
Current Approaches, Solutions and Practices in Conservation of Cultural Heritage

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PREFACE

The inception of the volume *Current Approaches, Solutions, and Practices in Conservation of Cultural Heritage* was motivated by the need to engage in a multidisciplinary discourse on conservation issues and incorporate recent experiences from various countries into a unified framework. The intent was to offer an examination of activities, replete with exemplary reflections on methodological choices and solutions adopted in the conservation of cultural heritage. Worth noting is the fact that, although it is challenging to fully anticipate the nature of submissions and how they will be assessed by the volume's evaluators when initiating a call for papers, in this particular case the proposed themes and case studies were discovered to harmonize seamlessly with the book's overarching objectives.

This volume comes to the forefront at a time when discussions on the integration of artificial intelligence (AI) in the realm of restoration are gaining momentum. This dialogue, intrinsic to the broader discourse on technological applications in the field, seeks to delineate the role of AI in conservation and restoration. It can now be stated that the application of AI in virtual restoration provides a platform for contemplating the reconstitution of artistic works, offering valuable reference points to deepen our understanding of artifacts and monuments. Concurrently, in the domains more closely related to conservation, an innovative approach has been initiated, aiming at developing algorithms capable of analysing changes in the appearance of artworks through image analysis and comparison, facilitating also the identification of alterations they undergo over time. Additionally, some contemporary research intends to support diagnostic investigations, employing AI to analyse surfaces and detect various forms of degradation. When appropriately directed, AI becomes a valuable asset in both the analysis and design phases of conservation or restoration interventions, providing new tools to explore the intricacies of the artworks. Nevertheless, the design of any intervention requires also a comprehensive reference point within the broader panorama of studies and research that integrate historical and critical aspects of restoration with both established and innovative practices, forged through the amalgamation of scientific knowledge and humanistic culture. Thus, the triad "Approaches, Solutions and Practices" appear in the volume as three closely interlinked elements of the discourse in taking stock of current strategies and methods employed in research and practical conservation interventions.

The adopted approach is inherently multidisciplinary, a characteristic shared by the group of curators comprising restorers, art historians, chemists and physicists. Their collaboration, rooted in diverse perspectives and experiences, underscores the collective effort towards the success of this book and its contribution to contemporary cultural heritage conservation. The foundational premise is a shared recognition that, in contemporary life, preserving cultural heritage is essential and that it must take into account the continual transformations in the environment and human life. Every material and intangible element of our past is its memory, and requires vigilant conservation for its future. Decision-making in conservation is then intricately linked to the experiences, culture, and relationships of those involved in designing and implementing conservation efforts. The focus on diverse approaches broadens the "investigative" field, encompassing reflections on work conducted by researchers and restorers across various time periods and locations where the problems of conservation find fertile ground to develop in order to safeguard the memory of the past and current human life.

Contexts are essential for understanding and acknowledging the testament of human activity, which in its turn requires preservation to reinstate its value, allowing perpetuation of its role in contemporary

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society. Today's society is then encouraged to take a leading role in the valorisation process of cultural heritage through participatory actions, commencing with the attribution of value to both tangible artifacts and intangible cultural heritage (Faro Convention, 2013). In addition, contexts align with places of conservation, and ongoing climate changes must also be regarded in light of the continual evolution of parameters crucial to the preservation of cultural heritages.

The broad field of "investigations" provides innovative solutions for planning and executing actions to assess and monitor changes and interactions with the work. This includes scientific investigations studying material characteristics and degradation phenomena. The multidisciplinary approach emphasized in the book underscores the importance of considering both the appearance and subject matter of the artworks. Hence, it comes as no surprise to witness the involvement of interdisciplinary research groups that have formulated "solutions and practices" that include an understanding of the artwork from a critical historical viewpoint, encompassing aspects related to the execution processes and used materials, and that have simultaneously approached the subject from a scientific perspective, delving into the knowledge of physical and chemical characteristics of the materials and their transformations over time, while the development of tools and materials contributing to the enhancement of the restorer's work has also been considered in the different contributions integrating this book.

Interdisciplinary knowledge of cultural heritage contributes to preserving authenticity and integrity within its cultural context (Nara Document on Authenticity, 1995). In this sense, the term "conservation" in the title of the book is appropriate, since it encompasses all research and documentation activities that contribute to understanding cultural heritage, actions to protect artifacts (including restoration), and efforts to enhance their significance.

Editors

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