

Rekindling and Strengthening Vernacular Memories: Issues and Solutions in Preserving and Promoting the Values of Historical Relics in the Resistance War of Vietnam

Phuong Thi Nguyen

Ho Chi Minh City University of Technology and Education, Vietnam

Email: ntpnuong@hcmute.edu.vn

Received	Reviewed	Accepted	Published
29.12.2023	10.01.2024	22.02.2024	30.04.2024

<https://doi.org/10.61275/ISVSej-2024-11-04-04>

Abstract

Resistance War heritage sites of Vietnam linked to pivotal moments such as the Indochina and Vietnam Wars, serve as vital cultural historical repositories scattered around the settlement spaces. While rekindling the memories of the past, they also contribute to enhancing educational outcomes through tourism and public engagement. This paper examines methods to improve the preservation of these sites to fully realize their potential in reviving and reinforcing local historical awareness. It emphasizes the integration of advanced technologies such as Heritage Building Information Modelling (HBIM), Virtual Reality (VR), and Augmented Reality (AR) in these efforts.

The research adopts a mixed-methods approach, combining document review, case studies, and direct observations. Data collection methods include interviews with site managers, analysis of visitor feedback, and evaluations of technology implementation at the sites, providing a comprehensive perspective on the current preservation practices and their effectiveness.

It concludes that, despite considerable progress in preserving and elevating the profile of the historical relics of Vietnam, there are notable deficiencies, particularly in the use of technologies and involvement of the community. The paper suggests actionable approaches to enhance the educational value of these sites, stressing the need for broader implementation of technologies and increased public engagement in heritage conservation processes.

Keywords: Preserving and promoting, HBIM, Historical relics, Resistance war, Socio-economic development, Sustainability.

Introduction

Vietnam, a nation with a rich history spanning several thousand years, has been marked by significant conflicts, including the Indochina War (1946-1954) and the Vietnam War (1954-

1975) (Do & Ngo, 2023). These periods have left a wealth of historical relics that capture the resilience, culture, and history of the Vietnamese people. Preservation and promotion of these relics are essential for honoring the past and for educating the masses. Despite the recognized importance of these relics and considerable efforts by various levels of government and communities, challenges persist in fully leveraging these historical assets (Communist Party of Vietnam, 2021). These challenges are exacerbated by the limited use of advanced technologies such as Historic Building Information Modelling (HBIM), Virtual Reality (VR), and Augmented Reality (AR) in their preservation and promotion.

This paper aims to shed light on the current state of preservation efforts on historical relics from the Resistance War era of Vietnam and explore how these efforts contribute to the nation's educational goals. It seeks to identify the gaps in the application of technologies and propose strategies for enhancing the educational value of these relics.

The objectives of this research are as follows:

1. To evaluate the existing policies and practices regarding the preservation and promotion of historical relics from the Indochina War and Vietnam War in Vietnam, focusing on both national and provincial levels.
2. To analyze the role of historical resistance relics in educating the younger generation of Vietnam.
3. To investigate the application of advanced technologies such as HBIM, VR, and AR in the preservation and promotion of these relics and identify barriers to their adoption.
4. To propose actionable strategies for improving the preservation efforts and promotion of these historical relics, with an emphasis on technological integration and education.

By achieving these objectives, this research aims to contribute to the broader field of cultural heritage preservation, offering insights that can inform policy, practices and future research in Vietnam and similar contexts globally.

Theoretical Framework

The theoretical framework of this study is anchored to the concepts of cultural values and historical artifacts, as well as the nuanced distinctions between preservation and conservation. This framework provides the basis for understanding the significance of historical relics in the context of the Resistance War of Vietnam and the broader implications of their preservation or lack thereof.

Cultural Values

Cultural values represent the ideals and norms that society holds dear, guiding behavior and influencing the social fabric of the communities. These values are often reflected in and transmitted through cultural artifacts and historical relics, serving as tangible links to the past. According to Edelheim et al. (2022), cultural values are deeply embedded in tourism practices, playing a significant role in shaping the collective identity through exposure to cultures different from one's own. This exposure, they argue, has the potential to foster personal growth and insights, illustrating how cultural values are explicit or implicit, distinctive of a group of people, and enduring, thereby highlighting their role in shaping their collective identity.

Historical Artifacts

The study of historical artifacts is framed by several pivotal theories emphasizing their significance beyond mere objects. A central tenet is the notion of intentionality; artifacts are primarily defined by the intentions of their creators rather than their material qualities or current uses. According to Bloom (1996), the classification of artifacts is based on the creator's intended purpose, highlighting that the original intent is more critical than attributes such as shape or color. This idea aligns with Trimble's (2008) analysis, which uses artifacts to date geomorphological changes, demonstrating how they offer essential insights into the alterations of landscapes caused by human and natural activities over time. This understanding of artifacts

is further broadened by Nordgren & Johansson (2015), who argue for a merger of historical consciousness with intercultural competence, enhancing the interpretation of diverse historical narratives. Indeed, Herva & Nurmi (2009) also contribute to this discourse by suggesting that artifacts should be viewed as dynamic processes with biographies that highlight their functionality and roles throughout human history. This perspective is supported by Fuhler et al. (2006), who underscore the educational benefits of artifacts, pointing out their potential to engage students and make historical learning tangible and relatable. Together, these insights create a comprehensive analytical framework that underscores the dynamic roles of artifacts in history, shaped by their intended functions, cultural contexts and educational impacts. Within this framework, artifacts from the Resistance War era in Vietnam are regarded not just as historical remnants but as carriers of the cultural values of the Vietnamese people during that period.

Preservation vs. Conservation:

Cultural heritage management incorporates essential concepts, notably preservation and conservation. While frequently used synonymously, these terms reflect fundamentally different strategies for safeguarding cultural assets. Grasping these distinctions is vital for implementing effective management practices. Preservation focuses on maintaining and protecting cultural heritage in its existing condition. This approach aims to safeguard artifacts, structures and sites from further decay or damage without necessarily implementing extensive physical interventions. It seeks to minimize change and interaction that could alter the current state of the heritage material. A representative study highlights that preservation often involves removing cultural items from active use to protect their heritage value, which can limit public interaction with the heritage (Carter & Grimwade, 1997).

Conservation, in contrast, involves more active intervention. This process may include stabilization, restoration, or sometimes enhancement of the cultural material to ensure its longevity and usability for future generations. Conservation is not just about maintaining the artifact in its current state but might also involve enhancing its quality or utility through scientific or artistic methods. Conservation practices are often participatory, involving community members as active agents in the restoration and maintenance of cultural heritage, thereby fostering a broader engagement and more profound connection with the heritage (Spiridon & Sandu, 2015). Economically and historically, the approaches diverge in terms of their impact and management implications. While preservation can be seen as a form of cultural “freezing,” conservation may involve more dynamic interactions with the cultural artifact. Economic analyses suggest that conservation, by allowing for careful use and interaction, might provide a more sustainable approach to managing non-renewable cultural resources (Vecco, 2018).

Preservation and conservation represent two distinct but complementary strategies in cultural heritage management. Preservation aims to protect and maintain heritage in its current state, whereas conservation engages more directly with the material to restore and possibly enhance it for future appreciation. Understanding these distinctions helps in adopting the most appropriate management strategies for different types of cultural heritage. This study utilizes the distinctions outlined by Vecco (2018), Carter & Grimwade (1997), and Spiridon & Sandu (2015) to explore the specific strategies employed in preserving and conserving Vietnam’s war relics. It also examines the technological and methodological challenges associated with these strategies, highlighting the practical implications of each approach in real-world cultural heritage management scenarios.

Implications of Not Preserving Historical Artifacts

The failure to preserve historical artifacts can lead to a profound loss of cultural heritage, impacting historical understanding, societal identity, and continuity. Historical artifacts are valuable socio-economic resources, and their loss can reduce cultural richness and deprive communities of the economic benefits associated with cultural tourism and educational opportunities, as Baglioni et al. (2021) noted. Artifacts also serve as tangible links to the past,

and their absence creates gaps in the historical narrative, thus affecting education and identity, according to Stathopoulou et al. (2015).

They are essential for transferring knowledge across generations and providing insights into past innovations, traditions, and lifestyles. as Belhi et al. (2017) emphasize, the deterioration or loss of these artifacts can significantly hinder historical and scientific research. Furthermore, as artifacts degrade, the need for restoration arises, but improper or delayed preservation efforts can result in the loss of original material and authenticity, which distorts historical accuracy and value (Newey, 2000).

Cultural heritage faces threats from natural disasters and human activities, making effective preservation strategies crucial to mitigate these risks and ensure the survival of significant cultural and historical resources. This study underlines the importance of robust conservation measures, particularly for Vietnam's Resistance War relics, to preserve their historical integrity and cultural values. Effective conservation strategies are essential to protect these resources from degradation and loss, ensuring that they remain integral to our collective memory and identity.

In synthesizing these theoretical perspectives, this study explores the preservation and promotion of historical relics from Vietnam's Resistance War, emphasizing the importance of these activities in sustaining cultural values and educating future generations.

Literature Review

In recent years, the Vietnamese government has paid much attention to the preservation, restoration and reconstruction of cultural and historical relics in general (Tran, 2023) and the historical relics of the Indochina War and Vietnam War in particular. Vietnamese politicians, experts and scholars have done extensive research in many aspects to address this issue. In terms of conservation policy, the Vietnam State and the Vietnamese government have introduced many laws to guide the preservation of monuments, such as the Cultural Heritage Law (2001), Decree No. 92/2002/ND-CP (2002) (Hoang, 2021; Ha, 2015). Even the person with the highest power, the general secretary- Nguyen Phu Trong expressed his view of attaching importance to protecting culture and heritage rights at the 13th Congress of the Communist Party of Vietnam (Communist Party of Vietnam, 2021: 143). Moreover, local governmental bodies have further supported these initiatives by issuing resolutions and guidelines for specific provinces (capital Hanoi, Quang Tri province).

Do & Ngo (2023) articulate a profound connection between patriotism and preservation of historical relics in Vietnam. They present patriotism not just as a feeling but as a philosophy that has shaped the Vietnamese spirit of independence, solidarity and humanism throughout history. This perspective aligns with Tran's (2023) analysis of the Nguyen Dynasty's contributions to Vietnamese art and architecture, illustrating how cultural heritage preservation is intertwined with national identity and pride.

Nguyen et al. (2023b) discusses the integration of Heritage Building Information Modeling (HBIM) and 3D laser digitization in Vietnam, marking a significant advance in digital heritage practices. In fact, their work highlights the potential for enhancing the tangible and intangible values of heritage sites. However, the limitations they note, including the need for investment in expertise, technology, and competitive openness, point to broader challenges in adopting these technologies across the heritage sector.

The case studies of digitalization efforts in Ho Chi Minh City (Nguyen et al., 2023c) and Hanoi (Doan Minh et al., 2021; Masciotta et al., 2023) further illustrate the practical applications of HBIM and digital documentation. These initiatives demonstrate the feasibility of employing digital tools for heritage management and public engagement. Nonetheless, the research reveals a need for more comprehensive strategies that encompass the preservation of physical integrity alongside digital representation, as well as a call for broader public participation in heritage conservation processes.

In contrast, Xiao et al. (2018) and Caciora et al. (2021) explore the intersection of sustainable tourism and cultural heritage promotion through the lens of geo-informatics and virtual reality. These studies emphasize the role of digital technologies in making cultural

heritage sites accessible, thereby supporting sustainable tourism practices that contribute to the UN Sustainable Development Goals. The innovative use of virtual reality in promoting Romanian wooden churches demonstrates the potential for technology to enhance visitor engagement and accessibility to heritage sites, presenting a model for other countries, including Vietnam.

The integration of digital technology in the preservation of Vietnamese heritage sites is also explored in various reports and articles (Ha Thu, 2022) and (Nguyen, 2023). These contributions highlight the challenges and opportunities presented by digital transformation in heritage conservation. They emphasize the importance of local initiatives and integrating cultural heritage into the digital economy, suggesting a need for inclusive strategies that balance technological advancement with cultural integrity preservation.

Avrami (2016) and Phung et al. (2024), examine the socio-economic benefits of preserving historical relics and emphasize the potential for heritage conservation to contribute to sustainable development. However, the intersection of preservation activities with local economic realities, including tourism, urban development, and community needs, requires further investigation to ensure that conservation efforts do not inadvertently contribute to social displacement or economic inequality.

Preservation and promotion of war relics, such as the Cu Chi tunnels and Vinh Moc tunnels, have been the focus of studies by Olson & Morton (2017) and Olson (2023a; 2023b). They provide a deep dive into the physical preservation and the educational and touristic potentials of the sites associated with the conflict history of Vietnam. They address not only the need for physical preservation but also explore the role of such sites in education, tourism, and shaping collective memory, highlighting the multifaceted approach required in conserving and promoting war relics.

Finally, the exploration of the cultural significance of war relics in Vietnam, has been captured in the diverse experiences of tourists at sites like the Cu Chi Tunnels (Quang et al., 2023; Madigan & West, 2023). They underscore the complex narratives and memories associated with these sites. They invite a deeper inquiry into how the war relics are presented, interpreted, and experienced, pointing to the need for a nuanced approach that respects the multi-faceted histories and perspectives of all stakeholders involved.

In summary, while significant strides have been made in the preservation and promotion of historical relics, mainly through the use of digital technologies, there remain critical gaps in our understanding of the socio-economic impacts, community engagement, and narrative complexities associated with these efforts. Future research should aim to bridge these gaps, fostering a holistic approach to heritage conservation that is inclusive, sustainable, and reflective of the diverse values and histories of the communities it serves.

Research Methodology

This research utilized a mixed-method approach incorporating document analysis, case studies, and direct observations to gather comprehensive insights into the preservation and promotion of historical relics from the Resistance War in Vietnam. The methodology is designed to ensure replicability and validity, which is essential for scientific rigor. Below, each data collection technique is detailed to provide clarity on the process and enable future researchers to replicate the study.

In the process of document analysis, a systematic review was carried out examining documents on government policies, legal frameworks, and existing academic research relevant to the preservation practices within Vietnam. The focus was primarily on materials that shed light on the relevance of historic preservation, the incorporation of advanced technologies in heritage conservation such as Historic Building Information Modelling (HBIM), Virtual Reality (VR), and Augmented Reality (AR), and the socio-economic repercussions associated with the conservation of historical relics. The selection criteria for these documents were stringent, only including publications from authoritative sources like the Vietnamese government, reputable academic journals, and international heritage organizations, spanning from 2000 to 2023. These documents were explicitly chosen for their direct discussion on the

strategies for the preservation and promotion of historical relics from the Resistance War era. From these sources, pivotal data were extracted, which included detailed descriptions of preservation policies and guidelines, elucidations on the technological interventions applied and their respective outcomes, as well as narratives on the socio-economic effects stemming from the conservation of these historical relics.

For the case studies, the Cu Chi Tunnels were chosen due to their significant historical value and the variety of preservation challenges each location presents. A range of collection techniques were employed to gather comprehensive data, including conducting interviews with site managers and local authorities to delve into the nuances of preservation efforts, challenges encountered, and their impacts on local communities and economies. Moreover, visitor data and feedback were analyzed to assess the effectiveness of promotional activities and their educational benefits for tourists. The examination of on-site preservation technologies and methodologies further enriched the data collection process. To facilitate this, visits were organized from January to March 2023, where research teams undertook structured interviews and meticulously recorded their observations and collected data from visitors. This data gathering was accomplished through detailed note-taking, obtaining audio recordings with the necessary permissions, and employing photography to capture the current state of preservation and the implementation of promotional activities at these sites.

Direct observations were conducted at the Cu Chi Tunnels, encompassing both their everyday operations and events specifically designed to promote these historical sites. The research team meticulously observed interactions between the visitors and the exhibits, paying close attention to the application of advanced technologies such as Historic Building Information Modelling (HBIM), Virtual Reality (VR), and Augmented Reality (AR). They also systematically documented the state of the relics' maintenance and preservation, alongside observing public engagement initiatives like educational tours and exhibitions to evaluate their success in highlighting the sites' historical significance. To ensure comprehensive documentation, standardized forms were utilized to record observations related to preservation efforts, technology use, and visitor interactions. Further, photographs and video recordings were employed to visually capture the condition of the relics and the execution of various promotional activities, thereby providing a multi-dimensional perspective on the effectiveness of the sites' preservation and engagement strategies.

The analysis of data collected through the three methods encompassed both quantitative approaches, including the evaluation of visitor statistics and survey outcomes, and qualitative measures, such as the content analysis of interview transcripts and thematic analysis of observation records. This mixed-method approach facilitated a comprehensive understanding of the prevailing situation regarding the preservation and promotion of historical relics in Vietnam. It illuminated practices that are effectively contributing to the preservation efforts and pinpointed areas where improvements are necessary, thereby offering a balanced view of the successes and challenges in the field.

This detailed methodology ensures that the research findings are grounded in systematically gathered and analyzed data, providing a robust basis for the study's conclusions and recommendations. By outlining the specific processes and criteria used for data collection and analysis, this approach enhances the study's transparency and replicability, contributing to the broader field of cultural heritage preservation research.

Findings

1. The Role of Preserving and Promoting the Value of Historical Relics in The Resistance War for Cultural and Educational Development in Vietnam Today

Vietnam, geographically narrow and historically vulnerable, has endured invasions across millennia. The nation's history is marked by prolonged conflicts with Chinese dynasties, starting from the Hai Ba Trung uprising in 40-43 AD and culminating in a decisive victory against the Qing in 1789 AD led by Emperor Nguyen Hue. More recently, Vietnam faced colonial and imperialist aggression from Western powers, specifically during the French Indochina War (1946-1954) and the Vietnam War (1954-1975), a period also referred to as the

resistance war era (Spector, 2023). While these conflicts have left behind numerous historical sites, they serve not merely as reminders of past strife but also as beacons of resilience and inspiration for the Vietnamese people. The resistance against French colonialism and American imperialism during 1946-1975, in particular, has left a profound legacy of historical relics in various locations, including Ho Chi Minh City and Quang Tri Province. These sites underscore the challenging yet resilient spirit of the nation during those turbulent decades.

1. Preserving and promoting the value of resistance to historical relics is an urgent task and a long-term foundation for fostering cultural preservation and education. The document of the 13th Party Congress clearly emphasized the importance of “protecting and promoting good and sustainable values in Vietnamese cultural traditions” (Communist Party of Vietnam, 2021: 143), implying the idea includes resistance-based relics. By preserving war remnants, the younger Vietnamese generation has a deeper understanding of the nation’s history. They gain historical knowledge and understand the sacrifices of ancestors while defending the country. From there, it naturally creates in them a love for their homeland. Promoting the Vietnamese people’s thousands of years of patriotic tradition is a vital philosophy. For the author of this article, only the solid patriotic tradition is the main reason to explain why the Vietnamese people have not been assimilated after many thousands of years of being colonized by Chinese feudal dynasties and was heavily influenced by Confucianism in Vietnam history (Nguyen et al., 2023a; Quyet, 2023; Quyet et al., 2023; Pham et al., 2023).
2. Preserving and promoting the value of resistant historical relics contributes to enhancing the spirit of solidarity of the entire nation. Solidarity is considered a precious tradition of the Vietnamese people, a source of extraordinary strength, creating a solid and fortified wall that is difficult to breach by the enemy’s military power. President Ho Chi Minh emphasized that solidarity is the key to achieving independence and freedom. He encouraged everyone to remember “to be of one mind, to be an ally” (Ho, 2011: 206) to protect the nation from invasion. Preserving and promoting the value of historical relics that are resistant is significant in raising awareness and the social responsibility of both communities and businesses. This helps prevent actions that violate ethics and laws and encourages the spirit of solidarity and mutual support in community and societal activities. The goal is to direct all efforts toward preserving and enriching the nation’s traditional culture in all aspects of life.

In short, resistance historical relics are not only a symbol of indomitable heroism but also a place for people to connect with the roots of national history. Preserving and promoting the value of historical relics enhances patriotism, national solidarity, and contributes to cultural and educational development in Vietnam.

2. Current Status of Preserving and Promoting the Values of Historical Relics in The Resistance War over the Past 25 Years in Vietnam

Twenty-five years ago, the 5th Central Resolution (Section VIII) in 1998 set out preserving and promoting cultural heritage. Cultural heritage is an invaluable asset that binds the national community, is the core of national identity, and is the basis for creating new values and cultural exchange. Pay great attention to preserving, inheriting, and promoting traditional and revolutionary cultural values, including tangible and intangible cultures (Ha, 2015). Next, the state promulgated the Cultural Heritage Law in 2001, and the government issued Decree No. 92/2002/ND-CP detailing the implementation of some articles of the Cultural Heritage Law in 2002. Relics are classified as historical-cultural, architectural and artistic, archaeological, scenic, and revolutionary historical relics (including historical relics of the resistance war). By 2006, the Documents of the 10th Congress of the Communist Party of Vietnam continued to

emphasize investment in preserving and embellishing historical relics of the resistance war while harmoniously combining the protection and promotion of heritage value with economic and tourism development activities (Hoang, 2021). Along with that spirit, at the 11th (2011), 12th (2016), and 13th (2021) Party Congresses, the issue of preserving, inheriting, and promoting traditional cultural values were emphasized. The revolution continues to be emphasized, deployed, and concretized in implementing conservation and promoting the value of historical resistance relics (Hoang, 2021).

The provinces have done an excellent job of propaganda to raise awareness of people's responsibilities about the role and importance of preserving and promoting the value of resistance war historical relics for socio-economic development. The People's Committees of the provinces issue documents guiding localities to organize the preservation and promotion of the value of resistance historical relics for socio-economic development, consistent with the specific characteristics of each province. The province's Department of Culture, Sports and Tourism regularly organizes promotional activities and introduces historical resistance relics to domestic and foreign delegations. At the same time, it coordinates with research institutes and scientists to research modern, practical solutions in conservation and promote value for sustainable economic development. In this article, the author examines the situation of preserving and promoting resistance war relics in some provinces/cities, such as Ho Chi Minh City and Quang Tri Province.

Ho Chi Minh City

Ho Chi Minh City has many famous resistance relics that have gone down in history, becoming legends and shining symbols of revolutionary patriotism in the Ho Chi Minh era, expressing the will and burning desire for national independence, typically Cu Chi Tunnels (Fig. 1), Nha Rong Wharf.



Fig. 1: Cu Chi Tunnels gate
Source: Author, 2023



Fig. 2: Sightseeing diagram of Ben Duoc
in Cu Chi Tunnels
Source: Author, 2023

The tunnels of Cu Chi are an immense network (Fig. 3) of connecting tunnels located in the Cu Chi District northwest of Ho Chi Minh City (Saigon), Vietnam (Mangold & Penycate, 2005; Madigan & West, 2023; Olson & Morton, 2017; Olson, 2023b).

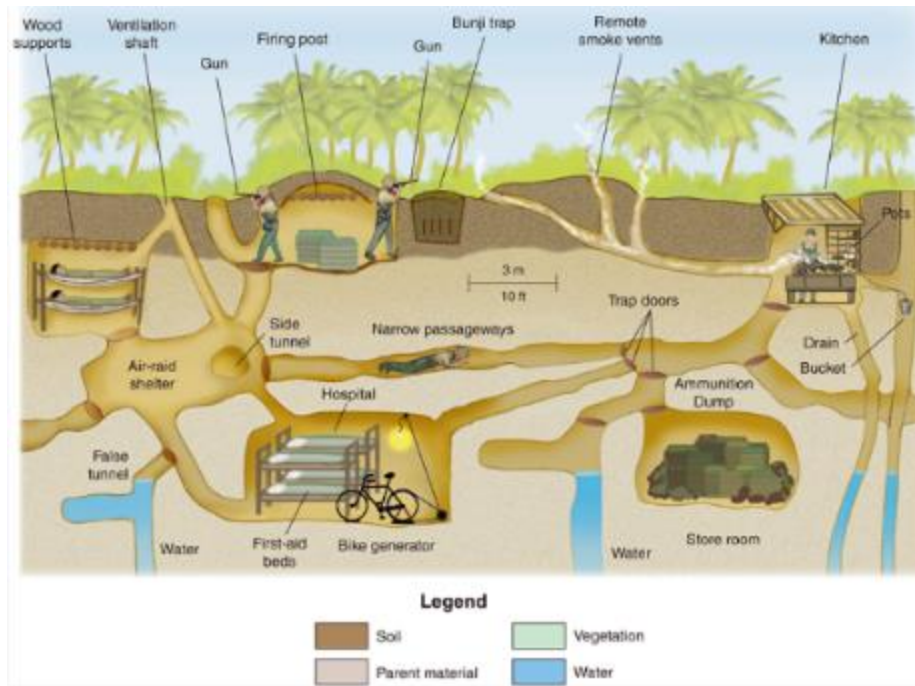


Fig. 3: Cu Chi soil tunnel complex
Source: Olson & Morton, 2017

The 121 km-long tunnel complex at Cu Chi has been preserved by the government of Vietnam and turned into a war memorial park with two different tunnel display sites, Ben Dinh tunnels and Ben Duoc tunnels (Fig. 2). The tunnels are narrow and often cramped, designed to accommodate only one person at a time. The Cu Chi tunnels were the location of several military campaigns during the Vietnam War and were the Viet Cong's base of operations for the Tet Offensive in 1968 (Olson, 2023a). Some Western scholars state that the Cu Chi Tunnels were excavated on laterite clay with high iron content and, in general, have relatively high adhesion and internal friction angle, so they have high resilience, thereby can withstand bombs during the Vietnam War (Elmo & Mitelman, 2023; Olson & Morton, 2017). Viet Cong soldiers used the tunnels as hiding spots during combat, as well as serving as communication and supply routes, hospitals, food and weapon caches and living quarters for numerous North Vietnamese fighters. The tunnel systems were of great importance to the Viet Cong in their resistance to American forces and helped to counter the growing American military presence in South Vietnam.

Over the years, Ho Chi Minh City's Committee and the Department of Culture, Sports and Tourism have excelled in preserving and enhancing the value of resistance war relics, such as the Cu Chi tunnels. Notable efforts include constructing memorial and traditional houses, restoring damaged structures, and broadening pathways to improve tourist access.

To boost tourism and educational outreach, the city has digitized documents related to these relics and developed websites to showcase their cultural significance globally. This initiative aligns with global trends in heritage preservation, where technologies like HBIM (Historic Building Information Modeling) are utilized to maintain historical sites worldwide, such as Romanian churches and UNESCO projects (Caciora et al., 2021; López et al., 2018; Masciotta et al., 2023; Xiao et al., 2018).



Fig. 4: A bunker at Cu Chi tunnels base
Source: Author, 2023



Fig. 5: The vent cover is camouflaged by termite mounds in the Cu Chi tunnels
Source: Author, 2023



Fig. 6: A tunnel section in Cu Chi tunnels
Source: Author, 2023



Fig. 7: Inside the Cu Chi tunnels
Source: Author, 2023

In terms of educational initiatives, Ho Chi Minh City mandates university students to visit the Cu Chi Tunnels, fostering a deep understanding of national history from an early stage in their academic careers (Fig. 8). According to author's direct observations in research and the author's (2002) experience, this practice has been in place for more than two decades, emphasizing the city's commitment to instilling patriotism among young people.



Fig. 8: Vietnamese young generation learns about the history of the Cu Chi tunnels
Source: Author, 2023

The city also incorporates cultural enrichment activities by hosting art performances, historical film screenings, and promoting local products. Travel agencies offer tours that include interactive experiences like shooting ranges, which have significantly attracted tourists. According to the Ho Chi Minh City Department of Tourism, the city welcomed 350,000 international visitors in August 2023 alone and saw a 92.3% increase in tourist visits over the first eight months of the year, reaching 54.3% of the annual tourism target (Gia, 2023).

Despite these advances, the integration of more cutting-edge technologies such as VR (Virtual Reality) and AR (Augmented Reality) in the preservation and presentation of resistance war relics is still in its infancy. Limited applications of these technologies have been noted, primarily in initial studies aiming to enhance cultural heritage conservation and tourism (Nguyen et al., 2023c; Nguyen et al., 2023b).

Preservation and Management at the Cu Chi tunnels, designated as a national monument in 2015, have seen significant improvement. Interviews with site management highlight the collaborative efforts of both central and city-level governments in maintaining conservation standards. These include reinforcing surface-level tunnels with concrete to protect against weather-induced erosion and subsidence near the Saigon River, although further comprehensive solutions are needed to safeguard deeper tunnel structures.

Technological Integration and Visitor Services at the site are evolving. Investments in 3D projection models and automated tour guides are underway, with future plans to incorporate VR and AR to enhance visitor engagement. Current technology use during tours is minimal (Fig. 8), but the commitment to these technologies suggests a strong potential for improving the educational and experiential aspects of visits. Visitor surveys have given an average satisfaction score of 8.5/10, indicating the effective use of the site's architecture and historical narratives in enriching visitor experiences.

The Economic and Community Impact of the site extends beyond historical preservation. Management initiatives have effectively engaged the local community and leveraged media partnerships, enhancing local quality of life and effectively promoting the site. This dynamic has created a robust framework for both preserving and valorizing the Cu Chi tunnels, reflecting strong community pride and engagement.

However, challenges persist, mainly due to the ongoing need for advanced technological implementations and infrastructure development to support them. High costs and complex requirements for these technologies suggest a cautious yet forward-thinking approach to modernization. Visitor feedback calls for improvements in guide quality, interactive activities, and amenities, presenting opportunities to enhance the overall visitor experience.

The comprehensive management of the Cu Chi tunnels has proven effective in maintaining the site's integrity and leveraging community involvement. Despite the successes in navigating the challenges of conservation, technological advancement, and economic impact, there remains a constant need for innovation and resource allocation to sustain and enhance the site's relevance and appeal for future generations.

Quang Tri province

Quang Tri province is the locality with the most revolutionary resistance relics in the country, with 524 relics, of which 445 provincial-level revolutionary historical relics have been recognized. Among them, the most famous resistance relic is the Vinh Moc Tunnels. The tunnel complex lies in Quang Tri province, north of the Ben Hai River (Fig. 9). It was constructed in three stages (first level 12m deep, second and third with 15m and 23m respectively) beginning in 1966 and used until early 1972. The total length of the tunnels is nearly 2,000 m long, with six entrances to the tops of hills and seven entrances to the South China Sea (Fig. 10). Much of the sub-strata of Vietnam is limestone, which is soft to dig through yet structurally sound. The limestone allows easy hand digging of the tunnels, and no structural supports are necessary. The complex grew to include wells, kitchens, rooms for each family and spaces for healthcare. Around sixty families lived in the tunnels; as many as 17 children were born inside the tunnels.



Fig. 9: Vinh Moc tunnels in the north of Ben Hai river

Source: Olson, 2023



Fig. 10: The structure plan of the Vinh Moc tunnel complex

Source: Justin Ngoc Pham, 2023

The issue of preserving and promoting resistance war relics has received attention from the provincial government, and Resolution No. 17/2013/NQ-HDND (2013) on investment, conservation, restoration, and prevention of system degradation has been issued. System of historical and cultural relics of Quang Tri province, period 2013 - 2020. The goal of this document is to preserve relics and promote the province's socio-economic development. Invite businesses and investors to coordinate with the Department of Culture, Sports and Tourism and the Department of Culture to form a series of visits and tours for domestic and foreign tourists. Every year, the provincial government evaluates the quality of resistance war relics to make plans for repair and restoration. Conduct surveys and evaluate the number of visitors to have an appropriate and effective promotion plan. According to statistics from the Department of Culture, Sports and Tourism of the province, the average growth rate of tourists in the 2016-2020 period in the province increased by 7%/year, of which international visitors were 3.25%/year, domestic tourists were 9%/year (Tran, 2021). However, besides the results achieved in Quang Tri province, there are still some limitations in awareness and implementation. Some leaders of the commune and ward authorities have not paid attention to propaganda and promoting the value of resistance war relics for sustainable socio-economic development. The content, form and promotion measures are not flexible, and digital transformation in conservation work has not even been implemented.

In summary, the preservation and promotion of resistance war relics in Vietnam have yielded varying levels of success, influenced by the specific conditions of each province and city. From the central to the provincial governments, there are established laws and guidelines that support the conservation efforts of these relics. These efforts not only preserve spiritual values but also potentially enhance educational and cultural development. Over time, this contributes to the realization of President Ho Chi Minh's vision for a strong Vietnam, standing on equal footing with global powers (Quy et al., 2023).

Proposed Short-Term Solutions for Vietnam

Cultural heritage conservation activities have achieved some achievements, but many limitations still exist. Many new technologies have not been applied in conservation, still in the testing phase of HBIM, VR, and AR technology (Nguyen et al., 2023c; Nguyen et al., 2023b; Doan Minh et al., 2021); even digitizing documents about relics is lacking in some provinces. Awareness of the significance of cultural heritage has increased but has yet to be clearly expressed in specific measures and plans. Social resources need to be properly focused on urgent priorities. In preserving monuments, new contributions mainly focus on construction, with a shortfall in renovation. Capital management needs to be more flexible, leading to ineffective renovations. In the preservation of intangible cultural heritage, there is the phenomenon of misuse and commercialization of heritage. The museum needs help in cooperation and sponsorship, especially from businesses. The legal framework and incentive policies still need to be improved. The team of professional staff needs to be strengthened, especially in remote areas (Dang, 2018).

This research thus proposes the following solutions with the above limitations in preserving and promoting the value of resistance war relics in Vietnam.

1) New technologies

These include technologies such as Terrestrial Laser Scanning, Light Detection and Ranging, Structure from Motion, UAV, HBIM, virtual reality, and AR, should be applied to preserve and promote the value of monuments.

When it comes to applying new technology in conservation, there have been many applications worldwide, typically at Sapienza University in Rome. In the past 13 years, Vietnam has begun to be interested in applying new technology for conservation, such as Hanoi's Old Quarter in 2017 (Dieu Anh, 2020), the French Colonial Villas in Hanoi (Doan Minh et al., 2021), Hung King's temple in Ho Chi Minh city. The author argues that applying the following new technologies in preserving and promoting historical relics of the resistance war is necessary. The new technologies used are divided into three aspects:

- Detection of monuments and restoration: LASER CLOUD software can reconstruct entire building blocks (3D Orthophoto). 3D Scan technology includes two types: Terrestrial Laser Scanning (TLS), Light Detection, and Ranging (LiDAR). Recently, with the development of satellite positioning technology, drone technology, UAV technology, 3D imaging algorithms, and Structure from Motion (SfM). Many countries have successfully applied 3D Scanning from above using UAV, helping to collect 3D data comprehensively and at a lower price than LiDAR technology.
- Heritage archiving and management: BIM technology can be used for building information modeling integrated with GIS, collectively known as HBIM.
- Managing aspects of display, promotion, and introduction to visitors: virtual reality, augmented reality and 4D film.

2) Propaganda and education

These should be intensified to raise awareness and responsibility regarding the importance of preserving and promoting the value of resistance war relics.

Specific programs and actions should be developed to engage everyone, especially students, in communication activities that highlight the significance of these monuments. All members within the political system must enhance their roles and responsibilities in preserving and promoting these cultural values and resistance relics. This initiative encourages community and business participation alongside local authorities in investing efforts into promotional and communication activities. Building a high sense of duty among the populace towards preserving and promoting the value of resistance war relics is essential, stimulating active participation and practical proposals to foster development in collaboration with the government. Propaganda and education efforts must be conducted regularly, particularly during holidays and weekends, to create a unified impact from all communication forms and methods.

3) Regularly organize activities

These should introduce and promote the value of resistance war relics, focusing on their cultural significance.

Each locality should have a clear plan and a unified approach among leaders to promote these relics. The Department of Culture, Sports, and Tourism should advise and propose significant events, cultural programs, and movie screenings that highlight the historical importance of these sites. Establishing highlights and typical products at each relic is crucial. Promotional activities must be diverse and tailored to local conditions, aiming to honor the cultural values of resistance relics and express gratitude for the sacrifices of previous generations. These activities should achieve community consensus and maintain the sacredness of the relics. Integrating these promotional activities with cultural ethics education is vital to instill pride and social responsibility in the younger generation. In the context of global connectivity, promoting the value of resistance war relics is increasingly vital so the young

generation can appreciate history, maintain cultural identity, and develop into civilized and responsible individuals.

4) Statutory control

It is suggested that the authorities should strengthen inspections on conservation activities and the promotion of the value of resistance war relics

To ensure effectiveness, the Department of Culture, Sports, and Tourism, along with local authorities, must enhance their capacity to inspect, examine, and supervise, especially at the commune level. The objectives, requirements, and tasks of the inspection and supervision plans need to be clearly defined. This activity aims to identify and rectify management and implementation errors, and at the same time, clarify the responsibilities of each organization and individual. Authorities should acknowledge outstanding efforts in preserving and promoting the value of resistance war relics while also addressing and correcting violations of State regulations. During inspection and supervision, authorities must prioritize national and ethnic interests and introduce innovative measures to create significant improvements at each phase and step. Enhancing inspection and examination work demonstrates social and political responsibility, contributing to the promotion and recognition of the Vietnamese people's virtues and affirming deep human values in all activities and specific fields.

Conclusion

This comprehensive study on the preservation and promotion of Vietnam's Resistance War heritage sites has established that these historical relics are not only cultural treasures but also significant educational tools. The research achieved its objectives by shedding light on the current state of preservation efforts, the integration of advanced technologies, and the educational roles of these sites.

The specific conclusions of this study emphasize the critical role of these historical sites in promoting cultural identity and educational enrichment, offering profound connections to Vietnam's historical narrative and fostering patriotism. While there have been advancements in preservation technologies such as HBIM, VR, and AR, their application remains in the early stages, indicating a vast untapped potential to revolutionize how heritage preservation enhances visitor interactions. Community involvement and educational programs at these sites have been effective in bolstering public appreciation and understanding of the relics' cultural significance, although more consistent and widespread strategies are needed. There is a significant disconnect between the established preservation policies and their practical execution, particularly concerning technological and educational applications, suggesting a misalignment in resource allocation and policy implementation. Additionally, while these sites are pivotal for socio-economic development through tourism and community involvement, there remains a critical need to better balance commercial exploitation with heritage preservation.

The research stands out for its comprehensive methodological approach, utilizing a mixed-methods strategy that includes document review, case studies, and direct observations to compile a robust dataset for insightful analysis. It effectively highlights the role of new technologies in heritage preservation, offering a progressive perspective on potential enhancements and underscores the extensive social implications of these sites on community engagement and education. However, the study also has certain weaknesses. Its geographic scope is limited to specific areas like Ho Chi Minh City and Quang Tri Province, which may not fully represent the preservation status of Resistance War sites across Vietnam. Moreover, while recognizing the potential of advanced technologies, the study does not fully address the barriers to their broader implementation. It also lacks a thorough economic analysis necessary to quantify the socio-economic benefits and costs associated with different preservation strategies.

Future research should aim to expand the geographic scope of case studies to include a broader array of sites across Vietnam and incorporate a deeper economic analysis to fully understand the impact of preservation efforts. Further studies could also explore detailed

models for effective technology integration and community engagement strategies to enhance both the preservation and educational use of these important sites.

Overall, this study makes a significant contribution to the field of cultural heritage preservation by highlighting the educational value of Vietnam's Resistance War relics and proposing actionable strategies to enhance their preservation and use.

Acknowledgement

This research was funded by the Ministry of Education and Training (Vietnam) under project Grant No. B2024-SPK-06, and hosted by Ho Chi Minh University of Technology and Education in Ho Chi Minh City, Vietnam. The author expresses deep appreciation to the anonymous reviewers whose invaluable feedback greatly enhanced the manuscript.

References

- Avrami, E. (2016) Making Historic Preservation Sustainable. *Journal of the American Planning Association*, Vol. 82, pp. 104-112. Available at: <https://doi.org/10.1080/01944363.2015.1126196>.
- Baglioni, M., Poggi, G., Chelazzi, D. & Baglioni, P. (2021) Advanced Materials in Cultural Heritage Conservation. *Molecules*, Vol. 26, No. 13, pp. 3967. Available at: <https://doi.org/10.3390/molecules26133967>.
- Belhi, A., Foufou, S., Bouras, A. & Sadka, A. H. Digitization and Preservation of Cultural Heritage Products. In: Ríos, J., Bernard, A., Bouras, A. & Foufou, S., eds. *Product Lifecycle Management and the Industry of the Future*, 2017 2017 Cham. Springer International Publishing, pp. 241-253. Available at: https://doi.org/10.1007/978-3-319-72905-3_22.
- Bloom, P. (1996) Intention, history, and artifact concepts. *Cognition*, Vol. 60, No. 1, pp. 1-29. Available at: [https://doi.org/10.1016/0010-0277\(95\)00699-0](https://doi.org/10.1016/0010-0277(95)00699-0).
- Caciora, T., Herman, G. V., Ilieş, A., Baias, Ş., Ilieş, D. C., Josan, I. & Hodor, N. (2021) The Use of Virtual Reality to Promote Sustainable Tourism: A Case Study of Wooden Churches Historical Monuments from Romania. *Remote Sensing*, Vol. 13, No. 9, pp. 1758. Available at: <https://doi.org/10.3390/rs13091758>.
- Carter, B. & Grimwade, G. (1997) Balancing use and preservation in cultural heritage management. *International Journal of Heritage Studies*, Vol. 3, No. 1, pp. 45-53. Available at: <https://doi.org/10.1080/13527259708722186>.
- Communist Party of Vietnam (2021) *Document of the 13th National Party Congress*, Hanoi: National Political Publishing House.
- Dang, T. B. L. (2018) *Socializing cultural heritage conservation activities in our country today* [Online]. Hanoi: Communist Review. Available at: <https://www.tapchiconsan.org.vn/web/guest/nguyen-cu/-/2018/51362/xa-hoi-hoa-hoat-dong-bao-ton-di-san-van-hoa-o-nuoc-ta-hien-nay.aspx> [Accessed Dec 29th, 2023].
- Dieu Anh (2020) *Applying 4.0 technology to preserve, embellish and promote the value of Hanoi's Old Quarter* [Online]. Hanoi: Construction Review. Available at: <https://baoxaydung.com.vn/ung-dung-cong-nghe-40-de-bao-ton-ton-tao-va-phat-huy-gia-tri-khu-pho-co-ha-noi-290798.html> [Accessed Dec 13th, 2023].
- Do, T. & Ngo, H. Q. (2023) Patriotism: The Philosophical Foundation of the Vietnamese People and its Manifestations in the Rural Villages. *ISVS e-journal*, Vol. 10, No. 4, pp. 119-133. Available at: http://isvshome.com/pdf/ISVS_10-4/ISVSej_10.4.8.pdf
- Doan Minh, K., Bui, N. P. & Doan, T. M. (2021) Towards Developing the Smart Cultural Heritage Management of the French Colonial Villas in Hanoi, Vietnam. *International Journal of Sustainable Construction Engineering and Technology*, Vol. 12, No. 1, pp. 296-313. Available at: <https://publisher.uthm.edu.my/ojs/index.php/IJSCET/article/view/8594>
- Edelheim, J., Joppe, M., Flaherty, J., Armano, L., Höckert, E., Lüthje, M., Abildgaard, M. S., Day, J., Häikiö, S., Huhmarniemi, M., Kugapi, O., Naumov, N., Ren, C. & Väyrynen, M. (2022) Cultural values. In: Edelheim, J., Joppe, M. & Flaherty, J. (eds.) *Teaching*

- Tourism: Innovative, Values-based Learning Experiences for Transformative Practices* (pp. 50–58). Cheltenham: Edward Elgar Publishing. Available at: <https://doi.org/10.4337/9781800374560.00013>.
- Elmo, D. & Mitelman, A. (2023) A Case Study of Thin Concrete Wall Elements Subjected to Ground Loads. *Buildings*, Vol. 13, No. 3, pp. 713. Available at: <https://doi.org/10.3390/buildings13030713>.
- Fuhler, C. J., Farris, P. J. & Nelson, P. A. (2006) Building Literacy Skills Across the Curriculum: Forging Connections With the Past Through Artifacts. *The Reading Teacher*, Vol. 59, No. 7, pp. 646-659. Available at: <https://doi.org/10.1598/RT.59.7.4>.
- Gia, C. (2023) *Ho Chi Minh City: upgrading tourism development to become a key economic sector* [Online]. Hanoi: Finance Review. Available at: <https://thoibaotaichinhvietnam.vn/tp-ho-chi-minh-nang-tam-phat-trien-du-lich-tro-thanh-nganh-kinh-te-mui-nhon-136318.html> [Accessed Dec 27th, 2023].
- Ha, D. (2015) *Understanding the content of the Party's 10th Congress Documents* [Online]. Ho Chi Minh City: Ho Chi Minh National Academy of Politics. Available at: <http://lyluanchinhtri.vn/home/index.php/nguyen-cuu-ly-luan/item/802-nghi-quyet-trung-uong-5-khoa-viii-su-phat-trien-toan-dien-va-sang-tao-duong-loi-xay-dung-va-phat-trien-nen-van-hoa-viet-nam.html> [Accessed Dec 28th, 2023].
- Ha Thu (2022) *Digital transformation to preserve and sustainably promote heritage values* [Online]. Hanoi: Nhan Dan Newspaper. [Accessed Dec 25th, 2023].
- Herva, V.-P. & Nurmi, R. (2009) Beyond Consumption: Functionality, Artifact Biography, and Early Modernity in a European Periphery. *International Journal of Historical Archaeology*, Vol. 13, No. 2, pp. 158-182. Available at: <https://doi.org/10.1007/s10761-009-0080-3>.
- Ho, C. M. (2011) *Ho Chi Minh: Complete Works*, Hanoi: National Politics Publishing House.
- Hoang, T. (2021) *Improving the effectiveness of management, conservation and promotion of monument values in Vietnam today* [Online]. Hanoi: State Management Review. Available at: <https://www.quanlynhanuoc.vn/2021/04/29/nang-cao-hieu-qua-cong-tac-quan-ly-bao-ton-va-phat-huy-gia-tri-di-tich-o-viet-nam-hien-nay/> [Accessed Dec 28th, 2023].
- López, F. J., Lerones, P. M., Llamas, J., Gómez-García-Bermejo, J. & Zalama, E. (2018) A Review of Heritage Building Information Modeling (H-BIM). *Multimodal Technologies and Interaction*, Vol. 2, No. 2, pp. 21. Available at: <https://doi.org/10.3390/mti2020021>.
- Madigan, T. & West, B. (2023) Western tourism at Cu Chi and the memory of war in Vietnam: Dialogical effects of the carnivalesque. *Thesis Eleven*, Vol. 174, No. 1, pp. 118-134. Available at: <https://doi.org/10.1177/07255136221147954>.
- Mangold, T. & Penycate, J. (2005) *The Tunnels of Cu Chi: A Harrowing Account of America's Tunnel Rats in the Underground Battlefields of Vietnam*, New York: Presidio Press.
- Masciotta, M. G., Sanchez-Aparicio, L. J., Oliveira, D. V. & Gonzalez-Aguilera, D. (2023) Integration of Laser Scanning Technologies and 360° Photography for the Digital Documentation and Management of Cultural Heritage Buildings. *International Journal of Architectural Heritage*, Vol. 17, No. 1, pp. 56-75. Available at: <https://doi.org/10.1080/15583058.2022.2069062>.
- Newey, H. (2000) Conservation and the preservation of scientific and industrial collections. *Studies in Conservation*, Vol. 45, No. sup1, pp. 137-139. Available at: <https://doi.org/10.1179/sic.2000.45.Supplement-1.137>.
- Nguyen, M. (2023) *Applying technology in preserving and promoting heritage values* [Online]. Hanoi: Nature and Environment Magazine. [Accessed Dec 20th, 2023].
- Nguyen, Q. T., Pham, L. T. & Lai, N. V. (2023a) Confucius's political philosophy of governing the country: Historical and contemporary considerations. *XLinguae*, Vol. 13, No. 3, pp. 2-14. Available at: <https://doi.org/10.18355/XL.2023.16.03.01>.

- Nguyen, T. A., Do, S. T., Le-Hoai, L., Nguyen, V. T. & Pham, T.-A. (2023b) Practical workflow for cultural heritage digitalization and management: a case study in Vietnam. *International Journal of Construction Management*, Vol. 23, No. 13, pp. 2305-2319. Available at: <https://doi.org/10.1080/15623599.2022.2054268>.
- Nguyen, T. A., Do, S. T., Pham, T.-A., Nguyen, D. H. & Tamura, H. (2023c) Integration of H-BIM, Virtual Reality, and Augmented Reality in Digital Twin Era - A Case Study in Cultural Heritage. In: Reddy, J. N., Wang, C. M., Luong, V. H. & Le, A. T. (eds.) *ICSCA 2021* (pp. 303-312). Singapore: Springer. Available at: https://doi.org/10.1007/978-981-19-3303-5_24.
- Nordgren, K. & Johansson, M. (2015) Intercultural historical learning: a conceptual framework. *Journal of Curriculum Studies*, Vol. 47, No. 1, pp. 1-25. Available at: <https://doi.org/10.1080/00220272.2014.956795>.
- Olson, K. R. (2023a) How Did Vinh Moc Village, Located near Vietnam DMZ, Protect Their Villagers from United States Air Force Bombardment during the Vietnam War? *Open Journal of Soil Science*, Vol. 13, No. 1, pp. 1-27. Available at: <https://doi.org/10.4236/ojss.2023.131001>.
- Olson, K. R. (2023b) Saigon River Valley: A Navigation, Trade, Mitigation, Invasion, Liberation, and Unification Pathway. *Open Journal of Soil Science*, Vol. 13, pp. 46-82. Available at: <https://doi.org/10.4236/ojss.2023.132003>.
- Olson, K. R. & Morton, L. W. (2017) Why Were the Soil Tunnels of Cu Chi and Iron Triangle in Vietnam So Resilient? *Open Journal of Soil Science*, Vol. 7, pp. 34-51. Available at: <https://doi.org/10.4236/ojss.2017.72003>.
- Pham, L. T., Nguyen, T. V., Nguyen, H. T., Do, H. T. T., Nguyen, K. N. V. & Nguyen, Q. T. (2023) Between Communitarianism and Confucianism: Charles Taylor and the Confucian Concept of Self in Comparative Perspective. *Bogoslovni Vestnik*, Vol. 83, No. 3, pp. 553-566. Available at: <https://doi.org/10.34291/BV2023/03/Pham>.
- Phung, A. T., Nguyen, Q. T. & Le, C. Q. (2024) Changing Trends of The Peasantry Under The Impact of The Current Rural Urbanization Process in Vietnam. *ISVS e-journal*, Vol. 11, No. 2, pp. 39-47. Available at: <https://doi.org/10.61275/ISVSej-2024-11-02-03>.
- Quang, T. D., Dang Vo, N. M., Van Nguyen, H., Thi Nguyen, Q. X., Ting, H. & Vo-Thanh, T. (2023) Understanding tourists' experiences at war heritage sites in Ho Chi Minh city, Vietnam: a netnographic analysis of TripAdvisor reviews. *Leisure Studies*, Vol. 42, pp. 1-20. Available at: <https://doi.org/10.1080/02614367.2023.2249252>.
- Quyet, N. T. (2023) Confucius' conception of the political being and its significance for building the political being in present-day Vietnam. *IKENGA International Journal of Institute of African Studies*, Vol. 24, No. 2, pp. 1-23. Available at: <https://doi.org/10.53836/ijia/2023/24/2/003>.
- Quyet, N. T., Thanh, N. V. & Phuong, N. T. (2023) Ho Chi Minh's thoughts on the education of the young Vietnamese generation today. *Perspektivy Nauki i Obrazovania*, Vol. 62, No. 2, pp. 562-577. Available at: <https://doi.org/10.32744/pse.2023.2.33>.
- Spector, R. H. (2023) *Vietnam War (1954-1975)* [Online]. Britannica. Available at: <https://www.britannica.com/event/Vietnam-War> [Accessed Dec 29th, 2023].
- Spiridon, P. & Sandu, I. (2015) Conservation of cultural heritage: from participation to collaboration. *European Journal of Cultural Management and Policy*, Vol. 5, No. 1, pp. 43-52. Available at: <https://doi.org/10.3389/ejcmp.2023.v5iss1-article-4>.
- Stathopoulou, E. K., Georgopoulos, A., Panagiotopoulos, G. & Kaliampakos, D. Crowdsourcing Lost Cultural Heritage. In: *ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci.*, 2015 Taipei, Taiwan. Copernicus Publications, pp. 295-300. Available at: <https://doi.org/10.5194/isprsannals-II-5-W3-295-2015>.
- Tran, N. T. (2023) The Relationship Between Decorative Sculpture and Architecture: The Artistic Legacy of the Nguyen Dynasty of the Imperial City of Hue, Vietnam. *ISVS e-journal*, Vol. 10, No. 5, pp. 1-14. Available at: https://isvshome.com/pdf/ISVS_10-5/ISVS_10.5.1.pdf

- Tran, V. T. (2021) *Quảng Trị province: Promoting the work of preserving and promoting the value of provincial-level revolutionary historical relics* [Online]. Hanoi: Propaganda Review. Available at: <https://tuyengiao.vn/quang-tri-day-manh-cong-tac-bao-ton-va-phat-huy-gia-tri-cac-di-tich-lich-su-cach-mang-cap-tinh-137727> [Accessed Dec 29th, 2023].
- Trimble, S. W. (2008) The use of historical data and artifacts in geomorphology. *Progress in Physical Geography: Earth and Environment*, Vol. 32, No. 1, pp. 3-29. Available at: <https://doi.org/10.1177/0309133308089495>.
- Vecco, M. (2018) Some Economics of Conservation of Cultural Heritage: The Key Questions. In: Ngulube, P. (ed.) *Handbook of Research on Heritage Management and Preservation* (pp. 299-319). Hershey PA, USA: IGI Global. Available at: <https://doi.org/10.4018/978-1-5225-3137-1.CH015>.
- Xiao, W., Mills, J., Guidi, G., Rodríguez-Gonzálvez, P., Gonizzi Barsanti, S. & González-Aguilera, D. (2018) Geoinformatics for the conservation and promotion of cultural heritage in support of the UN Sustainable Development Goals. *ISPRS Journal of Photogrammetry and Remote Sensing*, Vol. 142, pp. 389-406. Available at: <https://doi.org/10.1016/j.isprsjprs.2018.01.001>.