

RESEARCH ON METHODS FOR THE PROTECTION AND RESTORATION OF CULTURAL HERITAGE IN CONTEMPORARY SOCIETY

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Abstract. In contemporary society, cultural heritage is gradually disappearing due to various reasons; the protection and restoration of cultural heritage are common challenges faced globally. The purpose of this study is to explore approaches to the protection and restoration of cultural heritage in the context of modern technology and new lifestyles. The paper employs a literature review method to examine the current situation and challenges of cultural heritage protection and restoration, and to explore strategies for its safeguarding and recovery. The findings indicate that the protection and restoration of cultural heritage must be integrated with modern lifestyles, leveraging new technologies such as digitization and artificial intelligence.

Key words: cultural heritage, protection, restoration traditional and modern methods, digital technology.

Introduction. In recent years, against the backdrop of various disasters and urbanization, the inheritance and protection of cultural heritage have become significant issues. As a precious legacy of human civilization, cultural heritage not only represents the historical and cultural characteristics of a society but also provides a unique perspective for understanding the world. However, in contemporary society, cultural heritage faces severe challenges such as natural disasters, human-made destruction, lack of integration with the lifestyles of modern people, and erosion of traditional values. To address these challenges, innovative methods and strategies are needed to promote the protection, restoration, and sustainable development of cultural heritage, thereby enhancing global cultural diversity. Therefore, this study aims to explore effective approaches for the protection and restoration of cultural heritage in contemporary society, providing theoretical and practical guidance for the preservation and restoration of cultural heritage. An important contribution to these studies is the article by J. Liu et al. (Liu et al., 2018) which describes the cases and principles of logo design based on the cultural heritage of China.

Purpose. This thesis aims to identify deficiencies and their underlying reasons in the research on the protection and restoration of Chinese cultural heritage through an investigative analysis of the current state of Chinese cultural heritage. By delving into the analysis of specific issues, a deeper understanding of the causes of these deficiencies is achieved. Based on this understanding, innovative measures for the protection, restoration, and inheritance of cultural heritage are proposed.

Results and discussion. The challenges faced by Chinese cultural heritage are multifaceted, covering natural factors, human activities, management challenges, and social changes, among other aspects. The protection, restoration, and inheritance of cultural heritage cannot solely rely on traditional dissemination methods such as training and education. Qing (Qing, Zheng, 2019) conducted research on innovative practices for cultural heritage that align with the development needs of modern society and are compatible with contemporary lifestyles. Therefore, integrating cultural heritage into modern life is a feasible approach to rejuvenating cultural heritage.

Firstly, education and training, along with cultural exhibitions, are crucial factors in preserving cultural heritage. The preservation and restoration of cultural heritage can be achieved through educational and

training programs, which are essential initiatives for integrating cultural heritage into modern society and maintaining its vitality. Various types of schools can incorporate cultural heritage promotion into educational content, offering relevant courses and organizing related activities. By combining cultural heritage with modern technology, the efficiency and attractiveness of preservation and inheritance can be enhanced, fostering cultural identity and confidence in the community. For example, various online courses, promotional videos for cultural heritage, mobile applications, and other tools can be developed to better transmit cultural heritage.

Secondly, conducting surveys, coordinating protection planning, and physical restoration work are essential for cultural heritage. Precautionary measures and reinforcement work should be undertaken in advance, especially for historical buildings and sites located in disaster-prone areas, to mitigate potential threats from natural disasters such as earthquakes, floods, and typhoons. Additionally, efforts should be made to prevent human-induced damage, as illegal excavation, trafficking of cultural artifacts, and illicit trade can cause permanent harm to cultural heritage, severely impacting the integrity of historical sites. Human tourism activities also pose a threat to cultural heritage. While cultural heritage tourism has positive implications for the dissemination and education of cultural heritage, large-scale tourist flows can erode and damage fragile cultural heritage, leading to issues such as excessive visitor traffic, improper behavior, and littering.

Thirdly, leveraging new technologies such as digitization and artificial intelligence (AI) for the protection of cultural heritage is crucial. These technologies provide new tools and methods for better preservation and transmission of cultural heritage. AI can be employed for monitoring the status of cultural heritage, promptly detecting potential threats or damages. Intelligent monitoring systems can help improve real-time management and protection of cultural heritage. Furthermore, digitization technology can be utilized for virtual reconstruction and preservation, creating virtual models of cultural heritage, including buildings, archaeological sites, and artworks, ensuring their preservation in digital space. This is particularly valuable in cases where physical access is challenging or poses risks to the cultural heritage. Digitalization also facilitates archiving cultural heritage by three-dimensional scanning and digitizing artifacts, creating digital archives to ensure integrity and alleviate physical preservation pressures, preventing damage or theft. Online exhibitions and education can also contribute to heritage preservation by creating online exhibition and educational resources through digital platforms, allowing more people to learn about cultural heritage via the internet, expanding public awareness, and promoting engagement and education. Finally, utilizing AI and big data analysis to understand audience needs and preferences, along with employing virtual reality (VR) and augmented reality (AR) technologies to provide immersive cultural experiences, are innovative ways to enhance cultural heritage protection and transmission.

Conclusions. Cultural heritage is crucial for cultural diversity, holding profound historical, cultural, and regional significance. Despite some achievements in its preservation and innovation, numerous challenges persist. To enhance research in the preservation and innovation of cultural heritage, a focus on theoretical exploration is imperative. Additionally, practical research should emphasize the role of digitalization and artificial intelligence in protecting and restoring cultural heritage. In summary, a comprehensive approach utilizing various means is urgently needed to safeguard and pass on our cultural heritage.

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