







ORIGINAL

Utilising visual arts and design for the preservation of Ukraine's cultural heritage

Utilizar las artes visuales y el diseño para preservar el patrimonio cultural ucraniano

Volodymyr Vytkalov¹  , Inna Prokopchuk² , Polina Herchanivska³ , Anastasiia Kravchenko⁴ , Olena Kashshay⁵ 

¹Rivne State University for the Humanities. Department of Event Industries. Cultural Studies and Museum Studies. Rivne, Ukraine.

²National Forestry University of Ukraine. Department of Design, Lviv, Ukraine.

³Kyiv National University of Technologies and Design. Department of Philosophy and Cultural Studies. Kyiv, Ukraine.

⁴National Academy of Culture and Arts Management. Department of Creative Cultural Industries. Kyiv, Ukraine.

⁵National Academy of Fine Arts and Architecture. Faculty of Theory and History of Art. Department of Theory and History of Art. Kyiv, Ukraine.

Cite as: Vytkalov V, Prokopchuk I, Herchanivska P, Kravchenko A, Kashshay O. Utilising visual arts and design for the preservation of Ukraine's cultural heritage. *Salud, Ciencia y Tecnología - Serie de Conferencias*. 2025; 4:1512. <https://doi.org/10.56294/sctconf20251512>

Submitted: 17-08-2024

Revised: 25-12-2024

Accepted: 06-03-2025

Published: 07-03-2025

Editor: Prof. Dr. William Castillo-González 

Corresponding author: Volodymyr Vytkalov 

ABSTRACT

Introduction: the paper reveals the role of visual cultural practices and design in preserving Ukrainian cultural heritage. The relevance of the study is that our country is in a state of war, so cultural monuments are often destroyed both due to underfunding and physical damage during shelling.

Objective: the study aims to reveal the role of visual cultural practices and design in preserving Ukrainian cultural heritage. The object of the study is Ukrainian cultural heritage.

Method: the following methods were used in the work: description, analysis and synthesis, comparison, generalisation, systematic, and visualisation.

Results: the article reveals the role of visual cultural practices and design in preserving Ukrainian cultural heritage. It describes the development of design and visual cultural practices at present, their essence, and trends. It also determines how visual practices and design influence contemporary Ukrainian culture. Finally, it establishes that design and visual practices reflect the mentality of the Ukrainian people. The impact of a full-scale invasion on preserving cultural monuments and cultural heritage is characterised. The problems of preserving Ukrainian cultural heritage due to insufficient funding and military actions are identified.

Conclusions: cultural heritage requires special care, and its preservation is becoming a matter of national security. At the same time, modern design and visual practices are constantly improving, which leads to a growing need to introduce new approaches to preserving cultural heritage. In addition, given the risks of non-preserving cultural heritage, more and more attention is being paid to modern digital technologies in this area.

Keywords: Visual Practice; Virtual Tour; Preservation Of Cultural Objects; Modelling; Cultural Memory Plates; Ukrainian Cultural Heritage.

RESUMEN

Introducción: el artículo revela el papel de las prácticas culturales visuales y el diseño en la conservación del patrimonio cultural ucraniano. La relevancia del estudio radica en que nuestro país se encuentra en estado de guerra, por lo que los monumentos culturales suelen ser destruidos tanto por falta de financiación como por daños físicos durante los bombardeos.

Objetivo: el estudio pretende revelar el papel de las prácticas culturales visuales y el diseño en la conservación del patrimonio cultural ucraniano. El objeto del estudio es el patrimonio cultural ucraniano.

Método: en el trabajo se utilizaron los siguientes métodos: descripción, análisis y síntesis, comparación, generalización, sistemática y visualización.

Resultados: el artículo revela el papel de las prácticas culturales visuales y del diseño en la conservación del patrimonio cultural ucraniano. Describe el desarrollo del diseño y las prácticas culturales visuales en la actualidad, su esencia y tendencias. También determina cómo influyen las prácticas visuales y el diseño en la cultura ucraniana contemporánea. Por último, establece que el diseño y las prácticas visuales reflejan la mentalidad del pueblo ucraniano. Se caracteriza el impacto de una invasión a gran escala en la conservación de los monumentos culturales y el patrimonio cultural. Se identifican los problemas que plantea la conservación del patrimonio cultural ucraniano debido a la insuficiencia de fondos y a las acciones militares.

Conclusiones: el patrimonio cultural requiere un cuidado especial y su conservación se está convirtiendo en una cuestión de seguridad nacional. Al mismo tiempo, el diseño moderno y las prácticas visuales mejoran constantemente, lo que hace cada vez más necesario introducir nuevos enfoques para preservar el patrimonio cultural. Además, dados los riesgos de no preservar el patrimonio cultural, cada vez se presta más atención a las modernas tecnologías digitales en este ámbito.

Palabras clave: Práctica Visual; Visita Virtual; Conservación de Bienes Culturales; Modelado; Placas de Memoria Cultural; Patrimonio Cultural Ucraniano.

INTRODUCTION

Today, Ukrainian culture requires special attention. This is because, after the full-scale invasion, the world community began to pay considerable attention to Ukraine as a subject of international relations and to Ukrainian culture as a tool for shaping a positive image in the international arena.^(1,2) For our state, the reflection of culture and the dissemination of knowledge among the large global community is an opportunity to demonstrate its own identity and ability to continue to exist despite the enemy's attack.⁽³⁾

Culture is a communication tool.⁽⁴⁾ Cultural objects can be used to demonstrate the history of the state, the stages of its formation, and the standard of living of the population at each milestone of its development.⁽⁵⁾ Therefore, culture serves as a visual opportunity to demonstrate the achievements of science, technology, and art.⁽⁶⁾ At the same time, culture needs visualisation, as it must be perceived by an interested audience with the help of a visual analyser.⁽⁷⁾ Therefore, intangible culture, which exists in songs, chronicles, and poems, is still subsequently reproduced in tangible culture, such as paintings, sculptures, monuments, and interior items that we perceive by touch and before that are evaluated visually.⁽⁸⁾ The object of research is modern Ukrainian architecture and design.

Researchers such as Rohozha,⁽⁹⁾ Safonova,⁽¹⁰⁾ Sobitan and Vlachos,⁽¹¹⁾ Vermeulen⁽¹²⁾ and Vyskvarka⁽¹³⁾ have studied the role of visual cultural practices and design in the preservation of Ukrainian cultural heritage. They prove that modern design and visualisation practices significantly impact the preservation of Ukrainian cultural heritage.

In their article "Immersive event experience and attendee motivation: a quantitative analysis using sensory, localisation, and participatory factors", scientists Sobitan and Vlachos⁽¹¹⁾ expressed the opinion that design and modern visual practices have a significant impact on the development of cultural heritage. Thus, the use of visualisation, digital technologies, and the understanding of pragmatic design allows us to create ways of preserving cultural heritage that ensure the normal state of the cultural object and the possibility of displaying it in a copy format.

Scholar T. Vermeulen, in his work "Metamodernism. Supplanting the Postmodern: An Anthology of Writings on the Arts and Culture of the Early 21st Century", emphasises that contemporary design and visual practices together form a trend called metamodernism.⁽¹²⁾ Its essence lies in the fact that all cultural monuments should be preserved and form a single complex of cultural heritage harmoniously combined with the modern design of the environment and everyday life. Therefore, it is essential not only to preserve the monument but also to supplement it with new elements and modernise its appearance or even to show it differently.

The issue of preserving cultural heritage has always been relevant to humanity. Wars, natural disasters, and historical events led to people gradually losing the achievements of previous years of existence. That is why more and more attention was paid to design as a field that allows the preservation of cultural monuments and the highlighting of the identity of the people. At the same time, design has existed as a phenomenon since Ancient Rome and Ancient Greece, as it was clear that everything should be subject to the laws of aesthetics and beauty. We also find this in the work "Preservation of the cultural heritage of Ukraine in the conditions of war" of researcher Rohozha.⁽⁹⁾

Researcher Ya. Vyskvarka, in her work “The essence and development of the visual language of graphic design in Ukraine”, emphasises that, if we talk about the modern meaning of design, then in addition to reflecting the artistic perception of a person and the “spirit” of the time, it also has a pragmatic function. In particular, certain objects and buildings should be designed so that everything can be conveniently applied and used for its intended purpose. The emphasis is on functionality, environmental friendliness, and ergonomics. The peculiarity of design at the present stage is that it carries a significant semantic load. Thus, looking at a building or visiting it from the inside, we can already tell what it is intended for.⁽¹³⁾

In his article “The values-based approach to cultural and heritage preservation”, P. Jerome argues that design depends on the development of culture and history, so its principles can change according to the requirements of the times. In particular, the norms of form and logical understanding of the design of objects or structures may be violated. What becomes more important is the meaning that the designer puts into the work he or she creates, which may indicate his or her protest against the system that has been created. Therefore, design is intended to visualise the idea that arises in the artist, which indicates his ability to combine the practical and the artistic.⁽¹⁴⁾

Researcher E. Lupton, in his article “Design Is Storytelling”, suggests that with the development of design, more and more attention has been paid to visual cultural practices that serve as a visual reflection of the artist’s ideas. These practices aim to establish contact between the author of the artwork and the public. In contrast, visual cultural practices are aimed at human visual analysers, so they are created using tools that influence the perception of something. They have a deep meaning and are often constructed as visual illusions, making people think about what they see and thus form the idea that nothing in the world can be trusted.⁽¹⁵⁾

As the scholar W. Nitzky in his article “Mediating heritage preservation and rural development: Eco museum development in China”, visual cultural practices are based on the display of information, graphic signs, and graphic dimensions, which, with the help of mass communication and computer technology, are distributed to the audience and become available for reproduction. They combine creative ideas with the developments of modern technologies and thus successfully reproduce social conflicts and contradictions that may arise around creative objects.⁽¹⁶⁾

According to the scholar T. Safonova, the peculiarity of visual cultural practices is that they do not develop in a particular evolutionary process, as they arise when specific changes, shifts, and situations of contradiction appear in society. The formation of visual art cannot be correlated with an actual historical era, as it is influenced not so much by transformational factors in human history as by the availability of tools with which such art can be reproduced. In the article “Exposition of fragments of architectural monuments in urban design”, she says that modern visual cultural practices are pretty significant in terms of the development of digital technologies that reproduce any creative idea and allow you to calculate how much material will be used and what kind of appearance it will have in general.⁽¹⁰⁾

The combination of visual cultural practices and design significantly impacts the development of contemporary culture.⁽¹⁷⁾ First of all, this is reflected in the art through the reproduction of the mentality of the people, in particular, its sensual and emotional sphere, knowledge, and lyricism.⁽¹⁸⁾ Thus, the Ukrainian mentality in design and visual practices is reproduced by showing such features of Ukrainians as sincerity, humour, desire for the romantic, and diversity of views on life.⁽¹⁹⁾ According to this, design and visual practices reproduce the diversity of the Ukrainian soul, its sincerity, unpretentiousness, and harmony.⁽²⁰⁾

It also reflects the fact that Ukrainians are comfortable in any living conditions, and at the same time, they constantly strive for comfort, as well as pragmatism and functionality are essential to them, as emphasised by researchers Vytkaľov *et al.*⁽²¹⁾ Accordingly, Ukrainian culture in design and visual arts is structured and heavily influenced by historical factors.

Therefore, the available research is sufficient to consider the role of visual cultural practices and design in preserving Ukrainian cultural heritage.

The paper aims to reveal the role of visual cultural practices and design in preserving Ukrainian cultural heritage. This work is necessary because the issue of preserving Ukrainian cultural monuments and cultural heritage, in general, is becoming important in connection with the Russian-Ukrainian war. In addition, design and contemporary visual practices are constantly improving, which affects the forms and methods of preserving cultural objects.

METHOD

The following research methods were used in the study: description, analysis and synthesis, comparison, content analysis, generalisation, systematic, visualisation, method of literary analysis. The description method was used to demonstrate the development of modern design and visual practices. The method of analysis and synthesis was operated to reflect the impact of design and visual practices on Ukrainian cultural heritage. The comparison method was employed to correlate different cultural heritage preservation methods. The method of generalisation was used to summarise the results of the study. The systematic method was utilised to consistently depict the relationship between design and visual practices regarding cultural heritage

preservation. The visualisation method was used to visualise cultural heritage preservation practices. The content analysis is used in the work in order to demonstrate how traditions have been combined with modernity on the official sites of cultural monuments. The method of literary analysis made it possible to discover that the object of research is widely considered by scientists and has prospects for further research.

RESULTS

The significance of visual cultural practices and design is related to communication with the cultural connoisseur and the preservation of cultural heritage. The ability to preserve the viewable appearance of a particular object or subject allows us to talk about the ability of culture to influence the formation of statehood and art. We cannot talk about a country's culture without preserved cultural monuments and objects of cultural value, as this allows us to talk about the nation's perception of itself as an original ethnic entity with its own unique culture.

Cultural heritage suffers from funding problems. In times of war, municipal budgets do not have enough money to restore and overhaul objects of cultural value. Often, cosmetic repairs are carried out less frequently than they should be, which leads to cultural sites being destroyed by themselves and their elements being damaged.

Preserving cultural heritage in Ukraine requires the application of the latest approaches to visual practices and design.⁽²²⁾ As the country is at war, it is essential not only to physically preserve a valuable object but also to create a digital copy of it and modernise approaches to the display of cultural heritage objects.

A compelling visual practice for preserving cultural heritage is 3D modelling. Its essence lies in the fact that a three-dimensional model of a cultural heritage object is created using digital technologies. It is created using laser scanning of the object, which allows preserving the size and shape of the object. The modelling also uses photometry, which allows obtaining clear photographs of the object. So, for the cultural heritage to be preserved and recreated using other materials, these techniques are combined.

At the present stage, we can identify the following methods of preserving cultural heritage, as shown in table 1.

Table 1. Methods of cultural heritage preservation

No	Method name	The essence of the method
1	Development of infrastructure around the cultural heritage site	Infrastructure is being built around the cultural heritage site to attract more visitors.
2	Developing a creative cluster	The cultural heritage site begins to serve as a public creative space or such a space is organised around it
3	Visual preservation	The cultural heritage object is stored in the form of a painting where it is depicted or in the form of a photograph
4	3D modelling	A 3D model of the cultural heritage object is created, in particular, in the form of a hologram
5	Virtual tour	Digital technologies are used to model the premises of a cultural heritage site and allow for taking a virtual walk through it
6	Design of cultural heritage signs	Cultural heritage signs are created in one design so that visitors can draw attention to such an object.
7	"Greenhouse"	Using a cultural heritage site as a component of energy infrastructure

For example, there is a sculpture of Yaroslav the Wise in St Sophia of Kyiv. It depicts his appearance and allows us to understand what people looked like 1000 years ago. The sculpture is significant because it depicts not only the prince's facial features but also his significance for culture, as he is holding St Sophia of Kyiv on his arm.

The significance of reproducing the image of Yaroslav the Wise in works of art is that he contributed to the flourishing of Kyivan Rus as a vital state. Therefore, the references to him are cultural heritage. To preserve cultural heritage, a 3D model of Yaroslav the Wise's face was created and installed as a hologram in St Sophia of Kyiv on 04 March 2021 (figure 1). This visual practice contributes to the understanding that cultural heritage can be modern and exciting to its followers.⁽²³⁾

Virtual tours are an essential visual practice used to preserve cultural heritage. Their peculiarity is that digital technologies allow guests to visit a place of cultural value and view such an object using computer technology at any convenient time. So, even if a cultural object is destroyed or damaged, information about it and its 3D space will be preserved in the digital world.

An example of a 3D tour in preserving cultural heritage is a virtual tour of the Museum of Ukrainian Domestic Icons. The Museum of Ukrainian Domestic Icons is the only museum of domestic icons in the world. It is essential for the culture of our country, as it has more than 5,000 icons in its collection, which is the largest Christian exposition. So preserving this heritage culture is essential for our country.

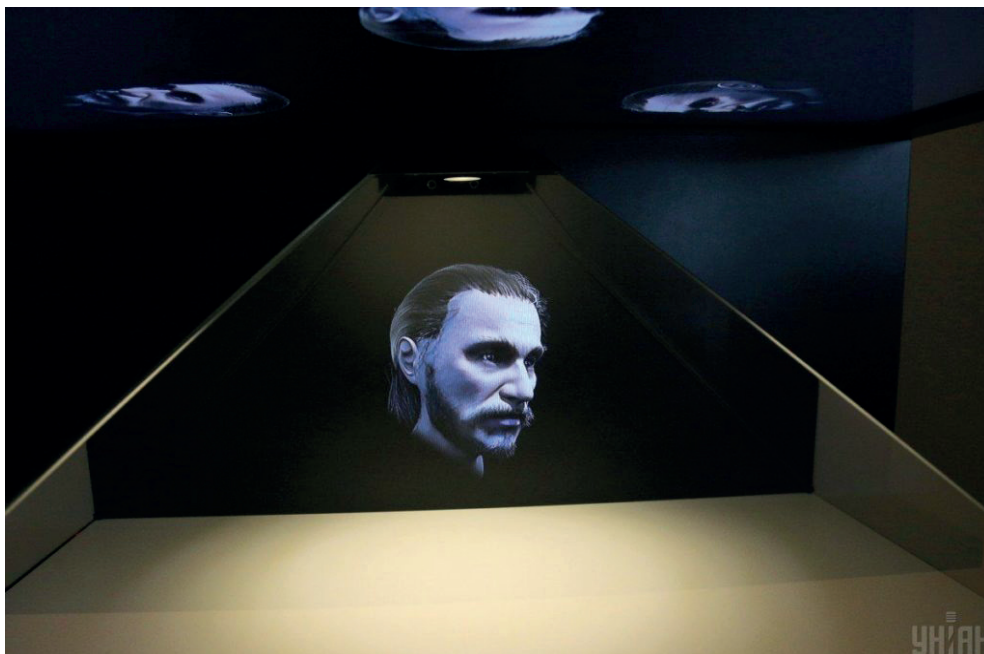


Figure 1. Hologram of Yaroslav the Wise
Source: Digitisation/Digitisation of cultural heritage.⁽²⁴⁾

In particular, the virtual tour allows you to use the arrows to move the image, thereby moving around the museum. In addition, you can use a digital magnifying glass and mouse wheel to zoom in and out of the image, allowing you to examine it more closely (figure 2).

The preservation of Ukraine's cultural monuments is greatly affected because our country's design of cultural monument signs differs. Nevertheless, the global Blue Shield system is gradually being introduced in Ukraine. In some cities, signs are placed for local monuments with the following inscription: "Cultural Heritage Site" in the form of a blue shield. Some communities additionally place information signs that tell more about the individual monument.

Also, the modern design of cultural heritage signs includes elements such as the object's address or the monument's location, a description of the object in Ukrainian and English, and an icon of the object. Such a sign can have a link to a unified register of monuments, which allows for quick checking of all materials from memory. Often, the signs have a thorough number of the monument and a barcode with a link to the monument's page so that anyone can quickly access information about the monument.

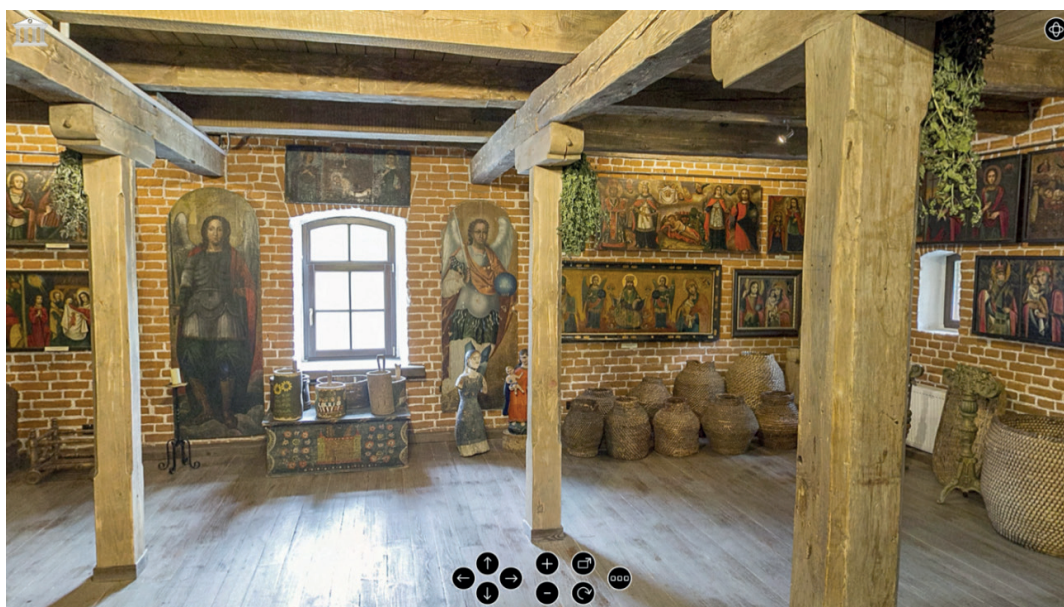


Figure 2. Virtual Tour of the Museum of Ukrainian Domestic Icons
Source: Museum portal⁽²⁵⁾



Figure 3. Design of a Cultural Heritage Sign
Source: Machulka⁽²⁶⁾

It should be noted that cultural heritage is protected by people who understand its value. Therefore, preserving monuments is not just a mark on a building but a full-fledged service that helps citizens learn more about the objects around them and quickly access all materials about them.

At present, tangible cultural heritage requires various design techniques to make the object interesting for visitors. In particular, this includes the design of the cultural heritage site in an authentic style and the use of objects from the relevant historical period and the design of objects located nearby as tourist infrastructure in an authentic style. Quite often, this can be correlated with the estates of famous people, which are decorated in the style of the time when they lived, as well as cafes and hotels located nearby and having a similar authentic design.

In particular, there is the Naguyevychi Museum-Estate in the Lviv region. The museum complex includes buildings stylised to match the era in which Ivan Franko lived, corresponding to the household items inside. Next to the estate is the Lelecha Oselya restaurant and hotel, which contains elements of stylised Ukrainian village huts. This design allows us to draw attention to preserving the Ivan Franko Manor cultural site (figure 4).



Figure 4. Interior Design of the Restaurant and Hotel "Lelecha Oselya"
Source: ZruchnoTravel.⁽²⁷⁾

Visual cultural practices also impact the need to develop augmented reality elements. The essence of this technology is that there is a device with a developed digital image and a device to which it is broadcast. At the same time, such a device does not replace reality. Instead, it adds something else to it, not only images but also sounds and other analysers, which allows for feeling part of a specific altered space.



Figure 5. Augmented reality mirror at the National Museum of Chernobyl

Source: Emuseum.⁽²⁸⁾

The use of augmented reality positively impacts the preservation of cultural heritage, as visitors feel as if they are witnessing a specific historical era and thus develop an understanding of the significance of the culture of a specific period. An example is using the Augmented Reality Mirror at the National Museum of Chernobyl. Visitors can not only get acquainted with objects and historical photos related to the history of the Chernobyl explosion but also use the augmented reality mirror to try on the costumes of the liquidators virtually. To do this, you need to stand in front of a mirror, which will show you how you would look if you wore such a costume. This is a non-standard experience for visitors, as you can move and see that the virtual suit is still on you.

Therefore, we can talk about the widespread use of various visual and design practices in the national cultural space to preserve cultural heritage sites. At the same time, the question of such approaches' effectiveness and appropriateness during martial law is acute.

DISCUSSION

The issue of the role of visual cultural practices and design in the preservation of Ukrainian cultural heritage is quite controversial. First, this can be explained by the fact that the preservation of cultural heritage is an essential area of activity for our country, as it has become a matter of national identity and international image since the beginning of the war. Therefore, various visual and design practices should be applied to preserve the cultural objects of our country and the cultural heritage that has intangible expression.

According to Award,⁽²⁹⁾ the importance of preserving cultural monuments and heritage has increased since the beginning of the full-scale invasion. Thus, many cultural monuments and centres have been destroyed, others damaged, and still others are being destroyed. All of this indicates that special attention should be paid to preserving these monuments, as the enemy is deliberately trying to destroy cultural heritage to make our history unproven and demonstrate that we do not have our own culture.

Given globalisation's impact on all spheres of life, the state should also use modern practices to preserve cultural heritage. Scientist Chorna⁽³⁰⁾ says that it should use tools to visually demonstrate Ukrainian culture and express the originality of design, which also refers to modern practices of art transformation. In addition, it should encourage connoisseurs of culture and art to carry out new cultural and artistic searches, generate their ideas, and transform culture into something modern.

Researcher Piaseckyj⁽³¹⁾ says that the use of design and visual cultural practices in the preservation of cultural heritage should be based on modern digital technologies and the latest artistic techniques. This will not only preserve an object of cultural value but also create an art object from it that will be interesting to art lovers. In addition, it allows preserving cultural heritage in various formats, which makes it attractive to other connoisseurs and scholars.

At the same time, the question arises that using such modern practices requires state funding and material resources to implement the ideas of preserving cultural heritage.⁽³²⁾ However, it may not be entirely appropriate to use funds for this in a time of war, as it is vital to fund our military. Therefore, even if culture is essential, the public perception of such trends may be harmful. In addition, using modern practices requires a certain level of social development, which we do not yet have.

CONCLUSION

Since this paper has revealed the role of visual cultural practices and design in preserving Ukrainian cultural heritage, we can discuss the importance of considering this issue in the context of war. Thus, it has been established that design and visual practices as a phenomenon appeared long ago but have only now been embodied in public understanding. That Ukrainian cultural heritage is preserved with the help of visual cultural practices and design in the format of modelling, virtual tours, and cultural heritage plates. These forms are modern and allow preserving cultural heritage in an acceptable form. Thus, the study revealed that cultural heritage is essential for our country. Modern visual practices and design help preserve it, even despite the state of war in our country.

REFERENCES

1. Chandran R, Chon H. Redefining Heritage and Cultural Preservation through Design: A Framework for Experience Design. In: Bruyns, G., Wei, H. (Eds.), *With Design: Reinventing Design Modes*. IASDR 2021. Springer, Singapore; [Internet] 2022. Available in: https://doi.org/10.1007/978-981-19-4472-7_82
2. Murao M. *Designing Immersive Art Experience - an exploration of visuals and sounds*. Berkeley: University of California Press; 2022. 69 p.
3. Campfens E. *Ukrainian Cultural Heritage: Sectoral Analysis*. Odesa: PACT; 2023. 13 p.
4. Watson S, Waterton E. Reading the visual: representation and narrative in the construction of heritage. *Material Culture Review*. 2010;71:84-96.
5. Campfens E, Jakubowski A, Hausler K, Selter E. Research for CULT Committee - Protecting cultural heritage from armed conflicts in Ukraine and beyond, European Parliament, Policy Department for Structural and Cohesion Policies. Brussels. 2023;1:34-45.
6. Hubernator O. Development of Immersive Cultural Practices in Ukraine in the Context of Metamodernism (2015-2023). *Research*. 2023;3:25-35.
7. Fedorova K. Digital culture as a visual practice. *Socio-political journal*. [Internet] 2022;1:109-114. Available in: <https://doi.org/10.24195/spj1561-1264.2022.1.15>
8. Bondar I, Semyroz N, Podhaietska Y. Design and architecture of memory objects. *Demiurge: ideas, technologies, perspectives of design*. [Internet] 2024;7(1):92-109. Available in: <https://doi.org/10.31866/2617-7951.7.1.2024.300927>
9. Rohozha M. Saving Ukrainian cultural heritage during the war: practices of international interactions. *Ukrainian cultural studies*. [Internet] 2023;1(12):10-14. Available in: [https://doi.org/10.17721/UCS.2023.1\(12\).02](https://doi.org/10.17721/UCS.2023.1(12).02)
10. Safonova T. Exposition of fragments of architectural monuments in urban design. *Bulletin of the Lviv National Academy of Arts*. 2024;4:410-416.
11. Sobitan A, Vlachos Pe. Immersive event experience and attendee motivation: a quantitative analysis using sensory, localisation, and participatory factors. *Journal of Policy Research in Tourism, Leisure and Events*. [Internet] 2020;12(3):437-456. Available in: <https://doi.org/10.1080/19407963.2020.1721638>
12. Vermeulen T. *Metamodernism. Supplanting the Postmodern: An Anthology of Writings on the Arts and Culture of the Early 21st Century*. New York: Bloomsbury Academic; 2015. 330 p.
13. Vyskvarka Ya. The essence and development of the visual language of graphic design in Ukraine. *Visual arts*. 2018;2:234-242.
14. Jerome P. The values-based approach to cultural-heritage preservation. *APT Bulletin: The Journal of*

Preservation Technology. 2014;45(2/3):3-8.

15. Lupton E. Design is Storytelling. New York, NY: Cooper Hewitt, Smithsonian Design Museum; 2017. 159 p.
16. Nitzky W. Mediating heritage preservation and rural development: Eco museum development in China. *Urban Anthropology and Studies of Cultural Systems and World Economic Development*. 2012;41:367-417.
17. Stuedahl D, Lefkadiťou A, Ellefsen GS, Skåtun T. Design anthropological approaches in collaborative museum curation. *Design Studies*. [Internet] 2021;75:101-121. Available in: <https://doi.org/10.1016/j.destud.2021.101021>
18. Muratovski G. Research for Designers: a guide to methods and practice. Sage Publications; 2016.
19. Byrkovyč T, Denysiuk Z, Gaievskā L, Akimova L, Prokopenko L, Akimov O. State policy of cultural and art projects funding as a factor in the stability of state development in the conditions of globalisation. *Economic Affairs (New Delhi)*. [Internet] 2023;68(1):199-211. Available in: <https://doi.org/10.46852/0424-2513.1s.2023.23>
20. Savka I, Prokopchuk I, Navroťnyy S, Prusak V, Prusak Y. The implementation of ecological design ideas with the help of waste: Ukraine's experience. *Higher Education, Skills and Work-Based Learning*; [Internet] 2023. Available in: <https://doi.org/10.1108/HESWBL-11-2022-0232>
21. Vytkaľov S, Petrova I, Goncharova O, Herchanivskā P, Kravchenko A. Digital culture in virtual space. *Multidisciplinary Reviews*. [Internet] 2024;7:33-45. Available in: <https://doi.org/10.31893/multirev.2024spe033>
22. Vytkaľov S, Petrova I, Skoryk A, Vytkaľov V, Antipina I. Establishment of cultural industries in Ukraine: implementation of foreign practices. *Journal of Law and Sustainable Development*. [Internet] 2023;11(3):e0813. Available in: <https://doi.org/10.55908/sdgs.v11i3.813>
23. A unique 3D hologram of the real face of Yaroslav the Wise has been installed in Sophia Cathedral. *History at the school*; [Internet] 5 March 2021. Available in: <https://www.historyua.com/2021/03/05/u-sofijskomu-sobori-vstanovleno-unikalnu-3d-gologramu-spravzhnogo-oblychchya-yaroslava-mudrogo/>
24. Digitisation/Digitisation of cultural heritage. (n. d.). A unique 3D hologram of the natural face of Yaroslav the Wise has been installed in Sophia Cathedral.
25. Museum of the Ukrainian domestic icon. *Museum Portal*; [Internet] (n. d.). Available in: https://museum-portal.com/ua/muzeyi/86_muzey-ukrayinskoyi-domashnoyi-ikoni
26. Machulka A. "Urbanina" and dnipro.design have developed a new system for marking architectural monuments. *Bazilik.media*; [Internet] 2022. Available in: <https://www.urbanyna.com/e-monument>
27. Interior Design of the Restaurant and Hotel "Lelecha Oselya". *ZruchnoTravel*. [Internet] (n. d.). Available in: <https://zruchno.travel/ObjectEntity/ObjectEntity?idCrm=536e45db-30fa-c9b0-4a99-58fdc18b9a94&lang=ua#>
28. Mirror of augmented reality: the project "Images of the Courageous". *Emuseum*. [Internet] (n. d.). Available in: <https://emuseum.com.ua/projects/dzerkalo-dopovnenoi-realnosti-proiekt-obrazy-muzhnikh/>
29. Award J. Preserving cultural heritage: Shifting paradigms in the face of war, occupation, and identity. *Journal of Cultural Heritage*. [Internet] 2020;44:196-203. Available in: <https://doi.org/10.1016/j.culher.2020.02.013>
30. Chorna N. Cultural Heritage of Ukraine: The Problems of Study, Conservation and Use. *Scientific Papers of the Vinnytsia Mykhailo Kotsyubynskyyi State Pedagogical University Series History*. [Internet] 2021;4:67-74. Available in: <https://doi.org/10.31652/2411-2143-2021-36-67-74>
31. Piaseckyj O. Reclaiming Our Cultural Heritage. New York: Ukrainian Community Foundation of Philadelphia; 2023. 13 p.
32. Malkova T, Synhaivskā I, Abanina H, Petrunko O, Vitkaľov S. The ethnopsychological peculiarities of europeans and russians as a factor of different cultures representatives interaction and mutual understanding effectiveness. *Systematic Reviews in Pharmacy*. 2020;11(11):873-879.

FINANCING

The authors did not receive financing for the development of this research.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHORSHIP CONTRIBUTION

Conceptualization: Volodymyr Vytkaiov, Inna Prokopchuk.

Data curation: Polina Herchanivska.

Formal analysis: Anastasiia Kravchenko.

Research: Olena Kashshay.

Methodology: Volodymyr Vytkaiov, Inna Prokopchuk, Polina Herchanivska, Anastasiia Kravchenko, Olena Kashshay.

Project management: Volodymyr Vytkaiov, Olena Kashshay.

Resources: Volodymyr Vytkaiov, Inna Prokopchuk, Polina Herchanivska, Anastasiia Kravchenko, Olena Kashshay.

Software: Inna Prokopchuk, Polina Herchanivska.

Supervision: Polina Herchanivska, Anastasiia Kravchenko.

Validation: Inna Prokopchuk, Volodymyr Vytkaiov.

Display: Anastasiia Kravchenko, Olena Kashshay.

Drafting - original draft: Volodymyr Vytkaiov, Inna Prokopchuk, Polina Herchanivska, Anastasiia Kravchenko, Olena Kashshay.

Writing - proofreading and editing: Volodymyr Vytkaiov, Inna Prokopchuk, Polina Herchanivska, Anastasiia Kravchenko, Olena Kashshay.