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Integrated risk management at the National Archaeology Museum in Lisbon (Portugal) in view of the intervention envisaged in the Recovery and Resilience Plan.

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Abstract

The comprehensive refurbishment project for the National Archaeology Museum in Lisbon, Portugal, financed through the Recovery and Resilience Mechanism and scheduled to take place over the next few years, involves an unprecedented intervention in the building in which the museum is housed, the Jerónimos Monastery, and the creation of an entirely new exhibition programme. The intervention requires both the protection of the architectural heritage and the conservation of the museum's collections to be ensured during the processes of closure, transfer, and maintenance, as well as the reinstallation of the cultural assets in the new space.

Faced with the inevitable imbalance in environmental conditions that the impact of the project will produce on cultural heritage, which is increasingly fuelled by the evident effect of climate change and human action, this contribution aims to highlight the strategic relevance of implementing an integrated plan for risk management as a concrete and truly effective tool in decision-making processes that ultimately aim to safeguard the cultural assets involved and their cultural value.

Keywords

Cultural heritage; Heritage safeguarding and conservation; Risk management; Planning; Preventive strategy.

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Introduction

The vulnerability of cultural heritage is also ours!

In an inspiring article, philosopher María Luísa Ribeiro Ferreira (2020), reminds us of the importance of questioning and rethinking the way we live and relate to each other in the post-Covid 19 era. In a categorical and equally astonishing way, the author sets out her thoughts using notes from Hannah Arendt on the Human Condition, from Martha Nussbaum, on the theme of vulnerability, and Emmanuel Coccia, on the fragility of humans and their biological interrelationship with viruses. In her short text, she emphasises that without a culture of compassion and solidarity in which everyone can see themselves and which helps us to accept the vulnerability that we are currently experiencing in a dramatic way, we will hardly be able to make sustainable progress. The state of human nature - eternally fragile and vulnerable - in the face of the inevitable unpredictability of the circumstances that condition it, needs to be known, but above all integrated, in order to allow for the creativity and innovation necessary for the transformation and sustainable development of the human being and their respective societies. These transformations to be realised depend on each and every one of us, the author recalls.

In fact, these purely philosophical and sociological perspectives are not far removed from the concept of heritage and the approach to its conservation and transmission, as expressed in the "Council of Europe Framework Convention on the Value of Cultural Heritage for Society", commonly known as the Faro Convention, signed on 27 October 2005 (Council of Europe, 2005). From this integrative perspective, it is understood that the materialities and immaterialities that man produces as a cultural being are the result of his inner experience manifested in the outside world. Therefore, to understand human fragility and vulnerability is to realise that cultural heritage, as a product and consciousness of man, is per se a consequently vulnerable and volatile element. The value we attribute to cultural assets is the result of a multiple interaction

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of dimensions: spatial, temporal, and human, which is why the risk to its conservation is not only caused by natural hazards, which can be enhanced by the effects of climate change, but, above all, by anthropogenic hazards.

It is a fact that we currently live in a world undergoing inevitable change. The first decades of the 21st century, and particularly the last few years, have shown that ecosystems - ecological and socio-cultural - are succeeding each other and transforming at such an accelerated pace that the loss of wealth and diversity, as we know it, is becoming increasingly difficult to control and mitigate. We only have to look at documents such as The Global Risks Report (World Economic Forum, 2021) to see that the main emergencies identified as priorities to minimise on a global scale are human-made and the result of rapid changes to the status quo: a) Disruptions in social interactions; b) Increasing divides in the digital environment; c) Abrupt changes in markets and consumer behaviour; d) Geopolitical instability; e) Inequalities in education; f) Job losses; and g) Challenges to democracy and international relations.

With regard more specifically to the protection and safeguarding of cultural heritage at risk, numerous documents have been produced by various international organisations and associations – the United Nations Educational, Scientific and Cultural Organization (UNESCO); the Council of Europe (CE); the European Commission (EC); the International Centre for the Conservation and Restoration of Cultural Property (ICCROM); the International Council on Monuments and Sites (ICOMOS); the International Council of Museums (ICOM) - some of which are more than four decades old. In this sense, concerns about the need to reduce risks and minimise the negative impacts of climate change on cultural heritage are well documented, and there is no shortage of reports, diagnoses, recommendations, and conventions at international, European, or even, in some cases, local level.

Such efforts, however, have resulted in little or no action!

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This is illustrated by the ineffectiveness of COP 27, organised by the United Nations Framework Convention on Climate Change, between 6 and 11 November 2022 in Sharm el-Sheik, Egypt, whose only notable outcome was the approval of a loss and damage response fund, aimed at the poorest countries most vulnerable to the effects of climate change. Everyone's commitments to fulfil the objective of increasing global temperature by 1.5°C, compared to the pre-industrial era are far from being fulfilled, and it is more likely that the increase could be 2.4°C by the end of the century, and therefore unsustainable for the world as we know it (UNFCCC, 2022).

Or the continuous warnings that the Intergovernmental Panel on Climate Change (IPCC, 2022) continues to issue through its exhaustive reports, demanding more muscular adaptation and mitigation actions from governments and communities, without any major changes in policies and behaviour.

The lack of political consensus to change course towards an uncertain and undesirably discouraging future must not be allowed to continue. Nor should we ignore the signs of public opinion, which, increasingly informed and afflicted by the effects of climate change, is discontentedly witnessing progressive environmental degradation and the consequent loss of cultural diversity and is showing the capacity to actively organise itself for the demanding of solutions.

This outpouring of feelings and concerns in favour of defending and protecting threatened cultural heritage is, however, far from being a homogeneous and conscious process in contemporary societies, occurring at various times depending on the location, type, or political agenda of governments. Raising awareness of prevention and the vulnerability of cultural heritage assets and what their loss or de-characterisation means, based on a sustained relationship between people and heritage, should be one of the concerns of future political strategies, as has happened in the area of the environment.

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1. Prevention, prevention not to remediate...

The "Krakow Recommendation on the Protection of Cultural Heritage", resulting from the International Conference on "Cultural Heritage in the face of Contemporary Threats and Challenges. Programs and action plans", held on 23 and 24 November 2016 in Krakow (UNESCO, 2017), highlighted lines of work for better conservation and management of cultural heritage at risk. It advocated the need to identify the multiple hazards affecting cultural heritage, such as natural disasters, climate change, armed conflicts, acts of terrorism and illegal trafficking of goods. It also stressed the need for member states to implement systems framed by appropriate legislative measures, as well as multi-level programmes and strategies (local, national, and international) and cooperation with communities, in order to develop effective protection of cultural heritage in the face of risks. Finally, the importance of creating integrated networks for collecting and sharing information on best practices was emphasised, including the creation of early warning and risk management monitoring systems.

These recommendations recalled the provisions of previous UNESCO Conventions, in particular the "Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict" together with its two protocols (UNESCO, 1954; UNESCO, 1999); the "Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property" (UNESCO, 1970); the "Convention Concerning the Protection of the World Cultural and Natural Heritage" (UNESCO, 1972).

Over the years, UNESCO has sought to sensitise governments around the world to the urgent need for a culture of prevention and concerted climate action, also involving heritage professionals. These concerns take on greater dimensions when it comes to World Heritage sites (Vujicic-Lugassy & Frank, 2010; Veillon, 2014). To this end, UNESCO's Intergovernmental Committee for the Protection of Natural and Cultural Heritage recommends that Member States include risk preparedness as one of the

elements of their management plans and professional training and capacity-building strategies (UNESCO, 2015).

These principles correlate with the "SENDAI Framework 2015-2030" (UNISDR, 2015a; UNISDR, 2015b), a strategy adopted by the Member States of the United Nations on 18 March 2015, which aims to contribute to substantially reducing the risk of disasters and loss of human life in the physical, environmental, social, and cultural dimensions of human societies. Reducing the loss of cultural heritage contributes to one of this strategy's implementation indicators (C6 - Direct economic loss to cultural heritage damaged or destroyed attributed to disasters).

And of course, we can't forget the United Nations (UN) AGENDA 2030 and the 17 sustainable development goals that generally reflect the need to prepare for the future through conscious action to reduce risks, adaptation strategies and strengthening the resilience of communities and their values (United Nations, 2015).

Focused on these objectives and programmes, over the last decade the European Commission has funded international projects to find more effective solutions and more lasting responses to the problems and risks facing humanity, in this case the cultural heritage it values. An example of this is the STORM (Safeguarding Cultural Heritage through Technical and Organisational Resources Management - 2016-2019) project, which has developed a set of proposals for methodologies and procedures based on experiments implemented in five pilot sites in five different countries (Greece, Italy, Portugal, United Kingdom, Turkey). Based on a fruitful interdisciplinary collaboration made up of heritage managers, climatologists, conservation scientists, conservators and restorers, ICT and sensor specialists, seismologists, civil protection, the STORM project proved to be an important contribution to new tools and new ways of operating. Highlights include the creation of a "Reference Glossary"; non-invasive and non-destructive technological solutions to support decision-making in the conservation of heritage sites in danger; and a "White Paper" with proposals for

improving policies in cultural heritage risk management, based on a critical survey of the regulatory and legal frameworks in the five countries (Resta et al., 2019).

There is a growing call, whether in international projects, programmes, or agendas, for the planning and management of cultural heritage sites to be carried out in an integrated, participatory, multi-level and multi-sectoral manner, with a focus on prevention, mitigation, and adaptation (Sabbioni et al., 2008; Bonazza et al., 2018).

On the other hand, it is also recognised that risk reduction, whether caused by the impacts of climate change or strictly human actions, although a process of global proportions, must be dealt with locally. And in the case of cultural heritage, this is more than evident, since it reflects and (re)lives the specificities and characteristics of the region and locality.

2. So why have a risk management plan for cultural heritage?

The practice of implementing risk management in cultural heritage has developed mainly in two areas: the preventive conservation of cultural assets, applied in a museum context; and the management of the impact of disasters on architectural heritage, applied in a safeguarding and heritage management context. However, in recent decades, risk management planning for built heritage has been implemented from a preventive conservation perspective through the creation of risk maps or environmental impact monitoring actions. This is due to the fact that the actions to be implemented, whether in the context of prevention against permanently occurring agents of deterioration or in the case of emergency preparedness, are very similar or almost identical. In fact, what differs is the intensity of the impacts caused by the different agents of deterioration on cultural heritage (Lattig 2012, in Revez et al., 2016).

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Stovel (1998), from an early stage, emphasised the importance of considering risk management in cultural heritage as a more holistic process than other approaches to heritage conservation, since he believes that the changes and impacts that cultural assets can undergo require several perspectives. Looks that are for the materiality of cultural assets, but also other looks that go beyond their physical limits and refer to the environmental and cultural factors of the object/material itself. Intrinsic and extrinsic, therefore!

Thus, risk management emerges as a way of aggregating these various dimensions within the scope of Heritage Conservation, proposing that the material dimension of change be analysed in a continuum that encompasses phenomena of different intensities and probabilities of occurrence, for a more holistic view of the priorities for action that best defend the significance that is to be preserved (Revez et al., 2016).

In this sense, a cultural heritage risk management plan should be understood as a methodology that allows information to be organised and actions to be planned in order to support decision-making more effectively. Its application, carried out in an integrated manner, makes it possible to build scenarios based on chains of cause based on an intricate network of phases and possible factors (visible and invisible), to conceive possible losses or damage, to make risk assessments more rigorous (multi-risk), and to strengthen the measures for controlling these risks (Pedersoli Jr., Antomarchi, & Michalski, 2016; Michalski, & Pedersoli Jr., 2016). It implies realising that it is a cyclical process with several phases - risk assessment, prevention/mitigation, emergency preparedness, response, recovery - and that they all interconnect for a single result (Fig. 1). Ultimately, it even provides a better understanding of the institution and those involved in the processes, helping to prioritise interventions and save costs.
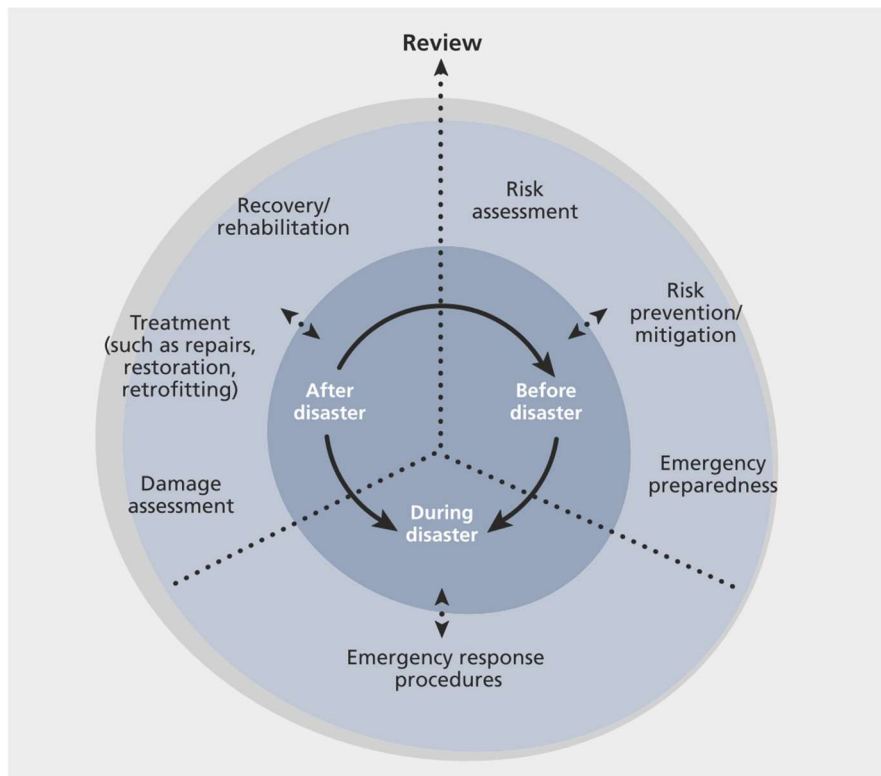
Fig. 1 - Cycle and phases of disaster risk management (Vujicic-Lugassy & Frank, 2010, p. 13).

From a general point of view, the benefits of a risk management plan are to:

- Systematise information on the threats and problems facing cultural assets;
- Record and value professionals' knowledge of the cultural assets they manage;
- Share knowledge between all those involved in the conservation and management of cultural assets and promote co-operation between teams (inside and outside institutions);
- Improve knowledge by implementing measures and monitoring them;
- Better substantiate management decisions in a clear and consistent manner;
- Enable medium / long-term planning;
- Manage costs more rationally and less expensively;
- Reduce risks and prolong the preservation/sustainability of cultural assets for longer.

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3. The case of the National Archaeology Museum in the face of the Recovery and Resilience Plan for Culture

The comprehensive refurbishment project for the National Archaeology Museum (Museu Nacional de Arqueologia – MNA) in Lisbon, funded through the Recovery and Resilience Mechanism - Regulation (EU) 2021/241, of 12 February, and which forms part of the Recovery and Resilience Plan for Culture - RE-C04-i02 - Cultural Heritage, provides for a profound transformation of the space and a new museological programme for the museum.

When carrying out a construction project of such magnitude, it becomes imperative to safeguard and control a complex number of risks to the existing cultural heritage, be it the building structures or the museum collections.

Carrying out work on a listed building that houses movable cultural objects, some of which are also classified as "National Treasures", implies greater responsibilities in the intervention.

The Framework Law for Portuguese Museums (Lei-Quadro dos Museus Portugueses – LQMP), no. 47/2004, of 19 August, lays down the principles and priorities of preventive conservation and risk assessment (articles 27 to 31), as well as the security conditions that are essential to guarantee the protection and integrity of the cultural goods it contains (articles 32 to 38).

Decree-Law no. 220/2008 of 12 November establishes the Legal Framework for Fire Safety in Buildings, as amended by Decree-Law no. 224/2015 of 9 October. This decree-law lays down the fire safety regulations applicable to all buildings and premises, divided into 12 standard uses, with "type X - museums and art galleries" and "type XI - libraries and archives" applying to the MNA.

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Ministerial Order no. 1532/2008 of 29 December approves the Technical Regulations for Fire Safety in Buildings and applies to all buildings and enclosures, in accordance with the legal regime contained in Decree-Law no. 220/2008 of 12 November. Title VII, Chapters VIII and IX define in greater detail the minimum conditions required to be implemented in building types "X and XI", as well as the standards to which self-protection measures must conform in order to guarantee the safety of cultural heritage and people.

Therefore, in accordance with the above-mentioned legislation, the museum has a "Safety Plan" which is periodically reviewed in accordance with the legislation in force. This document also includes the "Self-Protection Measures" to be implemented in the event of a fire. It was drawn up in October 2015 by the Directorate General for Cultural Heritage's (Direção-Geral do Património Cultural - DGPC) Department of Studies, Projects, Works and Supervision, in close collaboration with the MNA's in-house team, considering the type of use "type X - museums and art galleries".

In compliance with the LQMP, the MNA also has a "Preventive Conservation Plan" (PCP), dated 2009, which contains useful information for the proper conservation of cultural assets and identifies some potential risks. However, due to the date it was drawn up, it fails to identify temporary and future constraints resulting from the process of preparing and carrying out the remodelling work currently planned for the building.

History has often shown that it is at times of human intervention and action on heritage assets that major catastrophes occur - just remember the recent example of Notre Dame in Paris. And Portugal was no exception. Let's remember the catastrophes that have occurred in Portugal that have destroyed a large part of our immovable and movable heritage, such as: the great earthquakes in Lisbon (1755) and Angra do Heroísmo (1980); the fires in the Palaces of Queluz (1934) and Ajuda (1974), in the Church of S. Domingos (1959), in the D. Maria National Theatre (1964) and the Natural

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History Museum (1978); the 1967 floods that damaged the Gulbenkian Museum's collections at the Palácio dos Marqueses de Pombal, in Oeiras, or, in 2016, at the Santa-Clara-a-Velha Monastery, in Coimbra. All of these events had negative repercussions on cultural assets, some of them with irreparable damage.

Considering the current situation the MNA is going through, it is essential to implement a Conservation Programme for the museum's cultural assets based on a plan that integrates the principles and methods of preventive conservation and risk management for the collections and the building. Its development makes it possible to carry out a wide-ranging multi-risk assessment based on multiple hazards that can affect and cause irreversible damage to cultural assets, whether of a human or natural nature, whether of a rapid and catastrophic nature or of a slow and persistent nature, and to impose control measures to mitigate these risks. On the other hand, it enables effective decision support for heritage management and conservation processes, based on real, scientific knowledge and the implementation of appropriate, more cost-effective procedures. It is, in fact, an essential tool in defining an intervention strategy that is intended to be effective in conserving the cultural values of authenticity and integrity of cultural assets (Fig. 2 and 3).

Fig. 2 - National Archaeology Museum, 2021 (©Raquel Lázaro).

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Fig. 3 - Comprehensive remodelling project for the National Archaeology Museum, 2021-2025

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In this way, the implementation of an integrated plan for preventive conservation and risk management fits in with what the MNA considers essential, i.e. the practice of a preventive culture. Especially in this process of remodelling the museum, which is expected to take a long time, and which includes planning actions, preparing teams, identifying, and acquiring material/logistical resources, and cooperating with other services, namely the DGPC, public security forces and civil protection.

Finally, the MNA team is well aware of the fact that the complete remodelling of the monumental complex where the museum has been housed since 22 April 1906 with its responsibilities within the framework of Portuguese Cultural Heritage and UNESCO, requires a strong conceptual basis and concrete actions, translated into good practices, which should guide the work of all employees in the different phases of the process: preparation and dismantling, transfer, intervention and reassembly of the new MNA XXI.

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