Sciences and humanities intersections: good practices

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Abstract. In modern times interdisciplinarity has become the leading trend, therefore, bringing together sciences and humanities: “digital humanities” is already a term widely recognized, while the term of “applied sciences” is being rendered definite. When focusing in the scientific field of cultural heritage and collective memory preservation, it becomes clear that a big-data-handling issue becomes more and more visible, calling for the urgent need of a holistic documentation model, under the basic perspective of data (re)use, accessibility and interoperability, as expressed by data standardization, that is documentation schemas and controlled vocabularies. Consequently, various directives have been already drawn up, such as the European Commission's Directorate-General for Communications Networks, Content and Technology (CNECT) or the FAIR Guiding Principles for scientific data management and stewardship.
Additional perspective, people’s community inclusion and active participation in matters of culture, as is reflected in charters, more precisely, with particular clarity, in the Faro Convention, enhancing open access-open data, free software, as well as crowdsourcing procedures.
The specific paper constitutes an epigrammatic overview of the afore- mentioned trends, aiming to highlight the most appropriate good practices in the scientific field of cultural heritage documentation.

Keywords: Digital Humanities, Applied sciences, Cultural Heritage, Documentation, Digitization, CNECT, FAIR, Faro Convention

1 Cultural Heritage and Collective Memory

1.1 Cultural Heritage

Cultural heritage constitutes a comprehensive expression of different aspects of people's lives, constituting the cultural imprint of the centuries-old course of humanity. Formed under the influence of different components, as these related to different time periods and areas, components such as environmental data or geomorphology, culture acquires manifestations, at the first level interpreted as ways of solving and satisfying human daily needs for survival, such as artifacts for the practice of hunting, agriculture and animal husbandry in the early stages of its appearance. However, at a second level, man starts exploring aesthetic implications, thus ending up in the concept of *art*.

Specific artistic choices, identify a specific entity of people, thus acquiring a special semiological value. Cultural heritage crystallizes and expresses the collective memory of both a local community, as well as of humanity, given that the local constitutes the smallest piece of the broader mosaic of man's cultural march, a fact rendering necessary and imperative the protection and preservation of cultural heritage. [**9, 10**] UNESCO defines cultural heritage broadly as "the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations". [**14**] Specifically, the *Convention Concerning the Protection of the World Cultural and Natural Heritage* adopted on 16 November 1972, "covers architectural works, sculptures, paintings, archaeological structures and inscriptions, cave dwellings, groups of buildings, and sites comprised of the works of humans, or of humans and nature, of outstanding universal artistic, historic, scientific, anthropological, ethnological or aesthetic value." [**14**, **57**] It is worth mentioning that *cultural heritage* is a notion constantly evolving as reflected by UNESCO's 1980 *Recommendation for the Safe- guarding and Preservation of Moving Images*, according to which audiovisual heritage as part of cultural heritage is also recognized. [**14**, **50**] Cultural heritage is a living organism, as a result, the framework for protecting its various aspects keeps on being enriched, as proven by the UNESCO 2001 *Convention on Underwater Heritage* [**65**] followed by the UNESCO 2003 *Convention for the Safeguarding of the Intangible Cultural Heritage*. [**14**, **59**]

Taking into consideration that armed conflicts constitute a permanent threat over time, UNESCO sub-categorized cultural heritage into: [**14**]

- tangible heritage, composed of:
  - movable heritage such as sculptures, paintings, coins and manuscripts;
  - immovable monuments, archaeological sites and others;
  - underwater cultural heritage: shipwrecks, underwater ruins and cities;
- intangible heritage such as oral traditions, performing arts, crafts and rituals;
- natural heritage: cultural landscapes, geological, biological and physical formations;
- cultural heritage endangered by destruction and looting in armed conflicts

The afore-mentioned is clearly reflected by the *Venice Charter*, drafted during the 2nd International Congress of Architects and Technicians of Historic Monuments, from May 25 to 31, 1964 on the island of San Giorgio in Venice, adopted by ICOMOS in 1965: "Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity." [**55**] While the *Venice Charter 1964* certainly represents an innovation in the recognition of heritage, it is not the final word of conservation policies; actually, it preceded and inspired the *Paris Convention* (*World Heritage Convention*) *1972*.

In the following years, additional conventions were drafted and voted, in order to strengthen the framework for the protection of cultural heritage, with the most important ones being the *Granada Convention* in 1985 for the *Protection of the Architectural Heritage of Europe* establishing the principles of European cooperation and coordination of architectural conservation policies [**26**] and the *Valetta Convention* in 1992 on the *Protection of the Archaeological Heritage* adopted with the aim of protecting archaeological heritage from illegal excavations and major construction pro- jects. [**67**]. On 7 March 2014, the CoE Parliamentary Assembly adopted the *Recommendation 2038*, on "Europe's endangered heritage, calling for activities to interlink culture, heritage and education as a way to connect heritage with the process of building democratic citizenship. It encouraged implementation of both integrated conservation of cultural heritage and community-led urban strategies in historic towns." [**14**]

1.2 Collective Memory

The concept of *collective memory*, introduced by Maurice Halbwachs in 1925, [**27**] was based on ideas of Emile Durkheim, declaring that societies require continuity and connection with the past to preserve social unity and cohesion, although Durkheim never used the term *collective memory*. [**16**] It refers to the memories that individuals create as members of the groups to which they belong, whether small (family, school) or large (political party, nation). Collective memory might be considered as a body of knowledge about a topic, it might portray an image of a people, and often this image arises from the group's origin story or charter or it might be also interpreted as a process. Therefore, collective remembering can reveal disputes and contestations about how the past should be remembered. [**48**] Given that it mainly refers to those cultural practices and social knowledge about the past that influence emergence, transformation, and extinction of social identities, [**33**] cultivating a relationship with the past, enhances societal well-being in the present and enhances the sense of belonging to a wider community. Furthermore, remembering is vital for sustaining plurality and diversity in terms of a global citizenship, ensuring solidarity and human rights, while protecting cultural rights and preserving individual and collective identity and consciousness. [**18, 36, 37, 38**] "Much like individual memory, it is not a static repository of facts but a dynamic process through which societies reconstruct the past in order to interpret the present and orient to the future;" therefore, collective memory constitutes a cultural resource, often used, also, as a political tool. [**5**]

According to Assmann, *memory*, *culture* and the *social group* constitute the three poles of cultural memory, which is defined mainly by texts, images and rituals, specific not only for each and every society, but also for each and every age. [**1**] Consequently, heritage could be considered as the ideological and cultural symbol of a community. [**49**] At this point it should be pointed out that cultural heritage and land- scape constitute interconnected components of one entity. Cultural policies are, therefore, definitive elements for preservation, conservation and communication of herit- age at any level and for any group of people. [**47**]

2 Cultural Heritage Preservation

The integrity of cultural heritage sites and their continuing authenticity are fundamental concerns, particularly as the notion of heritage embraces also traditions, as well as everyday life. Unfortunately, our cultural memory is permanently damaged irretrievably, given that cultural disasters, are quite repetitive. In cases of man-made disasters, as is the case of the face of Buddha statue in Swat Valley, Pakistan, when in 2007, it had been destroyed by the Taliban, the destruction of the Roman temple of Vaal, in Palmyra, Syria, in 2015, or the landmark from the Ice Age at Brimham Rocks destroyed in 2018, in seconds, by vandals. [**7, 6, 36, 37, 44**]

Also, in cases of natural disasters, as is the case of the earthquake in Kathmandu, Nepal, in 2015, destructing Durbar Square, the historic center of Kathmandu, or the Plaka bridge, in Epirus, Greece, destroyed by the rapid flow of the river waters combined with following heavy rains in the midst of severe weather conditions in the year 2015. [**8, 39, 42**]

Furthermore, recent cultural disasters, as is the fire damage of the National Museum of Brazil in 2018 as well as of the Notre Dame of Paris one year later, combined with extreme situations as the war in Ukraine still going on, should alert us and constitute a call for urgent cultural plans and actions on cultural heritage integrated management issues, that is documenting-safeguarding-monitoring-highlighting. [**4, 43**]

Blue Shield, an international organization located around the world, dedicated to protecting heritage in crisis, is committed to protect the world's cultural property and, furthermore, concerned with the protection of cultural and natural heritage, tangible and intangible, in the event of armed conflict, natural or human-made disaster. The *Blue Shield Movement* (BSM) is made up of a small international team known as *Blue Shield International* (BSI), supported by more than 30 national committees globally, with many more countries looking to join. BSI is an independent, impartial, neutral, non-profit, non-governmental organization, [**2**] established under Dutch law, but its secretariat is currently based at, and is staff of, Newcastle University in the United Kingdom. Blue Shield is firmly supported by the international organizations which founded it and are Board Members: ICA (International Council on Archives), ICOM (International Council of Museums), ICOMOS (International Council on Monuments and Sites), IFLA (International Federation of Library Associations and Institutions), all of them prioritizing the protection of cultural heritage. [**3**] The BSM's work is based in the 1954 *Hague Convention*, protecting heritage in conflict, having also developed partnerships with the ICRC, NATO, UNESCO (HQ and regional offices), the UN Peacekeeping Force in Lebanon (UNIFIL), the Organization for Security and Co- operation in Europe (OSCE), INTERPOL, the Carabinieri, and the Antiquities Coalition. [**2**]

Fig. 1. UNESCO-Memory of the World Programme. Imagery resource: **63**

The *General Conference of the United Nations Educational, Scientific and Cultural Organization* meeting in Paris from 3 to 18 November 2015, at its 38th session, "considering that documents produced and preserved over time, in all their analogue and digital forms through time and space, constitute the primary means of knowledge, creation and expression, having an impact on all areas of humanity's civilization and its further progress, also considering that documentary heritage records the unfolding of human thought and events, the evolution of languages, cultures, peoples and their understanding of the world" adopted the related *Recommendation*, according to which "a *document* is an object comprising analogue or digital informational content and the carrier on which it resides", making specific reference to *documentary heritage* "comprising those single documents –or groups of documents– of significant and enduring value to a community, a culture, a country or to humanity generally, the deterioration or loss of which would be a harmful impoverishment. Significance of this heritage may become clear only with the passage of time". [**62, 66**] The afore-mentioned clearly outlining the unprecedented opportunities to preserve and democratize our collective memory. [**64**]

In this framework "the world's documentary heritage belongs to all, should be fully preserved and protected for all and, with due recognition of cultural mores and practicalities, should be permanently accessible to all without hindrance" as outlined in the UNESCO *Memory of the World Programme* official website, (**Fig. 1**) a project aiming to facilitate preservation of the world's documentary heritage, particularly in areas affected by conflict and/or natural disaster, to enable universal access to documentary heritage worldwide and to enhance public awareness about the significance of documentary heritage among the wider public". [**63**]

Taking into consideration that "people, resilience and knowledge passed on from generation to generation", [**60**] it is of great importance to mention that in the year 2003 the General Conference of UNESCO on October 17, of the said year, adopted the *International Convention on the Safeguarding of the Intangible Cultural Heritage*, having as purposes: [**58**]

(a) to safeguard the intangible cultural heritage;
(b) to ensure respect for the intangible cultural heritage of the communities, groups and individuals concerned;
(c) to raise awareness at the local, national and international levels of the importance of the intangible cultural heritage, and of ensuring mutual appreciation thereof;
(d) to provide for international cooperation and assistance."

Consequently, developing methodologies for safeguarding cultural collective

memory, demands digitization, community and stakeholders' involvement, as well as open access and linked open data. Focusing on AI for a cultural heritage holistic management, and in light of the ICOM Code of Ethics' guiding principles and UNESCO's guidelines, it can be said that many stakeholders, each with specific roles and objectives, must be taken into consideration while developing, putting into practice, observing and assessing AI measures. [45]

3 Digitization - Crowdsourcing

The term *digitization of a cultural asset*, whether tangible or intangible, refers to the creation of a digital substitute for it. The set of products of organized and standardized digitization at the state planning level constitutes the digital cultural reserve of a state. Given that "Europe's cultural and scientific resources constitute a unique public wealth that shapes the collective and developing memory of diverse societies", we realize the importance of the role that digitized cultural resources can acquire. [**17**]

Fortunately, new technologies can furnish data of various types: Uncrewed Aerial Vehicles, archaeological aerial reconnaissance, geophysical survey, terrestrial laser scanning, 3D digital model recordings, BIMs, are just indicative of documentation choices. Nevertheless, the heterogeneity of cultural assets requires a strategically designed response framework, depending on the case study: for example, the environment of the urban web raises requirements of documentation quite different from those of an archaeological excavation. However, it should be taken into account that in all cases there are needs to register different types of data, quantitative as well as qualitative, while for each stage of work the safe management and preservation of the documentation, as well as the prospect of its dissemination, should be taken into ac- count. Weaving together media, technologies and people might be considered as one of the greatest challenges of our times. Keeping the balance, should constitute the milestone.

AI, emerging at a frenetic pace in recent years, also in the scientific field of cultural heritage, constitutes a new creative challenge towards the integrated management of the cultural assets. However, there is still a lack of formal frameworks that evaluate the algorithms' adherence to the ethical standards set by the European Union for the use of AI in protecting cultural heritage and its inherent value. In this perspective, multiple charters and directives, already issued and adopted, should be taken into consideration, such as: the *White Paper on AI* published by the European Commission and the *European Union General Data Protection Regulation* (European Parliament and Council of the European Union, n.d.) the *ICOM Code of Ethics* and the *UNESCO Recommendation on the Ethics of AI*, as well as the *Guiding Principles for Recording, Documentation, and Information Management for CH Preservation* promoted by the Getty Conservation Institute. [**19**, **45**]

Furthermore, one should also take into consideration that apart from the fact that the application of AI simplifies or eliminates many repetitive or cumbersome steps, ethical guidelines and regulations should be adopted worldwide, to prevent the negative effects of AI that are already visible, such as discrimination, market concentration or precarious working conditions. In this perspective, binding *UNESCO Convention*

on the Protection and Promotion of the Diversity of Cultural Expressions 2005, the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage 2003, and the UNESCO Recommendation on the Ethics of Artificial Intelligence 2021, might ensure, to some extent, the rational application of AI. Actually, concerning the UNESCO Recommendation on the Ethics of Artificial Intelligence 2021, the international community has already agreed on sector-specific training programs support for local cultural enterprises and the promotion of cultural diversity through AI. [60, 61]

The European Union on its official website, regarding the Digital Single Market, emphasizes the particular importance of the digitization of cultural goods, given that they acquire new life, while at the same time, the procedure is offering citizens multiple opportunities to access cultural material and vice versa, as well as to different bodies and institutions multiple ways of distributing and disseminating the related information and digital products. [9, 15] According to the National Documentation Center in Greece, "the challenge for the 21st century is not for man to focus on technological progress, alongside other development goals, but how to harness and use new technologies strategically as a tool for development" [41] as also noted in the Human Development Report 2001 by the United Nations Development Program. [56]

3.1 Digitization standardization

The basic principles guiding the preservation and restoration of ancient buildings had been set for the first time by the *Athens Charter* in 1931, a fact having contributed towards the development of an extensive international movement related to cultural heritage management issues. The *Athens Charter* is concentrated on seven main principles, called *Carta del Restauro*, as following: [**51**]

1. International organizations for restoration on operational and advisory levels are to be established
2. Proposed restoration projects are to be subjected to knowledgeable criticism to prevent mistakes which will cause loss of character and historical values to the structures
3. Problems of preservation of historic sites are to be solved by legislation at national level for all countries
4. Excavated sites which are not subject to immediate restoration should be re- buried for protection
5. Modern techniques and materials may be used in restoration work
6. Historical sites are to be given strict custodial protection
7. Attention should be given to the protection of areas surrounding historic sites

In the following years, numerous conversations between architects, historians and international experts concluded, in the year 1964, to the adoption of the *Venice Charter* which set international guidelines for the conservation and restoration of historic buildings. Founding the *International Council on Monuments and Sites* (ICOMOS), a worldwide non-governmental organization created in 1965, was the logical next step.

ICOMOS, according to its statutory principles and as stated on its official website, is committed "to promote the conservation, protection, use and enhancement of monuments, built environments, and cultural heritage places. In order to do this, we play a

major role in the development of standards of good practice, which we use to form our reference texts, as well as in evolving, promoting and sharing ideas. We continue this through our advocacy work, ensuring that our knowledge of, and belief in the importance of cultural heritage has the greatest impact possible." [**30**, **31, 55**]

In the year 1996 ICOMOS has proceeded to publicize the *Principles* for the recording of monuments, groups of buildings and sites, ratified by the 11th ICOMOS General Assembly in Sofia, October 1996, providing to clarify some basic concepts:

- *Cultural Heritage* refers to monuments, groups of buildings and sites of heritage value, constituting the historic or built environment
- *Recording is the capture of information which describes the physical con- figuration, condition and use of monuments, groups of buildings and sites, at points in time, and it is an essential part of the conservation process*
- *Records of monuments, groups of buildings and sites may include tangible as well as intangible evidence, and constitute a part of the documentation that can contribute to an understanding of the heritage and its related values*

The Principles' last section is giving emphasis to the issues of management, dissemination and sharing of records, thus paving the way for the concept of linked open data, which nowadays is considered self-evident: [32]

1. The original records should be preserved in a safe archive, and the archive's environment must ensure permanence of the information and freedom from decay to recognized international standards
2. A complete back-up copy of such records should be stored in a separate safe location
3. Copies of such records should be accessible to the statutory authorities, to concerned professionals and to the public, where appropriate, for the purposes of research, development controls and other administrative and legal processes
4. Updated records should be readily available, if possible, on the site, for the purposes of research on the heritage, management, maintenance and disaster relief
5. The format of the records should be standardized, and records should be indexed wherever possible to facilitate the exchange and retrieval of information at a local, national or international level
6. The effective assembly, management and distribution of recorded information requires, wherever possible, the understanding and the appropriate use of up-to-date information technology
7. The location of the records should be made public
8. A report of the main results of any recording should be disseminated and published, when appropriate

Given the rapid evolution of technology and, consequently, the rapid evolution of cultural heritage management processes, three-dimensional documentation is now an integral technique of the overall process. In this framework, the International Committee on Intangible Cultural Heritage (ICICH) has proceeded on publishing the *Basic principles and tips for 3D digitization of cultural heritage*. According to the related official ICICH website "the Expert Group on Digital Cultural Heritage and Europeana was tasked by the member states of the European Commission to contribute to the

development of guidelines on 3D cultural heritage assets. The resulting list of basic principles and tips for 3D digitization of tangible cultural heritage contains 10 basic principles and a number of tips for each of them geared toward cultural heritage professionals, institutions and regional authorities in charge of Europe's precious cultural heritage." [**29**]

Nowadays, given that, undoubtfully, what might be considered as local has become universal, *linked data* and *linked open data*, should form the main axis of perspective: in this framework, documentation standardization should constitute one of the basic principles, under the perspective of data sharing in the future: applying documentation schemas, as the *VRA Core*, and controlled vocabularies, as the *Getty Vocabularies*, might be considered as optimal choices. [**24, 68**] Furthermore, inserting the spatial component, such as georeference and metadata correlation, lead to the global image, allowing data layering and comparative study, by applying GIS technology, specifically, free software, as is the *QGIS*. In this framework, the *Json-Based Database for Integrating Multiple Disciplines in Cultural Heritage* enables interoperability, providing at the same time the opportunity to perform complex database queries, finally furnishing complex answers; additionally, the information is organized in several abstract layers, thus rendering possible to curry out appropriate ontologies that can describe the features of the stored data. [**34**]

Furthermore, the European Commission's Directorate-General for Communications Networks, Content and Technology (CNECT) has conducted extensive policy coordination and funding actions to supplement Member States' cultural policy, these actions covering the areas of digitization, online access to cultural material and digital preservation. The CNECT *Mission Statement*, declares: "Connect develops and implements policies to make Europe fit for the digital age. We invest in research, innovation, deployment and uptake of trustworthy and green digital technologies that im- prove our economy and people's lives. Through funding, legislation and policy initiatives, we help ensure European leadership and independence in critical digital technologies (such as Artificial Intelligence, Common Data Spaces, high-performance computing, 5G, micro-electronics, blockchain and quantum)." [**11**]

In 2016, the *FAIR Guiding Principles for scientific data management and stewardship* publication was intending to provide guidelines to improve the ***F****indability*, ***A****ccessibility*, ***I****nteroperability* and ***R****euse* of digital assets. Given that humans increasingly rely on computational support to deal with data as a result of the increase in volume, complexity and creation speed of data, the *FAIR* principles give emphasis to machine-actionability, the capacity of computational systems to find, access, interoperate, and reuse data with none or minimal human intervention. [**20**]

The trend is mirrored in the archaeological scientific field as well: *The Standard and Guide to Best Practice for Archaeological Archiving in Europe* gives particular emphasis to the case of digital data, more specifically, emphasizing that it is important to follow international metadata standards to ensure that information can be clearly understood and easily re-used by both people and computers. [**46**]

In the direction of further establishing an effective framework for the management of cultural heritage globally, precisely, exploring the application of digital technologies to enhance the sustainable development of UNESCO *Designated-Sites, including*

World Heritage Sites, Biosphere Reserves and Global Geoparks, *the* 4^{th} *Huangshan Dialogue on UNESCO-Designated Sites and Sustainable Development* took place in China, on 29 June 2023, organized by the Huangshan Municipal Government and the International Centre on Space Technologies for Natural and Cultural Heritage (HIST) under the auspices of UNESCO, bringing together over 200 participants, including decision-makers, researchers and managers from 10 international organizations and 20 countries. [**52**]

Concerning AI, the EU *White Paper* places particular emphasis on trustworthiness for using AI; according to the High-Level Expert Panel established by the Commission, the AI system must meet seven prerequisites to be considered trustworthy: [**19**, **45**]

1. Technical robustness and safety
2. Privacy and data governance
3. Transparency and explainability
4. Diversity, nondiscrimination and fairness
5. Societal and environmental well-being
6. Accountability

3.2 Open access, linked open data, crowdsourcing

Concerning the legislative framework, in the perspective of open access and linked open data, in recent years new types of licenses are configured, such as the GNU GPL open-source licenses, a series of licenses that sprang from the world of free software [25], the Creative Commons (CC) licenses, which are framework conventions free of charge and concern the provision of protected works on the internet [12] or the Copyleft licenses granting freedom, under conditions, to use, modify, and distribute an intellectual work. [13]

Nevertheless, a most decisive component for safeguarding cultural collective memory is the community's involvement in matters of cultural heritage management, in other words the crowdsourcing component, a need already imprinted in various charters, the Faro Convention on the Value of Cultural Heritage for Society/The Council of Europe 2005, having the leading role and clarifying the framework, by proposing a more comprehensive and holistic view on the notion of cultural heritage and emphasizing the important role of people's participation and engagement in cultural procedures: "The Convention encourages us to recognize that objects and places are not, in themselves, what is important about cultural heritage. They are important because of the meanings and uses that people attach to them and the values they rep- resent." [21]

4 Conclusions

In the afore-mentioned framework, Open Access- Linked Open Data as emerged from the science sector, has very quickly prevailed as a trend and practice in the field of culture as well. [28] A trend also complying with the values-based approach model of cultural heritage management, emphasizing the values attributed to cultural heritage by different interest groups of people. [35] "Recently developed information communication technologies, particularly the internet, have affected how we, both as

individuals and as a society, create, store, and recall information". [23] Cultural administrators of many cultural institutions applied new technologies to reach an audience that desperately wanted connectivity, socialization and educational opportunities. Social media, a largely free tool for building community, raising awareness and attracting attention, was the obvious way to keep the public engaged.

Furthermore, the AI technologies for cultural heritage contributing in multiple fields like:

- the preservation of heritage sites and cities, and the intangible cultural heritage as well,
- the creation of virtual experiences to enrich cultural tourism and engagement,
- the research acceleration,

constitute nowadays an ever-changing scientific field with endless potential. Nevertheless, the full potential of AI concerning the socio-economic and cultural change has not been yet fully visible. [40] Moreover, ethical guidelines are considered to be an indispensable component of the related framework.

Conclusively, society has started to get more and more involved in matters of cultural heritage management, thus redefining constraints and possibilities. Crowdsourcing, a particularly rising trend nowadays, has proven to be highly effective in cases of widespread disasters, such as the case of the bridge of Plaka, in Epirus, Greece, or the case of the National Museum of Brazil, when, in both cases, the scientific teams turned to the crowd and appealed to the public to send photos from their private col- lections. [4, 8, 39]

It is of great importance to keep in mind Teresa Patrício's, ICOMOS President, declaration, in the framework of the 4thHuangshan Dialogue on UNESCO- Designated Sites and Sustainable Development, that "cultural heritage faces so many challenges — not least due to climate change, human activity and natural disasters — that we must fully harness such technology in favor of research, management, education and training, risk reduction." [52] According to the respective Recommendations on Climate Action for Heritage Conservation, "Rising mean temperatures, extreme weather events, more frequent floods, droughts, desertification, wildfires, rising sea levels and melting glaciers all have many complex direct and indirect impacts on heritage security and some serious losses have already been experienced. Intangible heritage will also be affected as agricultural and other adaptions to changing climate will affect many traditions and practices. Bespoke values-based and climate science- informed risk assessments are essential." [54]

The integrity and osmosis of the notions of cultural heritage, society and sustainable development, are clarified by the Faro Convention, specifically: [22]

- Article 7 - The individual, societal and European level - The Convention's vision of the role of heritage in promoting socially sustainable development
- Article 8 - Human values and economic growth - The Convention's vision of economically sustainable development
- Article 9 - Paradigm shifts in the field of cultural heritage - The Convention from a rights and responsibilities perspective
- Article 10 - Expert groups and civic dialogue – The Convention from a democratic perspective

As derived, the field of culture under proper management, can contribute substantially to improving the economic conditions of different countries, considering the multiple fields of production and dissemination potential of diverse cultural products which, combined with the explosive and rapid growth of telecommunications and the internet, create a considerable number of new jobs. Nevertheless, one should always "continue to actively promote sustainable and resilient tourism models, especially in protected sites, as is the case of UNESCO-Designated Sites, following the principles of ecological civilization in balancing environmental, cultural, economic and social benefits. These should serve as inspirational, intergenerational, places. [53]

Conclusively, there is an urgent need to strengthen the education of the new generation in cultural matters, in order that youngsters realize the importance of cultural sensitivity in the direction of the peaceful coexistence of peoples.

If we truly desire peace in the world, culture could be the ideal "danger exit".

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