GREEN PAPER on the Sustainable Management of Cultural Heritage

MINISTERIO DE CULTURA
DIRECCIÓN GENERAL DE PATRIMONIO CULTURAL Y BELLAS ARTES

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We usually find in books more than answers and keys to understand what is happening to us. Books are captures of a universal knowledge, which belongs to us all and benefits us all equally. This new edition of the Green Book for the sustainable management of cultural heritage is a good example of this. It is a large shared archive that reflects a certain spirit of dialogue: one that, in a world facing the challenge of the climate crisis, shares the knowledge acquired and the practical solutions required for the management of cultural and natural heritage.

No discipline is unaffected by this challenge, least of all culture. That is why the participatory will of this living document, in permanent progression, is also the driving force behind cultural rights that have to do with people's access to cultural goods and their participation in cultural life itself.

The sustainable management of heritage is, more than a reactive response, a solution for the future, as a driving force for social and economic development and the structuring of the territory. This is why sustainability, and integral categories such as cultural landscape, define the way in which our Ministry wishes to approach heritage management policies within the scope of its competencies.

It was at Mondiacult 2022 that our country joined a will, expressed by countries around the world, to defend "culture as a global public good with an intrinsic value to facilitate and promote sustainable development". This Green Paper, presented at forums such as the recent COP 28 in Dubai, is, in this sense, a useful tool for achieving certain objectives related to the demographic challenge, social cohesion and climate change. These aims and goals will undoubtedly continue to play a leading role in the Unesco World Conference in 2025, which will be held

in Barcelona.

I am convinced that this Green Paper -accessible on the Ministry of Culture's website in our official languages, English and French- will then be, as it has already been, an applied example of sustainable heritage practices as well as a guide, of international scope, of that respectful, egalitarian and fairer way of relating to what belongs to us as a society, which is, in short, what we are.

ERNEST URTASUN DOMÈNECH
Minister of Culture

Presentation

The signs of the current development model's weakening are increasingly clear. Some time ago, the climate crisis forced progress to be made in applying sustainability-based criteria and, in this line, the goals of the 2030 Agenda and the European Green Deal have become the two main pillars with which the planning strategies of governments are designed. Along with this, the COVID-19 pandemic, the economic and energy crisis and the political instability that followed it make reconsidering cultural management policies an urgent task.

Recent events have shown that culture is an essential asset that provides greater well-being to society, making it fairer, freer and richer in its diversity. It therefore deserves to be considered a specific Sustainable Development Goal, as declared by the ministers of culture of the Member States gathered at the World Conference on Culture (Mondiacult), held in September 2022 in Mexico City and organised by UNESCO. In this context, the Government of Spain's Ministry of Culture is committed to the development of initiatives such as the *Green Paper on the Sustainable Management of Cultural Heritage*.

Cultural heritage sets, in a special way, an example of a sustainable and resilient model that coexists in balance with nature. A paradigmatic example of this is the cultural landscape, a conglomerate of tangible and intangible living heritage that combines traditional knowledge, construction techniques and trades that have taken advantage of natural resources without depleting them with centuries of experience that demonstrate their adaptation to change. Spain has centuries-old examples of cultural landscapes which extend throughout all of its

regions: the pastures and paths of transhumance, the olive groves and the thousand-year-old crops characteristic of the Mediterranean, the vineyards and fruit orchards. Vestiges of the past, some in ruins, the recovery of which may be too late for us; and others still in use or re-used, creators of identity from a received inheritance that is renewed and which must be preserved as a resource of multiple riches by applying smart management.

A "green paper" is a document created to encourage reflection and provide a roadmap for a specific topic. In drafting this document, interested parties (organisations and individuals) are encouraged to participate in a process of consultation and discussion about the issue, wherein objectives and priorities are identified and the necessary mechanisms for their development are generated. In this case, the paper was created with the intention of becoming a living document, with a focus on improvement and constant updating. It projects a comprehensive scope, corresponding to the very notion of "cultural asset" and the various heritages that it comprises, creating a reference space for any interested party —both the professional manager, archaeologist, historian, architect, engineer, restorer and the ordinary citizen or local association—, so that it equally serves the agency responsible for its management, the owner and the guardian of an asset. It seeks to make progress in building a common management model that takes on present and future challenges, ensuring coherence between national policies and international standards, fostering cooperation between manager and community, promoting the implementation of assessment and control instruments, and encouraging the adoption of a proactive approach in relation to sustainable development.

This Green Paper is being put forward as part of the programme by the Spanish presidency of the Council of the European Union, following in the footsteps of the Czech presidency in 2022, which published a report on the cultural dimension of sustainable development in European Union actions. This project is carried out by the Directorate General of Cultural Heritage and Fine Arts of the Ministry of Culture and is coordinated, through its Support Unit by the Sub-Directorate General of the Spanish Institute of Cultural Heritage and the

Sub-Directorate General of Management and Coordination of Cultural Assets. It is drafted by a working group made up of representatives from different governments and varying institutions, organisations and associations with a consolidated track record in the defence, management and conservation of Spanish cultural heritage. The text was submitted for public consultation in June 2022 and, based on the contributions received and contact with various stakeholders, successive drafts were developed. Although the references to regulations and governmental competences refer directly to the particular situation in Spain, the concepts that make up the technical corpus of the book can be extrapolated to any other country, as they always underlie the common and universal idea of safeguarding and transmitting cultural heritage.

This paper is the result of an extraordinary collaborative process and, for this reason, the project team wishes to thank all organisations and individuals for their invaluable contribution. It also serves as a starting point: from now on, and with the help of new technologies and all stakeholders, it must become a meeting place for society and its cultural heritage, a repository of good practices, a catalogue of experiences to learn about and draw from, a place to find answers to the questions that will arise in order to adapt cultural heritage to its sustainable management.

ISAAC SASTRE DE DIEGO
Director General of Cultural
Heritage and Fine Arts

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1

CULTURAL HERITAGE AND REGULATORY FRAMEWORK

Cultural heritage, as we understand it today, comprises all those inherited elements (tangible and intangible) that make up our cultural identity: elements that we consider worthy of preserving and transmitting to future generations, thus allowing these generations to be recognised as depositories of a legacy and to feel, as we do today, that they continue a collective work through history which does not end with them, but which is projected into the future. Cultural heritage is not simply the creations of others that are worth preserving; it is what we have been doing and what we want to continue with us. The concept of "cultural heritage" refers to a **complex, multi-faceted reality that is constantly being constructed** and is subject to social, technical, legal and intellectual assessments that evolve throughout history.

Cultural heritage is not simply the creations of others that are worth preserving; it is what we have been doing and what we want to continue with us.

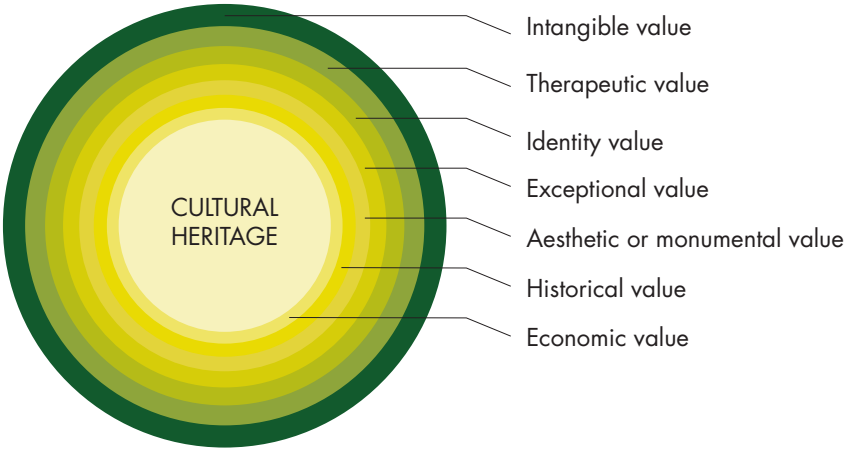
Collective participation and belonging to society as a whole are the most distinctive features of this heritage and allow society to recognise it and enjoy it as its own, even if the ownership of assets is private or knowledge of particular know-how is personal or belongs to a host community. The duality of cultural heritage is one of the keys to its legal and governmental framework, and the legislative rules on this matter aim to integrate and reconcile public-private ambivalence, as well as tangible-intangible ambivalence.

Therefore, cultural heritage has formal and intangible characteristics that may be the result of a combination of times and ways of perceiving this heritage. The most common or traditional intangible values assigned to heritage assets have been economic (or treasure), relating to antiquity (or historical), monumental and aesthetic (or artistic) and relating to singularity or exceptionality (or universal). These traditional values coexist with other values that have been recognised more recently, said values being decisive for understanding the current reality of cultural heritage: the value of identity rooted in a place (or representation), the therapeutic and medical value that it generates (well-being) and the value of memory, alive or recalled (or intangible).

When planning heritage asset management, the first step should be to know and define the values that assets hold dear and what justifies or is the reason behind them. It is important to highlight these values and, if they exist, gather those that appear in the declarations or protection files they have, which state that they belong to a certain category of regional or national governmental protection. Nonetheless, it is also important to be able to recognise the informal or popular values that society, and especially the host community, assigns them.

> The first step should be to know and define the values that an asset holds dear and what justifies or is the reason behind them.

Values that can be assigned to cultural heritage

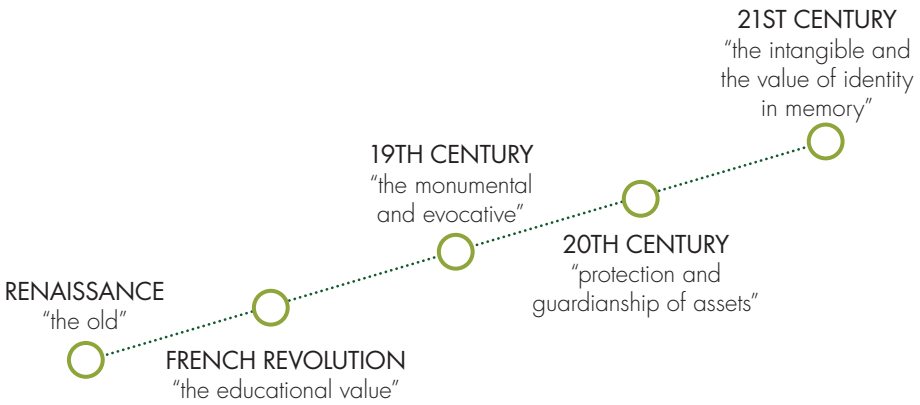


Types of values associated with cultural heritage

Intrinsic values	Heritage values	Potential value
significance, rarity, monetary value, state of conservation, etc.	historical, symbolic, social, artistic, technical, etc.	educational resource, touristic resource, economic resource, new use, etc.

The concept of "heritage" originally arose associated with the idea of "treasure" and in the 20th century it underwent an accelerated and uninterrupted process of expansion. After the historical-artistic or monumental aspect (concepts already established at the end of the 18th century), categories of different types (industrial, archaeological, underwater, audiovisual and digital heritage) or scope (cultural landscape, for example) were incorporated. But perhaps the most notable feature of this evolution was the incorporation of intangible assets into the heritage category.

Values that have been linked to cultural heritage throughout history



This recognition entails a **new notion of culture** that is much broader and in which heritage identity emerges and becomes a **key element of social development and, therefore, an essential asset.** The sense of belonging, both individual and collective, helps to maintain social and territorial cohesion. Heritage upholds societies, making access to it a fundamental right. Furthermore, the great economic importance that it has taken on for the tourism sector in recent times cannot be forgotten, which creates new challenges for its conservation and management.

> Cathedrals must be understood within their urban landscape and traditional architecture within its agricultural, livestock, mining or coastal environment.

Nowadays, cultural heritage is therefore associated with a **living and organic concept**, in which the tangible cannot be separated from the intangible, nor tools from uses and places, nor clothing from traditions and landscapes. The study of a specific place involves the analysis of its history and its meaning, of what is carried out there, from whom, with what or how people live there. That is why cathedrals must be understood within their urban landscape and traditional architecture within its agricultural, livestock, mining or coastal environment, for example.

> We participate in a new notion of culture that is much broader and in which heritage identity emerges and becomes a key element of social development and, therefore, an essential asset.

1.1. LEGAL PROTECTION OF CULTURAL HERITAGE IN SPAIN

Cultural heritage has a legal framework that must be understood when it is being managed. In Spain, it is regulated by Law 16/1985, of 25 June, on Spanish Historical Heritage (known by the Spanish acronym, LPHE), Law 10/2015, of 26 May, on the Safeguarding of Intangible Cultural Heritage (known by the Spanish acronym, LPCI), and Royal Decree 111/1986, of 10 January, on the Partial Development of Law 16/1985, of 25 June, on Spanish Historical Heritage.

Based on these premises, it is important to take into account that, in this country, the creation of the State of Autonomous Regions involved the transfer of a number of powers to the cities and autonomous regions in various areas that affected their territory, including allocation of powers in matters of culture. The basic distribution of powers in this regard is established in Article 6 of the LPHE. Paragraph b) of this article states that the competent bodies responsible for protecting culture shall be “the national government when it is expressly stated or it becomes necessary for them to intervene to defend against illegal export and spoliation”, as well as “with regard to Spanish Historical Heritage assets that are assigned to public services managed by the national government or that form part of the National Heritage”. All other cases, in other words, assets of regional and local public ownership and assets of private ownership,

as stated in Art. 6 (a) of the LPHE, are subject to management by the autonomous regions, competent in terms of their own assets, assets belonging to private entities and individuals, and those assets that have been assigned thereto in terms of management or ownership.

The distribution of powers is organised through the bodies responsible for the guardianship of cultural heritage in each case. At the national level, the power lies with the Directorate General of Cultural Heritage and Fine Arts of the Ministry of Culture, and in the regional context, the organism in charge is the Department of Culture of the corresponding territory or body. It must be borne in mind that, depending on the region, or even the political party in power, the name of these bodies may vary. In any case, and provided that it entails cultural heritage management, national laws will apply, in other words, the LPHE and the LPCI, as well as current regional legislation on cultural heritage.

Distribution of power between the National Government and the Autonomous Regions, in accordance with the provisions of the Spanish Constitution and Article 6 of the Spanish Historical Heritage Law

STATE	AUTONOMOUS REGIONS
> Cultural heritage management when expressly indicated > Intervention vs. illegal export and spoliation of Spanish Historical Heritage (PHE) > PHE cultural assets assigned to public services managed by the National Government (AGE) > Cultural assets of Patrimonio Nacional (Crown) > International dissemination of knowledge about the assets comprising the PHE	> Management of assets of regional, local and private ownership > Assets of state ownership transferred for their management > Assets of state ownership assigned for use > Assets assigned to their regional governmental administration > All other assets > Land planning, urban development and the environment > Interventions on and preservation of archaeological sites

In Spain, the LPHE establishes three levels of protection: assets of cultural interest, the highest category of recognition and protection for (known by the Spanish acronym BIC) and immovable assets due to the uniqueness of their values; General Inventory of Movable Assets; and a basic level, defined in Article 1.2 LPHE, which integrates the Spanish historical heritage given its characteristics. Moreover, at the maximum level of protection, whether or not BIC is declared, one type of assets considered to be in the public domain and, therefore, these assets are inalienable, guaranteed against seizure and imprescriptible, is included. This is the case of archaeological heritage.

Levels of protection declared by the Ministry of Culture and Sports or by the Autonomous Regions

Regional legal schemes created other categories, although the figure of BIC is always present, being able to coexist with other levels of protection such as the level of asset of heritage interest (AHI) contemplated in the regions of Castilla-La Mancha and Madrid. Likewise, some regions establish other categories of protection for assets that do not meet the BIC requirements, such as the inventory of immovable assets in Navarre or designated assets in Aragon.

LEGAL LIBRARY

The section of the *Official State Gazette* includes all national and regional updated legislation related to the protection of cultural heritage in Spain.

The definition of each of these categories, as well as the specific scheme required by each level of protection, is set out in the corresponding regulations. There are also provisions applicable to different types of heritage according to their nature, which represent a strengthening of their protection: archaeological, ethnographic, documentary and bibliographic heritage. Environmental regulations are also applicable to natural heritage as well as to mixed assets (cultural and natural heritage, as is the case of cultural landscapes).

Regarding the guardianship of cultural heritage by municipalities and provincial councils, Law 7/1985, of 2 April, Regulating the Local Sphere, as well as national and regional regulations on culture, are applicable. It can therefore be deduced that, in compliance with the provisions on urban planning and the environment, city councils are competent in the drawing up of urban planning tools such as special supplementary plans to the General Urban Planning Plans (GUPP), the inventory of assets with Spanish historical heritage values, the custody of the BIC and the dissemination of the existing cultural heritage in their municipal area. Provincial councils, on the other hand, collaborate with the city councils of the territory under their administration to safeguard cultural heritage through legal, economic and technical assistance.

The legal regulations also make special mention of promotion measures with the aim of favouring conservation, maintenance and renovation works, as is the case of the 2% allocation for culture, or measures including national or local tax reductions or exemptions, such as exemptions on the payment of asset tax (IBI) for some BIC assets. As for the State, the necessary assessments in order to apply some of these measures that affect movable assets, such as donations, are carried out by the Board of Qualification, Valuation and Export of Assets of Spanish Historical Heritage and in some autonomous territories through their counterparts.

And, of course, the law stipulates the damage committed against cultural heritage and establishes the penalty scheme. Depending on the seriousness of the act, it will be considered an administrative offence or a crime. The laws on cultural and historical heritage establish the procedures and the amounts of the penalties related to administrative offences, while crimes are set forth in the Criminal Code.

1.2. REGULATIONS ON CULTURAL HERITAGE AT THE INTERNATIONAL LEVEL

International organisations, such as UNESCO or the Council of Europe, have worked on the drafting of **conventions, treaties and recommendations** aimed at the protection and preservation of cultural heritage in any of its aspects. Spain has ratified all these conventions and applies them based on their content and the features of the cultural assets to which they are directed. Among them, it is worth mentioning the 1954 Hague Convention and its two Protocols for the Protection of Cultural Property in the Event of Armed Conflict, which in Spain have focused on heritage risks in times of peace, in collaboration with the International Committee of the Blue Shield. Likewise, the European Union has expressed its interest in protecting cultural assets through different directives and resolutions that have been adopted by the Spanish legal system.

> The recognition entails a commitment from the managers of these places which is reflected in their preservation and their promotion to all citizens.

Furthermore, international organisations have created a series of categories that include sites with values that are so unique that it makes them deserving of special treatment. The most significant example is the World Heritage List, created under the UNESCO Convention on World Cultural and Natural Heritage adopted in 1972, which recognises the “outstanding universal value” of assets. The list currently includes fifty Spanish assets. On the other hand, there is the figure of Globally Important Agricultural Heritage Systems (GI-

AHS), created by FAO to identify and safeguard regions with unique landscapes that combine agricultural biodiversity with resilient ecosystems and valuable cultural heritage.

At the European level, it is important to highlight the European Heritage Label, promoted by the EU and awarded to sites that have played a prominent role in the history and culture of Europe, and which has been awarded in Spain three times; as well as the European Landscape Award of the Council of Europe, which distinguishes actions aimed at protecting and managing natural and urban landscapes, assigned to twenty Spanish natural sites.

Finally, there are the representative manifestations of intangible cultural heritage, both those declared at the regional and national level and those that are part of the UNESCO list within the framework of the 2003 Convention. In all cases, the recognition entails a commitment from the managers of these places, which is reflected in their preservation and their promotion to all citizens.

Categories or distinctions granted by international organisations

2

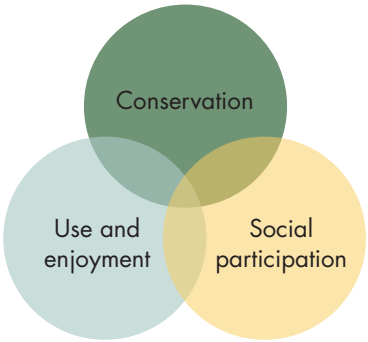
SUSTAINABLE MANAGEMENT OF CULTURAL HERITAGE

The **management** of cultural heritage is the set of actions that are carried out in a planned manner for the administration, control and protection thereof. It not only refers to possible conservation/restoration work on a cultural asset or its economic exploitation, but also implies a comprehensive view that guarantees conservation, documentation, research, dissemination and improvement.

Progressive awareness on the part of civil society about the role played by culture as the backbone of community development makes it even more important, if possible, for this management to be responsible. Heritage elements cannot be isolated from the maintenance, transmission or transformation of traditional economic practices, from social dynamics or from the influence of these elements on communities.

The ultimate goal and unavoidable condition of cultural heritage management is the **preservation and transmission of culture,** which, in addition to guaranteeing the conservation of assets, allow for use and enjoyment that are compatible with said assets' values and promote their universal accessibility on the basis of equal opportunities and non-discrimination.

Pillars of preservation and transmission of cultural heritage



Likewise, "sustainability" is a term that is increasingly rooted in society and involves the optimisation of resources continuously over time. The concept arose in the 1960s and is associated with ecology, based on the evidence that the planet's resources are not infinite. Since then, and as a result of various milestones such as the Brundtland Report of 1987

and the Rio Declaration on Environment and Development of 1992, society has gradually become aware of its importance, nowadays a term that is at the fore of the current situation and an essential challenge in all scopes and scales of the planet.

In the current global context of the socioeconomic crisis and environmental and climate emergency, concern for sustainable management has intensified and it affects all aspects of daily life. Achievement thereof rests on three complementary and interdependent pillars: **economic, environmental and social sustainability**, establishing the balance between economic growth, respect for the environment and social equity.

Plans, conventions or documents that refer
to the sustainable management of cultural heritage

International framework

> UN: 2030 Agenda + Sustainable Development Goals
> G20 Ministers of Culture
> Bali Declaration

European Union

European Framework for Action on Cultural Heritage
> Interreg Atlantic Culturescape Project
> Cultural Heritage in Action
> Horizon Europe
> New European Bauhaus

Council of Europe

> Faro Convention
> Florence Charter
> Granada Charter

Spanish framework

> National Plan for Adaptation to Climate Change 2021-2030. Ministry for the Ecological Transition and the Demographic Challenge (MITECO)
> Spanish Urban Agenda
> National plans of the Ministry of Culture

Added to these pillars is the concept of **«cultural sustainability»** coined in 1995 by the United Nations World Commission on Culture and

Development as the "principle of intergenerational equity, applied to the management of cultural capital, understood as the culture inherited from our ancestors, and which will be passed down to future generations".

The mark left by these concepts has been collected at the international level in organisations such as the European Union or the Council of Europe, and at the Spanish level in initiatives by different agencies and ministerial departments.

CULTURE AND SDGS

The Spanish Sustainable Development Network (REDS) carried out an analysis on the cross-disciplinary presence and contribution of culture to the seventeen SDGs: «Sustainable development goals and their targets from a cultural perspective». This document discusses the 17 SDGs and their 197 targets, selecting those in which a cultural dimension could be included.

In particular, it is important to highlight the seventeen **Sustainable Development Goals**[1] (SGDs) included in the 2030 Agenda, a set of global goals established by the UN in 2015 to eradicate poverty, protect the planet and ensure prosperity for all within a timeframe of fifteen years. Culture was not considered an individual goal in these seventeen SDGs, although it is a cross-disciplinary element that is present in all the goals.

Sustainable Development Goals

[1] The content of this publication has not been approved by the United Nations and does not reflect the views of the United Nations or its officials.

However, the COVID-19 pandemic and the current crisis are demonstrating how cultural sectors are strategic to achieving a fairer society and a sustainable economic model, especially through cultural heritage. That is why culture should have a specific SDG.

The necessary association of sustainability and culture particularly justifies the implementation of sustainable cultural heritage management that will not only result in its greater presence, both in its intangible and tangible aspects, but will also transform it into an economic resource that is environmentally friendly and contributes to social cohesion.

G20

In its G20 presidency (from 1 December 2022 to 30 November 2023), India chose "One Earth, One Family, One Future" as the theme for the Culture Working Group, with four thematic priorities or areas of discussion. Priority 2 focuses on "harnessing intangible heritage for a sustainable future" and it seeks to answer the following key questions:

- How can G20 Member States promote and safeguard intangible heritage to support the transmission of knowledge and techniques to future generations and contribute to education in general?
- How can G20 Member States harness living heritage practices to combat global socio-environmental challenges and achieve the Sustainable Development Goals?
- How can G20 Member States integrate intangible heritage practices into public policy to build a more comprehensive approach to culture and enable ties to be made with other policy areas such as health and wellbeing, education, climate action and disaster risk reduction, among others?

The principles of sustainability applied to cultural management provide greater efficiency and effectiveness at all levels. But, nevertheless, cultural heritage itself is considered an unparalleled resource for sustainable human development in terms of the component that is experienced as well as cared for. Cultural heritage is also an example of the circular economy and an eco-efficient element in itself, since there is an optimal relationship between the value of what is produced and the environmental cost related with its production process, especially in pre-industrial terms. At the same time, the preservation of historical elements and the prolongation of their use and service life act as a model to transition towards a less concentrated and dependent economic system.

COP27

Spain had its own pavilion at the 27th Climate Summit (COP27) held in November 2022 in Sharm El Sheik (Egypt), in which it participated with the presentation "Sustainable Management of Cultural Heritage in the XXI Century: New Tools for the 2030 Agenda" from the Ministry of Culture, through the Sub-Directorate General of Management and Coordination of Cultural Assets.

[Heritage] promotes the reuse and recycling of infrastructure and heritage buildings to respond to current needs and contribute to appropriation by citizens, adapting new social, cultural and economic uses […] In their new uses, this infrastructure promotes the suitable and efficient management of natural resources, especially through energy and water efficiency measures and comprehensive waste management, which guarantee better management and control of heritage's environmental footprint.

Inter-American Development Bank

Pillars of sustainable management of cultural heritage

The conceptual framework that defines sustainable cultural heritage management must serve as a starting point to effectively and comprehensively address the main problems it faces, especially the following:

- **Climate change**: it is already an environmental reality that has negative consequences occurring at two speeds: it produces specific damage immediately and it gradually alters the state, material and

shape of assets until causing irreversible damage. The main evidence is meteorological: changes in rainfall (intense periods of drought or rain) and sudden temperature fluctuations (increase or decrease in temperature in short intervals of time).

- **Emergencies**: the incidence of these unforeseeable situations, occurring as a direct or indirect result of climate change, among other factors, or with a human-provoked origin, has skyrocketed in recent years. This is even exacerbated by the emergence of new and unimaginable situations, as happened with COVID-19, or with a new framework of international geopolitical instability that was thought to have been overcome.

- **Lack of investment and resources:** despite the wealth it generates (2.2 % of GDP in Spain), public spending on culture has a chronic deficit and barely reaches 1% in all governmental departments, a tiny amount that is the average in Europe. Comprehensive and solvent management implies a balanced, proportional and stable economic investment to meet material and staffing needs.

- **Overexploitation:** before the COVID-19 pandemic, cultural tourism in Spain was the fastest growing tourism sector, reaching 16.6% of the total in 2019 and 17.2 % in 2022. Data from the last quarter of 2022 indicated that the pre-pandemic numbers of visitors and users of cultural facilities are recovering. The increase in cultural heritage as a resource for leisure and tourism, with the direct and indirect economic benefits that it entails, represents a serious risk of overexploitation which can alter or destroy the values that make it a common asset (if it is not accompanied by a sustainable management model, that is).

- **Vandalism and spoliation:** both situations can cause serious and irreversible damage to cultural heritage and, in parallel, demonstrate a lack of identity of the community.

- **Depopulation:** this serious sociological and economic problem also has a profound twofold impact on cultural heritage: on the one hand, tangible, since the abandonment of assets causes their deterioration and ruin; and on the other hand, intangible, with the loss of cultural manifestations; and, finally, the link that binds the community to its heritage and cultural identity is also affected.

- **Inequality:** differences or discrimination in the cultural scope is caused by a lack of accessibility, whether it be physical, cognitive, sensory, age-related or digital, which hinders and jeopardises the right to access culture.

To tackle these major general problems, as well as those specific to each asset, there is a set of tools that, when combined, make it possible to properly manage cultural heritage and are also compatible with the criteria of environmental, economic and social sustainability.

List of the threats detected and the tools available to achieve the goals that guarantee the sustainable management of cultural heritage

Problems/ threats

> Climate change
> Emergencies
> Lack of resources
> Overexploitation
> Vandalism and spoliation
> Depopulation
> Inequality

Tools

> Planning
> Patronage, sponsorship and participation of civil society
> Professionalisation
> Assessment and control
> R&D&I
> New technologies
> Cultural tourism
> Dissemination, promotion and education

Targets

> Environmental sustainability
- Energy efficiency
- Respect for the environment

> Economic sustainability
- Economic, technical, human and material resources

> Social sustainability
- Accessibility
- Social inclusion
- Identity

Cultural heritage guardianship and transmission

2.1. TOOLS

The responsible and conscious management of cultural heritage has different instruments that make it possible to undertake any project with guarantees of success, regardless of its nature. The most important instruments are described below.

2.1.1. Organisation

2.1.1.1. Planning and supplementary resources

The fundamental tool to achieve truly sustainable management is **flexible planning**, which implies the clear definition of goals and the strategy to reach them. All those responsible for a heritage asset must make use of planning suited to its characteristics and scale. Both the owner or host community and the guardian and management institutions must design the strategic lines of action and management measures, either to undertake one-off projects or to prepare multi-annual strategic plans, which will translate into specific programmes and projects with viable resources and deadlines. This planning always requires that the future be considered in order to try to anticipate changes, but it also calls for some flexibility, since the ability to adapt in a changing world like today's is essential.

Tools for the sustainable management of cultural heritage

At the Spanish level, there are mechanisms and means that can establish the guidelines to follow when planning heritage management: from national plans, such as a framework for action among governmental agencies, to quality certificates that guarantee certain actions or good practice records. These are examples that can be replicated at their respective scale to attain a number of objectives.

Work phases

The national plans are presented in Spain as a methodological framework and a management and coordination tool between the central government, the autonomous regions and other public and private entities. This resource makes it possible to establish, from an interdisciplinary point of view and on the basis of consensus, the criteria and lines of action necessary to safeguard different types of cultural heritage or to develop certain cross-cutting disciplines.

INDUSTRIAL HERITAGE

In 2020, the National Plan for Industrial Heritage developed a project to document and draw up an interactive map with a list of 177 relevant assets in this category, selected in collaboration with the autonomous regions.

The content of the documents that govern the plans differs depending on the subject they address, although most of them are made up of four major blocks:

1. Basic aspects (definition, description and stakeholders).
2. Methodological aspects (what and how it will be carried out).
3. Criteria for scheduling actions (planning).
4. Implementation and follow-up strategies (assessment of results and implementation of improvements).

Once these documents have been drafted, formulated and approved, the plans continue to function through their respective **follow-up committees**; all stakeholders must participate in all of them. In the case of national plans, they are made up of technicians from the Ministry of Culture and from the autonomous regions, as well as external experts. Two meetings are usually held a year, so it is a participatory and coordinated process both in its formulation and in its development and follow-up.

At present, there are fifteen national plans for cultural heritage, coordinated by the Directorate General of Cultural Heritage and Fine Arts. In 2022, a review process began that seeks to improve its scope and effectiveness.

National plans promoted by the Ministry of Culture

In the scope of heritage, especially when substantial interventions must be carried out, master plans are essential. A **master plan** is a document that, like a roadmap, sets out the multidisciplinary actions to be carried out on an asset, an institution or a heritage monument

in order to achieve suitable management in which, furthermore, all values are protected and the assigned functions are performed. The master plan aims to coordinate, coherently and under similar criteria, the different phases of intervention in different areas that, to the extent possible, have to be chronologically ordered and economically quantified to constitute a useful work tool.

In the event that management coexists with economic exploitation, **feasibility plans or studies** must be drawn up. Therefore, it is essential to reflect on a project's strengths and weaknesses to make the right decisions that ensure compliance with all goals and premises.

Museums, on the other hand, can also develop **museum plans** as a comprehensive institution planning and project management tool.

Development of a museum plan

Moreover, there are plans that can focus more specifically on certain areas of activity such as conservation plans or communication plans.

Planning, in any case, entails the implementation of actions required to achieve goals, in addition to the verification of the effectiveness of adopted strategies and updating if necessary to reorient the procedures.

Along with planning, sustainable management can also rely on quality control systems that verify the requirements to be met, for example, with regard to certain standards that are applied voluntarily. Here it is worth noting ISO standards, international reference

instruments for the **standardisation** of products and services. In Spain, the Spanish Association for Standardisation and Certification (AENOR) has, regulates, adapts, and certifies standards. AENOR has also developed a certification model that helps companies analyse and support the contribution of their sustainability strategy to the SDGs. These systems, in addition to guiding the teams involved, build customer loyalty and provide external support for the management carried out. Some AENOR standards (UNE, ISO, IEC, ASTEM, IEEE, BSI, DIN, SAE and EN) that can be considered in relation to cultural management are:

NATIONAL GOVERNMENT (AGE)

AGE Service Charters are regulated by Article 8 of RD 951/2005, which establishes the General Framework for Quality Improvement in the AGE.

- **ISO 50001** on energy management systems, with an interest in environmental sustainability.
- **UNE 170001** on universal accessibility and **UNE 139803** on website content accessibility in relation to social sustainability.
- **EA 0031** on risk management and **ISO 22320** on emergency management for security and conservation.
- **UNE 166001** on R&D&I project management in relation to research and new technologies.
- **Q** on tourism quality, **ISO 9001** on quality management and **UNE 178501-2** on smart tourist destinations for tourism.
- **UNE-EN ISO 14001-2004** on environmental management systems for waste treatment, resource optimisation and cost reduction.

Lastly, Service Charters, which have their own standard (UNE 93200), act as a sign of commitment to quality and the rights of citizens. They are documents through which bodies, organisations and entities inform citi-

Rigorous, precise and regular control is essential to assess the effectiveness of any action.

zens and users about the services entrusted to them and the quality, environmental or social commitments taken on when providing them, as well as their rights with regard to these services. Their content implies a serious commitment to society to achieve the goals established. Furthermore, Service Charters include the indicators for quality assessment and follow-up on these goals. They allow citizens to engage, make complaints and suggestions and, when properly understood, are a useful tool for collaboration and participation in improving the services offered.

Example of the content of the service charters
for the General Archive of the Indies and the Sorolla Museum

General Archive of the Indies

Service Charter on the purposes of the Archive, complaints and suggestions, services provided, specific rights of users, quality commitments and their indicators and relief measures.

Sorolla Museum

In its Service Charter, in addition to the services, rights and participation of the public, governing regulations, purposes of the centre, etc., it sets out the measures that improve the conditions of service provision, the standardised systems of quality management, environment and occupational risk prevention.

As mentioned when discussing planning, any action carried out within the framework of cultural heritage management must be assessed, whether it be a physical action or a dissemination or research programme. Rigorous, precise and regular **control** is essential to assess the effectiveness of any action. The **results obtained will make it possible to detect deviations** relative to the goals initially set and, therefore, will lead to the possibility of identifying shortcomings and modifying, readjusting or improving future actions or interventions. In this sense, there are different indicators based on the specific action and the aims sought therewith:

Example of questions to be assessed in three different areas of cultural management

PHYSICAL INTERVENTIONS (works, restoration, etc.)	RESEARCH	DISSEMINATION
> State of conservation of the asset at the beginning, during and at the end of the intervention > Certainty about the reversibility of the intervention > Use of sustainable materials and techniques (measuring the carbon footprint or other polluting aspects) > Behaviour of the intervention over time	> Amount of scientific or informational material generated > Impact of scientific articles on statistical metrics such as Google Scholar > Number of sales of books or publications consulted > Number of activities and their nature, organised with the aim of disseminating information gathered in the research > Number of citizens who have accessed and benefited from said information, including professionals	> Number of participants and number of references in the media or on social media > Level of satisfaction among participants (which can be assessed through questionnaires) > Level of satisfaction among mediators (or own technicians) in internal surveys

As a basic rule, it is essential to prepare follow-up reports on a regular basis, preferably before, during and after the action in question. If the action extends over a long period of time, the writing of several reports will be required during its course.

TOOLS

Two practical tools for applying this assessment and control are the recent publication of the *New Guide for the Assessment of Local Cultural Policies* by the Spanish Federation of Municipalities and Provinces in 2022 and the Social Platform for Holistic Impact Heritage Assessment (SoPHIA).

In the event that actions or activities with the presence of visitors are assessed, these reports must be supplemented by quantitative and qualitative statistical studies (surveys, interviews, complaints box, opinions published on social media, discussion forums, etc.) that allow their impressions to be determined.

2.1.1.2. Ownership and management

Regarding the ownership of assets, in the case of Spain there is private and public ownership. **Publicly owned** heritage is that which belongs to governmental bodies, be it the state, different regional governments or local governments. **Privately owned** heritage is that which belongs to a natural person, foundation or institution of a private nature, such as the Church, for example. Apart from the assets belonging to archaeological heritage and Patrimonio Nacional, which will always be in the public domain, the LPHE recognises the ownership of cultural assets to their owners, although the social function and universal access to them is always prioritised.

Likewise, the case may occur where an asset is not managed by the owner himself, but is **transferred**, as happens, for example, with a large number of archives and provincial museums. Ownership and management usually go hand in hand: public ownership-public management or private ownership-private management, although there may be exceptions that will have very specific legal arrangements, such as foundations or consortia where ownership is public but management is mixed or private, as is the case of the Lázaro Galdiano Foundation or the Toledo Consortium.

There are tools to find out who owns an asset and who is responsible for its management. Access to these tools tends to be public and open, although many times some of this information may be

restricted or have partial access for reasons of data protection. Thus, there are catalogues and databases with open information, such as the different urban layout databases of city councils and local governments, regional inventories, general urban planning plans, the General Registry of Assets of Cultural Interest of the Ministry of Culture, etc. There are also other applications to which only those people responsible for the different governmental agencies have access, such as the State Central Information Centre for Accountable Assets (known by the Spanish acronym CIBI), the Electronic Land Registry Office, registry documentation, archaeological charts, etc.

The ownership or management of the different types of heritage assets entails a series of **rights and obligations** set forth in the aforementioned current legislation on cultural heritage and will vary depending on the type of protection to which said assets are subject. These obligations always exist:

1. Conserve said asset.
2. Disclose its transfer to the competent governmental agency.
3. Allow its public viewing.
4. Notify of any type of action, restoration intervention or consolidation that is going to be carried out on an asset of cultural interest, among others.

AUTHORISATIONS

The capacity to authorise an action corresponds to the competent national government agency (AGE, through the Ministry of Culture; or the autonomous regions, through the Departments of Culture or similar organisations). When the protected asset is privately owned, the competent agency to authorise an intervention will always be the autonomous region.

In the case of immovable assets, and depending on the magnitude of the intervention, a draft, basic project or implementation project will have to be sent to the competent agency to obtain this authorisation.

This procedure will always be mandatory, potentially giving rise to penalties for the owner of the asset if what is established in the regulations is not carried out. City halls, for their part, grant other authorisations, such as building permits or special permits, and manage different fees, all with prior submission of the corresponding technical and administrative documentation.

Actions on movable assets must also comply with the provisions of the regulations of the competent agency, with a view to obtaining the relevant authorisation.

2.1.1.3. Power to act

The management of an asset or set of assets is absolutely conditioned by the powers to act, which define who has the responsibilities to act upon the asset. There are multiple responsibilities and they depend on several matters, which sometimes makes it difficult to discern who has the power to decide or act and how and when. Competent individuals can be both public players and private players and, depending on the nature of the action to be undertaken, the matters to be assessed will be of an administrative or technical nature.

Administrative powers are all those matters related to permits, authorisations, licences or fees that correspond to the governmental agency or agencies responsible for protecting the asset; while **technical powers** are those that take into account the need for actions on cultural assets to have, at least, coordination and follow-up by professionals or organisations specialised in heritage. Both powers must act in a complementary manner according to the phases of a project and the functions.

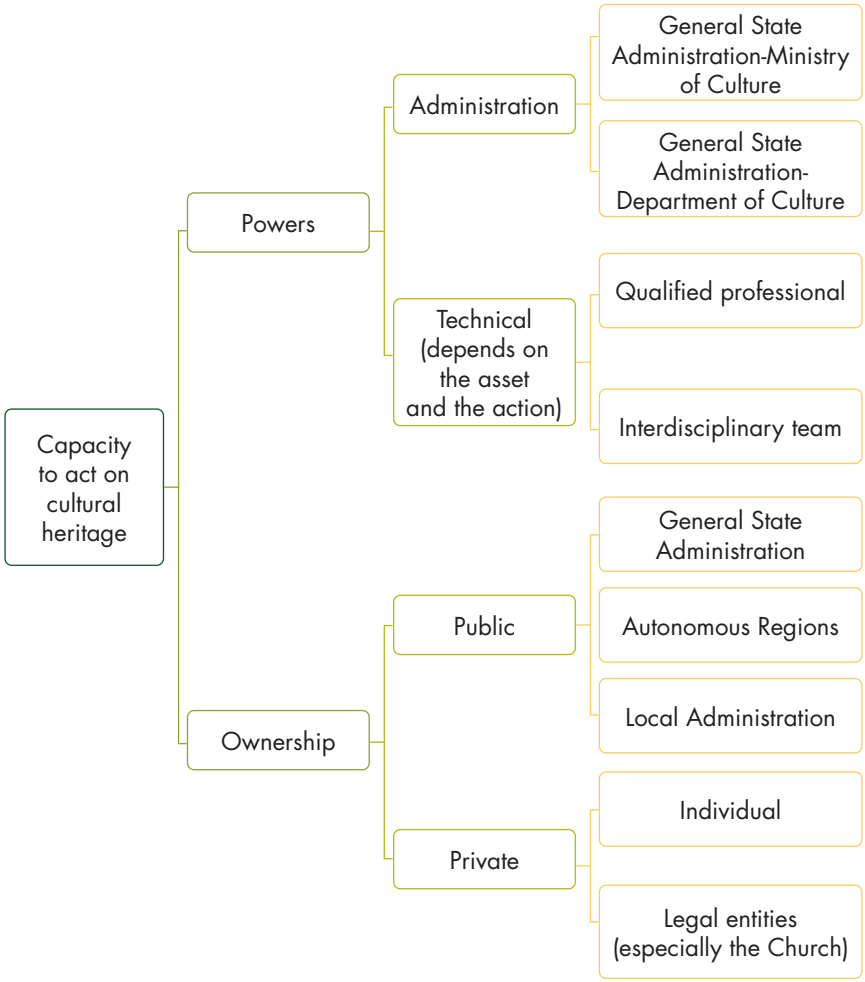
INSURANCE

Cultural heritage management can contemplate the relevance and need to take out insurance that covers possible damage or loss to people (civil or professional indemnity insurance) or to the asset itself (handling, transport, theft, environmental catastrophe insurance, etc.).

An incredibly frequent, controversial and paradigmatic situation is that of conservation-restoration interventions, architectural renovation, space adaptations, etc., which can have such an impact on the values of the asset or assets that special technical-administrative monitoring and control are essential as protective measures.

Technical power, on the other hand, entails a certain complexity for some professional activities since it is not clearly explained in the regulations, thus giving rise to dangerous situations for conservation and dissemination caused by professional intrusion. Whenever an action must be directly or indirectly performed on cultural heritage, qualified personnel must be involved. In order

Concept map on the capacity to act on a cultural asset in Spain



to identify who is qualified to carry out the action, both the **type of asset** to be worked on (movable or immovable asset, archaeological site, intangible manifestation, etc.) and the **type of action** to be carried out (restoration, maintenance and conservation, archaeological excavation or prospecting, research and characterisation of materials, communication plan, etc.) will be taken into account. On many occasions, the professionals associated with each type of action are those who write part of the

technical documentation to request authorisation from the competent agency.

Depending on the action, it will be necessary to have different professional profiles that cover all subjects, in many cases constituting interdisciplinary teams.

2.1.1.4. Collaboration systems

In the current social structure, all agencies with powers to protect cultural heritage interact, and the participation of **public entities and organisations** (defined by law), as well as **civil society** (comprising organisations created by citizens outside governmental bodies: associations, platforms, foundations, etc.) has increased.

Players participating in the protection of cultural heritage

Spanish state	> General Government (all ministries) > Judicial power > External representations (EU, CoE, UNESCO)
Autonomous regions	> All departments > European Union delegations
Local corporations	> City halls > Provincial councils > Consortia
Other organisations	> National Heritage > Prado Museum > Royal Academies
Civil society	> Associations (ICOM, ICOMOS, Hispania Nostra) > Cultural foundations > Legally based federations and cultural networks

For this reason, there must be open cooperation when managing matters that affect everyone equally and that are shared in the same territory, in addition to having the presence of local corporations, made up of **provincial councils, city halls and consortia.**

Shared management systems for immovable heritage take on different forms depending on whether collaboration is between governmental agenices, or between governmental agencies and civil society.

Examples of collaborative usage management

Spanish state + autonomous region	> Management transfer > Temporary assignment of use of immovable assets > Assignment of ownership
Spanish state + local corporations	> Management order > Temporary assignment of use of immovable assets > Assignment of ownership > Delegation of cultural activities
Spanish state + other public entities	> Delegation of functions: protection and conservation, promotion, enrichment and improvement of PHE assets > Parallel management of heritage in the public domain and personal heritage in accordance with private law
Spanish state + civil society	> Consulting and preparation of reports on protection, conservation, restoration of PHE assets > Collaboration in carrying out inventories and other control instruments for PHE assets > Promotion of cultural tourism

The characteristic pattern of collaboration between different governmental agencies and civil society is the enjoyment of public assets.

The difference in the treatment of assets is due to their ownership, since the characteristic pattern of collaboration between different governmental agencies and civil society is the enjoyment of public assets. Therefore, the general interest in asset management and the public service of managers are taken into account, without prejudice to the fact that private property voluntarily participates in cooperation with public bodies.

There are different examples of collaborations that serve to transmit the management of state-owned assets to other institutions and administrations, so that the use in the territory is shared. These same formulas can occur between other administrations and entities.

GOOD PRACTICE

Twenty days after the earthquake that occurred on 11 May 2011 in Lorca, a mixed commission was set up to adopt urgent measures to repair the damage caused by these seismic movements. The commission was made up of the Department of Public Works and Land Planning, the Government Delegation, the Lorca City Hall, representatives of the Autonomous Government, Civil Protection and Emergencies (Ministry of the Interior). Its mission was the assessment, determination and amount of aid granted to individuals and, moreover, the drawing up of the Master Plan for the Recovery of the Cultural Heritage of the Municipality of Lorca, which has since guided the execution of the projects in an orderly manner.

2.1.2. Funding

Funding in this area essentially consists of covering the expenses or bearing the costs of an activity or works directly related to cultural heritage. Efficient economic management must consider both the financial and monetary circumstances of the asset as well as the market values, income and functional costs, in order to predict the long-term availability of the allocated budget and guarantee its proper functioning.

The source of funds is one of the most important matters to understand this issue. When assessing the benefits of investments in heritage, it is not possible to establish, following market logic, a direct be-

nefit-investment relationship whereby something is not profitable if the economic expense is greater than the income obtained. In cultural heritage, the question is much broader and more complex, since concepts such as **"social benefit", "educational potential", "strengthening of belonging"** or **"reinforcement of identity"** come into play, which cannot be measured in exclusively economic terms. In fact, its trivialisation must be avoided, since its main function is not to generate economic benefits, but rather these benefits must be the result of good management. For this reason, it is sometimes difficult to know and quantify the real impact that an investment in heritage can have.

The profitability of investing in heritage goes beyond what is strictly economic and integrates other concepts, such as social benefit or the reinforcement of identity.

Like for other aspects, it will be critical to start with the preparation of **assessment and diagnostic documents** of an economic nature, generate a realistic income and expense plan and, finally, develop an **economic and financial plan** that justifies the feasibility of the

A viable and realistic economic plan is essential to guarantee the long-term conservation of the asset.

CULTURAL HERITAGE AND ECONOMY

In 2009, the Regional Government of Castilla y León promoted the signing of the **Brussels Charter** regarding the Role of Cultural Heritage in the Economy and the Creation of a European Network for its Recognition and Dissemination. The document argues, among other matters, that:

- Cultural heritage must cease to be perceived as a burden that can only be addressed in times of economic prosperity.
- It is necessary to recognise the impetus that heritage-related activities have in the advancement and transfer of research, development and innovation.
- Cultural heritage is a valuable and irreplaceable resource as a revitalising element of cities and territories.
- The investment of different economic players in cultural heritage assets favours the integration of European society within its variety, fostering the identity and sense of belonging of each of its communities.

proposal, in which there is a budget commitment and the funding programmes and projects are outlined. In this way, a roadmap will be generated so that issues such as the maintenance and conservation of the asset, for example, are viable for a considerable period of time. To do this, questions as diverse as the following must be addressed:

- What will the financial scheme and the funding system of the asset in question be like?
- What real economic resources are available to develop the different projects to be carried out?
- How are they obtained?
- What will the hierarchy of different expenses be, so that if income is not as expected, the integrity of the asset is never put at risk?
- Will economic benefits be generated through the asset? And other types of measurable benefits?
- Can they be measured in specific terms or approximately? With what value? By which deadlines?
- What percentage of benefits will be invested in maintenance and conservation of the asset and infrastructure?

The plan, in short, must develop the anticipated income based on the responses obtained previously and the projects and activities scheduled to increase financial contributions: campaigns to attract sponsors, requests for public subsidies, etc.; as well as total expenses derived from daily operations, personnel costs, specific issues such as some work or equipment, etc. Each project, at its scale, must take these matters into account and must be properly integrated into the plan.

2.1.2.1. Public funding

The funding of the actions or activities related to cultural heritage can come from own funds (i.e., taken on by the owner, regardless of ownership scheme) or they can come from public or private funds. When public funds are involved, they may come from international, national, regional or local budgets. Private funds will generally be obtained from private companies or foundations, as well as from civil society and citizens.

There are essentially two main channels for funding actions or activities related to cultural heritage: **direct funding**, with investment aimed directly at the different actions that will be carried out on an asset; and **indirect funding**, the aim of which is not the asset, although it is ultimately benefited. In cultural heritage management, direct funding channels are recognised as those related to the programmes promoted and managed by the governments in their annual budgets.

In the case of the AGE of Spain, there are **channels such as aid on a competitive basis** (calls governed by specific terms that include, among other aspects, valuation criteria) and **direct and nominative subsidies** (defined in Article 65 of Royal Decree 887/2006 and in Article 22 of Law 38/2003, such as those with a budgetary allocation and beneficiary that are specified in the General State Budgets).

Within the Ministry of Culture, the **Directorate General of Cultural Industries, Intellectual Property and Cooperation** grants aid that can be included in the category of indirect funding; while for direct funding, the calls of the **Directorate General of Cultural Heritage and Fine Arts** are worth noting:

- Aid on a competitive basis:
  - Projects for the safeguarding of **intangible cultural heritage** (Sub-Directorate General of the Spanish Institute of Cultural Heritage).
  - **Internationalisation of art galleries** (Sub-Directorate General of State Museums).
  - **Archaeological excavations abroad** (Sub-Directorate General of the Spanish Institute of Cultural Heritage).
  - **Projects for the conservation, protection and dissemination of assets declared world heritage** (Sub-Directorate General of Management and Coordination of Cultural Assets).

Financial aid does not have to be provided exclusively by agencies dedicated to culture. In recent years, municipal tourism

There are many calls for subsidies and tenders aimed at cultural heritage.

departments, councils and areas have become natural partners with which lines of collaboration are established.

It is also worth highlighting the calls for the **2 % allocation for culture** of the **Ministry of Transport, Mobility and Urban Agenda** (MITMA) for conservation or enrichment actions of Spanish historical heritage and of the **Ministry for Ecological Transition and Demographic Challenge** (MITECO) for innovative projects of territorial transformation and the fight against depopulation.

Within the scope of their power, it is also necessary to understand the aid offered by autonomous regions, provincial councils and local entities.

Due to the COVID-19 pandemic, aid plans from European funds have been initiated, such as NextGenerationEU, which are part of the **Recovery, Transformation and Resilience Plan** in Spain and which, in turn, are included in the Spain Can Plan. This aid package, intended for both public and private entities, allows for the injection of public resources "to sustain the production fabric, employment and family income and to mitigate economic and social impact". Among the multiple areas that it aims to promote, modernise or update, there is also the protection of cultural heritage, in order to recognise culture "as a hallmark, mirror and source of learning and defence of the territory's values". This funding is intended for the ecological transition, digital transformation, equality and social and territorial cohesion in different areas, which is why there are many calls for subsidies and tenders aimed at cultural heritage that are sponsored by different ministerial departments in which a vocation for sustainability is necessary.

On the other hand, indirect funding operations that involve the promotion of cultural heritage may be those derived from specific European programmes, such as Creative Europe and Horizon Europe.

In general, public or private organisations with a minimum of two years of existence, which have their own legal personality and which belong to Member States of the European Union, can participate in these calls.

> Tax benefits for collaborating on cultural projects encourages private investment.

Finally, other sources of income are **donations**, ticket sales, the **renting out of spaces** and the profits resulting from an exhibition (such as **sales** made in stores).

2.1.2.2. Other funding channels

One of the mechanisms in which the participation of civil society is translated is **sponsorship and patronage**, which also includes business collaboration agreements in activities of general interest and support programmes for events of exceptional public interest, as well as the assignment, with a counterparty, of cultural spaces for social or private uses. Another incentive for these practices is, without a doubt, obtaining the specific tax benefits with which the government encourages companies or individuals to collaborate on cultural projects. The regulatory framework that governs these forms of funding in Spain is mainly made up of the following elements:

Regulatory framework that governs funding channels in the cultural scope

General State Budget Law

Law 16/1985 on Spanish Historical Heritage

- Income tax deductions for natural persons who acquire, conserve, repair, restore, disseminate and exhibit BIC
- Tax benefits

Law 49/2002 on Tax Regime for Non-Profit Entities and Tax Incentives for Patronage

- Income tax deductions for donations
- Corporate tax deductions for donations

Law 50/2002 on Foundations

Undoubtedly, an attractive and efficient patronage law encourages private owners not to see the public protection of their assets as an infringement upon their ownership rights.

Private support for cultural heritage does not necessarily have to come from a cultural interest. There are potential sponsors and patrons who prioritise their participation or partnership in social or science and technology actions. In this sense, cultural heritage is an ideal space for social action programmes or for the useful and practical application of research that seeks to have a direct impact on society. It is the task of the cultural heritage manager to develop a much more ambitious strategy for obtaining resources, which transcends the scope of culture. They will have to detect which technological projects and which dissemination, education or social action programmes can attract companies oriented to these sectors and which, theoretically, seem less interested in directly funding or supporting cultural actions.

CROWDFUNDING

See a short list of various actions carried out through this form of funding:

- Restoration of the chicken coop at the Palace of Infante Don Luis in Boadilla del Monte, by the Association of Friends in 2014.
- Acquisition of the work *Portrait of a Girl with a Pigeon*, by Simon Vouet, by the National Prado Museum in 2018.
- Restoration of the parish organ of Escalona del Prado (Segovia) in 2023.
- Bajoteja Festival, which aims to fight against depopulation from the cultural scope and to rescue the tangible and intangible heritage of the El Barco de Ávila-Piedrahíta region (Ávila).

One aspect of patronage is the so-called **crowdfunding**. It is a very effective way of funding projects through small contributions (which can range from a few euros to thousands of euros) from many people who, as a token appreciation, receive small gifts or the symbolic gratification of being recognised as “donors” or “small patrons”. In Spain, this practice began by funding projects such as the publication of a book or the production of a record, and today it has become a **recurring alternative** for the conservation/restoration of cultural heritage.

New technologies have facilitated this crowdfunding due to accessibility and the large repository of information that they allow, for example, through social media. Through these new initiatives, communities can take an active and significant role in the state of their own past, "democratising" protection actions towards cultural heritage and empowering the community.

GOOD PRACTICE

ANTICONVOCATORIA, an experimental device and initiative by the Network of Community Culture Spaces and Players (known by the Spanish acronym REACC) that seeks other ways to share, distribute resources and generate synergies in the context of community culture spaces and players in the Spanish state, through a fund of 4,000 euros obtained from the Carasso Foundation.

To receive funding, a project does not need to be submitted; instead, it is enough to state an idea, a draft of a future project or an ongoing proposal that is to be carried out together with other territories and entities that need time for reformulation.

Another proposal that is conceptually different from patronage and sponsorship is something that is just emerging in Spain: the business sector through **corporate or business cultural responsibility**, with continuous actions and within its business sustainability strategy. Thus, in March 2021, a number of *conferences* were organised by the Culture and Patronage Unit, within the Directorate General of Cultural Industries, Intellectual Property and Cooperation of the Ministry of Culture. These conferences demonstrated the interest of many companies in collaborating on the conservation and dissemination of cultural heritage.

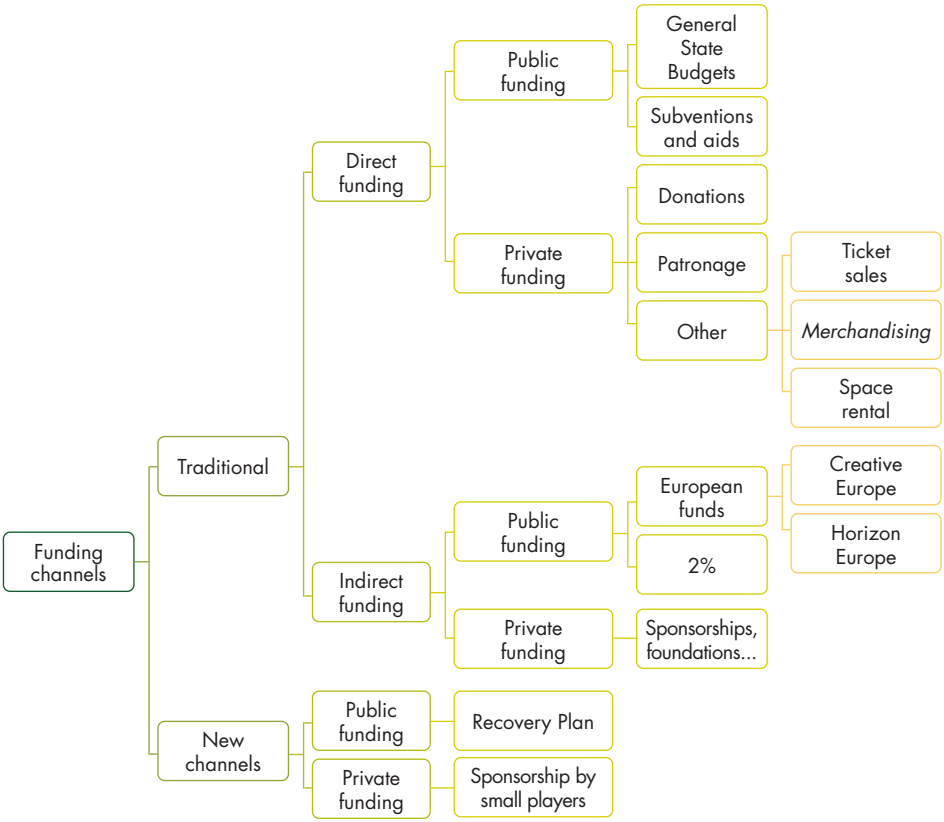
The actions to support and promote culture that a company can carry out in its areas of influence foster its **responsible role as a defender of sustainability** through public and private partnerships, as reflected in SDG 17 of the 2030 Agenda. Furthermore, a company's involvement favours the creation of innovation ecosystems based on the recommendations of the Spanish Global Compact Network, "SDG, Year 6. The 2030 Agenda from a sector-wide approach: creating synergies between companies", from 2021.

GOOD PRACTICE

With a donation from the private company Airbnb, the Casas Históricas y Singulares Foundation created the Renovation and Tourism Promotion Programme for Spanish Historical Heritage to support private projects for the restoration, conservation or rescue of buildings and assets of heritage interest that are also of interest to local tourism and the development of the architectural, cultural or historical heritage of territories. Through this initiative, the Foundation will provide nearly twenty owners of houses of this type in Spain with aid amounting to between 25,000 and 100,000 euros (approximately). Moreover, since 2017 the Foundation has granted awards to cases in which exemplary conservation work has been carried out on private historical heritage in the following categories:

- Excellence in the conservation of a house.
- Historical or unique gardens.
- Institutions, companies or professionals that have excelled in their support of the conservation of historical or unique buildings or gardens.

Concept map of the possible funding channels in the cultural scope



2.1.3. Conservation and documentation

"Public authorities shall guarantee conservation and promote the enrichment of the historical, cultural and artistic heritage of the peoples of Spain and of the assets that make up said heritage, regardless of their legal status and their ownership".

Article 46 of the Spanish Constitution.

2.1.3.1. Conservation

Conservation, beyond the constitutional mandate, is one of the principles that cultural heritage management must address in a clearer and more unambiguous way, since its purpose is to ensure both the present enjoyment of this legacy and its transmission in the future.

The term has a very broad meaning and, therefore, should not be understood only as this essential commitment, but also as a work and behaviour guideline that involves all subjects participating in the process, regardless of their responsibility.

On the other hand, from a more practical perspective, conservation requires maintaining the physical and material integrity of assets, while also respecting all of their intangible values.

RISKS

The National Plan for Preventive Conservation establishes the following risk indicators:

- Lack of basic information.
- Physical damage.
- Damage or loss due to antisocial acts.
- Damage or loss caused by catastrophic events.
- Damage caused by unsuitable environmental conditions.
- Damage caused by external environmental conditions.
- Damage caused by biodeterioration.
- Damage caused by negligence in monitoring and control procedures.
- Non-existent or inadequate maintenance.
- Absence or lack of the cultural use project.

Conservation implies control over all the potential agents of deterioration, which can cause occasional or cumulative damage to assets, and which are often related to the very fulfilment of the functions associated with cultural heritage. For this reason, the measures to be adopted

are not only to eradicate a problem, but also to ensure a balance with other unavoidable requirements so that cultural heritage is at the service of society.

The diversity and scope that heritage takes on in terms of the type, nature and scale of assets implies adopting a comprehensive work approach. The complexity of conserving historic centres, cultural landscapes, rock art and cultural assets associated with natural ecosystems, for example, is obvious and in these cases it is necessary to deploy complex and specific tools which are very different from those developed up to now.

Given that conservation must face countless challenges and must act on an invaluable set of assets, which also have notable differences between them in many ways, it is fundamental to apply techniques and procedures that offer great performance in the use of resources and efficiency in the results. In this regard, preventive conservation proposes a systematic work method to identify, assess and control the risks of deterioration of cultural assets, with the aim of eliminating or minimising them.

It is fundamental to apply techniques and procedures that offer great performance in the use of resources and efficiency in the results.

Some authors also expand the definition of "preventive conservation", adding the need for this work system to ensure the safeguarding of assets at the lowest possible cost, but with the greatest efficiency, thus referring directly to principles linked to the concept of sustainability.

Depending on the scale of the asset, it is advisable to have a **preventive conservation plan**, which implies, as occurs for planning in any other area, the definition of objectives, the design and implementation of a methodology to achieve them, and the use of monitoring and control systems that assess the effectiveness of the proposal. A preventive conservation plan is drawn up with a

comprehensive view of the cultural asset, monument or institution, and in which methodological, technical and organisational aspects come together.

Master plans, in the case of buildings, or museum plans, instruments already mentioned in previous sections, must be coordinated with the preventive conservation plans to achieve more effective management, resource optimisation, sustainability of efforts and adaptation of the cultural use project to the conservation of the asset. These tools and criteria are what make it possible to control deterioration, reduce the number and complexity of future interventions and improve the accessibility of citizens to their heritage.

> A preventive conservation plan is drawn up with a comprehensive view of the cultural asset, monument or institution, and in which methodological, technical and organisational aspects come together.

Currently, preventive conservation plans are based on international standards that define risk management (UNE-ISO 31000:2018 on risk management). Thus, the preparation and implementation phases of a preventive conservation plan correspond to the different sections of risk management: **documentation, risk analysis, risk treatment** and **verification of procedures.**

Main differences between preventive conservation, curative conservation and restoration

PREVENTIVE CONSERVATION	CURATIVE CONSERVATION	RESTORATION
Indirect actions on the surroundings of the asset without interfering with its materials or structures	Actions applied directly on an asset to stop deterioration processes	Actions applied directly on an asset in which deterioration processes are stopped and its appearance is improved

Corrective measures are applied to address the causes of degradation that act on the assets. Solutions are provided at different levels and often involve adopting prevention protocols and modifying routines in internal work or during visits, for example. But often, in addition to eradicating the causes of the problem, it is also necessary to act on the assets to stop deterioration processes that have already begun. In these cases, the scale of intervention varies from curative conservation to restoration.

In order to undertake these interventions with guarantees of success, whenever possible, **prior studies** should be at the forefront. In these studies, the state of conservation of assets is comprehensively assessed (analysing the causes and effects of deterioration) and the effectiveness of different products and techniques is tried and tested. From this, the subsequent intervention can be economically assessed and, depending on the results obtained, a project or an intervention proposal will be drawn up in accordance with the nature of the asset target of intervention. In the case of architectural interventions, the required documents are essentially a **draft, a basic project or an implementation project**, depending on the processing phase. Any intervention in this area must comply with the guidelines of sustainable architecture, with the adoption of measures supporting environmental commitment and responsible consumption, such as the use of recycled or recyclable materials, the use of local and traditional techniques and materials, the precedence of passive conditioning in view of the asset or the adequate management of the waste generated during the works.

Solutions often involve adopting prevention protocols and modifying routines in internal work or during visits.

It is important that every project –whether a movable, immovable or intangible asset– include the **budget** for the intervention, as well as the execution time and the profile of the professionals involved.

Interventions on cultural assets, as indicated in previous sections, must be notified and authorised according to current regulations

and the ownership of the asset (essentially through the heritage commissions of the AR by the system of powers), with prior submission of the technical documentation prepared for this purpose.

The intervention criteria, regardless of the type of asset, must comply at all times with national and regional law on cultural heritage, as well as the municipal law in the case of immovable assets, mainly. Likewise, they must meet the recommendations established by national and international organisations in terms of conservation. In summary, the following essential principles can be pointed out:

- Intervention on a heritage element, regardless of its scope, must always be carried out by qualified professionals and with the support of multidisciplinary teams.
- The solutions to be adopted must be based on objective information provided by scientific and technical studies.
- The principle of minimum intervention shall always be applied and conservative actions of consolidation, stabilisation and sealing shall be prioritised.
- The intervention must always be considered with safe methods and materials for the assets, as well as for the workers and the environment.

MAIN DOCUMENTS

- Charters of Restoration:
  - Athens Charter of 1931.
  - Venice Charter of 1964.
  - Rome Charter of 1972.
  - Charter for the Conservation and Restoration of Cultural and Art Objects of 1987.
  - Krakow Charter of 2000.
- ECCO professional guidelines.
- Coremans Project (Spanish Institute of Cultural Heritage, known by the Spanish acronym IPCE): research project and definition of intervention criteria on different materials or typologies:
  - Bioheritage.
  - Easel painting.
  - Metal materials.
  - Stone materials.
  - Altarpieces and polychrome sculpture.
  - Earthen architecture.

- The treatments applied must be compatible with the original materials and the execution technique of the work and they must be reversible (although the nature of some treatments contradicts this principle).
- Elements shall only be added if they are essential to the structural stability or the correct interpretation of the asset. In all cases, they shall be distinguishable and shall respect the authenticity of the work's historical and aesthetic values.
- A full and detailed account of the interventions must be provided by preparing a final report.

In addition to direct interventions on assets, and in line with the principles of preventive conservation and sustainability, constant monitoring must be carried out to systematically record their state of conservation (by monitoring certain parameters, for example), schedule maintenance tasks and discover potential problems in their earliest stage. In this sense, and in the case of immovable assets, the **building record** establishes parameters and actions for maintenance and conservation; and the very restoration reports may also include a maintenance programme to guide these works (description, frequency, human and material resources, etc.).

OTHER REFERENCES OF INTEREST

- ICOMOS Heritage Impact Assessment Protocol.
- Heritage Impact Assessment Course: Management Tool for the Development of Heritage and its Environment, coordinated by the Sub-Directorate General of the Spanish Institute of Cultural Heritage and the Sub-Directorate General of Management and Coordination of Cultural Assets and ICOMOS (May 2021).

Moreover, heritage assets can be subjected to countless interventions on different scales that respond to aspects of their management that are unrelated to conservation, but can significantly impact it. For this reason, the effect they may have on any material or intangible values should always be assessed. At times, potential damage unquestionably makes carrying out the action inadvisable, a situation that can occur at different levels: rejecting a loan for an exhibition, limiting room capacity, disallowing a change

of use or suspending an action that has a serious impact on the environment of an emblematic property, for example. Other times, the impact is not serious and, quite to the contrary, it would make it possible to achieve different goals that have been set at an economic, environmental or social level. When this occurs, it is essential to carry out a detailed analysis of all the effects in order to adopt a balanced, proportionate and reasoned decision.

A controversial issue that exemplifies such a situation is related to urban development, which may affect the surroundings of certain assets or even their own perception. Given this situation, the real challenge faced by cultural heritage managers is to find solutions to reconcile the urban and social evolution of communities with the protection of cultural assets. Resources such as the **Technical Building Code,** which establishes the basic quality requirements that buildings must meet with regard to safety and living, or others such as municipal urban regulations, which establish a general framework, do not always cover more specific cases.

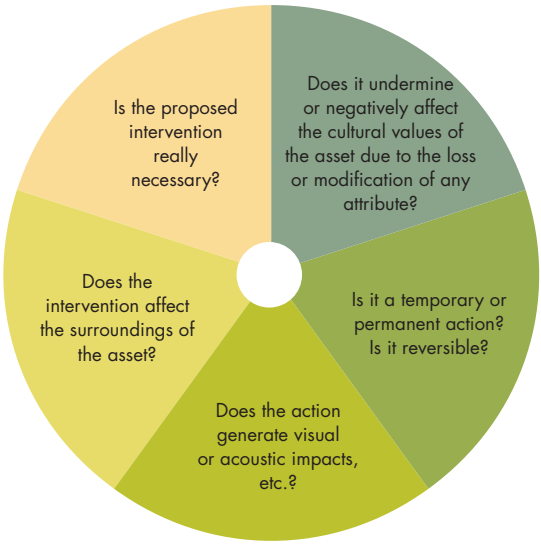
In this sense, **heritage impact assessments** are essential, as they provide an analysis for determining the opportunity to launch certain projects. This methodology examines potential repercussions that are both direct and indirect, their degree and their type of damage –or benefit–, etc. Although they are still not standardised in Spain, they have become a crucial instrument for protecting heritage.

> Those actions on movable and immovable assets that address their immaterial dimension will take into account the needs and desires of the host community.

In the case of intangible cultural heritage, as with tangible heritage, conservation must be carried out in a planned manner. Based on correct and meticulous documentation, prepared from the information facilitated by the host communities, an essential analysis will be carried out to detect the loss of value or alteration to which the asset may be exposed (which may arise from the pressures of tourism or misap-

propriation, among others), as well as the dangers of disappearance that it faces (such as the lack of generational continuity or the end of the transfer of knowledge). Those actions on movable and immovable assets that address their immaterial dimension should only be carried out by specialists in the matter, and the needs and desires of the **host community** will be taken into account, this community being the one that makes decisions on the management of their practices and knowledge, with the aim of not losing its values and authenticity.

Example of issues to be assessed in a proposal for intervention on cultural heritage



In conclusion, it can be stated that the preventive conservation strategy is a sustainable methodology that offers efficient and viable solutions over time, many times closer to common sense than to large investments of money, and involves both personnel linked to management as well as the public, the host community, the political sector and the financial sector. Its application, therefore, is preferable to any direct intervention that must be sought when the instability of the cultural asset prevents its cultural use or implies its loss.

2.1.3.2. Documentation

Documentation is another essential element for protecting heritage and also has multiple aspects to consider. It constitutes the set of documents that can provide information about a cultural asset or even have an evidentiary and legal nature, for the purposes of registration and communication with the governmental agencies. It also states the process in which work sequences are applied directly to these documents or to their management. Likewise, documentation by its very nature is often part of cultural heritage, or vice versa, cultural assets that are also considered documentary collections even if they do not have a documentary origin or nature.

DIGITALISATION

Investment 3 of component 24 of the Recovery, Transformation and Resilience Plan is intended for the "digitisation and promotion of major cultural services: digitisation, expansion of capacity and interoperability of file systems", supporting initiatives such as some of the nine carried out by the Directorate General of Cultural Heritage and Fine Arts:

- The creation of the Centre for Permanent Digital Transformation and Preservation of State Archives, the description and digitisation plan for State Archives and the description and digitisation plan for state-owned archives managed by the Minister of Culture.
- The development of an application (software) for the registration, management and consultation of the management tools for Spanish Historical Heritage.
- The design, creation and launch of a database of underwater archaeological heritage and exchange of documentation and information between governmental agencies and institutions.

In this way, the documentation that accompanies the cultural asset is fundamental to verify data such as its ownership or origin, in addition to allowing a deeper understanding of its material history and providing invaluable information for its study at different levels.

Documentary media widely vary: handwritten and printed material, photographs, audiovisual recordings, sound recordings, etc. There are also numerous documentary instruments, which include

CER.ES

The Spanish Digital Network of Museum Collections brings together different types of museums, from various thematic and geographical areas, and of different ownerships, both public and private, with the aim of making digital content about their collections accessible online and creating a space for dissemination of knowledge about them. These museums are all users of the Domus Integrated Documentation and Museum Management System, developed by the Ministry of Culture and currently used by 190 museums.

registries, inventories and catalogues, as well as other means of more specialised knowledge, which are generated during different work processes on assets, such as restoration projects and reports, diagnostic reports on state of conservation, research project reports, excavation, prospecting or survey reports, etc., and which are also part of the documentary corpus of a heritage asset.

PARES

The Portal of Spanish Archives (known by the Spanish acronym PARES) is the main platform for the dissemination of Spanish Documentary Historical Heritage, created and managed by the Sub-Directorate General of State Archives, of the Ministry of Culture.

It contains fact sheets and digitised images of the documentary collections held in the State Archives. The content of PARES continues to increase as the archival tasks of document identification, description and digitisation are carried out.

Access to all these records is free and allows materials to be downloaded following a schedule.

It is key to highlight that the loss of documentation or the loss of the link between cultural assets and their documentation (called "dissociation" by some authors) entails a serious risk for the conservation and protection of heritage. In order to guarantee the guardianship of cultural heritage by the State and the Autonomous Regions when exercising their powers, proper documentation and registration is crucial. That is why many projects have been launched for the organisation, systematisation, digitisation and technological updating of documentary instruments and databases.

In this context, technology facilitates a countless number of useful services and applications in documentation tasks, both for the work of the professionals in charge of managing them –with their multiple and varied training profiles–, as well as for their universal access and enjoyment of society.

At the procedural level, for example, the implementation of technology has improved and facilitated relations between the government and the public. The significant progress made in digital transformation makes it possible to manage documentary procedures through electronic registries and interoperability platforms, which simplifies processes, increases their sustainability and promotes greater transparency and agility in citizen services. Due to this situation, numerous repositories are made available to the public free of charge, which allows them to consult both documentary collections and catalogues of cultural assets.

As a result of this approach, it is also possible to promote documentation generation in the opposite direction by the public. This is the case in some collaborative projects launched by museums, for example, where visitors help to create exhibition discourse. The «People who Migrate, Objects that Migrate» project is one such example, in which, since 2015 at the National Museum of Anthropology and in several editions, migrants from Ecuador and Senegal were invited to decide which objects and stories to exhibit and what to tell Spanish society about themselves and their country of origin in a temporary exhibition.

GOOD PRACTICE

On the Government of La Rioja's website, one can access numerous interactive thematic maps that contain all the information related to assets of cultural interest, artisans, defensive architecture, unique natural areas or caves and hollows in the region, among many others.

The democratisation of culture through digital access was given a definitive boost from the COVID-19 pandemic, although a lot of previous work was carried out to offer society a variety of re-

sources that would facilitate the approach to cultural heritage, thus guaranteeing accessibility and almost universal inclusion in view of a common legacy. In the information and knowledge society, this documentation is sometimes just as important as the assets themselves.

Documentation of cultural heritage, in short, supports important actions for its protection, research, conservation, dissemination and valuation as a social and economic resource.

2.1.4. Research, development and innovation

Research is inherent to any type of action related to heritage and focused on innovation, process modernisation and resource optimisation. Research applied to cultural management, a process that not only looks ahead but also looks to the past, can lead to a greater understanding of the asset, its preservation and its availability to the public.

The promotion of research, development and innovation projects (R&D&I) makes it possible to explore new avenues, especially in the field of heritage conservation, although this is not the only area of work favoured by these advances. Studies of a scientific/experimental nature applied to cultural heritage in this scope allow:

- The design of more accurate and less invasive **methods of inspection, diagnosis and control** of heritage assets.
- A **better understanding** of cultural assets by characterising their constituent materials, the technology used in their creation and their material history.
- The **development of products and treatment techniques** that respect both cultural assets and the personnel in direct contact with them and the environment.
- A **better understanding of the agents and processes responsible for ageing and deterioration**, addressing their study in a comprehensive manner.

Social research, on the other hand, is mainly focused on cultural dissemination and promotion. When designing a communication programme or an advertising campaign, it is critical to know who to address, what the target and potential audience is, the interests of this audience, the scope it can have and the message to convey. Therefore, in recent times, sociological, marketing and social communication studies have grown in importance, studies which coexist with long-term initiatives such as observatories.

GOOD PRACTICE

The implementation of the virtual reality experience at the Motilla del Azuer archaeological complex promotes sustainable progress in research, safeguarding and presentation. These works are included in the Daimiel City Hall's commitment to showcase a cultural asset located within its municipal district, which has led to the arrival of a significant number of visitors who are discovering the resources treasured by this area.

Together with development and innovation are new technologies, which constitute powerful tools for the safeguarding of cultural heritage. In their entire range of applications, they can become an indispensable instrument for proper understanding, documentation and dissemination of the cultural legacy. Furthermore, they represent resources of vital importance to democratisation and public access to cultural heritage, since:

- **They allow virtual visits** to monuments, archaeological sites, museums, archives and libraries around the world.
- **They contribute to heritage's interpretation**, through reproductions, virtual and augmented reality systems and 3D reconstructions.
- **They favour heritage's preservation** and minimise its deterioration, thanks to processes such as digitisation, monitoring and control of environmental conditions or geolocation.
- **They safeguard all information** generated during the course of research and make it findable, accessible, interoperable and reusable for future studies and research (FAIR principles).

In short, new technologies are incredibly useful resources for multiple areas and tasks, it being understood that these technological media will never replace heritage itself, but rather improve the means to achieve its sustainable and comprehensive management. Nevertheless, the fact that they are technologically innovative tools means that they are sometimes doomed to premature obsolescence or require continuous maintenance. Therefore, before their implementation in any institution, it is necessary to **assess the means available** at present and in the future for their maintenance over time and their correct updating, as well as studying whether the investment they represent is profitable in the long term.

New technologies provide a strong impetus for sustainable management, but before implementing them we must assess the resources for their maintenance and updating.

GOOD PRACTICE

The choir stalls at the Oviedo Cathedral were dismantled at the end of the 19th century and partially rebuilt in the chapter house of the same building. This dismantling makes it impossible to understand the use of the choral assembly: hierarchy of stalls, iconographic meaning, etc.; however, the virtual restoration used based on the combination of 360° images with 3D photogrammetric models (a more affordable technique than laser scanning) makes it possible to understand and admire the value of the choral assembly in its original context. Its application to other heritage elements that have been taken out of context provides very accessible options.

New technologies also make it possible to develop and improve information tools such as **databases**. Their potential goes beyond the fact that they are a sealed vault, in which institutions that manage or own heritage store data, since they can become authentic repositories for the exchange of information between institutions, as well as being available to society. The processing of information contained in databases allows for improved access to information and resource optimisation. It is also possible to use artificial intelligence, language processors and big data technology to create intelligent

content that can be reused in areas such as conservation, education or the creative industries. Through simple searches, databases allow assets from anywhere in the world to be found and compared, being tremendously helpful to researchers, professionals responsible for conservation and any user who wants to get closer to heritage.

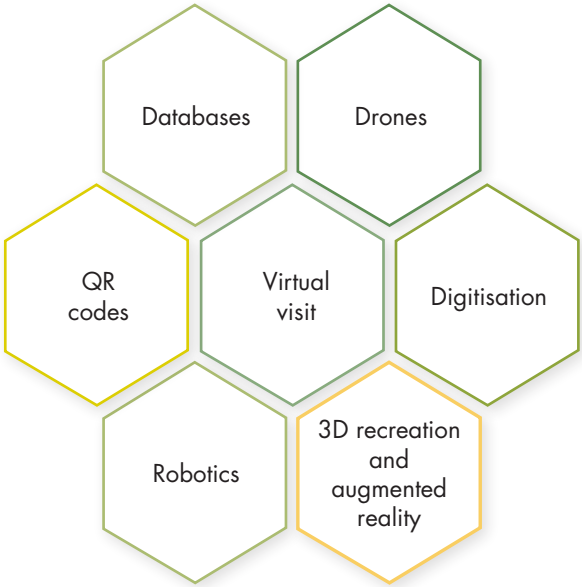
Other very useful tools for the documentation and conservation of cultural assets, linked to new technologies and which are rapidly developing, are **georadar systems and drones**, especially relevant for the study of archaeological heritage since they allow the necessary data to be obtained before carrying out the excavation itself. Georadar systems are used for geophysical prospecting, facilitating the non-invasive characterisation and delimitation of archaeological structures, while drones are extremely useful for the documentation, research and safeguarding of sites, especially with regard to imaging and monitoring. Moreover, other tools include the BIM methodology, GIS programs, LiDAR technology, monitoring via sensors or **robotics**, which help, among other tasks, to monitor environmental conditions, visualise possible damage (avoiding the handling of delicate assets, for example) or perform non-invasive analyses. One noteworthy example of robotics applied to heritage is that of devices for exploring underwater sites, designed for their documentation, surveillance and protection.

One noteworthy example of robotics applied to heritage is that of devices for exploring underwater sites.

The aforementioned **digitisation of heritage** is an essential resource, especially for documentary and bibliographic heritage, as well as for assets sensitive to adverse or fluctuating environmental conditions and handling. It is an essential tool for preservation and dissemination, since today there is affordable equipment that can reproduce incredibly high-quality images. It is important, however, to point out one issue that goes unnoticed when this type of project is undertaken, and that is the problem of **obsolescence in the preservation of digital and digitised heritage**. In order to ensure the

conservation of these collections, strategies must be developed that focus on updating digital formats and systems, the ability to create sufficient backup copies, and the establishment of minimum quality standards for the documents generated or the exchange of information, respecting copyrights and national and international legislation in this regard.

Technological resources applicable to cultural heritage management



Other highly relevant resources for asset management that are linked to these digitisation processes include **3D recreations and video mapping, virtual reality and augmented reality**. Virtual reality makes it possible to design and reproduce fictional images, while augmented reality completes an existing scenario enriched with digital elements. Both can have interesting applications when it comes to recreating architectural structures that have disappeared, showing the evolution of the natural landscape, completing the physical shape of an asset that is not fully intact, reproducing lost processes and techniques, etc. 3D technology ultimately allows

diagrams to be designed which help to visualise reconstructions, simulate the construction of a building for which only the blueprints are conserved, for example, or even draw models for their creation with 3D printers and their subsequent use as a supplementary exhibition resource for all types of audiences and, especially, for people with impaired vision.

An exponential multiplier of the dissemination of a heritage element lies in the digitisation and use of new augmented reality technologies. In this scope, **virtual exhibitions** are worth noting. They can be exhibitions produced exclusively to be viewed on a screen, although sometimes the itinerary of an existing physical exhibition has also been digitised, complementing the option of being physically present. Free online tools are available for designing virtual exhibitions and content. All this makes it possible to create discourses and stories about heritage which complement, complete or even replace physical exhibitions.

The Internet also provides other alternatives to integrate content into visits or physical exhibitions thanks to elements such as **QR codes** (or BIDI codes). Their use is integrated into daily life and they can be easily generated by institutions as well as used by users, being a complementary resource that broadens and diversifies information by adding data, audio, texts in other languages, etc.

Well-designed virtual content fosters and promotes the physical visit, making it more attractive. Another option that combines digital potential and physical presence is the use of tablets and interactive screens to support the exhibition discourse. With these devices, assets not included in the itinerary can be shown to the public, which is useful in the case of pieces that are especially fragile due to their nature or their poor state of conservation. The same happens with bibliographic heritage, since its exhibition only displays one or two pages, without the possibility of handling the asset. Its display on a screen allows all pages to be accessed or the image can be enlarged to better view the details. These elements are expensive, but very useful and beneficial, since both the device and the content can be updated and reused for other purposes.

2.1.5. Communication/dissemination and heritage education

> "Spain's Historical Heritage is a body of collective wealth containing the most worthy expressions of the historical contributions made by Spaniards to universal culture. Its value comes from the esteem felt towards it by citizens as part of their cultural identity, because the assets comprising it have become heritage exclusively as a result of the social action they carry out, with its value stemming directly from the esteem felt by the citizens; it is they who have placed value thereon".
>
> Law 16/1985 of Spanish Historical Heritage prologue.

The protection and enhancement of cultural heritage is based on the advocacy of its citizens. With an educated community and heritage awareness, culture can become a driver of development. Thus, heritage communication, dissemination and education will be the vehicles for transmitting and teaching heritage values, advocating for social transformation based on discourse and messages.

2.1.5.1. Heritage communication/dissemination

To a large extent, adequate **communication** is key to involving society and promoting dialogue and participation. This tool is fundamental to promoting the sense of identity and belonging of communities, essential factors to achieve social sustainability. Therefore, efforts must be made on the basis of transparency and clear communication; in other words, in a manner that is accessible, respects diversity and is in favour of justice and equity. It presents the peculiarity of not only being the dissemination channel for projects, but it can also become the channel for participating in them. That is why communication is always "mediated" (transmitted through a specific channel or spokesperson), but it can also be "participated in" (through social media, interviews or other means that allow the feedback of citizens to be heard). As such, social governance is favoured and, therefore, work is done in favour of sustainability.

Based on a cultural heritage management project, and bearing in mind communication and its channels, actions can be designed which enable participation and enrich the original project, enabling, on the one hand, the public to take ownership of it and, on the other, continued growth. Generating participatory communication actions leads to the creation of content and paths selected by the local community, in addition to being a means of transmission and a project and of itself.

As with the rest of the heritage management tasks seen so far, it is considered appropriate to draw up a **communication plan**, with the aim of generating positive information about cultural heritage and properly communicating about the resources, with a clear and attractive message. A communication plan makes it possible to design communication lines and strategies, cultural activities based on cultural heritage, plan objectives to be achieved, and the definition of the message and tone to be used. Within the plan, the different implementation programmes will be included and the keys to the **communication and dissemination campaigns** that are to be undertaken will be outlined. They may have varying objectives: encourage participation, sell tickets, generate a regional link, etc. Whether it is a specific objective or one that is more abstract, it will be the objective that marks the rest of the elements to be defined in order to establish the communication strategy: the **audience**, the **media**, the **type of message** and the **timetable of action**. By diversifying each of these points around the final objective, a comprehensive communication strategy can be established with a coherent message that allows the public to connect with it.

Project promoters often have their own means, such as social media profiles, websites, email distribution lists, etc.; however, having these means is not enough, they must know how to exploit them. Other times, it is sought that others talk about the project, which is the case of dissemination through the media. In this sense, a press release sent to the media or a call for them to attend an inauguration or an activity may be the tool needed for television, radio or the press to transmit to the public the message that is to

be conveyed. Another example is one with influencers who can help content go viral, well-known figures in the region or simply individual experts in a subject matter that fits the message to be disseminated.

Exchange can also represent another way of achieving collaboration agreements with the media or other platforms, where they accommodate a project on their media in exchange for compensation (tickets for an event, participation as speakers at conferences, presence of their logo on billboards, etc.).

Timelines must also be established, bearing in mind people and not just the project or the interests of a particular group. For example, if a city plans on renovating a historical element, it must inform its residents of what is going to happen before proceeding to cover the element with scaffolding and tarpaulins or prevent its use. In this way, the enhancement of a heritage asset that they may or may not know will be shared with them. If communication focuses on the local population, it can be done through posters or signs at the place where the intervention is going to be carried out. In these cases, the use of tarpaulins with life-size images has also become widespread, so that while the renovation works are being carried out, the object of the intervention can continue to be viewed. Local media can be very useful in this dissemination task as they can directly talk about and explain the object of the intervention and reach the general population. These dissemination actions can be carried out prior to the intervention, during the work and once it has been completed, at which time the communication can be aimed at enhancing the recovered heritage and incorporating it (and maintaining it) in people's mind so that they think of it as a part of the community.

Once the **target audience** has been identified, distinguishing different types of audiences based on age and level of familiarity with cultural heritage and new technologies, one medium or another will be chosen and the language of the message will be adapted to the media; if it is a young audience, the decision can

be made to disseminate information through social media, preferably with a short audiovisual format; but, on the other hand, if the information is intended for an adult audience in a small town, it may be more effective to hang posters on the doors of city hall, municipal venues or shops. Additional aspects can also be designed: some directed at the local community and others at visitors. If the project aims to approach all these types of audience, it must do so from different media, but it is important to take into account that, even if the format and tone are different, the message (which always has the same objective) must always be the same. The style used will be adapted to the media and cannot be the same for social media, posters or television. For example, a promotional video will be needed in one case whereas an attractive design or images will be needed in another and, in another, there must be a spokesperson who explains the information.

GOOD PRACTICE

In June 2000, the Catedral de Santa María de Vitoria Foundation launched the "Open for Works" visitor system so that the interested public, protected with helmets, could tour the temple during the phases of architectural renovation, conservation-restoration and archaeological studies. Since then, it has been a benchmark with great social impact, still being replicated today in different parts of Spain.

However, and regardless of the media on which the communication and dissemination will be carried out, one of the keys to solving several issues already raised is that the dissemination of knowledge requires a **different discourse from the usual one**, this being the essential language for appropriately sharing information and ensuring that each person's level of knowledge is not a determining factor of exclusion. One of the challenges for the adequate transfer of information and values contained in cultural heritage is to dispel the idea that scientific knowledge is only suitable for

> Appropriate language and discourse are essential to reach everyone, regardless of their level of knowledge.

experts. The objective should focus on the democratisation of knowledge, with enriching and attractive proposals, exploring effective forms of dissemination to address the gap between the dissemination of scientific knowledge and the general public's ability to understand, including heritage education at different levels of society and especially in the media, on a daily basis and not occasionally. **Incorrect transmission of the message, biased and sensational information lacking scientific rigour, confusing language, excessively technical information or content errors** must be avoided. For this reason, the existence of an intermediate figure between the scientific community and the general public is crucial and they are responsible for extracting information, synthesising it and adapting it to be disseminated, as may be the case of the **cultural mediator**.

One of the fundamental tools for disseminating cultural heritage is social media, which also enables two-way communication to be established so that the public can interact and express their opinion about the information received. It is necessary, however, to consider the existence of groups that cannot access these resources, either because they are in a situation of social exclusion and are unable to use them or because, even with the means, they do not consider themselves capable or interested in using them. In this regard, it is advisable to facilitate the use of digital media, using heritage education as a path of inclusion in new technologies. Elderly people, migrants or groups in social exclusion can have access through programmes, visits and guided tours, cultural podcasts in multiple languages, etc. Social media management requires a person dedicated to the same who follows a dissemination plan, with recurrent publications and is committed to engaging in this dialogue with the digital public immediately, to the extent possible, so that the social network truly becomes a valid and efficient channel. Creativity when transmitting content will be pivotal to getting the message across and reinforcing

Creativity when transmitting content will be pivotal.

the relationship of identity and involvement between the community and its heritage.

To foster accessibility and promote communication, other formats may exist such as play-based (**gamification**) or experiential learning models. Alternative tools such as multi-sensory communication systems are interesting in view of creating accessible and understandable content. Ultimately, the main objective must be the success of the exhibition experience as an element for transmitting cultural information.

However, for specialised audiences or those with specific interests, a more effective format may be **courses and seminars**. Training sessions provide ideal spaces for presenting research, projects and good practices, opening a forum for exchange, debate and, of course, learning and the enrichment of experiences. Furthermore, they constitute a source of knowledge and are very useful tools to update or catch up in specific areas of heritage management and conservation.

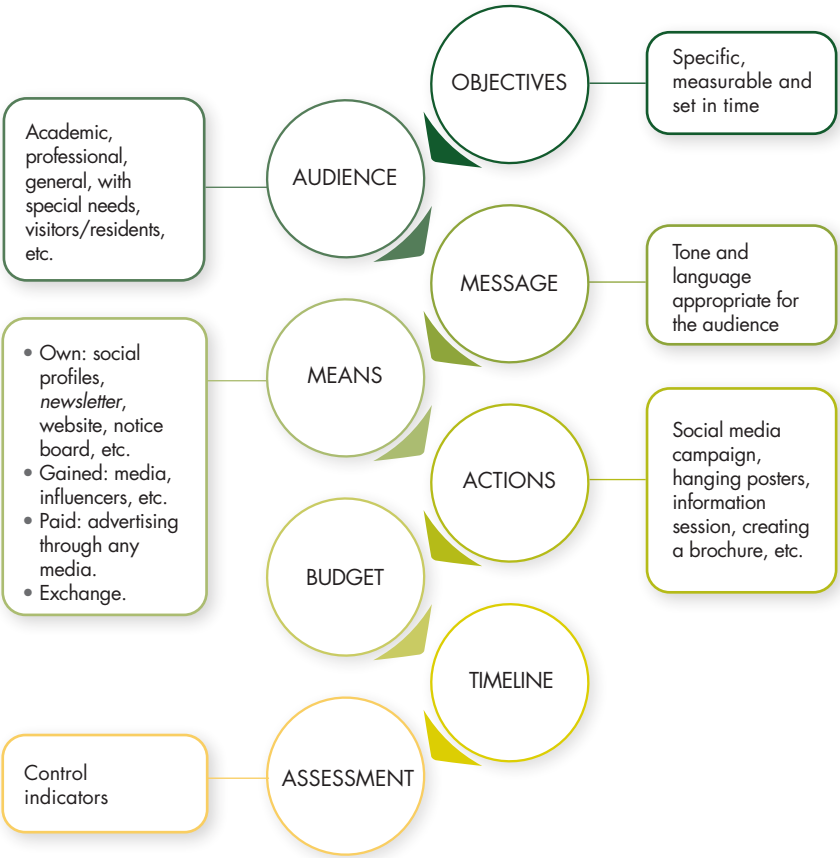
Another line of dissemination is **publications**. Publications can include intervention and research reports, as well as explain testimonies of cultural heritage in a documentary, creative or participatory manner, etc. They can have various formats and, as always, must be adapted to the objective that is to be achieved and, therefore, to the audience to which they are directed and to the message that is to be conveyed. Regardless of the level of depth of the content, its **synthetic** nature must take precedence in all publications, knowing how to highlight the relevant elements, avoiding the repetition of content, excessive generality or lack of uniqueness of the discourse or possible musings of the author. In any case, it must not be forgotten that addressing communication in a comprehensive manner, from different channels but with a clear and coherent message, will make it possible to reach the public more effectively.

As in any project, at the end an **assessment** must be carried out to measure the efficiency of communication with the aforementioned

indicators. However, given that the final aim of communication is to strengthen the relationship of the community with cultural heritage or to transmit cultural values, it is a good idea to incorporate some qualitative measurements that assess the content of the transmitted information and how it has been received or incorporated by the different audiences. Quality surveys or random personal interviews can thus help to determine whether the final commitment is really fulfilled, which is none other than the construction of a society that is more aware of its heritage.

Resources for the dissemination of cultural heritage

Concept map of heritage communication



2.1.5.2. Heritage education plan for society

Education and heritage represent an emerging duality in the area of cultural policies, since, without the participation of all society –not only current society but, above all, future society–, a horizon of sustainability cannot be envisaged in the preservation of heritage. The safeguarding of cultural heritage requires us to participate in a constant relay race against threats. In other words, the young people who are being trained today will be the ones who must take on the responsibility of managing this cultural heritage in a few years in order to conserve it and, to the extent possible, increase it.

GOOD PRACTICE

Youth Forum (Sub-Directorate General of Management and Coordination of Cultural Assets of the Ministry of Culture, from 2009 to 2019): this annual Ibero-American forum on world heritage is an official youth activity of the UNESCO World Heritage Committee official sessions.

Its fundamental principles are to approach, discover and transmit to young people the importance of heritage conservation and dissemination through workshops on a specific topic, but always related to world heritage. They are taught theoretical-methodological tools that will allow them to identify, take on and carry out their individual and social responsibility in the conservation of cultural and natural heritage, on a local, national and global level.

Each of the guest countries participates with two young people (12-15 years old) and a tutor (teacher). The young people should have basic knowledge of their country's heritage and accompanying teachers should be involved in the topic of heritage education.

As the educational level of societies increases, the relationship between education and heritage becomes closer, while the appreciation and tolerance for other cultural manifestations that previously seemed unnecessary or totally unrelated to one's daily life increase.

In an **academic context**, the traditional and growing collaboration between educational centres and museums was one of the first manifestations of the progressive incorporation of heritage into the educational system and this effort has demonstrated how interaction with heritage and its approach in a cross-disciplinary manner and not as a standalone subject, allows for better and more effective understanding. There is, therefore, a willingness on the part of both the players involved in the scope of education and those who manage heritage to continue moving forward and enriching the heritage-education duality, which strengthens as progress is made up the educational scale.

As the educational level of societies increases, the relationship between education and heritage becomes closer.

Furthermore, **the training of trainers** is established as a priority in the development of educational actions and guides that promote knowledge of cultural heritage with teaching methodologies,

prioritising and implementing innovative tactics in the dissemination of training actions. An example of this is the "sustainability wheel", an informative cut-out that represents how Finland has applied the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage.

EDUCATIONAL CATEGORIES

- **Formal education:** official educational system that is highly institutionalised, chronologically graded and hierarchically structured. Curriculum with equivalence in credits (ECTS).
- **Non-formal education:** it encompasses all educational, systematic and organised activity outside the official system. Activities organised by museums, libraries, archives, cultural centres, etc.
- **Informal education:** unstructured, free and spontaneous learning that aligns with the personal concerns of each individual.

Heritage education is the set of all actions aimed at the real, effective and complete transmission to citizens of the values inherent in the assets that make up cultural heritage, in compliance with the principle of equal access and enjoyment of cultural assets set forth in Article 46 of the Spanish Constitution. The concept itself transcends the scope of regulated or formal education and commits society as a whole at its different levels: family, education, work, media, etc.

Its main aim should focus on preparing people to live in an increasingly plural society, which contributes to educating citizens in values of democratic societies, creating a universal vision of culture, promoting understanding towards diverse cultures, recognising and celebrating their differences and identifying and valuing their similarities.

2.2. Challenges of sustainability applied to cultural heritage

"Valorising the continuous maintenance and adaptive reuse of existing and historic buildings avoids energy-intensive new construction and land use. It also avoids waste generation and preserves embodied energy, while generating economic, environmental, social and cultural benefits."

European Cultural Heritage Green Paper.

GOOD PRACTICE

Dissemination and awareness campaign of the Prado National Museum in collaboration with WWF on the occasion of the Climate Summit (Madrid, 2019). This campaign shows iconic paintings from the art gallery that hypothetically portray the effects of climate change under the slogan "If the climate changes, everything changes". These images showed what the planet would be like if the temperature increased by more than 1.5°C, the turning point established by scientists after which the worst and most unpredictable damage will occur.

The way in which society evolves means that new challenges are constantly being faced, challenges which are understood as threats in some cases, but also as obstacles that can transform into opportunities to make progress and improve in certain areas: the development of new technologies, social responsibility, environmental awareness, etc.

The following pages will analyse some of the challenges that cultural heritage management must face and the way to address them from a conscious position of sustainability in any form.

2.2.1. Challenges linked to environmental sustainability

The main problems that contemporary society must address in relation to environmental sustainability are climate change, pollution, loss of ecosystems, depletion of natural resources, energy dependence and waste generation. Contemporary life patterns are less adapted to the environment and are more carbon intensive, being subject to excessive energy consumption, with high greenhouse gas emissions. For all these reasons, the transition to a regenerative economy is necessary.

The challenges of cultural heritage to achieve environmental sustainability are:

- Promoting cultural heritage as a source of knowledge to mitigate climate change through tradition and the circular economy.
- Promoting responsible and sustainable consumption in the cultural field.

- Gaining more in-depth knowledge about how the installation of renewable energies affects elements that make up cultural heritage.

- Improving response mechanisms to natural and human-provoked emergencies.

Although it should be emphasised that environmental sustainability does not refer solely to climate change, today it represents a chapter that cannot be omitted. The **latest conclusions** published by the Intergovernmental Panel on Climate Change (IPCC) confirm that global warming of 1.5°C over pre-industrial levels is a proven fact and that its causes are human-provoked. The regionalised projections of climate change for Spain (from 2081 to 2100) indicate a progressive increase in the maximum annual temperature from 2 to 6.5°C; an increase in the minimum annual temperature from 1.7 to 5.5°C; a reduction in cloud cover and a slight decrease in precipitation. Consequently, there will be an increase in warm nights and a decrease in days with frost, as well as an increase in episodes of drought. These changes will be more intense in the interior and less intense in the north and northwest region of the peninsula, having a greater effect on large water basins and a lesser effect on the northern coastal basins. Achieving the overall objective of the Paris Agreement is still

GOOD PRACTICE

In April 2022, the Guggenheim Museum Bilbao made a commitment to reducing its carbon footprint, which, in 2019, was estimated to be 4,313 tonnes, largely produced by:

- Lighting and air conditioning (40%).
- Staff commuting.
- Transport of works of art to temporary exhibitions (25%).

Some of the adopted measures include:

- Special treatment of canvasses, banners and vinyl to promote museum activities (museum facade, lampposts and tram) which helps to purify air (equivalent to 250 trees).
- Packaging rental.
- Shared transport of works of art with other centres.
- Reuse and shared use of museum elements with other museums.

possible, but precise public policies and well-targeted investments are necessary.

Large-scale human movement and migrations induced by the consequences of climate change means that communities will cease to be connected to their roots and their cultural wealth will be lost.

Climate change will have an unprecedented impact on current conservation methodology. That is why actions must be implemented that better position cultural heritage as an asset in climate action to address these impacts in advance. In fact, in the 2021 edition of the United Nations Climate Change Conference (COP26) in Glasgow (United Kingdom), the most discussed topics

NATIONAL PLAN FOR CONSERVATION RESEARCH

The National Plan For Conservation Research (known by the Spanish acronym PNIC) includes the following research objectives in its programme on conservation and the environment:

- Analysis focused on the prevention of risks for cultural heritage, the environment and people, derived from the use of materials and the application of conservation treatments on cultural assets.
- Monitoring of pollutants and environmental variables, studies on the effects of the environment on cultural assets.
- Improvements in the energy efficiency of buildings that are or contain cultural assets.
- Study on the effects of climate change on the environment and the conservation of cultural assets.

Several projects have been carried out:

- Development of biosensors as an alert system to detect abnormal changes in air quality in heritage buildings.
- Use of natural extracts for the conservation of cultural assets in an organic medium, as an alternative to conventional insecticides and microbiocides.
- Development of technologies for the early detection of biological pollutants in air and anoxia atmospheres. Application to cultural assets in showcases and containers for storage.
- Use of artificial intelligence applied to the preventive conservation of heritage buildings (ART-RISK project).

were sustainable heritage management, the incidence of climate change and the impact of mass tourism. Large-scale human movement and **migrations** induced by the consequences of climate change (floods, desertification, etc.) means that communities will cease to be connected to their roots and their cultural wealth (tangible and intangible) will be lost. Climate change threatens the delicate balance between preservation and development, with difficult social transitions on fundamental issues such as human rights or the recognition of the role of culture. Failure to act will entail a greater cost, not only at the level of heritage, but also economically.

Culture represents a unique element as a source of wisdom, creativity and innovation, which can inspire a just transition towards a climate-resilient future.

Moreover, by affecting the biosphere, climate change will lead to processes that alter and deteriorate cultural heritage which are unthinkable today. For example, an increase in problems arising from biodeterioration is foreseeable as the distribution area of many biological agents grows. This, along with international trade of goods, will increase the arrival of exotic agents. The consequences will entail the following: the ability of species to survive outside buildings, whether the agent has diapause or a dormant period, specialisation, the form of dispersal and the dependence of species on temperature, humidity, habitat use and specific population dynamics. With re-

DO NO SIGNIFICANT HARM

All action on cultural assets must be geared towards fulfilling the DNSH principles ("do no significant harm"), which focus on six environmental objectives defined in EU Regulation 2020/852:

- Climate change mitigation.
- Climate change adaptation.
- Sustainable use and protection of water and marine resources.
- Transition to a circular economy.
- Pollution prevention and control.
- Protection and restoration of biodiversity and ecosystems.

gard to photosynthetic organisms, the overall increase in CO_2 levels can especially facilitate the increase of damaging agents on stone.

Culture, in this context, represents a **unique element** as a source of wisdom, creativity and innovation, which can inspire a just transition towards a climate-resilient future, in addition to acting as a speaker of its multiple impacts. Many designated heritage sites are iconic and can help communicate this urgency for climate action to a global audience. They can also be used to show successful adaptation and mitigation responses to climate change and support behavioural changes towards more eco-friendly practices, thus creating a positive impact in terms of making the world we live in more green.

2.2.1.1. Reconciling the conservation of cultural heritage with ecological awareness

In the case of conservation-restoration treatment of cultural assets (consolidation, cleaning, waterproofing, etc.), toxic and polluting materials and products are frequently used, with the most concerning use perhaps being that of fungicides. When discussing the damage caused by biological agents (biodeterioration) on cultural heritage, the treatment applied to fight these agents has been marked by the use of highly toxic biocidal substances and, especially in the case of immovable assets, their use in large quantities with the consequent negative impact on the surroundings. SDG target 12.4 establishes the need to achieve the environmentally sound management of all chemical products and their waste, reducing their release into the atmosphere, water and soil, in order to minimise their adverse impacts on human health and the environment. Therefore, the use of biocidal substances in interventions on cultural assets requires special attention.

One of the systems with the best results against insect attacks on movable assets made of wood, textile or paper is the **anoxia** or controlled atmosphere treatment, which consists of introducing

the cultural asset into a chamber or bag wherein the oxygen inside it is eliminated and replaced with nitrogen or another inert gas, while maintaining control of relative humidity. This treatment is widely used by museums worldwide and its main benefit, while always respecting application conditions and being carried out by professionals, is its complete harmlessness for both treated assets and people, leaving no residue behind. If this treatment cannot be applied, products with the lowest environmental impact must be selected and always carried out by authorised personnel and under the supervision of conservation/restoration experts. To combat attacks by wood-eating insects, for example, the use of bait systems impregnated with chitin inhibitors is recommended, which significantly reduce environmental impact and have proven to be one of the most effective systems.

GOOD PRACTICE

Since 2000, annual maintenance work has been carried out on the Seville Cathedral doorways, which has led to considerable savings since no major restorations had to be undertaken during that time. Moreover, since 2015, fewer of the most toxic commercial biocides have been used, these biocides being replaced by ethanol and acetic acid, and fewer synthetic stone consolidants have also been used, in this case being replaced by lime water. The use of waterproofing has also been discontinued and work times have been adapted to the breeding periods of swifts, for which boxes have also been placed to prevent the accumulation of dirt on the asset. The results are very positive, both in terms of protecting the asset and respecting the wildlife that inhabits it.

One fundamental query tool when considering the application or procurement of a biocide treatment is the Official Register of Biocides of the Ministry of Health. Moreover, it is recommended that the website of the European Chemicals Agency (known by the Spanish acronym ECHA) be consulted, which offers information on biocidal substance regulation throughout the European Union. It is important to note that all treatments aimed at eliminating or preventing biological growth will have to comply with European legislation in this regard, in addition to the various national and regional regulations. Finally, solutions against

biodeterioration should always be planned in relation to the **ecological inventory** of the site, gathering and referring to other possible protection figures that can serve as a support, whether it be belonging to an element of the Natura 2000 Network, such as Sites of Community Importance, Special Protection Areas for Birds or the existence of a management and use plan such as the Natural Resources Management Plans or Use and Management Master Plans.

But, without a doubt, the best action plan against many agents of deterioration is always **prevention**, which is even more interesting and sustainable in a context of climate change and environmental emergency, given that they limit the use of toxic agents and result in economic savings as more complex interventions are avoided.

2.2.1.2. Reconciling energy efficiency and safeguarding

When combining the concepts of ecological transformation and energy efficiency, the responsibility linked to consumption habits and production systems becomes particularly important.

Using immovable heritage while considering energy efficiency criteria can be complex, since most of the functions that are currently required were not originally taken into account. At present, however, each cultural institution must consider itself a sustainable ecosystem, implementing energy efficiency measures such as updating energy expenditure and incorporating passive methods. In the case of new buildings, savings systems must be included, such as the construction of "local" architecture, which uses materials from

GOOD PRACTICE

The working group made up of the Government of Extremadura's Directorate General of Digital Agenda, the two provincial councils and the leading telecommunications operators that operate in the autonomous region drew up a protocol so that the deployment of fibre optics does not threaten the heritage in historic centres or the natural heritage of the area.

close to the worksite, or the search for alternatives in lighting and air conditioning systems. Likewise, when adapting heritage buildings to new uses, universal accessibility, improvement in energy efficiency and the recycling of built elements must always be a priority to the extent possible and in a sustainable manner.

TOOLS

- *Guidelines for improving the energy performance of historic buildings,* by UNE, 2018.
- *Multi-dimensional life cycle assessment* (LCA) *tools.*
- *Guide to good practices for the installation of infrastructures and equipment related to renewable energies and their potential impact on cultural heritage,* by ICOMOS, 2022.
- Protocol for Assessing the Implementation of Renewable Energies in Cultural Heritage Assets, by the Sub-Directorate General of Management and Coordination of Cultural Assets of the Ministry of Culture, 2023.

The most common reasons why energy demand is so high in these buildings entail, among others, the impossibility of applying standardised insulation methods to the assets, the poor state of conservation of many of them, or the multiplicity of uses compared to the original.

PROJECTS

- EFFESUS: energy efficiency for EU historic districts' sustainability.
- 3ENCULT: energy efficiency for EU cultural heritage.
- RIBuild: robust internal thermal insulation of historic buildings of the European Commission.
- ENERPAT-SUDOE: for the creation of energy-efficient territorial eco-renovation solutions of heritage residential housing in SUDOE historic centres.

That is why it is a good idea to evaluate policies to incorporate energy-efficient heating and cooling systems; prioritise energy efficiency by improving energy performance in buildings that belong to cultural heritage or house heritage assets; develop an energy sector based on ecological and renewable sources to thus avoid using fossil fuels; and promote innovative technologies and modern infrastructure.

In this way, the diagnosis of energy efficiency and adaptability, which establishes the principles for renovation, becomes particularly relevant. A study and analysis of the energy uses of a building makes it possible to subsequently identify the ways of saving, both economically and in terms of energy.

MITECO

In Spain, the Ministry for the Ecological Transition and the Demographic Challenge is the body responsible for, among others, regulating energy policy and sustainable development and establishing a framework for action that pursues a more environmentally-friendly social and production model. It also created the AdapteCCA platform for the consultation and exchange of information for adapting to climate change.

The installation of **clean energy** aims to combine sustainability, history, cultural heritage and efficiency. In most cases, however, the equipment required to use these resources can only be installed partially when it conflicts with the conservation or aesthetic impact of the exterior, since this equipment may be invasive to the monument or cultural landscape. An example of this would be ATUs (air treatment units), large installations placed on the exterior which could add extra volume to the building, affecting its appearance.

2.2.1.3 Making a sustainable management tool a tradition

Heritage provides a vital connection between the sense of identity and belonging and the need to adopt new ways of life. To achieve environmental sustainability, it is often advisable to look back and learn from the cultural dimensions of previous styles and ways of life. From the social acceptance of change, these testimonials promote circularity and an emphasis on reuse and regeneration, especially those rooted in pre-industrial contexts, taking into account not only energy value chains, but also social value chains.

Over time, communities have developed **strategies** to respond to local environmental conditions and the changing landscape and surroundings, developing low-emission production methods,

architectural and agricultural adaptations, and new settlement patterns. These strategies, intertwined with local vernacular knowledge, have mainly materialised in **traditional architecture** and in the adaptation of customs and traditions to the environment, which is reflected in **intangible cultural heritage**. Traditional architecture provides materials (stone, earth, hydraulic lime, tile, wood, etc.) or techniques (tanks for reusing rainwater, thermal mass, interior walls lined with clay to store heat inside, etc.), the knowledge, conservation and application of which allow for buildings that are sustainable and inherently energy efficient if properly maintained.

REGISTER OF GOOD PRACTICES

The UNESCO's Register of good safeguarding practices on intangible cultural heritage includes four examples from Spain as useful models and lessons that can be adapted to other circumstances, even in developing countries:

- School Museum of Pujol.
- Revitalisation of the traditional craftsmanship of lime-making in Morón de la Frontera, Seville.
- Methodology for inventorying intangible cultural heritage in biosphere reserves: the experience of Montseny.
- Portuguese-Galician border ICH: a safeguarding model created by *Ponte…nas ondas!*

In fact, the recovery of traditional construction techniques that offer better insulation at a much lower cost can be a resource to **reduce current energy dependence**, such as the traditional passive design solutions developed in the south and their transfer to regions in the north, which are experiencing an increase in heat due to changing weather. One example is the capture and

NOMINATIONS

In 2023, the UNESCO Intangible Cultural Heritage Committee approved two nominations related to climate change and the recovery of traditional trades: **transhumance** (where a study is also being carried out on its relationship with sustainability and its similarity to natural processes mediated by herbivores) and **the glassblowing technique** and its future (combination of survival, viability, development and heritage values).

GUIDELINES FOR CONSERVATION

- Correct and thorough documentation of each manifestation, prepared from the information provided by the host communities.
- Assessment of the loss of value or alteration to which the asset may be exposed (which may arise from the pressures of tourism or misappropriation, among others), as well as the risk of disappearance that it faces (due to, for example, the lack of generational continuity or the end of the transfer of knowledge).

reuse of waste heat in historical areas through horizontal exchanges such as positive energy districts and district heating networks.

One exemplary case is **cultural landscapes**, something more than just a heritage type. Its scale, its territorial scope, its very nature and the fact that it is a living and constantly evolving heritage make it the **most complex and dynamic heritage figure.** The values of these sites drive and enable sustainable development by supporting social cohesion, well-being, creativity, tourism and intercultural dialogue.

TOOLS

- Databases containing the representative manifestations of Intangible Cultural Heritage declared by the Ministry of Culture.
- Databases and files from the available information resources on Intangible Cultural Heritage assets protected at the national and regional level and declared by UNESCO.

As established by the Council of Europe in its European Landscape Convention, landscapes are the fundamental support for physical and psychological well-being and serve as the basis of cultural identity, offering feelings of ties and belonging. They are memory spaces, repositories of memories and traditions, and they are the physical basis of intangible heritage, since it cannot be understood without a landscape or a specific physical environment.

Precisely because of their scale and mix of natural and man-made elements, they are especially vulnerable to the current situation of

climate emergency. It is not possible (or recommended) to freeze a landscape in time: its evolution is inevitable and one of its most important attributes. It is the responsibility of the community, however, to ensure that the changes are not so dramatic that they lead to their destruction or loss or that they undermine the cultural values.

Society lives immersed in landscapes that permanently shape and mould it. This, nevertheless, also occurs reciprocally when new landscapes are modified or created, such as industrial landscapes.

HERITAGE AND BIODIVERSITY

Article 10 of the United Nations Convention on Biological Diversity (Earth Summit, Rio de Janeiro, 1992) establishes the commitment to protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements for biodiversity.

An example of this would be not scheduling a conservation or restoration intervention on a building that has nests during the months of April and May, since these are the breeding months for most birds that nest in historic buildings; or considering coexistence or compensation measures, such as temporary structures or the placement of artificial nests.

Since cultural landscapes are the result of the interaction between humans and nature, they constitute a practically infinite laboratory of good practices and lessons on how to relate to the natural environment, promoting lifestyles in harmony with nature and also serving as reservoirs of biodiversity. In the current context of climate change, cultural landscapes can contain sustainability models that have been tested and perfected over centuries, which are an invaluable tool when proposing climate change adaptation strategies. The ways of occupying a territory, exploiting natural resources, organising its infrastructure so that it can be inhabited, etc. are, in short, comprehensive sustainability measures.

Cultural landscapes can contain sustainability models that have been tested and perfected over centuries.

Spain is a country rich in cultural landscapes, ranging from meadows to the olive grove landscape, including unique landscapes declared world heritage such as the Sierra de Tramontana mountains or the landscape of Aranjuez, where in a privileged area of the Tagus River there are historical examples of the water and agricultural uses of a territory that led to the construction of one of Europe's most outstanding and unique palace complexes. Other sites worth mentioning are the Alhambra in Granada, with its complex systems of irrigation ditches, channels and gardens; the Elche palm grove, which has shaped the evolution and identity of a city over the centuries; and the second historic urban landscape considered world heritage (after Copacabana in Brazil), the Landscape of Light in Madrid.

GOOD PRACTICE

The Group of World Heritage Cities in Spain signed a collaboration agreement with SEO/Birdlife for the conservation, improvement and dissemination of natural heritage and biodiversity in such a way that these cities seek to establish practices that allow coexistence between the avifauna and the residents and visitors of cities. The wealth of fauna species that inhabit world heritage cities is estimated to be two out of every three species of Spanish vertebrates; and they are also essential in the conservation of birds, such as swifts and swallows, and mammals, such as bats, many of which are even protected by law.

Cultural landscapes are custodians of traditional knowledge and trades that create an economic balance, a circular economy, an increase in territorial cohesion and, therefore, a notable reduction in the carbon footprint. In addition, they use nature-based solutions to address climate change, such as water management in local communities in coastal and riverside areas, whose experience is a source of knowledge to design flood adaptation strategies.

Basing transition-related social dialogue on local knowledge and cultural tradition makes it possible to share successful experiences of safeguarding and overcoming difficulties that are associated with the transmission of living heritage elements, practices and knowledge to future generations. Moreover, this helps

authorities to listen and learn from communities, rather than just aiming to "modernise" them.

Some of the strategies for addressing and responding to contemporary crises are:

- Combining **circular economy** models with heritage conservation and the sustainable use of traditional land, water, agriculture and forest management systems to preserve and regenerate rural territories.
- Transforming **agricultural production methods** by reintroducing and using traditional agricultural, livestock and fishing knowledge and technical artisanal production knowledge.
- Supporting **effective afforestation, forest preservation and landscape restoration projects** based on traditional solutions to increase CO_2 absorption and minimise negative impacts on heritage resources.
- Promoting artisanal and heritage approaches, local and traditional products and gastronomy, to improve the resilience of **regional and local food systems** and encourage the consumption of seasonal foods, with local origin and distribution channels.
- Reinforcing the relationship of **healthy diets** with intangible heritage, as recognition of quality and authenticity, to strengthen cultural identity and continuity by the local community. This is the case of the Mediterranean diet, declared intangible cultural heritage asset by UNESCO, a recognition that links the nutritional quality of this form of food with its representation of food production and processing methods that are directly linked to nature. Agricultural crops and traditional fishing

GOOD PRACTICE

The Region of Valencia approved Decree Law 1/2022, of 22 April, of the Council, on Urgent Measures in Response to the Energy and Economic Emergency Caused by the War in Ukraine, thereby establishing at least five hundred metres of distance for interventions with a landscape impact, such as the installation of photovoltaic panels, from significant heritage resources, said assets being understood as BIC, local or natural monuments and protected landscapes (and after having received a favourable report prior to authorisation), thus creating a protection environment.

GOOD PRACTICE

The management model of Valsaín Valley, Boca del Asno, located in the Sierra de Guadarrama National Park, is based on reconciling traditional forest use, landscape preservation, social use, maintenance and restoration of cultural heritage, traditional uses and the relationship of local society in order to make the heritage assets sustainable and comply with the safeguarding of natural and cultural values. This natural park treasures flora, fauna, geological phenomena, traditional forms of exploitation (forest use and transhumant livestock) and cultural landscape, with the presence of material assets that cover different periods: Roman Hispania (roads, the weir of the Segovia aqueduct and bridges) and the Civil War (wall-parapet with loopholes, parapeted trench, parapets). Furthermore, it is a place of passage for transhumance (shacks, huts, pens, shearing houses) and a space for royal hunting and fishing grounds (path of the royal fisheries, points on the road, walls).

methods, such as the almadraba technique, and traditional livestock methods, such as dehesa pasturing, are models of sustainable economy. Not only do they not deplete natural resources, but they also have incredibly significant intangible heritage values (techniques, trades, rites, festivals) and tangible heritage values (traditional architecture, tools) that must be highlighted and promoted by the communities that feature them.

2.2.1.4. Acting in an emergency situation

Faced with the possibility of a threat leading to catastrophic and immediate consequences, there must be an emergency management plan which, in the case of protecting cultural assets, is called a "safeguard plan". This plan is none other than an instrument with which those responsible for an institution determine the threats and possible risks associated therewith, assess the vulnerability of that institution, and establish a working methodology and action protocols for the protection or rescue of the overall asset itself and of the holdings, collections or movable assets it contains. The required material, human and technical resources are also organised to ap-

Safeguarding plans must be drawn up specifically for each cultural asset.

propriately react in the event of an emergency, in addition to coordination with external agents who can intervene immediately and with security forces in the event that they are needed.

Two obvious difficulties can be deduced from the foregoing: firstly, safeguarding plans must be **drawn up specifically for each cultural asset** and these assets are so diverse that no generic model can be completely valid, meaning that they must be drawn up "customised" for each particular case; and, secondly, "those responsible for the asset" frequently do not have the means or the knowledge required to draw up said plans.

In the event that the institution's own resources are insufficient to address any type of emergency, **general guidelines for action are required for external intervention agents** in the event of a disaster (civil protection, firefighters, local police, army, conservation-restoration technicians, etc.), but a file **for each asset or heritage element** is also required, which explains its main features (measurements, weight, constituent materials, state of conservation, anchoring system, manner of handling, vulnerability,

TABLE OF SIGNIFICANCE

When creating safeguard files, one challenging task is prioritising and ranking the assets while avoiding subjectivity. That is why the tables of significance are very useful, which, through indicators, can facilitate this task by allowing reflection in order to objectively draw measurable conclusions such as the following:

- Does it contribute to the understanding and knowledge of a period, place, activity, industry, person or event?
- Is it associated with a particular person, group, event, place or activity?
- Is it a technical or creative achievement?
- Do scientists currently have an interest in studying the item or collection?
- Does it have potential to be researched?
- Does it have special value to a community or group today?
- Is it used in any current ceremony or parade?
- Is it unusual or is it an exceptional example of its kind?
- Is it in its original state or without repairs?
- Is it useful to interpret contextual aspects?

GOOD PRACTICE

Given the impossibility and high cost of carrying out detailed plans for the protection and safeguarding of immovable cultural assets and their contents, the Region of Madrid is proceeding to prepare "safeguarding operational files" with minimum content. These files are prepared by small multidisciplinary teams of four people, mainly architects, historians and restorers, with the collaboration and supervision of firefighters, to be used by emergency services and civil protection.

This documentation is being drawn up for all BICs, including churches, castles, convents and archaeological sites, which do not have enough staff to deal with an emergency situation, meaning that all efforts would fall on external intervention agents.

specific threats, heritage values to protect, etc.).

Emergency situations can arise from natural disasters or be caused by people, and in the latter case, armed conflicts and acts of terrorism should be distinguished. As for **natural disasters** that may affect cultural heritage, it is worth mentioning fires and floods (the most frequent events in Spain), seismic movements, volcanic activity and other disasters related to climate change or not, such as winds and storms (with sand storms and hurricanes also being considered in this category), as well as forest fires of natural origin, drought and desertification, which especially affect cultural landscapes, archaeological sites and numerous intangible cultural manifestations related to water. For this reason, **monitoring** is a key requirement for understanding both the impacts of climate change and anticipating possible climate emergencies, and to ensure the effectiveness of adaptation activities.

If the focus is placed on disasters caused by people, until recently in the European Union as a whole, and in Spain in particular, the risk of an **armed confrontation** was considered a remote possibility and was not taken into consideration in the plans of action against emergencies, such as the case of a possible terrorist attack, especially against those elements that have a greater identity. This risk, however, can pose different scenarios and has its own peculiarities. In the current context, the threat of a conventional or nuclear strike

is considered to be the most likely to occur (in addition to **economic and energy restrictions** that may interrupt preventive maintenance, security and conservation measures already in progress, on some assets).

IDE TOOL

The Spatial Data Infrastructure (IDE) tool has been developed within the National Plan for Preventive Conservation and contains geographic information on climate risks and heritage types.

When facing an emergency situation, it is always important to avoid improvisation and this can only be achieved if previous documentation, study and planning work has been done. In this aspect, it is a good idea to be methodical and, therefore, the strategies and resources provided by the **National Plan for Emergencies and Risk Management in Cultural Heritage** (known by the Spanish acronym PNEGR), coordinated by the Ministry of Culture, can be of considerable help.

Everything begins, inevitably, with the **identification of cultural assets** in the territory. Fortunately, the different public and private agencies already have catalogues or inventories of these assets. However, a large geo-referenced database in a geographic information system (GIS) that contains all the cultural heritage of the country, a priority line of work of the PNEGR, remains under development. It will include metadata such as ownership, planimetry, a technical description of the materials and structures, and information on their current state of conservation, in which the intangible heritage elements are not forgotten. This large database will represent a fundamental tool for the preparation of the risk charter, where the vulnerability of any cultural heritage element in view of various emergency situations is determined.

When facing an emergency situation, it is always important to avoid improvisation and this can only be achieved if previous documentation, study and planning work has been done.

Another important aspect is the **ranking** of these heritage elements, without which the priorities for action would not be defined in the event that an emergency affects several of them simultaneously. The minimum and most immediate action, however, would be to prepare a basic **safeguarding operational file**, with the essential site information for the agents involved (civil protection, firefighters, etc.): heights, partitioning, roofs, evacuation routes, access routes, presence of stairs, obstacles on the ground such as bollards on public roads or gates, fences and walls in rural areas, etc. Later on, a more complete **safeguarding plan** against catastrophes/emergencies must be considered.

An assessment of the risks must be carried out in terms of the likelihood of their occurrence, the severity of the consequences if they materialise, and the capacity to respond if immediate intervention is necessary. Regarding the capacity to respond, attention must be focused on two aspects: on the one hand, identifying the **material resources** (facilities, equipment, etc.) **and the human resources** that an institution has so that it can address an emergency situation; and, on the other hand, knowing which **external material and human resources** are necessary and available in the event that the institution's capacity to respond is exceeded.

All the foregoing information should serve to assess the level of vulnerability of the cultural or natural asset, the heritage elements it contains and its cultural values, in view of those previously identified risks.

Lastly, it is necessary to adopt a more inclusive perspective on the protection of cultural assets, placing them in a greater territorial context of protection against catastrophic risks, whether strategic or geographical (local, regional or national), as, for example, has been done in the **Italian Risk Charter**, which "in essence, consists of the graphic representation of the areas with a potential risk of monumental heritage deterioration or destruction, bringing together a set of knowledge in the form of a database, which can be updated".

With regards to the protection measures that must be carried out in armed conflicts, in accordance with the Hague Convention, the responsibility of implementing them falls mainly on military authorities, while in times of peace this would correspond to Civil Protection. The specific Civil Protection regulations stipulate the creation of **self-protection plans** (for the protection of people) in all institutions with activities that may give rise to an emergency situation and, in the specific scope of cultural heritage, **cultural asset safeguarding plans**, where the responsibility of preparing them falls on those responsible for the cultural sector. These plans must be included in the local and territorial Civil Protection plans to enable the activation of capabilities and external resources if necessary.

The implementation of protection measures that must be carried out in armed conflicts falls mainly on military authorities, while in times of peace this would correspond to Civil Protection.

The ***Basic guide for preparing cultural asset safeguarding plans of the PNEGR***, subject to continuous updating, organises the process in four successive phases: the preliminary phase, or analysis; the preparation and prevention phase; the response phase, and the recovery phase.

With the data obtained in the preliminary or analysis phase, the relevant preparation measures (preventive and corrective) must be designed and implemented, aimed at reducing or mitigating the effects of possible risks. Some of these measures will involve managing procurement and investment which would delay implementation, but others are applicable in the short term, without the need for investment, and many times only entailing organisational or functional changes.

The **general and immediate protection measures** that can be applied to all types of cultural assets include, for example, establishing **immediate action teams and managers** within the institu-

GOOD PRACTICE

Since 2014, PNEGR, together with the Military Emergency Unit, carry out annual GAMMA/ECC tactical exercises organised as awareness and training courses on the importance of cultural heritage protection in disaster situations, in collaboration with the Directorate General of Civil Protection and Emergencies and the Group of Heritage Cities, aimed at the National Police, the National School of Civil Protection and fire brigades.

Likewise, in 2022, PNEGR created the *Practical guide to procedures and action protocols* for immediate application in emergency situations involving cultural institutions, created specifically for application to state museums and archives in view of the armed conflict in Ukraine, which was made available to the ARs through the Council of Historical Heritage in November 2022.

tion with defined functions and a hierarchical path of action, with a clear procedure and methods that allow permanent contact with both internal and external agents, such as the preparation of telephone directories. Perhaps the major task that is still pending is to determine how this type of measure can be applied to cultural assets when there is no institution with direct management powers over them, as occurs, for example, in assets of traditional architecture. In any case, if there is no institution, organisation or simply not enough minimum staff, it is necessary to turn to models that involve associations and volunteers, as well as the coordination of external agents.

To organise action in the event of an emergency, **action protocols** that are oriented towards the different types of threats and each type of cultural asset are absolutely necessary and they must be known by the external intervening agents, as well as by all possible affected individuals and participants, thus avoiding improvisation at the time of implementation.

As previously mentioned, these procedures are defined in the guide, but in the case of cultural institutions that still do not have a safeguarding plan in place, PNEGR has prepared a ***Practical guide to procedures and action protocols*** for immediate application in emergency situations involving cultural institutions; a document that, for the time being, has been disseminated

among all state-owned and managed museums and archives and presented to the Council of Historical Heritage for dissemination and use in the autonomous regions.

> If there is no institution, organisation or simply not enough minimum staff, it is necessary to turn to models that involve associations and volunteers, as well as the coordination of external agents.

All these procedures and protocols defined in both guides would establish a first analysis and assessment of the damage, the emergency measures to be applied *in situ* for the protection of cultural assets and the evacuation of any assets that can and should be evacuated (if necessary). On the other hand, there are **digital tools** available to make it easier to collect data by means of an on-site agent and with the possibility of remote supervision by a specialist, which allows for a first analysis and a more reliable assessment of the damage suffered. Examples of these tools are the one offered by the Red Cross application, RC2 Relief Tool, based on the Open Data Kit (ODK) platform, and the one developed by the Directorate General of Cultural Heritage and Fine Arts of the Ministry of Culture, which uses the open and free platform KOBO that provides many advantages over traditional data collection on paper. Such advantages include preventing support fragility, further reducing errors and making it possible to immediately correct them, combining the collection and recording process in the database, and allowing the possibility of including images, sketches and plans in the report, and, moreover, this tool does not require a network connection.

Many people are involved when an emergency situation occurs; however, a serious emergency situation that affects a specific cultural asset is something that happens exceptionally, meaning that the people associated with that asset at that critical moment often lack the necessary experience to address it. Moreover, the very agents who are involved do not usually have specific knowl-

edge about the cultural assets. All this leads to a wide range of **training and dissemination needs**.

It is essential to **train specialists**, since the figure of the **expert in risk assessment of cultural heritage** is practically non-existent. This can be carried out in collaboration with educational entities, such as universities and higher education centres in heritage conservation of the autonomous regions, or through other channels such as cultural heritage institutes (the IPCE or the Andalusian Institute of Historical Heritage) and professional bodies and associations of cultural heritage.

Emergency drills in the institutions themselves and with the participation of external intervention agents must be carried out.

Another important matter to address in the professional field of emergencies is that of **external intervention agents** themselves (firefighters, civil protection, local police, etc.): all agents participating in an emergency should have prior awareness of the cultural values, be knowledgeable about the wide range of realities contemplated by the cultural heritage designation, as well as being familiar with the technical and logistical aspects that may be required in actions on the ground for proper stabilisation, protection and, where appropriate, handling of the assets. Without forgetting about the necessary awareness of all members of civil society who, when the time comes, may be required to collaborate with external intervention agents in an emergency situation.

In terms of training, the effectiveness, relevance and timeliness of the adopted measures can only be assessed when facing an emergency situation, so **drills** in the institutions themselves and with the participation of external intervention agents must be carried out. Although these practices are already widespread and often required by law, condescension with the result of these practices and the lack of a true assessment that leads to self-criticism and improvement are all too frequent. In this sense, it would be suitable to promote the use of **assessment sheets** during drills, where the

main factors required for their success are recorded, such as team training, knowledge of the different roles by those involved, coordination and communication, prioritisation of cultural assets, etc. These sheets would be intended for self-assessment and would be more useful if, after each exercise, a meeting were to be held to **assess the results**, underscore the failures detected and decide on the modifications to adopt in the procedures and emergency documentation. These review actions should be extended to other circumstances that are unrelated to the drill itself (climate change, modifications in the regulations, changes in cultural asset management, etc.), since they could lead to changes and improvements.

2.2.2. Challenges linked to economic sustainability

The **overexploitation of a heritage asset**, labour intrusion or lack of planning and resources make up the major problems that challenge sustainable heritage management from an economic standpoint. Management that solely focuses on obtaining monetary profit will neglect the other two pillars: environmental sustainability and social sustainability, resulting in the loss and **deterioration** of its intrinsic values, intangible qualities and authenticity. The balance between exploitation of cultural heritage as a resource and the sustainable development of local communities, as well as the preservation of cultural identity in a globalised world, stand out as great challenges for cultural guardianship.

In Spain, the most exploited heritage assets that are also exposed to large crowds are those belonging to historical ensembles and museums of great national and international importance. At the same time, there are countless assets that are in a radically opposite situation, having been completely abandoned, with very few visits and an alarming lack of use. Waiting for an asset to become more profitable than it can handle is a situation that culminates in its degradation and, possibly, in its destruction.

Moreover, since the end of the 20th century, phenomena such as globalisation, the democratisation of the leisure culture, the growth

of the middle class and the greater offer of low-cost flights by airlines have fostered what is currently known as "**mass tourism**", which is characterised by the movement of large numbers of people to certain popular destinations. Culture has become another resource in terms of tourism, along with the traditional offering of sun and sand. Due to the significant overcrowding of some heritage assets, especially those that have been declared as world heritage by UNESCO, **cultural tourism** has also become mass tourism in some cases. The problem is not tourism itself, but the fact that it is proposed exclusively for the enjoyment of people who visit the place. As such, it does not take into account the limits and values of the area or the people who inhabit it, generating processes such as **gentrification**.

Cultural tourism must take into account the limits and values of the territory and the people who inhabit it.

The adaptation of new uses, cultural tourism or the recognition and support of the professional sector directly linked to heritage should not be understood as goals in and of themselves, but rather as means to achieve proper management. Therefore, the challenges of economic sustainability in the cultural scope are:

- Finding the balance between the exploitation of cultural heritage as a resource and the sustainable development of local communities.
- Ensuring that cultural tourism does not distort the heritage values of an asset or manifestation.
- Using cultural tourism as a development tool and not as a source of overexploitation and identity loss.
- Strengthening and promoting the professionalisation of the cultural sector.

2.2.2.1. Giving cultural heritage a new use without making it lose its value

GOOD PRACTICE

In the fall of 2022, the town of Siurana (Tarragona) rejected the invitation to join a noteworthy cultural association that has a positive impact on the promotion of the places it supports. The city hall responsibly stated that it did not have the capacity to accommodate an influx of tourists greater than what it already receives.

If a heritage asset ceases to have the function it initially had, many times the best way to conserve it is to give it a new use that is compatible with its heritage values. In some cases, these changes are made organically and gradually, as can occur with intangible traditions, while in others, specific actions of a greater or lesser scale are required to be able to adapt the asset to a new public function. When the formal, historical and social features of an asset are to be adapted to modern times, without affecting said asset or making it lose its value or disappear, and with the aim of continuing to extend its useful life, it is important to assess the asset's compatibility and its set of features (integrity, uniqueness, evolution over time), values (intangible, technical, anthropological, artistic, educational) and potential (economic viability, state of conservation that determines whether it can be "used" by citizens or original function). Its use, which must be duly justified, will be done without impeding its conservation or compromising any of its values. The way in which assets are shown and offered to society must be reformulated, so that they can continue to adapt to the community and not remain "fossilised", outdated or isolated.

> The best way to conserve it is to give it a new use.

SPOLIATION

Giving a heritage asset an incompatible use can lead to spoliation, as set forth in Article 4 of the LPHE: "Spoliation shall be understood as any action or omission placing all or any of the values of the assets of Spanish Historical Heritage at a risk of loss or destruction or preventing it from carrying out its social function". A distinction can be made between spoliation caused by action (direct damage to the asset) and spoliation by omission (failure to comply with certain obligations).

Likewise, other matters that ensure its preservation and useful life must be taken into consideration, such as the asset's **carrying capacity**. To avoid damaging its integrity, the maximum number of visitors that it can receive without causing irreparable damage must be determined, and the different visitor profiles and their behaviour, as well as the elements that make up the cultural asset and its surroundings, must be analysed in order to **determine the spaces that are most vulnerable** to deterioration due to the influx of visitors. After said analysis, the most sensitive elements will be protected or, if necessary, access will be limited.

Controlling capacity, managing flows, outlining routes and movements that separate the entrance and exit, diversifying the visit by creating several optional itineraries, and complementing it with alternative resources such as scale models, facsimiles or even 360° online tours and itineraries to visit the space virtually can be sustainable, accessible and profitable options in the long term. However, the case may occur in which private agents disagree with the implementation of these measures, given the possible economic loss, and for this reason, one fundamental task of the government and the team of professionals responsible for protecting the asset is to **raise awareness about the fragility of cultural heritage**.

ALTAMIRA

One unique case among immovable assets is that of sites with especially sensitive cultural values, such as caves or shelters with rock art. The Altamira Cave restricts its access to a very limited number of visitors per week. Exceeding this capacity could cause the paintings to disappear. Given this limitation on visits, in 2001 the cave was reproduced in the so-called **"Neocave"**, which contributes to disseminating this cultural asset without putting it at risk.

Currently, there is a **tendency to create exhibition spaces** to give new uses to historic buildings and industrial facilities that are in disuse. Some examples include: London's Tate Modern, in the former Bankside Power Station, Madrid's Matadero Cultural

Centre or the Vostell Malpartida Museum of Contemporary Art, which is located in a wool wash-house that is home to the Livestock Trails and History of the Wool Wash-House Visitor Centre, with programming that includes activities related to livestock intangible heritage.

Likewise, we are witnessing the reinvention of old religious spaces that are now desacralised, now being home to hospitality or nightlife businesses or cultural spaces such as the Escuelas Pías library, which has revitalised the Lavapiés neighbourhood in Madrid. This broad cultural offering is highly interesting and should be extended to cover gaps in the community that have not yet been considered. Once the needs of the community have been analysed, it is recommended to turn to creative solutions that truly benefit society in the long term, without distorting the asset which will be given a new use. In fact, as long as regulations and conservation and maintenance guidelines are respected, a historic building can be used for almost anything: homes, businesses, workshops, shops, exhibitions, etc., thus often avoiding relocation that implies displacements with the resulting expenses in fuel and air pollution and capitalising on the resources used for something that has already been built.

2.2.2.2. Making cultural tourism a development and dynamic resource

In the 1970s, ICOMOS already defined "**cultural tourism**" as tourism which aims to discover historical/artistic monuments and sites. This definition, however, is currently diminished by the breadth of the very concept of "cultural heritage", where the intangible and landscape aspect (local festivals, community rituals, traditional techniques, etc.) is becoming increasingly important. This has a direct impact on the understanding of heritage as a tourist and dynamic resource, such that the term is also broadened and can be understood as the movement of people who are attracted by places with cultural appeal and are interested in gaining information and new experiences to meet their needs in this regard.

Understanding cultural heritage as a tourist resource also means understanding it as an extraordinary means for **reactivating the communities** that coexist with it, generating socioeconomic, territorial or cultural benefits, among others. However, if the heritage resource is to be exploited sustainably and benefits are to be generated which guarantee its long-term management, it is not enough to simply turn it into a cultural product. Four elements must be primarily taken into account: **accessibility** to the heritage element, understood in this case as its physical aspect, its connection with other **services**, its ties to other **cultural attractions** in the area, and its **integration with the local community, keeping its authenticity alive**. A heritage element that is isolated from its population, with restricted or forbidden access and located in an area where there are no other cultural offerings or other types of service (such as hotels, restaurants, beaches, etc.) will be an asset that cannot be suitably exploited, although its formal and artistic characteristics are well-known.

Understanding cultural heritage as a tourist resource also means understanding it as an extraordinary means for reactivating communities.

The combination of the concept of "tourism" and that of "cultural heritage" allows both areas to intertwine and activate each other. The impact should fall, above all, on the development of the territory of the heritage element in particular, as well as that of the community that sustains it. On the other hand, since it is a sign of identity and heritage that past generations have been transmitting to the present day, heritage tourism can serve as an agent of sociocultural change that enables the socioeconomic development of the area, as a driver of local economies and empowerment of the

GOOD PRACTICE

In 2023, the Toledo City Hall limited the number of tourist accommodations in the historic centre to 20% of the homes, restricting the licences granted at the moment and only allowing holiday apartments on the first and ground floors of buildings.

community. This creates the opportunity to generate **tourism that is sustainable, community oriented, and alternative,** which can be adapted to the new demands of experiential tourism.

GOOD PRACTICE

The Almedinilla City Hall (Córdoba) promotes a service focusing on the heritage elements found there (archaeological sites and a museum), along with rural areas, hiking trails, music festivals and even art festivals, workshops and history conventions. Dynamic or theatrical visits and "Roman" meals are offered around the Roman site, thus contributing to the dissemination and knowledge of this population. This service also manages and lists the town's rural lodgings and accommodations and restaurant facilities on its own website.

Although the traditional sun and beach trips in Spain are the ones that still attract the largest number of visitors, cultural tourism is also growing in importance. This country has a large number of well-established resources and destinations in the cultural area and, in fact, it is one of the destinations with the most places declared as World Heritage Sites by UNESCO, in addition to more than 7,500 spaces declared BICs. As mentioned, the assets with the greatest appeal to tourists are museums and the cities or historical ensembles placed on the UNESCO lists. Fortunately, in recent years they have been joined by small- and medium-sized cities that, through their local and regional governments, are carrying out advertising campaigns with a very positive impact.

The most recent data offered by the National Institute of Statistics for heritage tourism in Spain are those corresponding to the year 2021 and they highlight that:

- **Trips taken for cultural reasons by Spaniards** represented an average of 12.4% of the total.
- The **influx of international tourists** who travelled to this country with cultural interests was 36.3% of the total arrivals.
- As for spending on cultural tourism, it represented a total of 5.012,5 billion euros.

Heritage tourism, on the other hand, should foster the local community's involvement in order to create different products and cultural itineraries. The community must feel a sense of belonging and dependence on the asset before it is activated for tourists, otherwise its exploitation as a tourist resource will be neither viable nor sustainable. It is important to recall that cultural heritage is no longer reduced to ruins and works of art, but rather its definition is expanded to include elements such as cultural landscapes or intangible manifestations, which are much more sensitive and vulnerable to the consequences of economic exploitation. Cultural tourism can be understood as an opportunity for rapprochement and exchange between cultures, which can result in the development of multiple areas for the receiving local communities and for the transmitting societies. Despite this, inadequate management between supply and demand, overexploitation, poor accessibility and the weaknesses of the different heritage resources can entail consequences that drastically transform lifestyles.

Redirecting tourist flows or exploring sustainable mobility options to access tourist destinations that generate a smaller ecological footprint are some measures that can be adopted.

The evolution of tourism requires new measures and ways of managing this cultural heritage activity which, as previously emphasised, has a number of non-existent limitations on other more traditional forms of tourism that cannot be ignored, since doing so would eliminate not only its integrity, but also the social fabric that was consolidated around it.

Sustainable management of cultural tourism **reconciles its preservation, the tourist experience and the development and involvement of the local community.** To do this, certain measures can be carried out and combined, such as:

- Establishing **variations in prices** to redirect tourist flows or limit them, providing better deals and services in the off-season to balance out the arrival of visitors throughout the year.

- Exploring **sustainable mobility solutions** for accessing tourist destinations that generate a smaller ecological footprint, such as pedestrian or bicycle paths, and using eco-fuel or electric public transport for access. Historic sites generally have dense and transitable traditional settlement patterns, which promote greening and general living, which include cooling down the city centre with more trees and less asphalt.
- **Promoting all the heritage assets in the area** to distribute visitor flows and balance the presence of tourists, including low-carbon emission routes, cultural landscapes or less common tourism opportunities such as industrial heritage.

GOOD PRACTICE

The Machu Picchu Sustainable Use Regulation (2017) included a number of actions aimed at reducing greenhouse gas emissions to achieve the Carbon Neutral certification and catalyse the economic recovery and sustainable development of the tourist destination.

Some of the noteworthy measures taken included the establishment of two visitor shifts, morning and afternoon, and the duty of tourists to complete the journey to the settlement on foot in a maximum of four hours. If they wanted to stay all day, they had to buy tickets for both shifts, in addition to visiting Machu Picchu with a guide. These were some of the actions taken to prevent UNESCO from including the Incan settlement on the List of World Heritage in Danger, due to its state of conservation.

- **Controlling and limiting access** based on the asset's carrying capacity, in other words, establishing limits on the number of people who can visit it, so that it does not undergo any type of damage that leads to its degradation.

- **Setting fines, restrictions and fees** can be a useful measure, since there are heritage elements that are increasingly vulnerable to crowds and it is necessary to establish limits beyond capacity control, which is sometimes insufficient. These measures can result in the payment of fees (for example, the eco-tax in the Balearic Islands) or the imposition of fines if said limitation rules have been violated.

- **Establishing collaboration with small businesses** and especially with the local community, creating new jobs and making heritage spaces available for common use are ways that ensure that tourism resources are not isolated from the community and said community can develop along with tourism.
- **Adapting the asset's resources for tourist visits** is key and can be achieved by providing visitors with the information and tools needed to enjoy the experience independently and on equal terms. This means investing in a variety of resources, such as the installation of ramps, lifts or accessible services in buildings, the training of personnel as support for people with disabilities, the implementation of special parking areas/park and ride lots, etc. This adaptation of the asset to the needs of visitors represents a challenge since it must avoid the artificialisation of heritage elements.
- **Promoting slow travel and tourism as a "cultural and learning" experience** with the development of alternatives on how to discover and rediscover territories, generating higher quality experiences and greater enjoyment for visitors and residents.

Lastly, initiatives such as the issuance of **tourism and sustainability certificates** or the recognition of tourism excellence and requalification plans, which are largely promoted by public entities, guarantee, foster and improve the situation in which heritage assets are found. In the case of certificates, they highlight and reward actions and measures on cultural heritage and confer prestige that can be appealing to tourist visits. There are measures such as tourism revitalisation plans (TRP) and renovation plans, intended both to promote tourism in towns that have mature heritage resources but with a low use or influx of visitors and to increase the quality of a destination in order to renew its offerings and update both its management and its services.

GOOD PRACTICE

In 2023, the Ribeira Sacra Tourism Consortium published the *Handbook on Good Visitor Practices* for responsible and sustainable tourism.

2.2.2.3. The impact of professionalisation on the cultural sector

Professions in cultural heritage work with the common goal of preserving unique and irreplaceable assets. This term encompasses multiple professional activities linked to cultural heritage management (tangible, intangible and digital), in which creative industries such as crafts are also included and can be both a support or a vehicle for intangible heritage such as cultural heritage of traditional knowledge. Thus, heritage is a generator of sustainable economic activity, with economies of scale and new sources of employment (not only in traditional trades associated with heritage), which operates as a multiplier of the value of the associated product or service.

If society considers cultural heritage as one of its greatest values, it should appreciate to the same extent the importance of the work carried out by those specialising and dedicating their lives to the conservation, management, and dissemination thereof. UNESCO created plans and strategies aimed at achieving specific **recognition** for these activities in line with the responsibilities they entail, with training programmes and accreditations that are suitably matched and approved. These strategies also focus on defining specific competencies in the professional sphere and/or the existence of specific authorities in the government. Only in this way will it be possible to achieve the logical link between teaching skills and the real demand for work in society.

If society considers cultural heritage as one of its greatest values, it should appreciate to the same extent the importance of the work carried out by those specialising and dedicating their lives to the conservation, management, and dissemination thereof.

Furthermore, globalisation itself, which has had an impact on this discipline with the emergence of **new materials and formats** or

the progressive expansion of the concept of "cultural heritage" (multimedia, photographic and audiovisual art, plastic arts, industrial landscape, intangible heritage, etc.), requires professionals to evolve in each specialty and to broaden training areas in order to guarantee the safeguarding of all this heritage. Such changes must be reflected in the study plans of the different disciplines involved.

The professional profiles linked to cultural heritage must be qualified technicians with the **corresponding specific official degree**, whether they are specialists in the area of conservation and restoration, history, archaeology, architecture, anthropology, cultural management, biology, chemistry, physics or other related disciplines, this being the only way to avoid intrusion and the irreversible damage that it entails.

It is recommended that the guardian teams of heritage assets have specialised personnel. The annual cost of a team of qualified technicians in cultural heritage management that addresses all its aspects is usually lower than the cost of hiring a large company that in turn subcontracts for each of the jobs. This also means that the full investment does not go towards caring for the asset. For example, an active conservation and maintenance policy that uses monitoring and control tasks before damage appears leads to, through small investments, a decrease in average conservation costs and avoids the implementation of

TRADITIONAL TRADES

In some cases, in order to carry out different actions on cultural heritage, there must be cooperation with traditional trades (stonemasons, cabinetmakers, carpenters, etc.) or other sectors of the local population who have specific knowledge of the asset in question. That is why official vocational and craftwork training centres related to cultural heritage must be supported in order to promote and ensure the survival of these professions and trades, thus preventing them from dying out. One way to protect the work of this sector is the creation of the Spanish National Directory of Traditional Building Masters.

more aggressive interventions for the cultural asset. Coordinated and comprehensive action allows for planning and provides precise information for decision-making based on technical and objective criteria, prioritising actions based on the needs of each asset.

Perhaps the discipline where professional intrusion is most obvious is that of conservation and restoration. In recent years, the media has shown us examples of unqualified interventions that have caused irreversible deterioration of these assets. Furthermore, the terms "conservation" and "restoration" have often been used to mistakenly refer to these attacks on heritage. The seriousness of these events demonstrates the need to raise awareness among the media and local governments in order to stop these terms from being used lightly. Likewise, it is advisable to invest in **dissemination** through different initiatives, such as educational campaigns to raise awareness about cultural heritage and its preservation by professional technicians in schools or social centres, visits to works under restoration, awards related to heritage conservation, and tax incentives for investments in conservation and restoration projects that prioritise good practices. These are the cases that should be disseminated as much as possible in the different media and social networks.

CONTACT INFORMATION

It is useful for local corporations and other owners to have up-to-date contact information for the regional entities that have competences in culture. It would also be very suitable to have a registry of professional sectors created in collaboration with associations, professional bodies and official centres to teach disciplines related to cultural heritage.

Given the foregoing, one of the objectives of those responsible for culture in each region must be to **raise social awareness about the value of heritage and the importance of its preservation by professional experts**, thereby ensuring its long-term conservation.

2.2.3. Challenges linked to social sustainability

Heritage is also vulnerable to the social circumstances of the contemporary world and is affected by the effects caused by depopulation and demographic challenges, the gradual aging of the population, globalisation, health crises, vandalism and armed conflicts. The lack of adequate tools and resources for the enhancement, conservation and maintenance of heritage also has a profound impact on communities. In the 21st century's third decade, the main challenges for socially sustainable management of cultural heritage are:

- Promoting equal and universal access and consumption of culture.
- Promoting cultural revitalisation in the most disadvantaged areas and among groups at risk of social exclusion.
- Using the capacity of cultural heritage to maintain population and be an element of social cohesion.
- Preserving cultural identity in a globalised world.
- Taking advantage of the creative and transformative potential of cultural heritage to involve and raise awareness among civil society in its valuation and management.

The cultural heritage of a community, endowed with multiple tangible and intangible manifestations, is its **hallmark of social and historical identity** and helps to reinforce that identity generation after generation. Its preservation, therefore, does not exclusively consist of prolonging the existence of a material asset or a cultural practice, but of attending to the social constructions that are formed around them and how they adapt over time.

Heritage is also an excellent driver of society, generating employment and revitalising depopulated areas, essential when it comes to creating awareness about heritage in people and making them feel that it belongs to them.

2.2.3.1. Achieving social inclusion through cultural heritage

Inequality is one of the most pressing problems of contemporary society and refers to the differences between members of the same territory caused by external, circumstantial and structural factors, which define the transgenerational, socioeconomic, ethnic-cultural and gender context of the community. Inequality generates poverty and unemployment, breaks social cohesion and promotes a difference in opportunities or granting of basic needs such as housing or health. Several vulnerable groups are included, such as migrants, people at risk of social exclusion or unemployment, "racialised" groups, inmates in penitentiary institutions, people who have not been able to access certain levels of education, those with different abilities, etc.

The concept of "poverty" is multidimensional, not only rooted in the socioeconomic scope, but also in that of disability, being a group discriminated against due to psychological, economic, social and physical barriers that worsen their situation.

In this context, cultural heritage should be used as a way to strengthen the social ties formed around it, promoting and stimulating critical reflection, knowledge, tolerance and coexistence.

The processes of globalisation and social transformation can create favourable conditions for renewed dialogue among communities, but they can also entail phenomena of intolerance and serious risks of the deterioration, disappearance and destruction of cultural heritage.

Heritage and culture are, for many reasons, indispensable tools in the fight against social inequality. One of the most important factors is that cultural heritage per se is an **intercultural and plural** element, the result of past migratory processes and contact between different societies over time. It is made up of multiple expressions and appeals to the foundations of the cultural identity of peoples and communities: it favours integration, the defini-

Cultural heritage is an intercultural and plural element in itself, made up of multiple expressions and appealing to the foundations of the cultural identity of peoples and communities.

tion of identities, social cohesion and the feeling of belonging to the same community. It is a tool that calls for the recovery of the communal and participatory vision that it offers, being used as a meeting point between very diverse contexts. Another characteristic is its important emotional and sensory dimension, whether for aesthetic reasons or for appealing to common values, endowing it with a **universal language** of extraordinary scope.

Public studies in cultural institutions have revealed that people experience different results after a visit which go beyond learning or distraction: they socialise (thus reducing the feeling of social isolation), communicate, acquire or improve skills (for example, in the use of language), reduce anxiety and stress, increase self-esteem (thanks to the feeling of satisfaction when understanding and learning something), feel inspired, become more creative, etc. That is why it is important for institutions to foster their social side and learn to address a diverse audience, making cultural heritage a space for integration that can be enjoyed and shared by anyone.

GOOD PRACTICE

In 2022, the Sub-Directorate General of State Museums launched a campaign to recycle the advertising banners created for the facade of the Ministry of Culture and Sports in Madrid's Plaza del Rey square on the occasion of International Museum Day. These banners have become portfolio folders made in the Ellas bordan sewing workshop, which offers job opportunities to women in situations of vulnerability or at risk of exclusion.

To achieve true inclusion, several matters must be kept in mind. One of them, for example, lies in the need not to build unique stories, but rather messages open to different points of

view, leaving room for dialogue. Only in this way is it possible to generate a sense of authority shared with spectators. In this way, attention can be given to certain elements of the discourse that favour inclusion: gender expressions, disabilities, stereotypes or the manner in which cultures other than one's own are approached, among others; taking into account language or cultural barriers that may arise when dealing with the public from other countries; not stigmatising the public for whom activities or policies are intended because they belong to a vulnerable group, etc. In this regard, working in cooperation with specialists (for example, social workers or occupational therapists) is of interest when carrying out these initiatives successfully.

A basic structure for the message or discourse to be transmitted must be sought, bearing in mind at least three premises: the use of **polysemic language**, in other words, with different interpretations; the **autonomy** of any person to be able to understand the main discourse, regardless of their knowledge; and the **clear development of the discourse**, for which it must contain the necessary codes that allow each visitor to decipher it individually. Since each person personally interprets what they see, hear and feel, care should be taken to get their attention, arouse their interest and favourably predispose them to receive that information, regardless of the starting point.

It is important to remember that, just as no social group is homogeneous, the definition of what is or is not considered "heritage" as a social construct is not homogeneous either. In fact, it is constantly changing and the heritage discourse that legitimises identities is neither neutral nor impartial. Instruments such as the Convention for the Safeguarding of Intangible Cultural Heritage (2003) already expressly indicate that the assets included in this concept must be compatible with international instruments that protect **human rights**, including the equality of individuals without distinction of sex, race or social class.

Social and cultural transformations that have favoured the inclusion of **women** in the use and management of cultural heritage

vary greatly, although the increasingly widespread fight for social, political and economic equality stands out among them. To promote the effective incorporation of women in this area, efforts must begin with education on equality, essential to empower future generations of women. Disseminating experiences in which gender equality in cultural heritage has been successfully achieved may serve as inspiration for similar cases. In especially difficult situations, as has occurred in some manifestations of intangible cultural heritage, **cultural mediation** can be a tool to bring competing positions closer together.

Moreover, to identify possible barriers that reduce accessibility and inclusion, **participation and cooperation with the local community**, in other words, the involvement of the direct recipients of that heritage, is necessary since the context in which work is carried out will never be the same and the potential solutions will depend on it.

2.2.3.2. Reconciling accessibility with safeguarding

Access to cultural heritage not only refers to a physical or spatial issue, but also to facilitating the transmission of messages and favouring participation in their creation and dissemination. To guarantee access to and enjoyment of heritage resources for the entire population, multiple factors must be taken into account that reconcile the problems that heritage presents. To preserve its integrity, possible ways of managing the incorporation of this accessibility criteria must be explored.

The area of **physical accessibility** is possibly the first one that comes to mind when talking about this topic and it addresses the possibility that all people can access and use a physical space under the same conditions of equality, security, autonomy and comfort. This aspect not only focuses on the replacement of stairs with ramps or lifts, but also on the creation of routes that consider aspects such as the adequate width of corridors, the adapted height of customer service counters, the need to prepare rest areas, path lighting, the types of materials used, etc. Many of these requirements are included in the Basic Document

on Safety of Use and Accessibility of the Technical Building Code (DB-SUA), state regulations of mandatory compliance at the national level. Numerous accessibility regulations are also implemented in the autonomous regions and even at the municipal level.

Since there is no universal formula to respond to this challenge, given that each construction has its own features and circumstances, common sense must be used. In general, any necessary modifications and adaptations that do not imply an undue burden, that are adapted to the asset and its environment, and that guarantee mobility will be incorporated. When undertaking any type of action that improves the accessibility of an asset, this must be compatible with its preservation, seeking a balance between providing the greatest possible access with the suitable conditions and guaranteeing and the full conservation of values. Planning and prior studies are essential to ensure the success of the action, whether it be on a building, a cultural landscape or a festive event. It is

ACCESSIBILITY INDICATORS

In the case of archaeological sites, indicators are being developed to determine a location's greater or lesser degree of accessibility. Sites usually have steep slopes, unevenness, pavers that cannot be stepped on, holes and ditches in the ground, etc., so that this type of route cannot always be created. Moreover, if taking into account that these sites are usually in locations that are difficult to access by road, a site, no matter how extraordinary it may be, may lose merit when making the decision to invest funds to open it up to the public. These indicators are computed based on variables such as:

1. Estimated time and distance to access the site from the location where the vehicle is parked.
2. Difficulty of access to the site. Variable valued based on elements such as the presence of natural or man-made barriers, ownership of the site, presence of access roads, etc.
3. Possibility of enabling routes and the presence or absence of obstacles for people with reduced mobility or people who have strollers with children.

Those assets that have a strong intangible and social nature are more vulnerable to overcrowding.

UNIVERSAL ACCESSIBILITY

According to the General Law on the Rights of Persons with Disabilities and their Social Inclusion, universal accessibility is the **condition that environments, processes, goods, products and services must meet,** in addition to objects, instruments, tools and devices in order to be **understandable, usable and workable** by all people safely and comfortably and in the most autonomous and natural way possible.

- Art. 30 International Convention on the Rights of Persons with Disabilities.
- Art. 7 Faro Convention, which declares the importance of encouraging reflection, respect, coexistence and knowledge through cultural heritage.

The Spanish Historical Heritage Law states the following in its prologue:

"The Law only aims to achieve access to the assets that constitute our Historical Heritage. All measures for protection and promotion established by the Law only serve a purpose if they eventually lead an increasing number of citizens to view and enjoy the works that are the heritage of a nation. Because in a democratic State such assets should be duly placed at the service of the people in the conviction that their enjoyment will facilitate access to culture and that the latter is the path towards freedom for nations".

necessary to take into account both the means to be used and the limits established so that neither the heritage assets nor the communities involved are affected, since those assets that have a strong intangible and social nature are more vulnerable to overcrowding, gentrification and the repercussions that they entail. For this reason, measures must be applied that are sustainable and balanced with the pre-existing activity in these areas. If the stability of the asset cannot be guaranteed, other means of dissemination linked to technology and communication networks can be established.

Disability, on the other hand, conditions the person's interaction with their surroundings, but its modification can significantly improve this relationship. To understand the effectiveness of the measures implemented and the design of accessible and inclusive itineraries, people with disabilities or people who work therewith should be consulted, whether they are members of a group or organisation or members of the local community.

Sensory accessibility, referring to all barriers related to the senses, implies providing cultural institutions with resources such as information panels and easy-to-read signage (in terms of font size, definition, contrast, etc.) and in Braille format, audio guides, scale models, as well as tactile flooring for people with vision problems and videos with subtitles and sign language, sign guides and electromagnetic induction loops for people with hearing disabilities, etc. All these tools must facilitate interaction, compensating for possible vision or hearing impairments.

GOOD PRACTICE

The Madrid City Hall launched tahe Read Madrid project, the aim of which is to implement a unified system of universal pedestrian signalling, based on the principles of spatial signalling for pedestrians and cyclists —route systems—, which is understood as a signalling network that allows individuals to orient themselves towards a specific destination.

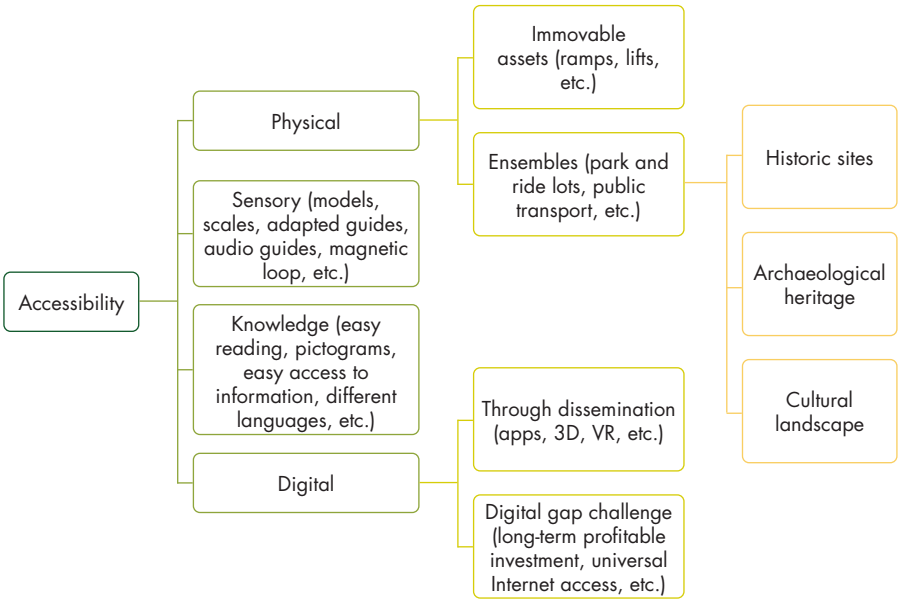
On the other hand, **cognitive accessibility** refers to comprehensive ability and, therefore, the condition that different texts, pictograms, alternative and augmentative communication systems, posters and technology must meet for language to be understood by all audiences. It implies the strategy of "universal design or design for all". This means that any citizen, regardless of their personal and social conditions (such as age), must be able to understand the message that is transmitted to them. For this, prior analyses must be carried out that identify the characteristics and difficulties of the people for whom the message is intended. Accordingly, different studies on easy reading that have been carried out in recent years by various institutions and agencies are of great interest. In general, clear, understandable and, if possible, international signs and pictograms must be used so that all audiences can orient themselves. Moreover, all information about the location should be provided on a website to ensure that those who want to visit it can prepare themselves in advance. It is also crucial to bear in mind that cognitive accessibility does not only refer to information and signage systems, but also to the very conception of spaces that will have an impact on correct understanding.

Lastly, **digital accessibility** must be discussed, referring to access to digital devices and the services they offer. We are living in an increasingly digitised environment and this makes knowledge about the use of technology a fundamental matter in order to achieve greater autonomy. In 2005, only 11% of the world's population had access to Internet, while 90% of the "connected" people lived in industrialised countries. Over the course of two decades, these figures have changed in such a way that, in 2023, 64.4% of the world's population now uses the Internet. Smartphones have helped popularise this access, even in developing countries; however, the so-called "**digital gap**" is still apparent in population groups of some countries, depending on their economic resources, geographical origin, age, sex (two out of three illiterate people worldwide are women, which prevents their access to new technologies), language, education or employment.

The digital gap is directly related to the knowledge gap and to educational, cultural and language obstacles.

The digital gap is directly related to the knowledge gap and to educational, cultural and language obstacles, which can make the internet a strange and inaccessible element for large population groups that have been confined to the margins of globalisation. That is why one of UNESCO's goals is the principle of **digital solidarity**, which seeks to reduce digital inequality. The keys to achieving and promoting the knowledge society for all lie in investing in quality education that fosters equal opportunities, extending places of community access to new technologies or favouring language diversity, among other measures. Being able to guarantee accessibility from all these standpoints is still a challenge for many entities, not only due to the need to ensure the asset's integrity, but also given the difficulty in choosing the appropriate means and making the measures used effective.

Concept map of accessibility in cultural heritage



2.2.3.3. Involving society in management

The evolution of the concept of "cultural heritage", from a classical and restrictive perspective to an open and inclusive one that incorporates new heritage in line with the democratisation of the societies from which it derives, emphasises its collective dimension, not only in the need to facilitate its access, but also claiming the active role of society and civil society in its management (in line with the 2005 Faro Convention on the value of cultural heritage for society). Contemporary societies demand the effective application of participatory mechanisms that aim to unite efforts and **channel proposals from citizens**, amplifying their voice to promote decision-making by public authorities charged with heritage protection. In fact, the **new models** sought by cultural heritage entail social action and the involvement of local communities and authorities. Failing

> The new models sought by cultural heritage entail social action.

GOOD PRACTICE

As a result of a collective exhibition, an initiative arose to create a cultural association bringing together area professionals interested in the cultural heritage of Belchite, as well as scholars who have spent many years researching the heritage remains of the town. The Allondero Cultural Association was finally founded in 2017, directed and managed by young professionals from Belchite (architects, designers, archaeologists, historians), whose objectives, among others, are to disseminate their cultural heritage, encourage citizen participation and raise awareness about the need to preserve their cultural assets.

to include the local community in heritage management inevitably means that it is unfeasible in the long term.

This process of democratisation and strengthening of the social function of cultural heritage –often promoted by both national and international heritage organisations themselves– has been gradually introduced in various texts like **international charters and recommendations**. They emphasise the importance of communities in everything that is related to the identification, knowledge, preservation and dissemination of cultural assets, developing and implementing more robust organisational and participatory management models.

"Social participation" is understood as the set of initiatives through which people organise themselves voluntarily to focus on certain common causes that have an impact on the prosperity and development of the surroundings and that depend, for their fulfilment, on the management of social power structures. Although social participation involves the public and private spheres, these are usually independent and free of profit seeking interests. Participation, in terms of cultural heritage, involves **two relevant dimensions**: the demands of civil society itself and the search for solutions to problems arising from heritage management.

> The citizens themselves are the ones who can best decide what is culture and, therefore, what must be protected.

An essential area linked to cultural heritage is that of citizen governance, understood as the

possibility of giving local communities the right to decide what is cultural heritage and how it should be conserved and enjoyed. In fact, the citizens themselves are the ones who can best decide which immovable or movable assets and which uses, representations, expressions, knowledge and techniques (along with the instruments, objects, artifacts and cultural spaces that are inherent thereto) should be considered cultural heritage and, therefore, must be protected. It is not uncommon for there to be cases in which a fronton wall or a garden, seemingly of no interest to specialist technicians, acquire essential values for a community that has seen its generations grow up there.

GOOD PRACTICE

The Cades Forge building (1752) is part of a uniquely complex rural setting with two flour mills, a forge, the house bearing the coat of arms of the owners and a shed.

At the initiative of the town's inhabitants, comprehensive renovation of the forge, its machinery, the attached mill, as well as the entire setting, was recently carried out. Inside there is a small exhibition and an audiovisual guide, which complement the explanations of the guided tour and the demonstrations of its operation. This initiative brings visitors closer to the old trade of forging through guided tours and a demonstration of how the forge and the mill work. It also has a programme for schoolchildren that includes workshops on the environment, prehistory, medieval times and fishing, the Water Inventions itinerary, etc.

The challenge that arises is to combine theoretical approaches in heritage management with participatory governance mechanisms and models that achieve the effective and true integration of agents, institutions and players linked to cultural heritage. The development of these organisational systems is not a simple task, since this implies guiding traditional schemes and behaviour patterns towards new instruments and work methods, from a static notion to a dynamic one. These new management models encompass the measures carried out by the most institutional spheres (governmental agencies)and private spheres (foundations, companies and associations), transcending local spheres. The aim is for them to become a well-established practice at the national level and have resources and measures to guarantee their participation.

GOOD PRACTICE

#PorUnRománicoAbierto (for an open Romanesque) is an initiative where volunteers can open Romanesque temples so that tourists attracted by the monuments do not find them closed, mainly outside the so-called summer "high season". The campaign was launched by Cristina Párbole, historian and volunteer guide at the hermitage of Santa Cecilia in Vallespinoso de Aguilar (Palencia) and author of the blog *La huella románica* and responsible for the programme of the same name on Radio Aguilar.

Thanks to this project, the Cortes of Castilla y León Legislature has recently and unanimously approved the resolution to urge the Government to increase the number of monuments that can be visited and their opening times.

In this undertaking, the work of **cultural associations** and other social organisations (associations of friends, volunteers, etc.) is of great interest as a knowledge base to identify and analyse the problems of these specific heritage elements and to be able to assess the most appropriate solution. Countless experiences demonstrate that the cultural heritage of a community is enhanced and society is involved in its promotion, dissemination and defence, and this becomes an important way of revitalising that space or community, which acquires fundamental value in sectors that are in situations of social exclusion and vulnerability.

Effective and conscious participation in decision-making becomes possible through **social control that raises awareness about the values and obligations** projected and required by cultural heritage for care. Before implementing any action, it is important to carry out a prior analysis that offers a correct **diagnosis** of the status of the heritage element in the different sectors of society, as well as the measurement of the development of programmes and mechanisms for citizen participation in cultural institutions, with the aim of establishing and planning different strategies, their scope of action and the degree of involvement of each of them. Once this diagnosis has been carried out, specific proposals can be requested through collective participatory processes on matters related to cultural heritage. These matters can be incorporated into the policies of the national, regional and local government and can enable spaces and chan-

nels of participation (even through the provision of a specific budget item for the public to set up **consultative mechanisms**) which allow the public to give their opinion, be informed and decide on the management of their heritage, as well as facilitate the reporting of alterations or attacks thereto.

2.2.3.4. Cultural heritage taking on the demographic challenge in rural areas. Consolidating territorial cohesion through cultural heritage

Throughout history, agricultural and livestock economic activities have constituted the activity of the rural environment, the exploitation of which led to the development of population centres. Many of these centres were progressively abandoned after the Industrial Revolution and simultaneously with the development of cities and new production methods. Spain currently has one of the lowest population densities in the European Union, and in fact, the model of rural settlement that is now disappearing is the result of an economic model based on the presence of manual labour in farmlands and areas dedicated to raw material extraction and transformation. The depletion of these raw materials and, above all, the process of mechanisation of the countryside and the industrialisation of agricultural exploitations, with the subsequent concentration of land together with the lack of economic expectations due to the job shortages, deficiencies in services or difficulties with communication have been pushing the inhabitants of many of these regions to move to urban areas in search of new opportunities. The immediate consequence is the **disappearance of the smallest population centres**. In Spain, 42.2 % of municipalities are at risk of depopulation, only behind Estonia, Finland and Latvia in the EU, a situation that entails devastating consequences for cultural heritage that, without use, is bound to be lost, leaving its preservation a mere illusion.

> In Spain, 42.2 % of municipalities are at risk of depopulation.

The current situation should be the starting point for an in-depth reflection on the conservation and reuse of the immense cultural legacy found in these areas of the country. A reflection that leads

GOOD PRACTICE

Festivalino de Pescueza (Cáceres) is a music festival that takes place in a rural area with a low population density. It draws attention to the problems of the rural environment, such as the lack of services and depopulation, and has the financial support of the Government of Extremadura through the Departments of Culture and Equality and the Provincial Council of Cáceres, in addition to the Pescueza City Hall, surrounding towns and companies and private entities.

to the search for an **alternative and sustainable economic model** that enables economic activity to be generated in areas with low population density, making these spaces attractive for the settlement of new inhabitants. In this sense, it is important for welfare devices to be distributed based on criteria of territorial balance so that the rural population can have the same access to public services as the population in urban areas.

There cannot be only one solution, but rather it must be framed within comprehensive projects that involve the creation of jobs, the provision of services, the improvement of terrestrial and digital communications, etc., in addition to business projects that promote the generation of direct and indirect economic resources, such as conservation and restoration projects for heritage assets. These actions represent an opportunity to reverse or at least minimise this negative demographic balance, as well as to generate **employment for all levels of training**, from the most specialised to those that hardly require training, in addition to providing the ideal framework for the survival of all kinds of traditional trades. The scope of cultural and natural heritage is an area of work that allows for a harmonious combination

GOOD PRACTICE

Located in the village of Caleras de la Sierra (Sierra de Esparteros, Seville), the Lime Center of Morón introduces the visitor to the ways of life related to lime production, as it is one of the few places where traditional methods are still followed. Since 2010, it has been continuously open and has become an educational space that offers courses about these forms of work, thus allowing civil society to rescue, disseminate and value their heritage, while contributing to promote their territory's heritage and economic value.

of traditional knowledge and state-of-the-art techniques and technologies.

According to the National Institute of Statistics, 80% of the population in Spain is concentrated in municipalities with more than 10,000 inhabitants in just 20% of the territory. Bearing in mind that 90% of Spanish municipalities have less than 1,000 inhabitants, "rural depopulation" is the term used to refer to the displacement of the population in these rural areas in order to settle in urban areas. This process, which began at the end of the 19th century, intensified in the second half of the 20th century as cities became the epicentre of economic activity.

> The scope of cultural and natural heritage is an area of work that allows for a harmonious combination of traditional knowledge and state-of-the-art techniques and technologies.

Current issues relating to demography (ageing), accessibility (weak infrastructure, erosion of economic potential), education (lack of facilities, deskilling) and the labour market (instability of local employment, professional emigration and loss of talent) create a spiral of deterioration in the quality of life in rural environments and amplify the differences between the countryside and the city in terms of opportunities for life development. The **rural divide** represents the inability of these areas to match the standards of quality of life, services and opportunities

CULTURAL REGION ECOSYSTEM

On 14 March 2023, the Ministry of Culture launched the Cultural Region Ecosystem web portal, which includes the projects that have benefited from aid to expand and diversify the cultural offering in non-urban areas of the Recovery, Transformation and Resilience Plan. It is an initiative that aims to promote and revitalise a diverse cultural ecosystem in rural areas and that consolidates the cultural offerings and generates employment opportunities. The website has a complete catalogue of professional resources, calls and a section on training to reinforce the training and professionalisation of cultural and creative agents.

The new exploitation models have given rise to the transformation, sometimes with negative consequences, of traditional cultural landscapes.

available in urban environments. In the past, the settlement of a large part of the population in rural areas led to the development of their own ways of life, where permanence and transmission have carried on cultural traditions, as well as the constructions and tools linked thereto. These manifestations are associated with tangible and intangible heritage, highlighting its **identity character** and its strong ties to the environment. The economic activities of the rural world, some of them already classified as intangible cultural heritage, have been gradually abandoned and replaced by intensive agricultural and livestock models in such a way that these activities, previously family-based, have been giving way to industrial exploitations in a global process. This modification of the exploitation model has given rise, in some cases, to the transformation of traditional cultural landscapes and has brought negative consequences for the conservation of natural spaces, endangering their very sustainability and the traditional balance that characterises these places.

Likewise, the **process of emigration** of young people from rural to urban areas means that this ancestral knowledge is not being transmitted to

GOOD PRACTICE

Favourable tax treatment initiatives for those who settle in depopulated rural areas:

- Draft Law on the Revitalisation of Rural Areas of the Government of Aragon (2022), with an annual deduction of six hundred euros from the total regional income tax if residing in a settlement with an extreme demographic risk, of which there are 167 in the province of Teruel.
- Law 2/2021, of 7 May, on Economic, Social and Tax Measures against Depopulation and for the Development of Rural Areas in Castilla-La Mancha, in which access to public services and equal opportunities for the inhabitants of rural areas is guaranteed, in addition to promoting the economic and social development of rural areas to achieve social and territorial cohesion.

new generations, knowledge that represents the very expressions of heritage and a source of potential resources, which can and must be recovered, especially if it is advocated that the rural environment continue to be a living and self-sufficient element. To reverse this situation, the training of the young population in ways of life and **traditional trades** that are almost non-existent today, but which now have great potential and a high demand, must be addressed. One clear example of this are trades associated with bioconstruction and the use of materials such as lime, which currently does not have enough trained people to meet the demand. Construction with earth, the practice of sgraffito, traditional stucco and the construction of plant roofing can also be mentioned, among other examples, all of which are essential knowledge to address the restoration of traditional architecture and which can contribute to reactivating rural areas. In this sense, establishing **training centres in rural areas** favours the enhancement of these trades and the places where they are located, as is the case of the Nájera Historical Heritage School. In spite of this potential, it must be assumed that in some areas this may be insufficient to recover the population and measures will have to be taken to act on the cultural heritage that remains in uninhabited areas. It should be treated as an alternative source of wealth, even if it is just seasonal (weekends, holidays, vacation periods, etc.). This means that it should be approached as a complementary business model to another main activity in order to generate sufficient income to establish a population. In fact, the population of many rural areas is maintained because a portion of its inhabitants commute daily to work in regional and urban centres and vice versa.

To reverse this situation, the training of the young population in ways of life and traditional trades that are almost non-existent today must be addressed.

Although the link between cultural heritage and tourism can be a source of wealth and quality of life, and both require living populations that value and defend heritage as a factor for sus-

It is neither advisable nor realistic to base the reactivation of rural areas exclusively on tourism.

tainable development, as indicated in previous sections, it is neither advisable nor realistic to base the reactivation of rural areas exclusively on tourism, because this can have undesired effects (such as **gentrification**) that distort the architectural, monumental or landscape site and transform its traditional ways of life. Models that are highly focused on tourist use can lead to the loss of hallmarks and intangible values that make towns unique and genuine. To avoid this, a good example is to enhance the dense and transitable traditional settlement patterns in periurban areas to direct activity towards existing but underused buildings and cultural landscapes. The inclusive regeneration of historical sites can thus be promoted while heritage values are protected.

One social, economic and environmentally friendly alternative that should be extended and promoted is the recovery of the traditional use of old **communal lands**, lost on a large scale after the confiscation processes of the 19th century. These lands allow the residents of the rural municipalities to enjoy, maintain and take advantage of the pastures and forest resources in their surroundings. The communal lands that still exist today are a heritage legacy from the past and a clear example of the current success of this form of traditional communal use and exploitation. This is the case of the town of Rascafría in Madrid or the Chartered Community of Navarre, where they constitute an important part of the territory.

2.2.3.5. Protecting heritage from acts of vandalism. Making cultural identity a tool against vandalism and terrorism?

The direct action of humans on cultural heritage entails, on numerous occasions, a serious risk for preservation due to negligence, accidents, vandalism and theft. Some of these phenomena could be avoided with a preventive conservation and maintenance strategy, while others are more difficult to combat.

Vandalism or hooliganism, traditionally associated with marginalised groups, is a much more complex phenomenon, with multiple interpretations of the **motivation** that leads to these acts. The reason for attacking heritage elements in particular is often due to ignorance or indifference, although there may also be a special interest in the intrinsic symbolism or ideology associated with particular assets. The most frequent alterations are paintings and graffiti, and may also involve incisions, scratches, breaks, partial loss or total destruction, as often occurs in authoritarian regimes or armed conflicts. These attacks can rarely be reversed in their entirety, causing demerit damage and irreversible losses in the assets, both in their tangible and intangible values. In most cases, in addition to the damage mentioned, there is an economic cost associated with the restoration or installation of security measures, which is coupled with the social unrest that this can cause. Furthermore, it is an attack that is not limited to urban environments, but it can easily occur in rural areas where it is particularly favoured or amplified by factors such as depopulation or abandonment, which often means that said damage is not immediately known.

> Heritage is attacked due to ignorance, indifference and the meaning of the asset itself.

GOOD PRACTICE

Murcia Grafiti is an office created to convert deteriorated spaces full of graffiti into canvases for new works. It focuses not only on eliminating graffiti that defaces the heritage of the city of Murcia, but also on promoting the creation of quality urban murals, for which it offers opportunities for artists, providing them with approved walls and occasions to express themselves publicly.

Another serious risk to cultural heritage, substantially different from vandalism but equally complex to resolve, is **theft**. This can involve isolated and opportunistic acts or correspond to large-scale movements such as the illegal market of cultural assets or international crime. Sometimes, the intangible value of the asset is added to the monetary value of the material comprising it, thereby

increasing the risk. Along with vandalism, there is also **looting and pillage**, situations linked to wars since ancient times but which are also extremely common after catastrophes.

The existence of these phenomena is closely linked to concepts such as **civility** and **security**. Civility, understood as the set of guidelines that allow community life, should respect cultural heritage as a common legacy, among others. Security, for its part, involves implicit actions that range from deterrence to restriction and that sometimes contradict the very nature of the asset, with the aim of enjoying the assets or even with consideration of the authors regarding their exhibition.

Vandalism involves restoration costs, security expenses and, moreover, social unrest.

The starting point to combat these phenomena must be a comprehensive **documentary record** based on inventories that include the assets with heritage values belonging to each institution, ensemble, archaeological site, etc., although in the case of unexcavated sites, it is difficult to create this record. These control instruments must be kept up to date and have a basic description that allows them to be identified and monitored in case of loss, for example, as well as informing about their state of conservation and vulnerability, which is determined by the formal and material characteristics of the assets, the place of exhibition or the ability to monitor them.

This information would make it possible to define the type of risk that would most likely affect the assets according to their location and nature, with a view to establishing assessment and control protocols to prevent said risk. The design of these tools must be viable based on the human and material resources available. Regular inspection by qualified personnel is vital to know the situation of the assets and to act as quickly as possible in the event of any verified damage or disa-

Regular inspection by qualified personnel is vital in rural areas.

ppearance. This type of investigation is very useful in institutions such as museums, for example, and essential in rural areas where it is more difficult to carry out daily or continuous control.

For practical purposes, it is necessary to promote **collaboration between public and private organisations**, as well as with State security forces, in addition to continuing to involve the local police and Seprona units (Nature Protection Service, a special unit of the Civil Guard) so that their actions include preventing vandalism and being aware of the places or assets that are most susceptible to damage or theft in each area.

Proposing security measures that eradicate both vandalism and theft is a utopia. Security is facilitated by accessibility, capacity limits, visiting times, individual protective elements, etc.

On the other hand, the **recording of incidents** in a database that is complementary to those that already exist can even be considered a form of action. Recording and analysing these incidents reveals weaknesses in security and improvements can be made. A database of these characteristics would make it possible to exchange knowledge, information and experiences between agents dedicated to cultural heritage management and the Government.

Although the knowledge and enjoyment of cultural heritage must be available to all citizens, this must be compatible with the safety and conservation of cultural assets. Proposing security measures that eradicate both vandalism and theft is a utopia given the tangible and intangible variability of heritage assets, the large number of which are preserved by this country and the limited available resources for continuous surveillance. Depending on the nature of the assets to be protected, security is facilitated by different aspects such as accessibility, capacity limits, visiting times, individual protective elements, etc. Along with these structural impediments, the fact that some collectives do not always feel that cultural heritage is an identity resource must

Experience shows that areas or objects that have already been vandalised are much more likely to be vandalised again.

be considered as a serious and complex reality.

Protective measures can range from the simplest level, with information panels that disclose the uniqueness of the asset or the precautions that must be taken for its conservation, to the active presence of security personnel. In between, there is a range of resources such as the installation of recording cameras –which can be very useful in areas where acts of vandalism are systematically repeated–, the obligation to access certain archaeological or cave sites exclusively with local guides, the installation of physical barriers that prevent direct access to areas vulnerable to damage or that specifically isolate the assets, the concealment of the exact locations of assets that are not visitable like a museum, the coverage of assets that are susceptible to spoliation and vandalism with spontaneous vegetation (especially in archaeological contexts), the use of virtual reconstructions, etc.

Furthermore, experience shows that areas or objects that have already been vandalised are much more likely to be vandalised again, especially in the case of exteriors with little maintenance. Therefore, it is recommended not only that assets be kept under adequate conditions of conservation, but also their surroundings.

In the specific case of theft, together with identification through images and the description of the assets, another series of preventive measures can be taken that allow them to be identified without ambiguities. These techniques are based on the **use of invisible marks** that can be detected after recovery, such as inks that are undetectable to the human eye but readable under ultraviolet radiation, or marks made with DNA aerosols that can be subsequently analysed. In both cases, it is essential to check the compatibility of these products with the nature of the objects. Another technique that appears to be safer is fing-art-printing, which

involves taking a detailed scan of the topography of a specific area of the surface which can then be used like a fingerprint to identify an object with complete reliability.

Along with all this, raising awareness among civil society about the situation of heritage assets is essential if concern and interest in the integrity of said assets is to be encouraged. Education and dissemination are understood as key actions to continue building the idea of cultural heritage as a cohesive element of identities, as well as to generate and maintain the appreciation that citizens have for their assets. However, the effectiveness thereof to date in preventing or mitigating vandalism has shown to be limited.

GOOD PRACTICE

In 2018, a non-professional intervention was carried out on the 16th century carving of *San Jorge* from the church of San Miguel (Estella). This attack against the work was denounced by ACRE and the Government of Navarre took over the task of correcting the desecration (45% of the paint layer had been lost with the unqualified intervention), taking the carving to its heritage workshops for restoration.

The individuals who performed this unfortunate, non-professional intervention were prosecuted and the matter was resolved with financial administrative penalties. The initiation of administrative proceedings is one possibility that the prosecution noted in its statement as "more thorough and all-encompassing than criminal sanctions". This is because it these proceedings punish, not only damages, as does the Penal Code, but other types of actions, such as the failure to request the required authorisation to act or also the potential "loss of cultural values" that the piece had undergone.

Society seems to be more aware today, at least in part, but there is still a considerable number of crimes and administrative offences that harm cultural heritage. Given the foregoing, it is understood that, in addition to dissemination and education, **reporting** harmful actions against assets should be encouraged so that said harmful actions can be fined and this sanctioning power fulfils its preventive function. From this perspective, promoting police reports can also be considered part of being a good citizen. Any person who observes an irregular action could report it, which is not only important given the event that has transpired, but also

because complaints are counted for statistical purposes and each report filed shows that these types of illegal acts exist and, if they are not reported, the problem becomes invisible.

Since the key element of vandalism is destruction (although the deterioration, alteration or loss of use of a cultural heritage asset can also be one of these elements), it can be characterised as an illegal action and, therefore, punishable. In the legal system, **sanctions,** both criminal (penalties) and administrative (fines in the strict sense), fulfil not only a repressive or punitive function, but also a preventive function by keeping new offences or crimes from happening. This prevention can be projected in two ways: special prevention, the purpose of which is to ensure that the person who committed an illegal activity does not do it again; and general prevention, the purpose of which is to ensure that society, upon learning about the punishment imposed on the person who carried out the illegal act, does not commit it again. Therefore, it is important that vandalism be reported and penalised in accordance with the regulations. Complaints can be filed with the cultural agency, with the State security forces, and with the specialised bodies of the Environmental Prosecutor's Office, also competent in matters of cultural heritage and land planning.

If it is not reported, it becomes invisible.

Within the preventive purpose, the efficacy of a term of community service should be explored for individuals convicted of acts against cultural heritage and, provided that it is compatible with preservation, be responsible for removing the damage.

Likewise, in addition to emphasising education and heritage dissemination, it may be worthwhile to include heritage protection in a broader concept in defence of spaces and public assets, as a way of promoting civility towards something which is for collective enjoyment, regardless of its ownership.

Here the debate opens as to whether these acts should be made visible or if, on the contrary, it is better to prosecute the perpetra-

tors without publicising the facts in particular, since this is sometimes what the perpetrators seek. Proof of this quest for prominence are the recordings of these acts that often appear on social media and other media. It is also worth mentioning cases in which some of these damages, mainly graffiti or incisions, have become part of the material history of the assets and even though their removal is possible, the decision has been made to conserve them. In the specific case of **graffiti** on heritage assets, one of the most common acts of vandalism, it would be appropriate to promptly clean walls or sculptures, carried out with specific products for use on cultural heritage and by people with specific training in this field.

GOOD PRACTICE

ID-ART Mobile Application helps to identify stolen cultural assets, reduce illicit trafficking and increase the chances of recovering stolen items.

It can be used by personnel of the State security forces and bodies, customs officials or the general public.

Among other features, it gives access to Interpol's database of stolen works of art.

A **second line of work** would be the launch of **campaigns** aimed directly at prosecuting and rejecting vandalism and other illegal acts. In this case, the importance of denouncing these acts and promoting **associationism** should be emphasised to avoid the reluctance to personally communicate these incidents. The danger caused by the **illicit trafficking** of cultural heritage on the black market and its consequences at the international level should likewise be reported. Along similar lines, successful investigations should be come forward about, describing the specific penalties and sentences they entail. Lastly, it is essential to disclose the **cost** of the actions to clean up and remove graffiti, for example, or the operations to recover stolen works.

The **third line** would focus on alternative activities that would ideally seek to redirect criminal acts against cultural heritage. In particular, one essential task is to clarify the difference between urban art and vandalism, enabling spaces so that creative talent can be developed through this discipline in a constructive way that promotes art, as occurs in many cities and towns where mural painting

is being used as a sign of identity and tourist attraction (like, for example, in Fanzara, Castellón).

Consequently, an act of vandalism leads to the loss or damage of cultural heritage and, therefore, of the ties and identities of the host community. Therefore, the **involvement** and concern of the population is the best long-term prevention. After all, cultural heritage belongs to the people and it is what society wants it to continue to be.

3

EPILOGUE

Throughout this paper we have aimed to enrich the text with boxes in the margin that offer additional specific information, as well as examples of projects and good practices implemented in each of the aspects of cultural heritage management. The references presented herein are only a small sample of the initiatives that are currently carried out in different areas and on different scales in Spain. Including all of them is impossible for a publication of this nature, especially since every day there are more and more cultural heritage proposals and lines of work in which sustainable values are promoted at an environmental, social or economic level.

For this reason, this paper is only the starting point of a project created with the purpose of becoming a dynamic and constantly updated tool that serves as a reference portal and repository of good practices related to the sustainable management of cultural heritage, with accessible resources to undertake any type of project from this perspective.

The commitment to safeguard the common legacy represented by cultural heritage must address serious threats in these times which also affect the planet and society itself, which is why efforts must be increased to achieve a balance and attain true viability in the future. In this context, heritage is not just an asset to be protected, but it becomes an invaluable tool for achieving many of the Sustainable Development Goals. From its valuable contribution to the economy and its ability to disseminate and inspire, to its recognition as a model of sustainable and environmentally friendly exploitation in line with the community, a driver of development, a social promoter and a source of knowledge, cultural heritage is presented as a beacon of sustainable management.

4

BIBLIOGRAPHY

Aemet (2017): *Guía de escenarios regionalizados de cambio climático sobre España a partir de los resultados del IPCC-AR5*. Ministry for the Ecological Transition and the Demographic Challenge.

Aparicio-Resco, P., García Álvarez-Busto, A., Muñiz-López, I. and Fernández-Calderón, N. (2021): «Reconstrucción virtual en 3D del Castillo de Gauzón (Castrillón, Principado de Asturias)». *Virtual Archaeology Review*, 12 (25), pp. 158-176. Editorial Universitat Politècnica de València and the Spanish Society of Virtual Archaeology.

Arcila Garrido, M., Sánchez, J. L., Chica, A. *et al.* (2011): "Puesta en valor del patrimonio cultural como factor turístico: una aproximación al caso de la provincia de Cádiz y de la región Tánger-Tetuán". In: Bernal Casasola, D. (coord.) *Arqueología y turismo en el círculo del Estrecho*, pp. 69-82. Proceedings of the III Spanish-Moroccan Seminar. Collection of Monographs from the Archaeological Museum of Tetouan (III). Publications Service of the University of Cádiz, Provincial Council of Cádiz. Provincial Culture Foundation. Publications Service and Tangier-Tetouan Regional Directorate of Culture of the Kingdom of Morocco.

Arcusa García, P. (2012): *Análisis de la accesibilidad en portales web de museos españoles de titularidad pública y privada*. Faculty of Education. National Distance Education University (Spain).

Badal Pijoan, M. (2022): "Patrimonio inmaterial. Transmitir, recuperar, reelaborar saberes y conocimientos en clave contemporánea". In: V Forum on Culture and Rural Matters, from 31 May to 3 June 2022. Ministry of Culture and Sports.

Barañano, A. (2019): "Las diversidades estereotipadas construidas por el Patrimonio Cultural Inmaterial en la Unión Europea". *Revista de Estudios Europeos,* 73, pp. 73-96. Ediciones Universidad de Valladolid.

Bitušíková, A. (2021): "Cultural heritage as a means of heritage tourism development". *Muzeológia a kultúrne dedičstvo*, 9 (1), pp. 81-95. Filozofická Fakulta Univerzity Komenského v Bratislave.

Bonazza, A. *et al.* (2018): *Safeguarding cultural heritage from natural and man-made disasters. A comparative analysis of risk management in the EU*. European Commission.

Borrás Gualís, G. (2012): "El papel del historiador del arte en la intervención en el patrimonio cultural". *Ucoarte: Revista de Teoría e Historia del Arte*, 1, pp. 73-80. Editorial Universidad de Córdoba.

Cánoves G. and Blanco Romero, A. (2011): "Turismo religioso en España: ¿la gallina de los huevos de oro? Una vieja tradición, versus un turismo emergente". *Cuadernos de Turismo*, 27, pp. 115-131. University of Murcia.

UNESCO Basque Country Centre (UNESCO Etxea) (2020): *Indicadores de evaluación de programas de educación artística y cultural para la transformación social Educación primaria*. GizARTE.

Charola and Koestler (2010): *Pesticide mitigation in museum collections: science in conservation*. Smithsonian Institute.

Cid Campos, P. (2022): "La accesibilidad sensorial y cognitiva explicada en el lenguaje claro". In: Patrimonio, Cultura e Inclusión, 4 November 2022. Madrid, Spain. Octaedro.

United Cities and Local Governments (UCLG) (2018): *La cultura en los objetivos de desarrollo sostenible: guía práctica para la acción local*. UCLG.

Colorado Castellari, A. (2003): "Nuevos lenguajes para la difusión del patrimonio cultural". *Revista PH 46. Especial Monográfico: Patrimonio y TIC*, 11 (46), pp. 42-48. Andalusian Institute of Historical Heritage.

Regional Government of Madrid (2022): *Guía de criterios de sostenibilidad en la conservación y restauración del patrimonio cultural inmueble*. Directorate General of Cultural Heritage. Sub-Directorate General of Cultural Heritage. Department of Culture, Tourism and Sports.

— (2019-2023): *Plan de educación patrimonial*. Directorate General of Cultural Heritage. Department of Culture, Tourism and Sports.

Council of Europe (2017): *Compilation of good practices from ICC cities*. Council of Europe.

Contreras Medina F. R. (2022): "Estudio crítico sobre la actual destrucción política del monumento urbano". *Ge-conservación*, 21 (1), pp. 64-71. GEIIC-Spanish Group of the IIC (International Institute for Conservation of Historic and Artistic Works).

Davidson, *et al*. (2018): "Bioerosion in a changing world: a conceptual framework". *Ecology Letters*, 21 (3), pp. 422-438. Wiley and Centre National de la Recherche Scientifique.

Della Torre, S. and Moioli, R. (2021): *Cultural heritage at work for economy and society*. In: A Research Agenda for Heritage Planning, pp. 175-185. Elgar.

Spanish Federation of Municipalities and Provinces (2022): *Nueva guía para la evaluación de las políticas culturales locales*. Spanish Federation of Municipalities and Provinces.

Fernández Fernández, J. (2015): *El turismo sostenible en España. Análisis de los planes estratégicos de sostenibilidad en el ámbito local*. Doctoral thesis. University of A Coruña.

Fernández Sabau, M. Lordcultura (2009-2010): "¿Planificación sostenible? Una panorámica de la planificación actual de museos en España". Museos.es. *Revista de la Subdirección General de Museos Estatales*, 5-6, pp. 38-49. Ministry of Culture and Sports.

Galán Pérez, A. and Pardo San Gil, D. (2018): *Las profesiones del patrimonio cultural: competencias, formación y transferencia del conocimiento: reflexiones y retos en el Año Europeo del Patrimonio Cultural*. GE-IIC and ACRE.

García Canclini, N. (1999): "Los usos sociales del patrimonio cultural". In: Aguilar Criado, E. *Patrimonio etnológico. Nuevas perspectivas de estudio*. Andalusian Institute of Historical Heritage.

García García, J. L. (1998): "De la cultura como patrimonio al patrimonio cultural". *Política y Sociedad,* 27, pp. 9-20. Ediciones Complutense.

García Hernández, M., Calle Vaquero, M. and Mínguez García, M. C. (2011): "Capacidad de carga turística y espacios patrimoniales. Aproximación a la estimación de la capacidad de carga del Conjunto Arqueológico de Carmona (Sevilla, España)". *Boletín de la Asociación de Geógrafos Españoles (BAGE)*, 57, pp. 219-241. Spanish Geographical Association.

Garde López, V. (2013): "Conocer la experiencia de los visitantes: un paso hacia el museo esencial". *Museos.es: Revista de la Subdirección General de Museo Estatales*, 9-10, pp. 196-205. Ministry of Culture and Sports.

Geertz, C. (1996): *Los usos de la diversidad*. Barcelona: Paidós.

Regional Government of Valencia (2021): *Cultura para la recuperación. Acciones estratégicas para el fortalecimiento del ecosistema cultural valenciano, orientadas hacia la transformación social, económica y territorial desde la cultura*. Department of Education, Culture and Sports. Regional Government of Valencia.

Gómez-Bolea, *et al*. (2012): "Mapping the impact of climate change on biomass accumulation on stone". *Journal of Cultural Heritage*, 13, pp. 254-258. Elsevier.

González Méndez, M. (1996): "Turismo alternativo y patrimonio cultural: una relación ambigua". *Revista de Arqueología*, 17 (186), pp. 6-7. Zugarto Ediciones.

González-Varas, I. (2015): *Patrimonio cultural. Conceptos, debates y problemas*. Ediciones Cátedra.

Hernando Gonzalo, A. (2009): "El patrimonio: entre la memoria y la identidad de la modernidad". *Revista PH*, 17 (70), pp. 89-97. Andalusian Institute of Historical Heritage.

Hispania Nostra (2018): "La r-evolución del mecenazgo para la salvaguarda del patrimonio cultural". *PH: Boletín del Instituto Andaluz del Patrimonio Histórico*, 26 (95). Andalusian Institute of Historical Heritage.

ICOMOS (2022): *Guía de buenas prácticas para la instalación de infraestructuras y equipamientos relacionados con las energías renovables y su potencial afección al patrimonio cultural*. ICOMOS.

— (2019): *The future of our pasts: engaging cultural heritage in climate action*. ICOMOS.

Institut Català de les Empreses Culturals (2022): *Pla C* Cultura pel Clima. Pla de sostenibilitat ambiental per a les empreses culturals*. Department of Culture. Regional Government of Catalonia.

Jiménez-Caballero, J. L., Fuentes Ruiz, P. and Sanz Domínguez, C. (2012): "Turismo y sostenibilidad". In: V Conference on Tourism Research. Seville, 17 and 18 May 2012. Edición Digital @tres.

Jiménez-Esquinas, G. (2021): "Género: cómo revertir las desigualdades desde los museos". In I. Arrieta e I. Díaz (eds. Lit.) *Patrimonios y museos locales: temas clave para su gestión. Tenerife: PASOS. Revista de Turismo y Patrimonio Cultural*, 29, pp. 295-308. University Institute for Social Research and Tourism of the University of La Laguna (Spain) and the University of Maia Institute (Portugal).

Juncá Ubierna, J. A. (2008): "Accesibilidad y patrimonio cultural. A la búsqueda de un equilibrio compatible". *Boletín del Real Patronato sobre Discapacidad*, 64. Ministry of Social Rights and 2030 Agenda.

López Pagán, J. (2022): "El papel de la cultura en la Estrategia Nacional Frente al Reto Demográfico". In: *V Forum on Culture and Rural Matters*, from 31 May to 3 June 2022. Ministry of Culture and Sports.

López Ruiz, C. and Cuba Taboada, M. (2014): *Conservación preventiva para todos: una guía ilustrada*. Spanish Agency for International Development Cooperation (AECID). Directorate of Cultural and Scientific Relations.

Magar, V. (2016): *Sostenibilidad y conservación del patrimonio cultural*. In: Boletín CR Conservación y Restauración, 10. National Institute of Anthropology and History. Department of Culture (Mexico).

Martos Molina, M. (2016): *Herramientas para la gestión turística del patrimonio cultural. Manual para gestores culturales*. Editorial TREA.

Ministry of Culture and Sports (2015): *Museos + sociales*. Ministry of Culture and Sports.

— (2015): *Proyectos educativos y culturales en museos. Guía básica de planificación*. Ministry of Culture and Sports.

Ministry for Ecological Transition and Demographic Challenge (2021): *Guía para el diseño y desarrollo de actuaciones acordes con el principio de no causar un perjuicio significativo al medio ambiente*. Ministry for Ecological Transition and Demographic Challenge.

Navarro Casas, *et al*. (2021): "Mantenimiento de las portadas de la catedral de Sevilla. Un ejemplo de intervención sostenible". *Ge-conservación*, 19 (1), pp. 225-235. GEIIC-Spanish Group of the IIC (International Institute for Conservation of Historic and Artistic Works).

Norwegian Institute for Cultural Heritage Research and Heritage for Peace (2022): *Guide historic buildings and fire in war-affected countries*." Norwegian Institute for Cultural Heritage Research and Heritage for Peace.

World Tourism Organization (2013): *Turismo y patrimonio cultural inmaterial*. WTO, Madrid.

Pérez-Ramos, Y. and Ramiro-Esteban, D. (2020): "Monumentos confrontados: nuevos roles para el patrimonio ante los desencuentros sociales". *Arquitecturas del Sur: Ciudad Resignificada*, 38 (58), pp. 44-61. Department of Design and Theory of Architecture. University of Bío-Bío.

Potts, A. (Coordinator). (2021). *Libro verde del patrimonio cultural europeo*. Europa Nostra.

Prats, L. (2011): "La viabilidad turística del patrimonio". *Pasos: Revista de Turismo y Patrimonio Cultural*, 9 (2), pp. 249-264. University Institute for Social Research and Tourism of the University of La Laguna (Spain) and the University of Maia Institute (Portugal).

Prieto, D. and Burgos Barrantes, B. (2020): *Pensar y hacer en el medio rural. Prácticas culturales en contexto*. Ministry of Culture and Sports.

Quintero Morón, V. (2020): "La participación en patrimonio y sus protagonistas. Límites, contradicciones y oportunidades". *Revista PH 101 (especial monográfico) De lo público al bien común: emergencia de otros modelos de gestión del patrimonio cultural*, 28 (101), pp. 122-145. Andalusian Institute of Historical Heritage.

Rausell Köster, P. (2011-2012): "Impacto económico del Museo Nacional de Cerámica y Artes Suntuarias González Martí". *Museos.es: Revista de la Subdirección General de Museos Estatales*, pp. 7-8.

Smart Tourist Destinations Network (2022): *Guía de buenas prácticas en patrimonio cultural para destinos turísticos inteligentes*. State Mercantile

Society for the Management of Innovation and Tourism Technologies, SEGITTUR. Ministry of Industry, Commerce and Tourism.

Spanish Sustainable Development Network (REDS) (2022): *Objetivos de Desarrollo Sostenible y sus metas desde la perspectiva cultural*. REDS. Ministry of Social Rights and 2030 Agenda.

Richards, G. (2001): "El desarrollo del turismo cultural en Europa". *Estudios Turísticos*, 150, pp. 3-13. Sub-Directorate General of Knowledge and Tourism Studies. Ministry of Energy and Tourism.

Rodríguez Elizalde, R. (2017): "La Carta de Riesgo como herramienta de gestión y mantenimiento de bienes construidos". *AxA. Una Revista de Arte y Arquitectura*, 9. Alfonso X el Sabio University.

Sahlins, M. (2003): "Antropologías, de la leviatanalogía a la sujetología y viceversa". In: J. L. García García and A. Barañano (coords.) *Culturas en contacto. Encuentros y desencuentros*. pp. 47-64. Madrid: Ministry of Education, Culture and Sports.

Sánchez, M. J. and Aix Gracia, F. (2010): "Vandalismo contra el patrimonio en las grandes ciudades". In: *Repensando la metrópolis. Prácticas experimentales en torno a la construcción de los nuevos derechos humanos*. Sessions 8 and 9 July 2010 in Málaga. Andalusian Studies Centre.

Sánchez Riera, A., Pàmies Sauret, C. and Navarro Delgado, I. (2022): "Nuevas estrategias para la visualización y difusión del patrimonio descontextualizado. El caso de la sillería de la catedral de Oviedo". *EGA: Revista de Expresión Gráfica Arquitectónica*, 27 (44), pp. 40-49. Editorial Universitat Politècnica de València.

Torres Mas, M., López-Menchero Bendicho, V. M., López Tercero, J. *et al.* (2022): "Proyectos de digitalización y realidad virtual en el patrimonio arqueológico. El caso del yacimiento de la Motilla del Azuer en Daimiel (Ciudad Real)". *Virtual Archaeology Review*, 13 (26), pp. 135-146. Editorial Universitat Politècnica de València and the Spanish Society of Virtual Archaeology.

Torsello, B. P. (2005): "La restauración de la arquitectura: cómo y por qué". *Revista LOGGIA*, 18, pp. 10-17. Editorial Universitat Politècnica de València.

Troitiño Vinuesa, M. Á. (2003): "Ciudades históricas y turismo sostenible". *A Distancia*, 1, pp. 47-51. UNED.

UNESCO (2022): *Guidance and toolkit for impact assessments in a World heritage Context*. UNESCO, ICCROM, ICOMOS and IUCN.

— (2014): *Indicadores Unesco de cultura para el desarrollo. Manual metodológico*. UNESCO.

European Union (2022): *Report on a European collaborative cloud for cultural heritage ex-ante impact assessment prepared for European Commission Directorate-general for research and innovation*. European Union.

— (2022). *Strengthening cultural heritage resilience for climate change. Where the European green deal meets cultural heritage*. European Union.

Valentin, N. and Presusser, F. (1990): "Insect control by inert gases in museums, archives and libraries". *Restaurator, International Journal for the Preservation of Library and Archival Material*, 11 (1), pp. 22-33. De Gruyter.

Vázquez de Ágredos Pascual, M. L. (2022): "Patrimonio y cultura: escenarios esenciales para contribuir al bienestar individual y comunitario". In: Seminario Patrimonio, Cultura y Discapacidad, 3 November 2022, Madrid, Spain. Ministry of Culture and Sports.

Velasco González, M. (2009): "Gestión de un patrimonio cultural sostenible". *Cuadernos de Turismo*, 23, pp. 237-254. University of Murcia.

Velasco Rebollo, A. I. (2020): "Sostenibilidad y viabilidad para el patrimonio cultural: ¿cómo hacerla posible?". *Revista PH*, 99. Andalusian Institute of Historical Heritage.

Viles, H. A. and Cutler, N. A. (2012): "Global environmental change and the biology of heritage structures". *Global Change Biology*, 18 (8), pp. 2406-2418. Wiley.

Viñals Blasco, M. J., Martínez-Sanchis, I. and Alonso-Monasterio, P. (2017): "El patrimonio como elemento dinamizador de la socioeconomía de las comunidades locales en el marco de las políticas europeas. Propuesta de acciones y actuaciones turísticas". *Boletín de la Asociación de Geógrafos Españoles (BAGE)*, 73, pp. 413-429. Spanish Geographical Association.

Various authors. (2022): *Atlas de política cultural para el desarrollo sostenible. Una revisión de iniciativas en Argentina, Brasil, Chile, Colombia, Cuba, Jamaica, México, Perú, Trinidad y Tobago y Venezuela*. British Council.

Various authors. (2021): "Buenas prácticas en conservación y revitalización del patrimonio cultural desde los ODS". *PH104. Boletín del Instituto Andaluz del Patrimonio Histórico*, 29. Andalusian Institute of Historical Heritage.

Various authors. (2019): *Guía para las buenas prácticas en conservación preventiva*. HeritageCare. Andalusian Institute of Historical Heritage.

5

NATIONAL AND INTERNATIONAL CONVENTIONS, CHARTERS AND AGREEMENTS

Aalborg Charter. Charter of European Cities and Towns Towards Sustainability. Adopted at the European Conference on Sustainable Cities held in Aalborg, Denmark, on 27 May 1994.

Altarpiece Charter for the Study and Conservation of Altarpieces. Adopted in Cartagena de Indias, Colombia, from 25 February to 1 March 2002.

Athens Charter for the Conservation of Artistic and Historical Monuments. Adopted at the International Conference of Architects and Technicians of Historic Monuments held in Athens, Greece, in October 1931.

Baños de la Encina Charter for the Conservation of Defensive Architecture in Spain. Adopted at the Historical Heritage Council, held in Potes, Cantabria, on 30 October 2006.

Bierzo Charter for the Conservation of the Industrial Mineral Heritage. Adopted by the Historical Heritage Council, in Madrid, on 27 June 2008.

Brussels Charter on the Role of Cultural Heritage in the Economy and for the Creation of a European Network for its Recognition and Dissemination. Adopted in Brussels, Belgium, on 29 June 2009.

Budapest Declaration on World Heritage. Adopted on the occasion of the 26th session of the World Heritage Committee, held in Budapest, Hungary, from 24 to 29 June 2002.

Charter for the Conservation and Restoration of Objects of Art and Culture. Adopted at the International Conference on Cultural and Environmental Heritage Assets held in Siena, Italy, in August 1987.

Charter for the Restoration or Rome Charter for the Conservation of Artistic Heritage. Adopted in Rome, Italy, in 1972.

Charter on the Preservation of Digital Heritage. Adopted at the UNESCO General Conference, in Paris, on 15 October 2003.

Conclusions of the international meeting on Science and Technology for Heritage. Adopted in Havana, Cuba, 7 to 10 February 2007.

Council of Europe (1969): European Convention on the Protection of the Archaeological Heritage. Adopted in London, United Kingdom, 6 May 1969.

Council of Europe (1975): Declaration of Amsterdam. European Charter of the Architectural Heritage. Adopted in Amsterdam, the Netherlands, 21 to 25 October 1975.

Council of Europe (1979): Recommendation 880 CE on the Conservation of European Architectural Heritage.
Council of Europe (1982): Conclusions of the General Conference held in Berlin, Germany, 8 to 12 March 1982.
Council of Europe (1985): Convention on Offences Relating to Cultural Property.
Council of Europe (1992): Convention on Cinematographic Co-Production. Adopted in Rotterdam, the Netherlands, on 30 January 2017.
Council of Europe (1992): European Charter for Regional or Minority Languages. Ratified in Strasbourg, France, on 5 November 1992.
Council of Europe (1992): European Convention on the Protection of the Archaeological Heritage. Adopted in Valletta, Malta, on 16 January 1992.
Council of Europe (1998): Framework Convention for the Protection of National Minorities. Adopted in Strasbourg, France, on 1 February 1995.
Council of Europe (2000): European Landscape Convention. Adopted in Florence, Italy, on 20 October 2000.
Council of Europe (2005): Faro Convention on the Value of Cultural Heritage for Society. Adopted in Faro, Portugal, 7 November 2005.
Council of Europe (2009): Convention on Access to Official Documents. Adopted in Tromsø, Norway, on 18 June 2009.
Council of Europe (2017): Nicosia Convention on Offences Relating to Cultural Property. Drafted in Nicosia, Cyprus, on 19 May 2017.
Council of Europe (2018): Cultural Routes of the Council of Europe connecting cultural values, heritage sites and citizens: strategies and synergies in a global perspective. 8th Cultural Routes Advisory Forum, held in Görlitz, Germany, from 26 to 28 September 2018.
DOCOMOMO Ibérico (2007): Cádiz Charter, written by the Scientific Committee of the 6th DOCOMOMO Ibérica Congress, within the framework of the congress held in Cádiz, Spain, in April 2007.
EU (1979): Bern Convention on the Conservation of European Wildlife and Natural Habitats. Adopted in Bern, Switzerland, on 19 September 1979.
EU (1986): Resolution of the Ministers of Culture meeting within the Council of 13 November 1986 on the conservation of works of art and artefacts of cultural and historical significance.

EU (1998): Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. Adopted in Aarhus, Denmark, on 25 June 1998.

EUROPARC (1999): European Charter for Sustainable Tourism in Protected Natural Areas.

European Council of Spatial Planners (2003): New Athens Charter. Vision for Cities in the 21st century.

Ibero-American Cultural Charter. Adopted at the 16th Ibero-American Summit of Heads of State and Government held in Montevideo, Uruguay, on 4 and 5 November 2006.

ICBS (1998): Radenci Declaration on Protection of Cultural Heritage in Emergencies and Exceptional Situations. Adopted in Radenci, Slovenia, on 16 November 1998.

ICBS (2011): Seoul Declaration on Protection of Cultural Heritage in Emergency Situations. Adopted in Seoul, Korea, on 9 December 2011.

ICCROM (2000): Riga Charter on Authenticity and Historical Reconstruction in Relationship to Cultural Heritage. Adopted in Riga, Latvia, from 23 to 24 October 2000.

ICOM (1984): Conservator-Restorer: A Definition of the Profession. International Committee for Conservation. Adopted by the Committee for Conservation at its 7th triennial meeting held in Copenhagen, Denmark, September 1984.

ICOM (1986): ICOM Code of Ethics for Museums. Adopted at the 15th General Assembly of ICOM, held in Buenos Aires, Argentina, on 4 November 1986, revised by the 21st General Assembly in Seoul, Republic of Korea, on 8 October 2004.

ICOM (2008): New Delhi Resolution. Terminology to Characterise the Conservation of Tangible Cultural Heritage. Adopted at the 15th Triannual Conference, held in New Delhi, India, from 22 to 26 September 2008.

ICOM-ICOMOS (2020): Statement on the Threats to Cultural Heritage in Case of Armed Conflicts. Adopted on 6 January 2020.

ICOMOS (1964): Venice Charter. International Charter for the Conservation and Restoration of Monuments and Sites. Adopted at the 2nd International Conference of Architects and Technicians of Historic Monuments, held in Venice, Italy, in 1964.

ICOMOS (1967): Norms of Quito. Final Report of the Meeting on the Preservation and Utilisation of Monuments and Sites of Artistic and Historical Value. In Quito, Ecuador, 1967.

ICOMOS (1975): European Charter of the Architectural Heritage. Adopted on 26 September 1975.

ICOMOS (1976): Brussels Cultural Tourism Charter. Adopted in Brussels, Belgium, on 8 and 9 November 1976.

ICOMOS (1976): Mexico Charter in Defence of Cultural Heritage. Adopted, in Mexico City, on 12 August 1976.

ICOMOS (1977): Norms of Quito on the Preservation of the Historical Centres in View of the Impoverishment of the Cities. Adopted in Quito, Ecuador, in 1977.

ICOMOS (1981): Florence Charter on Historic Gardens. Adopted in Florence, Italy, on 15 December 1982.

ICOMOS (1982): Declaration of Dresden on the Reconstruction of Monuments Destroyed by War. Adopted in Dresden, Germany, on 18 November 1982.

ICOMOS (1985): Granada Convention for the Protection of the Architectural Heritage of Europe. Written in Granada, Spain, on 3 October 1985.

ICOMOS (1987): Washington Charter. International Charter for the Conservation of Historic Towns and Urban Areas. Adopted at the General Assembly, held in Washington D. C., United States, in October 1987.

ICOMOS (1990): Lausanne Charter. International Charter for the Management of Archaeological Heritage. Prepared by the International Committee on Archaeological Heritage Management (ICAHM) and adopted by the General Assembly, held in Lausanne, Switzerland, in 1990.

ICOMOS (1992): Veracruz Charter. Criteria for an Action Plan in the Historical Centres of Ibero-America. Adopted in Mexico City, Mexico, on 22 May 1992.

ICOMOS (1993): Guidelines for Education and Training in the Conservation of Monuments, Ensembles and Sites. Adopted in Colombo, Sri Lanka, from 30 July to 7 August 1993.

ICOMOS (1996): Declaration of San Antonio. Adopted in San Antonio, United States, between 27 and 30 March 1996.

ICOMOS (1996): International Charter on the Protection and Management of the Underwater Cultural Heritage. Ratified by the 11th General Assembly, held in Sofia, Bulgaria, in October 1996.

ICOMOS (1996): Principles for the Creation of Documentary Archives of Monuments, Architectural Ensembles and Historical Sites. Ratified by the 11th General Assembly, held in Sofia, Bulgaria, in October 1996.

ICOMOS (1997): Pavia Document. Preservation of Cultural Heritage: Towards a European Profile of the Conservator-Restorer. Adopted in Pavia, Italy, on 21 October 1997.

ICOMOS (1998): Stockholm Declaration. Intergovernmental Conference on Cultural Policies for Development, held in Stockholm, Sweden, from 30 March to 2 April 1998.

ICOMOS (1999): Burra Charter. Charter for Places of Cultural Significance. Adopted in Burra, South Australia, on 19 August 1979, updated on 23 April 1988 and 26 November 1999.

ICOMOS (1999): Charter on the Built Vernacular Heritage. Ratified by the 12th General Assembly, held in Mexico, in October 1999.

ICOMOS (1999): International Cultural Tourism Charter. Managing Tourism at Places of Heritage Significance. Adopted at the 12th General Assembly, held in Mexico, in October 1999.

ICOMOS (1999): Principles for the Conservation of Historic Timber Structures. Adopted at the 12th General Assembly, held in Mexico, in October 1999.

ICOMOS (2003): Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage. Ratified by the 14th General Assembly, held in Victoria Falls, Zimbabwe, in October 2003.

ICOMOS (2003): Principles for the Preservation and Conservation-Restoration of Wall Paintings. Ratified by the 14th General Assembly, held in Victoria Falls, Zimbabwe, in October 2003.

ICOMOS (2005): Ename Charter for the Interpretation of Cultural Heritage Sites. Third revised draft, 5 July 2005.

ICOMOS (2005): Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas. Adopted by the 15th General Assembly, held in Xi'an, China, on 21 October 2005.

ICOMOS (2008): Charter of Cultural Routes. Ratified by the 16th General Assembly, held in Quebec, Canada, on 4 October 2008.

ICOMOS (2008): Charter on the Interpretation and Presentation of Cultural Heritage Sites. Ratified by the 16th General Assembly, held in Quebec, Canada, on 4 October 2008.

ICOMOS (2008): Quebec Declaration on the Preservation of the Spirit of Place. Adopted by the 16th General Assembly, held in Quebec, Canada, on 4 October 2008.

ICOMOS (2010): New Zealand Charter for the Conservation of Places of Cultural Heritage Value. Adopted, in New Zealand, at the meeting of 4 September 2010.

ICOMOS (2011): Madrid Document. Approaches for the Conservation of 20th Century Architectural Heritage. Adopted in Madrid, Spain, on 16 June 2011.

ICOMOS (2011): Paris Declaration on Heritage as a Driver for Development. Adopted in Paris, France, at UNESCO headquarters, on Thursday 1 December 2011.

ICOMOS (2011): Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas. Adopted by the 17th General Assembly, held in Valletta, Malta, on 28 November 2011.

ICOMOS (2014): Florence Declaration on Heritage and Landscape as Human Values. Adopted at the 18th General Assembly, held in Florence, Italy, on 14 November 2014.

ICOMOS (2017): Delhi Declaration on Heritage and Democracy. Adopted by the 19th General Assembly, held in New Delhi, India, on 15 December 2017.

ICOMOS (2017): New Delhi Principles for the Conservation of Wooden Built Heritage. Adopted by the 19th General Assembly, held in New Delhi, India, on 15 December 2017.

ICOMOS (2017): Salalah (Oman) Guidelines for the Management of Public Archaeological Sites. Adopted by the 19th General Assembly, held in New Delhi, India, on 15 December 2017.

ICOMOS (2017): Seville Principles. International Principles on Virtual Archaeology. Adopted by the 19th General Assembly, held in New Delhi, India, on 15 December 2017.

ICOMOS (2021): Guidelines on Fortifications and Military Heritage. Adopted at the General Assembly on 10 November 2021.

ICOMOS (2022): International Bangkok Charter on Cultural Heritage Tourism: Reinforcing cultural heritage protection and community resilience through responsible and sustainable tourism management. Adopted by the General Assembly, held in Bangkok, Thailand, in November 2022.

ICOMOS and TICCIH (2003): Nizhny Tagil Charter for the Industrial Heritage. Adopted in Moscow, Russia, on 17 July 2003.

ICOMOS-IFLA (2017): Document on Historic Urban Public Parks. Adopted by the 19th General Assembly, held in New Delhi, India, on 15 December 2017.

ICOMOS-IFLA (2017): Principles on Rural Landscapes as Heritage. Adopted by the 19th General Assembly, held in New Delhi, India, on 15 December 2017.

ICOMOS-TICCIH (2011): Dublin Principles. Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes. Adopted by the 17th General Assembly, held in Dublin, Ireland, on 28 November 2011.

Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage: Practical Guidelines for the Implementation of the World Heritage Convention. Adopted, in Paris, on 2 February 2005.

Krakow Charter. Principles for the Conservation and Restoration of Built Heritage. Adopted by the International Conference on Conservation "Krakow 2000" held in Krakow, Poland, on 26 October 2000.

Lima Declaration for Risk Management of Cultural Heritage. Adopted in Lima, Peru, on 3 December 2010.

Machu Picchu Charter on Urban Planning and Development. Updating of the Athens Charter (1933), postulated by the International Congress of Modern Architecture (CIA 1928-1959). Adopted in Peru, on 12 December 1977.

Newcastle Declaration on Cultural Landscapes. Adopted at the 10th International Seminar Forum of the UNESCO-University and Heritage, held in Newcastle Upon Tyne, United Kingdom, from 11 to 16 April 2005.

Noto Charter. Conclusions and Proposals of the Noto International Consulting Agreement. Perspectives for the Conservation and Recovery of Historic Centres. Adopted in Syracuse, Italy, from 12 to 15 December 1986.

Organisation of American States (OAS) (1976): Convention of San Salvador on the Protection of the Archaeological, Historical and Artistic Heritage of the American Nations. Adopted at the General Assembly, held in Santiago, Chile, on 16 June 1976.

Restoration Charter for the Restoration of Monuments. Adopted at the International Conference of Architects and Technicians of Historic

Monuments held in Italy, in 1932. Written by the Consiglio Superiore delle Antichità e Belle Arti.

TICCIH (2018): Seville Charter of Industrial Heritage. The Challenges of the 21st Century. Approved in Villanueva del Río and Minas, Spain, on 17 and 19 May 2018.

Tokyo Declaration on the Role of Sacred Natural Sites and Cultural Landscapes in the Conservation of Biological and Cultural Diversity. Adopted at the International Symposium on Conserving Cultural and Biological Diversity: The Role of Sacred Natural Sites and Cultural Landscapes, held in Tokyo, Japan, from 30 May to 2 June 2005.

Toledo Charter. International Charter for the Conservation of Historic Towns. Adopted in Toledo, Spain, on 9 September 1986. Ratified at the 8th General Assembly, in Washington, United States, in October 1987.

UN (1982): United Nations Convention on the Law of the Sea. Adopted in New York, United States, on 30 April 1982.

UN (1993): Convention on Biological Diversity. Signed in Rio de Janeiro, Brazil, on 5 June 1992.

UN (2007): United Nations Declaration on the Rights of Indigenous Peoples. Adopted at the General Assembly held in New York, United States, on 13 September 2007.

UNESCO (1954): Convention for the Protection of Cultural Property in the Event of Armed Conflict and Regulations for the Implementation of the Convention. Adopted in The Hague, Netherlands. Protocol, 14 May 1954; Second Protocol, 26 March 1999.

UNESCO (1956): Recommendation on International Principles Applicable to Archaeological Excavations. Adopted by the General Conference at its 9th session, held in New Delhi, India, on 5 December 1956.

UNESCO (1970): Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property. Adopted by the General Conference at its 16th meeting in Paris, France, on 14 November 1970.

UNESCO (1972): Convention on the Protection of the World Cultural and Natural Heritage. Adopted in Paris, France, on 23 November 1972.

UNESCO (1976): Recommendation concerning the Safeguarding of Historic or Traditional Areas and their Role in Contemporary Life. Adopted by the General Conference at its 19th meeting, held in Nairobi, Kenya, on 26 November 1976.

UNESCO (2001): Convention on the Protection of the Underwater Cultural Heritage. Adopted in Paris, France, on 2 November 2001.

UNESCO (2001): Universal Declaration on Cultural Diversity. Adopted by the 31st session of the UNESCO General Conference, held in Paris, France, on 2 November 2001.

UNESCO (2003): Convention for the Safeguarding of the Intangible Cultural Heritage. Adopted in Paris, France, on 17 October 2003.

UNESCO (2003): Declaration concerning the Intentional Destruction of Cultural Heritage. Adopted at the 32nd session of the General Conference of the United Nations Educational, Scientific and Cultural Organisation, held in Paris, France, in October 2003.

UNESCO (2005): Convention on the Protection and Promotion of the Diversity of Cultural Expressions. Adopted in Paris, France, on 20 October 2005.

UNESCO, ICCROM and ICOMOS (1994): Nara Document on Authenticity. Adopted in Nara, Japan, from 1 to 6 November 1994.

UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects. Held in Rome, Italy, on 24 June 1995.

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Spain's Group of World Heritage Cities.

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