its forms and styles, which conservation must strive to recover. This became possible thanks to the history of architecture, classification of buildings by school and period, together with their analogical-comparative study, ideas promoted by Viollet-le-Duc and his followers. The underlying belief is that contemporary architecture can improve and perfect a building and the work of the original architect, given its access to more information and more in-depth and widespread knowledge of the period.

With Vitet and Mérimée as mentors, in 1838 Viollet-le-Duc was appointed auditor for the Commission and from 1840 was commissioned multiple conservation projects throughout France. Among these it is worth highlighting the city of



Carcassonne, a ruined Roman military enclave which had been stratified over the centuries. This was a double complex with 3 km of walls in which 52 towers and several buildings including the Porte Narbonnaise and Église Sainte-Nazaire. La Cité, a strategic enclave joining the Atlantic and Mediterranean via Toulouse, is characterised by the imprints of Gauls, Romans, Visigoths and different French mediaeval periods, primarily the 13th century.

For over twenty years Viollet-le-Duc worked on the full stylistic reconstruction of the complex. This is hardly surprising since he believed that when rebuilding an incomplete construction, architects were obliged to carry out a painstaking prior study to apply the original spirit of the work to the incomplete or missing section. He held that the building had to achieve an ideal stylistic unity suited to the hypothetical concept of the original creator. This resulted in a curious creative pastiche of towers, battlements and reconstructions combined with passionate romantic regenerative triumphalism in search of a "perfect whole", where the achievements of mediaeval construction were intertwined with the technical advances of the architecture of the time.

#### Ruins, patinas and the passage of time

The English intellectual John Ruskin (1819-1900) was the leader of the anti-conservation movement. Although at times misunderstood in his lifetime, some of the main ideas put forward by Ruskin and his student William Morris are now considered crucial in the modern conservation of cultural heritage. Minimal intervention, the idea that buildings do not belong to us but are owned by both our ancestors and descendants so that we therefore have a moral obligation to protect them and guarantee their daily upkeep, encompasses a more respectful attitude towards the monument which nevertheless was linked to the romantic notion of ruin, picturesque and sublime which was characteristic of the 19th century in its apogee.

In 1877, guided by Ruskin and Morris, a small group of enthusiastic pioneers implemented these ideas, setting up the first movement for building conservation in England. This organisation, SPAB (Society for the Protection of Ancient Buildings), still exists to this day. The original ideas of this Society, expressed in its Manifesto, have guided conservation work both in the United Kingdom and abroad, most notably in the case of the protection of the complex of San Marco in Venice. In this context, the international committee of the SPAB rejected the stylistic proposals of the Italian architect Giovanni Battista Meduna (1800-1886), who had kept a keen eye on the reconstruction and restoration of Venice (with experiences in the Teatro La Fenice, Ca' d'Oro and Chiesa di San Silvestro). This action attracted widespread international attention aiming to protect what was known as the "Piazzetta" of San Marco, the side of the Byzantine basilica in the Gothic style through restoration and the subsequent additions of works of art looted in wars by the Republic. Meduna wanted to eliminate layers and additions but ultimately public and political opinion put a stop to this, supporting conservation principles.

#### The impossibility of equilibrium between positions?

The Italian architect Camillo Boito (1836-1914) was the author of a 'third way' between the extremes of reconstructionist excesses of stylistic conservationists and the radical anti-restoration movement which would rather a building disappeared before carrying out an intervention on it. With his theory of scientific conservation

Camillo Boito contributed some of the elements which would become key in 21st-century conservation: the primacy of conservation over restoration, the legitimacy of restoration understood as minimum necessary interventions, the obligation to preserve monuments' authenticity by respecting all their stages and the visual distinction of the new materials added in the intervention. Boito's proposals harked back to discipline, the use of linguistic analysis and textual criticism, in order to correctly reconstruct and interpret texts or documents. Boito defended the right to restore an old building using new elements in order to guarantee a clear overall interpretation, although new articles were to be reflected using diacritics signals, used to make a word stand out from the context in which it is found (marks, quotes, italics). This parallel between restoration and philology was based on two main principles: the distinction of the intervention (that is, restoration had to make it possible to distinguish new pieces from the older ones) and the publicity of the intervention (the restoration carried out had to be widely publicised so as not to add falseness to the building intervened). An interesting action carried out by Boito was the restoration of Porta Ticinese in Milan (1861), part of the old city walls. Boito eliminated the buildings which had been superimposed in stages following the Middle Ages, emphasising the two side arches. He also added partial finishes to the two brick towers in an intervention which could be recognized thanks to the colour and texture of elements, joints, details and simplified forms. The project also restored pointed arch windows and rejointed the brick in several places, leaving it bare.

#### THE KEY DOCUMENTS: CHARTERS, CONVENTIONS, DECLARATIONS, AGREEMENTS

There are several documents, born from congresses and gatherings of international experts, which function as guidelines established to unify and structure potential criteria for the conservation, restoration or management of a given cultural asset.

Many of these were edited under the name of the cities where the stakeholders in the field of conservation and restoration met. These meetings cemented the aim of reaching a consensus for the recommendations established for the intervention or management of heritage answering to methodological and operational issues. All these documents have one thing in common: they emphasise the different values linked to heritage in its most varied facets, both tangible and intangible. Depending on the case, these protocols defend their cultural, artistic, historical, aesthetic, functional, economic and educational values in terms of authenticity, antiquity and sustainability, which can be linked to the concept of "cultural assets".

These documents are not regulatory but set possible precedents which are later incorporated into the legislative texts of many countries. It is interesting to note how in all these documents the concept of heritage is progressively expanded, with the debate becoming more specific and touching upon many concrete aspects of a given sphere of heritage.

Examples notable for their repercussion, international nature and crucial issues examined can be found among these documents. Many of these highlight indications and guidelines to be proposed or set out possible limitations, sanctions and negative actions to be avoided. Since the late 19th century over 70 documents of international importance have been drawn up, as summarised and detailed below.

#### Selection of a list of documents of interest:

1883 ROME CHARTER - IV Congress of Italian Engineers and Architects (1883)

1931 ATHENS CHARTER for the Restoration of Historic Monuments

1932 CARTA DEL RESTAURO ROME Restoration of monuments

1954 HAGUE CONVENTION for the Protection of Cultural Property in the Event of Armed Conflict

1956 THE NEW DELHI RECOMMENDATIONS on International Principles Applicable to Archaeological Excavations

1964 VENICE CHARTER for the Conservation and Restoration of Monuments and Sites

1972 CARTA DEL RESTAURO DE ROMA Conservation of artistic heritage

1972 UNESCO CONVENTION Concerning the Protection of the World Cultural and Natural Heritage

1975 AMSTERDAM CHARTER for the Conservation of Architectural Heritage

1975 AMSTERDAM DECLARATION for the Conservation of Architectural Heritage

1976 MEXICO CHARTER for the Defence of Cultural Heritage

1976 BRUSSELS CHARTER of Cultural Tourism

1977 NORMS OF QUITO for the Preservation and Utilisation of Monuments and Sites of Archaeological, Historical and Artistic Interest

1979 RECOMMENDATION 880 of the Council of Europe on the Conservation of European Architectural Heritage

1981 THE FLORENCE CHARTER on Historic Gardens

1982 BERLIN CONFERENCE on European cities

1984 CONSERVATION PRESTORATION COPENHAGEN The Conservator-Restorer: a Definition of the Profession

1985 GRANADA CONVENTION for the Protection of Architectural Heritage of Europe

1986 NOTO CHARTER Perspectives for the Conservation and Restoration of the Historic Centre

1986 TOLEDO CHARTER for the Conservation of Historic Towns

1986 RESOLUTION ON THE CONSERVATION OF WORKS OF ART Conservation of Works of art and objects of cultural and historical interest

1987 CONSERVATION CHARTER for the Conservation and Restoration of Cultural and Art Objects

1987 WASHINGTON CHARTER for the Conservation of Historic Towns and Urban Areas

1990 LAUSANNE CHARTER for the Protection and Management of Archaeological Heritage

1992 VERACRUZ CHARTER Action policy in Historic Centres in Latin America

1992 VALLETTA TREATY Protection of Archaeological Heritage

1994 NARA DOCUMENT Cultural diversity and heritage diversity. Values and authenticity

1995 UNIDROIT CONVENTION on Stolen or Illegally exported cultural objects

1996 ICOMOS UNDERWATER CHARTER Protection and management of the underwater cultural heritage

1996 PRINCIPLES FOR THE RECORDING OF MONUMENTS Principles for the recording of monuments, groups of buildings and sites

1997 DOCUMENT OF PAVIA towards a European profile of the conservator restorer

1998 RADENCI DECLARATION Protection of Cultural Heritage in Emergencies and Exceptional Situations

1999 SECOND PROTOCOL TO THE HAGUE CONVENTION Protocol for the Protection of Cultural Property in the Event of Armed Conflict

1999 BURRA CHARTER Guide for the conservation of places of cultural significance

1999 CHARTER ON THE BUILT VERNACULAR HERITAGE

1999 CULTURAL TOURISM CHARTER Management of tourism in places of heritage significance

1999 PRINCIPLES FOR TIMBER STRUCTURES Principles for the preservation of historic timber structures

2000 KRAKOW CHARTER Principles for conservation and restoration of built heritage

2000 EUROPEAN LANDSCAPE CONVENTION Protection, management and planning of landscape

2000 PROTECTION OF CULTURAL PROPERTY IN THE EVENT OF ARMED CONFLICT

2001 PARIS CONVENTION ON THE PROTECTION OF THE UNDERWATER CULTURAL HERITAGE Protection of the underwater cultural heritage

2002 CHARTER ON THE STUDY AND CONSERVATION OF RETABLOS

2002 ECCO PROFESSIONAL GUIDELINES The profession of conservation-restoration and its code of ethics

2003 NIZHNY TAGIL CHARTER Industrial Heritage

2003 CONVENTION FOR THE SAFEGUARDING OF THE INTANGIBLE CULTURAL HERITAGE, PARIS

2003 DECLARATION CONCERNING THE INTENTIONAL DESTRUCTION OF CULTURAL HERITAGE, PARIS

2003 PRINCIPLES FOR THE PRESERVATION AND CONSERVATION/RESTORATION OF WALL PAINTINGS

2003 PRINCIPLES FOR STRUCTURAL RESTORATION Analysis, conservation and structural restoration of architectural heritage

2005 ENAME CHARTER for the Interpretation of Cultural Heritage Sites

2005 XI'AN DECLARATION on the Conservation of the Setting of Heritage Structures, Sites and Areas

2006 ICOM MUSEUMS CODE OF ETHICS Code of ethics for museums

2007 HAVANA MEETING Science and technology for Cultural Heritage

2008 LONDON CHARTER Computer-based Visualisation of Cultural Heritage

2008 CHARTER ON CULTURAL ROUTES

2008 CHARTER ON THE INTERPRETATION AND PRESENTATION OF CULTURAL HERITAGE SITES

2008 NEW DELHI RESOLUTION Terminology for the conservation of tangible cultural heritage

2008 ICOM RESOLUTION, NEW DELHI Terminology for the definition of the conservation of tangible cultural heritage

2009 BIERZO CHARTER Conservation of mining heritage

2010 LIMA DECLARATION for disaster risk management of cultural heritage

2011 MADRID DOCUMENT 20th-century architectural heritage

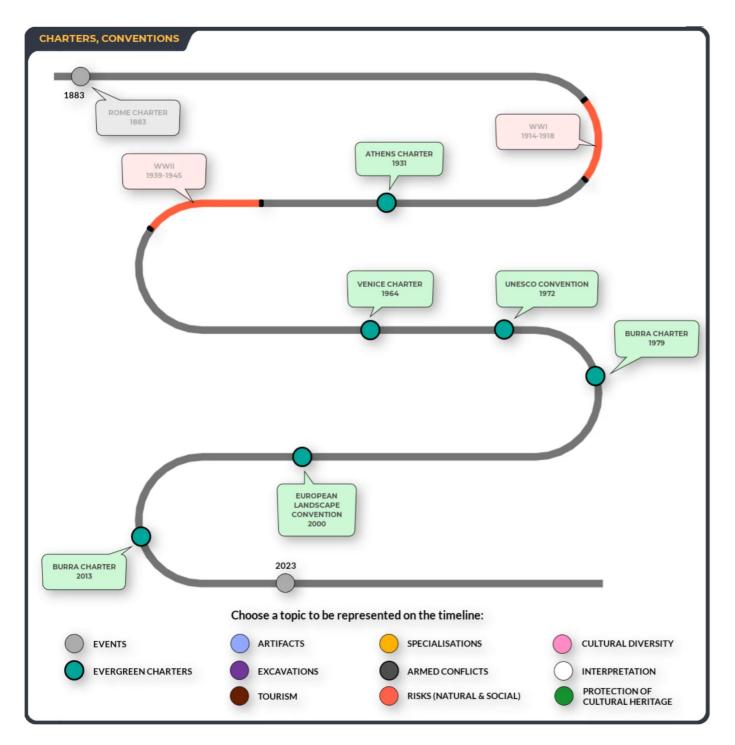
2011 DUBLIN PRINCIPLES for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes

2011 VALLETTA PRINCIPLES Safeguarding and management of historic cities, towns and urban areas

2014 FLORENCE DECLARATION Landscape and human values

2017 DELHI DECLARATION Heritage and Democracy

2018 BUENOS AIRES DECLARATION marking the anniversary of the Universal Declaration of Human Rights



#### The beginnings: The ROME CHARTER-IV Congress of Italian Engineers and Architects (1883)

This document, a truly decisive text for a gathering of experts in the field, views the conservation of monuments as documents. Camillo Boito, a brilliant conservation architect, played a major role in this charter with his stance and axiom of "consolidating before repairing and repairing before restoring". These actions could only be carried out following a prior comprehensive detailed study in order to ascertain the condition of the building. In cases where circumstances and diagnosis required interventions, the guidelines implemented translated into recognition and visibility of actions, respecting all the constructive phases of a building.

#### The discussion: the ATHENS CHARTER for the Restoration of Historic Monuments (1931)

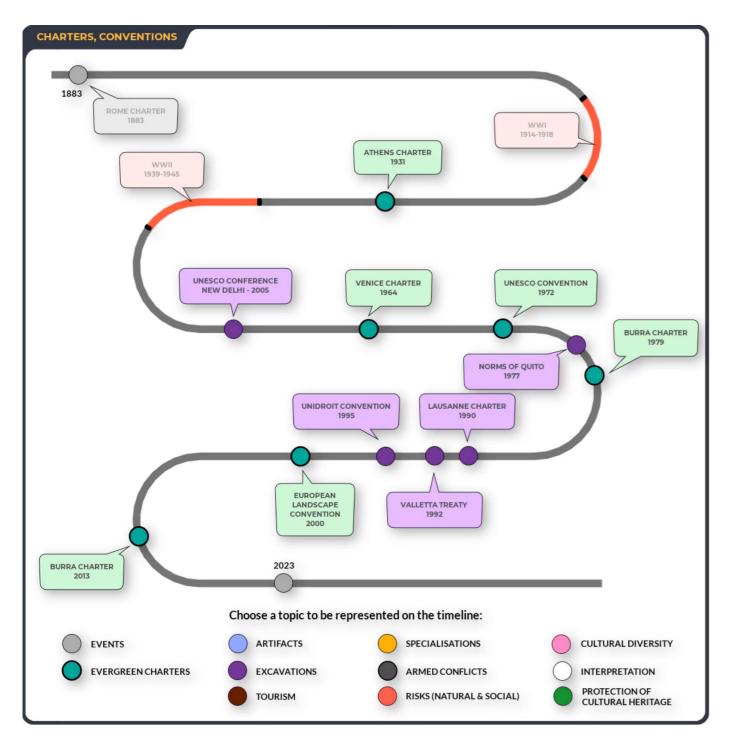
This Charter promotes the conservation of world artistic and archaeological heritage, highlighting the role of countries as defenders of civilization. For the first time it was proposed that all countries should agree to collaborate more extensively and specifically to guarantee the conservation of artistic and historic monuments. This Charter analyses the legislation passed in individual countries for the protection of monuments, insisting that public authorities be granted decision-making powers as regards conservation, particularly combining public and private law. This Charter also had repercussions at a national level, where principles were set out according to specific contexts, as in the case of Italy, with the 1932 CARTA DEL RESTAURO ROMA for the Restoration of monuments.

#### An "evergreen": the VENICE CHARTER for the Conservation and Restoration of Monuments and Sites (1964)

The 16 articles which make up this Charter (1964) are possibly the most cited and mentioned internationally since its publication. This document was originally born as an updated version of the Athens Charter, following the concern and impotence of conservators after the war. Several roundtables, with notable contributions from Roberto Pane, Piero Gazzola and Raymond Lemaire, stressed the exceptional nature of the concept of restoration. This could resort to the assistance of more contemporary means, respecting additions and once again rejecting the unity of style. Another interesting contribution is the expansion of the concept of heritage to a more inclusive urban and environmental scale, both closely linked.

#### Burra Charter (1979, 1999, 2004, 2013)

The Burra Charter is a document published by the Australian ICOMOS which defines the basic principles and procedures to be followed in the conservation of Australian heritage places. The Charter was first endorsed in 1979 as an Australian adaptation of the Venice Charter, but with the introduction of a new analytical conservation model of heritage assessment that recognised forms of cultural heritage beyond tangible and physical forms. The Charter was the first national heritage document to replace the Venice Charter as the basis of national heritage practice. The Charter has been revised on four occasions since 1979, and has been internationally influential in providing standard guidelines for heritage conservation practice. The 2004 publication The Illustrated Burra Charter elaborates and explains the principles of the 1999 version in an easy to understand form. In 2013 the Charter was again revised and updated.



#### The conservation of artistic heritage

The CARTA DEL RESTAURO DE ROMA (1972) builds upon the extremely complex concept of heritage, a legacy of the 1964 Venice Charter. Four annexes focus on the safeguarding and restoration of antiquities, the procedures to be followed in architectural restoration, the execution of painting and sculpture restorations, and finally, the guardianship of historic centres. The document further highlights the ravages of destruction caused by war which led to restorations and reconstructions without the necessary caution or precautions due to an understandable yet questionable sentimentality towards damaged or destroyed monuments.

#### The protection of cultural assets in armed conflict

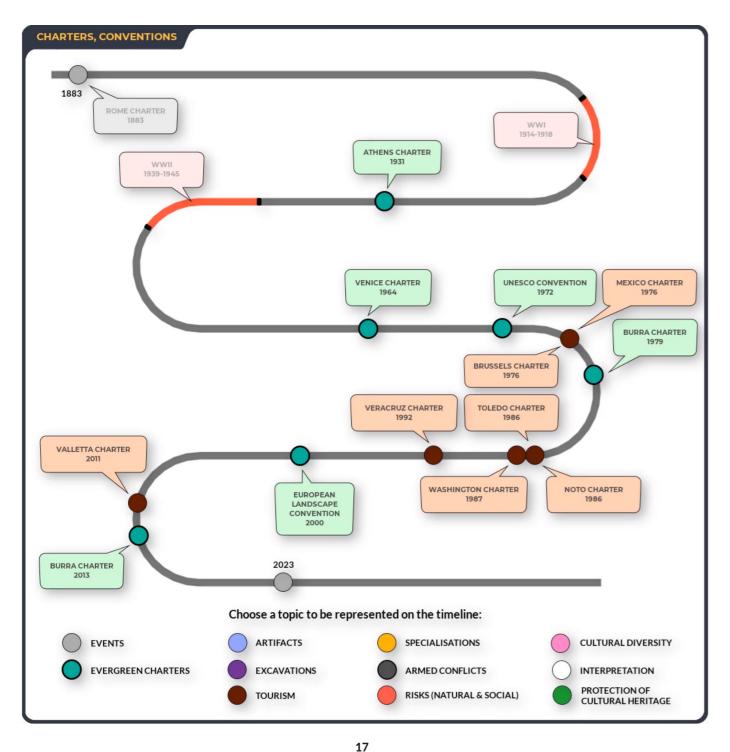
The two world wars marked a before and an after in the field of architectural conservation. As a result of the mass destruction of cultural heritage in the Second World War an initial international treaty for the protection of cultural heritage in the event of armed conflict was passed by 133 countries. This became known as the HAGUE CONVENTION (1954). This document formalised a protocol which aimed to prevent the export of cultural assets from occupied territories and demanded the return of these assets to the country from which they were plundered. One of the most important contributions of the convention was the establishment of prior measures in times of peace as well as a series of guidelines in the event of conflict. The destruction of cultural assets as a result of the conflicts of the 1980s and early 1990s highlighted the need for improvement, as defined more recently in other documents. Among these it is worth noting the RADENCI DECLARATION (1998) for the protection of cultural heritage in emergencies and exceptional situations, the SECOND PROTOCOL TO THE HAGUE CONVENTION (1999) which summarises and updates the 1950s guidelines and the SYSTEM FOR THE PROTECTION OF CULTURAL PROPERTY IN THE EVENT OF ARMED CONFLICT (2000).

#### The principles for archaeological excavations

The General Conference of the United Nations Educational, Scientific and Cultural Organization, in its ninth edition in New Delhi (1956), established a series of guidelines of interest for the protection of heritage with a wide range of measures to be implemented in all regimes of archaeological excavations, placing special insistence on the repression of clandestine actions and illegal export or trade of objects obtained from archaeological excavations. This document aims to protect vulnerable settings with limited legislation. These guidelines were followed in later years with more specific documents for the discipline of archaeology, including the NORMS OF QUITO (1977) for the preservation and utilisation of monuments and sites of archaeological, historical and artistic interest; the LAUSSANNE CHARTER (1990) and VALLETTA TREATY (1992), both aiming to guarantee the correct management of archaeological heritage; and the UNIDROIT CONVENTION (1995), which specifically targeted stolen or illegally exported cultural objects.

#### The international approach: the protection of cultural and natural heritage

The UNESCO CONVENTION (1972) was the first to insist on the concept of conservation integrated as a 360° mechanism allowing the coordination of legislative, administrative, financial, and educational measures to promote public interest in heritage and safeguard it on an international scale. This document reflected the search for a degree of homogeneity



among the specific conditions of countries, particularly in Europe. In the second half of the 20th century the EU was one of a series of bodies and institutions promoting several mechanisms and policies focusing on the normalisation of policies of member states. Some results to be highlighted in the framework of these actions are RECOMMENDATION 880 CE (1979) on the conservation of European Architectural Heritage; the BERLIN CONFERENCE (1982) on European cities; the GRANADA CONVENTION (1985) for the protection of European architectural heritage; the DOCUMENT OF COPENHAGEN (1987) and that of PAVIA (1997), both relating to the European profile of the conservator-restorer. In the second half of the 20th century, issues such as threats, abandonment and above all the pollution or destruction of European landscape enclaves prompted a wide range of actions for the conservation of the landscape, since it had been recognized that cultural landscape was a determining factor in the development of different societies over time. In this regard, one of the most important contributions was the drafting of the EUROPEAN LANDSCAPE CONVENTION (2000), updated in the FLORENCE DECLARATION (2014) on landscape and human values.

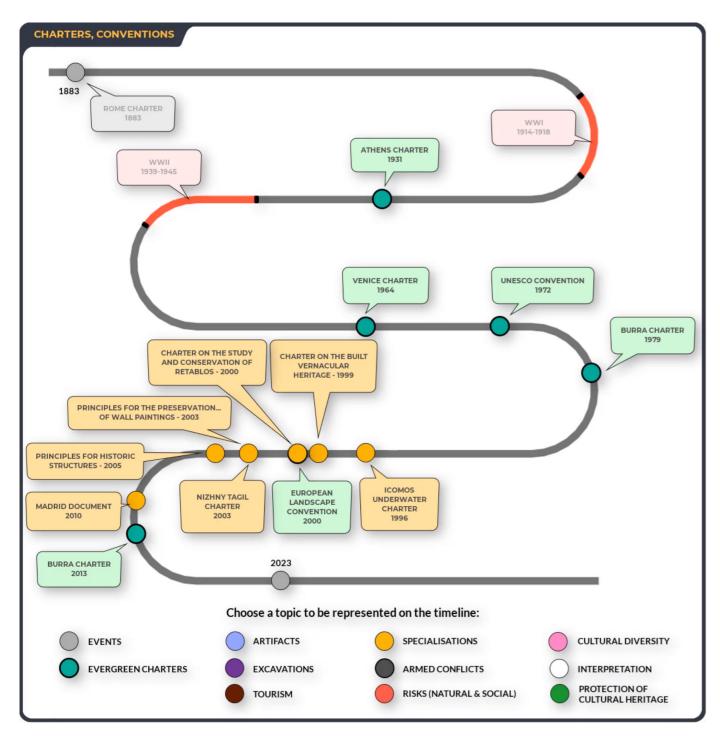
#### Tourism and the safeguarding of historic centres

The second half of the 20th century saw the appearance of issues such as the management of tourism, linked to important world locations which were starting to see the strain of mass tourism arising from the economic booms and development. From the 1970s these issues were addressed in various documents including the BRUSSELS AND MEXICO (1976) CHARTERS, which respectively focused on the defence of tourism and cultural heritage. From the 1980s particular insistence was placed on the potentially disastrous actions affecting historic centres. Most notably, the NOTO CHARTER (1986) specified the prospects for the conservation and recovery of historic centres; the TOLEDO CHARTER (1986) focused on the conservation of historic cities, while the WASHINGTON CHARTER (1987), expanded the protection to wider urban areas, eventually decentred or more scattered, as did the VERACRUZ CHARTER (1992) which set out action policy in historic centres in Latin America. The aim of all these documents is to limit and control the damage due to the aggressively out-of-control growth of urban centres, insisting on the concept of controlled urban planning, as highlighted in the recent VALLETTA CHARTER (2011).

#### Cultural diversity and heritage diversity: values and authenticity

The globalisation of the late 20th century led to documents being devised which defended cultural diversity, promoting respect for cultural and social values, establishing a protocol to guarantee diversity for human development, and promoting the legitimacy of the different authentic cultural values of each culture and country. In keeping with this, the NARA CHARTER (1994) was one of the first documents which insisted on the importance of intangible values, tackling issues which were successively expounded on in other documents. For example, the BURRA CHARTER (1999) provided a guide for the conservation of locations of cultural significance; the CONVENTION FOR THE SAFEGUARDING OF THE INTANGIBLE CULTURAL HERITAGE of PARIS (2003) or the FARO CONVENTION (2005) focused on the value of cultural heritage for society.

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#### Specificity and uniqueness of heritage

The late 20th century and early 21st century saw the progressive creation of specific documents promoting an increasingly defined and detailed profile of the subject/object to "be protected" in order to guarantee its correct management. The principles and proposals focus solely on a specific case insisting on its values, highlighting its unique and special nature within the family of possible cultural assets. This is the case for example of the ICOMOS UNDERWATER CHARTER (1996) for the protection and management of underwater cultural heritage; the PRINCIPLES FOR TIMBER STRUCTURES; the CHARTER ON THE BUILT VERNACULAR HERITAGE (1999); the CHARTER ON THE STUDY AND CONSERVATION OF RETABLOS (2000); and the NIZHNY TAGIL CHARTER (2003) on Industrial Heritage. Other documents drawn up, focusing on very specific and defined facets of heritage included the PRINCIPLES FOR THE PRESERVATION AND CONSERVATION/RESTORATION OF WALL PAINTINGS (2003), the PRINCIPLES FOR HISTORIC STRUCTURES (2005), and the MADRID DOCUMENT FOR 20th-CENTURY ARCHITECTURAL HERITAGE (2010).

#### The interpretation of heritage, its values and technology

The charters have progressively become more participatory, promoting aspects such as education, training, interpretation and dissemination (specific programmes, exchange programmes...), in order to promote collective awareness which may assess and contribute to the conservation of a given heritage complex. The 21st century has opened the door to new professions, linked either to new technologies or heritage management, and requiring a series of guidelines, including ethical codes. Notable examples of these include the ENAME CHARTER (2005) for the interpretation of cultural heritage sites and the XI'AN DECLARATION (2005) on the conservation of the setting of heritage structures, sites and areas. In addition, around this time the ICOM MUSEUMS CODE OF ETHICS (2006) took shape and the HAVANA MEETING (2007) on science and technology for cultural heritage was held. In addition, regarding interpretation problems it is worth highlighting the LONDON CHARTER (2008) on computer-based visualisation of cultural heritage, the CHARTER ON CULTURAL ROUTES (2008), and the CHARTER ON THE INTERPRETATION AND PRESENTATION OF CULTURAL HERITAGE SITES (2008).

#### Risks, threats and resilience of Cultural Heritage

Since the first decade of the 21st century there has been a notable worsening of aspects such as climate change, social diversity and the widespread imbalances which affect cultural heritage more or less directly. Therefore, in order to contribute to the prevention, planning and prioritisation in the face of natural, social, and anthropic risks preventive documents and actions are now being drawn up, including the LIMA DECLARATION (2010) for disaster risk management of cultural heritage, the DELHI DECLARATION (2017) on the relationship between democracy and heritage, and the BUENOS AIRES DECLARATION (2018) regarding human rights in connection with heritage enclaves.

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# CHAPTER II INSTRUMENTS OF HERITAGE MANAGEMENT

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#### INTRODUCTION

Heritage is often defenceless in the absence of legal instruments for its suitable protection and management. With the exception of the odd case throughout history, most of the legal tools for the protection of heritage first appeared in different countries in the 19th century, coinciding with increased popular interest in different aspects of heritage, especially monumental or representing the identity or personal history of individual peoples. After the Second World War supranational bodies for the recognition, management and protection of heritage were set up, fostering a feeling of common ownership of the most iconic and representative human heritage worldwide. Such common denominators are UNESCO and ICOMOS or we could also mention some internationally recognized strategies such as the European heritage strategy for the 21st century set up by the Council of Europe.

This chapter proposes the examination of this complex and heterogeneous mosaic of legal instruments and a comparative cross-disciplinary study of the various current national legislations in selected European countries including the United Kingdom, Hungary, Poland, Slovenia, Greece, Italy, France, Spain and Germany. For the purpose of this comparison it is also worth enumerating the common European basis connecting all of these countries through the laws and articles accepted by the European Union as a whole:

- Lisbon Treaty, Article 167 is specifically devoted to cultural heritage
- Recommendation of 20 December 1974 from the Commission to the Member States on the protection of the architectural and natural heritage (OJ L 21,28.1.1975, p. 22-23)
- Council conclusions of 17 June 1994 on the drawing up of a Community action plan in the field of cultural heritage (OJ C 235,23.8.1994, p. 1-1)
- Council Resolution of 12 February 2001 on architectural quality in the urban and rural environment (OJ C 73,6.3.2001, p. 6-7)
- Council Decision of 1 December 2011 on the practical and procedural arrangements for the appointment by the Council of four members of the European jury in the framework of the European Union's action for the European Heritage Label (OJ L 330,14.12.2011, p. 23-24)
- Decision No 1194/2011/EU of the European Parliament and of the Council of 16 November 2011 establishing a European Union action for the European Heritage Label (OJ L 303,22.11.2011, p. 1-9)
- Resolution of the Ministers responsible for cultural affairs, meeting within the Council, of 17 February 1986 on the establishment of transnational cultural routes (OJ C 44,26.2.1986, p. 2-2)
- Resolution of the Ministers responsible for cultural affairs, meeting within the Council of 13 November 1986 on the conservation of objects and works of art (OJ C 320,13.12.1986, p. 3-3)

Also as a starting point let us also provide a list of the main laws of the selected countries concerning cultural heritage and the protection of monuments at national level:

UK - National Heritage Act (1983, amended 2002).

France - Loi du 10 juillet 2000 relative à la protection des trésors nationaux

Spain - Ley 16/1985, de 25 de Junio, del Patrimonio Histórico Español

Hungary - Act LXIV of 2001 on the protection of Cultural Heritage

Italy - Cultural Heritage and Landscape Code (D.Lgs. 2212004 n. 42)

Poland - Act of 23 July 2003 on the protection and the care of monuments

Greece - 3028/2002, "On the Protection of Antiquities and Cultural Heritage in general"

Germany - Different act for each region (Land)

Slovenia - 2008. Cultural Heritage Protection Act

#### "DIFFERENT COUNTRIES MEAN "DIFFERENT" LEGAL INSTRUMENTS

The Council of Europe, constituted in the London Treaty of 5 May 1949, is an international organisation for the promotion of a common political and legal space on the continent in joint cooperation with European Member States. The Council of Europe has established a European Cultural Heritage Information Network which includes European public administrations in charge of the policies and strategies on cultural heritage, forming a single cooperation network in the field of Cultural Heritage. Thus, a network was set up with national coordinators appointed by the relevant ministers in order to share, exchange and analyse information on cultural heritage, exploring topics and fields of work which tackle current challenges and issues in the sector. There is also a public database with contributions from national coordinators, providing an inventory of European heritage policies in the 38 Member States of the Council of Europe, which is available on the following link: https://www.coe.int/en/web/herein-system/country-profiles

#### Management and protection roles - centralised or decentralised

After reviewing the information obtained from the Council of Europe website on the organisation of competences in the different countries analysed, the competence structures were broadly classified into two clear subgroups: while countries with major geographical, cultural and economic differences eventually propose more federal and decentralised policies, others favour more centralised heritage protection systems.

The first group of countries includes France, Spain, Greece, Italy and Germany. In the case of these countries although some heritage management and protection competences remain at national level there is also a clear transfer of competences at different levels (generally regional, but local in some cases), given the diverse and complex identities of the different regions. The advantage of decentralised systems is their capacity to permeate more levels of heritage, perhaps empowering more fragile communities (such as minorities or poorer more rural regions). These types of legislative systems reaffirm the historical-cultural, economic and social personality of a given area, and in turn potentially benefit certain particularly vulnerable and remote heritage assets. However, this system is at risk from

negative effects from different regional and local policies which can lead to the failure of heritage conservation in areas under pressure from such threats as tourism or real estate speculation. The decentralised system therefore runs the risk of creating regions or communities with excellent conservation policies as well as other more limited ones. This demands an additional effort in coordination and homogenization which can be crucial in countries with many regional bodies.

Hence the advantage of centralised systems, where protection standards can be guaranteed as more uniform, but which permeate less within the different regions. This second group with competences organised as centralised protection of heritage (though usually with local support) includes countries like England, Hungary, Poland and Slovenia. States with "umbrella" regulations can guarantee more systemic legislation which can be applied extensively throughout the territory. This may well be why in this scenario the most interesting regulatory resources are those which encourage some degree of coexistence of two legislations: "regional" ones and a "common" one for the State. These systems bring about a "vertical" distribution of national legislative competences and a "horizontal" distribution between several smaller bodies. This helps prevent unbearable pressure on the state while also reducing the cost of decision-making in the field of heritage.

On the following pages we will take a look at the effective legislation inputs of the international organisations (UNESCO and ICOMOS) and evaluate the legal systems of cultural heritage of the European countries selected for this research, first dealing with the ones with centralised systems and after that the examples of decentralised solutions.

#### **UNESCO**

International protection of architectural heritage is laid down by the United Nations Educational, Scientific and Cultural Organization (UNESCO), which is a specialist United Nations body set up in 1945 to contribute to worldwide peace and safety through education, science and culture (http://whc.unesco.org). Its headquarters are in Paris and its universality is seen from the number of member countries, which currently stands at 195. UNESCO programmes work towards achieving the sustainable development goals defined in the 2030 Programme and approved by the United Nations General Assembly in 2015. Throughout its history UNESCO has shown great respect for the protection of cultural heritage through the use of two regulatory mechanisms: conventions, ratifying the regulations for all countries, and recommendations, which have no regulatory value but are used as proposals for the protection of culture and cultural assets.

UNESCO's missions include the promotion of the worldwide identification, protection and conservation of any cultural and natural heritage considered of particular value to humanity. This inspired the proposal for an international treaty which culminated in the Convention concerning the Protection of World Cultural and Natural Heritage, approved by UNESCO in 1972. It was therefore born from awareness of increasing threats to heritage, potentially leading to its complete disappearance. It also acknowledges that protection on a national scale is incomplete, given the number of resources required. This convention examines heritage from the perspective of both culture and nature, reflecting the interaction between people and nature and the need to preserve the balance between both. To date, 193 countries have ratified this document, showing almost universal acceptance. These countries thus recognize that the sites found

in their territory and recorded on the World Heritage List are part of a universal heritage to be jointly protected and safeguarded by the entire international community with no detriment to national sovereignty or ownership. UNESCO currently preserves the heritage of 167 countries through this World Heritage List. The declaration of assets as World Heritage is a recognition awarded by UNESCO to sites of exceptional universal value. This distinction is used to acknowledge these assets as universal, so that their enjoyment, protection and care will be recognized worldwide, irrespective of location.

To be included on the World Heritage List, a site must display exceptional universal value and meet at least one of the selection criteria established by UNESCO. There are 10 selection criteria, detailed in the Operational Guidelines for the implementation of the World Heritage Convention which, along with the text of the Convention, is the main working tool for World Heritage. Until 2004, World Heritage sites were selected on the basis of six cultural and four natural criteria, but with the adoption of the revised Operational Guidelines for the Implementation of the World Heritage Convention, only one set of ten criteria exists.

The Committee periodically reviews the criteria to ensure that they reflect the evolution of the concept of World Heritage:

- i) to represent a masterpiece of human creative genius
- ii) to exhibit an important interchange of human values, over a given period or specific cultural area of the world, in relation to developments in architecture or technology, monumental arts, town planning or landscape design
- iii) to bear unique or at least exceptional testimony to a cultural tradition or civilization which is either living or has disappeared
- iv) to be an outstanding example of a type of building, architectural or technological complex or landscape which illustrates significant stages in human history
- v) to be an outstanding example of a traditional human settlement, land use, or sea use which is representative of a culture (or cultures), or human interaction with the environment especially if these have become vulnerable under the irreversible impact of change
- vi) to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance; the Committee considers that this criterion should preferably be used in conjunction with other ones
- vii) to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
- viii) to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features
- ix) to be outstanding examples of significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;
- x) to contain the most important and significant natural habitats for in situ conservation of biological diversity, including those with threatened species of outstanding universal value from the point of view of science or conservation."

Some architectural examples of the UNESCO World Heritage Sites in the countries of current research are:

- the works of Jože Plečnik in Ljubljana Human Centred Urban Design (Slovenia) (criteria iv);
- the Alhambra, Generalife and Albayzín, Granada (Spain) (criteria i, iii, iv);
- the Acropolis, Athens (Greece) (criteria i, ii, iii, iv, vi);
- the City of Bath, England (UK) (criteria i, ii, iv);
- Cologne Cathedral (Germany) (criteria i, ii, iv);
- the Historic Centre of Avignon: Papal Palace, Episcopal Ensemble and Avignon Bridge (France) criteria i, ii, iv);
- the archaeological Areas of Pompeii, Herculaneum and Torre Annunziata (Italy) criteria iii, iv, v);
- the old village of Hollókő and its surroundings (Hungary) (criteria v); and the historic Centre of Warsaw (Poland) (criteria ii, vi);
- Škocjan Caves (Slovenia) (criteria vii, viii);
- Ibiza, biodiversity and culture (Spain) (criteria ii, iii, iv, ix, x);
- St Kilda (UK) (criteria iii, iv, vii, ix, x).

#### **ICOMOS**

In 1965, the member countries of UNESCO convened in Warsaw to sign the International Charter for the Conservation and Restoration of Monuments and Sites, based on the principles established in the Venice Charter (1964), establishing the creation of an International Council on Monuments and Sites (ICOMOS - https://www.icomos.org/en) for their defence and conservation. Thus, ICOMOS (International Council on Monuments and Sites) is an international non-governmental organisation linked to UNESCO, devoted to the promotion of theory, methodology and technology applied to the conservation, protection and valorization of cultural heritage. Its International Secretariat's seat is situated in Paris, France.

The international organisation of ICOMOS is made up of 110 National Committees (NCs) representing the interests of the organisation at local level. These National Committees enable specialists from individual countries to take part in ICOMOS activities, including the missions delegated to ICOMOS by UNESCO. They also serve as forums to discuss and exchange views on both theoretical and practical matters in connection with heritage management practices from legislation to the exact realisation of certain conservation or restoration projects.

The annual meetings of the ICOMOS Advisory Committee allows National Committees to directly affect the ICOMOS programme priorities with the possibility of volunteering for the responsibility of any part of the programme with significant relevance to their own country. Finally the National Committees locally implement the proposed programmes of the Board following the Dubrovnik Valletta principles for the National Committees of ICOMOS.

As published on its website, ICOMOS displays a series of characteristic values, including:

"-Cultural and social diversity, collegiality: from around the world, with diverse and complementary professional

backgrounds, researchers, scientists, heritage lawyers, economists, engineers, artisans, professionals, academics, private consultants, elected officials, state representatives, etc.., pool ideas and expertise in a spirit of collegiality and respect for their cultural and religious differences.

-Impartiality: As an NGO, ICOMOS is one of the three Advisory Bodies of the World Heritage Convention. In order to provide the World Heritage Committee with evaluations, it relies on a network of experts chosen for their expertise and experience, who offer their technical advice independently and following ethical guidelines.

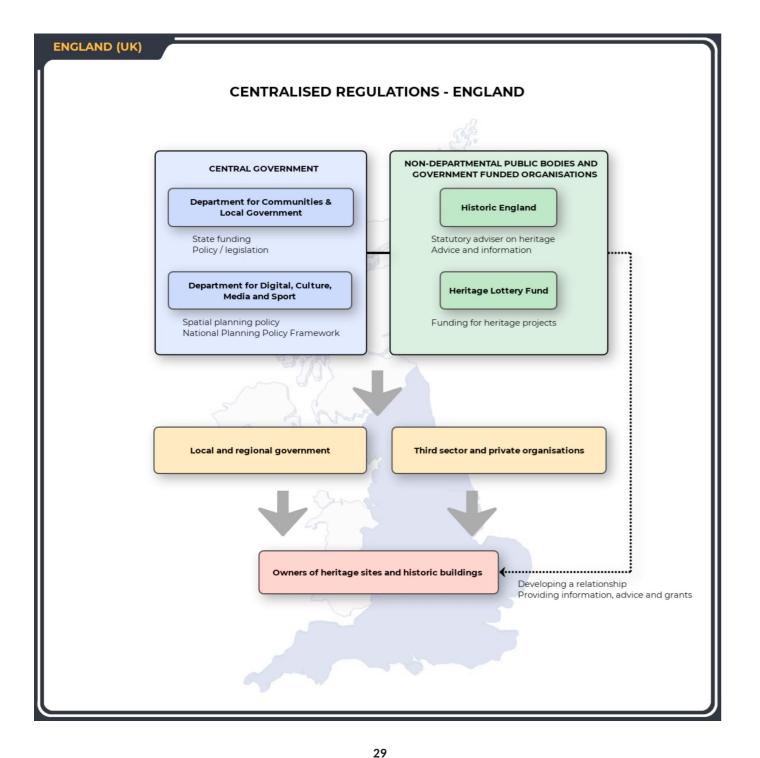
-Exchanges between countries, North-South dialogue, solidarity: ICOMOS, like any organisation linked to UNESCO's mission, endeavours to connect peoples and cultures. With this aim, the Victoria Falls Fund was created in 2003 to facilitate the mobility of members from developing countries. In addition, during major natural disasters, ICOMOS experts and specialists provide assistance developing emergency measures for the preservation, conservation and restoration of heritage (Haiti, China, Iran, etc.). It is also a founding member of the Blue Shield.

-Transmission and youth involvement: ICOMOS' mission is to raise heritage awareness. It participates in training activities and involves young researchers and professionals in its issues and actions. The Raymond Lemaire International Fund awards scholarships to young hopefuls to complete their education or add to their professional experiences.

-Free Access to Information: Finally, ICOMOS supports free and unrestricted open access to scientific publications through the project "ICOMOS Open Archive: EPrints on Cultural Heritage".

The following list provides the dates of adhesion and links to the websites of ICOMOS National Committees of the countries in current research:

United Kingdom (1965 - https://icomos-uk.org)
France (1965 - http://france.icomos.org)
Germany (1965 - https://www.icomos.de)
Hungary (1965 - https://www.icomos.hu)
Spain (1980 - https://icomos.es)
Poland (1981 - http://www.icomos-poland.org/en/)
Greece (1989 - https://www.icomoshellenic.gr), and
Slovenia (1993 - http://en.icomos.si).



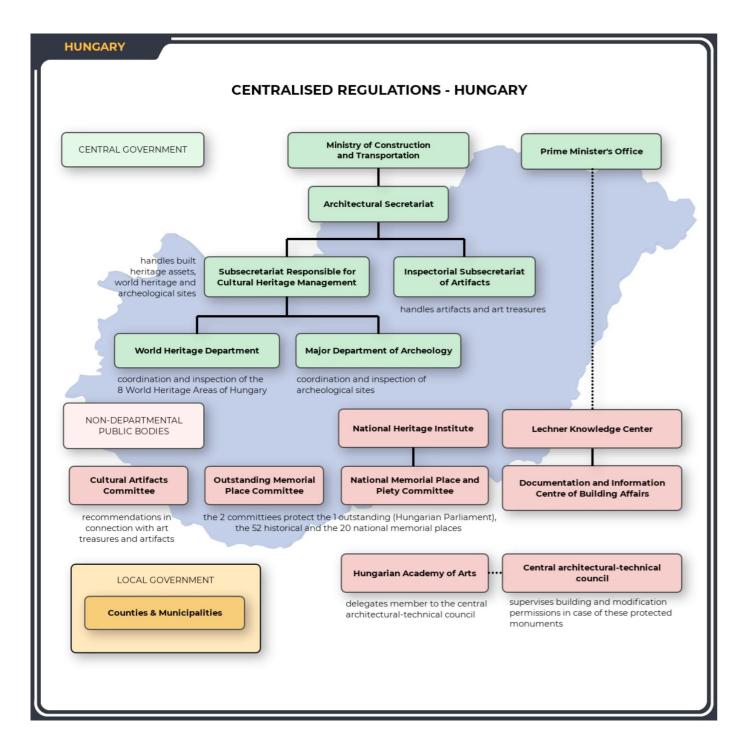
#### CENTRALISED HERITAGE REGULATIONS

#### **ENGLAND (UNITED KINGDOM)**

In the United Kingdom, the Secretary of State for Culture, Media and Sports is in charge of cataloguing buildings and planning the protection of old monuments. To do this, legally binding categories of protected heritage are established: listed buildings, scheduled monuments, conservation areas and protected wreck sites. All the categories are featured in the National Heritage List of England. Within this centralised structure at national level several departments have competences in the field of heritage. The Department for Digital, Culture, Media and Sport (DCMS) provides national government funds for the conservation of heritage and is in charge of guaranteeing a list of designated heritage assets at national level. Another department working in the field of heritage is the Department for Communities and Local Government (DCLG), which is in charge of policies and legislation on housing, planning, communities and local government, and draws up legislation and policies on territorial planning. Furthermore, in 2012, the Department for Communities & Local Government published the National Planning Policy Framework (NPPF), establishing the Government's planning policies together with a specific section on the built historic environment. A key objective of the NPPF is the promotion of sustainable economic, social and environmental development within the planning system. In England, management decisions affecting heritage are taken within the planning system.

At English level the government has set up several organisations such as Historic England and the Heritage Lottery Fund. Historic England (formerly English Heritage) is a non-departmental public body sponsored by DCMS and provides legal advice on historic settings to the government. The responsibilities of Historic England are set out in the National Heritage Law (1983, amended in 2002) and it is responsible for providing DCMS with sites to be designated and maintained on the National Heritage List for England. In England, management decisions affecting heritage are taken within the planning system. This organisation works with other key government departments providing advice on heritage issues and how these may be affected by politics and legislation. Other organisations sponsored by the government and advisers in other fields relevant to heritage are: Natural England, in charge of landscape matters, and Visit England, in charge of tourism. In Scotland, the management and protection of the historic and natural heritage is regulated, since 2015, by Historic Environment Scotland (HES), in Wales by Historic Wales, and in Northern Ireland by Northern Ireland Environment Agency.

The Heritage Lottery Fund, also a non-departmental public body, is in charge of distributing National Lottery income assigned to heritage throughout the United Kingdom, and is principal source of funding for heritage in the United Kingdom. Many local authorities have drawn up their own lists of non-designated heritage sites and buildings. They are also in charge of reviewing planning applications and most of the building permits in their area. Local planning authorities are also in charge of decision-making as regards the management of most of the heritage designated through the planning system. This is therefore a centralised competence system involving different departments of the central government and supported by organisations set up by the government, which also provide some support in competences at local level.



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#### **HUNGARY**

In Hungary the institutional structure responsible for the protection of cultural heritage has been reorganised multiple times since 2010. The essential law however remained Law LXIV from 2001 however with a lot of modifications, the latest ones from January 2023. The latest changes assigned the protection and management of both tangible and intangible heritage objects to the newly established Ministry of Construction and Transportation from the Prime Minister's Office, together with nearly all architecture-related tasks. Only the Documentation and Information Centre of Building Affairs remained at the Lechner Knowledge Center, the back office of the Prime Minister's Office.

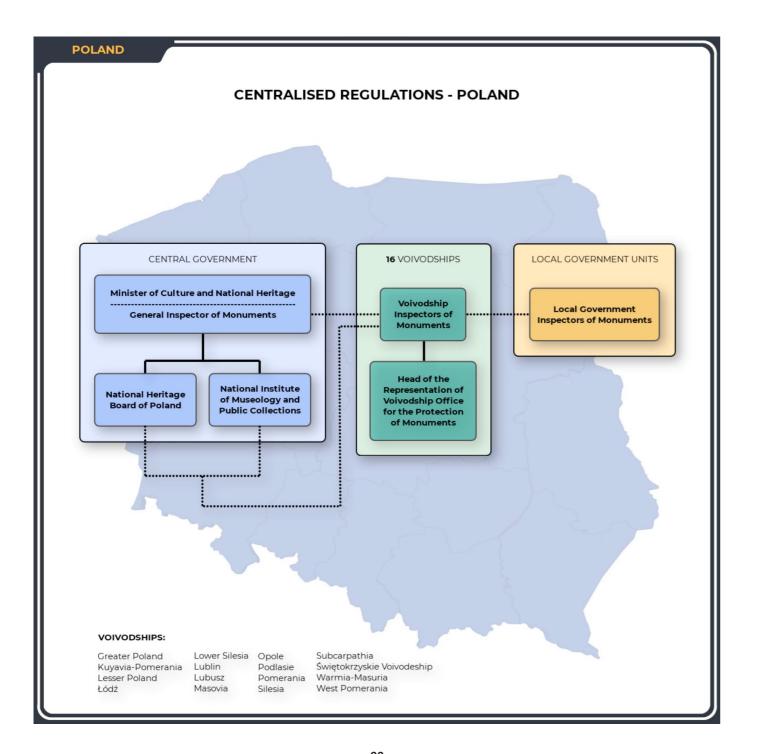
At the Ministry of Construction and Transportation heritage related issues are organised under the supervision of the Architectural Secretariat's two separate sub-secretariats: built heritage assets, world heritage and archeological sites are handled within the Sub-secretariat Responsible for Cultural Heritage Management, while artefacts and art treasures belong to the Inspectorial Subsecretariat of Artefacts. Within the sub-secretariat's system the World Heritage Department is responsible for the coordination and inspection of the 8 World Heritage Areas of Hungary officially recognised by UNESCO. Similarly to World Heritage locations, responsibility concerning archeology also lies with an independent department, the Major Department of Archeology.

Protection of monuments can be of two levels in the responsibility of the ministry on a state level: protected monuments and outstanding protected monuments. Building and modification permissions in case of these protected monuments can be only accessed with the professional support of a central architectural-technical council to which the Hungarian Arts Academy also delegates a member. This centralised structure has the support from local governments too, which also play a role in protection at local level as they have the authority to issue local decrees for the protection of historic monuments within their territory.

Law LXIV from 2001 also enumerates the list of memorial places of two kinds: historical and national memorial places, the former with 52, the latter with 20 locations. There is also an outstanding national memorial place: the area of the Hungarian Parliament in the centre of the capital, Budapest. Any decisions in connection with historical and national memorial places can be only made in accordance with two committees: the National Memorial Place and Piety Committee (10 members) organised under the National Heritage Institute and the Outstanding Memorial Place Committee (5 members) responsible for taking care of the protection of the area of the Hungarian Parliament, with the presidency of the speaker of the house. Finally, the Cultural Artefacts Committee (8 members) provides official statements and recommendations in connection with nationally important art treasures and artefacts.

The Hungarian National Museum, the Budapest History Museum, county level museums, local museums with archaeological authorization, Research Centre for Humanities, Institute of Hungarian Research, university departments issuing master class in archaeology and specific researchers under strict and detailed conditions can carry out scientific research and preventive excavations at archaeological sites.

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#### **POLAND**

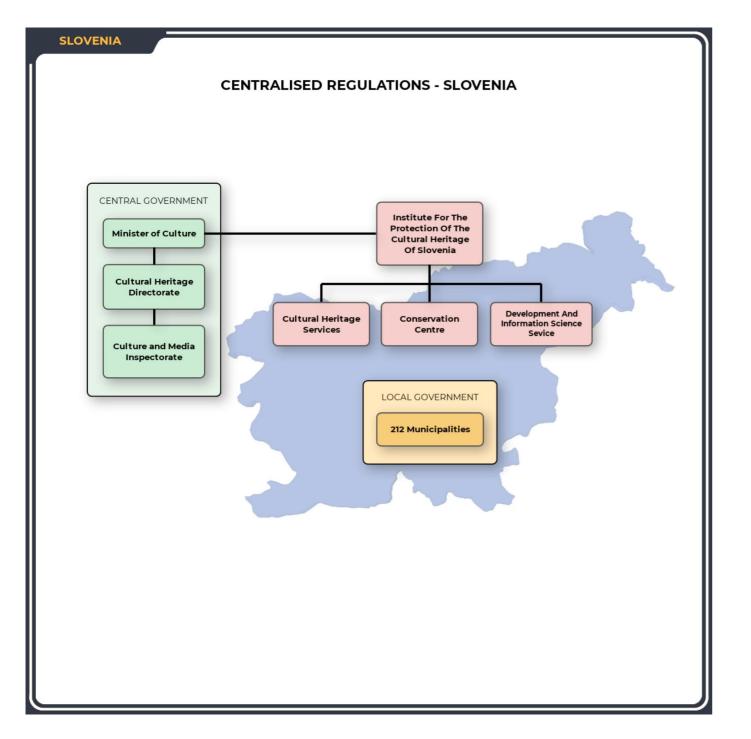
The policy for heritage management in Poland is recorded in the "National programme for the protection and care of monuments", passed by the Council of Ministers and implemented under the supervision and direction of the General Inspector of Monuments (Secretary or Undersecretary of State in the Ministry of Culture and National Heritage) in close collaboration with the institutions in charge of its implementation. The national government is responsible for providing legal, organisational and financial information for the conservation, management and maintenance of heritage, monitoring its state of conservation and use and carrying out protection tasks involving territorial planning. All these activities are carried out by the local Inspectors of Monuments, dependent on the General Inspector of Monuments, under the control and consultancy support of institutions at central level.

The General Inspector of Monuments is in charge of drawing up and implementing the national programme for the protection of monuments, overseeing compliance with the Law for the protection of monuments, as well as supervising the activities of the Inspectors of Monuments of the Voivodeship. The inspectors of monuments of the Voivodeship are appointed by the Voivod with the approval of the General Inspector of Monuments. These inspectors are in charge of implementing the national programme for the protection and care of heritage; planning financial support for its protection; keeping a register and inventory; controlling the restoration, conservation, research and architectural work in the monuments and archaeological sites recorded; verifying compliance with the Law for the protection of monuments; drawing up protection plans; and promoting knowledge and cooperation with public administration bodies. This system of local inspectors therefore works under the General Inspector. The central body under the General Inspector of Monuments is the National Heritage Board of Poland, which is in charge of compiling and disseminating information on heritage; establishing and implementing standards for its protection and conservation; supervising the National Register; establishing new techniques for research and scientific documentation and supporting local inspectors; as well as supervising periodic reports on Polish sites and objects included in the UNESCO World Heritage List and coordinating the procedure for applying for the presidential title of "Monument to History".

Furthermore, the National Institute of Museology and Public Collections, attached to the Ministry of Culture and Cultural Heritage, is in charge of drafting and implementing the national policy for museums, offering them assistance.

Information regarding legislation is based on Council of Europe's data: https://www.coe.int/en/web/herein-system/poland

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#### **SLOVENIA**

In Slovenia, the protection of cultural heritage is included as a specific category in the Slovenian Constitution. According to the Cultural Heritage Protection Act (2008), the full conservation of heritage is implemented through territorial planning, respecting the importance of heritage and incorporating it into sustainable development supervised by the authorities.

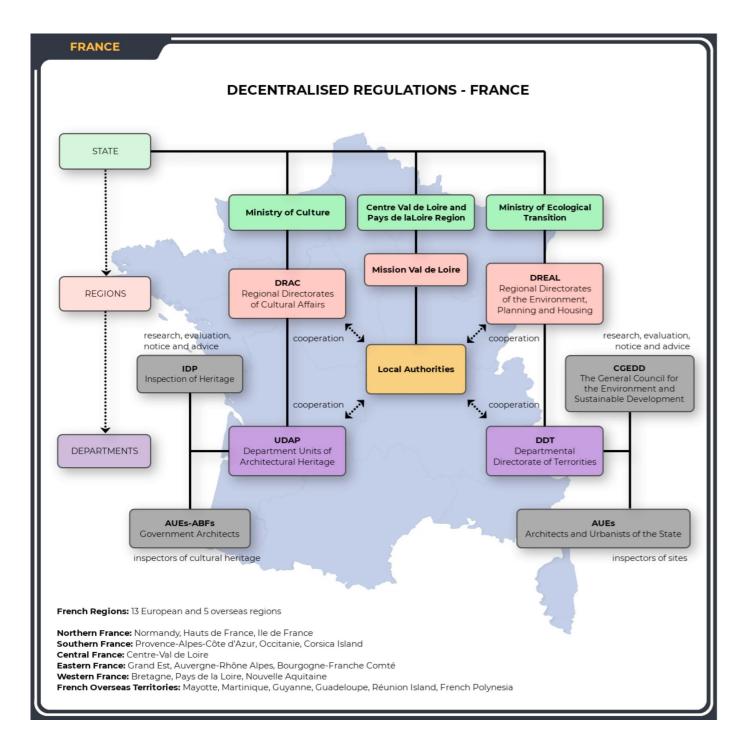
At the national level the government is in charge of passing laws for the conservation of heritage and for restoration funds. In collaboration with other ministries and municipalities, the Ministry of Culture is in charge of implementing cultural policy, guaranteeing the protection of heritage. This Ministry is made up of the Cultural Heritage Directorate and its two bodies, the Archives of the Republic of Slovenia and the Culture and Media Inspectorate.

The Cultural Heritage Directorate consists of three sectors: sector for the museums, archives and libraries; sector for tangible cultural heritage; Information-Documentation centre for Heritage. This Directorate is in charge of drafting the regulations and executing the policy for the protection of immovable, movable and intangible heritage at national level. Its experts are in charge of maintaining heritage databases; following up on national projects; managing and supervising jointly funded interventions in monuments and national areas; coordinating and promoting the protection of heritage through territorial planning; and guaranteeing international cooperation while increasingly raising awareness. Within this Directorate, the Culture and Media Inspectorate supervises the application of legal dispositions and specific regulations relating to heritage, archives and libraries.

The Institute for the Protection of the Cultural Heritage of Slovenia also has competences in the field of heritage. This national public institute set up by the government and made up of interdisciplinary experts is in charge of administration tasks linked to the conservation of immovable, movable and intangible heritage. It oversees the identification, assessment and documentation of heritage; drawing up proposals for heritage registers and the designation of monuments; drawing up and following up conservation plans and restoration projects; archaeological research; educational and promotional activities. The Institute is composed of the Cultural Heritage Service, with 7 branches, the Conservation Centre (consisting of the Restoration Centre, the Centre of Preventive Archaeology and the Institute of Research) and the Development and Information Science Service.

As the country is not divided into regions the only competences are national or local. At the local level, municipalities function like basic self-government units whose functions include passing municipal planning laws, designating monuments of local importance, and funding restoration projects.

Information regarding legislation is based on Council of Europe's data: https://www.coe.int/en/web/herein-system/slovenia



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#### **DECENTRALISED HERITAGE REGULATIONS**

#### **FRANCE**

France is divided into three territorial levels: municipalities, departments and regions. As a result, the State has "central" services and "dispersed" services, found in regions and departments.

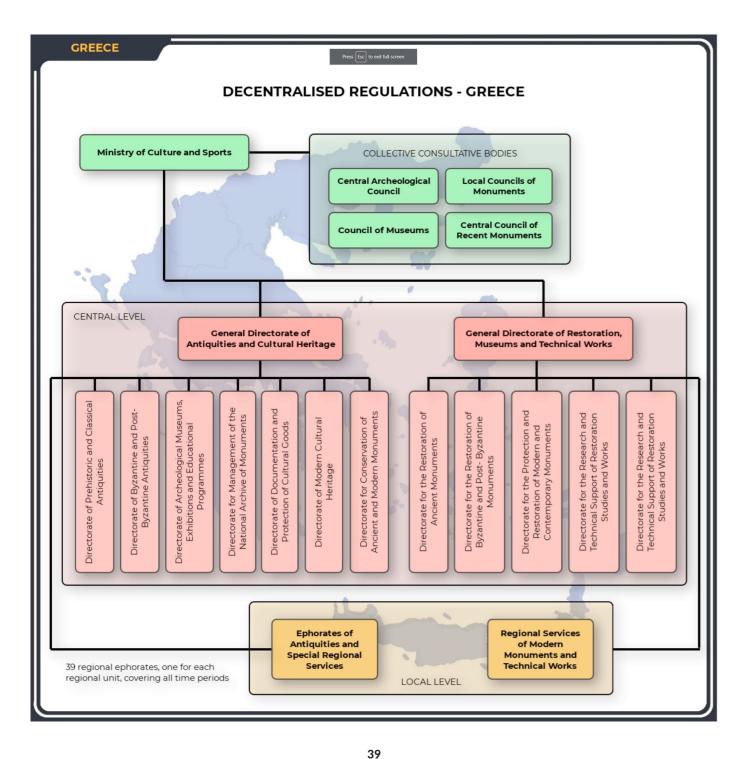
The State is responsible for national heritage policies, with two ministries, the Ministry of Culture and Communication and the Ministry of Ecological Transition, guaranteeing the joint management of the cultural and natural heritage of the territory. They maintain constant communication with civil society, especially associations, in order to guarantee good governance on all matters connected with heritage.

The Ministry of Culture is specifically in charge of executing policies for the protection, conservation and restoration of heritage. Within the Ministry of Culture, the General Directorate for Heritage plays a unifying role and implements this policy for the management of different types of heritage. It is responsible for the design, organisation, guidance, optimization and evaluation of state policies on heritage. The work of the Ministry of Culture is mostly organised through the Regional Directorates of Cultural Affairs (DRAC) and Territorial Services of Architecture and Heritage (STAP). The Regional Directorates of Cultural Affairs (DRAC) are services distributed throughout the country to form a network in charge of the implementation at regional level of the policies established centrally by the Ministry. These Regional Directorates work in close collaboration with local authorities, and both local and regional bodies have gradually taken on further competences in the management of heritage policies. Initially In 1983, and then in 2004, new competences were transferred to local and regional authorities, specifically the general inventory of cultural heritage and the possibility of transferring the ownership of protected buildings making them into historic monuments.

This structure of decentralised competences has been gradually transferred from the central structure to the different regions, departments and municipalities.

Information regarding legislation is based on Council of Europe's data: https://www.coe.int/en/web/herein-system/france

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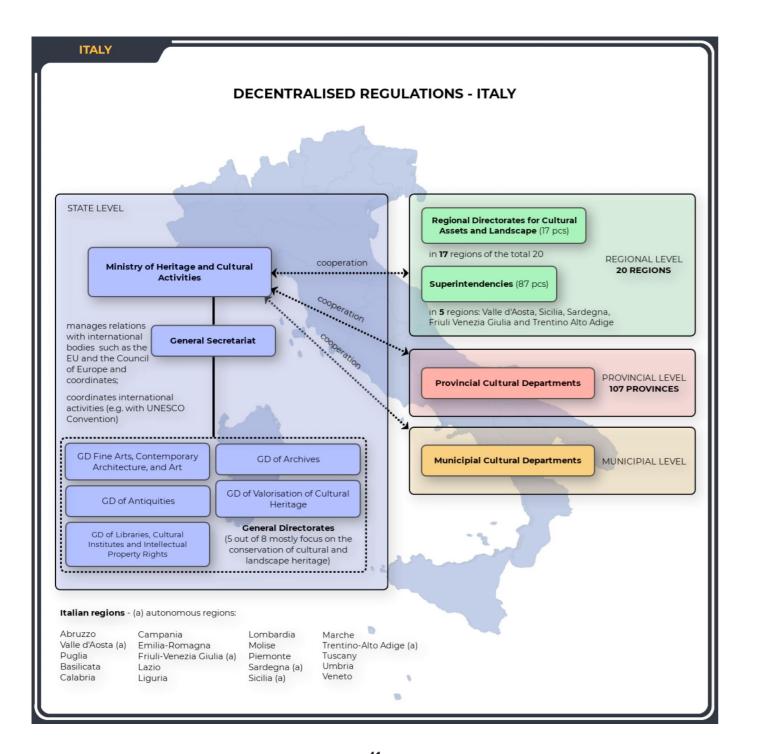
#### GREECE

In Greece, "the protection of the natural and cultural environment constitutes a duty of the State and a right of every person" (Constitution of Greece, Official Bulletin, 85/A/18-4-2001, art. 24). The principal legislation ruling the protection of cultural heritage is Law 3028/2002, "On the Protection of Antiquities and Cultural Heritage in general", which develops a comprehensive detailed system of protection for tangible and intangible heritage.

The main national body for the protection of cultural heritage is the Ministry of Culture and Sports. The services of the ministry in charge of the management and protection of monuments are divided into Central Services and Regional Services.

The Central Services supervise and control the Regional Services and ensure the coordination of activities with a common approach to issues affecting cultural heritage. Central Services relating directly to the protection of cultural heritage are: the General Directorate of Antiquities and Cultural Heritage in charge of the protection and integral management of cultural heritage, and the General Directorate of restoration, Museums and Technical Works which collaborates with the relevant services within the General Directorate of Antiquities and Cultural Heritage in the study and execution of works for the protection, stabilisation, restoration and valorization of architectural monuments and monumental complexes. In addition, the Ministry of Culture and Sports has three advisory collective bodies which play a key role in the drafting of policies for the protection of cultural heritage and in approving major interventions in national monuments, sites and museums: the Central Archaeological Council, the Central Council of Recent Monuments and the Council of Museums. Matters of less importance are the remit of the Local Council of Monuments of individual regions. Furthermore, Regional Services include the Ephorates of Antiquities, in charge of the protection of cultural heritage previous to 1830, and the Services of Modern Monuments and Technical Works, in charge of modern architectural heritage.

Information regarding legislation is based on Council of Europe's data: https://www.coe.int/en/web/herein-system/greece



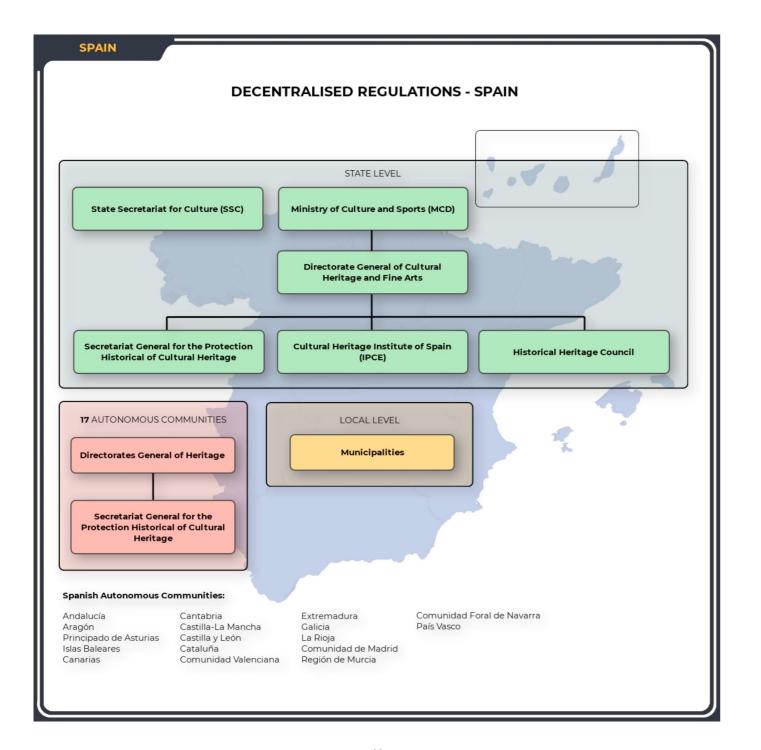
#### **ITALY**

In Italy, the general responsibility for heritage lies with the Ministry of Heritage and Cultural Activities. According to article 9 of the Italian Constitution: "The Republic promotes the development of culture and scientific and technical research. It safeguards landscape and the historical and artistic heritage of the Nation". Four levels of government (State, Regions, Provinces and Municipalities) share responsibilities in the field of culture. The protection or guardianship of heritage is currently among the cultural responsibilities still held by the State, with a few exceptions listed in art. 5 of the Code of Cultural Heritage and Landscape (D.Lgs. 2212004 n. 42), the National Law for the safeguarding of Italian cultural heritage. The Regions, Municipalities, Metropolitan Areas and Provinces cooperate with the Ministry in the execution of their protective functions. In accordance with "Devolution Laws" adopted in the late 1990s, the regions have "legislative faculties which coincide" with those of the State as regards valorization of heritage ("valorizzazione" is a term referring to the activities aimed at the promotion of knowledge of cultural heritage and at guaranteeing the best possible conditions for the use and public enjoyment of this heritage).

Of the 20 Italian regions, 5 (Valle d'Aosta, Sicilia, Sardegna, Friuli Venezia Giulia and Trentino Alto Adige) have been granted broader competences in the field of culture and according to their statutory laws, hold exclusive and direct legislative and administrative responsibility for their own heritage assets, including museums and sites, through their decentralised Superintendencies. There are therefore no Regional Directorates for Cultural Assets and Landscape at state level in these regions. The 107 Italian provinces through their departments of culture (Assessorati Provinciali alla Cultura) are in charge of their own cultural institutions, mainly libraries and museums, and can coordinate municipal public libraries. Through the departments of culture (Assessorati Comunali alla Cultura) Italian municipalities are in charge of the direct management of municipal cultural institutions including museums and sites, archives, libraries, theatres and multifunctional cultural centres. Italian municipalities also participate by investing in the restoration and maintenance of their historic assets, under the supervision of the Ministry. The complex and articulated ministerial system for the identification and protection of cultural heritage revolves around a Secretariat General (with a General Secretary). 8 General Directorates are based in Rome, and 5 of these mostly focus on the protection and conservation of cultural and landscape heritage: GD Fine Arts, Contemporary Architecture and Art; GD of Antiquities (archaeological heritage); GD of Libraries, Cultural Institutes and intellectual property rights; GD of Archives; GD of Valorization of Cultural Heritage, for public access issues which may affect conservation), with the technical support of 8 Central Institutes, which are relatively autonomous high-level scientific bodies.

The ministerial structure therefore consists of 17 Regional Directorates of Cultural Assets and Landscape (in 17 of the 20 Regions), and 87 Superintendencies, so that competences are structured on a regional scale. Centrally, the Secretariat General of the Ministry is in charge of managing relations with international bodies such as the European Union and the Council of Europe, taking part in steering committees, research groups and coordination activities in the field of culture. It also coordinates international activities, including those relating to the UNESCO Convention for the protection of the world cultural and natural heritage, for the protection and promotion of cultural diversity, as well as the protection of the legacy of intangible cultural heritage.

Based on CoE's data: https://rm.coe.int/herein-european-heritage-network-italy-national-policy-report/16808c7768



#### **SPAIN**

In Spain, national legislation established the framework for heritage through Law on Spanish Historic Heritage (16/1985, of 25 June). This law regulates general aspects for the whole of the country. However, the transfer of competences to Autonomous Communities in 1985 led to the development of a regional legislation and the current situation in which each Autonomous Community has its own specific legislation to regulate the safeguarding of heritage. National legislation establishes three levels for the protection of heritage: property with historic heritage status; the General Inventory of Movable Assets; and the General Register of Assets of Cultural Interest (movable and immovable). At this scale, the 17 Autonomous Communities have established additional levels of protection in their own laws, such as introducing special categories in relation to intangible heritage.

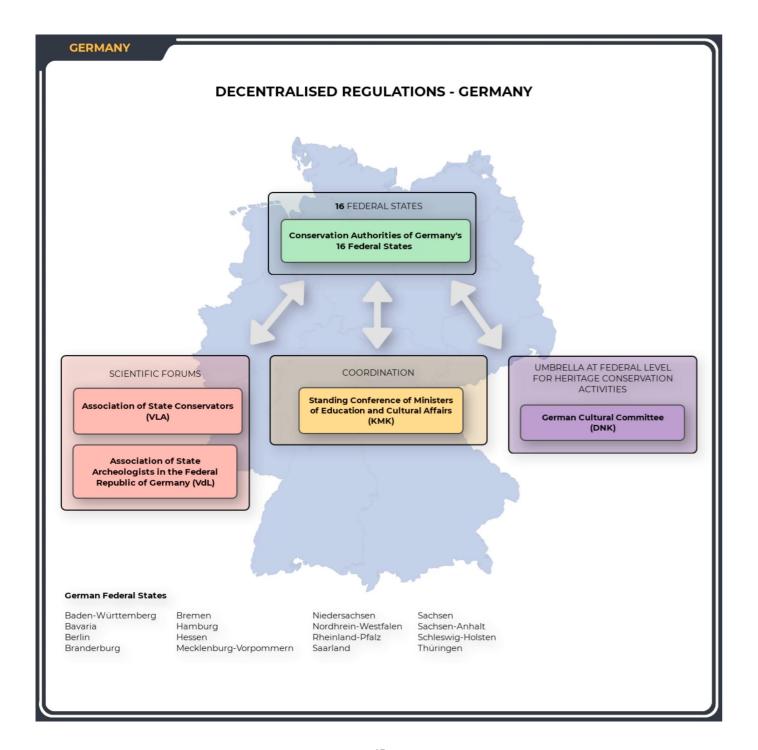
Within the Directorate General of Cultural Heritage and Fine Arts of the Ministry of Culture and the corresponding Directorates General of Heritage of the Autonomous Communities several units have been created to manage actions needed to improve the applicable legislation. These are known as Secretariats General (SG) for the Protection of Historical and Cultural Heritage.

In addition, the Cultural Heritage Institute of Spain (IPCE) is a Subdirectorate General attached to the Directorate General of Cultural Heritage and Fine Arts of the Ministry of Culture and Sport, whose main task is the research, conservation and restoration of the assets which make up Cultural Heritage, as well as documentation, training and dissemination. This is a complex task which the IPCE is approaching from a multidisciplinary perspective (architects, archaeologists, art historians, ethnographers, restorers, physicists, geologists, chemists, biologists, documentary experts, IT specialists, librarians, archivists and conservation experts, among others).

Tasks relating to compliance with international agreements ratified by Spain are also centralized at state level. In order to meet commitments at national level, in the last ten years different committees and work groups have been set up throughout Spain to develop the plans of action necessary to comply with the agreements or other commitments or agreements at international level. A Strategic Plan for Culture was developed by the State Secretariat for Culture (SSC), in charge of drawing up the plans for work in all the fields mentioned previously.

In order to coordinate the different heritage activities carried out in Spain a collegiate body, the Historical Heritage Council, was set up, with meetings for the national and autonomous governments held several times a year.

Information regarding legislation is based on Council of Europe's data: https://www.coe.int/en/web/herein-system/spain



#### **GERMANY**

Germany provides yet another clear example of a decentralised structure of competences in the field of heritage.

In accordance with the division of competences between the Federation and the 16 Länder (Federal States), the responsibility for heritage conservation lies with the Länder. Therefore, the structure and forms of organisation of cultural heritage and the authorities in charge of the conservation of heritage assets differ between states. As maximum authorities in this respect, the Länder are in charge of both adopting laws for the protection and preservation of heritage (along with districts, municipalities and in some cases administrative regions), and implementing them.

The maximum authority in charge of the preservation of heritage within the Länder is a specific Ministry (or Senate department) which is in charge of supervising those subordinate to it. In each case, the laws of the Länder on heritage conservation establish that the specialist central authority should be in charge of all matters relating to the protection of historic monuments. Under this maximum authority work is carried out by the Regional Offices for the Preservation of Monuments (Landesdenkmalamt), in charge of providing advice to subordinate authorities – municipalities, districts, villages from outside rural regions – as well as to the owners of monuments, drafting reports on all matters relating to the protection and conservation of heritage. In some Länder, these offices are also in charge of creating records of historic monuments. In terms of competences in the conservation of heritage the lower levels (districts, municipalities) are generally those implementing measures for protection and preservation. In some cases the smaller Länder, such as Sarre or city-states like Berlin, Hamburg and Bremen, work alongside the offices.

This decentralised structure of competences organised into the different Länder includes a series of central bodies with a common framework: the Standing Conference of Ministers of Education and Cultural Affairs of the Länder (KMK); two central associations, the Association of State Conservators and the Association of State Archaeologists; and the German Cultural Heritage Committee (DNK).

The Standing Conference of Ministers of Education and Cultural Affairs of the Länder (KMK) is the body in charge of coordination and a major instrument representing the common interests of the Länder to the Federal Government, the European Union and UNESCO, as well as representing the Länder in the fields of education, science and culture. Furthermore, the Regional Office for the Preservation of Monuments set up the Association of State Conservators (1949) and the Association of State Archaeologists in the Federal Republic of Germany (1951). The main purpose of the latter was to guarantee the continued exchange of knowledge and experiences, while also improving cooperation at national level between specialists in the fields of heritage conservation and science. Finally, the German Cultural Heritage Committee (DNK) is an interdisciplinary forum on the protection and conservation of German architectural and archaeological heritage. It is geared towards the private and public stakeholders linked to the protection and conservation of heritage.

Information regarding legislation is based on Council of Europe's data: https://www.coe.int/en/web/herein-system/germany

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# CHAPTER III HERITAGE MANAGEMENT STRATEGIES

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#### **ABSTRACT**











#### **ABSTRACT**

This chapter summarises suggested ways of modern heritage management, recommended strategies for heritage organisations to safeguard monuments and organise both the public access and involvement of the communities to the processes of this preservation work.

The chapter introduces the 'European Cultural Heritage Strategy For The 21st Century' adopted by the Council of Europe in 2017, the document that works as a compass for European policy makers, heritage professionals when thinking about the future of cultural heritage. In three further separate sections we are examining the three types of challenges that the Strategy can identify and we are summarising all the recommendations that the Council provides as suggestable answers. Parallel to the texts of the recommendations the chapter also analyses the intersecting areas of the challenges and summarises the ultimately coherent and complex nature of the Strategy.

A separate section collects together the main funding schemes of heritage organisations and gives a short insight to the different strategies from heritage grants to tax incentives and donations, that are broadly used by European countries and actors of heritage management.

Finally, three further sections showcase the best practice activities and functioning of three outstanding heritage organisations operating in Europe:

- The Edinburgh World Heritage Trust (Scotland, UK) has been distributing heritage grants for important restoration and maintenance works required for preserving the World Heritage Site of Edinburgh for more decades now, besides many other important projects, while continuously monitoring the Site and keeping updated its own action plan in connection with the designated area.
- The French research organisation, CRAterre has been the pioneer in the broad recognition of earthen wall techniques and earth structures, while contributing to the protection of a great number of preservable earthen heritage sites worldwide and assembling possible development strategies for these locations. The research work of its laboratory aims at the effective and wide use of sustainable earthen constructions as most-up-to-date technologies of an ecofriendly future.
- Since 1966 Rempart has been organising voluntary restoration heritage camps in France and all over the worldfrom dwellings to churches and castles. The camps allow a great number of volunteers to contribute with their
  own work to the renewal and restoration of important monuments, while next generations of heritage managers,
  specialist and master craftsmen are trained as part of these socially involving venues.

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# EUROPEAN CULTURAL HERITAGE STRATEGY FOR THE 21ST CENTURY





#### **EUROPEAN CULTURAL HERITAGE STRATEGY FOR THE 21ST CENTURY**

The Council of Europe adopted the document titled the 'European Cultural Heritage Strategy For The 21st Century' on 22nd February 2017 and since then it has been the main collection of guidelines for the member states in connection with their cultural and cultural heritage-related policy, by forcing and suggesting joint actions for the European countries.

The Strategy is a direct continuation of the series of actions and declarations formerly delivered by the Council in order to help organise the European cultural heritage on a higher and broader level than the scope and possibilities of the individual members. Joint action is especially required because the isolated member states are not powerful enough to face the challenges alone. The common evaluation of both the problems and the measures chosen for tackling these issues can build important synergies, while trying to deliver harmonious and consistent actions with an integrated approach.

An important event of this series of actions was the European Heritage Year held in 1975 which later concluded with the European Charter of the Architectural Heritage (Charter of Amsterdam). Besides that, the Council of Europe is also responsible for the implementation and follow-up of the following conventions:

- the European Cultural Convention (1954);
- the Convention for the Protection of the Architectural Heritage of Europe (1985);
- the European Convention for the Protection of the Archaeological Heritage (1992);
- the European Landscape Convention (2000);
- the Council of Europe Framework Convention on the Value of Cultural Heritage for Society (2005).

The theoretical and political-philosophical background of the Strategy had been already clearly declared in the Namur declaration in 2015. This includes core values such as: democratic values, good governance, inclusion of the civil society, respect for human rights & fundamental freedoms, equal dignity of all persons, openness and dialogue and sensitivity to diversity. Namur declaration also outlines the concept and the main structure of the planned document, enumerating the key challenges such as climate change and societal changes and also sets down the main guidelines in connection with the main themes of the Strategy from societal to economical ones.

The Strategy takes into account the following types of challenges, seeking for relevant responses to these kinds of threats:

- climate change and the growing number of man-made or natural disasters;
- societal challenges, such as demographic changes, problems of intergenerational divisions and isolationism;
- political challenges such as the violations of values of freedom and democracy;
- economic challenges and the threat of an economic crisis;
- the spread of mass tourism at a global level.

The document considers that cultural heritage plays a key role in refocusing European societies. Intercultural dialogues, the respect for the different identities and diversity, as well as the feeling of belonging to a community of values provide a good basis for this initiative. Cultural heritage also means a key factor in social and economical development and an invaluable resource in the field of education, employment, tourism and the sustainable forms of development.

The system of the Strategy is organised around three priority components which can be illustratively portrayed as three circles which interface with each other in four areas. The three components are as follows: the Social, the Territorial & Economic and the Knowledge & Education component. The Social component's main goal is the promotion of participatory (good) governance that is realised with the involvement of the civil society, with respecting and promoting diversity and empowering heritage communities. Catchwords of the Territorial & Economic component are sustainable development, employment, tourism and the exploitation of the local resources. Finally, the Knowledge & Education component's keywords are lifelong learning, research, the establishment of knowledge centres and the development of teaching and training programmes.

#### SOCIAL COMPONENT CHALLENGES (S)

#### Social (S) challenges identified as part of the strategy are as follows:

Political, socio-cultural challenges which are in connection with good governance:

- S1. Living in peace
- S5. Establishing good governance
- S6. Promoting participatory management

Quality of life and well-being related challenges:

- S2. Improving quality of life
- S3. Contributing to people's well-being and good health

Improving the relations of societies to their own heritage:

- S4. Preserving the collective memory
- S7. Optimising implementation of the conventions
- S8. Promoting an inclusive approach to heritage

#### **European Cultural Heritage Strategy For The 21st Century**

#### S - SOCIAL COMPONENT CHALLENGES:

**S1** Living in peace

**S2** Improving quality of life

S3 Contributing to people's well-being and good health

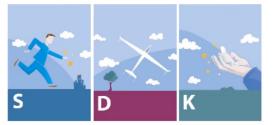
**S4** Preserving the collective memory

**S5** Establishing good governance

**S6** Promoting participatory management

**S7** Optimising implementation of the conventions

**S8** Promoting an inclusive approach to heritage



#### D - TERRITORIAL & ECONOMIC DEVELOPMENT COMPONENT CHALLENGES:

D1 Building a more inclusive and cohesive society

D2 Developing Europe's prosperity by drawing on its heritage resources

D3 Ensuring that Europeans enjoy a high quality of life, in harmony with their cultural and natural environment

**D4** Implementing the principle of integrated conservation

**D5** Ensuring that heritage is taken into account in sustainable spatial development strategies and programmes

D6 Developing the ability of public services to address sustainable spatial development issues by means of better use of heritage

D7 Preserving and developing the ability of public services to address heritage issues

D8 Increasing the use and reuse of heritage

#### **K - KNOWLEDGE & EDUCATION COMPONENT CHALLENGES:**

K1 Helping to foster a shared knowledge society

K2 Identifying, preserving, transmitting and sharing heritage knowledge and skills

K3 Raising awareness of the values conveyed by heritage

**K4** Ensuring heritage stakeholders have access to lifelong training

K5 Guaranteeing a high technical level for all heritage trades and crafts

K6 Supporting, strengthening and promoting intergovernmental co-operation

**K7** Encouraging heritage research

K8 Enlisting the commitment of young people to heritage

#### S - SOCIAL COMPONENT RECOMMENDATIONS:

S1 Encourage the involvement of citizens and local authorities in capitalising on their everyday heritage

**S2** Make heritage more accessible

**\$3** Use heritage to assert and transmit the fundamental values of Europe and European society

\$4 Promote heritage as a meeting place and vehicle for intercultural dialogue, peace and tolerance

**S5** Assess citizens' participation practices and procedures

**S6** Create a suitable framework to enable local authorities and communities to take action to promote and manage their heritage

**S7** Develop and promote participatory heritage identification programmes

\$8 Encourage heritage rehabilitation initiatives by local communities and authorities

**S9** Support intergenerational and intercultural projects to promote heritage

\$10 Facilitate and encourage (public and private) partnerships in cultural heritage promotion and conservation projects

Challenges + Recommendations (S)

**VENN** Diagram

# Recommendation S1: Encourage the involvement of citizens and local authorities in capitalising on their everyday heritage

Recommendation S1 seeks for better synergies in the acknowledgement and appreciation of locally accessible intangible and tangible examples of cultural heritage through the promotion of participatory democracy. In its ideal model the citizens are actively involved in cultural events and actions organised by the local authorities and associations. Suggested courses of actions include discovery visits organised by inhabitants and professionals, demonstration of traditional trade skills and knowledge, organising events of folk traditions, publishing booklets, books, scientific works on local folk traditions, vernacular and other types of local monuments, broadcasting and sharing online audiovisual and radio materials with active participation of the local people.

R-S1 answers the following social challenges: S2, S4, S6, S8 and interfaces with the following territorial and economical as well as the following knowledge and educational challenges: D1, D3 and K1, K3.

#### Recommendation S2: Make heritage more accessible

Recommendation S2 seeks for a better access to heritage, either on site or in a remote form. The types of actions can be also very various: the objects of heritage may be presented with the help of a presenter or even through the possibilities of digital technology. The visitors of the site or users of the digital tools will be able to achieve a better understanding of the subject from these encounters and develop a more personal relationship with the closely accessed elements of heritage. Suggested courses of actions include all types of improvements which help to widely broaden the possible target audience and provide a better experience for these groups. Such actions can be the improvements of the site regarding safety and all the enhancements for the easier access of the physically or sensory disabled people, improvements of signage of the site. Other actions can reflect on the diversity of the visitors, providing wording variations for the descriptions including multilingual versions of the presentations or playful variations of the same material, especially with the involvement of remote virtual discovery of the subjects, audiovisual materials or other out-of-the-common solutions. Finally, running awareness-raising campaigns and elaborating special ways to reach groups which are not frequent visitors of the topic (young people etc.) can be also a good and followable strategy.

R-S2 answers the following social challenges: S1, S2, S5, S7 and interfaces with the following territorial and economical as well as the following knowledge and educational challenges: D1, D3 and K1, K3.

#### Recommendation S3: Use heritage to assert and transmit the fundamental values of Europe and European society

Recommendation S3 suggests the promotion of European fundamental values such as democracy, humanism and diversity especially through the participation in European programmes like the European Capitals of Culture, the European Heritage Days or the European Heritage Label. Courses of actions may be those which underline the existence and importance of intercultural exchanges of knowledge and skills and all the different influences through which the different cultures (from within and outside of Europe) affected each other over the centuries. This diversity which can be identified both on a local level and in a much greater scale too can be promoted through multilingual audiovisual

or written contents, targeting different audiences, all highlighting the fact that our heritage and cultural diversity are important assets for the future of Europe.

R-S3 answers the following social challenges: S1, S2, S3, S4, S5, S6, S7, S8 and interfaces with the following territorial and economical as well as the following knowledge and educational challenges: D1 and K1, K3, K6.

#### Recommendation S4: Promote heritage as a meeting place and vehicle for intercultural dialogue, peace and tolerance

Recommendation S4 suggests the monuments and public places of heritage as the location and meeting place of intercultural discussions in the same manner as the Greek agora or the Roman forum provided space for communication, debates and joint decisions. Suggested courses of actions would highlight the history and value of historical public places which even urbanistically should be enforced to become convenient meeting places for communities where they can discover interculturality and maintain cultural discussions on these strong bases. A specifically suggested action is taking part in Council of Europe's Intercultural Cities programme.

Recommendation S4 answers the following social challenges: S1, S2, S3, S4, S5, S6, S7, S8 and interfaces with the following knowledge and educational challenges: K1, K2, K3.

#### Recommendation S5: Encourage and assess citizen participation practices and procedures

Recommendation S5 suggests the elimination of all those barriers which would keep citizens from participating in the actions and decisions connected to heritage-related topics, this way reaching a more democratic and social model of heritage management.

R-S5 answers the following social challenges: S1, S3, S5, S6, S7 and interfaces with the following territorial and economical as well as the following knowledge and educational challenges: D1, D7 and K1, K7.

# Recommendation S6: Create a suitable framework to enable local authorities and communities to take action for the benefit of their heritage and its management

Recommendation S6's vision is about an active citizenship that can preserve and pass on the specific aspects of their cultural heritage for the further generations. So that the citizens and local authorities can exercise this right the existing laws need to be further-developed to help partnerships between the different authorities and stakeholders on different levels. Similarly to R-S5, citizen participation should be forced in cultural heritage actions, starting from debates to actual heritage management tasks. Facilitating the collection of participatory financial resources and encouraging the involvement of the public to the drafting of planning and development documents are also important courses of action as part of this recommendation.

R-S6 answers the following social challenges: S1, S2, S4, S5, S6, S7 and interfaces with the following territorial and economical as well as the following knowledge and educational challenges: D1, D7 and K1, K6.

#### Recommendation S7: Develop and promote participatory heritage identification programmes

Recommendation S7 suggests the involvement of citizens to the identification programmes of cultural heritage in order to raise the collective responsibility for heritage while contributing to the development of a quality living environment. Suggested courses of actions are: creating collaborative platforms for drawing up of the inventories, developing participatory heritage identification programmes at different territorial levels and for different audiences or promoting projects fostering the contextualisation of the inventory items. Further suggested actions can be the collection of diverse skills, organising training with public feedback sessions and prioritising the inventories of endangered or threatened heritage assets.

R-S7 answers the following social challenges: S2, S4, S5, S6, S7, S8 and interfaces with the following territorial and economical as well as the following knowledge and educational challenges: D3 and K1, K2, K3.

#### Recommendation S8: Encourage heritage rehabilitation initiatives by local communities and authorities

Recommendation S8 suggests the continuous support of local communities and authorities in identifying and preserving their intangible and tangible cultural heritage with the following courses of action: spreading informative and propagatory materials on the subjects, organising showcase efforts to reveal and rehabilitate forgotten heritage, supporting the transmission of oral traditions, memory and history in the form of community events and training citizens to be ambassadors of their territory with close links to the local traditions and the common heritage of the local citizens.

R-S8 answers the following social challenges: S2, S3, S4, S5, S6, S8 and interfaces with the following territorial and economical as well as the following knowledge and educational challenges: D1, D4 and K1, K2, K3, K8.

#### Recommendation S9: Support intergenerational and intercultural projects to promote heritage

Recommendation S9's courses of action includes the expansion of learning possibilities between young people and the elders as part of site surveys, the workshops of traditional building trades or the archives of cultural heritage assets. It is also recommended to form clubs with the participation of different people, where both old techniques and new ways of digital technologies can be taught and to involve citizens with various cultural backgrounds, places of origin, age and occupation to site restoration works and other heritage-related projects.

R-S9 answers the following social challenges: S1, S3, S4, S5, S6, S8 and interfaces with the following territorial and economical as well as the following knowledge and educational challenges: D1, D3 and K2, K4.

# Recommendation S10: Facilitate and encourage (public and private) partnerships in cultural heritage promotion and conservation projects

Recommendation S10 suggests the achievement of participatory governance through partnership projects between

civil and public organisations and authorities. It is desirable to identify stakeholders available for such co-operations and enlist them. Other suggested actions are to raise awareness amongst the potential partners, to encourage patronage and sponsorship of the cultural heritage and to support training workshops and voluntary work.

R-S10 answers the following social challenges: S1, S2, S4, S5, S6, S7, S8 and interfaces with the following territorial and economic challenges: D1, D5, D7.

#### TERRITORIAL & ECONOMICAL CHALLENGES (D)

#### Territorial & economical (D) challenges identified as part of the strategy are as follows:

Challenges aiming well-being and prosperity of the society:

- D1. Building a more inclusive and cohesive society
- D2. Developing Europe's prosperity by drawing on its heritage resources
- D3. Ensuring that Europeans enjoy a high quality of life, in harmony with their cultural and natural environment

Challenges aiming a sustainable, ecological and productive use of heritage:

- D4. Implementing the principle of integrated conservation
- D5. Ensuring that heritage is taken into account in sustainable spatial development strategies and programmes
- D6. Developing the ability of public services to address sustainable spatial development issues by means of better use of heritage
- D7. Preserving and developing the ability of public services to address heritage issues
- D8. Increasing the use and reuse of heritage

#### Recommendation D1: Promote cultural heritage as a resource and facilitate financial investment

Recommendation D1 depicts cultural heritage as an irreplaceable and long-term asset which with its social, cultural, environmental and economic effects is something that is really worth investing in. Supporting heritage means a direct or indirect support for the development of the economy. Suggested courses of actions are: incentives for preservation of heritage and heritage education, support of projects which treat heritage in the required manner, demonstrating the positive impacts of heritage and the return on investment and finally the direct support of investments in cultural heritage.

R-D1 answers the following territorial and economic challenges: D2, D3, D4, D5, D6, D7 and interfaces with the following social challenges: S2.

#### Recommendation D2: Support and promote the heritage sector as a means of creating jobs and business opportunities

#### **European Cultural Heritage Strategy For The 21st Century**



Recommendation D2 suggests that investing in heritage means a great contribution to the desired numbers of employment as in the EU and in different sectors we can associate 300,000 direct and 7 million indirect jobs with heritage. These people work in different areas and on different levels from conservation, restoration through administration and management to tourism and education. Suggested actions include: re-integration of heritage related trades to vocational education, supporting relations between the heritage sector and job centres, introducing intersectoral policies to help heritage have an effect on its own sectors and investing in research and know-how to support cultural heritage with work and services.

R-D2 answers the following territorial and economic challenges: D1, D2, D3, D5, D6, D7 and interfaces with the following social as well as the following knowledge and educational challenges: S8 and K2, K5.

#### Recommendation D3: Promote heritage skills and professionals

Heritage professionals need to know both traditional and modern technologies to be successful in their field. Their knowledge and skills can be highly attractive for those who are about to choose lifetime occupations for themselves with great responsibility and both social and cultural impacts. Recommendation D3 suggests to promote these heritage skills through organised campaigns and the opening of excavation and restoration sites, quarries, workshops, laboratories and archives to the public so that people can meet the heritage professionals and the masters of traditional building trades during their actual works.

R-D3 answers the following territorial and economic challenges: D1, D3, D5, D6 and interfaces with the following social as well as the following knowledge and educational challenges: S4 and K1, K2, K4, K5, K8.

# Recommendation D4: Produce heritage impact studies for rehabilitation, construction, planning and infrastructure projects

Heritage should be viewed as a resource and not a constraint as part of the projects of other sectors like spatial planning or territorial development and handling them in this manner can solely lead to the best achievable quality. Suggested actions of Recommendation D4 are: introducing heritage impact studies on a wider scale, supporting of renovation and rehabilitation projects on existing heritage assets, encouraging the analysis of keeping and restoring original structures rather than erecting new constructions.

R-D4 answers the following territorial and economic challenges: D2, D3, D4, D5, D6 and interfaces with the following knowledge and educational challenge: K5.

#### Recommendation D5: Encourage the reuse of heritage and use of traditional knowledge and practice

Reusing old buildings is a more complex task than developing completely new structures, it is usually more expensive too, but definitely more sustainable and eco-friendly regarding the energy balance of the investments. Proper reusing

programmes can positively affect the demographic processes of both rural and urban areas. Suggested courses of actions are the following: promoting integrated conservation as a priority in heritage policy, introducing incentives for the maintenance of monuments, strengthening legislation to avoid the demolishment of heritage assets and encouraging the reuse and alternative use of heritage.

R-D5 answers the following territorial and economical challenges: D1, D2, D3, D4, D5, D6, D7 and interfaces with the following social as well as the following knowledge and educational challenges: S8 and K3.

# Recommendation D6: Ensure that heritage is taken into account in development, spatial planning, environmental and energy policies

Similarly to the recommendations of R-D3, R-D6 also suggests that heritage has to be taken into consideration as an integral part of the investments of other sectors such as spatial planning, environmental, energy and agricultural policies. Suggested courses of action are: systemic consideration to heritage in spatial planning and environmental management, facilitating the integrated approach to heritage and experimental activities of energy performance in old buildings.

R-D6 answers the following territorial and economic challenges: D1, D2, D3, D4, D5, D6, D7 and interfaces with the following social as well as the following knowledge and educational challenges: S7 and K4, K6.

#### Recommendation D7: Give consideration to heritage in sustainable tourism development policies

Heritage is one of the most important factors of modern-day tourism, which has three types of satisfactory measures: the expectations of the visitors, the preservation of heritage and the local habitants' quality of life. Recommendation of D7 promotes the slow movement which offers the diversification of tourist routes, easing the pressure on the most highlighted areas and promoting less-known attractions of cities with heritage importance. Furthermore, it tries to strengthen local identity while providing a more authentic cultural experience for the tourists with locals being rooted strongly in the region. Courses of action may be: culture-heritage-tourism agreements on national level, setting up tourist activities which build on heritage and local trade skills, organising consultations with local people about sustainable and reasonable ways of tourism, raising awareness of workers in tourism sector on both the potential and vulnerability of cultural heritage, development of materials for tourists on diversified target locations and finally considering the proper regulation of tourism if needed.

R-D7 answers the following territorial and economic challenges: D1, D2, D3, D4, D5, D6 and interfaces with the following social as well as the following knowledge and educational challenges: S4, S6, S8 and K3, K7, K8.

#### Recommendation D8: Protect, restore and enhance heritage, making greater use of new technologies

Recommendation D8 suggests the rational use of new technologies, keeping up with the newer and newer developments as a result of multidisciplinary and interdisciplinary research. Courses of actions may be the following ones: informing

heritage professionals about new developments of technology, carrying out pre-restoration work studies using new technology such as augmented reality, digitisation, 3D scanners, drones etc., using non-invasive exploration techniques in inaccessible and fragile areas, developing new representations of heritage using 3D modelling and 3D printing.

R-D8 answers the following territorial and economic challenges: D2, D4, D6, D8 and interfaces with the following knowledge and educational challenges: K5, K6, K7.

# Recommendation D9: Use innovative techniques to present cultural heritage to the public, while preserving its integrity

Similarly to R-D8, Recommendation D9 suggests the use of new technology, but this is equally important in the presentation of heritage towards the public too. Suggested actions involve virtual or actual reconstruction of artefacts or objects in a vulnerable or sensitive area and involve local stakeholders in the establishment of innovative facilities.

R-D9 answers the following territorial and economic challenges: D3, D4, D5.

## Recommendation D10: Use the cultural heritage as a means of giving the region a distinctive character and making it more attractive and better known

Tangible and intangible heritage are able to define a region's own image, giving a distinctive character to the land and to the built environment, also forming the way people think about them. Recommendations of R-D10 include the identification of the heritage assets in their full diversity and building a territorial strategy and management character on these by retaining or relocating traditional trades, giving priority to local resources and supply and the use of ethical branding.

R-D10 answers the following territorial and economic challenges: D1, D2, D3, D4, D5, D6 and interfaces with the following knowledge and educational challenges: K2, K3, K6.

# Recommendation D11: Develop new management models to ensure that heritage benefits from the economic spinoffs that it generates

Recommendation D11 suggests that cultural heritage with all its assets should directly benefit from the economic profit that heritage also supports and generates, contributing hugely to the incomes of tourism and other sectors. Suggested courses of actions are raising awareness amongst the stakeholders of the local economy so that they invest into heritage, setting up heritage funds and revenues dedicated to cultural heritage.

R-D11 answers the following territorial and economic challenges: D1, D2, D3, D4, D6 and interfaces with the following social as well as the following knowledge and educational challenges: S6, S8 and K7.

#### KNOWLEDGE & EDUCATIONAL CHALLANGES (K)

#### Knowledge & educational (K) challenges identified as part of the strategy are as follows:

Challenges with a focus on the society:

- K1. Helping to foster a shared knowledge society
- K2. Identifying, preserving, transmitting and sharing heritage knowledge and skills
- K3. Raising awareness of the values conveyed by heritage
- K8. Enlisting the commitment of young people to heritage

Challenges with a focus on heritage managers and professionals:

- K4. Ensuring heritage stakeholders have access to lifelong training
- K5. Guaranteeing a high technical level for all heritage trades and crafts
- K6. Supporting, strengthening and promoting intergovernmental cooperation
- K7. Encouraging heritage research

#### Recommendation K1: Incorporate heritage education more effectively in school curricula

It is essential to teach young people about their heritage and the importance of preserving important elements of our past for the future. Recommendation K1 suggests a series of actions that can make this initiative more useful and productive through the cooperations with heritage-related institutions and departments. Suggested courses of action include the adaptation of school syllabuses with cross-disciplinary educational projects, the training of teachers, dialogues between the education sector and history societies, associations and institutions responsible for heritage (museums. libraries, archives) leading to presentations of heritage specialists in schools, outside activities organised for students (visits, interviews etc.), special programmes in museums and easier access and more user-friendly access to archives.

R-K1 answers the following knowledge and educational challenges: K1, K2, K3 and interfaces with the following social challenges: S4.

#### Recommendation K2: Implement measures to encourage young people to practise heritage

In accordance with the initiatives of R-K1, there is an essential need for teaching and training the next generation how to handle and preserve heritage. Recommendation K2's suggested actions are the use of heritage passes, reduced price tickets especially for youngsters, special events and practices organised for young people and the introduction of further incentives in consultation with youngs, exploring their needs and expectations.

R-K2 answers the following knowledge and educational challenges: K2, K3, K8.

#### Recommendation K3: Encourage creativity to capture the attention of the heritage audience

Recommendation K3 tries to answer the challenge of the changing expectations of the audience of heritage sites, objects and intangible elements. There is a constant need for renewing the way of presentation with the involvement of new technology to keep up with the changes of time and to be able to capture the attention of the wide audience. Suggested practices as part of this recommendation are the following: highlighting the similarities and connections between old and modern technology in case of monuments and artefacts, developing interactive tools and games to teach about heritage and the organisation of multidisciplinary events with attractions like live entertainment, street art or visual art.

R-K3 answers the following knowledge and educational challenges: K1, K2, K3, K4.

# Recommendation K4: Provide optimum training for non-professional players and for professionals from other sectors with a connection to heritage

Recommendation K4 focuses on all those people who are involved in the cultural heritage sector, though not as professionals: owners, trainees, volunteers etc. or work in other sectors which have clear connections with heritage such as agriculture, tourism etc. It is important to offer coaching and training for these actors too, organised by professionals of heritage, preferably with incentives for the target groups. Awareness-raising sessions for owners, mentoring and heritage discovery events and training of traditional trades are further recommended actions of R-K4.

R-K4 answers the following knowledge and educational challenges: K1, K2, K3, K4, K5.

#### Recommendation K5: Diversify training systems for heritage professionals

Recommendation K5 collects all those courses of action which deal with the heritage-related training available in the European education system including the training of traditional building trades and craftsmanship. These actions force better co-operations between universities, schools and training centres as well as between training systems and professional networks. They also propose improvements and sustainability in the training, while supporting different grants for the professionals, in-house training sessions with the participation of experts and the wider use of the Erasmus+ programme for the exchange of good practices and the realisation of international mobilities.

R-K5 answers the following knowledge and educational challenges: K1, K2, K3, K4, K5.

#### Recommendation K6: Develop knowledge banks on local and traditional materials, techniques and know-how

Being complementary to R-K5, Recommendation K6 focuses on the development of knowledge banks and databases which can be considered as a safety net for the case if some traditional techniques completely disappeared due to

the lack of a new generation of craftsmen and other professionals. These stores of learning would allow that the knowledge will not get lost and even forgotten usage of traditional materials can be re-learnt. The suggested courses of actions include the creation of traditional skills and know-how, using new technologies for the preservation process and the continuous extension of 'materials libraries'.

R-K6 answers the following knowledge and educational challenges: K2, K3, K4 and interfaces with the following social as well as territorial and economic challenges: S4 and D2, D7.

#### Recommendation K7: Ensure that the knowledge and skills involved in heritage trades are passed on

Recommendation K7's main goal is to collect the knowledge of craftsmen and masters of traditional building trades to make sure that this knowledge can be passed on to a new generation of professionals. The suggested actions include organising workshops, exhibitions and demonstrations, the showcase of handicrafts in schools, teaching of manual operations and CAD skills to ensure the transmission of the knowledge and skills from old masters to the young generation. Special focus is granted for the European Foundation of Heritage Skills (FEMP).

R-K7 answers the following knowledge and educational challenges: K1, K2, K3, K4, K8 and interfaces with the following social challenges: S4.

#### Recommendation K8: Guarantee the competences of professionals working on the listed heritage

Recommendation K8's main topic includes actions which can guarantee the quality standards and required competences of those who work on the restoration, renewal or regular maintenance of monuments. This is recommended to be coordinated at a European level with a harmonised certification system. Another way of reaching the goals is to ensure the consultation between the competent departments dealing with training, employment and culture. Furthermore, an important factor might be to support the companies of the private sector with measures that involve the required responsibility for the listed objects.

R-K8 answers the following knowledge and educational challenges: K1, K2, K3, K4, K5.

# Recommendation K9: Develop study and research programmes that reflect the needs of the heritage sector and share the findings

With the general aim to maintain the sustainable transmission of heritage-related knowledge and skills to the future generations, Recommendation K9 suggests the development and broad dissemination of documentary, scientific and technical studies based on the research work carried out at academic level. Preferable courses of actions include the encouragement for an international and interdisciplinary approach, the wide dissemination of the materials and the proper evaluation of the studies and the research work. Furthermore, there is a need for seeking media appearances, including lectures and meetings held for the public with the participation of professionals, researchers and users.

R-K9 answers the following knowledge and educational challenges: K2, K3, K4, K5.

#### Recommendation K10: Encourage and support the development of networks

The development of heritage-related networks is the main goal of Recommendation K10. These networks allow their members to participate in discussions on different topics in connection with the challenges, the needs and requirements of heritage tasks at different levels. The suggested courses of actions force the recognition of existing networks, as well as the development of new ones. The most important goal is to achieve the dialogue and new relations between the already established networks in order to reach higher synergies and to act together in as many important questions as possible.

R-K10 answers the following knowledge and educational challenges: K1, K2, K3, K4, K5.

#### Recommendation K11: Explore heritage as a source of knowledge, inspiration and creativity

Recommendation K11 suggests looking at heritage primarily as art, which can be combined and juxtaposed with contemporary forms of art and architecture, given that both types represent creativity, inspiration and knowledge. Heritage objects and monuments are also the main source for learning about the full meaning of the sites where they are erected. Therefore heritage discovery workshops can teach a lot to contemporary artists and craftspersons about the values and characteristics of the site, ensuring the artistic continuation of the local or regional mindset.

R-K11 answers the following knowledge and educational challenges: K1, K2, K3, K4, K5.

**FINANCING** 



### Why the Historic Tax Credit?



Adaptive reuse repurposes dormant community assets, leveraging cultural heritage and attracting private capital



75% of the economic benefits of HTC projects generate local benefits: materials and wages



Historic building rehabilitations are more labor intensive than new construction: higher skilled workers + higher wages



Restoring underutilized buildings sets the stage for additional community investment and catalyzes more revitalization projects

#### **FINANCIAL STRATEGIES**

Financing is a key in the realisation of any heritage management models or schemes and the starting point of all actions delivered at any level. Naturally financing alone is not enough for any good results, but it has to be paired with valuable professional knowledge, a thoughtful management and elaborated programmes which create undisputed synergies and values in the field of cultural heritage, resulting in a good maintenance of heritage sites and objects or a meaningful development of these in the form of renovations, restorations or adaptive re-use.

In general, the main financial responsibility in heritage-related questions belongs to the different levels of national governance: at country-level, at the level of the regions or provinces and finally at the local authorities, as defined and specified in the legal system of the individual countries. However this responsibility is shared with all the private owners of properties with considerable heritage importance and with all the important actors of civil society in the form of charitable trusts or other types of non-governmental organisations helping the state in heritage management topics either locally or with a state level approach. The ratio of state ownership over the private and civil sector greatly impacts the possibilities and tools available for the governance to achieve a considerable impact on the processes. In the phrases we are enumerating the most important financing and funding schemes that are in use by state authorities:

#### Funding within the state's institutional framework

Institutions of the state, including all the museums, archeology and heritage management departments of the different ministries etc. have their own share of the annual budget to deliver the required actions at heritage sites from maintenance and restorations to organising cultural events and issuing informative contents. The governance also has the ability to prioritise certain projects more in their own organisational framework by allocating more funds for specific tasks.

#### Heritage grants

A part of the available financing can be distributed through heritage grants. In such cases the financing is used by other institutions, but completely in line with the approach and the funding rules defined by the distributor of the grant. Such grants exist in many European countries, offering grants for the preservation and restoration of monuments and for funding cultural and heritage projects. On a European level a number of grant types can fit into this category too, such as Creative Europe, Norway Grant, Erasmus+, Horizont Europe etc., though these are not specifically heritage grants only.

#### Heritage tax

The possibilities of state financing described in Point 1 and 2 are always limited to the exact availability of the distributable monetary power, therefore the governments may introduce further tools to support the sector. One way to do this is to introduce a special tax that can directly support the field or just one dedicated institution. By using

such a prioritising method the importance of heritage related topics can be significantly highlighted and the common responsibility of the public can be also emphasised. Following the same logic, heritage taxes are usually imposed on luxury goods and activities like tourism, as they are either not considered as valuable for the wider society or they have a continuous negative effect on the state of the monuments as it is true in the case of mass tourism. A good example for this kind of tourist tax is the 'Imposta di soggiorno' from Italy, which is officially declared to be used to support the conservation and preservation of cultural heritage.

#### Tax incentives

Tax incentives are a further useful tool through which the states can help reach better situations in the state of monuments. It is effective through encouraging the private sector (individual, institutional or corporate) to invest into the proper and honest maintenance and restoration of their listed properties. As an encouragement the investors might take advantage of a reduced tax on one or more of the following types: VAT, income tax, wealth tax, inheritance tax or gift tax. The idea behind such a rule is that the cultural heritage is of both social and economic significance, therefore those who are responsible for taking care of these objects deserve wider support from the society.

Different countries however face different challenges and can deal with possibilities due to their different history and cultural experiences. While in Western Europe over 65% of historic buildings are owned by private firms or individuals, in the countries of the former Soviet bloc the majority of monuments remain in state ownership. In the latter case taxation has much less effect, therefore using such tools cannot be as effective as in the west, where private ownership and contributions has a longer and richer tradition.

While tax incentives or credits might be attractive for the owners to invest on the proper maintenance of their properties, as a conclusion of resorting the tax reduction, they might also need to commit themselves to open their building of historic importance to the public for a specific amount of days (e.g. 80 days) annually.

#### The main forms of tax incentives in use are the following:

- Tax exemptions: objects (e.g. listed monuments) can be fully exempted from being the objective of inheritance, wealth or gift taxes, thus there is no tax in case of certain objects within some certain conditions. E.g. in Poland 'inheritance tax on historic buildings can be 0%, if the owner contracts to maintain in accordance with the law of historic monuments and with the confirmation of the district conservator. In all other cases the rate of tax is 50%. Gifts of cultural property are charged tax at a lower rate of 15%. There is no wealth tax. Local property taxes for historic buildings not used for business purposes can be a rate of 0%.'
- Tax allowances (deductions): in case of this form the taxable income can be lowered by deduction if certain conditions apply. 'In Netherlands, for example, individuals owning a registered building of historical interest could deduct 80% of certain maintenance and restoration costs from their taxable income'.

- Tax credits: this form allows the reduction of the tax (usually the income tax) itself, not just the taxable income, therefore it is considered as a more effective way compared to tax deductions. 'In Spain costs of acquisition, repair, restoration and opening of historic buildings can be set against income tax at up to 25% of the tax with a 4 year carry forward on condition of opening free of charge four days per month.'
- Reduced tax percentages: in case certain conditions are met, a lower percentage of tax can be applied. It is popular to use such incentives in connection with the value added tax (VAT). E.g. in Spain all works to historic buildings are charged at a lower VAT rate of 7% (instead of regular 16%).

#### Donations and crowdfunding

Actors of heritage management - either arriving from the private or the public sector - cannot dispense with collecting donations directly from different sources, starting from individuals to great corporations. Such charity donations can take up a great part of the full budget on heritage works and can be valuable even for multinational global companies to take part in such a kind of charitable sponsorship.

A simple form of this can be also achieved through memberships which allows the members to get involved in the daily activities and events of the organisation more than regular visitors. From the institutions' perspective the membership fees can provide a useful regular income for heritage institutions, helping to deal with the operational expenses. Also, the trust gained through the greater involvement might allow members to occasionally donate greater amounts too for specific goals.

In case a specific project needs some extra funding, it is an often used solution to start a crowdfunding campaign. It is by far not a new invention to collect funding from the public by specifying the exact target of the collected fund to be used at, but modern technology now provides a lot of new ways to effectively raise money for certain goals from publishing a new book to help restoring a monument building. What has not changed since the old days though is the great amount of effort, time and workforce one needs to put into a campaign like this to successfully reach as many supporters as possible. Web pages like GoFundMe, Kickstarter, Classy and many others significantly ease the way to run effective and successful crowdfunding campaigns in an online form - especially if professionals are involved in the delivery of the marketing work. The result is just the same as in old days, the backers can support a restoration project brick by brick. Naturally those who can allow it, might be able to support the project with more units, but every single brick counts and required for the success, every contribution is important.

Tax benefits are also available for sponsorship in the majority of the countries: 'the donors (individuals, entrepreneurs, companies etc.), who economically support activities of preservation and conservation of culture heritage goods by making donations, enjoy tax deductions in their individual / corporate income tax.' For instance,'in Italy, the Art Bonus regime grants a 65% tax credit to individuals, non-profit organisations and companies making charitable donations in support of the restoration and maintenance of public cultural goods (monuments, historical buildings, works of art, etc.) or public cultural institutions (museums, libraries, archives, archaeological areas, parks), etc.'

DINBURGH WORLD HERITAGE





#### **EXEMPLARY ORGANISATIONS WITH BEST PRACTICE EXAMPLES**

#### **EDINBURGH WORLD HERITAGE TRUST**

Edinburgh World Heritage Trust is a charitable organisation based in Edinburgh, Scotland. Its main role is to conserve, enhance and promote the city's World Heritage Site which was designated as 'Old and New Towns of Edinburgh' in 1995. The individual body of the trust was created from the donations of Historic Scotland and the City of Edinburgh. The institution has two predecessors: the Edinburgh New Town Conservation Committee had been functioning since 1971, providing maintenance grants for the home owners in the Georgian New Town, while in the Old Town the Edinburgh Old Town Committee for Conservation and Renewal (later the Edinburgh Old Town Renewal Trust) had been operating since 1985. These two bodies were joined together finally in 1999 and the new trust was established.

The situation in the Old and New Towns part of the later World Heritage Site was different in the 60s and 70s of the past century. In the New Town many historic buildings were in such a bad condition that their demolition would have been required if there was no quick intervention to save them. The main promoter of the idea of a great restoration project was a modernist architect, Sir Robert Matthew. As a result of these efforts a great number of volunteers, architects, surveyors started working on the solutions by assembling action plans and calculating the exact extent of the required works and from 1971 on the Edinburgh New Town Conservation Committee started issuing grants for the owners of these homes. In the Old Town besides similar problems and situations, the main challenge was to tackle the gradual depopulation of the area, both socially and economically.

Since the start of the two committees over 1,500 projects have been financed through the grant system of the predecessors and later by EWH itself. These projects were of different scale but all contributed to the improved streetscape and the livability of the WHS, but many of them have important symbolic value too, like those included in the Twelve Monuments projects, which restored important landscape statues and monuments such as the National Monument and the Burns Monument on Calton Hill, the Melville Monument at Charlotte Square or the equestrian statue of King Charles II in Parliament Square. Further important projects of EWH include the revitalisation of some neglected streets as part of the Twelve Closes project, the restoration of Jacob's Ladder which is a step on Canongate, the conservation projects of some graveyards and different tenements (at the Canongate, Gilmour's Close), the restoration of the Acheson House, current seat of the trust, the revitalisation of St Mary's Cathedral's garden and a similar initiative at the Greyfriars Kirkyard project.

# **Conservation Funding Programme**

The Conservation Funding Programme is the key for keeping the World Heritage Area of Edinburgh in its authentic form, not allowing the buildings' state to utterly deteriorate and retain the integrity of the historic city. The grant was set up by Historic Environment Scotland for helping the home owners and companies in the area to help properly take care of their properties and deliver the required maintenance works on time. The following types of conservation

works can be funded from the grant:

- paint removal, repair and repointing of the stonework;
- repairs of the roof including the leadwork, the slatework, the joinery and masonry work of the chimneys;
- lime pointing, line wash and harling;
- restoration of missing architectural details;
- repair of windows including reinstatement of original pattern (layout);
- repair of stairs and railings.

There is also a special focus on the reinstatement of traditional style shop fronts, which have been important characteristics to Edinburgh since the Victorian times. The funding programme aims at revitalising these neglected architectural details, giving the streets a unified, still a varied character. In the case of public spaces mainly statues, monuments, burial grounds, boundary walls, historic green spaces and historic lighting schemes are funded.

Private and commercial owners can claim up to 70% of the eligible works, while institutional or charitable owners are usually funded by 20% to 40% of the eligible works. The grant can be either repayable, non-repayable or the combination of the two. The non-repayable grant only needs to be paid back if the property is sold or transferred within 2 years after the completion of the project and the applicable amount is maximum 50,000 pounds. In case it is a repayable grant, it has to be only paid back in an interest-free form whenever the private owner sells or transfers the property. If it is a commercial property, it has to be repaid only after 10 years (and naturally anytime if the property is later sold or transferred).

The Trust not only issues the grants, but it is there from the beginning of the processes till the end, providing advice, professional help and guidance materials for all types of works. Both the application and the final report on the delivered conservation works require a proper assessment which is delivered by the colleagues of EWH and the involved building surveyors and conservation architects.

## **Climate Emergency Grant**

By globally identifying climate change as one of the greatest threats of our lives which can radically shape our future, a special type of grant was initiated by EWH to start tackling these kinds of challenges as soon as possible. As a first step a Climate Emergency Strategy and a Manifesto was assembled in 2020, the main goal of which is to collect and define best practices. The strategy's two important focus points are the steps towards a net-zero operation through less and less carbon emission every year and the increase of resilience against the possible impacts of the changes. Link to the 10-point manifesto:

Similarly to the general Conservation Funding Programme, the grant supports developments and maintenance works within the World Heritage Site and its adjoining areas. The main area of improvements are the energy efficiency improvements of doors and windows which need to be exchanged to versions with a historic look and with better thermal performance at the same time. Another important topic is the improvements of the rainwater goods, which

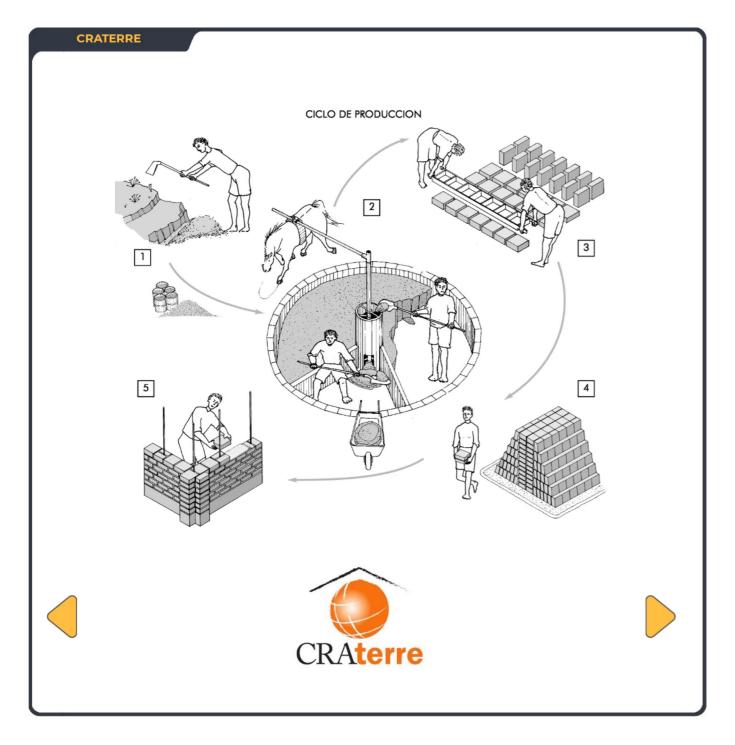
can handle a larger volume of rainwater, thus preventing the inside and the facades from the damage made by water. The funds are non-repayable and capped at 25,000 pounds, with 100% funding in the project design phase and 70% for the eligible works.

#### **Further activities**

Besides the stimulation and coordination of the historic building and climate grants, EWH is responsible for a series of other important actions in Edinburgh. Its further key roles are to develop and maintain an Action Plan for the promotion and enhancement of the character of the Site, to advise Scottish Ministers and the local authority on development issues, to monitor the Site on behalf of the Scottish Ministers and to promote the Site through education, conferences and exhibitions. Additionally, EWH delivers a lot of different projects locally and internationally which help to promote traditional building trades with great interest in keeping them alive, also it organises different heritage trails for members and visitors to get known the city significantly more by entering some alternative pathways too besides the main attractions. Finally, as a charity EWH naturally collects donations too for the functioning of the institution and for the realisation of the grant and other programs.

#### Links:

https://ewh.org.uk/wp-content/uploads/2022/12/EDINBU1.pdf https://ewh.org.uk/wp-content/uploads/2022/12/CEG-Guidance\_V1.0\_Dec-22.pdf



#### **CRATERRE**

CRAterre is an international research centre founded in 1979 in Grenoble, France, within the National Superior School of Architecture (ENSAG). The name 'CRAterre' refers to the longer form of the name: 'International Center for Earthen Construction'. As its name suggests it promotes the sustainable, eco-friendly construction technology and building practices of earthen architecture (rammed earth, cob, wattle and daub, adobe, etc.) and the preservation of cultural heritage by promoting. CRAterre has led UNESCO's "Earthen architecture, construction cultures and sustainable development" branch since 1998. The interdisciplinary team of around 30 researchers, professionals and trainers seeks for a progressive approach that always tries to analyse the full context, looking for synergies between the engineering and the cultural aspects, as well as the ecological and societal ones. Over the past more than 40 years CRAterre has done and achieved a lot in the recognition of earth as a raw building material for the purpose of the building and maintenance of modern homes by thoroughly analysing and documenting the beneficial parameters and real values of it. Being pioneers in the field, they have contributed a lot to the introduction of the proper usage to generations of architects up to this time. As a result of such an approach, also shared with a great number of international partners and similar initiatives, earthen structures can now be associated with modernity, progress and comfort instead of poverty, unhealthiness and obsoletion, while remaining affordable, easily accessible and respectful to the traditions at the same time.

#### Research and heritage enhancement

The Research Laboratory of the centre received its habilitation in 1986 and from 2010 on it has been developing a cooperation with another research centre and laboratory called 'Constructive Cultures'. The joint laboratory of the two units was officially recognised in 2015 by the HCERES (High Council for the Evaluation of Research and Higher Education) under the name AE&CC Research Unit "Architecture, Environment and Constructive Culture". The AE&CC works as part of Université Grenoble Alpes, University of Innovation. The research objectives of the AE&CC are described by three axes: HERITAGE, MATERIALS and HABITAT.

The axis of HERITAGE is taken into consideration by the centre with its cultural and historical diversities, that means the phenomenon covers a great area both timewise and geographically: from the neolithic to contemporary times, finding interesting research areas not only in France and Europe, but also in Africa, Asia and America. Similarly to the boundlessness regarding space and time, according to the laboratory heritage is represented by both its material forms and its immaterial features. Every heritage-related project has two kinds of objectives. At the first phase the goal is to identify, analyse and evaluate the architectural values of an object or an urban setting. The following types of projects fall into this category:

- World Heritage Earthen Architecture Program (WHEAP) realised together with the UNESCO World Heritage Center:
- a conservation and development programme realised in the Auvergne Rhône-Alpes region;
- assistance to inscribing earthen architectural sites on the World Heritage List.

As a second phase the goal is to design the possible development of the individual objects. Example project types for this phase:

- 'Learning from vernacular' (continuation of the VERSUS project): experiments and development of proposed methods;
- Analysis of the degradations in the framework of post-disaster situations;
- 'World Heritage, an effective valuation tool?' a project delivered in cooperation with UNESCO and ICOMOS.

When talking about MATERIALS - the second axis -, AE&CC means a complete production chain by this, from the raw materials to the different outputs within or as the final result of the chain. The research always starts examining the chain from the location of the source of the raw materials, then following the processes, how they turn to complex materials, to structures, then to buildings and finally to human settlements. The investigation tries to analyse the prism of territorial development, seeking for the role of male and female actors in the processes and the benefits arriving from the different cycles. The objectives of the 'Materials' axis are the following:

- Identifying the resources, the know-how and the production chains in the area of examination;
- Characterising and standardising each construction techniques;
- Exploring the potential uses of new resources in construction.

Finally as part of the HABITAT axis the artificial living spaces - created from the building materials with the help of the building technique - are examined: how they interact with the natural environment, with the vegetation and all the surroundings and what the impacts of the two are on each other. There objectives of the axis are the following:

Finding solutions for the greater access to affordable earthen housing by developing the most economical typologies, also retro-fitting the building technology to be able to use them in a post-disaster situation, if needed; Studying if different areas, locations are sufficient for human settlements and in which way they can be utilised; Analysing the potential of using new tools, practices and models in the project management of habitat projects.

#### Education

The centre offers a variety of training programs for professionals in the architecture and construction industries. These programs include workshops, seminars, and hands-on training sessions that teach participants about sustainable building practices and traditional construction techniques. The goal is to empower architects and builders with the knowledge and skills they need to create sustainable structures that respect cultural heritage. CRAterre has been offering a Post-Master's degree course on earthen architecture since 1984. The DSA Earthen Architecture is a two-year programme leading to a diploma issued by the French Ministry of Culture and Communication.

#### **Further activities**

CRAterre has published a lot of articles and books over the years. Its main publication material of Craterre is still 'Traité de Construction en terre' - 'Earth Construction: A Comprehensive Guidebook' (by Hugo Houben and Hubert Guillaud), which was first published in 1989 and translated into many languages, first to English, Spanish and Russian, becoming a reference book worldwide. Since then it was republished multiple times, the latest edition in 2020, reviewing and updating the original material by sharing even more about the gained experiences and delivered activities.

The institution has also achieved a lot in the dissemination of its work and outputs by issuing media productions, publishing books and articles and by organising the Grains of Isère, the international festival of earthen constructions, also a number of exhibitions and seminars. CRAterre-ENSAG also has a unique documentation centre, that holds more than 18,000 printed documents, illustrations and media contents all connected to earthen constructions and architecture from all over the world.

#### Links:

https://www.grenoble.archi.fr/ http://www.craterre.org/ **REMPART** 





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#### **REMPART**

Rempart union is a French heritage network with more than 180 local associations working on the preservation, restoration and promotion of heritage sites. The name Rempart is an acronym for 'Réhabilitation et entretien des monuments et du patrimoine artistique', meaning 'Rehabilitation and maintenance of monuments and artistic heritage', while the word 'Rempart' itself means a protective wall or embankment (rampart) used in fortification architecture. The organisation was set up in 1966 by Touring Club de France, which was originally an old cyclist association dealing with the development of tourism. Two years later Rempart was turned into a union and kept this form until recent times with a number of member associations being active in 14 of the French regions (all 13 European regions + Martinique). The union had been supported by the Ministry of Culture from the very beginning and later important cooperations started with the Ministry of Europe and Foreign Affairs as well as the Ministry of Youth to help the growth of the international network and the involvement of young volunteers. Since 1982 it has been acting as a public body.

#### **Voluntary Heritage Restoration Camps - Work & Training**

Rempart's main profile is organising heritage restoration camps and training courses with the participation and involvement of a great number of volunteers every year. The volunteers arrive not only from France but from all over the world and similarly, the restoration camps are not only organised in France but some take place in other European countries and sometimes even on other continents too. The yearly number of participants exceeds the number of 3,500 at all the different locations altogether. The network has worked at more than 800 heritage sites already with being the local partners in charge for organising all the works and the involvement of the volunteers. The member associations cooperate with the local authorities and the already mentioned ministries in the assembly of the work and educational programme and the realisation of the restoration or maintenance works. Besides restoring the monuments, Rempart always looks for the long-term reuse of the historical sites in a form that is useful for the local communities. The range of building types involved in the restoration and redevelopment projects is wide, they include castles, chapels, different industrial buildings such as lime kilns or wash houses and naturally dwellings too.

Rempart has become a well-recognizable label throughout the years, not only for their restoration works, but also for the useful development of historical areas, for intercultural exchanges between the volunteering participants and for the social bonds created by the projects. The realisation of the camps does not require professional architectural work only, but also a well-developed training policy and a high quality management with proper and continuous assessment and analysis of the actions carried out at the different locations. The material cost of the restoration projects are financed by the ministries and the local authorities mainly, besides different kinds of donations. The workforce is mainly provided by the volunteers who offer their work for free and in exchange they receive professional training in different building trades, such as in masonry, carpentry, smithery, stone carving or stained glass creation. Some specific trainings are also available on completely different topics too which are not connected with craftsmanship but they are more connected to important topics of archeology, management tasks or pedagogy for site organisation. However it is not only the trainings that the volunteers can benefit from being active at the site. They learn commitment, being part of a collective work experience, dealing with responsibilities and building social bonds in an intercultural

experience while developing their personal approach to a specific monument and also in general to the protection of cultural heritage. So the effective participation certainly means a good promotion to heritage ideas too through the experiences and good memories and this allows hope for the newer and newer generations of experts and enthusiasts to care about monuments and heritage sites both locally and globally.

#### **Further activities**

Besides organising restoration and training camps in France and all around the world, Rempart is also very active in organising special heritage events, lectures and exhibitions, while their homepage serves as a great database for their heritage sites and both their national and international networks. There are also clear guidelines available on how to be a member (friend) or member organisation of the Rempart network, on how to participate in the restoration camps and what type of professions and trades can be learned at practised at the heritage sites.

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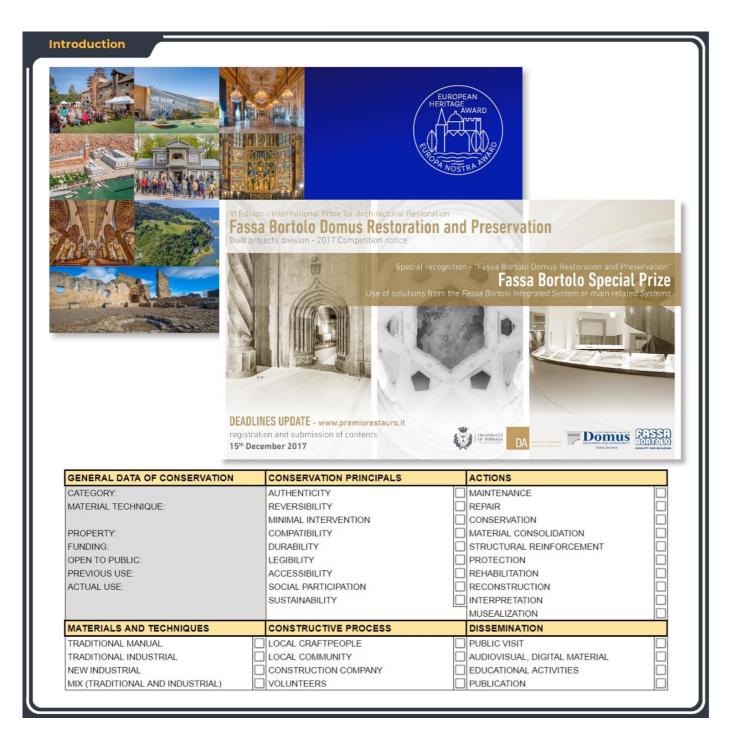
https://www.rempart.com/

# CHAPTER IV CASE STUDIES OF HERITAGE PROJECTS

# Written by

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#### **INTRODUCTION**

The definition of a ranking for good practices linked to all aspects of architectural heritage conservation is no easy feat. This includes projects which range from monumental architecture to other types such as vernacular, military or industrial architecture, or interventions focusing on the urban, residential, archaeological or landscape dimension. Therefore, two renowned prizes with a long history of recognizing the valuable and intangible values of different interventions in the field of conservation, in projects that can be visited by the public and are international points of reference, have been selected. The "Europa Nostra" (https://www.europanostra.org/organisation/) and "Domus, restoration and conservation" (https://www.premiorestauro.it/en/) awards both cover the international panorama and are extremely influential in the multiple facets of the field of restoration. In addition, two contemporary debates of major interest have been initiated in recent decades, becoming front page news and involving public opinion in two major European capitals: the controversial conservation projects for Notre Dame Cathedral in Paris and the project for the Berlin Palace in Germany.

As previously stated, it is impossible to calculate the great number of conservation and/or rehabilitation and maintenance actions carried out every year in Europe, covering endless options and resources. Therefore this section presents a selection of projects of interest as examples of responses to specific issues, potentially shedding light on the project decisions made in different contexts by the professionals and stakeholders involved. These are heterogeneous projects which are extremely comprehensive in their methodological approach to the issues, conflicts and challenges relating to conservation that are addressed. To do so the following intervention categories have been analysed:

- religious architecture
- military architecture
- vernacular and residential architecture
- industrial architecture
- museums and cultural spaces
- interventions in the landscape and archaeological sites

In this text, in addition to showing the cases as good practices recognised by two important awards in the field of architectural restoration in Europe, the opinion of the jury justifying the reasons for the award is included, highlighting the aspects in which the good practices are identified. Finally, a brief analysis of the case is carried out according to the same scheme that allows the cases to be compared with each other. The parameters of analysis are taken from international and national charters and documents (see chapters 1 and 2) and refer to the principles of intervention, the actions and how these actions are implemented (materials and techniques used and implementation). In addition, a number of general parameters on the architectural character and function of the building, the materials and construction techniques, the financing of the restoration work, etc. are included. All the parameters are set out in a table that can be applied to analyse other cases.

#### LEARNING ABOUT THE EUROPA NOSTRA AND DOMUS AWARDS

Since its creation almost six decades ago, on 29th November 1963 in Paris, Europa Nostra has been committed to the commemoration, safeguarding, and defence of cultural heritage. Working in over 40 nations, Europa Nostra is deemed to be Europe's most extensive and all-encompassing heritage network. Furthermore, it is closely linked to different international organisations, including the European Union, the Council of Europe, and UNESCO.

According to its statutes, the Europa Nostra pan-European network operates in over 50 countries. Over 250 member organisations (heritage associations and foundation, with around 5 million members), 150 associated organisations (government bodies, local authorities and businesses) and 1500 individual members provide direct support to the work carried out by Europa Nostra. One of the main objectives of Europa Nostra is to showcase heritage and its values to increase public awareness, focusing on the safeguarding and conservation of heritage, which it aims to transform into a guiding thread for numerous Spanish and European collectives. Another specific focus is the promotion of high standards of quality in the field of heritage conservation, architecture, urban and rural planning, as well as the promotion of the balanced and sustainable development of the urban and rural environment, both built and natural. Europa Nostra also attaches great importance to the role of cultural heritage as the foundation of European identity, highlighting its contribution to strengthening a feeling of European citizenship. Against this backdrop the European Heritage Awards / Europa Nostra Awards celebrate excellence in the conservation of cultural heritage, including the restoration and adaptation to new uses of buildings, the rehabilitation of rural and urban landscapes, the examination of archaeological sites and curation for art collections. Equally noteworthy are the research, the devoted service of individuals and organisations to cultural heritage, and educational projects related to cultural heritage. This system of prizes aims to promote high standards and high-quality skills in conservation, boosting cross-border exchanges in the field of heritage. Through the "Power of Example" since 2002 the prizes have also sought to contribute to European heritage by providing further incentives in the form of efforts and projects.

These same values are also encouraged by the Domus Awards, as stated in the competition rules. In 2010 the International Architectural Restoration Prize, also known as Fassa Bortolo Domus Restoration and Preservation, was set up. The brainchild of Fassa S.p.A., owner of the Fassa Bortolo brand, and the Architecture Department of Ferrara University, which was marking its twentieth anniversary, rewards and increases awareness among the general public about the architectural restoration works which best reflect the correct interpretation of conservation principles, as espoused by the scientific community, also resorting to contemporary forms of expression. The annual prize is divided into two sections which alternate every other year:

- Built Projects section: Gold and Silver medals are awarded to designers from the private and public sectors, and the restoration companies that completed the works
- Undergraduate, Graduate, Master's, PhD, and Graduate School Theses section: Gold and Silver medals are given to the authors of projects considered award-worthy by the jury to be for a number of reasons.

In 2020, the Special Award "Domus Restoration and Conservation-Digital BIM Technologies" was incorporated to these awards. This section focuses on theses which utilise digital innovations, especially BIM, in the course of the analysis and project processes, paying particular attention to the information potential of these tools. This award is held at the same time as the "Domus Restoration and Preservation" Award - Projects developed as theses.





# Hagia Kyriaki



GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS		ACTIONS	
CATEGORY: CHURCH	AUTHENTICITY	~	MAINTENANCE	
MATERIAL TECHNIQUE: STONE MASONRY	REVERSIBILITY		REPAIR	~
PROTECTION LEVEL:	MINIMAL INTERVENTION	$\checkmark$	CONSERVATION	~
PROPERTY: CHURCH	COMPATIBILITY	<	MATERIAL CONSOLIDATION	~
FUNDING:	DURABILITY	$\overline{}$	STRUCTURAL REINFORCEMENT	
OPEN TO PUBLIC: YES	LEGIBILITY		PROTECTION	
PREVIOUS USE: RELIGIOUS	ACCESSIBILITY		REHABILITATION	
ACTUAL USE: RELIGIOUS	SOCIAL PARTICIPATION	$\overline{}$	RECONSTRUCTION	
	SUSTAINABILITY	$\overline{}$	INTERPRETATION	
			MUSEALIZATION	
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS		DISSEMINATION	
TRADITIONAL MANUAL	LOCAL CRAFTPEOPLE	~	PUBLIC VISIT	
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY		AUDIOVISUAL, DIGITAL MATERIAL	
NEW INDUSTRIAL	CONSTRUCTION COMPANY		EDUCATIONAL ACTIVITIES	
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS		PUBLICATION	

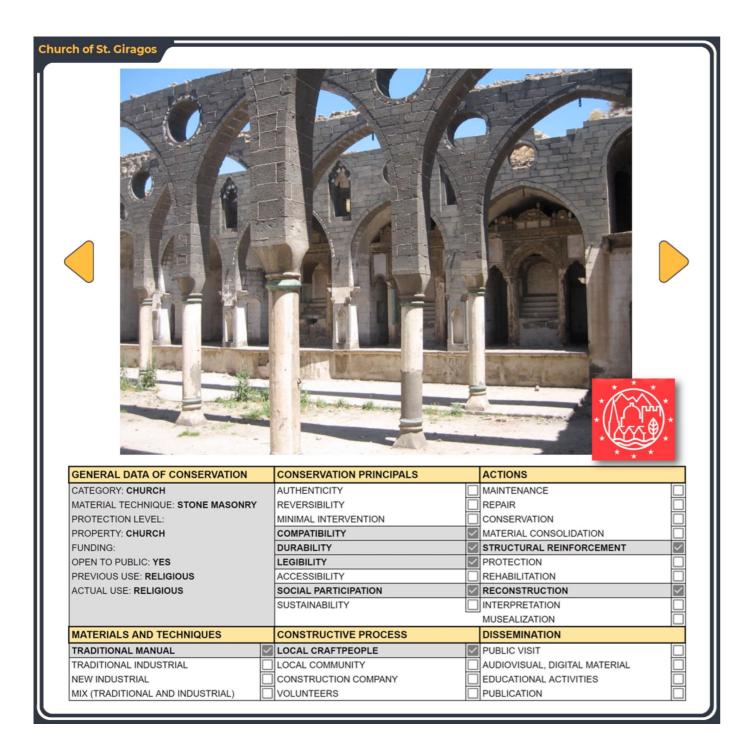
# INTERVENTIONS IN RELIGIOUS ARCHITECTURE

Conservation of Hagia Kyriaki, Naxos (Greece) by the J.F. Costopoulos Foundation or through the Greek organisation Elliniki Etairia, with donations from the A.G. Levants Foundation and Athanasios and Marina Martinos (Europa Nostra Award 2018)

In the 2018 edition, the jury praised the sensibility displayed in the conservation of this structure which, along with the wall paintings, was treated with the utmost respect. This particular monument is considered representative of an important period in European thought. Efforts in international interdisciplinary cooperation have yielded excellent results with the collaboration of private and public bodies. Given the remote and unique natural landscape surrounding the monument, the authors have gone to great lengths with its preservation. As a result of this, what in Europe is considered an oft-overlooked type of heritage has been receiving some much-needed attention and recognition. According to experts this project is an excellent example to be followed, especially on Naxos, where it is possible to find dozens of Byzantine churches in ruins that are also in urgent need of preservation intervention. The unique wall paintings found in the Byzantine church of Hagia Kyriaki date from the 8th or 9th century, during one of the two periods of Iconoclasm (726-787 CE; 813-843 CE). The secluded rural location of this church was neglected for years and this project is a remarkable example of international cooperation within Europe.

## Brief analysis of the case:

It is a small religious building of rural character, but of great value both for its original state and for the frescoes inside. The restoration, financed entirely by private donations, has been carried out using traditional materials and techniques already present in the building and carried out by local tradesmen. The actions carried out were limited to cleaning and consolidating the materials both inside and outside, repairing the roof with the same material, and grouting the masonry. The principles employed in the restoration were minimal intervention (only those actions necessary for the material conservation of the building and its frescoes were carried out), respect for authenticity (each part of the existing building and its materiality were maintained and conserved), material compatibility (the materials used were those already in the building, so there were no incompatibilities), structural compatibility (no foreign elements were introduced into the existing structure), durability (due to the use of traditional materials). The intervention also respects the rural and humble character of the building.



# Conservation of the Armenian Church of St. Giragos in Diyarbakir (Turkey) by the St. Giragos Church Foundation (Europa Nostra Grand Prix 2015)

The Armenian Church of St. Giragos, in the city of Diyarbakir, is the main place of worship of the Armenian exiles in this city and is a prime example of the efforts to guarantee their reconciliation with it. The long research process examining historic documents culminated in the re-erection of the lost elements, namely the roof, bell tower and interior furnishings. The Armenian community was greatly invested in the restoration of the building, which in addition to attracting visiting Armenians from elsewhere, has also been a major asset to the improvement of peace and social integration. While the Armenian Church of St. Giragos, located in southeast Turkey, where the population is predominantly Kurdish, is thought to date from the 17th century, some experts hold that it was completely rebuilt in the 1880s. By the end of the 20th century, when the local Armenian population was dwindling, the building was in an extreme state of disrepair, with a roof collapse causing the structure to become derelict. More recently, the St. Giragos Church Foundation, non-governmental groups and concerned individuals have worked towards its restoration, which also required extensive new construction work. The parties initially involved in the action were very keen to protect this valuable cultural asset in order to re-establish it as both a religious and cultural centre. Subsequently, the additional help generously provided by the local authorities made it possible to also complete repair work on the priest's house, chapel, and other buildings on the site. This project is a success story in local cooperation.

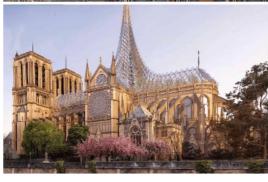
## Brief analysis of the case:

It is a religious building with a strong identity value that has suffered significant deterioration due to the abandonment by migration of the religious community that used it. The restoration has been carried out using the traditional materials and techniques already present in the building and carried out by local tradesmen. The intervention involved the reconstruction of some parts of the building with the materials and techniques already used in the building and the total reconstruction of the roof. The restoration uses criteria of legibility given that, although the traditional materials are used, the newly constructed parts can be distinguished. The principle of compatibility and durability, also linked to the use of traditional materials, is also respected.

#### Notre Dame, Paris









GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS	ACTI	IONS
CATEGORY:	AUTHENTICITY	☐ MAIN	TENANCE
MATERIAL TECHNIQUE:	REVERSIBILITY	REPA	AIR
	MINIMAL INTERVENTION	CONS	SERVATION
PROPERTY:	COMPATIBILITY	□ MATE	ERIAL CONSOLIDATION
FUNDING:	DURABILITY	STRU	JCTURAL REINFORCEMENT
OPEN TO PUBLIC:	LEGIBILITY	☐ PROT	TECTION
PREVIOUS USE:	ACCESSIBILITY	REHA	ABILITATION
ACTUAL USE:	SOCIAL PARTICIPATION	RECO	ONSTRUCTION
	SUSTAINABILITY	☐ INTER	RPRETATION
		MUSE	EALIZATION
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS	DISS	EMINATION
TRADITIONAL MANUAL	LOCAL CRAFTPEOPLE	☐ PUBL	IC VISIT
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY	AUDI	OVISUAL, DIGITAL MATERIAL
NEW INDUSTRIAL	CONSTRUCTION COMPANY	EDUC	CATIONAL ACTIVITIES
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS	PUBL	ICATION

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#### DEBATE: Conservation and restoration of Notre Dame Cathedral, Paris (France)

On the afternoon of 19th April 2019 one of the most iconic Gothic monuments burst into flames. After this fire, which almost obliterated the tangible and intangible values of Notre Dame Cathedral in Paris, there were no clear ideas on the form that the intervention project was to take. Different international architects proposed options, but were torn between conserving tradition or promoting a brand new project which moved away from tradition and was more geared towards the supposed needs of the 21st century. The reconstruction of the cathedral has led to widespread debate worldwide, with requests from intellectuals and major cultural figures and strong opposition to the more conservative proposals as well as to the more ground-breaking ones from different international architects.

The fire destroyed most of the roof structure, which collapsed as it was consumed by the flames. This included the spectacular spire built in the 19th century by Eugène Viollet-le-Duc, and destroyed Gothic and mediaeval elements, as well as more modern elements such as the new presbytery, with the altar built in the centre of the nave for the modern liturgical adaptations. However, the Main Altar of Pietà, built in the neo-Gothic style, was spared.

To date, efforts have focused on speeding up the work in order to rebuild the iconic cathedral at the heart of Paris, one of the most representative Catholic buildings worldwide and a major French symbol. This task was initially delayed due to the pollution caused by molten lead from the roof, which hindered the work, and was further affected and slowed down by the disastrous fire which almost completely destroyed eight centuries worth of history and by the COVID-19 pandemic. Currently, Belgian architect and landscape artist Bas Smets, Paris-based architecture and urbanism agency Grau, heritage expert Neufville-Gayet, and engineer Franck Boutté have been awarded the contract for the transformation of the surroundings of Notre Dame, introducing thicker vegetation and transforming the former car park below the esplanade into a visitor space.

#### **EXERCISE: ANALYSIS OF THE CASE**

Write a text of 150-250 words and fill the table



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#### INTERVENTIONS IN MILITARY ARCHITECTURE

Renovation and regeneration of the fortified system: Cittadella City Walls (Italy) by Patrizia Valle Architect (Domus Award 2013, Equal Gold Medal)

Cittadella, a walled city in the Veneto region, was first founded in 1220 by the Municipality of Padua. The author of this project has highlighted how, unlike Castelfranco, in recent years Cittadella has been a major laboratory for the architectural renovation, conservation and revival of a historic centre. In 1994 Studio Valle began the renovation work on the walls, with an intervention project plan in four phases, which coincide with the different areas of the fortified system. The starting point for this project was an examination of the advanced deterioration observed in the monument. This deterioration mostly took the form of widespread static instability, extensive collapse of the top part of the walls, particularly at the level of the parapet and battlements, and the progressive deterioration of the masonry. Following a preliminary phase of diagnostic studies and research for the purposes of restoration, a critical approach was applied to the project, aiming to maintain the monument's status and halt its slow degradation, while also eliminating the pathologies diagnosed. The restoration, consisting of static consolidation and the thorough review of the mortar, plaster and bricks, has taken extreme care to use compatible materials and construction procedures as similar as possible to those used historically.

## Brief analysis of the case:

This is a walled belt of great urban and landscape value, as well as historical and architectural value. The intervention aims to consolidate the wall at a material and structural level, using the same material as the existing walls, brick. After cleaning and consolidating the existing masonry, which is maintained with its antique character, guaranteeing the conservation of the authenticity of the complex, work is carried out on the large existing gaps. The brick used in the reintegration of the gaps in the masonry and in the limited reconstructions of some volumes and in the crowning is an industrial brick used with the clear purpose of making the interventions distinguishable from the existing parts. The intervention also seeks to favour the visitor's approach to the complex by inserting walkways and elements that allow a route to be taken along the wall.

Doria Castle, Dolceaqua





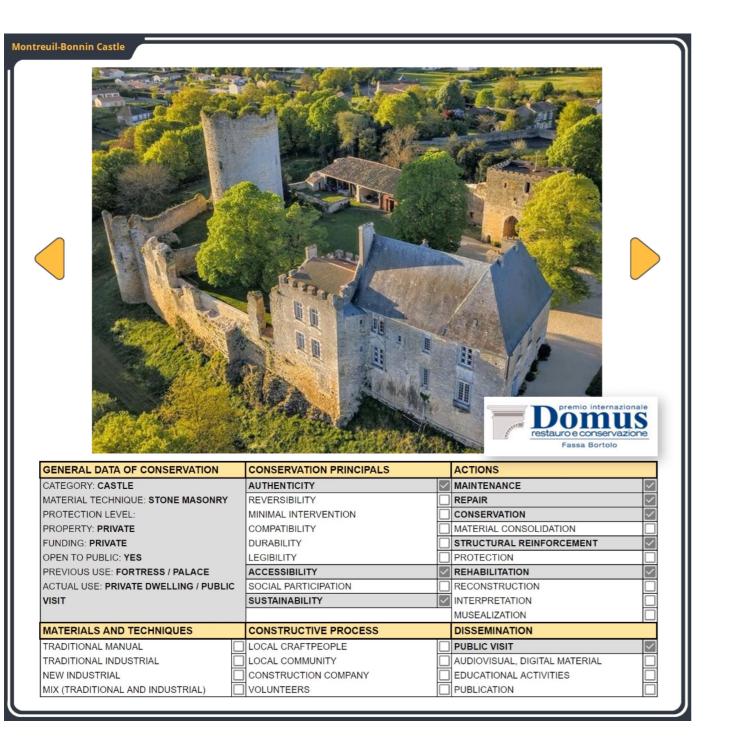
GENERAL DATA OF CONSERVATION		CONSERVATION PRINCIPALS		ACTIONS	
CATEGORY: CASTLE		AUTHENTICITY	$\vee$	MAINTENANCE	
MATERIAL TECHNIQUE: STONE		REVERSIBILITY		REPAIR	
PROTECTION LEVEL:		MINIMAL INTERVENTION		CONSERVATION	
PROPERTY: PUBLIC		COMPATIBILITY		MATERIAL CONSOLIDATION	~
FUNDING: PUBLIC		DURABILITY		STRUCTURAL REINFORCEMENT	~
OPEN TO PUBLIC: YES		LEGIBILITY	$\checkmark$	PROTECTION	
PREVIOUS USE: FORTRESS		ACCESSIBILITY	$\checkmark$	REHABILITATION	~
ACTUAL USE: PUBLIC VISIT		SOCIAL PARTICIPATION		RECONSTRUCTION	
		SUSTAINABILITY		INTERPRETATION	~
				MUSEALIZATION	
MATERIALS AND TECHNIQUES		CONSTRUCTIVE PROCESS		DISSEMINATION	
TRADITIONAL MANUAL		LOCAL CRAFTPEOPLE		PUBLIC VISIT	~
TRADITIONAL INDUSTRIAL	~	LOCAL COMMUNITY		AUDIOVISUAL, DIGITAL MATERIAL	
NEW INDUSTRIAL		CONSTRUCTION COMPANY	$\overline{\ }$	EDUCATIONAL ACTIVITIES	
MIX (TRADITIONAL AND INDUSTRIAL)		VOLUNTEERS		PUBLICATION	

# Restoration of Doria Castle, Dolceacqua (Italy) by LD+SR architetti (Domus Award 2015, Equal Silver Medal)

Following the widespread restoration actions carried out in the early 1990s, work in the period between 2012 and 2015 focused on the restoration and consolidation of certain portions of the main external walls of the Castle (the North "vela", bastion of Savoy), recovering the main wide open spaces around the complex, and setting up a system of visitor trails leading to different vantage points for the landscapes surrounding the monument. The main asset of the Castle is its unique relationship with its surroundings. The appeal was such that Claude Monet repeatedly visited Dolceacqua to capture the bridge and Castle in a famous painting dating from 1884 now on display at the Musée Marmottan Monet in Paris. The Castle sits overlooking the village below and is an excellent vantage point to control the river of the Nervia Valley. The restoration and consolidation of extreme degradation in masonry were a prominent feature of the work completed in 2015. Any structural reinforcement or static improvement required became an architectural project, transforming iron elements which, depending on each individual case, have become paths, passages, or reconstructed sections of wall where elements are missing or have become detached. These items are always perceived as new elements, reversible, always identifiable but harmonious with the whole.

# Brief analysis of the case:

It is a castle with an important urban presence and a strong connection with the city. The interventions carried out are fundamentally aimed at structural consolidation and accessibility to the complex. Both aspects are resolved with metallic structures and wooden boards, being completely different materials from the existing ones. The intervention is clearly distinguishable from the existing ones. On the other hand, cleaning and consolidation work has been carried out on the masonry, sometimes involving grouting, filling gaps and small additions with materials similar to the existing ones.



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Conservation of Montreuil-Bonnin Castle (France) by a private initiative and the Regional Directorate for Cultural Affairs of Poitiers, the Vieilles Maisons Françaises association and La Demeure Historique (Europa Nostra Award 2019)

The jury of the 2019 Europa Nostra Awards lauded the example set by this project as a positive private initiative for the consolidation of a ruin, paying respect to the character of the complex. With many similar ruins found throughout Europe this important example of a careful intervention serves as encouragement for further measures in this direction, with the understanding that the monitoring and preservation of a ruin is a continuous responsibility. According to the project description, this complex is comprised of a 13th-century castle and tower, with the gate and outer walls of the site in partial ruins, and the ruins of a 13th-century manor house and a 15th–17th-century dwelling. This monumental complex has witnessed the religious, economic and architectural history of the region. The castle, which was saved from ruin and partially restored between 1830 and 1850, has been owned by the same family since 1862. The property, which has always been used as a home, had been regularly maintained and was open to the public.

The owners then initiated the process to carefully restore and revitalise the site. In order to open the castle complex to the public, consolidation work was carried out on the walls, prioritising visitor safety. More recently a 60m2 barn was restored and redeveloped to accommodate the public. The restoration of the entrance station, originally scheduled for 2019-20, is to be followed by work to secure and partially restore the dungeon, one of several sites selected by Stéphane Bern's Heritage Mission. The addition of a special path has meant that moats are accessible all year round. In addition, the Association des Amis du Château de Montreuil Bonnin is in charge of regularly opening the interior of the fortress and organising cultural events several times a year. Schoolchildren are also welcome to the Castle and every year concerts and events are held on European Heritage Days.

# Brief analysis of the case:

It is a privately owned castle with historical and architectural values. The intervention has been carried out with private funds and has consisted of the conservation and consolidation of the complex with the aim of being able to inhabit the castle and, at the same time, to open it to the public. To this end, work has been carried out to adapt the exterior and interior spaces, consolidate some of the structures and carry out maintenance work. The work ensures the authenticity of the complex, although it does not renounce its updating in terms of use and accessibility.

#### Mas de Burot



GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS		ACTIONS	
CATEGORY: FARM	AUTHENTICITY	$\checkmark$	MAINTENANCE	
MATERIAL TECHNIQUE: STONE MASONRY	, REVERSIBILITY		REPAIR	$\overline{}$
WOODEN ROOF	MINIMAL INTERVENTION	$\checkmark$	CONSERVATION	$\overline{}$
PROPERTY: PUBLIC	COMPATIBILITY	$\checkmark$	MATERIAL CONSOLIDATION	$\overline{}$
FUNDING: PUBLIC	DURABILITY	$\checkmark$	STRUCTURAL REINFORCEMENT	
OPEN TO PUBLIC: YES	LEGIBILITY		PROTECTION	
PREVIOUS USE: FARM	ACCESSIBILITY		REHABILITATION	
ACTUAL USE: PUBLIC VISIT	SOCIAL PARTICIPATION		RECONSTRUCTION	
	SUSTAINABILITY	$\checkmark$	INTERPRETATION	$\overline{}$
			MUSEALIZATION	$\overline{}$
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS		DISSEMINATION	
TRADITIONAL MANUAL	LOCAL CRAFTPEOPLE	~	PUBLIC VISIT	
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY		AUDIOVISUAL, DIGITAL MATERIAL	
NEW INDUSTRIAL	CONSTRUCTION COMPANY		EDUCATIONAL ACTIVITIES	$\overline{}$
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS		PUBLICATION	$\overline{}$

### INTERVENTIONS IN VERNACULAR AND RESIDENTIAL ARCHITECTURE

#### Conservation of Mas de Burot (Spain) by the Municipality of Horta de Sant Joan (Europa Nostra Award 2021)

In the opinion of the jury this project is an example of sensitive conservation of a modest type of heritage, incorporating the restoration of rural architecture and related skills. The inhabitants' own relationship with nature was reflected in the renovation, which was also fully integrated into the development and management of the natural park and landscape. The manual produced is considered an example of best practices which can be used to share information for similar projects. The restoration of Mas de Burot, a traditional rural building in Els Ports Natural Park, which was based on traditional bioconstruction techniques, has been said to emphasise the value of traditional architecture in this area. Beyond the intrinsic value of its 19th-century farmhouse, Mas de Burot is considered a witness to the social history of 20th-century Spain and is also an important source of architectural, historical and ethnological knowledge. For several years the house lay derelict, facing numerous structural issues, including a roof collapse, water ingress, and the deterioration of its typical wattle and plaster partition walls. Having completely lost the upper floor and stairs, the house's fate could be considered a reflection of the progressive abandonment of traditional activities, rural life and the associated architecture in mountain areas. Extensive work had to be carried out to return the house to its original state, demolishing or consolidating unstable elements, while restoring others which had survived, and reconstructing the partition walls and other interior features. The construction process relied solely on natural materials sourced from local surroundings. The house still has no electricity, running water or other utilities. The construction company carried out practical demonstrations of the traditional techniques employed during the restoration works. The information gleaned from this experience is expected to be of great use to professionals working on similar projects in the future.

#### Brief analysis of the case:

It is a humble vernacular building built using traditional local techniques. The intervention carried out has mainly involved repairing the roof, conserving and structurally consolidating the masonry and recovering the traditional finishes. All of this has been carried out using the same traditional materials with which the building was constructed. The action, aimed at the museumization of the building and its public visit, has sought to maintain the authenticity of the building with a minimal intervention that has favoured material, structural and character compatibility, as well as the durability and sustainability of an intervention that has sought to recover the traditional materials and techniques as part of an action to enhance the value of the traditional architecture of the area. The small manual published after the intervention allows the experience acquired during the intervention to be transferred to other similar buildings and also to preserve the wisdom linked to traditional materials and techniques.



anto Stefano di Sessan

GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS		ACTIONS	
CATEGORY: VILLAGE	AUTHENTICITY		MAINTENANCE	
MATERIAL TECHNIQUE: STONE MASONRY,	REVERSIBILITY		REPAIR	$\overline{}$
WOODEN ROOF	MINIMAL INTERVENTION		CONSERVATION	
PROPERTY: PRIVATE	COMPATIBILITY	~	MATERIAL CONSOLIDATION	
FUNDING: PRIVATE	DURABILITY	~	STRUCTURAL REINFORCEMENT	~
OPEN TO PUBLIC: YES	LEGIBILITY		PROTECTION	
PREVIOUS USE: DWELLINGS	ACCESSIBILITY	<b>✓</b>	REHABILITATION	~
ACTUAL USE: HOTEL AND TOURISTIC	SOCIAL PARTICIPATION		RECONSTRUCTION	~
FACILITIES	SUSTAINABILITY	~	INTERPRETATION	~
			MUSEALIZATION	
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS		DISSEMINATION	
TRADITIONAL MANUAL	LOCAL CRAFTPEOPLE		PUBLIC VISIT	
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY		AUDIOVISUAL, DIGITAL MATERIAL	
NEW INDUSTRIAL	CONSTRUCTION COMPANY		EDUCATIONAL ACTIVITIES	
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS		PUBLICATION	

#### Conservation of Santo Stefano di Sessanio, L'Aquila (Italy) (Europa Nostra Prix 2006)

The jury in 2006 praised an ingenious human and ecological approach to preserve and breathe life into a deserted mediaeval fortified village, setting a precedent for the revival of rural architectural heritage throughout Europe.

The main aims of this initiative were to salvage and restore minor architectural heritage in a deserted and abandoned mediaeval fortified village in order to transform it into a large hotel complex. In addition to accommodation and catering facilities, the plans for this space feature workshops for traditional craftsmanship, a wine cellar, shops selling local gastronomic products, an inn, services for tourism and related activities, a conference centre and meeting rooms, a wellness area, and a centre for excursions. The approach followed has preserved the patina of age and past evidence of poverty, such as smoke-blackened plaster, as an integral part of heritage.

# Brief analysis of the case:

This is an intervention carried out on various buildings within a former fortified burgh. The intervention, carried out with private funds, has converted a group of buildings into a structure for accommodation and tourist services. The intervention, with a strong rehabilitation and accessibility component, has managed to combine the requirements of modernisation with respect for the character of rural architecture. In addition to the actions linked to the refurbishment of the spaces and the updating of the facilities and services, conservation, repair, structural consolidation and in some cases reconstruction of some parts have been carried out. These actions have been complemented with an important part linked to the enhancement of the buildings themselves but also of the local culture through gastronomy, excursions and tourist activities. This is a case that advocates cultural tourism in an intervention that pursues sustainability at all levels.

#### Subterrean Caves



GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS		ACTIONS	
CATEGORY: SUBTERREAN CAVES & WINERIES	AUTHENTICITY		MAINTENANCE	
MATERIAL TECHNIQUE: EXCAVATION AND	REVERSIBILITY		REPAIR	$\overline{}$
STONE MASONRY	MINIMAL INTERVENTION	<b>Y</b>	CONSERVATION	
PROPERTY: PRIVATE	COMPATIBILITY	$\checkmark$	MATERIAL CONSOLIDATION	<b>-</b>
FUNDING: PRIVATE	DURABILITY	<b>Y</b>	STRUCTURAL REINFORCEMENT	<b>-</b>
OPEN TO PUBLIC: YES	LEGIBILITY		PROTECTION	
PREVIOUS USE: WINERIES	ACCESSIBILITY		REHABILITATION	
ACTUAL USE: WINERIES / PUBLIC VISIT	SOCIAL PARTICIPATION	<b>~</b>	RECONSTRUCTION	$\overline{}$
	SUSTAINABILITY	$\overline{}$	INTERPRETATION	
			MUSEALIZATION	
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS		DISSEMINATION	
TRADITIONAL MANUAL	LOCAL CRAFTPEOPLE	<b>~</b>	PUBLIC VISIT	~
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY	$\overline{}$	AUDIOVISUAL, DIGITAL MATERIAL	~
NEW INDUSTRIAL	CONSTRUCTION COMPANY		EDUCATIONAL ACTIVITIES	
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS	~	PUBLICATION	

# Conservation of Subterranean Caves and Wineries in El Cotarro, Burgos (Spain) by the Municipality of Moradillo de Roa (Europa Nostra Award 2020)

With the 2020 Europa Nostra Award recognition was granted to El Cotarro, selecting over 157 underground wineries and 7 cave wineries in the small town of Moradillo de Roa in the province of Burgos (Castilla-León). Many of these wineries have subterranean cellars carved out of stone and can be found on the hill of the Church of San Pedro. The earliest records of these wineries can be traced back to 1550. Despite the continuing survival of the winemaking tradition, many of these caves were poorly conserved and water ingress had resulted in serious issues. A survey was carried out on the geological features and different constructions in the area in an attempt to resolve the problem of water management in the wineries. This identified how the rainwater circulated through the hillside. Workers could then solve issues relating to the accumulation of water, which had previously caused leaks and landslides. Local winery owners set up a Commission for Maintenance and Conservation to coordinate efforts to revitalise the area. Original materials and techniques were used throughout to preserve the original character of the heritage.

Apart from the great lengths gone to in restoring the wine caves, the most important aspect of this conservation project was the revitalization of the surrounding community in this rural setting, who still enjoy a deep connection to their heritage. There has been an active campaign to raise awareness, prominently featured on social media and using carefully devised audiovisual material. A 3D virtual tour of one of the wineries has also been created. Visitors have the chance to learn about traditional winemaking methods, enjoying guided tours of the wineries and underground caves. The jury considered this project to be a wonderful example of a response to the issue of rural decline, present throughout Europe. The conservation of a cultural landscape, including tangible and intangible heritage, has been guaranteed through the conservation of the subterranean caves, just the existing traditional winemaking techniques have revitalised traditional crafts. Completely owned, implemented and funded by the local community and volunteers, the community has sustained its heritage attracting locals and tourists alike.

# Brief analysis of the case:

This is a large group of wineries that maintains a strong relationship with the village, both physically and in terms of cultural identification. The intervention has been carried out by the local community that owns the cellars in a process of conservation, repair and structural consolidation that has led to the recovery of the complex. The work has been carried out using traditional materials and techniques thanks to the work of the local community and the volunteers who have participated in the process. The work has respected the authenticity of a cultural landscape in both its material and immaterial values and has sought to ensure the durability of the complex and its permanence thanks to actions to protect the caves from water ingress and increasing deterioration. The activity, in which the local community has been extensively involved, has been an example of sustainability in all environmental, socio-cultural and socio-economic aspects.

# Atlungstad Distillery



GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS		ACTIONS	
CATEGORY: INDUSTRIAL	AUTHENTICITY	~	MAINTENANCE	
MATERIAL TECHNIQUE: BRICK MASONRY	REVERSIBILITY		REPAIR	<b>~</b>
PROTECTION LEVEL	MINIMAL INTERVENTION		CONSERVATION	<b>~</b>
PROPERTY: PUBLIC, PRIVATE	COMPATIBILITY	~	MATERIAL CONSOLIDATION	$\checkmark$
FUNDING: PUBLIC, PRIVATE	DURABILITY	~	STRUCTURAL REINFORCEMENT	<b>~</b>
OPEN TO PUBLIC: YES	LEGIBILITY		PROTECTION	
PREVIOUS USE: DISTILLERY	ACCESSIBILITY	~	REHABILITATION	~
ACTUAL USE: DISTILLERY, MEETING VENUES,	SOCIAL PARTICIPATION	~	RECONSTRUCTION	<b>~</b>
CATERING FACILITIES AND A SMALL MUSEUM	SUSTAINABILITY	~	INTERPRETATION	$\checkmark$
			MUSEALIZATION	<b>~</b>
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS		DISSEMINATION	
TRADITIONAL MANUAL	LOCAL CRAFTPEOPLE	~	PUBLIC VISIT	<b>~</b>
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY		AUDIOVISUAL, DIGITAL MATERIAL	
NEW INDUSTRIAL	CONSTRUCTION COMPANY		EDUCATIONAL ACTIVITIES	
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS		PUBLICATION	

# INTERVENTIONS IN INDUSTRIAL ARCHITECTURE

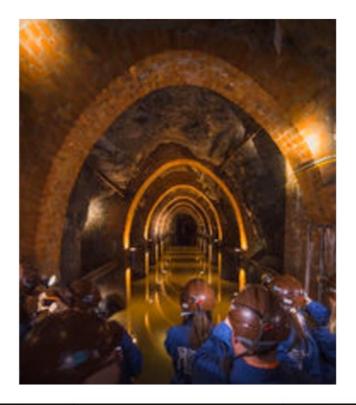
Rehabilitation of Atlungstad Distillery, Ottestad (Norway) by Atlungstad Distillery SA, Norwegian Directorate for Cultural Heritage, the Hedmark County Municipality and the Innlandet County Municipality and Friends of Atlungstad Distillery NGO (Europa Nostra Award 2022)

In the 2022 edition of the prizes the jury highlighted the importance of restoring industrial buildings by choosing this particular project. In the rehabilitation of the Atlungstad Distillery old factory machinery was reused, restoring the building's industrial feel while also incorporating new cultural and social purposes. This restoration project is especially noteworthy for the transmission of skills, the revival of old production methods and other intangible aspects. Atlungstad Distillery, built on the shore of Lake Mjøsa in 1855, is the oldest Norwegian distillery still in use and is one of just a handful of historic distilleries producing potato-based spirits in Europe. Prior to its closure in 2008 the distillery was one of the leading producers of commercial spirits such as punch and aquavit, Norway's national spirit. From 2011 to 2019 an alliance of public institutions, the commercial private sector, volunteers and NGOs breathed new life into the distillery, transforming it into a heritage site which offered meeting venues, catering facilities and a small museum, and making it an active and financially viable industrial heritage site. The site was jointly owned by shareholders from the public, private and cultural sectors. To ensure that the distillery could continue in operation, the 1960s distillery equipment underwent thorough maintenance in order to return it to use. The old cellars, where the aquavit was aged in oak barrels, were restored and renovated. Traditional techniques were used to reconstruct Atlungstad Distillery's old quay, where boats loaded and unloaded their cargo. Local restoration carpenters took part in the construction of a new quay, using timber traditionally sawn at a heritage sawmill. This quay, which was rebuilt on its original site, is often used for outdoor activities and is the landing point for the historic paddle steamer Skibladner, which dates from 1856 and continues to provide daily sailings across Lake Mjøsa.

# Brief analysis of the case:

This is an old distillery which, having lost its use, had fallen into a process of progressive degradation. The recovery has been carried out on several fronts, ranging from the restoration and partial reconstruction of the building using traditional materials and techniques, the restoration of the machinery and its distillery activity, to the museumization, the rehabilitation of the spaces for public accessibility, their adaptation for visits and their use as a venue for cultural events. The intervention has been able to combine the recovery and rehabilitation of the spaces for new uses with the conservation of the material and immaterial values of the complex, maintaining its authenticity and promoting sustainability in all its aspects.

# **Queen Louise Adit**





GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS		ACTIONS	
CATEGORY: INDUSTRIAL HERITAGE	AUTHENTICITY	~	MAINTENANCE	
MATERIAL TECHNIQUE: EXCAVATION	REVERSIBILITY		REPAIR	
PROTECTION LEVEL	MINIMAL INTERVENTION	~	CONSERVATION	
PROPERTY: PUBLIC	COMPATIBILITY		MATERIAL CONSOLIDATION	$\overline{}$
FUNDING: PUBLIC	DURABILITY		STRUCTURAL REINFORCEMENT	$\overline{}$
OPEN TO PUBLIC: YES	LEGIBILITY		PROTECTION	
PREVIOUS USE: MINING	ACCESSIBILITY	$\checkmark$	REHABILITATION	$\overline{}$
ACTUAL USE: PUBLIC VISIT	SOCIAL PARTICIPATION		RECONSTRUCTION	
	SUSTAINABILITY	~	INTERPRETATION	
			MUSEALIZATION	
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS		DISSEMINATION	
TRADITIONAL MANUAL	☑ LOCAL CRAFTPEOPLE	~	PUBLIC VISIT	
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY		AUDIOVISUAL, DIGITAL MATERIAL	
NEW INDUSTRIAL	CONSTRUCTION COMPANY		EDUCATIONAL ACTIVITIES	$\overline{}$
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS		PUBLICATION	

Revitalization of the Queen Louise Adit mining complex (Poland) by the Coal Mining Museum in Zabrze, Municipality of Zabrze, the Province of Silesia, the National Environmental Protection Fund and additional funding from the Coal Mining Museum in Zabrze (Europa Nostra Award 2019)

As the jury rightly pointed out during the 2019 Europa Nostra Awards, coal mining sites such as the Queen Louise Adit mining complex are in decline. It is widely felt that maintaining the heritage of historic coal mines, of major historical importance for Poland as well as Europe, is vital for future generations. As a result, part of a museum experience is to showcase and interpret large-scale mining machinery. In order to ensure that the site could be visitable, coal miners were called upon to provide expertise that could be used in the restoration work needed. The Queen Louise mine, the first Prussian state coal mine in Upper Silesia, opened in 1791. The activity of the mine helped transform the town of Zabrze from a small settlement into a large city. The vast post-mining infrastructure, of great significance in the history of industrial development in Silesia and Europe, was restored and adapted to new functions. The project, which took almost 15 years to complete, involved the revitalization of both the ground infrastructure - with approximately 30 19th-century buildings - and the conservation of over 5 kilometres of connecting underground corridors. Following the restoration process, the mines no longer produce the harmful emissions generated by historic mining practices and the infrastructure is safe for tourists and cultural activities. In addition, existing and new buildings have been adapted to house three visitor centres, used for interpretive exhibits and artefacts illustrating the site's history.

## Brief analysis of the case:

The intervention carried out in this large complex has focused on guaranteeing the accessibility of the complex for visitors. The restoration and rehabilitation of the buildings and the consolidation and adaptation of the tunnels has been carried out using traditional techniques that are compatible with the existing ones, with the aim of guaranteeing the safety of the complex, accessibility for the public, the enhancement of the complex and the mining activities that took place there, while maintaining the authenticity of the complex at all times. To this end, some spaces have been museumised and both the tangible and intangible elements have been interpreted.



# Restoration of a traditional watermill in Agios Germanos, Prespes region (Greece) by the National Park of Prespa (Europa Nostra Gran Prix 2016)

When awarding this prize in 2016 the jury paid special tribute to the recovery of this early industrial mill which is highly characteristic of industrialization in Europe. The staggering complexity of the mill and the water supply system has been restored with great expertise. The high level of educational and social engagement witnessed also contributed to the sustainable economic and environmental development within the village and region. In addition, this project has been an incentive to transnational collaboration in what is deemed a crucial location, helping to foster a culture of reconciliation and peaceful coexistence among neighbours. Although 20 watermills can be found in the Prespes region, the only one that has been fully restored is that in the village of Agios Germanos. The project focused on establishing a site in the Transboundary Park between Greece, Albania and North Macedonia in order to create a point between these three countries where cultural values could be shared. The mill, located in the mountainous region of the National Park of Prespa, was originally constructed in 1930. It is in full working order and has three different mechanisms: one for grinding flour, another for cleaning fabrics and the third for finishing textiles. The restoration process consisted in repairing the building which was in a critical condition, reconstructing the destroyed mechanical systems, rebuilding the water supply system and installing new constructions in the surrounding area to provide easy access to visitors. The project's ambitious aim was to create a 'living monument' of the region's industrial heritage, while returning to producing flour, enhancing and supporting traditional trades in the village and the cultivation of organic cereals in its surroundings. This project benefited greatly from the support and engagement of volunteers and the entire community, with the village welcoming the initiative from the very start and devoting time to the construction and operation of the watermill.

# Brief analysis of the case:

It is a mill of rural character that has a special significance for the area in which it is located due to its relationship with the local cultural and industrial tradition. The building has been restored, repaired and partly rebuilt using the same materials and construction techniques to ensure the compatibility and durability of the mills. The machinery, as well as the water channelling system, as integral parts of the complex, have been reconstructed exactly as they were. The project, carried out with the broad participation of the local community, has allowed the mill to be used as an active museum where visitors can learn directly about the production processes.

#### Museum of Fine Arts CONSERVATION PRINCIPALS ACTIONS GENERAL DATA OF CONSERVATION CATEGORY: MUSEUM AUTHENTICITY MAINTENANCE MATERIAL TECHNIQUE: WALL PAINTINGS, REVERSIBILITY REPAIR STUCCO MINIMAL INTERVENTION CONSERVATION COMPATIBILITY PROPERTY: PUBLIC MATERIAL CONSOLIDATION DURABILITY STRUCTURAL REINFORCEMENT FUNDING: PUBLIC OPEN TO PUBLIC: YES LEGIBILITY **PROTECTION** PREVIOUS USE: MUSEUM ACCESSIBILITY REHABILITATION ACTUAL USE: MUSEUM SOCIAL PARTICIPATION RECONSTRUCTION SUSTAINABILITY INTERPRETATION MUSEALIZATION MATERIALS AND TECHNIQUES CONSTRUCTIVE PROCESS DISSEMINATION TRADITIONAL MANUAL LOCAL CRAFTPEOPLE PUBLIC VISIT TRADITIONAL INDUSTRIAL LOCAL COMMUNITY AUDIOVISUAL. DIGITAL MATERIAL NEW INDUSTRIAL CONSTRUCTION COMPANY EDUCATIONAL ACTIVITIES MIX (TRADITIONAL AND INDUSTRIAL) VOLUNTEERS PUBLICATION

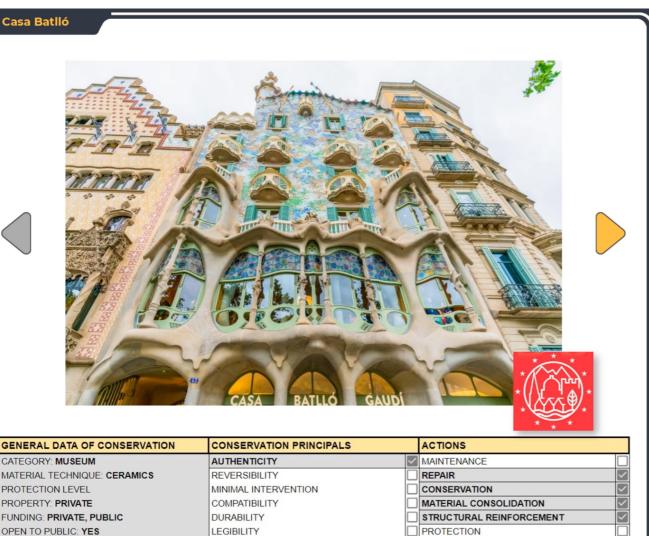
### INTERVENTIONS IN MUSEUMS AND CULTURAL SPACES

Restoration of The Museum of Fine Arts, Budapest (Hungary) by the Museum of Fine Arts, the architect István Mányi and the construction company Magyar Építő Zrt (Europa Nostra Award 2020)

This intervention has been considered an excellent example of recovery of the splendour of an early 20th-century museum. It is the culmination of a carefully-thought-out long-term effort to reinstate the Museum of Fine Arts in Budapest, a major European institution, and is designed following a thoughtful philosophical basis. Modern interventions have been skillfully integrated and are suited to the additional needs of the museum. The building of the Museum of Fine Arts is located in Hősök tere (Heroes' Square) in Budapest, an area of great importance in Hungarian history. Built between 1900 and 1906, the museum was designed by the architects Albert Schickedanz and Fülöp Herzog. By the mid-20th century, numerous unsuitable interventions had been carried out on the museum's layout, the direct consequence of changing attitudes and trends in heritage and architectural appreciation, leading in turn to a number of long-term conservation issues. The Museum of Fine Arts is one of the most prominent in Europe with extensive collections including a number of masterpieces. The building is a rare example of eclectic architecture, and is not just a museum but also a parade of architectural history featuring major styles. The building, similar in type to 19th-century European museums, includes a sizeable arcaded yard, a Renaissance hall with Ionic and Doric chambers on either side, a Romanesque hall, a Baroque hall and the Michelangelo room, all designed to evoke various architectural styles and vibrantly decorated with colourful tiles and murals. It was intended as a didactic feature, as in Hungary these styles were not present or had been lost. It therefore provides an excellent representation of notable museum trends in the 19th century and early 20th century, when collections of copies of mediaeval and Renaissance masterpieces were frequently set up.

# Brief analysis of the case:

The work carried out in the museum's rooms focused on cleaning, consolidating and conserving the interior spaces with their decorations in the style of the early 20th century. Careful restoration work has made it possible to faithfully recover the interior decorations that had been altered by a series of previous interventions. This intervention has made it possible to recover the interiors decorated in various styles as part of the exhibition itself and has allowed visitors to the museum to have access to an architectural and decorative heritage not present locally as part of learning about the history of European architecture.



REHABILITATION

RECONSTRUCTION

INTERPRETATION MUSEALIZATION

DISSEMINATION

AUDIOVISUAL, DIGITAL MATERIAL

**EDUCATIONAL ACTIVITIES** 

**PUBLIC VISIT** 

PUBLICATION

**ACCESSIBILITY** 

SUSTAINABILITY

SOCIAL PARTICIPATION

LOCAL CRAFTPEOPLE

LOCAL COMMUNITY

VOLUNTEERS

CONSTRUCTIVE PROCESS

CONSTRUCTION COMPANY

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PREVIOUS USE: HOUSING

TRADITIONAL MANUAL

TRADITIONAL INDUSTRIAL NEW INDUSTRIAL

MATERIALS AND TECHNIQUES

MIX (TRADITIONAL AND INDUSTRIAL)

ACTUAL USE: PRIVATE HOUSING / MUSEUM

#### Conservation Works of Casa Batlló, Barcelona (Spain) (Europa Nostra Award 2004)

The 2004 jury felt this was a project deserving of the award, given the glorious revival of a masterpiece of Antoni Gaudí and the additional special innovations which enabled the visually impaired to enjoy their visit. According to the Casa Batlló Foundation in an overview of the building's history, Antoni Gaudí had been allowed full creative freedom by Josep Batlló, putting him in charge of a project that initially entailed demolishing the building. However, thanks to the initiative shown by Gaudí, the demolition of the house was ruled out, and it was fully reformed between 1904 and 1906. The architect completely changed the façade, redistributing the internal partitioning, expanding the interior courtyard and transforming the inside into a true work of art. Apart from its artistic value, the building is also extremely functional, more in keeping with modern times than with the past. In fact, some elements have been seen as heralding the architectural trends of the late 20th century. The restoration and maintenance of one of Antoni Gaudi's most emblematic private houses has since become a major attraction in the city of Barcelona. The house is now used for events and for cultural visits. Restoration work included the consolidation of the foundations, structural reinforcements, extensive restoration of the ceramic and glass trencadís on the stunning façade and the lightwell, treatment of woodwork and rehabilitation of the tiled main floor courtyard. Special innovations were introduced so that the visually impaired could enjoy this very tactile building.

### Brief analysis of the case:

The housing complex, which is still partly inhabited, has been restored with the aim of revealing a masterpiece by the architect Antoni Gaudí. To this end, the significant elements of the building have been cleaned, restored and partly reconstructed, recovering their original state: this is the case of the ceramic and trencadís cladding, as well as the interior spaces that can be visited by the public. All this is accompanied by an important work of musealisation and interpretation of the complex, as well as multiple dissemination actions with audiovisuals, 3D reconstructions, cultural and educational activities, and the publication of guides and brochures for all audiences. The restoration, very respectful of the work of the Catalan architect, has used traditional and new materials to consolidate the factories and to guarantee public accessibility to all the areas that can be visited.

#### **Humboldt Forum**



GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS	A	CTIONS	
CATEGORY:	AUTHENTICITY	_ M	IAINTENANCE	
MATERIAL TECHNIQUE:	REVERSIBILITY	□ R	EPAIR	
	MINIMAL INTERVENTION	□ c	ONSERVATION	
PROPERTY:	COMPATIBILITY		NATERIAL CONSOLIDATION	
FUNDING:	DURABILITY	□ S	TRUCTURAL REINFORCEMENT	
OPEN TO PUBLIC:	LEGIBILITY	P	ROTECTION	
PREVIOUS USE:	ACCESSIBILITY	□ R	EHABILITATION	
ACTUAL USE:	SOCIAL PARTICIPATION	□ R	ECONSTRUCTION	
	SUSTAINABILITY		NTERPRETATION	
		M	IUSEALIZATION	
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS	D	ISSEMINATION	
TRADITIONAL MANUAL	LOCAL CRAFTPEOPLE	P	UBLIC VISIT	
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY	□ A	UDIOVISUAL, DIGITAL MATERIAL	
NEW INDUSTRIAL	CONSTRUCTION COMPANY	□ E	DUCATIONAL ACTIVITIES	
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS	□ P	UBLICATION	lr.

#### A debate: the conservation of the Berliner Stadtschloss, Berlin (Germany)

The Berliner Stadtschloss was possibly the most important administrative building in Prussia. From the 18th century until the fall of the German Empire at the end of the First World War it was also the main residence of the Hohenzollern family. In 1538, demolition work began on the original mediaeval castle, which was to be replaced by a palace designed by the architect Andreas Schlüter, who was responsible for the general layout. After Ferdinand I of Prussia's coronation in 1701 it became a royal residence. In 1845 the Palace acquired its most modern features, with the addition of a large dome over the portal. In the Second World War it was damaged almost to the point of total destruction, and only a few ruins survived. Subsequently, Walter Ulbricht, main leader of the German Democratic Republic (GDR) decided to demolish it completely in 1950, as it was considered a Prussian emblem that was to be obliterated. In 1976, at the height of the Cold War, Eric Honecker inaugurated the Palace of the Republic, a modern building occupying the site of the Royal Palace. This building, with bronze mirrored windows, became the headquarters of the parliament of the GDR. Following German reunification in 1990 and the fall of the Berlin Wall the Humboldt Forum project was launched, aiming to rebuild the building after demolishing the Palace of the Republic. The demolition and subsequent reconstruction of the preliminary building began in 2006 in order to house a major cultural hub. This project detailed the creation of the "Humboldt Forum", paying homage to Alexander von Humboldt. The building, with façades that were an exact replica of the original ones, was to contain a luxury hotel, temporary exhibition rooms for Berlin museums and a metro station. From 2013, a reconstruction programme was implemented which aimed, rather controversially, to follow the original style of the Royal Palace of Berlin restoring its urban presence and Baroque skyline. The three exterior façades followed the plans of Italian architect Franco Stella. However, the fourth façade, overlooking the Spree, incorporates contemporary forms, sparking a debate on the relationship between the set programme and historical memory in a monumental building with a tumultuous past.

#### **EXERCISE: ANALYSIS OF THE CASE**

Write a text of 150-250 words and fill the table



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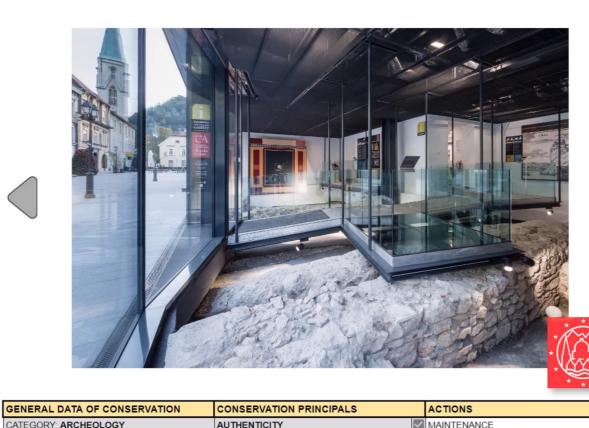
#### INTERVENTIONS IN LANDSCAPE AND ARCHITECTURAL SITES

Presentation of Archaeological Remains, Celje (Slovenia) by the Municipality of Celje with additional funding from the Ministry of Culture (Europa Nostra Award 2019)

Maintenance work on utility lines and the renovation of the public area of the city of Celje in 2013 and 2014, led to preliminary archaeological excavations revealing part of a mediaeval cellar and part of a late Roman building. The regional unit of the Institute for Protection of Cultural Heritage (IPCHS) in Celje developed a study for the expansion of the archaeological survey of these remains, putting forward a proposal for exhibiting them in situ. Excavations, managed by the Celje Regional Museum, led to the discovery of two mosaics within the building dating from antiquity: one in black-and-white and the other all in black. The corresponding walls, with a central heating system of a representative building, in which contemporary frescoes were still preserved, were also discovered. The conservation and restoration of all archaeological remains were conducted by the Conservation Centre of IPCHS in collaboration with Celje Regional Museum. A well-designed pavilion to present these remains to the public was constructed, accompanied by an exhibition prepared by the Celje Regional Museum. According to the jury, this is a good example of the conservation and sharing of archaeological remains in situ in an urban context, a challenge frequent throughout Europe. The design of the pavilion – a smart, unobtrusive structure – is harmoniously integrated into the existing street-front, maintaining its continuity.

#### Brief analysis of the case:

The intervention in this urban archaeological excavation has involved, on the one hand, actions to consolidate the archaeological remains with traditional materials that are compatible with the existing ones and, secondly, a wide-ranging action of protection, musealisation and interpretation of the remains themselves. The protection of the remains has been carried out with a new building that is inserted into the urban fabric, distinguishing it from the adjacent buildings and inviting the visitor to approach the archaeological remains. The musealisation has been carried out with multiple traditional and digital tools that allow visitors to interpret the archaeological remains.



Archaeological Remain

GENERAL DATA OF CONSERVATION	CONSERVATION PRINCIPALS	ACTIONS	
CATEGORY: ARCHEOLOGY	AUTHENTICITY	MAINTENANCE	
MATERIAL TECHNIQUE: MOSAICS AND	REVERSIBILITY	REPAIR	
MASONRY	MINIMAL INTERVENTION	CONSERVATION	~
PROPERTY: PUBLIC	COMPATIBILITY	MATERIAL CONSOLIDATION	~
FUNDING: PUBLIC	DURABILITY	STRUCTURAL REINFORCEMENT	
OPEN TO PUBLIC: YES	LEGIBILITY	PROTECTION	~
PREVIOUS USE: -	ACCESSIBILITY	REHABILITATION	
ACTUAL USE: MUSEUM	SOCIAL PARTICIPATION	RECONSTRUCTION	
	SUSTAINABILITY	INTERPRETATION	-
		MUSEALIZATION	-
MATERIALS AND TECHNIQUES	CONSTRUCTIVE PROCESS	DISSEMINATION	
TRADITIONAL MANUAL	LOCAL CRAFTPEOPLE	PUBLIC VISIT	-
TRADITIONAL INDUSTRIAL	LOCAL COMMUNITY	AUDIOVISUAL, DIGITAL MATERIAL	-
NEW INDUSTRIAL	CONSTRUCTION COMPANY	EDUCATIONAL ACTIVITIES	-
MIX (TRADITIONAL AND INDUSTRIAL)	VOLUNTEERS	PUBLICATION	

Restoration and enhancement of the Temple of Venus and Roma and of the Curiae Veteres in the area of the Colosseum archaeological park by Daniela Borgese, R.O.M.A Consorzio in ATI con Officina Restauro (Domus Gold Medal 2021)

This project was awarded for the work of restoration and enhancement of the Temple of Venus and Roma and of the Curiae Veteres in the area of the Colosseum archaeological park. Most importantly it tackles a highly-stratified, ancient architecture "reconfigured" by previous interventions and is based on an accurate analysis of the monument, both as relates to the construction techniques and to the investigations of the constituent materials, paying particular attention to previous documentation, dating as far back as the 19th century, and to the study of major restorations carried out in the 1930s.

In this last case, it is important to note the painstaking conservation work, which together with a sophisticated critical reinterpretation led to an interesting colour rebalancing of the mortars used to restore the drums of the columns raised between 1932 and 1935 and the floor joints of the Roma cella. The opus signinum floor of the Venus cella subtly provides a general idea of the original design, using information obtained from documents. The choices, supported by critical assessments, are usually understated and offer suggestions which do not conceal any of the strata of the monument studied and preserved.

# Brief analysis of the case:

The intervention carried out on this important archaeological site consisted of the consolidation of the existing structures and the reintegration of the gaps in the existing masonry with materials similar to those existing in the structure. At the same time, an intervention has been carried out to condition the space and the pavements to allow accessibility for the public and visitors.



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# Conservation of the Armenian Church of St. Giragos in Diyarbakir (Turkey) by the St. Giragos Church Foundation (Europa Nostra Grand Prix 2015)

The Armenian Church of St. Giragos, in the city of Diyarbakir, is the main place of worship of the Armenian exiles in this city and is a prime example of the efforts to guarantee their reconciliation with it. The long research process examining historic documents culminated in the re-erection of the lost elements, namely the roof, bell tower and interior furnishings. The Armenian community was greatly invested in the restoration of the building, which in addition to attracting visiting Armenians from elsewhere, has also been a major asset to the improvement of peace and social integration. While the Armenian Church of St. Giragos, located in southeast Turkey, where the population is predominantly Kurdish, is thought to date from the 17th century, some experts hold that it was completely rebuilt in the 1880s. By the end of the 20th century, when the local Armenian population was dwindling, the building was in an extreme state of disrepair, with a roof collapse causing the structure to become derelict. More recently, the St. Giragos Church Foundation, non-governmental groups and concerned individuals have worked towards its restoration, which also required extensive new construction work. The parties initially involved in the action were very keen to protect this valuable cultural asset in order to re-establish it as both a religious and cultural centre. Subsequently, the additional help generously provided by the local authorities made it possible to also complete repair work on the priest's house, chapel, and other buildings on the site. This project is a success story in local cooperation.

#### Brief analysis of the case:

It is a religious building with a strong identity value that has suffered significant deterioration due to the abandonment by migration of the religious community that used it. The restoration has been carried out using the traditional materials and techniques already present in the building and carried out by local tradesmen. The intervention involved the reconstruction of some parts of the building with the materials and techniques already used in the building and the total reconstruction of the roof. The restoration uses criteria of legibility given that, although the traditional materials are used, the newly constructed parts can be distinguished. The principle of compatibility and durability, also linked to the use of traditional materials, is also respected.

#### References

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# CHAPTER V TRADITIONAL BUILDING TECHNOLOGY

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#### THEORY & PRACTICE

# **5.1.1 A natural underground cave** is a perfect shelter for the whole family, but it protects only on five sides.



**5.1.2 The fire:** centre, central position and radiation – the same effect all round.



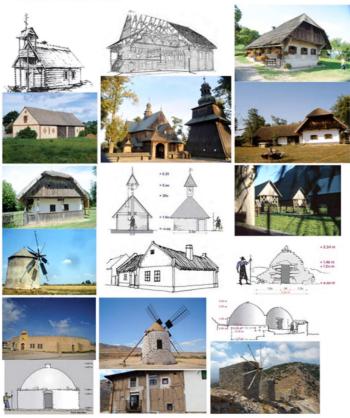
**5.1.3 Development of single-cell house**, circle to square and the constructions of their roofs.



# **5.1.3 Development of single-cell house**, circle to square and the constructions of their roofs.



5.1.2 The fire: centre, central position and radiation – the same effect all round.



# THEORY & PRACTICE

Tradition is very important for our culture, especially in architecture. Times have changed, as well as materials, tools and circumstances, and also the use: basic elements of architecture are security, comfort and culture – all with an important influence of the economy. Today, this is all together understood as sustainability.

Theory: architecture has risen from the simplest solutions in the past to the most complex compositions today. It started with natural bases, turf and earth, followed by stone and wood, finally with combinations of several materials.

#### Natural base: turf, peat and earth

Turf is naturally alternating grass with earth, peat appears in swamp locations. The turf and peat are dug with special spades, which enable the same shape, the dimensions of the composing turf elements. Because of their moisture, the elements are composed crossways. This is practical and very attractive, decorative to the eye.

Raw clay in earthen constructions can be built using pisé, rammed walls or adobe technology. Raw clay can be used again after decay, fired adobe – as classical bricks – are not.

#### Natural base: stone

The simplest compositions of shelters are natural underground caves, later hewn in the rock and built with collected stones, raw or cut into more or less exact shapes.

The first compositions were built without any mortar, as drystone. Bigger spaces can also be built in this technique, with corbelling. Atreus Treasury in Greece is almost 15 metres high and was built in the second millennium BC. Drystone constructions can be built without any binding material, or with stone wedges, clay and finally with mortar.

#### Wood

The simplest wooden composition is a palisade: vertical posts, dug into the earth. All the crannogs in Ireland are made using this system.

Wattle is more usable, a combination of vertical bearing branches, intertwined with thin branches. Such compositions are often filled with a clay covering.

Solid constructions are built by incorporating trimmed beams into a frame construction, later timber constructions, made entirely of logs. Wooden compositions can be covered by plaster, sometimes only with a thin lime covering. The wood can be seen only at the corners.

#### Combination

Several combinations of materials can be found, such as wooden constructions covered by earth; frame constructions filled by other materials; wooden constructions in stone columns.

In general, the most common compositions of several materials are stones or bricks with mortar between the elements, all the compositions often being covered by plaster, with the construction being hidden, not seen.

Progress should not always be imagined as something good: asbestos is the most impressive example – it was a perfect material for insertion in concrete, but later recognized as deadly for people.

The practice of traditional architecture can be seen from examples in several European countries involved in the project.

Architecture is a product of possibilities: more readily available materials take precedence. Stone is in use everywhere, in some places for the whole composition, in others only for the most exposed parts – the foundation and bearing constructions. Abundant timber stimulates rich compositions, such as stave churches in Scandinavia or Eastern Europe, clay on the Pannonian plain, gypsum in Spain, stone covered by white plaster around the Mediterranean.

All typical architecture is influenced by nature, time and people. The most economical architecture can be seen in countries with a lack of wood: a cruck construction (Oliver 1997) in England cannot be found in countries rich in timber – kozolec/hayrack in Slovenia is a massive construction with too much wood (Juvanec 2007). A characteristic of vernacular architecture is not only its similarities, but also its differences.

All architecture is important, and there are no more or less important objects or materials. All architecture is a result of local materials, characteristics and builders, all in their time and place.

#### THE DEVELOPMENT OF THE HOUSE CONCEPT FROM THE EARLIEST TIMES

#### **PRINCIPLES**

The first human shelter was undoubtedly a cave. In the beginning, it was a natural cave, where there was natural protection from five sides for passive security. The sixth side, the front, was left to the head of the family and this protection was active, with simple weapons and hands. A cave is a natural shelter, a hut had to be built by primeval man himself (Oliver 2006). Use of the brain, instead of physical power, came later, with fire.

Fire was not primeval man's invention. Nature sent it with thunderbolts but, for its use, changes were needed in man's brains. Fear was eliminated, and 'handmade' fire was introduced into daily life. Fear persisted with animals, man used fire for cooking, baking, lighting and protection (Egenter 1992). In theory, fire also shows the social development of society. It works in a circular way, around the centre, with decreasing effects with distance – in warmth, light and protection. In detail, there are several problems: in the centre it is too hot, it is dangerous because of the risk of burns, warming works only from the front, at the back are cold and shadow. A bigger fire means greater effect, but also greater danger and this is the reason for the careful construction of a fireplace – in addition to its practical use. The relationship between the various elements in architecture is independent of the size or complexity of a construction project: it is as essential for simple structures as it is for complex ones (Lehner 2016).

The principle of a primary house starts with a fire, with all its technical characteristics - centre and radiation, which leads to the simplest geometrical form: a circle. A circle is understood as a geometrical place of points, with the same distance from the centre. This is at the same time the principle of a society with a central head and the equality of all the members (Egenter 1992). The scheme of classical Greek society follows the skeleton construction of the single-cell hut, with the fire in the centre and a circular groundplan. This is the principle of Plato's organization of the state.

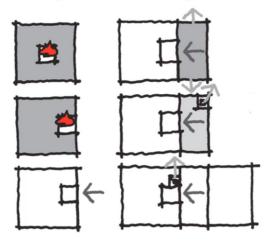
In theory, a house has three parts: the foundation as a connection between the ground and the body, the body made of walls, which organizes the users' activities, and the roof, which protects against weather conditions.

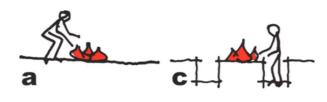
#### **EXECUTIONS**

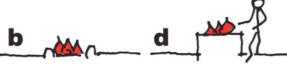
The primary hut is result of primeval man's mental and physical possibilities, which show a complex composition, combining his needs, possibilities, natural circumstances and his ability to in-build all these

#### **HOUSE CONCEPT**

**5.1.4 Development of a house:** single-cell house with hearth in the middle of the room, the hearth is withdrawn to the wall, the stove can be managed from outside, the 'new' room, a 'black kitchen', is full of smoke, the black kitchen gets a chimney at a distant place, a clear kitchen needs a chimney near to the stove, without any connection to the room.







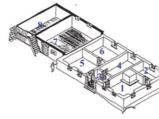
**5.1.5** A hearth on the floor is awkward, its height has to be adapted to man.

**5.1.6 A dwelling house** made in stone is on ground level, as well as the stalls, fodder is above, on the first floor: Zgornja Češnjica, Slovenia.









5.1.6 - version 2 - A house on steep terrain has stables on the ground floor, the dwelling is on the first floor – but accessible from the terrain behind, fodder can be found behind and in the roof spaces.

elements. Fire as physical existence shows both the mental scheme of society and the technical execution in creating the shape of a hut. This can be understood as the technical shape in the groundplan and as the scheme in its cross section.

Stone has a clearly longer lifespan than wood constructions and it is impossible to write about architectural history in its chronological development (Lehner 2016).

The construction of a hut starts as the protection of its contents – in first line against fire, people and animals. A primary hut is built as a skeleton when wood in available, and in corbelling with stones, where stone is available (Juvanec 2013).

We have no information about the roof of cave dwellings, dug into the earth. Circular constructions in wood as a palisade with skeleton construction can be found in Ireland as 'crannog' (in Scotland 'crannag'). The circular groundplan of these artificial islands is covered by wooden beams, thatched with straw and they date back to the fourth millennium BC.

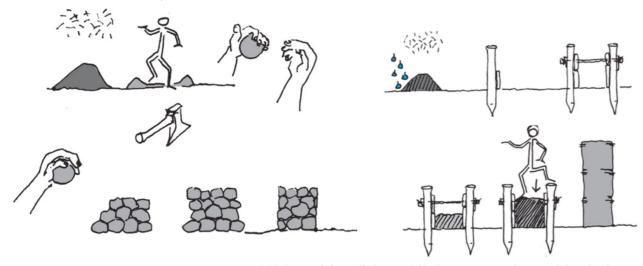
Smaller circular constructions such as tombs can be found in corbelling on Yemen's border with Saudi Arabia; archaeologists have dated them to the 5th millennium BC (Steimer 2001). Nuraghe, as circular tower architecture in Sardinia, also in three storeys, appear in the second millennium BC. Stone shelters, used as transhumance architecture, are well known from the middle of the 16th century, and 'tipi', a portable conical tent, made of skins or canvas on a frame of poles, used by Indians in North America is two centuries younger. The use of longer elements – longer stones or logs, constructed in longitudinal directions, changed the circle into a square and finally into a rectangle.

A hearth-house has a hearth in the middle of the room, an open fire. The next step was raising the hearth from the floor to a more convenient height, but the fire was still open, unpleasant and dangerous for health. Changing the position from the centre of the room to a side wall was the next step. Building a stove meant making a controlled fireplace, enclosed within walls, controlled at the entrance. Finally, the hearth entrance was moved to a vestibule, creating a clear and hygienic living room.

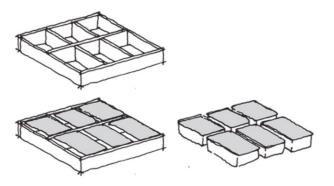
Vernacular house appeared with this living room with a stove, an antechamber as the kitchen and connection from the main entrance to the rear one, with other rooms added as sleeping chambers. Additional areas such as storerooms, granaries, cellars and later stables were also added on other floors.

#### ADOBE & EARTH BUILDING

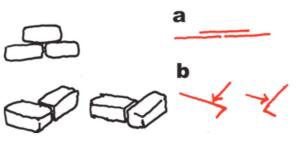
- 5.2.1 A cob wall is made of kneaded clay, reinforced with straw and is made with an axe
- immediately after construction, after three days it becomes too hard.



5.2.2 Rammed clay wall: the material is clay, aggregate and water, reinforced with straw (in France stone is also used); the ramming material is composed of wooden poles and boards, connected by laths; the clay mixture is filled in; it is rammed by feet; construction bands can be seen on the final wall and the holes serve for regular maintenance.



**5.2.3 Adobe bricks** need a wooden frame: it is filled with a clay and dried in the sun. Bricks are joined with clay, full of water and are brittle.



**5.2.4 The principle of the construction** is diametrality:
a) all the spaces between the bricks have to be covered,
b) the corner is constructed in height with an alternation of the courses.

# **ADOBE & EARTH BUILDING**

Clay is a natural material. It can be used as a solid building material or in bricks. The first system is dried in air, bricks can be either dried in air or fired. Adobe, as air dried bricks, is brittle material, fired bricks are much more durable (Vegas Mileto 2007).

Daub, which is a mixture of clay, aggregate and water, hardens in the air, although it is still brittle. Cut straw fibres are mainly used for reinforcing clay, sometimes stone, for instance in France (Juvanec 2010).

There are two systems of using raw clay: 'handwork' as kneaded daub and 'footwork' or rammed clay. Such constructions can use any dimensions, without traditional rules, the dimensions follow use: for both humans and animals. Adobe means the use of dried bricks, made by hand and dried in air.

Fired bricks are the same, but the dried bricks have to be fired at high temperature and need fire, energy.

**Cob walling** means construction in kneaded clay, pisé. The first technology is handwork. The most primitive method of working by hand is kneading, without the help of shaping work. The work is a particular problem: since the whole wall cannot be kneaded in one, it has to be divided into working stages (Juvanec 2010). This means the composition of a structure in sequences.

Cob structures have to be reinforced. Coniferous branches were used, juniper in Slovenia, also straw. Cob constructions become harder and harder over the years. Cob cottages can be found in Slovenia some hundred years old, in perfect condition.

Rammed technology consists of beating down selected earth (daub, clay) contained between a frame (two parallel boards) with a heavy implement. Compressing the material is important here, in order to squeeze out all the air, which would reduce the bearing capacity of the construction (Juvanec 2010).

A clay wall is not particularly hard and does not have an eternal lifespan. Both problems are solved by regular maintenance. Small cracks can be coated with a mixture of clay and water.

Essential clay, aggregate and water needs to be mixed into a useable mixture by hand or more commonly by feet. The wooden mould is filled with this matter and squeezed with feet or a mallet. Constructional belts, made in one day are up to 50 cm high. After drying the wall, the mould is moved upwards for the next belt. The belts can still be seen on the finished wall.

The holes that remain after the horizontal laths are removed become holes for ventilation in stables, in dwellings they are filled with the same material.

Rammed clay has to be reinforced: in France stones are used, in Pannonia straw. The straw blades are cut into around seven centimetre lengths – longer blades would reduce their strength because of moisture in the clay mixture. This would tear the blades and the mixture would become uncompacted. One hundred percent compactibility is of great importance for a rammed construction.

While construction is man's work, maintenance is the concern of the housewife, woman's work at least once a year. This is connected to the religious festivals: the house has to be freshly painted every Easter, the festival of spring. The walls have to be maintained before painting with lime plaster, which shuts all the possible cracks.

Houses or towers in Yemen are built as many as eleven storeys high with this system (Oliver 2003, Vellinga 2007). They have a sort of self-maintenance system, whereby the sloping wall is drenched with run-off water (collected on the top from rainwater) and possible cracks concurrently coated (Juvanec 2010). Painting by hand is there more or less only visual help.

**Adobe** is a clay brick dried in the sun or in the air, when the clay mixture of mud, aggregate, water and reinforcing material (straw) is pressed into a wooden frame, which shapes it.

The name 'adobe' is a corruption of the word 'dobie' (Spears 1986).

In a construction with smaller elements, a new problem occurs, since regular size requires an understanding of the system of ratios of dimensions. This must enable the horizontal composition in groundplan and in cross section, changing the rhythm of the composition and the constant ratio of length to width, since the length of the brick provides the thickness of the wall (Juvanec 2010).

The mould for adobe consists of boards, a composed cross construction of rectangles. The spaces of the grid are filled with clay, mixed with aggregate and water and reinforced – like in rammed technology – with straw. This mixture is filled into the frames, squeezed and levelled by hand or with wooden boards. After some days, the mould is withdrawn, and some days later the adobe bricks are turned and later dried in the sun in their side position.

A wall with adobe bricks is composed by overlapping and the corners with the principle of alternation in all

directions, including in height.

The adobe system came to Europe from North Africa and is spread throughout all Mediterranean countries with a hot climate.

**Wattle** is a construction principle of interlaced, wickerwork whole branches or split branches. Wickerwork shuts out all side views, not those from an inclination and is open to the wind, chill and heat. This system is suitable for drying devices and for storage goods, objects for living in wattle are extremely rare.

**Wattle and daub** is an unusual construction system: this is a combination of a wicker base and clay on both surfaces. Here is some uncertainty: is wattle and daub a construction system in wood, covered by clay or is it clay construction, reinforced with wattle.

Wattle and daub needs a frame, the system can be understood as filling panels in timber framing, especially in the upper parts of the gable. On the Pannonian Plain the walls of stables are made in this technique.

**The proportion system** is important in compositions with smaller elements, because the length of a log depends on the tree and a log house is adapted to the properties of the wood. The same is with boards, which defined lengths in ramming – rammed walls can be constructed of different dimensions.

Bricks only are elements, which build and connect the wall composition. Bricks define the grid and practical dimensions of a wall, and the proportion between width, height and length is of extreme importance. The proportion theory has to be introduced as theory, but in practice the first requirement is overlapping.

Modular dimensions are needed for both adobe and fired bricks - as a result of the proportion theory. The most compatible modular coordination uses an equation with duplicating numbers:

#### 1, 2, 4

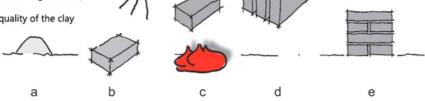
as height, width and length. Module 4 is defined as twice the value of 2 and 1 is half of 2. The modular grid for the elements composing a wall starts with and is multiplied by 'one'. This allows the walls in a width of 2 or 4, composed in longitudinal or cross directions.

The proportion theory is used regardless of dimensions. The wall can be composed in practice in the width of two or four modules: as a bearing wall in four and as a dividing wall as 2 modules. Outer walls have to be broad also because of better temperature isolation.

#### FIRED CLAY BRICKS

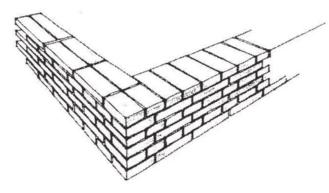
#### 5.3.1 Production of burned bricks:

- a) mixture of clay, sand and water (without any reinforcing material)
- b) stirring, shaping in the mould, sun drying
- c) firing at high temperature, it depends on the quality of the clay
- d) fired bricks are prepared for use
- e) composing a wall (Juvanec 2010)

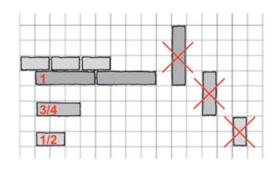


**5.3.2 The depth of the wall,** which is equal to one length of a brick, shows the principle of alternating everything

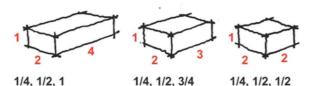
- directions, position, roles, but retaining the primary principle, overlapping.



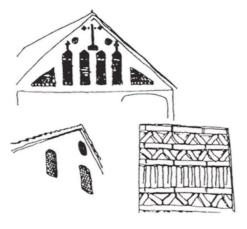
**5.3.5 The grid and side elevation** of a wall allows overlapping of elements 1x2, 1x3 and 1x4. Vertical positions do not exist.



**5.3.4 The basic modular dimensions** of a brick are 1, 2 and 4. Only the longest side can be divided into half and three quarters.



**5.3.3 The proportion key** of a module allows a raster and thus a play of full with empty, inner with outer, longitudinal with transverse, colour with no colour. A so called 'brick grid' allows aeration, but closes the openings.



#### FIRED CLAY BRICKS

The most effective technique with clay is undoubtedly firing at high temperature. The clay is thus technologically changed and can no longer return to the primary form, which is still possible with raw clay. Cob, pisé and adobe can be crumbled to dust and recreated afresh by the addition of water.

Fired bricks can be used in several compositions, but one principle has to be assured: overlapping of at least one quarter of its length. Use of the whole brick is possible, its half or three quarters. All the bricks have to be placed alternately, what is longitudinal on one side, is transverse on the other, the same as with courses. Each brick can be laid as longitudinal or transverse in a double setting.

Clay bricks do not have to have simple orthogonal geometrical shapes, a clay mixture of higher quality also enables other, thicker shapes. These can be used not only for walls, but for the roof, special windows, decoration etc.

Bricks ensure exact dimensions and relatively sharp edges, which enables controlled compositions. So above all, a considered system of proportion is needed to determine the dimensions of the brick blocks, so that they can be built with the fewest possible different sizes (Juvanec 2010).

The proportion theory has to be introduced as theory, but in practice the first requirement is overlapping. Modular dimensions are needed for both adobe and fired bricks - as a result of the proportion theory. The most compatible modular coordination uses an equation with duplicating numbers:

1, 2, 4

Mathematical expressions are as follows:

1 x 1 = 1

 $2 \times 1 = 2$ 

4 x 1 = 4

and

2 + 2 = 4

Only the length 'four' can be divided into two halves or three quarters (Juvanec 2010). If we use simplification of this length with the designation 'one', the other lengths are:

the whole element is equal to 1

half of it is ½

three quarters are ¾, while the smallest dimensions remain as ½ and ¼.

Overlapping has to be at least \( \frac{1}{4} \).

The modular grid for the elements composing a wall starts with and is multiplied by 'one'.

Historical modular systems are still in use, although the dimensions have been changed. A typical brick 1:2:4 was the same in the Austro-Hungarian system, which used a foot (30 cm), as today, using lengths of 24 cm, divided by half (12 cm) and three quarters (18 cm), with one quarter as its thickness (6).

The proportion system is not a limitation, it allows several widths of a wall, needed for different purposes (Juvanec 2009a). While a vertical position of a brick is not used (it is not constructionally sound enough), a single wall can be composed of half of a brick only for partition walls, with its full length the wall becomes constructionally sound, with three halves even insulating. Thicker walls are possible where necessary, but only in the coordination system by one half (12 centimetres).

# **CONSTRUCTIONS IN STONE**

Stone is a natural material, appearing as rock or ground into small pieces, ultimately sand. As material, stone is hard to dress, but it is very durable. It is a good conductor of warmth or chill, in a wall it is bad insulation. Stone constructions can be used as collected, raw (without orthogonal shapes), as broken strata with a constant thickness, as hewn stones in regular shapes, and finally as hewn stones with connecting material.

Lintel is the simplest plain composition. Stone with small dimensions in profile and long length is hard to find. Such elements are very rare.

Overhanging is the only possible composition of bridging two posts or walls with smaller elements.

Corbelling is a symmetrical overlapping system: a system with vertical stresses only. The result is a false arch.

An arch is composed of hewn stones over a span, with the final element: a topstone. Each stone is hewn in two directions and the composition has vertical and horizontal stresses.

Spatial compositions include a false dome with corbelling (Rovero 2014), and a real dome or cupola with the use of an arch.

#### **Drystone: collected and selected stone**

The simplest composition can be built with raw stones, collected on stony terrain.

Collection can be the result of clearing fields and pastures or of special collecting for building.

Collected stones are without any exact shape: the selection of them is skilled work, as is the building itself.

Each stone in the second layer has to 'sit' in the right place, overlapping two in the lower course.

Corbelling, as a spatial composition with horizontal courses of raw stones, is professionalism at the highest level. It can be found in prehistory: tombs between Saudi Arabia and Yemen are from the fifth millennium BC (Steimer 2001).

# Drystone of broken strata

Stone elements of thin strata, broken in quarries, enable elements with the same thickness, which assure better constructions with a controlled shape. Raw stone cannot compose even walls or exact curves, stones with set dimensions can.

Rough stone courses have to be cut into smaller pieces. The stone is broken into the same thickness, but can be cut in optional dimensions and shapes. Hewing also allows additional elements, such as lintels, pinnacles or benches.

#### Constructions in hewn stone

Compositions made of stones with controlled thickness have regular building surfaces: vertical walls, precise roofs with pinnacles, also openings.

Buildings with controlled elements can be made more quickly and easily.

# Stone constructions with binding material

Drystone can be fixed with other materials. Thin stone wedges can be used for levelling, and clay or mortar on the wall surfaces.

Small stone wedges are used only for levelling horizontal layers, not for construction. This system makes work easier.

Some more pretentious buildings in drystone use clay for the final covering, in whole or partially, as filler between stones on the front only. This is done for sanitary reasons: spaces between stones are ideal for nesting insects.

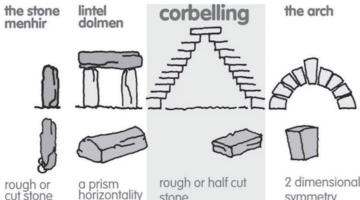
#### STONE CONSTRUCTIONS

cut stone

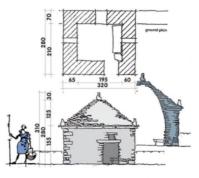
#### 5.4.1 Architectural elements in cross section from a menhir to an arch:

- a) a menhir is just a vertical stone and can stand singly or in lines c) corbelling is composition of horizontal courses of stones
- b) a dolmen is a composition of a lintel and two posts
- d) an arch is a flat composition of hewn stones

While a menhir is not yet a construction, a dolmen is a modest shelter, a corbelling composes a false dome, and an arch in 3D is a real cupola

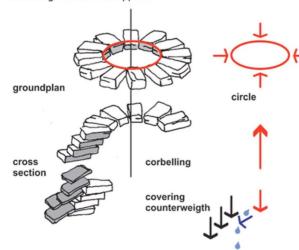


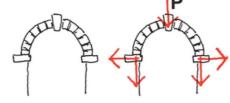
2 dimensional cut stone, symmetry



5.4.2 Kazun in Croatia is a typical object made of stone broken in quarries.

5.4.3 Corbelling in cross section can be seen as overhanging; the final composition in space, a 'false dome', is a three-dimensional construction with all stresses in a vertical direction. There are absolutely no horizontal stresses and it can be built without any scaffoldings or technical supports.

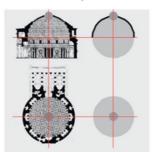




5.4.4 An arch in principle. The vertical stress is divided at both sides into horizontal and vertical directions. Horizontal stresses are problematical - the arch needs firm walls and cannot stand on columns only.

#### 5.4.5 An arch in principle.

An arch in three dimensions becomes a dome. The first construction of a cupola is the Pantheon, built from the first century BC to the beginning of the second century AD. It has an exact construction - a globe can be drawn. because of the same dimensions of width, height and depth (sketch B.J. after Fletcher).



#### The arch and dome

Simple building construction starts, with a menhir: but this is not yet architecture. A single post cannot serve as architecture. A row of menhirs can show something more: direction or geometrical shapes as the first idea of an object with several purposes.

Two menhirs, posts or vertical plates, covered by a lintel, is a dolmen. Architecturally, this is the first shelter: covered and protected from three sides: left, right and above. Several dolmens can compose a room: a corridor, but it is narrow and long, mostly usable as a tomb in prehistoric monuments in Sardinia and in Brittany.

The next construction is corbelling, made of horizontal courses of stones, positioned one over another. The principle can be seen as a flat construction in cross section. The simplest usable object made in corbelling is a longitudinal corbelled construction. This can be seen in the grave cells of the Egyptian pyramids and in some wells in Spain.

The final composition of corbelling is a false dome with a square or circular groundplan. The most important thing is that it can be built without any scaffolding - just with hands and brains.

The Etruscans invented the arch in the second millennium BC. It opens possibilities for wider compositions. such as corbelling and, finally, a real dome.

An arch needs solid walls because of horizontal stresses. Important elements of this construction are two imposts, hewn stones and the topstone. All the stones are cut at least on two sides. The topstone is bigger, heavier and always ornamented: it shows its important role. The imposts are visible, but not so richly ornamented as the topstone.

All arch constructions need scaffolding and the most critical moment is with the removal of the scaffolding when the quality of the composition can be proven.

The final composition using the principle of an arch, is a dome or cupola. It is an arch in three dimensions, rotating around the central vertical axis. The first dome was the Roman Pantheon, which was completed in the first century AD.

It is important to note the historical facts: the arch was invented by the Etruscans. The Romans conquered them and destroyed the nation in the first millennium BC, but took over their invention, which was developed in three dimensions.

All such constructions need solid walls.

Walls can be built of massive stones or stone plates, and can be constructional or merely decorative. Stones can be built into walls as a dry construction or can be bound with other materials: some pieces of stones as wedges, sand or mortar, finally with concrete.

# **CONSTRUCTIONS IN WOOD**

Theory and practice are very close in wood constructions. Hewing a trunk is practical work, using a circle and a square. Horizontal, vertical and diagonal directions are the guide. This not only draws the theoretical scheme but means simplification in sawing the beams and joining them together.

The first problem is the profile of the beam. A natural trunk is essentially circular. A simple wall construction of trunks cannot be sealed, there are problems with connections between the elements. A usable beam needs an orthogonal profile: a square or a rectangle. These elements compose a constructionally sound and sealed wall (Juvanec 2012).

Practice follows these elements: a trunk is circular, a beam can be rectangular for being composed together. Circles are joined together with a lot of wasted space, beams are not. Sawing lines are stretched. Wooden joints use these principles (Zwerger 2012). Theory is much closer to practice than we think: the basis is a circle with a square inside and the leading lines are horizontal, vertical and diagonal (Werner 1988).

Use of theory in practice is simple. There are three geometrical figures (circle, square, rectangle) and only three directions: 0, 45 and 90 degrees. This isn't a limitation but order, with simplification and the final result: harmonized elements as beauty.

A circle has only one dimension around the centre: the radius. The symmetry of a circle is circular.

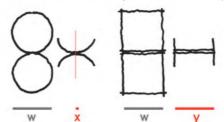
A square has only one length of baseline, one angle and one diagonal. The symmetry of a square can be seen in vertical, horizontal or transverse directions (Juvanec 2012).

The composition of a circle and a square has simply one datum: the baseline. If the side of a square is 'one', its diagonal – according to Pythagoras – is the square root of two (because one squared plus one squared is equal to two squared).

#### **CONSTRUCTIONS IN WOOD**

# **5.5.1 A construction of circular logs is problematic:** connections can be neither stable nor sealed.

A firm construction can only be achieved with flat profiles.



#### 5.5.3 The theory of a square is closely connected with its diagonal.

If the baseline is equal to 'one', its diagonal is equal to the square root of two. This diagonal is the diameter of a circle.

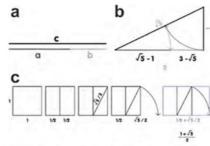
The relation between a circular trunk and a square beam is defined by  $\sqrt{2}$  – upward and downward.

#### 5.5.4 a) Golden section in lengths:

dimension c is proportioned by a and b.

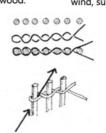
In practice it can be calculated as: length b is 1.61..., if length a is equal to 1. b) This can be composed with the help of a diagonal of two squares: this diagonal is equal to  $\sqrt{5}$ .

c) The geometrical body can be drawn with help of the diagonal of the square's half.



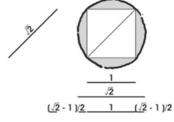
**5.5.6 Palisade wall stand without any binding** - if the terrain allows. A palisade in soft soil has to be bound with branches or split wood.

front view cross section view

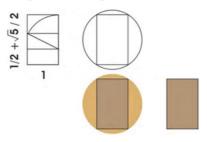


# **5.5.2 Theory in practice:** the largest rectangular profile that can be hewn from a circular trunk is a square.

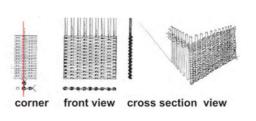




**5.5.5 A profile in golden section** can carry the biggest load and a beam with such a profile does not bend. This construction can be stronger and bear a higher load with less deformation.



**5.5.7 Wattle** has a firm vertical construction and movable horizontal elements for filling the panels. Problem: any interlacing material opens a free space in the bearing construction. This space allows wind, sunbeams and views through the panel.



A rectangle has its origin in a square, with the final shape as a board. The most usable beam has a square profile, but the best bearing strength is the golden section.

The golden section is a relation between lengths and can be seen in nature, as well as in the human body. In length this proportion can be expressed as

a:b=b:c

if

c = a + b

The length 'c' in the golden section is described as the relation between lengths 'a' and 'b', if 'c' is equal to 'a' plus 'b'.

The golden section as a geometrical figure can be composed of a square and the diagonal of its half. Composition in a rectangle:

 $1: (1+\sqrt{5})/2$ 

A profile in golden section is the most effective, able to carry the biggest load with the smallest use of wood (Kusar 1999).

This is the most sustainable use of the wood and many trees left for our descendants.

We can find important objects in the golden section, the most important being the United Nation building in New York, designed by French architect Le Corbusier.

Wood is not a material for only single storey buildings, modern houses today may have four, six or even more storeys (Zuerich, Vienna, Koper).

#### Palisade and wattle

Palisade is a system of vertical posts, in which the elements are dug into the ground.

If the terrain allows, this composition is complete. If it doesn't, posts have to be connected with wicker material, supple or split branches.

This is the most simplified system and allows curved lines. The first known construction of this type is an Irish crannog, a circular wall around a fire, covered with a conical straw roof.

Wattle is wickerwork: it has a vertical construction with sticks, which are interwoven with softer branches. The surface shows its woven structure, but the problem is permeability of light, views, wind and chill. Wattle is also the simplest filling material for frames, used primarily for baskets.

# **Log Constructions**

Log construction: log over log is the most primitive construction of logs, in which the horizontal elements are just set one on top of another.

This system allows a corner, but this construction is covered only by half: one log shuts the surface, and the space between two logs is open.

This stave architecture or log on log system can only be used for objects for drying: hay sheds, sheds for nuts or chestnuts.

Log construction with notches has to be used for real walls with a shut surface. Here we can use simple mathematics: each log is sawn to halfway.

One half sawn log plus one half sawn log composes an even construction.

The mathematical calculation is thus as follows:

$$\frac{1}{2} + \frac{1}{2} = 1$$

For a connection between logs composing a wall, alternating sawing is needed. Mathematics again:

$$\frac{1}{4} + \frac{1}{2} + \frac{1}{4} = 1$$

The sum is always the same: one, but in the latter system a constructionally sound and sealed wall is built (Juvanec 2009a).

A problem is the quality of the logs: circular logs are natural trunks that are not even, and they are narrower at the top. If necessary, the connection between the logs can be sealed with other sealing material. This stave system can be used for simple objects only.

Half joints or a timber construction with half-trimmed logs is the most usable in carpentry.

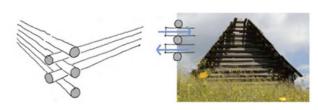
The thickness of a wall is very important for its insulation, thicker material is a better insulator.

The best joints can be built in trimmed logs, the best insulation with whole logs, with a circular profile outside.

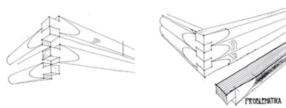
A timber construction with half-trimmed logs meets both needs: thick logs in the wall and partially hewn logs at the edge. This system can be found in remote regions or in countries with less wood.

#### **CONSTRUCTIONS IN WOOD**

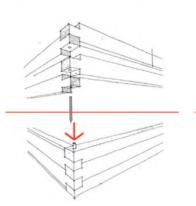
5.5.1 Log on log works on the principle of 'shut' and 'open', whereby the free spaces between the logs are the same width. This construction is possible – and ideal for drying sheds. Example: Pokljuka, Slovenia.



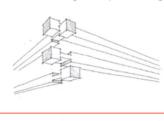
**5.5.3** An interesting system of half hewn logs provides a firm edge joint with a circular trunk, in the wall it works as insulation material. The curves are decorative, connecting the flat surfaces of the beam with those on the circular trunk.



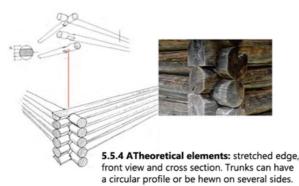
**5.5.5 Hewn beams** lie one on another: the joint has to be fixed with a pin.

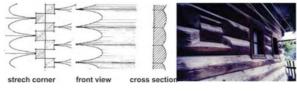


5.5.6 The beams are cut to a 1/4, with the overhang of the profile's length 'one'.

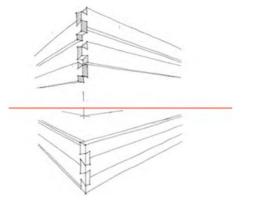


**5.5.2 Logs are 'sewn'** by 1/4 each, with an inner space of 1/2. This is a firm construction system, and very decorative. Example: Pokljuka, Slovenia.





**5.5.7 There are several systems of dovetails:** visible and hidden, flat or spherical.



Timber construction with pins uses a transverse movement, prevented with the 'groove and notch' system, but in and out movement is possible. Pins are needed for such occasions. Pins are made of very hard wood. They are vertically inserted into holes, alternately in each beam. The edge can be even and fixed. The inner pin cannot be seen from the outside. A pin connecting only two elements has a head and a point: the head prevents it falling out, and the point enables exactness of the whole composition. A wooden pin works only when swollen; it uses the moisture from the air. A parched pin becomes smaller, thinner and falls out of the construction. On the other hand, iron and steel nails work with the help of deformation.

Timber construction with overhung timberwork is the strongest construction in wood, where pins are not needed. The beams are joined alternately:  $\frac{1}{4}$  and  $\frac{1}{4}$ , with the solid part of  $\frac{1}{2}$ .

The overhung part can be at least as long as the profile: this means a square in cross-view. The beam could of course be longer – but without any practical reason.

On the front, the overhangs are visible as the profile of the beam, as the length of the overhang plus the shadow of the first element (Zwerger 2012). In normal view, the intersection of the beams can be seen as a decorative element on the elevation. It is not, it is pure construction.

Dovetail construction (visible, open and hidden) is in a visual sense the most interesting system. The principal characteristic of the dovetail system is the design: the shape of the joint prevents it from pulling out.

The dovetail system provides two possibilities: open or hidden. The open system can be seen and, in some places (in Germany, for instance: Werner 1988), the front pieces are designed in various shapes: animals, people, even as letters of the alphabet (Zwerger 2020). A dovetail can be straight or oblong. The latter is very hard professional work, but spherical surfaces are laid more exactly, which means that they are not only more decorative, but more constructionally sound (Juvanec 2012).

The operation of the hidden system in dovetail is the same, but the details are hidden within (Zwerger 2020). It is not as strong as the open variant, but the outer corner is even, without any visible details. A hidden dovetail is used mostly in furniture; it can't be achieved with primitive tools.

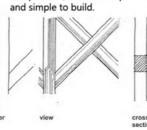
#### **CONSTRUCTIONS IN WOOD**

5.5.1 Slovene kozolec/hayrack is perfect wooden construction. 5.5.2 The timber frame is composed Some tens of thousand of them are spread over all Slovenia. except the Karst and the Pannonian plain. Example: Locica.

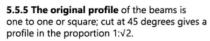
of vertical poles, horizontal tie beams

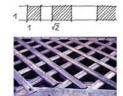


5.5.3 Cuts at an angle of 45 degrees show a harmonized symmetrical composition, which is simple to cut and simple to build.



5.5.4 A frame system can be covered on either side. An inner covering shows the construction, it is decorative and use shade for regulating the interior climate. A covering on the outer side protects the frame and allows more space inside



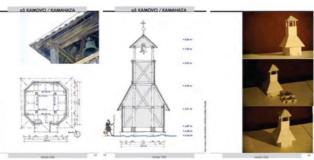


5.5.6 The theory of this system with interior boarding shows the construction, in practice it appears in several vernacular economic buildings (pigsty, Slovenia).



5.5.7 Belfry with octagonal basis (crossbeams) and vertical frame construction of four beams. The body provides horizontal stabilization and is covered with planks.

Pictures from documentation: groundplan with detail, cross section with all dimensions, wooden model from the exhibition, Kamovci / Kamaháza, Slovenia (Juvanec, Benko 2016).



# **Timber Framing**

Timber framed construction enables several executions of panelling. It is only a construction, filling the spaces between the beams is another problem.

The main problem of the frame system is its construction in cross direction: theoretical rectangles can be pulled downwards with side stresses (wind, physical influences, bad, unsealed details). Vertical and horizontal elements of a frame need transverse connections as brackets. The bracket can be just a short lath at the corner or a system of crossed beams or a long beam over the whole construction, or as latticework.

The development of church timbers is instructive, starting with simplicity in basilical roofs with gentle slopes, more complicated timbers in gothic architecture and three-dimensional timber constructions in baroque. The timber in a basilica is a simple triangle of rafters and tie-beams, supporting by intermediate posts. Gothic constructions have longer spans and steep slopes, the timber is often double, with a lot of supporting elements and it bears the ceiling - in the beginning flat coffered ceiling, later also curved surfaces. Baroque roofs cover complicated groundplans with a lot of circular or semi-circular shapes and have to be composed as three-dimensional constructions with a lot of brackets.

Kozolec / Hayrack is the most interesting example of wood construction found in Slovenia. This wooden object is a free standing, stable, permanent, mainly wooden, vertical, open but roofed object for drying and storing on laths. Yesterday it was grain. Today hay is mostly stored. A kozolec/hayrack has flat fronts of horizontal and vertical beams, connected by a transverse latticework. This means the front is firm, stable. The spatial construction is thus composed at least of two fronts, connected in depth with a stable plane construction (Juvanec 2007).

The construction of a kozolec/hayrack consists of at least two gables, connected by a longitudinal grid of wooden beams. The gable is constructed of two posts and two tie-beams - the upper one bears the timber. The lower part has the same width and height - it is a square. The timber is the same geometrical form, but rotated by 45 degrees. The lower tie-beam is equal to one unit, the upper one is the square root of two or half of a square.

The longitudinal unit is a composition of two horizontal beams, connected with posts and diagonals as bracing (latticework). The length of one field is normally 'one', but it can be multiplied, up to eight units, and the object can be almost 24 metres long.

A kozolec/havrack has existed in the Slovene ethnic area or at least five hundred years, even on poorly stable terrain, on marshland. It can be understood as a connected, interwoven construction in all three dimensions.

Using a square and its diagonals follows the theoretical principle of order: only three dimensions exist. It can be composed with only one dimension: width, other dimensions can be determined by a right angle and the square root of two (Juvanec 2007). This is not a limitation in designing the object, but simplification and avoiding mistakes in hewing the wood.

John May cited: 'Juvanec wrote about the kozolec/hayrack: this is the only ethnic architecture' (May 2012).

Frame construction with board coverings is the best protection for its contents. The walls can let in air and view only with drying sheds. Stables or even dwelling houses for people have to be closed, sealed. Frame constructions can be covered on inner or outer sides with boards or planks. An outer panelling covers the construction, the entire construction is visible if the panelling is on the inner side.

An inner position of panelling shows the frame.

This exposure is bad for the wood, but effective for interior climatic conditions. The dimensions of the logs in the frames of vernacular architecture are around 15 x 15 cm (12.5 x 12.5 in old systems with feet), with deep shadows – especially at noon, when the sun is shining most warmly (Juvanec 2012). Shade and the damp surface beneath it is a perfect cooling system, especially in a hot climate.

Boards cover the constructions and are good protection for the construction beams, which are more valuable than the boards themselves. It is cheaper to replace the boards than the construction beams.

Both cases can be found in vernacular, traditional architecture in countries rich in timber. All the natural conditions (sun, warmth, coldness, availability of materials, skilled masters) are used for sustainable architecture, successful not only for man as builder and user, but equally for natural resources.

Half-timber is a frame construction, filled with wattle, wattle and daub, adobe or fired bricks, rarely in stone. This filling can be rough or covered with plaster and whitewashed with lime. The last shows its construction and filling and can be extremely decorative. This system can be found mostly in northern France, Germany and Great Britain.

Wood is a perfect natural material: it is available, easy to treat and warm to the touch, it is an almost human material, close to its user. Its quality depends on the choice of species, of growth in nature (elevation, density of growing, weather conditions), but it has to be cut at the proper time (in winter: when the trunk is 'sleeping', with less liquid, and transport is not dangerous, Juvanec 2012), with proper drying (oak needs seven years for drying, changing its position at least four time a year), and the biggest problem is warping.

Wood is very popular in all architecture because of these properties.

# ROOFING

Timber is an essential part of a house. A roof is the upper part of a building, protecting against almost all vertical influences: water (rain, snow), wind and heat, and of course also physical invasions. A roof has a construction and covering materials. The construction supports itself – some bearing constructions are extremely heavy because of the spans. A roof construction can be simple or double. For longer spans and for heavier material, the construction is doubled: the primary rafters carry a horizontal top beam – and secondary rafters stretch from this beam to the overhang beams. Rafters can be tied with a tie-beam, which connects them and composes a triangle – a very stable construction. The most interesting are constructions of thatched roofs in windy regions, where the saddle constructions are flexible. In extreme winds (the bora for instance, in Karst regions) it bends itself and returns to the original position after the wind weakens. The roof can be single-sided (such as a lean-to roof), the most usual roof is a pitched roof, but it can also have hips or the gables can be open. The inclination of roofs depends on the covering material and climatic conditions. An inclination over 45 degrees is suitable for countries with a lot of rain; in general a slope of one to one (45 degrees) is used – with thatching or wooden boards. Gentle slopes can be made with materials that allow fixed joints – sheet metal mostly, which is possible to bend.

Stone can be used as roofing material too, not only its construction. The simplest self-supporting system in stone is corbelling, but it is less used because of the short spans – except for historical tombs and herdsmen's shelters. A stone roof is composed of thin flat stone plates, slates, joined to one another with a third element, covering both. The most effective is one to one, or 45 degrees. Stone roofs are today expensive and, given the technical difficulties, are less in use. In the past, it was the only possibility in regions with a lot of stone.

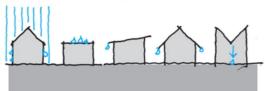
Thatched roof: straw and reed are the most natural materials used for roofs. Straw consists of stems of cereals and is a softer material, with a smaller profile, while reeds have thicker blades. Straw has a longer lifespan because of slower growth in dry locations; reeds need a lot of water and ripen faster, but their lifespan on the roof is shorter than that of straw. Sheaves are tied on horizontal laths and levelled with wooden tools. The cereal ears are turned down into the roof and help slower drying of the straw. Willow branches are used for tying onto the laths. Cereal straw is use for the whole roof, except for the top, for which rye straw must be used, because of its length.

Wooden boards and shingles can be used where wood is available. Wood is not a perfect material only for the construction, but also for filling and the covering.

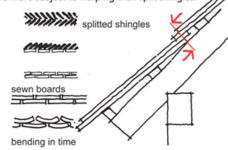
#### ROOFING

#### 5.6.1 The principle of the roof follows weather conditions:

rain, snow, wind and sunbeams (with their heat and radiation effects) The simplest roof is a flat surface, but it has problems of permeability, even a terrace has to be inclined; the most normal shape of the roof is a pitched roof, its reverse position as a 'butterfly roof' needs an inner outflow. The ideal roof doesn't exist.

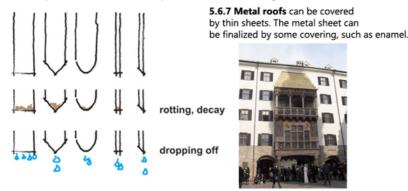


5.6.3 Wooden boards and shingles are laid on horizontal laths. The problem is overlaying: two strata of double covering have four thicknesses of roofing material at the connection point. Sawn boards are more subject to warping than split shingles.



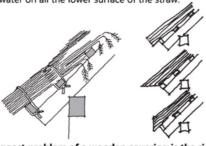
# 5.6.5 Boards are sawn from a beam, shingles are hand split.

The main problem is the moisture: water has to be removed as soon as possible. The most problematic is the far end. where the water drips off. This can be done by narrowing the lowest surface: a large surface defeats the material. The final point has to be as small as possible because of rotting.



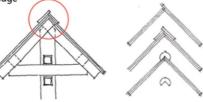
#### 5.6.2 Thatched roof with straw or reed:

trusses of straw have to be oriented with ears upward because of slow drying. The edge can be cut in perpendicular, horizontal or vertical positions. The worst solution is horizontal cutting because of retaining water on all the lower surface of the straw.

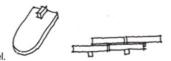


5.6.4 The biggest problem of a wooden covering is the ridge.

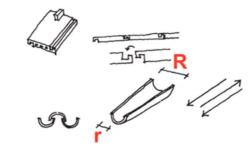
The simplest solution is overlapping (in the direction of the wind); the boards use the same system, but in a horizontal position. which can be changed over time; a hewn log is very often used on the ridge



5.6.6 A flat tile needs a 'nose' for fixing on the laths and they are composed together with overlapping. Flat tiles with grooves can be laid on the roof in one level only and the roof is very much lighter. Folded 'Latin' tiles are laid alternately on the laths but have different ends: 'R' is wider than 'r', which allow this alternation.







A problem with boards is warping during drying. This can also be the main problem in roofing.

Profiles are joined into constructions. Joints need provisional strengthening - until the wood bends longitudinally. Constructions are much stronger after this bending.

A shingle is split wood and has several types. There are two types in Slovenia: in the Gorenjska region it is split as a 1.2 to 1.5-metre long and a good centimetre thick element. These shingles are laid in two layers, overlapping by half (Juvanec, Zupančič 2014). The Carinthian shingle is smaller, up to 90 cm long, 10 wide and up to a centimetre thick, laid on the roof in two, sometimes three layers in a herringbone pattern. In Slovak mountains can be found hewn shingles with grooves.

Shingles and boards are two different types of wooden material – with very similar use. Shingles are an older and more primitive system: the trunk is split with an axe. A board is sawn, with a more advanced tool: a saw. The difference between the two systems is the surface: while shingles have whole, undamaged ribs (veins) and a rough surface, a board's surface is smooth, but the ribs are damaged. Damaged ribs decay, whole ones have a longer life.

Other systems of shingles exist as a roofing system, depending on the climate, available materials and types of wood, the experience of workers and their tools. Religious buildings have complicated groundplans (with apses, towers and projecting roofs). Smaller elements are more suitable for such objects, allowing circular and spiral shapes. Shingles were historically used on smaller religious buildings, especially in romanesque architecture, with a lot of rotundas, and ossuaries with circular groundplans.

The biggest problem is the ridge, because wooden shingle can't be bent. The only way of avoiding leakage is for the slopes to overhang, turned in the direction of the prevailing wind or a trunk, hewn and upturned to the ridge.

Pan and barrel tiles are made of fired clay: simple flat tiles, tiles with notches and barrel tiles.

Tiles with notches are linked one to another with notches. They are always rectangular, because the vertical edge has a notch throughout the length: one on each side, but upturned cyclically - above on the first side and below on the other. A projection sits in the notch. Because of the slope of the roof and the notches, this system is watertight.

The main difference between the use of simple flat tiles and tiles with notches is the depth of the roof: plain tiles have to be overlapped horizontally and at the vertical joints - the system is covered by four tiles

with at least some centimetres. This means more tiles have to be used and, because of the large number of elements, the roof is much heavier. Tiles with notches are doubled only some cm in a vertical section. The construction is made of one layer only, fewer tiles are used and the roof is lighter.

All flat tiles have 'a nose' for placing them on the laths.

The third system comes from Roman times: barrel tiles. This system was originally composed of two differently shaped elements – one flat with wraps and the other, smaller, as a covering. Today's barrel tiles are simplified into a single tile. It is non-symmetrical, with two different wraps, and is bigger and heavier at one end than at the other. Barrel tiles allow gentler slopes and are well known in all Mediterranean areas as 'Latin tiles'. The ridge can be covered with the same elements.

All metals can be used as roofing materials, all metals are waterproof. The choice is in material, its thickness and possibilities of work (handwork or industrially prepared elements).

Lead is heavy, but simple to work because of its softness. It can be built into any corner, and can be shaped with a hammer only. Its weight allows only extremely massive constructions: wide walls and massive domes, such as in oriental baths. Lead doesn't corrode.

Copper is also a soft material and can be worked by hand. It does not corrode but in time becomes covered by a noble thin, green patina, but it is not cheap.

Flat metal sheets are mostly used in modern architecture (mainly steel: galvanized with zinc, painted or coated with a plastic covering). Sheets can be connected with wraps.

Self-supporting elements such as corrugated sheets are more useable, with the undulations oriented in the direction of the slope. Connections are simply made with overhangs.

Gold is the most valued metal, mostly for decoration, but as gilding can also be used as a roofing material, displaying richness with glitter and glamour.

The gilding is made of extremely thin sheets of gold, but a lot of gold is needed for larger roof surfaces.

Dome des invalides in Paris has a golden roof, covered by 550,000 thin sheets, but this means twelve kilograms of gold (https://frenchmoments.eu/dome-church-les-invalides/ 25.05.2021).

Some other firm materials can be used for roofing, but mostly in combinations: wood or steel or cast iron for the construction and flat elements for covering.

Glass is a very usable material, it is transparent or only translucent, but is brittle and heavy. Transparent roofs are sometimes desirable, especially for big spans of sport objects and public spaces (lobbies, halls), where natural light is needed. Glass is also often used in small parts of the roof, for creating a special atmosphere: for instance in oriental baths, where the ceiling is a dome filled with stars. This is also the case in some religious objects.

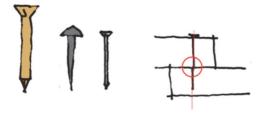
Corrugated panels of reinforced concrete (asbestos and mineral wool) are very popular as chip material. Building such roofs is simple and very quick to erect because of the large elements, and suitable connections with overhangs.

The Swiss firm Eternit was extremely successful with its corrugated panels after the Second World War, when this material saved thousands of lives – until it was discovered that asbestos is cancerous. This reinforcement was later replaced by mineral wool.

#### **SMITHERY**

**5.6.1 Connecting elements can be wood or iron.** A wooden pin has a sharp end and a big head and it works only if swollen and needs to be at least one fourth out of the connected beams – for collecting the moisture from the air.

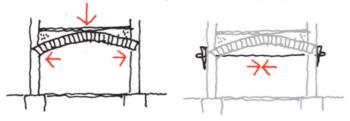
An iron nail or tack is hand forged and is sharpened from the beginning to the end. A modern wire pin is made of a steel wire. All the connection elements work only after deformation.



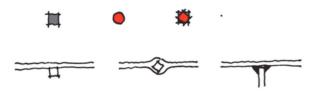
**5.6.3** Primitive cultures believed that a bird on the roof's ridge protects against bad ghosts. A clay hen can be found on roofs in countries with clay, roofs in regions with iron craft are equipped with wrought-iron cocks. This image can be made as a three dimensional statue, but flat decoration is more usual, and on public buildings, such, as castles, churches or tombs they can show the direction of the ridge or can be made as a rotating device, showing the direction of the wind or fixed, directed towards north. On the photo can be seen a wild cock or grouse in Kropa, Slovenia.



**5.6.2** Reinforcing and pre-reinforcing is not a new invention. Its simplification in wood can be found in a Slovene kozolec/hayrack. Corbelling and an arch are the primary principles in masonry: the first without any scaffolding, an arch needs it to be built. A brick construction has vertical walls and horizontal over-spans – the simplest is an arch, which needs extremely massive walls because of horizontal stresses. This problem can also be solved with iron bands, whereby the tie iron is fixed on both sides with big wedges, well seen in the elevation of a building. This constructional principle allows walls with usual widths.



5.6.2 Wrought iron bars can be used with a square or circular profile, square bars can be straight or torsion bended.
The main problem is connection: bars can be wrought together, can be caught into a sling or in modern times welded.
All the connections are extremely decorative and allow a number of ornamental shapes, but they are primarily made for strength reasons.



# **SMITHERY**

Blacksmithing is the work, art or trade of a blacksmith dealing with wrought iron. Its chemical designation is Fe (ferrum) and it can be melted at over 1500 degrees centigrade.

Rough iron comes from iron ore by blasting it in smelting furnaces, using coke or in smaller furnaces charcoal. Iron was introduced in the second and first millennium BC, immediately after the copper and bronze ages. It is well known because the finds of cold weapons, spears, swords and knives. Iron today is used mostly as steel, with controlled carbon and is very useful, but the surface needs after treatment because of strong corrosion. Steel elements are very suitable for grandiose constructions, but is dangerous because of its relatively low threshold of inflammability.

Rough iron is a heavy material and can be forged by a hammer when it is hot and relatively soft. It is hard when cold and can be used as rods in plane or in spiral shapes.

Nails are the simplest element of wrought iron, used for connecting two constructional elements, mostly in wood. A tack has a bigger head and longitudinal, slightly conical body with a point. It works after the construction's deformation. This is the same as with a wooden pin, but it needs to be open on both sides, because of receiving moisture from the air. Nails are visible at their heads, but the connection is closed. Today we use industrially made steel nails with the same profile throughout the length.

Window grill bars (historical 'grille' in British Museum) are a very important element of vernacular architecture for protecting the entrance into a house through windows. A vernacular house is mostly a single storey building and the windows are easy reachable. Grill bars secure the contents in the house, also young girls against boys – before marriage. This was historically more important than today. Grill bars can be a very simple cross, which reduces the opening surface, but is open to the air and sun light. Wrought grills can be all wrought or connected with pins and are a very important thing in the homestead. Vernacular architecture doesn't know decoration, but is decorated (Juvanec 2009): window grill bars are in first place a practical element, but their importance is presented in their design – simple crosses, ornament or more pretentious shapes in the construction. Technically they are in-built into the construction of the walls – for more security. Some solutions can be found as an outside element in front of the window and very rarely it is an execution that allows opening the grills. This example is not very safe.

Window shutters, all in iron, are also mounted in front of the window opening, for physical safety and for protection against daylight, near to iron workshops also against noise: sledgehammers are not very silenced

and the same applies to handwork at the anvils. Iron on iron can be very noisy. Window shutters are made of iron tablets, strengthen by iron strips with hinges on one side and simple shutters on the other. Iron shutters have to be painted because of corrosion.

The most important characteristic of a door is shutting, but the most practical elements are the hinges. They are hardly ever in another material than wrought iron. They have two parts: flat strips on the door and bearing parts on the frame, which allow the door fold to move. Iron elements are also used for the fortification of the wooden folds with massive tacks. Knockers can also be important part of the door, but they are in use mostly in cities and villages, in remote homesteads they are rare.

The oldest locking devices in the Alps is a wooden bar over the whole width of the door, attached on both sides to the stone walls. In Yemen can be found the oldest wooden locks with holes – like modern steel locks. The key for this lock was big and clumsy. The wrought iron keys in Slovene granaries are more practical. They are folded, but their length in a folded state is at least 20 cm. Normal locks are made of steel, though, while the oldest and the biggest are in wrought iron, except for springs, which have to be in elastic steel.

The stone arch is an important element of the construction in rural houses. In spite of massive stone walls, the horizontal forces can be too strong and the walls can stretch. Horizontal tie irons can be used in this case, which connect the two walls under the arch. The iron rod usually has a square profile of an inch (approximately 2.5 cm), sometimes it is spiral twisted in the middle, and some examples can be found with a small decoration in the centre. The tie rod can be stuck in the stones of a wall inside, but usually is fixed on the outer sides of the walls with a massive cross bolt, also up to one metre in length.

Metal covering was in use more or less in the last century, but mostly as a temporary covering and for industrial, including military sheds. More valuable architecture can be covered by copper, but it is rare because of the price. Another usable metal is lead, which is soft and easy to bend and is very suitable for uneven surfaces and can be found mostly on eastern religious architecture, on dome complexes with numerous connecting edges and it is very heavy.

Decoration starts with symmetrical compositions in window grills, where the main crosses protect against breaking into the house, but the connecting elements such as rivets and tacks can be designed more ornamentally. Unfinished diagonals can be bent and with sharp points also help to protect against the reach of hands. Dense grills are also good protection against the sun's beams.

Decorative elements, connected to the fire are also made in metal: candlesticks,

Another decoration in wrought iron is animal figures on the top of roofs: hens can be sat in clay on the end of ordinary houses, but metal cocks can mostly be seen on churches, which are turned by the wind and show its direction.

Iron elements – tacks, grills, shutters can be found in locations near to lively iron craft, in Slovenia for instance in the Gorenjska region, even the typical wooden object 'kozolec' hayrack can be connected with iron tacks.

Tools: smelting or blast furnace for acquiring iron from the ore, smith-hammer and sledgehammer (the last also on a water drive), anvil, pliers and models for forging, bellows for the right temperature of fire (water driven). The results of smithery are tacks, wrought hand-tools, connecting elements and hinges, grill bars, iron shutters and knockers, candle sticks, decorative figures for demonstrating the wind's direction etc.

# GLASS

Glass is a non-crystalline, amorphous solid, often translucent or transparent. Naturally it appears only as volcanic glass; it is most often produced industrially by rapid cooling of the molten form. The oldest and most familiar is silicate glass, as a chemical compound of silica or quartz. It was produced in the 4th millennium BC in Mesopotamia, Egypt and Syria as vases, bowls, bottles and jars. It can be made as plain surface or blown glass, in vernacular architecture it can be found mostly in windows.

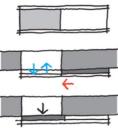
Glass exists as clear, transparent material or coloured with natural colours; it can be plain as plate glass or blown in 3D shapes, free or in moulds. Special glasses are pyrex, wired glass or safety bulletproof glass, it can have ornaments.

Glass in architecture is used mostly for windows, used for stopping the wind, partially heat or chill, views can be controlled. It is transparent or translucent, which controls the view and light, in some cases it can be painted for creating a special atmosphere. In gothic churches, the windows are painted and designed as 'roses', windows composed of small pieces of glass set in lead occur as paintings, especially in religious objects.

The first openings (used as windows) appeared in hearth-houses as an outlet for the smoke and for ventilation. They were shut with sliding panels and their dimensions were small – approximately 30 x 15 cm, positioned higher than a man's height – because of the smoke. There were a lot of slide windows on the walls, at several heights. Hearth-houses were not the same as we know them today.

#### GLASS

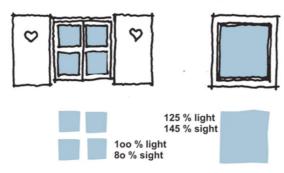
5.8.1 A slash window is the predecessor of a modern glass window with the possibility of opening. Vernacular architecture has slash windows as rectangular, horizontally shaped openings for hearth houses with an open fire. A lot of windows were placed high on the wall for removing the smoke, which was warm and so held in the upper part of the room. A wooden plate was – if necessary - slashed over the opening. With the opening shut, light was also excluded.



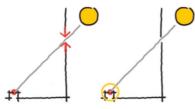
5.8.3 Architecture follows natural shapes, circular blossom inspired 5.8.4 Authors of important objects built hidden performances, circular windows, called 'a rose' (the rose in Chartres Cathedral, France), whereby a sunbeam was led on the proper date at the proper place. a cluster of blossoms inspired the vertical windows of gothic cathedrals Such compositions can be seen in gothic cathedrals, the one in (La Chapelle, Paris).



5.8.2 Small surfaces of glass were put into a frame with timber details (in a case of cracking remounting the frame was necessary): glaziers' putty was expensive. Glass frames normally had wooden shutters, in Slovenia equipped with small openings for light.



Chartres is well known, and Le Corbusier created the same pattern on his own birthday at the Notre Dame chapel in Ronchamp, France.



5.8.5 Modern architecture starts with comfortable groundplans, close to the users – given an impulse by Bauhaus' philosophy. Ludwig Mies van der Rohe and Lilly Reich planned the German pavilion for the World Exhibition in Barcelona in 1929 as a clear and understandable building with extremely big glass surfaces, connecting the rooms



Glass in the window is only the filling and needs a bearing frame, which can be fixed or enable opening. Windows with glass came closer to the man; they became more practical, controlling light, view and air in the room.

Windows with glass were made at first of small pieces of glass, because of its production and limited possibilities for transport to remote locations – glass is a brittle material and can break during transport. One of the first buildings with big glass windows was the German pavilion at the World Expo in 1929 in Barcelona, where transparent glass surfaces connected the rooms, making a new social life.

Stained glass serves as a medium for a better atmosphere, with a strong decorative influence. Red can be achieved by using gold. The location of a glass window is very important: some sunbeams can be directed on a specific day to a specific place - showing an important festive day, such as in Chartres basilica.

Glass is a very common material and this word can also be used for some special tools – glasses, for example. Two convex lens, composed in opposition, are used as a telescope or field glasses, a mirror is also in everyday use - plain glass coated with silver or chromium on one side, which reflects the image on the other. The lens is the most important part of all cameras.

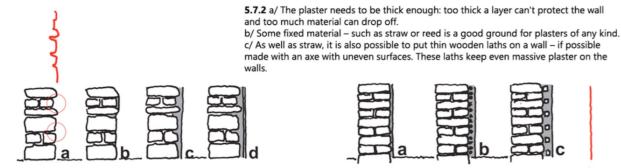
#### **PLASTERING**

5.7.1 a/ The problem of a raw wall is the uneven surface, full of indentations between the building elements, where insects could live.

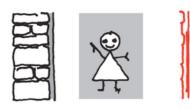
b/ The indentations are filled in, insects can't live there, but the surface remains uneven.

c/ Plaster fills the indentations, its surface is even, but it is not as hard as wished.

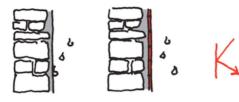
d/ The plaster needs a covering: the plaster itself makes the wall even and a covering protects it against physical damage.

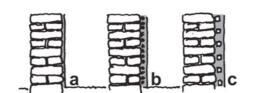


5.7.3 Colours on dry plaster can't resist light, sun beams, rain and wind. Earthen colours, put in the wet plaster, consolidate both materials in a durable complex with a long life, even if they are on the outer walls.



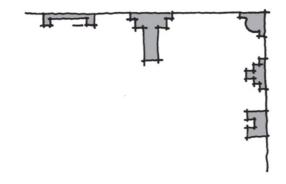
5.7.4 No plaster can be as hard as wished, and the common clay and lime plasters are permeable for damp, which is not good for the building construction. Plaster can be covered by ceramic plates, which are resilient against water drops and the wall remains dry.





5.7.5 Edges and other decorative elements can be in-built in the construction material, and it is possible on a grand scale – such as classical Greek or Roman architecture. Thinner elements such as borders, edges and cornices can be made in other material and fixed

Stucco is a system of several profiles, made in gypsum plaster, most widespread in baroque architecture, even for false constructional elements such as groins. Gothic constructions are composed of groins and supports, buttresses, other constructional principles can be found in the Baroque can be found but covered by decorative elements. They do not bear anything, and exist only as decoration. Gypsum can be poured into moulds easily and fixed on the wall plasters as lines or frames, with or without painted decoration.



# PAINTING AND PLASTERING TECHNIQUES

Some materials need surface protection and some have to be painted for a better appearance. Protection is needed against weather conditions, mostly against humidity, sun and heat. Humidity destroys materials, the sun can damage surfaces with its ultraviolet rays, and differences of warmth and chill ruin substances.

Painting is a very thin layer of material, resistant to some external influences. This protection has a limited lifespan and has to be repeated in time. Only modern painting materials are without pigment and can be transparent. Pigments are originally special earths, added to liquid. Those are mostly brown colours, reddish can be achieved by cow's blood.

On the Pannonian Plain can be seen a grey strip at the bottom of the whitewashed walls: the grey colour discourages chickens from collecting lime for hardening the eggs. Those buildings have walls open to the yard whitewashed really in white, the rear walls are dark, brown or red. The blue colour in the lime coating is a result of copper sprinkling of the vineyards against insects and other diseases.

Partly painted walls are only decorative: lime whitewashing in Arab countries around the windows is done for hygienic reasons - against insects - crosses and roses in the window corners in wood architecture of Slovakia is pure decoration, showing the importance of these elements.

Plaster is a building material, as a surface finish for coating and protecting inner and outer walls. Plaster is a thick layer of gypsum, lime or cement, mixed with water and sand, placed on the wall surface. This protection is stronger than painting, the problem is its thickness, which can peel off in time.

Plaster has to cling firmly and this is the most important problem: the drying of both wall material and plaster can split them and the plaster can fall apart. Smooth walls are not suitable for this, its surface has to be rough, with a lot of small or bigger elements, on which plaster can cling. The simplest aspect is chopping the wood, the surface of stone or brick walls are composed of bricks and connecting mortar and is suitable for good binding.

Clay plaster is the oldest, and also the most sustainable alternative to modern plasters, with a lower embodied energy than other plasters with their binding materials. Clay plaster needs to be reinforced, which increases its strength, it breathes and doesn't need to be painted.

Gypsum plaster has a very short time for its solidification: this is good but also bad news - the short time for

its finishing provides essential problems in work. On the other hand, gypsum plaster is very hard and can also be used as bearing material between wooden beams.

Lime plaster is the most usable plaster, as a composite of calcium hydroxide and sand, mixed with water. The final effect is achieved with the transformation of calcium dioxide into calcium carbonate (limestone). It is more flexible than gypsum and breathes better than cement plasters, but is not as sustainable as clay plaster.

Plaster is normally whitewashed with a lime covering, renewed at least every year.

The interior plastering covers the wall's construction and provides a good base for colouring. Lime plaster can be covered by lime colours: the use of material with the same base is important. While the plaster is rough levelling of wall elements, painting is its fine coating.

The walls in more pretentious architecture can be fitted with decorative details such as fresco, sgraffito and stucco techniques.

Fresco is a method of painting water-based pigments onto freshly applied plaster. The colours are made by grinding dry powder pigments in water, and they dry and set with the plaster, becoming a permanent part of the wall. Those paintings are durable to weather conditions and can also be found on the outer walls of some churches.

Sgraffito is an art of painting, made as cutting the coloured surface into the plaster. The plaster is tinted by the aggregate and the surface by the chosen colour, the incisions show the plaster's colour, scratches reveal parts of the underlying layers. This decoration is limited to lines mostly, but it is very useful on surfaces for highlighting building elements of the construction, bricks, columns, cornices etc.

Stucco is the most used element in baroque architecture, in which the elements are added to the wall surface, made of aggregates, a binder and water. A gypsum binder is mostly used because of its hardness and short time of hardening. Gypsum is produced by heating the rough material to around 150 degrees centigrade. When mixed with water, the dry plaster powder reforms into 'gypsum', which starts to set about ten minutes after mixing; the final hardness is achieved after three days. Stucco can be used as corner laths or line decoration on walls and ceilings. This is three dimensional decoration, the laths can be shaped in several profiles with simple moulds.

Stucco was the most important sculptural decoration in baroque architecture, placed not only on walls and edges, but also on the spherical surfaces of domes and arches.

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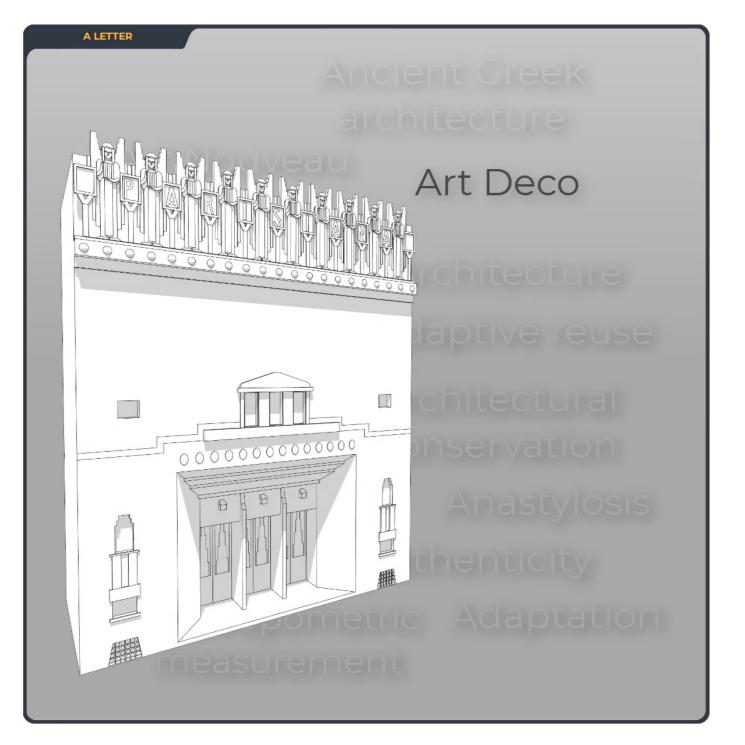
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# CHAPTER VI GLOSSARY OF HERITAGE MANAGEMENT

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# A LETTER

# Adaptation

Modifying a place to suit the existing use or a proposed use. It contains an array of strategies and measures that are available and appropriate for addressing adaptation needs. They include a wide range of actions that can be categorised as structural, institutional, or social. It is a rearrangement to original use with technical and social improvements for better use, for prolongation its life or for changing applicability.

# Adaptive reuse

Also called building reuse, refers to the repurposing of an existing structure or building for new use or new program. Adaptive reuse architecture introduces new programs into historic structures by converting them into something useful for the surrounding, like low-income housing, student housing, community centres, or mixed-use creative venues. That means that older place-making structures and facades are not torn down, but used and filled by necessary new programs.

#### **Aesthetics**

Experiencing, perceiving and feeling what is seen through a range of emotions - the body's response on an emotional level when perceiving what is seen. It considers what happens in our minds when we engage with aesthetic objects or environments such as viewing visual art, listening to music, reading poetry, experiencing a play, or exploring nature. The philosophy of architecture and art specifically studies how artists imagine, create, and perform works, as well as how people use it, feel, enjoy, and criticise it. Aesthetics considers why people like some works of art and not others, as well as how art can affect moods or even our beliefs.

# Anastylosis

Anastylosis (from the Ancient Greek: αναστήλωσις, -εως; ανα, ana = "again", and στηλόω = "to erect [a stela or building]") is an archaeological Archaeological term for a reconstruction technique whereby a ruined building or monument is restored using the original architectural elements to the greatest degree possible, combined with modern materials if necessary, ensuring that the latter are unobtrusive while clearly recognizable as replacement materials.

# **Anthropometris**

A comparative study of the measurements and capabilities of the human body. It derives from the Greek words 'anthropos' (meaning human), and 'metron' (meaning measure). Basically, each tool used in anthropometric studies serves as an identification tool. It is used to understand human physical variation, and in various attempts to relate physical to racial and psychological traits. In addition, anthropometry also involves a systematic measurement of the physical properties of the human body, especially the dimensions of the size and shape of the human body. The basic principle of anthropometrics is that building design must be adapted to fit the dimensions of the human body and human motion. Rather than people having to adapt to fit the design of the building. The importance of buildings that are in accordance with human needs, will produce ergonomic principles that are useful in daily activities.

# **Analysis**

Separation of any material or abstract entity into its constituent elements (opposed to synthesis). Is a process as a method of studying the nature of something or of determining its essential features and their relations. Is the process of breaking a complex topic or substance into smaller parts in order to gain a better understanding of it. Is a process of studying the object by its primary elements in technical, social and meaning sense and the relations between them.

# Ancient Egyptian architecture (3750 BC - 400 AD)

The Ancient Egyptians developed important architectural monuments, the most famous being the Great Pyramid and the Great Sphinx of Giza. Due to Egypt's location, buildings and monuments were predominately constructed using hardened mud, bricks and limestone, as a result of there being a scarcity of wood. Many of the buildings were aligned astronomically and built by slaves.

# Ancient Greek architecture (900 BC - 300 AD)

Ancient Greek architecture is best known from its temples, as well as developing civic, and religious ideals. It features diverse range of public buildings, ranging from open-air theatres and public squares to public monuments. Architectural design adopted highly formalised decorative and structural characteristics, with a clear evolution of architectural style through three defined orders: Doric, Ionic and Corinthian.

# **Architectural landscape**

Limited area with similar architectural characteristics. It covers a spatial unit, which has because of the special geographical, weather, cultural, economical and other circumstances similar architectural characteristics and its recognizable identity, by elements with their relationship between them and influences on the whole, in both applicability and visual sense. >> Cultural landscape >> Landscape

#### Architecture

Design and construction of buildings, literal translation from Greek: 'firm stand'. It has evolved over human history in response to our changing needs, innovation in building technology design, and changes in the way we view the world around us. Part response to society's functional needs and part creative expression, it offers the scope to shape our environment for either better or worse. The practice of architecture provides us with a built environment where buildings function as places of work, as homes and as public spaces.

#### **Architectural conservation**

From an architectural point of view it means all the processes of looking after a building or place to retain its architectural and cultural significance. In this are included processes (of use, construction and visibility) for retaining the original essence of a building, using original or other materials but with the notice, not to spoil the visual significance. >> Building conservation >> Conservation

# Art Deco (around 1925)

Emerged in France in the 1920's and quickly spread throughout the world. It was a glamorous, but eclectic movement that embraced modernism and traditionalism. It was characterised by using new materials, bold geometric form and a modern 'machine age' aesthetic, but at the same time it incorporated extensive and luxurious ornamentation.

# Art nouveau (1890 to 1910)

Was symptomatic of a struggle between the old and the new. Whilst it rejected some of the revivalist styles of the 19th century, it did adopt some of the elements of Rococo, with organic forms and applied art typified by Hector Guimard's Paris metro entrances. Notable exponents of art nouveau in architecture include Mackintosh and Gaudi. Art nouveau is known in different languages by different names: Jugendstil in German, Stile Liberty in Italian, Modernisme català in Catalan, etc. In English it is also known as the Modern Style

# Authenticity

Elements of the same origin, identity. All cultural properties must meet the fundamental condition of authenticity in order to demonstrate their Outstanding Universal Value. An authentic property expresses its cultural values in a truthful and credible way through a variety of attributes such as its form, materials, function, management system, location, spirit, etc.

# **B LETTER**

### Baroque architecture (1600 - 1755)

Architectural style of space and building design, with dramatic lighting and colour, illusory effects such as trompe l'oeil, and designs that played games with architectural features, sometimes leaving them incomplete. Its buildings typically include central towers, domes, portico, or other central projections in the main façade; usually with use of many decorations. As Baroque architecture coincided with European colonialism, it is a style that can be seen throughout much of the world.

#### Bauhaus (1919 - 1933)

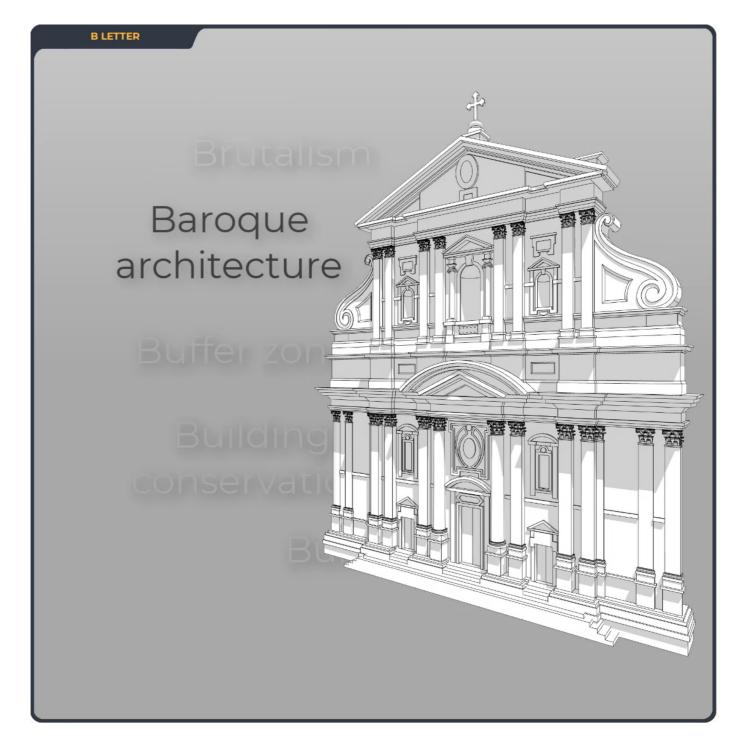
Architectural movement of sincerity as an architectural school with progressive political aims. Founded by Walter Gropius, the school eventually morphed into its own modern art movement characterised by its unique approach to architecture and design. Today, Bauhaus is renowned for both its unique aesthetic that inventively combines the fine arts with arts and crafts as well as its enduring influence on modern and contemporary art.

# Brutalism (Brutalist architecture) (1951 - 1975)

Descended from the modernist architectural movement of the early 20th century. Considered both an ethic and aesthetic, utilitarian designs are dictated by function over form with raw construction materials and mundane functions left exposed. Reinforced concrete is the most commonly recognized building material of Brutalist architecture but other materials such as brick, glass, steel, and rough-hewn stone may also be used.

# Byzantine architecture (330 AD - 1453)

Continuation of Roman architecture, but with influences from the Near East. Buildings increased in geometric



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complexity, the classical orders were used more freely, and the Greek cross plan was adopted in church architecture which often included complex dome structures supported by massive piers.

#### **Buffer zone**

Clearly delineated areas outside a Heritage property and adjacent to its boundaries which contribute to the protection, conservation, management, integrity, authenticity, and sustainability of the Outstanding Universal Value of the property. Where buffer zones are defined, they should be seen as an integral component of the State Party's commitment to the protection, conservation, and management of the World Heritage property.

# **Building adaptability**

The capacity of a building to be used for multiple uses and in multiple ways over the life of the building. For example, designing a building with movable walls/partitions allows for different users to change the space. Additionally, using sustainable design allows for a building to adapt to different environments and conditions.

# **Building conservation**

The wise use and management of a building to prevent unwanted change, which can include unsympathetic or incompatible alteration, decay, destruction, misuse, or neglect. Architectural building conservation is the process by which individuals or groups attempt to protect valued buildings from unwanted change. Architectural building conservation also refers to issues of identification, policy, regulation, and advocacy associated with the entirety of the cultural and built environment. This broader scope recognizes that society has mechanisms to identify and value historic cultural resources, create laws to protect these resources, and develop policies and management plans for interpretation, protection, and education. Typically, this process operates as a specialised aspect of a society's planning system, and its practitioners are termed built or historic environment conservation professionals. >> Architectural conservation >> Conservation

#### **Built environment**

Architectural object in an environment as a collection of man-made structures and surfaces in the place. The term-built environment refers to the human-made surroundings that provide the setting for human activity, ranging in scale from buildings and parks or green space to neighbourhoods and cities that can often include their supporting infrastructure, such as water supply or energy networks. The built environment is a material, spatial, and cultural product of human labour that combines physical elements and energy in forms for living, working, and playing. It has been defined as "the human-made space in which people live, work,

and recreate on a day-to-day basis".



#### Charter

A formal statement of the rights of a country's people, or of an organisation or a particular social group, that is agreed by or demanded from a ruler or government. It is also a formal statement of the intentions, professional work and rights in a branch of the profession in part or in whole, prepared and confirmed by professional organisations and councils. Charters are well known and used statements also in cultural heritage. There are several known and in use in most of the countries worldwide, for example Athens charter (1931), Venice charter (1964), Burra charter (1979) etc.

### CIAV (ICOMOS)

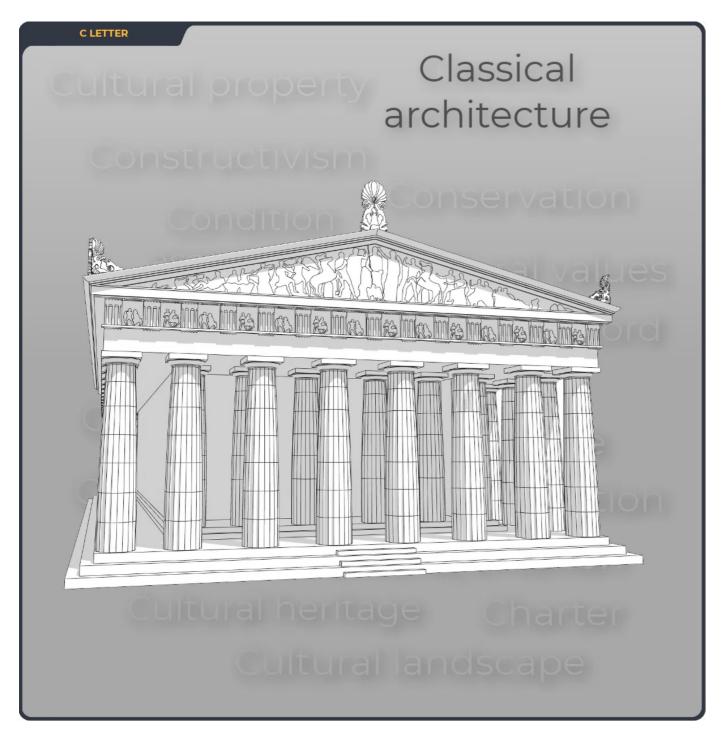
The Scientific Committee for Vernacular Architecture at ICOMOS. CIAV is an international platform for the dialogue and cooperation between professionals, experts, academics and students of vernacular heritage through CIAV annual meetings and scientific conferences. CIAV fosters discussions and activities on national, regional and international levels.

# Classical architecture (300 BC - 100 AD)

Common term for architecture of ancient Greece and Rome. Usually denotes architecture which is more or less consciously derived from the principles of Greek and Roman architecture of classical antiquity, or sometimes even more specifically, from the works of the Roman architect Vitruvius. Although classical styles of architecture can vary greatly, they can in general all be said to draw on a common "vocabulary" of decorative and constructive elements. It can also refer to any architecture that employs classical aesthetic philosophy. The term might be used differently from "traditional" or "vernacular architecture", although it can share underlying axioms with it.

# **Complete record**

Combination of all the data that are important for the object or structure or documentation that includes all prescribed and required elements. It is combined through different methods, for example documentation, measuring, drawing plans, taking pictures, photogrammetry etc. in all the possible media with needed data in technique, building, use and appearance, with technical drawings, schemes and simulations for interpretation



of the detail, running devices and all the compositions.

#### **Condition assessment**

A record of the state of the critical aspects of the place or building at a given time. This should be suitable for developing options for future action and, as a record against which to judge change. The individuals who perform the assessment are typically architects and engineers and skilled-trade technicians. Engineering and architectural professional opinions as to the conditions observed are part of the assessment. Building diagnostics go beyond facility condition assessments to determine solutions to the problems found and predict outcomes of the solutions. This analysis can be done by walk-through inspection, modelling, or a combination of different methods.

#### Conservation

All actions aimed at the safeguarding of cultural property for the future. The purpose of conservation is to study, record, retain and restore the culturally significant qualities of the cultural property as embodied in its physical and chemical nature, with the least possible intervention. Conservation includes the following: examination, documentation, preventive conservation, reservation (possibility for future protection), treatment, restoration, and reconstruction. >> Architectural conservation >> Building conservation

# Conservator

A professional whose primary occupation is the practice of conservation and who, through specialised education, knowledge, training, and experience, formulates and implements all the activities of conservation in accordance with an ethical code such as the AIC Code of Ethics and Guidelines for Practice. Professionals are responsible for treatment, preventive care, and research directed toward the long-term safekeeping of cultural and natural heritage. In most countries also special exams need to be done for the licence, to be able to deal with cultural heritage.

# Constructivism (Constructivist architecture) (1920 - 1932)

A form of modern architecture that flourished in the Soviet Union in the 1920s and early 1930s. It combined advanced technology and engineering with an avowedly Communist social purpose. Although it was divided into several competing factions, the movement produced many pioneering projects and finished buildings, before falling out of favour by politics around 1932. It has left marked effects on later developments in architecture.

#### Coordination

Harmonisation, organisation of different elements of a body. It is the process of organising people or groups so that they work together properly and well and making harmonious functioning of parts for effective results.

# **Criteria (plural), criterion (singular)**

Standards of judgement in evaluating thoughts, texts, plans, projects, executions for making rules or principles in professional and scientific elaboration. Criteria are also used to select sites or buildings of outstanding universal value for inclusion on the World Heritage List, for example present a masterpiece of human creative genius, to exhibit an important interchange of human values, to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization, to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history, etc.

# **Cultural diversity**

The result of independent long-term developments and discoveries in different places, under different conditions and conditions, natural conditions. This diversity is embodied in the uniqueness and plurality of the identities of the groups and societies making up humankind. As a source of exchange, innovation and creativity, cultural diversity is as necessary for humankind as biodiversity is for nature.

# **Cultural heritage**

The legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. The belief systems, values, philosophical systems, knowledge, behaviours, customs, arts, history, experience, languages, social relationships, institutions, and material goods and creations belonging to a group of people and transmitted from one generation to another. The group of people or society may be bound together by race, age, ethnicity, language, national origin, religion, or other social categories or groupings.

# **Cultural landscape**

Pieces of immovable heritage are cultural properties and represent the "combined works of nature and of man". They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal. >> Architectural landscape >> Landscape

# **Cultural property**

Properties inscribed in the World Heritage List after having met at least one of the cultural heritage criteria and the test of authenticity are referred to as cultural properties. Under the term are covered tangible and intangible cultural elements after having met at least one of the cultural heritage criteria, important for all the parts of the culture, including authenticity.

# **Cultural significance**

Aesthetic, historic, scientific, social, or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places, and related objects. Places may have a range of values for different individuals or groups.

#### **Cultural values**

The meanings, functions, or benefits ascribed by various communities to something they designate as heritage, and which create the cultural significance of a place or object.

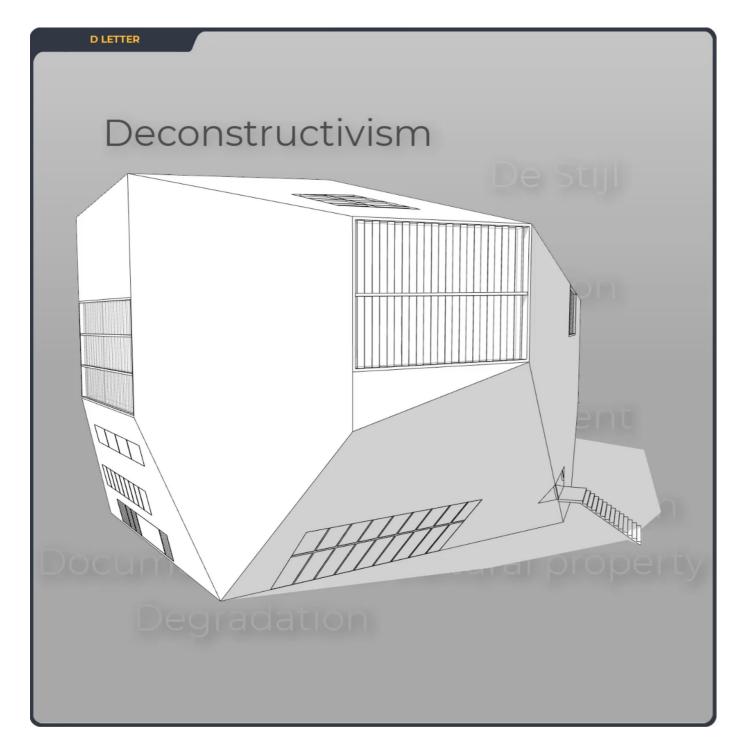


#### Declaration

Another means of defining norms, which are not subject to ratification. Like recommendations, they set forth universal principles to which the community of states wished to attribute the greatest possible authority and to afford the broadest possible support. The term is deliberately chosen to indicate that the parties do not intend to create binding obligations but merely want to declare certain aspirations, which are not always legally binding. In cultural heritage some of the declarations are The Florence declaration (2014), UNESCO Declaration concerning the Intentional Destruction of Cultural Heritage (2003) etc.

# Deconstructivism (around 1980)

A movement of postmodern architecture that gives the impression of the fragmentation of the constructed building. It is characterised by an absence of harmony, continuity, or symmetry. Its name comes from the idea of "Deconstruction", a form of semiotic analysis developed by the French philosopher Jacques Derrida. Architects whose work is often described as deconstructionism (though in many cases the architects themselves



reject the label) include Peter Eisenman, Frank Gehry, Zaha Hadid, Rem Koolhaas, Daniel Libeskind, Bernard Tschumi, and Coop Himmelb(I)au.

# Degradation

A process that renders an object (also environment or space) abandoned useless or less useful over time, sometimes we can see it as also degraded areas, for example old factory areas etc. Degradation can be caused by many different means, and it is almost always considered an undesirable process. Preventing and combating the degradation of a city part, product or structure is a major challenge that many architects and engineers face.

# Designation

The act of officially choosing someone or something to do or be something. Legal protection through passage of a by law (local or regional government) or Order in Council (provincial). Designation offers long term protection and allows regulation and control of alterations and demolition.

# **Designed Landscape**

Area of land which has been modified by people for primarily utility and aesthetic effect. Historians use the term to denote various types of a site, such as gardens, parks, cemeteries, and estates. Such sites are often protected for their historic or artistic value. A designed landscape may comprise landform, water, built structures, trees and plants, all of which may be naturally occurring or introduced. Designed landscape differs from the architectural landscape, since in designed landscapes we get processed part of the building site. Architectural landscape is in meanwhile the whole area where we can see common types of an area.

# De Stijl (The Style) (1917 to 1931)

An art and design movement that developed in the Netherlands, partly as a consequence of its isolation during WWI. It was recognisable for its use of strong geometric lines, bold primary colours, and the articulation of distinct functional elements. It was adopted in art (notably by Mondrian), furniture and architecture. Whilst relatively little architecture was actually produced, the influence of buildings such as the Rietveld Schroder House (1924) can be seen in the work of architects such as Mies van der Rohe.

#### **Deterioration**

Action or process of becoming impaired or inferior in quality, functioning, or condition. Deterioration implies that things are falling apart: something once in good condition is now weakened, worn out, or otherwise in decline. Things often undergo deterioration because of neglect. Time also has a lot to do with deterioration. The physical manifestation of failure of a material (e.g. cracking, delamination, flaking, pitting, scaling, spalling, staining) caused by service conditions or internal autogenous influences.

# Development

Process in which something grows or changes and becomes more advanced. As every process also architecture gets upgraded, it appears in development discourse as a terrain between culture and economics nonetheless also the cultural heritage.

# **Documentation of cultural property**

All of the records, written and pictorial, accumulated during the examination and treatment of a cultural property. Where applicable, documentation includes the examination records and report, treatment proposal, owner consent, the treatment records and report, the recommendations for subsequent care, samples taken from the cultural property and relevant correspondence. The purpose of documentation is:

- to record the condition of the cultural property;
- to record information revealed during examination or other conservation activities that assists in the understanding of the cultural property;
- to record the changes to the property due to conservation activities, and the justification for those changes;
- to provide inform action helpful to future care and treatment of the cultural property;
- · to record agreements or understandings between the conservation professional and the owner; and
- to provide documents that can be made available if and when required for legal purposes.

# **Durability**

The ability to exist for a long time without deterioration. In heritage conservation: All actions or processes that are aimed at safeguarding the character-defining elements of a cultural resource so as to retain its heritage value and extend its physical life. This may involve "preservation," "rehabilitation," "restoration," or a combination of these actions or processes The Latin root word, durabilis, means "lasting or permanent,"

and comes from durare, "to last or harden. The word durability is to describe the quality of permanence or strength that keeps something working or holds it together.

# E-F LETTERS

### Early Modernism - 1900 to 1914

Or modern architecture, or modernist architecture was based upon new and innovative technologies of construction, particularly the use of glass, steel and reinforced concrete; the idea that form should follow function; an embrace of minimalism; and a rejection of ornament

#### Earthen architecture

Vernacular architecture in general and earthen architecture, with their rich variety of forms worldwide, are custodians of the material culture and identity of the peoples who built them. In addition, they are widely recognized as ancestral examples of sustainability in all their variants and interpretations. Architecture of the present ought to learn from these when designing the sustainable architecture of the future.

#### **Environment**

Tangible and intangible elements of space in entirety. Physical and social elements of neighbouring objects, influencing the life of all the elements in the area, especially for the interactions between them. Environment means 'surroundings' (environs); hence the environment of an individual, object, element, or system includes all of the other entities with which it is surrounded. Individuals, objects, elements, and systems influence and are in turn influenced by - their surroundings.

#### **Evaluation**

The process of assessing a building's needs to define the appropriate conservation strategy which may include preventive measures, repair, restoration, and maintenance of concrete. Evaluation involves determining the current condition of the material, identifying the cause and extent of deterioration, and identifying any factors that could affect the material in the future. This process may include field and laboratory testing and engineering calculations.

**E-F LETTERS** False historical appearance

#### Examination

All activities conducted to determine the structure, materials, relevant history and condition of a cultural property, including the extent of deterioration, alteration and loss. Examination also includes analyses and study of relevant material, as well as the study of relevant historical and contemporary information.

# Expressionism (Expressionist architecture) - 1910 to 1924

An architectural movement in Europe in parallel with the expressionist visual and performing arts that especially developed and dominated in Germany. Expressionist architecture is one of the three dominant styles of Modern architecture (International Style, Expressionist and Constructivist architecture). Expressionist architects used materials such as concrete and glass to create novel sculptural forms and massing, sometimes distorted and fragmented to express an emotional perspective. Important representatives in architecture are Bruno Taut, Erich Mendelsohn, Walter Gropius, Mies van der Rohe etc.

#### Extension

A process where we increase the size of the existing building with additional construction. The extension can be horizontal or vertical, in any case its purpose is to enlarge an existing building, which can be residential or social. Extension is of architectural quality when it is designed to be economical, ecological and visually harmonised with the existing building.

# False historical appearance

Creating replicas of historic architectural or design features of a building, structure, or landscape in which one cannot decipher if it is historic or modern (for example concrete copy of the Parthenon in Nashville, USA). Also referred to as a false sense of history.

# Folklore (or traditional and popular culture)

Totality of tradition-based creations of a cultural community, expressed by a group or individuals and recognized as reflecting the expectations of a community as far as they reflect its cultural and social identity; its standards and values are transmitted orally, by imitation or by other means. Its forms are, among others, language, literature, music, dance, games, mythology, rituals, customs, handicrafts, architecture, and other arts.

# Futurism (Futurist architecture) (around 1912)

Emerged in the early-20th century in Italy. It was motivated by anti-historicism and characterised by long horizontal lines and streamlined forms suggesting speed, dynamism, movement, and urgency. Futurism went out of fashion following WWII but re-emerged in a reinterpreted form with the popularity of futuristic comic books and the arrival of the Space Age.

# **G LETTER**

# Georgian style (1714 to 1830)

Highly variable style marked by symmetry and proportion based on the classical architecture of Greece and Rome, as revived in Renaissance architecture. In the United States the term "Georgian" is generally used to describe all buildings from the period, regardless of style; in Britain it is generally restricted to buildings that are "architectural in intention" and have stylistic characteristics that are typical of the period, though that covers a wide range.

# Gentrify

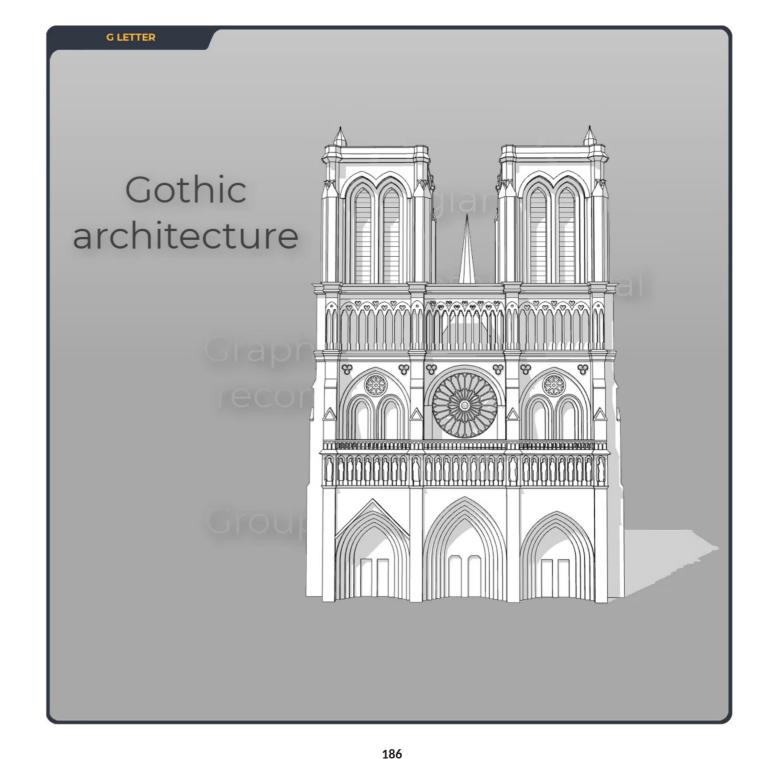
To resettle existing deteriorated dwellings in urban areas, following rehabilitation or renovation, with new occupants having better options and income levels than the previous ones.

# Gothic architecture (1180 - 1540)

Emerged in the 11th and 12th centuries in Europe as the direct continuation of the Romanesque Style. It was characterised by an emphasis on the vertical, with increasingly tall buildings, featuring almost impossibly thin stone structures, pointed arches and ribbed stone vaults, interspersed with expanses of glass, supported by external flying buttresses. For the architecture are typical pointed arches and pretentious constructions.

# Gothic revival (also Neo Gothic) (1760 - 1880)

An architectural movement that began in England. Its popularity grew rapidly in the early 19th century, when increasingly serious and learned admirers of neo-Gothic styles sought to revive mediaeval Gothic architecture, in contrast to the neoclassical styles prevalent at the time. Gothic Revival draws features from the original Gothic style, including decorative patterns, finials, lancet windows, hood moulds and others.



# **Graphic record**

General term used for measured drawings, rectified photographs, ortho-photomosaics or 3D models, graphically or photographically describing the physical configuration of a heritage place with its dimensional and architectural characteristics.

# **Groups of Buildings**

Groups of separate or connected buildings which, because of their architecture, their homogeneity, or their place in the landscape, are of outstanding universal value from the point of view of history, art, or science.

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# H LETTER

# Harmonisation

Effect an approximation or coordination of different legal provisions or systems by eliminating major differences and creating minimum requirements or standards. Harmonisation can be seen as a step towards unification, and, in a way, harmonisation aims or strives towards unification.

# Heritage (Patrimoine)

Any asset or group of assets, natural or cultural, tangible or intangible, that a community recognizes for its value as a witness to history and memory, while emphasising the need to safeguard, to protect, to adopt, to promote and to disseminate such heritage.

**H LETTER** Historic buildings

# Heritage conservation / Heritage management

All actions or processes that are aimed at safeguarding the character-defining elements of a cultural resource to retain its heritage value and extend its physical life. This may involve "preservation," "rehabilitation," "restoration," or a combination of these actions or processes.

# Heritage protection / management

Taking care of natural and cultural heritage values of a place, it includes legislation, policies, and management frameworks. Heritage is the legacy of physical or natural artefacts that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. Heritage includes tangible culture (such as buildings, monuments, landscapes and natural heritage (including culturally-significant landscapes, and biodiversity). Cultural heritage is often unique and irreplaceable, which places the responsibility of preservation on the current generation.

### Historic and architectural areas

Areas containing one or more buildings or places in which historic events occurred or having special public value because of notable architectural, archaeological or other features relating to the cultural or artistic heritage of the community, of such significance as to warrant conservation and preservation

# **Historic buildings**

A building or structure that has some kind of 'historic value', i.e. people in the present are connected to it via past events in some way. This value warrants it being afforded consideration in planning decisions that have to be made concerning while designing. A building may hold special historic interest because of its importance with respect to a particular historical event or period, or be associated with nationally important people. Alternatively, there might be special historic interest in the building itself, i.e. its construction methods, design, architectural significance, and so on.

#### Historic value

Relative social attribution of qualities to building and places, therefore it depends on society and can change over time. Certain values can be related more specifically to the intrinsic aspects of the monument or site (design, material, and workmanship), while other values can be associated with its location and its relationship to the setting.

#### **Historic / Traditional Building Materials**

All naturally occurring substances used in the building industry before the introduction of the 19th and 20th century steel, reinforced concrete, plastic, resins, and artificially extracted fabrics. Stone, wood, hay, clay, are examples of such materials.

# Homogeneity

The quality or state of being of a similar kind or of having a uniform structure or composition throughout.



#### **ICOMOS**

International Council on Monuments and Sites, Paris (Conseil International des Monuments et des sites).s a network of experts that benefits from the interdisciplinary exchange of its members, among which are architects, historians, archaeologists, art historians, geographers, anthropologists, engineers and town planners. Is a professional association that works for the conservation and protection of cultural heritage places around the world. Is composed of its national committees (NCs), to which individuals and institutions apply for membership. In addition to the national committees, ICOMOS has a series of international scientific committees (ISCs), in which experts in a certain field of activity within the context of heritage conservation exchange views and debate. It was founded in 1965 in Warsaw (Poland), its main seat is Paris (France).

### **ICCROM**

International Centre for the Study of the Preservation and Restoration of Cultural Property. ICCROM is an intergovernmental organisation working in service to its Member States to promote the conservation of all forms of cultural heritage, in every region of the world. It operates in Rome in the spirit of the 2001 UNESCO Universal Declaration on Cultural Diversity, which states that "Respect for the diversity of cultures, tolerance, dialogue and cooperation, in a climate of mutual trust and understanding are among the best guarantees of international peace and security."

# Identity

Fact of belonging to the same tangible and intangible values. The properties or the recognition of a certain

substance, system, personality or place and the connection between the characteristics attributed to a certain style, place, person, etc. Identity in cultural heritage determines the original existing features and materials of a historic property.

### Identification

Ways of presenting the cultural significance of a place. Recognizing the object, place or environment in their cultural significance by the professional criteria in both their individuality and common life, with all the interactions between them.

### Infill

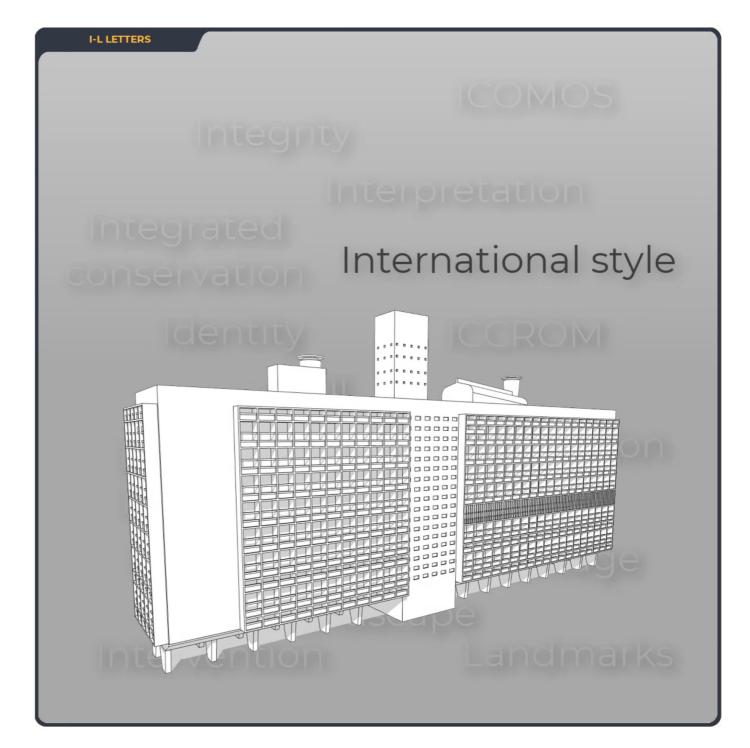
Element that is pushed between others. It combines new structures with old ones in order to upgrade or combine a building, area etc; sensitive infilling means doing this without disrupting existing community values and continuity of space.

# Intangible cultural heritage

Intangible practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts, and cultural spaces associated with values of communities, groups and, in some cases, individuals recognized as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. Consideration is given solely to such intangible cultural heritage as is compatible with existing international human rights instruments, as well as with the requirements of mutual respect among communities, groups, and individuals, and of sustainable development.

# Integrity

In ethical terms it is regarded as the honesty and truthfulness or accuracy of actions. Is also a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes. Examining the conditions of integrity, therefore requires assessing the extent to which the property: a) includes all elements necessary to express its outstanding universal value; b) is of adequate size to ensure the complete representation of the features and processes which convey the property's significance; c) suffers from adverse effects of development and/or neglect.



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# Interpretation

Individual interpretation, presentation of facts. Interpretation are ways of presenting the cultural significance of a place. Interpretation is a means of communicating ideas and feelings which help people enrich their understanding and appreciation of their world and their role within it.

### **Integrated conservation**

Complete set of measures aimed at ensuring the continued existence and enrichment of heritage, its maintenance, restoration, renewal, use and revitalisation.

# International heritage site (also World heritage site)

Is a site of cultural heritage of international importance. A site of cultural heritage with importance of several nations and ethnical groups, established by scientific criteria of professional organisations and widely recognized by UNESCO. It is various areas or objects inscribed on the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List. The sites are designated as having "outstanding universal value" under the Convention Concerning the Protection of the World Cultural and Natural Heritage. This document was adopted by UNESCO in 1972 and formally took effect in 1975 after having been ratified by twenty countries. It provides a framework for international cooperation in preserving and protecting cultural treasures and natural areas throughout the world.

### International style (1927 - 1971)

Became popular in the middle of the 20th century. It was an ornament free, stark form of modernism, characterised by the repetition of units and the extensive use of glass. It is a style that is still in widespread use for tall buildings in cities around the world. It was epitomised by the Twin Towers of New York's World Trade Centre, Commonwealth building, Illinois Institute of technology campus etc...

#### Intervention

Any action, other than demolition or destruction, that results in a physical change to an element of a historic place or a building. Least possible intervention in a building, monument or in a site is a minimal intervention and necessity to obtain it for the future.

### Landscape

All the visible features of an area of land. Exterior spaces that have been assigned cultural (including spiritual) meaning, or have been deliberately altered in the past for aesthetic, cultural, or functional reasons, such as a city park, a cemetery, or a backyard garden. Landscapes include land patterns, landforms, spatial organisation, and vegetation. They also include related circulation systems, water features, built features, and views or other visual relationships. > Architectural landscape, > Cultural landscape > Designed landscape.

#### Landmarks

A recognizable natural or artificial feature used for orientation in familiar or unfamiliar environment; is a feature that stands out from its near environment and is often visible from long distances. In modern use, the term can also be applied to smaller structures or features that have become local or national symbols. In modern usage, a landmark includes anything that is easily recognizable, such as a monument, building, or other structure.

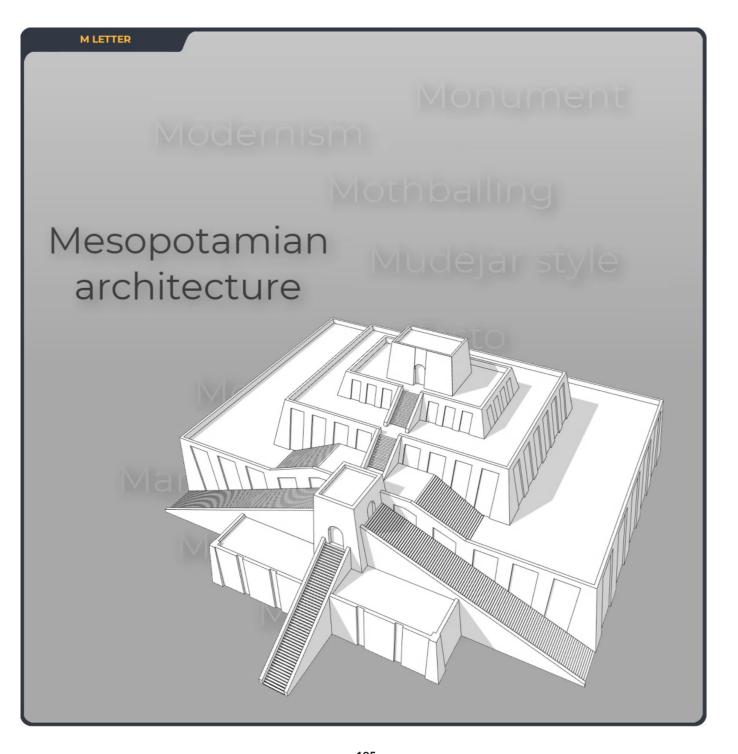


# Maintenance

The continuous protective care of the object, contents or setting of a place. In technical terms maintenance consists of regular inspections of a monument or site and may involve small-scale treatments (e.g., surface cleaning, renewal of protective coatings, etc.). Preventative maintenance is a powerful tool to prevent decay and avoid large-scale conservation-restoration treatments. A suitable maintenance program implemented after the conservation treatment aims at preserving its improved conditions. These are routine, cyclical, non-destructive actions necessary to slow the deterioration of a historic place or building.

# Manifesto

Comes from an Italian word derived from the Latin 'manifestum', meaning clear or conspicuous. Is a published declaration of the intentions, motives, or views of the issuer, be it an individual, group, political party or government. In form the architectural manifesto is a product where the written word exists in heightened tension with visual rhetoric. Images, slogans, short texts, expressive typography all come together to build an image of conviction about a certain issue and to translate that conviction into strategies for practice.



# Mannerism (1530 - 1600)

Is also known as Late Renaissance. Is a style in European art that emerged in the later years of the Italian High Renaissance around 1520. The style is notable for its intellectual sophistication as well as its artificial qualities. It favours compositional tension and instability rather than the balance and clarity of earlier Renaissance painting.

# Mesopotamian architecture (4500 - 2000 BC)

Ancient architecture of the region of the Tigris-Euphrates river system encompassing a number of distinct cultures. Among its accomplishments are the development of complex urban planning systems, building styles such as the courtyard house, and ziggurats, and stepped pyramids built as part of temple complexes.

#### Modernise

A term, with which we describe updating mostly of a building for future usage. Modernisation can also be necessary because of the law, usage necessity, safety etc. Lately increased modernisation is thermal modernisation of cultural heritage to avoid energetical poorness.

# Modernism (1917 - 1965)

At the turn of the 20th century, a general dissatisfaction with revivalist architecture and elaborate decoration gave rise to modernist architecture, characterised by the idea that 'Form follows function'. As the complexity of buildings began to increase (in terms of structural systems, services and technology), building design became a multi-disciplinary undertaking, with specialist designers for different types and different aspects of buildings.

# Monitoring

Continual controlling. Site managers and local authorities continuously need to work towards managing, monitoring and preserving the World Heritage properties. States Parties have an obligation to regularly prepare reports about the state of conservation and the various protection measures put in place at their sites. These reports allow the World Heritage Committee to assess the conditions at the sites and, eventually, to decide on the necessity of adopting specific measures to resolve recurrent problems. The Periodic Reporting process provides an assessment of the application of the World Heritage Convention by the States Parties. It also provides updated information about the sites to record possible changes in the state of conservation of

sites. The Periodic Reports – submitted by the States Parties themselves – are prepared on a regional basis and are examined by the World Heritage Committee on a pre-established schedule based on a six-year cycle.

#### Monument

Object of memorial or symbolic value; also, architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art, or science.

# Moorish architecture (711 - 1492)

The articulated Islamic architecture of North Africa and parts of Spain and Portugal, where the Andalusians (Moors) were dominant between 711 and 1492. Characteristic elements of Moorish architecture include muqarnas, horseshoe arches, voussoirs, domes, crenellated arches, lancet arches, ogee arches, courtyards, and decorative tile work known as "zellij" in Arabic or "azulejo" in Spanish and Portuguese.

# Mothballing

The process of closing up a building temporarily to protect it from the weather as well as to secure it from vandalism. Mothballing measures should not result in permanent damage, and so each treatment should be weighed in terms of its reversibility and its overall benefit. The process consists mostly of:

- Securing the building and its component features to reduce vandalism or break-ins, providing adequate ventilation to the interior.
- Secure or modify utilities and mechanical systems.
- Develop, and implement a maintenance and monitoring plan for protection.

# Mudéjar style (1125 - 1600)

A symbiosis of techniques of building and decoration, where Moorish and European cultures met. It is characterised by the use of brick as the main material, in particular for bell towers. Mudéjar did not involve the creation of new shapes or structures, unlike Gothic or Romanesque, but applied the elements of Islamic and Jewish art and architecture to mediaeval and renaissance Christian architecture.



# National heritage site

A heritage site having a value that has been registered by a governmental unit as being of national importance to the cultural heritage or history of that country. Is a site of cultural heritage of national importance. National heritage sites can be physically found as an intersection of several nations, but in limited space, not covering all the states or ethnic areas. If the national heritage site is recognized as a part of a bigger area or several cultural entities with local characteristics for international importance, it can be included into the international heritage site.

# Natural heritage

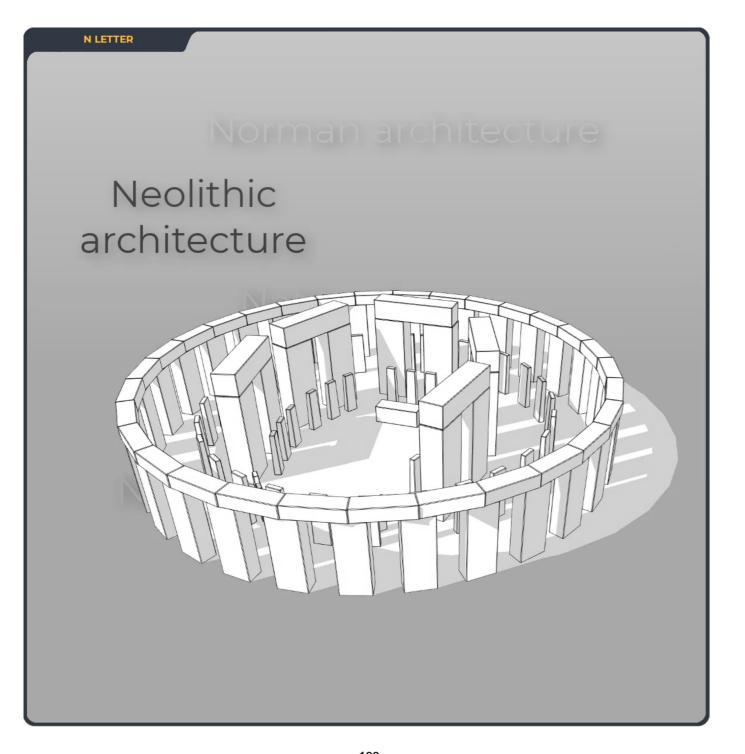
Natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view. Geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation, natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation of natural beauty.

# Neolithic architecture (10,000 - 2,000 BC)

Cannot be really named architecture, though it has some architectural aspects. It included not just shelters, but also tombs, religious buildings, symbolic structures and monuments such as megaliths found in Europe and the Mediterranean. Some of these structures were very elaborate. Building materials included mud brick, skins, textiles, wattle and daub, stone and timber.

#### Neoclassical architecture (1750 - 1920)

Derived from Palladian architecture and references to classical Greek and Roman architecture. It has a flat, planar quality, emphasising the wall and the separation of elements. Notable examples of neoclassical architecture include the White House in Washington and the Bank of England in London.



# Norman architecture (1075 - 1250)

A categorised style of Romanesque architecture developed by the Normans. In particular the term is traditionally used for English Romanesque architecture. The Normans introduced large numbers of castles and fortifications including Norman keeps, and at the same time monasteries, abbeys, churches and cathedrals, in a style characterised by the usual Romanesque rounded arches and especially massive proportions compared to other regional variations of the style.

# O LETTER

### Order

Architectural reality is characterised by a constant struggle against disorder. In architecture order refers to a system of rules that structure the shape, structure, layout and proportions of a design. Order is an indispensable functioning of any organised system. Principles of order are axis, symmetry, hierarchy, transformation, datum, rhythm, pattern, and repetition.

2. Order in architecture is also a technical term for a column and its related elements - in particular its top (the capital). Since Greek architecture provides the pattern of classicism, the differing Greek styles have become standard terms in the vocabulary of architecture. The three orders which feature most frequently in classical buildings are the Doric, the lonic and the Corinthian.

# Originator

The person(s) who designed or created the cultural property, or the person(s) representing the creator or designer of the cultural property by legal, moral, or spiritual right.

# Outdoor Architectural Museum (also Open air museum or Skansen)

Involves entire buildings displayed in an open-air environment. The museum may include endangered buildings which have been moved to the site, reconstructions of non-extant buildings or recreations of buildings characteristic of a particular era.

# **Outstanding Universal Value**

Attributes and aspects of a property which are associated in expression of universal value. Attributes can

be tangible or intangible. The Operational Guidelines indicate a range of types of attribute which might convey Outstanding Universal Value, including: form and design, materials and substance, use and function, traditions, techniques and management systems; location and setting; language, and other forms of intangible heritage; and spirit and feeling; beliefs, stories, festivals, rituals.

# **PLETTER**

# Palladianism (1615 - 1690)

An European style of architecture inspired by the designs of the Venetian architect Andrea Palladio. Palladian designs were based on the symmetry and perspective of the temples of the Ancient Greeks and Romans. It was characterised by the use of pediments and symmetry, and proportions that were based on mathematics rather than ornament. Palladian architecture is recognisable for its classical facades.

# **Photogrammetry**

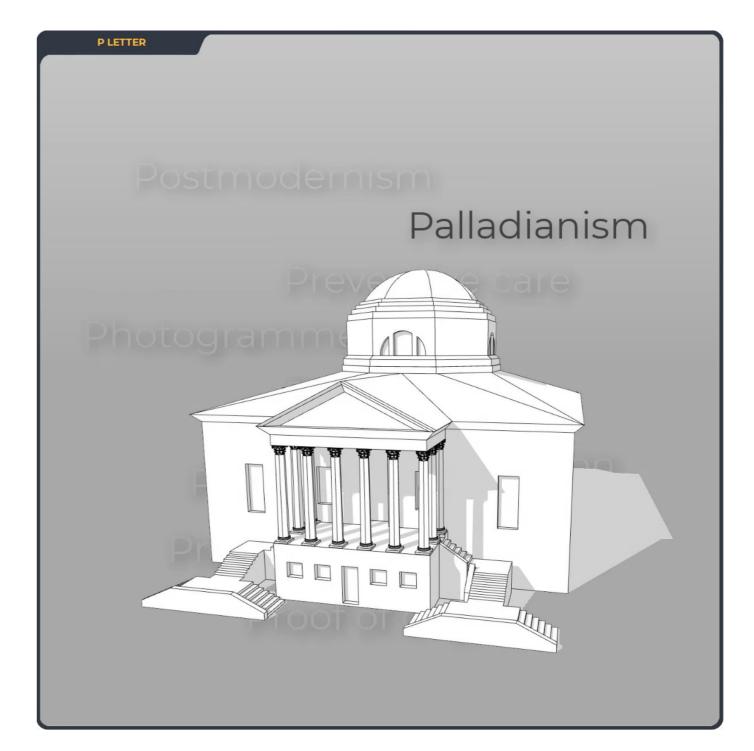
A survey technique in which a two-dimensional or three-dimensional object may be measured from photographs taken from at least two or more slightly different positions. These are called stereographs, and they provide the viewer with two different perspectives of the same object that mimic the perspective of human binocular vision. Measurements are extracted from the stereographs, and 3-D information is reconstructed using computer software and hardware.

#### Place

A geographically defined area. It may include elements, objects, spaces, and view. Place may have tangible and intangible dimensions. May be a landscape, seascape, feature, area, site, building or other work, group of buildings, or other works or landscapes, together with associated contents and surrounds.

# Postmodernism (1950 - 2007)

Emerged as a reaction to modernism, which some people found too extreme and bleak because of its lack of ornamentation. Postmodernism moved away from the 'box' and adopted stylistic references in ways that were often playful, or embodied symbolism and hidden meaning. Designs were characterised by clashing stylistic elements, sculptural forms and trompe l'oeil (style of painting in which objects are depicted with photographically realistic detail also: the use of similar technique in interior decorating).



#### Prehistoric architecture (to 3,500 BCE)

Design of buildings from prehistoric periods. These were rather simple buildings. Early humans made huts to protect themselves, for example, from rain and wild animals, using the available materials, space and skills gave rise to a mixed very mixed architecture style that was often a combination of timber cut from local forests and stone hewn from local rocks. It covers the Old Stone Age, Middle Stone Age, and New Stone Age (Paleolithic, Mesolithic and Neolithic) periods, as well as portions of the Bronze and Iron Ages.

#### **Preservation**

Anticipated protection of a monument, necessary because of the action of time. The action or process of protecting, maintaining, and/or stabilising the existing materials, form, and integrity of a historic place or of an individual component while protecting its heritage value. Preservation means maintaining a place or building in its existing state and retarding deterioration.

### Preventive care/preventive conservation

The mitigation of deterioration and damage to cultural property through the formulation and implementation of policies and procedures for the following: appropriate environmental conditions; handling and maintenance procedures for storage, exhibition, packing, transport, and use; integrated pest management; emergency preparedness and response; and reformatting/duplication.

#### **Protection**

General safeguarding. In legal terms, preservation is the action required to provide the conditions for a monument, site, or historic area to survive. The term is also related to the physical protection of historic sites to ensure their security against theft or vandalism, as well as environmental attack and visual intrusions. Buffer zones also provide protection to historic areas. Legal protection, which is based on legislation and planning norms, aims to guarantee defence against any harmful treatment, provide guidelines for proper action, and institute corresponding punitive sanctions. Physical protection includes the addition of roofs, shelters, coverings, etc., or even removing an endangered object to safety.

# **Proof of origin**

A document such as a decree of distribution proving inheritance, export permit, testament, contract, court decision or administrative authority decision, extract from sale records or other authentic document

demonstrating that the person concerned has acquired ownership or custody of an archaeological find or a collection of such finds. Proof of origin can also be an expert opinion, a statement from the previous owner or other witness, or any other documentation such as a photograph, a video recording, or a publication in printed media. Reporting the discovery of an archaeological find or reporting its custody pursuant to different acts of cultural heritage, are also considered proof of origin.



#### Record

A method to capture and get information relevant to understanding the physical configuration, evolution and condition of monuments, groups of buildings or sites, at known points of time, and the basis of decisions made to alter or care for them.

#### Reconstruction

Returning a place or building to a known earlier state and is distinguished from restoration by the introduction of new material. The act or process of depicting, by means of new construction, the form, features and detailing of a non-surviving site, landscape, building, structure or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

# Recovery

Building recovery falls between restoration and renovation. The historical features of a site or building are taken into consideration when introducing new designs and additions, while still drawing upon practical lessons and fundamentals from architectural design technologies. Occasionally, recovery can include replacing missing or damaged historic features, which can either be an accurate replica or an otherwise compatible design.

# Recycling

To re-use or adapt existing buildings, materials, or components for a similar or new purpose. Since this activity may include many other activities such as renovation, retrofitting, rehabilitation, reconstruction and restoration, it can therefore be called an umbrella term. In some cases, it could also be considered as a heritage activity, since some details of old objects can be reused in other buildings or in a museum.

# Redevelop

To replan, redesign, clear, reconstruct or renovate detail, architecture or urban areas after the primary use with the same or improved, developed activity. To provide for such residential, commercial and industrial buildings as are appropriate or necessary. Building new construction on a site that has pre-existing uses or renovating existing uses on a site. Redevelopment generally is a strategy to rehabilitate blighted urban areas through a series of interventions.

# Rehabilitation

The action or process of making possible a continuing or compatible contemporary use of a historic place or an individual component while protecting its heritage value. The action or process of accurately revealing, recovering, or representing the state of a historic place or of an individual component as it appeared at a particular period in its history while protecting its heritage value.

# Remodelling

A process which involves upgrading or replacing interior parts and features. This process tends to be done more for aesthetic reasons rather than functional ones. Remodelling may involve the removal and refinishing of interiors to make them indistinguishable from new structures, as well as applying architectural details from different, usually earlier periods. Often such buildings end up with a hybrid appearance, neither looking old or new. Conservationists often discourage this process.

#### Restitution

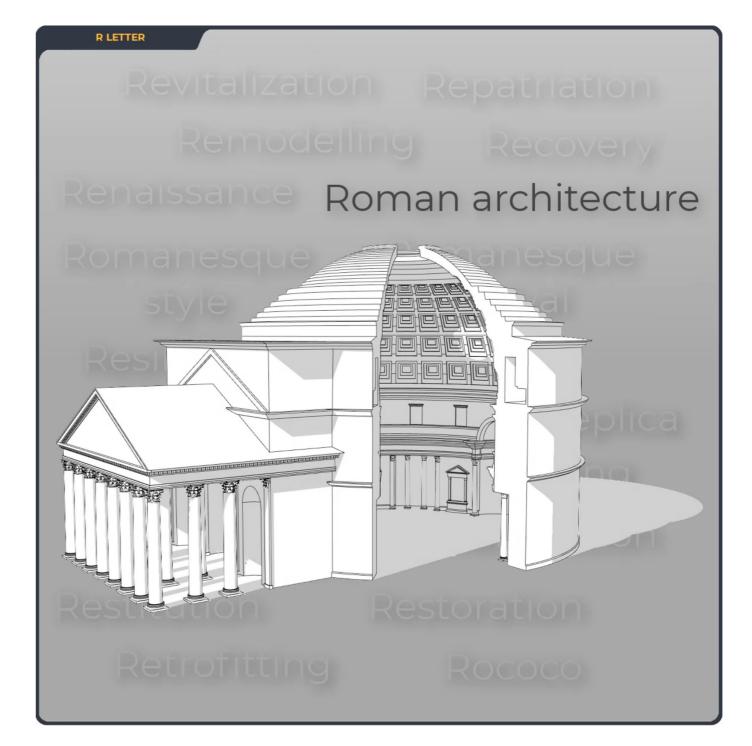
Process by which cultural objects are returned to an individual or a community.

# Repatriation

Process by which cultural objects are returned to a nation or state at the request of a government.

# Roman architecture (300 BC - 700 AD)

Ancient Roman architecture adopted some of the language of classical Greek architecture with a similar emphasis on civic buildings, but was different from Greek buildings, becoming a new architectural style. It was renowned for its vast range of iconic building types, such as; temples, baths, villas, amphitheatres, palaces



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and circuses. Roman architecture developed important structural elements such as arches, vaulted ceilings, and domes, that were typically strong and well-engineered, using concrete. This led onto the development of unprecedented civil engineering projects such as bridges, aqueducts, and roads.

### Romanesque (1050 - 1170)

An architectural style of mediaeval Europe characterised by semi-circular arches. In the 12th century it developed into the Gothic style, marked by pointed arches. Examples of Romanesque architecture can be found across the continent, making it the first pan-European architectural style since Imperial Roman architecture.

#### Romanesque revival (1840 - 1900)

A style of building inspired by the 11th- and 12th-century Romanesque architecture. Unlike the historic Romanesque style, however, Romanesque Revival buildings tended to feature more simplified arches and windows than their historic counterparts.

#### Renovation

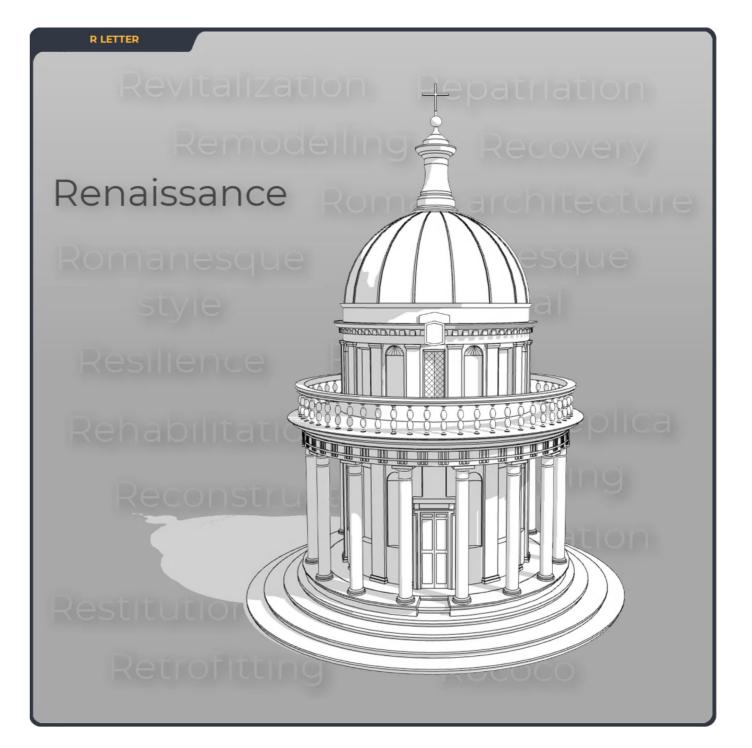
A generic term to describe the process of modifying an historic structure in order to extend its useful life. It is also used to describe the improvements made to existing buildings or neighbourhoods. Other terms which also refer to renovation are: remodelling, recycling and rehabilitation. Renovation means smaller updates in contrast to redevelopment.

# Renaissance (1400 - 1600)

Emerged in Europe, where there was a revival of interest in the classical antiquities and an emergence of new scientific understanding. It was noted for its clean lines, symmetry and proportion, reminiscent of the architecture ancient Rome, with the use of columns, pilasters and lintels, arches and domes. An understanding of perspective also led to more conscious composition of architectural form especially with wider constructions and more light in the buildings. It is following the Gothic style.

# Replica

An exact copy. Overall, in heritage, the replicas are not seen as fakes, but as repetitions of previous elements repeats. Replicas work well in museum settings because they could look so real and accurate that people



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can feel the authentic feelings that they are supposed to get from the originals. Through the context and experience that a replica can provide in a museum setting, people can be fooled into seeing it as 'original.' Replicas are also known in architecture.

#### Resilience

Resilience is a strategy to enhance the ability of a building, facility, or community to both prevent damage and to recover from damage. Each building has some particular function for which it was designed and used (as a primal building program).

#### Restoration

Restoring details and objects by the original idea and use, with suitable materials, but with final appearance as it was built. Treatment procedures intended to return cultural property to a known or assumed state, often through the addition of non-original material. Building Restoration describes a particular treatment approach and philosophy within the field of architectural conservation and historic preservation. It emphasises the preservation of structures such as historic sites, houses, monuments, and other significant properties through careful maintenance and upkeep.

### Retrofitting

The refurbishment of existing buildings and systems for the changing needs of the occupants. Objectives include greater energy efficiency and sustainability. Retrofitted buildings are often more sustainable than new building construction depending on the percentage of embodied energy retained.

#### Reuse

The use of a material more than once in its same form for the same purpose. The term is also used in adaptive reuse of buildings. It refers to the repurposing of an existing structure for new use. For example, reusing old school into a home settlement. Types of adaptive reuse interventions are historic preservation, renovation, facades intervention, integration and also infrastructure reuse.

# Revitalization

Revival, in architecture reinstatement of original state. Describes the process of economic, social, and cultural redevelopment of an area or street. Often the buildings in some areas are of heritage worthy, despite their

state of neglect prior to revitalization. It is known as the process of spatial renewal, economic and social degraded development areas leading to sustainable development of these areas. Revival, in architecture reinstatement of original state. Describes the process of economic, social, and cultural redevelopment of an area or street. Often the buildings in these areas are of heritage merit despite their state of neglect prior to revitalization. It is known as the process of spatial renewal, economic and social degraded development areas leading to sustainable development of these areas.

# Rococo (Roccoco or Late Baroque) (1730-1760)

An exceptionally ornamental and theatrical style of architecture, art and decoration which combines asymmetry, scrolling curves, gilding, white and pastel colours, sculpted moulding, and trompe - l'œil frescoes to create surprise and the illusion of motion and drama. It is often described as the final expression of the Baroque movement. The Rococo style began in France in the 1730s as a reaction against the more formal and geometric Louis XIV style. It was known as the "style Rocaille", or "Rocaille style". It soon spread to other parts of Europe, particularly northern Italy, Austria, southern Germany, Central Europe and Russia. It also came to influence the other arts, particularly sculpture, furniture, silverware, glassware, painting, music, and theatre.

# **S LETTER**

#### Sanation

Healing (in architecture returning to its original state). It is a measure, which renews the injured special parts of a building or area or their reduced functions into reference conditions or at least gets close to it. Most commonly word sanation is used when interfering into a building because of necessity, for example appliance of hydroisolation, sanation of the walls etc.

# Scientific record

The output of research, investigation and conservation activities consisting of research/investigation records provided by different conservation professionals involved. After going through a process of interpretation and selection, the correlation of all relevant research/investigation records provides a complete picture of the current scientific knowledge about a cultural heritage place.

# Socialist architecture (1945 - 1980)

The socialist transformation of the way of life did require a qualitative change in the concept of settlement on

S LETTER Sustainable building

the basis of an organic interaction of all three elements of the city: industry, housing and social institutions. The functional aspects of the architecture did therefore undergo a corresponding change. It is a special architectural style, well known in former socialist countries, where mass collective building was built to solve the housing problem and the problem of demolished buildings in WW2. Nonetheless also to show the rest of the world about the possibility of nation collaboration.

#### Space

Refers to a physical location and its substances, and a space becomes a place when it gets assigned with a meaning and social significance by an individual.

# Symbol

An object, word, or action that stands for something else with no natural relationship that is culturally defined. Everything one does throughout their life is based and organised through cultural symbolism. Symbolism is the physical representation of when something represents abstract ideas or concepts. Some good examples of symbols/symbolism would be objects, figures, sounds, and colours. Objects of cultural heritage are important symbols and expressions of shared values, traditions and customs.

#### Stabilisation

Treatment procedures intended to maintain the integrity of cultural property and to minimise deterioration. Maintaining the fabric of a place in its existing state and retarding or slowing deterioration. Is a process of intervention which may be used as an interim measure on a severely deteriorated building or it may involve the long-term consolidation of a structure.

# Standards

Norms for the respectful conservation of historic places and objects. Standards have been in use in heritage conservation for many years and are still evolving today. A standard offers guidance to good practice - an agreed way of doing something, and combines the distilled wisdom of people with expertise in their subject matter. Standards are designed for voluntary use; they offer ways to do things better. They are not legally binding, but they can be used to underpin contractual arrangements. Standards are not legally binding, but they can be used to underpin contractual arrangements. They can set down better practice in a concise way, summarising current approaches to the conservation of cultural heritage collections and buildings, for the benefit both of professional conservators and of those employing, commissioning, or working alongside

them.

# Style

Distinctive manner which permits the grouping of works into related categories and any distinctive, and therefore recognizable, way in which an act is performed, or an artefact made or ought to be performed and made. It refers to the visual appearance of a work of art that relates it to other works by the same artist or one from the same period, training, location, "school", art movement or archaeological culture.

#### **Substitute materials**

Materials used to replace imitate historic materials, which should match the appearance and physical properties of historic materials. Most commonly nNewer and contemporary (better) materials are sometimes used in sanation or reconstruction of a cultural heritage, since with time materials and techniques also developed with time.

# Sustainability

Forms of progress that meet the needs of the present without compromising the ability of future generations to meet their needs. Cultural sustainability as it relates to sustainable development (or to sustainability), has to do with maintaining cultural beliefs, cultural practices, heritage conservation, culture as its own entity, and the question of whether or not any given culture will exist in the future.

# Sustainable development

Harmonised progress of several elements in common activities in practise or in cultural habits for the best circumstances of their work. Use of an area within its capacity to sustain its cultural or natural significance and ensure that the benefits of the use to present generations do not diminish the potential to meet the needs and aspirations of future generations. Sustainable development is in accordance with sustainable and respectful planning that takes into consideration heritage sites, environment, culture and other aspects.

# Sustainable / green building

Refers to the structure, and the processes related to the structure, that's environmentally responsible and energy efficient. Environmental factors are taken into account from the initial designs to the construction, as well as the operation and maintenance of a building, to any renovation or demolition.

#### Survey

Reconnaissance of an area to locate archaeological sites and acquire a preliminary idea of their potential. This evaluation generally is carried out by collecting surface samples and by digging test pits and survey trenches. The term survey also means the systematic division of the archaeological site into grids with unique identification for each grid (an operation called grid layout).



# **Tangible Cultural Heritage**

Composed of the physical manifestations of culture produced, maintained, and transmitted within a society. Imbued with cultural significance. Tangible cultural heritage may refer to: places of human habitation – including buildings, villages, towns and cities, structures documents and archives, works of art, handicrafts, musical instruments, furniture, clothing, items of personal decoration; religious, ritual, and funerary objects; tools and mechanical equipment; and industrial systems. >Cultural heritage

# **Thermofitting**

Installing energy-saving materials and devices in existing buildings in order to minimise heat losses and reduce energy consumption (roughly equivalent to "retrofitting for energy conservation").

### **Tentative list**

Each country that is a Inventory elaborated by each State Party to the UNESCO World Heritage Convention is requested to draw up a list, naming with the cultural and natural sites it intends to nominate for inclusion in the World Heritage List in the next five to ten years. This 'inventory' is known as the Tentative List and provides a forecast of the properties that a State Party may decide to submit for inscription may be updated at any time. It is an important step since the World Heritage Committee cannot consider a nomination for inscription on the World Heritage List unless the property has already been included on the State Party's Tentative List.

# The Vienna Secession (Secession)

Art style from the end of the 19th century, closely related to Art Nouveau, that was formed in 1897 by a group of Austrian painters, graphic artists, sculptors and architects, including Josef Hoffman, Koloman Moser,

Otto Wagner, and Gustav Klimt in Slovene architecture also Josef Plečnik. Before mentioned artists resigned from the Association of Austrian Artists in protest against its support for more traditional artistic styles.

#### **Tradition**

Term is based on the Latin word 'traditio' (to interfere). Traditions are thinking, principles, values, skills, customs, and beliefs and ways of acting that people in a particular society that has have been handed down from one generation to the next in a particular society in technical and sociological terms, where all these elements are intervolving in the common operations terms. Oral traditions are an example of traditions that remain an essential part of human society today. These traditions include stories such as the legends and myths that have been passed down over the years to generations. Traditions could also include music and its styles as well as poetry and the different styles of the art. Traditions refer to the way of a particular group of people does things and the explanation behind it.

# **Traditional knowledge**

Accumulated knowledge and understanding of the human place in relation to the universe. This encompasses spiritual relationships, relationships with the natural environment and the use of natural resources, relationships between people, and is reflected in language, social organisations, values, institutions, and laws.

# **Traditional building trades**

Loosely defined categorization of building trades who actively practise their craft in respect of historic preservation, heritage conservation, or the conserving and maintenance of the existing built environment. Though traditional trade practitioners may at times be involved in new construction, the emphasis of the categorization is toward work on existing structures, regardless of their age or their historic value, with a specific interest in replication or conservation of the original results and craft techniques. They commonly include masonry, timber framing, traditional roofing, upholstery, carpentry, and joinery, sometimes plumbing, plasterwork, painting, blacksmithing, and ornamental metal working (Bronze and brass) etc.

#### **Treatment**

All direct interventions carried out on the cultural property with the aim of retarding further deterioration or aiding in the interpretation of the cultural property. A treatment may range from minimal stabilisation to extensive restoration or reconstruction. The deliberate alteration of the chemical and/or physical aspects of

cultural property, aimed primarily at prolonging its existence. Treatment may consist of stabilisation and/or restoration.

# Typology

Theoretical system of the same or alike elements, which correspond in a common acting as technical or visual characteristics of a detail or the whole unit. Is the study of types or the systematic classification of the types of something according to their common characteristics. Typology is the act of finding, counting and classification facts with the help of eyes, with other senses, and through logic systems of classification according to general type. It means study of, or analysis or classification based on types or categories.

### Tudor architectural style (1485 - 1603)

Final development of mediaeval architecture in England, and also the tentative introduction of Renaissance architecture. In the much more slow-moving styles of vernacular architecture "Tudor" has become a designation for styles like half-timbering that characterise the few buildings surviving from before 1485 and others from the Stuart period.

# U-W LETTERS

#### **UNESCO**

United Nations Educational, Scientific and Cultural Organisation. Is a specialised agency of the United Nations (UN) aimed at promoting world peace and security through international cooperation in education, arts, sciences, and culture. It was founded in 1945. As a focal point for world culture and science, UNESCO's activities have broadened over the years; it assists in the translation and dissemination of world literature, helps establish and secure World Heritage Sites of cultural and natural importance, works to bridge the worldwide digital divide, and creates inclusive knowledge societies through information and communication. UNESCO has launched several initiatives and global movements, such as Education For All, to further advance its core objectives.

# Underwater cultural heritage

Witness of our common memory, for several millennia, that lies underneath, seas, lakes and rivers etc. They hide from view and protect under the surface a priceless heritage, largely unknown and underestimated. No one can protect what is unknown. Though we can have standards for it, how to deal with underwater

cultural heritage it still can be a problem as it lays underneath the water, and we need to keep it safe from the different predators and danger.

# Usurpation

Wrongful or illegal encroachment, infringement, or seizure. It has a negative connotation in architecture, which means interventions into building sites or even building without building permits. Usurpation is also any non-professional intervention and activity in monuments and other cultural heritage.

#### Value

Principles or standards of behaviour; common, institutional, or individual judgement of what is important in work, culture, or life. Is the positive characteristics attributed to heritage places and objects by legislation, governing authorities, and/or other stakeholders. These characteristics are what make a site significant, and they are often the reason why society and authorities are interested in a specific cultural site or object. In general, groups within society expect benefits from the value they attribute to the resource.

#### Vernacular architecture

Can be defined as a type of local or regional construction, using traditional materials and resources from the area where the building is located, created by untrained experts without the supervision of schooled professionals. Consequently, this architecture is closely related to its context and is aware of the specific geographic features and cultural aspects of its surroundings, being strongly influenced by them. For this reason, they are unique to various places in the world, becoming even a means of reaffirming an identity.

# Victorian architecture (1845 - 1900)

A series of architectural revival styles. Victorian refers to the reign of Queen Victoria (1837–1901) in England, called the Victorian era, during which period the styles known as Victorian were used in construction. However, many elements of what is typically termed "Victorian" architecture did not become popular until later in Victoria's reign. The styles often included interpretations and eclectic revivals of historic styles.

# Vulnerability

The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. The structural conditions,

including physical, social, cultural, economic, and political systems that render people and communities susceptible to the impacts of hazards, and which make it possible for a hazard to become a disaster.

# **World Heritage Site**

Landmark or area with legal protection by an international convention administered by the United Nations Educational, Scientific and Cultural Organization (UNESCO) for having cultural, historical, scientific or other forms of significance. There are three types of sites: cultural, natural, and mixed.

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ISBN 978-615-80491-1-5 Heritage Management. Educational Handbook ÉK Egyesület

Re-think Heritage! Erasmus+ KA2 Strategic Partnership 2020-1-HU01-KA202-078795